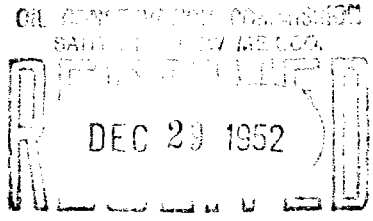
BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

Elliott-Hall's application for dual completion of Fed-Elliott R-2 well, SENE 31-24S-38E, West Dollarhide-Queen Pool, to produce oil from lower Queen formation, gas from upper Queen.

CASE NO. 459



TRANSCRIPT OF HEARING

December 16, 1952

BEFORE: Hon. Ed. Mechem, Governor and Chairman
Hon. Guy Shepard, Land Commissioner and Member
Hon. R. R. Spurrier, Director and Member

STATE OF NEW MEXICO

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COUNTY OF BERNALILLO

I HEREBY CERTIFY That the within transcript of public hearing before the Oil Conservation Commission of the State of New Mexico is a true record of all matters therein contained to the best of my knowledge, skill, and ability.

DONE at Albuquerque, New Mexico, December 20, 1952.

E. E. Greeson
Notary Public

My Commission Expires: 8-4-56

MR. SPURRIER: The next case on the docket is No. 459.

(Mr. Graham reads the notice of publication)

MR. HUNKER: If the Commission please, my name is George H. Hunker with the firm of Hervey, Dowell and Hinkel, Roswell, New Mexico. And we represent in this connection Elliott & Hall who have filed an application in Case No. 459 for permission to dually complete the Federal-Elliott Hall R-2 well for oil in the lower Queen formation and gas in the upper Queen formation.

F R A N K E L L I O T T

having first been duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. HUNKER:

Q State your name?

A Frank Elliott.

Q What is your occupation, Mr. Elliott?

A Independent operator and partner of the partnership of Elliott and Hall.

Q What is the location of the Elliott-Hall Federal No. 2-R?

A It is located in the south east north east of Section 31 Township 24 South Range 38 East.

Q Can you give the Commission the exact fittage location of that well?

A In that 40 acre tract, it is located 660 feet from the east line and 330 feet from the south line.

Q When was this well completed?

A This well was completed on October 16, 1952.

Q What was the potential?

A The potential was 216 barrels of oil per day on a 24 hour

potential.

Q What was the total depth to which this well was drilled?

A 3753 feet.

Q I would like for you to explain to the Commission your procedures in drilling this particular well?

A This particular well was the first Queens well to be drilled on the obstructure of the west Dollarhide. It was more or less of an experimental well and we set our casing at a total depth of 3560 feet.

Q What was the size of the casing?

A 5 ½ inch O. D. casing. After allowing time for the cement to set we continued drilling with 4-3/4 bit and penetrated into the Queen section.

Q What was the top of the Queen section?

A The top of the Queen was 3570 feet.

Q Go ahead Mr. Elliott.

A We continued drilling and a depth of 3616 feet it was necessary to make a trip to put on a new bit. And on our way back in the hole with the new bit the well blew out. And we were 2600 feet in the hole still leaving us approximately 1000 feet off bottom when the well blew out. It was necessary to place a choke in the tubing so that we could continue in the hole, allowing the gas during the remainder of the trip to blow through the annular space. And this process took approximately 3 hours. And during this time the well was blowing through the annular space with a dry gas and never produced any oil. The gas was estimated at approximately five million feet per day.

Q And it produced no oil whatever at that time?

A At that time it produced no oil whatsoever during the 3 hour period of its blowing out.

Q Did you take a test at that time to actually measure the amount of gas?

A We did not that was truly an estimate.

Q Were you actually setting on this well, Mr. Elliott?

A Yes.

Q What did you encounter below that depth of 3616?

A We continued drilling and penetrating alternately soft and hard formations. At a depth of approximately 3672 feet we encountered a very hard section, which continued to 3685 feet, where upon it softened up slightly.

Q One minute, please. I would like to hand you a drilling time report from which you may refresh your recollection. Will you read to the Commission the drilling times shown in that particular depth?

A This drilling time report is a report kept by the driller on his rate of penetration of the formations. This particular report is on a 2 foot drilling time interval. From the depth of 3670 to 72, the drilling time was 15 minutes. From 72 to 74, it was 30 minutes. And from 74 to 76, it was 135 minutes. And continued in the 100 minute interval down to and including 3782 feet, where upon it broke slightly. But continued to be classified as very hard drilling until we reached 3790.

Q Mr. Elliott, what method of drilling were you using at this time?

A We were drilling with reverse circulation.

Q Did you examine the samples you obtained from your drilling at this particular interval?

A They were examined by Mr. Charles Miller, who was geologist on the well.

Q And what were those samples, what did they show?

A They showed a dense dolomite section with a certain amount of shale intermingled.

Q We would like to hand you Elliott & Hall's Exhibit No. 1 and ask you to tell the Commission what this is and what it represents.

A This is a strip log prepared from actual samples obtained from the well. This was prepared by Mr. Charles Miller, who examined the samples as they were-as the formations were penetrated. And this sample examination and record indicates what I have just said, that the section was a dolomite section. It is noted on the strip log the color blue indicates dolomite; yellow, sand; brown, shale.

MR. HUNKER: We would like to offer in evidence Applicant's Exhibit 1.

MR. SPURRIER: Without objection it will be received.

Q At what depth did you encounter the top of the Queen oil zone? Well, tell the Commission what you did after--

A (Continuing)We continued drilling to a total depth of 3753 feet, continuing to use reverse circulation. Which I might explain is a method used in drilling in lieu of coring to obtain better samples with-to exclude as much sample lag as possible and also prevent cuttings from being mingled around and mixed up and chopped up.

Q Did you cause a survey to be made after you had reached the total depth of 3753 feet?

A I did. I ran a Lane Wells radio active log.

Q I hand you what has been marked Elliott Hall Exhibit 2 and ask you to tell the Commission if that is the log you caused to

be procured?

A This is the log.

Q What does that log reflect with respect to the top of the Queen gas formation, the dolomite formation you encountered, and the top of the oil sand section in the Queen formation?

A This log as compared with our sample log correlates, it shows the top, characteristic top, of the Queen formation, gas section, to be at 3570 feet, which as I have stated from our samples that is where we picked it. And going on down it shows in the interval of 3670 to 90 feet, it indicates that the formation is-would be a hard formation with highly radioactive material.

MR. HUNKER: We would like to offer in evidence Elliott & Hall's Exhibit 2.

MR. SPURRIER: Without objection it will be received.

Q I would like for you to explain now to the Commission how you attempted to complete this particular well?

A Suspecting that there were separate gas and oil sections within the Queen formation, I went in the hole with a formation packer, and set it at a depth of 3650 feet. And after kicking the well off, we determined by means of a pitot tube we still had a good deal of gas. To be exact approximately 3 million feet. And the well however was making with the packer at that depth approximately a half barrel of oil per hour which was determined on a 3 hour test.

Q Then what did you do?

A Realizing that in the completion process we must separate the gas zone from the oil zone completely in order to get our most efficient treatment with stratifact, we replaced oil in the hole with mud so that we could round trip the ~~casing~~ tubing and load a packer

where it was set at a depth of 3680 feet, which is in the hard formation I have indicated. And we again kicked the well off and found we had reduced our gas to a minimum, again estimated by pitot tube, at approximately 300,000 feet. And the oil increased to 3/4 barrel of oil per hour.

Q And then what did you do, Mr. Elliott?

A We then stratifacted the well with 3000 gallons of stratifact. The treatment- the treating pressure, maximum treating pressure, was 2000 pounds with 600 pounds pressure break bringing the minimum treating pressure down to 1400 pounds. On completion of the stratifact we kicked the well off and allowed it to clean up and took our potential.

Q In the event the Commission grants your application, will you dually complete your well in accordance with the usual form of order that is granted by the Commission in these dually completed wells?

A I will. I agree to separate the two zones in this hard section by means of a packer. And run the nominal test to make sure that there is no flow mingling of the two.

Q Do you have any other statements you would like to make to the Commission with respect to the matters of waste that might be involved or as to economic matters that might be involved?

A I would like to point out to the Commission if these two zones are placed together you will gradually be depleting your gas zone as you produce your oil, which will result in an economic loss as your higher pressure of gas, which could be sold as high pressure gas by dually completing the well, the sale of that amounts to about 5¢ per thousand cubic feet more than you could get for the gas producing it along with the oil and selling it as a low pressure wet gas. Which would result in a - make quite a bit of difference.

particularly to us as an operator and also to the State as a Royalty owner. I might add I am particularly interested in the money, too.

MR. HUNKER: I have no further questions from this witness.

MR. SPURRIER: Does anyone have a question of this witness?

MR. SMITH: Mr. Elliott, did you run any core analysis of this dolomite section, this hard section you referred to?

A I did not core it. We drilled with reverse circulation and no core analysis was made of it. However I believe there are some cores to be presented in further testimony here.

CROSS EXAMINATION

By MR. SMITH:

Q Core analysis have been made?

A Of a different well not on this well, within the field.

Q Do you have any idea as to the porosity of that dolomite section?

A Well from a laymen's standpoint it is my own personal opinion that it is almost nil.

Q Are you a geologist?

A I am not a geologist by degree, no.

Q What about a permeability in that area, in the hard dolomite?

A In the hard section, again I say I don't believe you would have any, very little.

Q This packer was set in the hard section, as I understand it?

A That is correct.

Q And before the packer was set you had approximately a few million cubic feet of gas produced along with the oil?

A That is correct when we had the packer set at 3550, which is another small hard break up the hole.

Q You didn't testify about any hard section before. This is the first testimony on that point?

A It had not been brought up. There is a small hard break at a depth of 3550 which was the reason I set the factor there on the first run in the hole. But when we found we still had a large quantity of gas, it was obvious that we still had part of our gas section open.

Q This gas and oil are both in the Queen section however?

A Both in the Queen formation, yes.

Q And the only evidence you have to support the fact that there are two different producing horizons there is this dolomite section you ran into further down the hole, is that right.

A That along with the test I made there with my packer. It was quite obvious when I did eventually get my packer down to this hard section I had shut my gas off.

Q That packer is what is known as open hole packer?

A And commonly called a formation packer.

Q Is it leaking now?

A It is.

Q If gas is withdrawn up the hole won't that have a tendency to increase the pressure below if you dually complete the well?

A Would you state-

Q If gas is withdrawn, if you dually complete the well, from the upper part of the Queen, won't it have a tendency to increase pressure below so as to cause further leakage?

A If this dual completion is granted, I certainly could not leave the packer leaking. It would be necessary and as a qualification of the Commission's order it would be that the packer be set where there would be no co-mingling of the formations, which I would do. And which could be readily ascertained whether you had

any co-mingling. I think the point you are getting at is when you have reduced the pressure out of the gas zone, would you there have a differential run across your packer? I will say this. While you are producing your gas zone you are also going to be producing the oil zone, lowering pressures of both formations. Undoubtedly the pressures will not go down at the same rate. However I have found it to be true that a formation packer will stand a certain amount of differential accross it. And I have had as much as- not at that depth, but at any depth, I have had as much as 500 pounds differential accross there and had them hold perfectly.

Q But if the differential became too great wouldn't there be a possibility of blow-out?

A No, there would be a possibility of breaking your packer and having it co-mingle, which would be very obvious when it happened because the tubing pressure and the casing pressure would immediately equalize.

Q Without the presence of the packer, you would produce both gas and oil from the Queen?

A From the two sections, yes.

Q Now, this hard section I didn't quite understand your testimony a while ago. You first encountered it at 3272 feet and it continued to 3290 feet?

A That is correct. It actually started according to the Lane Wells radioactive log at 70 and went to 90. According to our drilling time it starts at 72 and goes to 90. And according to our samples. I have forgotten the exact figures but it correlates very closely. Of course you will have to realize that there will be a slight variance in samples, radioactive log, and a drilling time due to slightly different- slight differences in measurements, slight

lag in samples, and so forth. But for all practical purposes they do agree.

Q Are you familiar with the location of other wells in the field?

A Yes.

Q Have you examined other logs?

A I am familiar with them but I am not an expert witness. If you want my opinion I will be glad to give it to you.

Q I am not asking your opinion. I am asking if you have ex-- amined the logs?

A Yes, I have.

Q You are familiar with the fact that this hard dense zone doesn't exist in all wells in the field?

A I wouldn't say that. I do recognize the fact that you do not have in your- I think there is two flank wells- you do not have the-section appearing. But in all the wells where you do have the gas section, in my examination of the logs it is indicated you do have this hard section.

Q Isn't it a reasonable conclusion to draw this hard section is a matter that appears rather erratically and isn't uniform so as to result in a completely separate gas producing zone and completely separated oil zone in the Queen throughout the field?

A No, I don't agree with that. It appears to me that it extends throughout the field. Where you do have your gas section present. However-

Q In other words, it is like lifting yourself by your boot straps; where you have the hard zone you have a gas zone and an oil zone, where you don't have it, the two are co-mingled?

A I wouldn't say they are co-mingled. I will say where you don't have it you don't have the gas zone.

Q You have just one continuing producing zone in the Queen?

A An oil zone with the gas zone cut out.

Q All right.

MR. SMITH: I wonder if Mr. Hansen could ask a question.

Q (By Mr. Hansen) Assuming for a moment this separation, this dense streak were not present, and you lowered the packer in the manner in which you testified previously, would not you get the same results by lowering the packer below the gas oil contact that you got in this case? Would you expect the same results?

A I have been informed by experts it isn't below the gas oil contact. Ask these boys that question, maybe they can tell you more about that.

MR. SMITH: In other words you are not qualified to answer the question?

A That is right.

Q (By Mr. Hansen) One more question. You stated oil wells completed in the Queen did not encounter the gas section?

A There are at this present time I think two wells, or three I guess which have not.

Q If those wells were completed considerably higher than these wells wouldn't it be passable these wells that do not have the gas section could also be completed at the gas oil contact and therefore not have the gas section present?

A If they were below the oil gas contact, yes. But where- in later tests I think it will be shown they are not below the gas oil contact.

MR. SMITH: What is the gas oil ratio in the oil zone?

A Our gas oil ratio has not been taken yet. The well was cleaned up and our storage was full and we didn't get a pipeline connection until last week. I intend to take one when I return to Hobbs.

MR. SMITH: Do you have any idea what it will be?

A With the two sections thrown together it has a good chance of being high. By separating the two zones it would be quite low.

MR. SMITH: Be a low gas oil ratio if you have packer separations?

A That is correct.

MR. SMITH: That is all.

MR. WALKER: Mr. Elliott, has the productive limits of both the upper and lower Queen been defined in this area?

A In our opinion they have not.

MR. WALKER: I believe you said if your dual wasn't authorized and you were allowed to produce the gas at the same time you produced the oil zone separately you would gradually deplete your gas zone, and I don't quite understand. You mean by leakage or by the fact that the zones-

A My statement there was if the gas and oil zones were thrown together and called one section and produced as one section, you would do that.

MR. WALKER: You wouldn't do that though even if this wasn't authorized, you wouldn't see fit to produce at a higher ratio?

A If this is not authorized, I would either rerun the packer and set it or put an intermitter on the well so as to have it cut the gas oil ratio, which I am sure I can do.

MR. WALKER: Thank you.

MR. SPURRIER: Anyone else? Any further questions of this witness? The witness may be excused.

MR. SELINGER: We have one witness we would like to have testify.

J. D. COOPER

having been first duly sworn testified as follows:

DIRECT EXAMINATION

By MR. SELINGER:

Q For identification of the area we would like to offer in evidence Skelly's Exhibit 1, which is a platt of the area. State your name?

A J. D. Cooper.

Q And you are with the Skelly Oil Company?

A Yes.

Q Mr. Cooper, how many wells has the Skelly Oil Company operating in this West Dollarhide field?

A Eleven, one drilling.

Q Eleven operating and one drilling. Mr. Cooper, have you had occasion since the filing of the application by Elliott & Hall to look into the matter of the Queen formation?

A Yes.

Q Have you had occasion to look over the logs of the Skelly Oil Company wells?

A Yes.

Q Have you come up with any conclusions with respect to the determination of the oil and gas in the Queen from the Skelly Oil Company logs?

A I don't-

Q I am just asking you. Just. Yes or no?

A Yes.

Q Which of the Skelly wells have you had a core analysis made of?

A The Queen Sand was cored in our Mexico J-4 and analyzed by Core Laboratories.

Q Will you mark that as Skelly Exhibit 2? Now referring to Skelly's Exhibit 2, is that a copy of the core analysis made?

A It is a copy of Core Laboratories, made by Core Laboratories in their analysis.

Q Now this well is Mexico J- 4. That is in the South east South West of 32, is that correct?

A You have got the platt.

Q The South east South West of 32?

A Yes, the south east quarter of the south west quarter of Section 32.

Q What does that core information indicate with respect to the various factors involved in the hearing?

A Well, the core analysis indicates a gas oil contact or so-called gas oil contact at 3589. That is a figure established by Core Laboratories.

Q What was that?

A 3589 which is a minus 527.

Q Now does that exhibit also indicate the so-called dense dolomite streak that Mr. Elliott was testifying about before?

A Yes, they are indicated on here. Both the upper small streak he was talking about and the thicker dense streak on down in the section.

Q Now this thicker dense streak that has been referred to, approximately what thickness is that? What does it indicate on this Core sheet?

A About 25 feet.

Q Is that generally true throughout the Skelly Oil Company wells in the field of the presence of this dense dolomite streak?

A In my opinion, yes. From an examination of the schlumberger and the neutron curve, and the miclo log, that approximate 20 foot streak is present in our wells.

Q And you found it present in all of the Skelly Oil Company eleven operating wells throughout the field?

A With one exception. Our Mexico K-2 up north here. Mexico K-2 would be in the south east south east of 29. The whole section was more or less dolomite and just couldn't pick it out of there.

Q You mean the whole Queen section was dolomite?

A As I recall there was about 85 feet dolomite. There was very little sand in it. Couldn't pick the stringer out in that one.

Q That was productive of neither oil or gas?

A Not on drill stand.

Q Now, that well is the further most north easterly well of the field, isn't it?

A Yes.

Q And the further most south westerly well is the-is it also a Skelly operated well?

A Well, it is a dry hole. Leonard Gin[illegible]. But the producing well is a Skelly well. Our Mexico O-1.

Q Was that a Skelly drilled well, the Leonard Gin[illegible] dry hole?

A No.

Q That was drilled by Leonard?

A I don't know. That is the name on the map.

Q As I understood your testimony then, there is this presence of the dense dolomite streak throughout the Skelly Oil Company wells, and it varies does it with the top of the Queen due to the difficulty of picking that top?

A Well, in my examination of the log and trying to pin this thing down, I found it occurred from 70 to 95 feet below the top of the Queen.

Q Now with respect to dual completions as to its technical feasibility and practicability, would you say that it would be

practical and feasible and successful in the separation of production for that separation to occur in the presence of the dense dolomite streak which is presence throughout the wells?

A If separation is to be achieved, that is the logical place to do it. That is my opinion.

MR. SELINGER: I believe that is all we have. We would like to offer in evidence Skelly's Exhibits 1 and 2.

MR. SPURRIER: Without objection they will be received. Are there any questions of this witness?

MR. SMITH: Mr. Cooper-

MR. SPURRIER: Just a minute (OFF THE RECORD).

MR. SELINGER: It has been suggested we file as Skelly's Exhibit 3 our interpretation of the structure of the Queen, whose contours are drawn on top of the Queen.

CROSS EXAMINATION

By MR. SMITH:

Q Mr. Cooper, are you familiar with the, very many open hole packer sets in the field?

A No, I am not.

Q Do you know of any other instance where it has been used?

A For separation of the two zones, such as the application requests here?

Q Yes.

A Not of my own knowledge no I don't know.

Q Do you know of instances where open hole packers have been set however?

A Yes, I know of instances where they have been used.

Q Aren't they usually rather unsatisfactory with respect to keeping pressure down, having a tendency to leak?

A I really don't feel qualified to give you a good answer on that question because although I know they have been used and were used to reduce gas oil ratios and were successful in reducing gas oil ratios, that is the limit of my knowledge.

Q But you don't know how successful or how long they lasted?

A They seemed to do a pretty good job.

Q This Queen formation reservoir, I presume, is a solution type?

A I do not know.

Q Well, your Company has eleven or fourteen wells out there?

A We have eleven wells completed and one well drilling. However we only have one producing well in the Queen and the well drilling which is in the Queen. The rest are in other pay formations.

Q In other words, the Core analysis were taken as you went through?

A Yes, they were taken as we went through.

Q Did they show evidence of productivity?

A In the Queen?

Q Yes.

A Yes.

Q What is the permeability of the Queen, average?

A I will give you the core analysis summary. This summary, the Core Laboratories summary, is limited to the oil pay as they picked it from those core analysis. And the average permeability in the oil pay was 35 millidarcy. In the gas pay I do not have the average but looking over the parmeability of the core graph most of them are in the neighborhood of less than 3 millidarcies, and a great majority less than 1.

Q That is in the gas pay?

A That is in the gas pay.

Q Now with respect to this dolomite hard section, do you have the core analysis showing the permeability of that?

A It was analyzed. I believe the sand was analyzed and when this dolomite streak came along it was pulled for this core analysis although I am not sure of that.

Q Do you have the permeability?

A Yes, that is the permeability of it in gas. I have this as indicated in the gas zone, but it seems to be-oh, I don't know- we have for instance a top of the core with almost a millidarcy and we find this permeability in the dolomite. And in instances where there is a sandy shale in the dolomite, getting alittle better permeability in there.

Q Then as I understand your testimony there is communication between the gas zone and the oil zone?

A Not necessarily.

Q Wouldn't you reasonably assume that permeability is about the same as it is in the gas pay, that the communication would exist?

A Well, permeability on the order of decimal point 1 millidarcy or 1 or 2 millidarcies are not much communication.

Q Well, you are getting gas out with those millidarcies?

A Up in the gas pay we have permeabilities up there of 3.3, which is quite a difference.

Q As I understood your testimony, the permeability is just about as good in this dolomite section as it is in the gas pay?

A It shows about to be the same on the core graph.

Q And the conclusion would naturally follow there would be communication between the two zones?

A It would depend again-there could be or could not be. I don't think you could really say.

Q Don't you think there is a reasonable possibility this gas pay is merely a gas cap for the Queen zone?

A You mean the lower Queen?

Q That is right.

A Conceivably that could be so, just as well as it could be a separate field.

Q Based upon present information you are not in a position to testify, is that right?

A My opinion is that the oil pay with its higher permeability is more or less separate.

Q Well, maybe I don't quite understand your testimony there. It is hard for me to conceive-

A I don't base that opinion on core analysis alone.

Q What other factors do you take into consideration?

A Drill stem test and completions of other wells.

Q Well, you had one completion in that zone?

A We have one, yes but other people have completions also.

Q You are familiar with the fact that this hard core doesn't exist in the other wells completed in the Queen in that field?

A Which wells are you referring to?

Q Well, I rather gathered from your testimony that you were familiar with other wells in that field?

A I only know in the instance of the Texas Company. They completed, or at least my information is that they have completed two wells, one of which set pipe above the top of the Queen, and drilled almost all the Queen section and had no gas.

Q Had no gas at all?

A Had no gas at all. Although the top of the Queen was well

above the gas oil contact as picked by the core analysis.

Q And other wells that did have gas present there was no dolomite section?

A I don't know. They set pipe just below this gas oil contact.

Q Now assuming that this is gas cap gas for the Queen, early withdrawal of the gas would have a tendency of course to lower the pressure in the oil zone if there is communication between the two, is that right?

A If this is gas cap gas, that is correct.

Q If there is communication there is a possibility it would be gas cap gas?

A If the communication is good enough, it would be gas cap gas, that is correct.

Q And based on present information you are not in a position to testify that communication is that good?

A I can only state I don't think it is. That is all I can give.

Q Would you say your present information is sufficient to make the deduction a guess on your part?

A I don't think a guess is the right term. I would say it is my opinion.

Q It is your opinion?

A It is my opinion.

Q That is not gas cap gas?

A It isn't gas cap gas to this lower section.

Q The lower section?

A To the oil pay. And that we find on this core.

Q I understand your testimony to be you can withdraw all of the gas from the gas pay without affecting the pressure in the oil pay?

A If it is not connected, then you could do so, yes.

Q If it isn't connected?

A That is right.

Q I am asking your opinion?

A I have given you my opinion on that.

Q I am asking your opinion based on present information. You said in your opinion they were separate pays. Now I am asking you if they are separate pays, in your opinion, you could withdraw all of that gas out of there, not producing any of the oil, and it would have no material effect on the oil pressure in the oil pay?

A Based upon those assumptions, that is correct.

Q Based upon those assumptions. Now based on your information, not just on the assumptions, in your opinion the withdrawal of that gas would have no effect upon the pressure in the zone?

MR. SELINGER: Mr. Smith, he has already answered the question twice. You want to ask him a third time.

MR. SMITH: I would like to have him answer it again.

MR. SELINGER: Do you understand the question? He wants your opinion.

A He wants me to give my opinion as to whether or not it would have any effect in the oil zone.

MR. SMITH: That is not based on any assumption, but based on your knowledge of the facts out there.

A My opinion remains the same, no.

Q What is your opinion. I ask the question again?

MR. SELINGER: He is asking the question the fourth time.

MR. SPURRIER: Mr. Selinger, direct your comments to the Commission not to Mr. Smith.

MR. SELINGER: We object to the line of Cross Examination. He has asked the question three times and he has propounded the question the fourth time to be answered.

MR. SMITH: I think I have asked a question, may it please the Commission I think the witness is not precisely answering the question. That is why I have found it necessary to ask him four times.

MR. SPURRIER: Proceed.

A Would you state it once more, please?

Q Based upon your knowledge of physical facts in the Queen formation in this field, the Dollarhide field, is it your opinion that all of the gas could be withdrawn from the gas pay without affecting the pressure in the oil pay?

A Based on the information available to me now, it is my opinion that that can be done.

MR. SMITH: That is all.

MR. SPURRIER: Any further questions of this witness? If not, the witness may be excused. Do you have any further testimony?

MR. WALTER: If the Commission please, on behalf of the Gulf Oil Corporation I would like to make a statement.

I do not at this time have any Queen production in the Dollarhide area. But we have had considerable Queen production in New Mexico and it has been our experience when we do have a Queen cap in any gas there is an oil ring surrounding that cap. And we do not believe this field has been sufficiently developed to give us the information needed. We think very possibly the upper pay is surrounded by an oil ring. And we think any authorization for un-restricted withdrawal might be premature at this time and might affect any oil reserve which might be developed in the future in the upper Queen. And if the Commission grants this approval, we would like to

have it based on volumetric withdrawal.

MR. SPURRIER: Any further comment?

MR. SMITH: May it please the Commission, for Stanolind Oil and Gas Company, we feel as Gulf does, the present information is to inconclusive to warrant the granting of the dual completion. It may be that subsequent events may substantiate the testimony here, but based upon the testimony already before the Commission, it is our opinion it is inconclusive to show definite separation. The withdrawal of gas from the pay zone, if there is communication as has been testified, would have an accelerating effect upon diminishing pressure in the oil pay. We feel that is premature and would like to protest it's being granted at this time.

MR. SPURRIER: Anyone else?

MR. RAY: I am C. J. Ray representing the Texas Company.

For the Commission's information, I would like to present as the Texas Company's Exhibit in this case, a cross section on our McGee lease, which have penetrated this clean formation. Our analysis of this cross section leaves a great deal of doubt in our mind as to the existence of a non permeable barrier that would effectively separate oil and gas pays. I might add our two producing wells, McGee No. 3, which is a direct offset of the applicant's well, was potentialed at a 103 barrels flowing in 6 hours with 663 to 1 ratio. The McGee No. 2, which is located approximately a ½ mile south, was potentialed with a flowing 193 barrels of oil in 6 hours with a 575 to 1 ratio. This latter well, the pipe is set above the Queen, the top of the Queen producing formation. And it leads us to wonder if we are not looking at gas cap gas in this reservoir. And until additional information, or until there is more definite proof to us that it is not gas cap gas, Texas Company would

like to urge that this be denied in order to prevent damage to this reservoir.

MR. SELINGER: Mr. Ray, you went into so many factors I would like to ask you a question.

Q Will you explain to the Commission why you did not get any gas in your Texas McGee No. 2 well? Since you are well above the gas contact. What explanation do you have of that, if any?

MR. RAY: I might say a possible explanation is that it is below the gas oil contact in the area.

MR. SELINGER: Well, you mean to differ with the gas oil contact point as indicated by the core. You don't believe that is the gas oil contact point?

MR. RAY: There is some question in my mind whether that re-- presents the gas oil contact as determined from the core in your well, is applicable to this section.

MR. SELINGER: How much lower structurally are you, in your north offset?

MR. RAY: Which well are you referring to?

MR. SELINGER: The Elliott Hall, the well in question here.

MR. RAY: I believe we are approximately 7 feet, 7 to 10 feet. Are you referring to the No. 2 McGee or No. 3?

MR. SELINGER: No. 2. I am talking about No. 2. Where you did not have any gas and you are 7 feet lower than the direct south offset-you are an offset to the south.

MR. RAY: 23 feet assuming the top of the Queen was a minus 426 in the Elliott well.

MR. SELINGER: The only explanation you have of the failure of gas in your well where the Elliott well picked up so much gas sand is that you are below the gas oil contact point? Is that your explanation?

That is what I was trying to find out. What the explanation was. Is that your only possible explanation, you would be below the gas oil contact point? Is that your explanation or not?

MR. RAY: I say that is a possible explanation.

MR. SELINGER: What other explanation do you have other than that?

MR. RAY: Well, there is a possibility that--

MR. SELINGER: Does the possibility exist that the gas sand, that lenticular gas sand may lens out before it reaches your well?

MR. RAY: Certainly.

MR. SELINGER: That is all.

MR. SPURRIER: Anyone else?

MR. SELINGER: We have this statement to make on behalf of the Skelly Oil Company.

As long as this Commission permits dual completion in sand areas, which includes Pennrow Skelly, Langley Matticks, and Cooper Gerald which is in this sand area there; as long as this Commission permits dual completions of oil and gas wells, we think the Commission should permit such dual completions throughout the entire sand belt. And it is our opinion that we have no objection to the granting of this application on the facts based as introduced here by the two sworn witnesses. We have these wells and they are indicative of the fact that the dual completions are practical and are feasible, and the dense dolomite streak of approximately 20 to 30 feet is a logical point of separation. That is the basis of our statement.

MR. SPURRIER: Anyone else?

MR. ELLIOTT: I would like to say to the Commission as far as the practicability of separating the zones in this barrel with the packer, that the packer will either hold or it won't hold. If it holds, the dual completion would come under the regulations. If it doesn't hold, there would be no dual completion. And I think that

is the answer to Mr. Smith's, as to the practicability of packers.

I say it will hold. If we find it doesn't hold then, we do not have a dual completed well.

MR. SPURRIER: Anyone else?

MR. MACEY: Mr. Elliott, there is no other well in the area producing that gas from the Queen zone.

MR. ELLIOTT: What is that, Mr. Macey?

MR. MACEY: Is there any other well in that area producing that gas from the Queen zone, you get the higher pressure gas in?

MR. ELLIOTT: As a matter of fact there is no well in the area producing at the present time.

MR. MACY: That is what I asked you.

MR. ELLIOTT: But there are numerous wells which could, which would be capable of it.

MR. SPURRIER: Anyone else?

The Case will be taken under advisement and we will go on to Case 460.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

TRANSCRIPT OF HEARING

CASE NO. 459

February 17, 1953

E. E. GREESON
ADA DEARNLEY
COURT REPORTERS
BOX 1503
PHONES 5-9422 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

February 17, 1953

In the Matter of:

(Readvertised) Elliott-Hall by its request was permitted reopening of hearing in which permission was requested to effect dual completion of Elliot-Hall (Fed.) Well H-2-R, SE NE 31-24S-38E, NMPM (West Dollarhide-Queen Pool) to produce oil from lower Queen, gas from upper Queen.

No. 459

TRANSCRIPT OF HEARING

(MR. GRAHAM READS Notice of Publication.)

O. R. Hall: I am O. R. Hall, I would like to ask for a continuation of 30 days in which time we will compile additional information on this request.

MR. SPURRIER: Is there an objection to Mr. Hall's motion? If not, the case will be continued to the regular March hearing, March 17th.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss.

I HEREBY CERTIFY that the foregoing and attached transcript of hearing on Case No. 459, before the Oil Conservation Commission, State of New Mexico, at Santa Fe on February 17, 1953, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, N. M. this 24th day of February, 1953.

Ada Dearnley
REPORTER

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

Santa Fe, New Mexico
March 17, 1953

TRANSCRIPT OF HEARING

CASE NO. 459

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

March 17, 1953

In the Matter of)
)
Elliott-Hall by its request was permitted)
reopening of hearing in which permission)
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of Elliott-Hall (Fed.) Well H-2-R, SE NE)
31-24S-38E, NMPM, (West Dollarhide-Queen)
Pool) to produce oil from lower Queen,)
gas from upper Queen.)
)
(Continued from Feb. 17 by request of Hall.)) No. 459

TRANSCRIPT OF HEARING

MR. SPURRIER: The next case on the docket is case No. 459.

(Notice of publication read by Mr. Graham)

MR. SPURRIER: Is there anyone to appear in this case. If there is no one to appear then the Commission must assume that no one is interested in it.

MR. SMITH: We contested this application at its first inception. This is the second time it has been on the docket for a rehearing. I would like to ask that it be dismissed. I represent Stanolind.

MR. RAY: C. J. Ray with The Texas Company. I would like to concur with Mr. Smith's request.

MR. SPURRIER: Is there any other comment in this case. This case was continued for the purpose of taking more testimony. For the lack of anyone to present testimony or make a statement,

and with Mr. Smith's and Mr. Ray's motion, the Commission will dismiss the case without prejudice.

REPORTER'S CERTIFICATE

I, ADA DEARNLEY, Court Reporter, hereby certify that the foregoing pages, numbered 1 and 2, constitute a complete and accurate record of the proceedings before the Oil Conservation Commission of New Mexico, in Case No. 459, on March 17, 1953, to the best of my knowledge, skill and ability.

Ada Dearnley
REPORTER

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
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ALBUQUERQUE, NEW MEXICO