

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

June 28, 1961

EXAMINER HEARING

Case 2323

TRANSCRIPT OF HEARING

BEFORE THE  
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DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

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IN THE MATTER OF: )

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)  
Application of Southwest Production )  
Company for two non-standard oil pro- )  
ration units and for an unorthodox oil )  
well location in the Cha Cha-Gallup Oil )  
Pool, San Juan County, New Mexico. )  
Applicant, in the above-styled cause, )  
seeks the establishment of two non- )  
standard oil proration units in the )  
Cha Cha-Gallup Oil Pool, San Juan County, )  
New Mexico, one unit consisting of the )  
West 56.625 acres and one unit consisting )  
of the East 56.625 acres of that portion )  
of the SE/4 of Section 16, Township 29 )  
North, Range 14 West, lying North of the )  
mid-channel of the San Juan River; the )  
West proration unit is to be dedicated to )  
a well to be drilled at an unorthodox )  
location 1912 feet from the South line )  
and 2310 feet from the East line of said )  
Section 16. )

Case  
2323

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BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: We will call Case Number 2323.

MR. MORRIS: Application of Southwest Production Company  
for two non-standard oil proration units and for an unorthodox  
oil well location in the Cha Cha-Gallup Oil Pool, San Juan County,  
New Mexico.



MR. UTZ: Are there any appearances in this case?

MR. VERITY: George L. Verity for the Applicant, Hervey, Dow and Hinkle on behalf of Humble Oil and Refining Company.

MR. SPANN: Charles Spann, Albuquerque, New Mexico, appearing for El Paso Natural Gas Production Company. I have John Mason of El Paso also appearing for El Paso Natural Gas.

MR. UTZ: Are there any other appearances?

You may proceed.

MR. VERITY: May it please the Commission, this is an application for two non-standard oil-gas proration units consisting of the east 56.625 acres lying in the southeast quarter of Section 16 Township 29 North, Range 14 West, lying north of the center of the San Juan River as it crosses the southeast quarter of said Section. This Commission has heretofore promulgated an order granting to Pan American Petroleum Corporation a non-standard unit consisting of all the lands south of the center of the San Juan River, the southeast quarter of said Section 16 which unit consisted of only forty-six plus acres.

MR. WHITAKER: That is 26.75 acres.

MR. VERITY: Did I give you that order?

MR. WHITAKER: No.

MR. VERITY: We will make reference to the order and would like to introduce it into the record. That was promulgated in May of this year. I have a copy of it but I mislaid it.

MR. UTZ: The Commission will take administrative



notice of it.

MR. VERITY: In this action, we are also requesting that we be granted an unorthodox location for the unit being the east half of 56.625 acres which location we have requested which is the west line of the Section which location is 1912 feet from the south line and 2310 feet from the east line. As Applicant's Exhibit, we would offer Order Number R-1967 which we would like to offer in evidence. With that we would like to call Mr. Leon Whitaker as our witness.

LEON WHITAKER

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

DIRECT EXAMINATION

BY MR. VERITY:

Q Will you state your name, please.

A Leon Whitaker.

Q Mr. Whitaker, what is your occupation?

A I am presently employed as an engineer-geologist for Southwest Production Company from Dallas.

Q What are your educational qualifications?

A I have appeared before this Commission before, and --

Q You are a graduate engineer and you have appeared here as an expert engineer, petroleum engineer?

A I have a degree in physics. I have appeared before this Board before and my qualifications were accepted.



Q Are you familiar with the geology and engineering underlying the Cha Cha Oil Pool and particularly the Gallup formation underlying the southwest quarter of Section 16?

A Yes, I am.

Q Have you made a study of the logs and characteristics of this particular pool and area?

A I have studied the logs and worked an isopac of the area.

(Applicant's Exhibit No. 2  
marked for identification.)

Q (By Mr. Verity) I hand you what the Reporter has marked Exhibit 2. Would you please tell us what it is?

A It is an isopac of certain sections in 29-14 around Section 16 which is the Section in question.

Q Does it reflect whether or not all of the southwest quarter and particularly that part of the southeast quarter of Section 16 lying north of the center of the San Juan River will be productive of oil from the Cha Cha-Gallup Pool?

A In my opinion, the entire southeast quarter will be productive.

Q Do you know how many acres there are in the southeast quarter lying north of the center of the San Juan River?

A In Pan Am's application, they claimed 46.75 south of the River. We would be in agreement with them and claim the remaining 113.25 acres in that southeast quarter of Section 16,



basing that on the center of the San Juan River as a lease line.

Q Mr. Whitaker, with forty-six acres located to the south of the River, do you have an opinion as to whether or not it is necessary that you drill two wells on the 113-1/4 acres north of the center of the River?

A We are of the opinion that one well alone in the 113 acres would not protect our rights, seeing that Pan Am has approval to drill on forty-six acres. We feel that one well would not protect us at some point when these wells, the productivity of these wells drops below allowable, Pan Am's well would produce as much oil from a forty-six-acre unit as a single well of ours would from 113 acres. Therefore, to protect our interests, we feel it necessary to drill two wells in the 113-acre tract.

Q What do you think would be the most economic from a conservation standpoint, the best way to divide the 113.25 acres needed to make two units out of the acreage?

A We would propose an east-west division of 113 acres, splitting it in half and designating 56.6 plus acres to the west unit and an equal amount to the east unit.

Q If the Commission grants this application, do you propose to drill a well on one of these units immediately thereafter?

A Shortly thereafter, we would propose to drill an unorthodox location that we asked for in this case.

Q At what point do you propose to drill this well?

A The well would be drilled at 1912 feet from the south



line and 2310 feet from the east line of Section 16. It would be unorthodox with respect to the westerly division in which we are the leaseholder. It would be orthodox in the north-south direction.

Q Then you would be crowding your own lease line?

A That is correct.

Q And who owns the acreage to the south and the southwest?

A Pan Am owns acreage to the south and southwest.

Q Why do you think that you should be permitted to drill an unorthodox location in the east unit -- pardon me, in the west unit as you have proposed?

A It is strictly a matter of terrain. This river bottom country is located in the southwest corner of an irrigated pasture. At this point, it would be much easier to drill a well. As a matter of fact, in the easterly direction, the land appears to have stood with water on it all Spring. It would be practically impossible to drill a location in an easterly direction because of the swampy conditions.

Q Tell us, if you will, please, whether or not this would also promote an orderly development and drainage pattern in the location of other wells in the area?

A We have drilled wells on the west side of a non-standard unit to the west of this well. If we drill this proposed well in the west side of this proposed non-standard unit, it would follow the pattern established by our previous well.



Q As a matter of fact, isn't Pan Am's G-6 well also off-pattern to the south and west?

A That is correct. That was an approved non-standard unit to the west side of that non-standard unit.

Q Incidentally, do you know the acreage that the Commission allocated in that non-standard unit?

A That non-standard unit has been approved by the Commission which includes 51.86 acres.

Q Do you have an opinion as to whether or not a denial of the application that Southwest Production has filed in this case would deny them of their correlative rights?

A We are satisfied that we are at the edge of this Gallup pay zone. We feel that one well would not adequately drain this said 113 acres.

Q Now, with the Pan Am G-10 well to the south on the 46-acre location, is it possible for Southwest Production Company to drain any appreciable amount of oil from anything other than its own land and its own drainage areas in these two units?

A The Pan Am well is a quarter of a mile southeast. We feel like drainage from the well that we would propose would drain from our acreage and any damage done would be primarily to us.

Q In other words, you'd be draining from acreage to the west that belongs to Southwest?

A Right.

MR. VERITY: I believe that's all.



MR. UTZ: Do you want to introduce your Exhibits?

MR. VERITY: I believe I offered Exhibit Number 2 in evidence.

MR. UTZ: Without objection, Exhibits 1 and 2 will be entered into the record in this case. Are there any questions of the witness?

EXAMINATION

BY MR. SPANN:

Q Mr. Whitaker, the location of the River as shown on your Exhibit 2, is that from actual survey originally made, or how did you locate it there?

MR. VERITY: I object to the question because we don't think it's material in this case, the location of the River is not in controversy here. The land south is owned by Pan American. They have already made an application and established a proration unit of 46 acres, and we are acting for the reciprocal of it. I don't think that this question is material or that it's proper.

MR. UTZ: Will you state your question again, sir.

MR. SPANN: I merely asked the basis for the location on Exhibit 2, whether it was on Pan Am's application or a recent survey or the 1882 survey, or just what it was.

MR. UTZ: The objection is overruled. You may continue to ask the question, Mr. Spann.

A The River as shown on this Section is not proposed to be exact.



Q (By Mr. Spann) How can you be sure that the area north of the River in the southeast quarter of this Section contains 113.25 acres which you listed as the area in your application unless you know where it is located?

MR. VERITY: The acreage between Pan Am and Southwest Production is not in controversy. There is actually an agreement implied in that they have asked for 46 acres, it has been granted, and they make no objection to the fact that we claim and are requesting an allowable for the remaining 113.25 acres. My point is, therefore, that it is actually immaterial whether the River actually divides this quarter section into a 46-acre tract and a 113.25-acre tract, because the only parties affected are in agreement in this regard so that it becomes immaterial as to whether or not the River separates it in this fashion.

MR. MORRIS: Might there be a question as to the ownership of the river bottom in this area?

MR. VERITY: Not for this tribunal to determine, I believe.

MR. MORRIS: Perhaps Mr. Spann's question is relevant in that Southwest Productions could, must ascertain and be able to substantiate their claim to the ownership of the acreage that they are asking to be established as a proration unit.

MR. VERITY: Suffice to say that they do contend that they own all of the working interest in this 113 acres, but this is not a tribunal that can determine whether they do and the only



other person that has asserted an interest in this acreage at all, or in this area, is Pan Am, and Pan Am has stated that so far as they are concerned the center of the River leaves them 46 and three-quarters acres and forty-six and three-quarters from a hundred and sixty leaves us with a hundred and thirteen point twenty-five, so that we think the question is entirely moot at this time as to whether or not the actual physical facts would establish this agreed condition or not, because the only two people who are claiming up to this River are Pan Am and Southwest.

MR. UTZ: Mr. Verity, the Commission will have to determine the amount of acreage you have allocated to these two wells and I wonder if Mr. Spann's question doesn't point to determining from where you got the acreage that you're claiming here, from what survey plat.

MR. SPANN: They have filed an application to create a unit consisting of all the land in this quarter section north of the River. How can you determine how much is involved unless you know where the River is? Does the application show the location of the River or does it show the location of the River as on Pan Am's application, or some other application? That's all I want to know.

MR. VERITY: I'm not certain in this case. It becomes immaterial where the River is, where we have designated it, because it was agreed to by the parties, on both sides of it.

MR. WHITAKER: Or that we had less than 113 acres under



lease, we would agree to a lesser proration.

MR. SPANN: I don't want to prolong this discussion. Apparently Mr. Whitaker is not prepared to testify that the River on his Exhibit 2 is located.

MR. UTZ: From what survey did you locate the River?

THE WITNESS: On this Exhibit, I drew the River in from looking at a larger scale survey.

MR. UTZ: What survey plat was that?

THE WITNESS: It was a survey made by Kenning Engineering of the River, but it did not indicate the acreage north of the center of the River.

MR. UTZ: Did you have the advantage of any official Bureau of Land Management survey plat in order to determine the acreage on this tract?

THE WITNESS: Yes, sir. My understanding is that B.L.M. Surveys do not include the center of the River.

MR. UTZ: Do you know how much acreage they did include?

THE WITNESS: Yes, sir. I could sum it. One hundred eight point eighty-nine acres.

MR. UTZ: You may proceed.

MR. VERITY: As long as we are on it, I don't think that Southwest Production Company has got to own all this acreage in order to ask it to be a non-standard unit for that amount.

MR. UTZ: Well, I don't believe that point was in question. My questioning was just to find out how much acreage was



involved.

THE WITNESS: There's some eleven acres from the bank to the center of the River to make a total of one hundred thirteen plus acres.

MR. UTZ: Thank you. You may continue.

Q (By Mr. Spann) Mr. Whitaker, are you familiar with the engineering committee's survey report that was dated May 11, 1961 which was a survey or a study of the Cha Cha-Gallup Pool made jointly by Pan Am and Humble and with Pan Am as chairman. Are you familiar with that survey or report?

A No, sir, I am not.

Q Do you know anything at all about the report?

A No, sir. Evidently that report was made before we began drilling operations in this area.

Q Well, in determining whether you should drill two wells on this unit, you of course would be concerned about whether the well would pay out the cost, would you not?

A Yes, sir. We think economics are such that we can profit by drilling two wells.

Q What sort of data do you have on that point?

MR. VERITY: We object to this question. We don't think that -- unless it can be shown that this is going to adversely affect the interested party, that is a proper question. In other words, we are trying to ascertain whether or not Southwest Production can economically drill a well. I don't think



that's proper inquiry. Unless it can be shown that this question affects the rights of other parties other than Southwest Production, we think it's improper. If Southwest is going to lose money drilling two wells, that's their problem, but no one else can complain about it unless it's going to create waste or interfere with their correlative rights.

MR. SPANN: Our position is No. 1: I would like to inform the Commission that certain information as to the economics of drilling on this size unit, if they want that information. No. 2: We feel that there might be some implication from your testimony here that one well will pay out on less than eighty acres which we dispute and we want to find out the basis for your testimony that these wells will pay out on fifty some acres, and also that the basis for your testimony that one well will not drain a hundred and thirteen acres which is the size of your unit because we are going to be confronted with that testimony when the Hearing is held on continuing the rules for the Cha Cha-Gallup Pool.

MR. VERITY: That is clear and both points, I think, are improperly taken at this Hearing because all we are talking about is a part of the southwest quarter that we have said is north of the center of the River. I think it might clarify things if I amended our application at this time. We ask for a non-standard unit for all of the southwest quarter that lies north of the 46.75 acres that was in a non-standard unit south of the stream.

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This should dispose of that. We are not trying spacing units here for this entire Cha Cha-Gallup Pool. We are only talking about this particular one hundred thirteen acres, so I don't think it becomes material whether or not these two wells are going to return an adequate investment to the applicant, Southwest Production Company. It's obvious they think it is going to or the Company wouldn't drill.

MR. SPANN: Mr. Verity, we are not here in protest to Pan Am's application. We do not agree with any part of this insofar as economics are concerned, insofar as drainage is concerned.

MR. UTZ: Mr. Verity, I am going to sustain your motion on your objection.

MR. SPANN: What was his objection?

MR. UTZ: He was objecting to your interrogation as to the economics of drilling on 56.625 acres.

MR. SPANN: I am not permitted to go into that?

MR. UTZ: No. I believe that under the rules as they are now, they are permitted to drill on each forty if they so desire.

MR. VERITY: That is correct.

Q (By Mr. Spann) Mr. Whitaker, what is the basis for your statement that one well will not drain a hundred and thirteen acre unit in the Cha Cha-Gallup Pool? Do you have any data to support that statement?

A We have evidence from cores that there is associated



with this pay zone a fractured shale sand which I feel would not be drained adequately. The center of this sand has developed a high porosity and permeability. Granted, the well may drain eighty or more acres as it thins out and becomes of poor quality, and it's my opinion it would not drain a larger area. It is accepted by the Commission that an eighty-acre unit is adequate to drain but not anything more than that. The Commission has not suggested that we drill on larger than eighty-acre lots.

Q Well, do you have any of this reservoir data or engineering data with you today?

A No, sir, I do not.

MR. VERITY: I wonder if I might suggest this: We are not taking any position in this case that you can't drain eighty acres in the Cha Cha-Gallup Oil Pool. We are saying that after the fact has been accomplished, which it has in this case, and there are wells to the south of us and our correlative rights are being disturbed, and we cannot get our fair share of the oil by only having one well on a hundred thirteen point twenty-five acres, and irrespective of whether one well would drain all of this hundred thirteen acres or would not, we are not going to get our fair share of this oil. I don't think that questions regarding this eighty acre spacing -- I don't think questions with regard to that are proper. We are not taking the position that we shouldn't have eighty acre spacing.

MR. SPANN: We are concerned about this order being



used to bolster some other order or some adverse ruling on a Hearing in the Cha Cha-Gallup area as you have attempted to do in this case by pointing to Pan Am.

MR. UTZ: I don't believe the testimony in this case ~~should~~ <sup>could</sup> be used in the case which will come up as a result of the temporary order in the Cha Cha area without the record in this case being incorporated.

MR. SPANN: I just wanted to make a record so that our position is clear.

MR. UTZ: I understand the economics. If an operator wants to lose money drilling two wells, that's his business, I guess.

MR. SPANN: Okay.

MR. UTZ: Are there any other questions of the witness?

MR. MORRIS: Yes.

EXAMINATION

BY MR. MORRIS:

Q Mr. Whitaker, where will the well be in the east 56.625 acres?

A We have not proposed a location. We could propose a location for the east unit at a later date.

Q Do you definitely propose to drill a well in the east unit or is that contingent upon the result of the well in the east unit?

A It would definitely be contingent upon this other well.



If this other well appeared non-commercial, we certainly would not drill a second well.

Q I wasn't contemplating that it would not be commercial, but supposing that you got a good commercial well, a real good well in the west 56 acres; would you then go over and drill a well in the east 56?

A I think we would.

Q Now, in the west 56 acres, it would be possible to drill a standard location, would it not? You wouldn't have to get over in the river to drill a standard location?

A No, sir.

Q But, it's due to the irrigation land?

A The swampy condition of this land. It appears to have water standing on it since no telling when. It has moss on it, it has been hard to guess how far down a man would go to reach solid ground.

Q Does that condition continue over into the east 56 acres also? Is it swampy over there, too?

A It was proposed to drill the well in the east unit. I have not looked into the possibility of drilling into the east unit at this time.

MR. UTZ: You do not know whether you can drill a well in the east unit?

A I am satisfied somewhere in it would be a durable location.



MR. VERITY: He just means he hasn't looked at the land to determine that.

MR. MORRIS: Thank you, sir.

MR. UTZ: Are there any other questions?

The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any other statements in this case?

MR. VERITY: I guess I have said too much already.

MR. SPANN: I would like to put on one witness to state our position before you make your statement.

MR. UTZ: I am sorry. I didn't ask for other testimony in this case.

MR. MORRIS: Mr. Ayres was sworn in Case Number 2318.

LEE AYRES

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

DIRECT EXAMINATION

BY MR. SPANN:

Q Would you state your name again for the record, please?

A Lee Ayres.

Q You are employed by El Paso Natural Gas Production Company?

A Yes.

Q In what capacity?

A Engineer in the reservoir section.



Q Have you had occasion to familiarize yourself with the application of Southwest Production Company which is Case Number 2323?

A Yes.

Q State briefly what El Paso's position is in opposing that application?

A For one thing, we feel that two wells such as they are asking for will result in the drilling of unnecessary wells. It will end up with three wells in the quarter section, and we are of the firm opinion that an eight acre well is minimum from an economic standpoint.

There is no question in my mind but that it can adequately drain eighty acres. Pan Am has currently interference tests on a hundred and sixty acres and they have shown conclusive interference. Another objection that enters our mind is that we don't feel any of us are going to make very much money in the Gallup field due primarily to the thinness of sand. We do hope to successfully water plug and we feel that it will work and will be a profitable venture. We feel it will be fairly difficult to water plug the sections specifically north of the River where the tracts are so small. It has been our experience in most secondary units that there is normally an adjustment, which means that if some unnecessary wells have been drilled, the cost of the tangibles are going to be reallocated to all companies participating in that unit. El Paso does not want to be faced with such a problem. We



think it is improper.

Q Is that all?

A Yes, sir.

Q Now, you have had occasion, I believe, to calculate the reserves under this particular proposed unit and have prepared an Exhibit which sets forth economics involved in drilling and operating two wells?

A Yes, sir.

MR. SPANN: In view of your ruling, Mr. Examiner, that economics are not material, I am merely tendering this evidence and if you want to receive it, all right; if you want to go along with your ruling, of course, I won't submit it.

MR. VERITY: We renew our objection.

MR. UTZ: Our previous ruling would prohibit the introduction of any testimony.

MR. SPANN: That's all.

MR. VERITY: We have no questions of this witness. We would like to point out that we made no objection to his testimony party because we think his testimony with regard to water plugging this area and with regard to spacing in the whole pool, not just in this hundred thirteen acres, is immaterial.

MR. HINKLE: Humble concurs in the testimony offered by El Paso. I would also like to point out that we feel this application is premature. They have a right by getting an unorthodox location approved to drill a well on the hundred thirteen



acres they have at the present time. Then they can still come in and ask for an unorthodox unit if they want to, particularly in view of the fact that we have pending a case which will be heard in October based upon evidence which is now being taken relative to interference tests and so forth, to determine what is the proper drainage area for this field and proper units to be set up.

MR. UTZ: Are there other questions of the witness?

MR. SPANN: That's all we have.

MR. UTZ: The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any other statements in this case?

The case will be taken under advisement.

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