## BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO November 20, 1957

IN THE MATTER OF CASE NO. 1347

## TRANSCRIPT OF PROCEEDINGS

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DEARNLEY - MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE - SANTE FE 3-6691 2-2211

2 BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO November 20, 1957 IN THE MATTER OF: Application of Pan American Petroleum Corporation for approval of a non-standard gas proration unit in the Tubb Gas Pool, Lea CASE NO. County, New Mexico. Applicant, 1347 in the above-styled cause, seeks an order establishing a non-standard gas proration unit in the Tubb Gas Pool consisting of the W/2 W/2 of Section 32, Township 22 South, Range 38 East, Lea County, New Mexico, said unit to be dedicated to the applicant's State "S" No. 3 Well located 1980 feet from the North line and 660 feet from the West line of said Section 32. BEFORE: Elvis A. Utz, Examiner. TRANSCRIPT OF HEARING MR. UTZ: The hearing will come to order. Next case on the docket will be Case 1347. MR. COOLEY: Application of Pan American Petroleum Corporation for approval of a non-standard gas proration unit in the Tubb Gas Pool, Lea County, New Mexico. MR. BUELL: May it please the Examiner, at this time for Pan American Petroleum Corporation, I would like to enter appearances for C. L. Kelley, Dan R. Currens, and Guy Buell. ŝ

DEARNLEY - MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE, NEW MEXICO 3-6691 5-9546 We would like to call as our first witness Mr. Currens.

MR. COOLEY: Is he the only witness?

MR. BUELL: Yes.

(Witness sworn)

#### DANIEL R. CURRENS

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

#### DIRECT EXAMINATION

#### BY MR. BUELL:

Q Mr. Currens, will you state your full name, by whom you are employed and in what capacity and in what location, please?

A My name is Daniel R. Currens. I am employed by Pan American Petroleum Corporation as a petroleum engineer in the reservoir section, Roswell District Office, Roswell, New Mexico.

Q Does that office have supervision over Pan American's operations in the Tubb Gas Pool? A It does.

Q Mr. Currens, you testified at previous Commission hearings and your qualifications as petroleum engineer are a matter of public record, is that correct? A That's correct.

MR. UTZ: The qualifications are acceptable.

Q Mr. Currens, have you prepared a plat which reflects the unit in question as well as the general area surrounding the unit in question?

A I have prepared such a plat.

MR. BUELL: May we offer such plat at this time as Pan Am-

erican's Exhibit No. 1?

MR. UTZ: It will be so identified.

Q Locate and describe the proposed unit in question, Mr. Curren.

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A The proposed Tubb Gas unit in this application would consist of the W/2 of the W/2 of Section 32, Township 22 South, Range 38 East, being 160 acres in area, approximately.

Q Did you state whether or not that unit was bordered in a dashed-blue line and also bordered in solid red?

A I have not yet stated that. The unit, as outlined in this plat, Exhibit 1, is bordered in a dashed-blue line and in a solid red line.

Q Does that unit at this time have a well located on it completed in the Tubb Gas formation? A It does.

Q What is the status of that well?

A This well which is in the SW/4 of the NW/4 of Section 32, Pan American State "S" No. 3, is a dual completion in the Blinebry Oil Tubb Gas. It is encircled in red, as it is shown on Exhibit 1, and I might add that all other Tubb completions in this immediate area are also encircled in red.

Q At the present time, is any unit attributed to that Tubb well on your proposed unit?

A Yes, at this time the Pan American State "S" No. 3 has a nonstandard unit which is 120 acres in area, this being the W/2 and the NE/4 of the NW/4 of Section 32. Q Why is the hearing necessary for approval of this unit?

A This unit is non-standard in shape.

Q Directing your attention to your Exhibit 1, Mr. Currens, is it possible at this time to form a standard unit?

A Formation of the standard unit which would be dedicated to this well would be the NW/" of Section 32. In order to form this standard unit we would necessarily include acreage on which there is another Tubb completion, Tubb Gas completion.

Q What is this other Tubb Gas completion?

A This is Cities Service, State "P" No. 1, which is located in the SW/4 -- beg your pardon, SE/4 of the NW/4 of Section 32.

Q All right, sir. Since you mentioned that Cities Service well, at this time, what acreage, if any, is attributed to that well, or what acreage will be attributed to that well?

A On this same docket, Cities Service has an application for a non-standard proration unit in the Tubb Pool to consist of the E/2 of the W/2 of Section 32 to be dedicated to their State "P" No. 1.

Q Would you say that would be more or less of a companion case to this one? A Yes, it would.

Q All right, sir, let me ask you this. In the event of Pan American's request on this proposed unit is approved, and also the Cities Service's request, which will come up later, is approved, in that event, will that take care of all the acreage in the W/2 of Section 32?

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A Yes, that would fully develop the W/2 of Section 32 for Tubb Gas.

Q I believe you stated that in your opinion it is impossible to utilize the two present Tubb Gas completions in the W/2 of Section 32 and form standard units? A That is correct.

Q In other words, you would have to abandon one of the presently completed Tubb Gas Wells and drill another well in the southern portion of the W/2 of Section 32? A That is correct.

Q Let me ask you this. Assume now that you abandon one of the present Tubb completions and drill a well in the S/2 of the W/2 of Section 32, would the two wells, one located in the S/2 and one on the N/2, would they recover more gas than the two present completions that exist today?

A Well, it is possible that if an additional well were drilled in the SW/4 of Section 32, that some additional gas could be recovered. However, there would be no significant increase in ultimate recovery in my opinion.

Q In your opinion, is it also possible that abandoning one of the present Tubb completions and drilling a new well on the S/2 might result in less ultimate gas recovery?

A Yes, I believe that is certainly a possibility. Perhaps I should elaborate on it.

Q Briefly state how that could occur in your opinion.

A Although there certainly is no question whatsoever in my mind that the entire acreage which would be encompassed by this proposed

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unit is certainly productive of gas, I feel that there could be the possibility that a new well in the SW/4 might not make as good a well as the existing completions that we now have in the NW/4 in that a new well would be somewhat down structure. We have a good completion in our presently existing wells, and there is always the possibility that your completion will not be as good as that in this well.

Q In other words, you feel that it is entirely possible that the two present tubb completions, due to their structural location, might have a longer economic life and therefore recover more gas?

A I feel that is entirely possible that the present locations could well have a longer economic life than possibly a new well would have.

Q In view of that, then, you feel that no waste would result if the Oil Conservation Commission approves Pan American's proposed unit here today?

A No, I certainly think no waste would result.

Q In your opinion, would exonomic waste result if we are required to drill a well in the southern portion of the W/2 of Section 32?

A I think there is every possibility that there would be economic waste in that situation.

Q All right, sir, if the unit as proposed here today is approved by the Oil Conservation Commission, do you feel that the correlative rights of all interested parties will be adequately protected?

A I do.

Q Now, Mr. Currens, let me ask you this. Have you made a study and evaluation of the general area in question here today with particular reference to whether or not all of the acreage in the proposed unit is productive? A I have.

Q As a result of that study, what is your opinion in that regard?

A Well, there is no question in my mind that we can consider all of the acreage in this proposed unit to be productive of Tubb Gas. I might elaborate a bit on that and state my basis for my opinion.

Q All right, sir.

A Referring to Exhibit 1, you will note that there is a trace of a contour, which is a contour on the Tubb Marker in this portion of the Tubb field; contour intervals being 25 feet. I direct your attention to a well in the SW/4 of the SE/h of Section 29, Gulf's Watkins No. 1. Immediately above that well is the symbol "A". Now, if you will note its structural position and note the approximate structural position of the lowest point on our proposed unit, you will see that they are approximately the same. This Gulf's Watkins No. 1 Well is an existing Tubb completion. In fact, September production from this well was in excess of eleven thousand MCF.

Q Let me be sure I understand, Mr. Currens. You pointed out a well in the field, its structural position, that is currently producing from the Tubb Gas formation, and you stated that all of

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the acreage in the produced unit is comparably located structurally or higher than this producing well, is that correct?

A Yes, that is correct. There are areas in this unit that are even higher than that well.

Q All right, sir. I notice also in your Exhibit 1, that there is a trace of a cross section. Did you prepare that cross section?

A Yes, I prepared such cross section showing "AA" prime on Exhibit 1.

MR. BUELL: May we offer at this time as Pan American's Exhibit 2 such cross section?

MR. UTZ: It will be so identified.

Q Briefly discuss Exhibit 2, Mr. Currens.

A Exhibit 2 is cross section composed of electric logs on five wells in this general area, all of which penetrated and were drilled through the Table Horizon. The trace of this cross section shown on Exhibit 1 is a "AA" prime. The cross section includes two existing Tubb completions and three wells that are not existing Tubb completions.

Q Mr. Currens, from the standpoint of productive acreage in the proposed unit, what is the significance of Exhibit 2?

A Well, I think by looking at Exhibit 2 that we can see that these zones are easy to coorelate from the Tubb marker and that we can see that there is a good continuity of structure in this general area; that the general development of this structure, as would be depicted on these logs, is very similar, and that in addition to

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that, it further shows referring to the immediate left, the log or the immediate left of the Exhibit 2, Gulf's Watkins No. 1, and the log which is the next to the right, on Exhibit 2, which is Cities Service State "P" No. 2, which is indicated by a trace on Exhibit 1. We can see the majority of the acreage in the proposed unit is structurally higher than that existing Tubb completion the Gulf's Watkins No. 1.

Q Let me draw your attention to the Lyon Oil Company's Wyle No. 1 which, is the extreme right well on Exhibit 2, and also to its location on Exhibit 1. I believe it is represented by a symbol that represents a dry hole? A Yes, it is on Exhibit 1.

Q In your opinion, is that dry hole, Lyon Oil company's Wyle No. 1, indicative in any way that any portion of the proposed unit is non-productive?

A No, to me that certainly is no indication that any portion of our proposed unit would be non-productive. I simply included this log on the Lyon Oil Company's Wyle No. 1 so that we would have a trace completely through the southern portion of our proposed unit to show that the structure was continuous in that area and was uniform to a certain extent. As to indicating in any way that possibly we have non-productive acreage in our proposed unit, you will note from both Exhibit 2 and Exhibit 1, that the Lyon Oil Company's Wyle No. 1 is approximately 75 feet down structure. The structural difference is significant, and in addition that well is something less than, slightly less than half a mile from the southern-

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most portion of our proposed unit.

Q Mr. Currens, directing your attention again to Exhibit No. 1, I notice that that exhibit reflects that the southern portion of the proposed unit is owned by Cities Service?

A Yes, it reflects that on this particular plat. However, we have entered into a communitization agreement -- pooling agreement with Cities Service Oil Company to pool this acreage in this nonstandard unit.

Q In other words, the instrument to pool all the acreage in that proposed unit is already executed? A Yes, it is.

Q Who owns the royalty under all of the acreage in the proposed unit? A The State of New Mexico.

Q Have they been advised -- Has the State Land Commissioner been advised of this pooling or unitization agreement?

A They have been advised. In fact, I have here a letter from the State Land Commissioner stating that our communitization agreement meets their requirements.

MR. BUELL: In that connection, Mr. Examiner, may I offer at this time, as Pan American's Exhibit No. 3, a photostatic copy of such letter, which states that the only thing remaining to be done is to put the effective date on the agreement, which will be when production commences from a 160 acre unit allowable, which will, of course, be subsequent to the approval by the Commission of this non-standard unit.

MR. UTZ: You want to identify this as Exhibit No. 3?

MR. BUELL: Yes.

MR. UTZ: It will be so identified.

MR. BUELL: That concludes our direct, Mr. Examiner, and let me at this time formally offer Exhibits 1 through 3.

MR. UTZ: Is there objection to the introduction of Pan American's Exhibits 1, 2 and 3? If not, they will be so accepted.

#### CROSS EXAMINATION

### BY MR. UTZ:

Q Mr. Currens, the well to the north as well as the well to the south, of your Pan American State "S", can you tell me what zones they are completed in?

A The one to the north of State "S" No. 3 is a Drinkard well. The one to the south, Cities Service State "P" No. 3 is a Blinebry Oil Drinkard, Oil dual completion. I don't know whether that dual completion has been approved as yet or not. They had a hearing for that recently.

- Q Have you produced your Pan American State "S" No. 1 yet?
- A The No. 3 Well, sir? The Tubb well?
- Q The Tubb Well that is dedicated to the W/2 of the W/2?
- A Yes, sir, that's No. 3.
- Q Is that No. 3?
- A Yes, sir. No, sir, we have not produced that well as yet. MR. UTZ: Are there any other questions of the witness? MR. COOLEY: I have some questions.

MR. UTZ: Mr. Cooley.

DEARNLEY - MEIER & ASSOCIATES INCORPORATED GENERAL LAW REPORTERS ALBUQUERQUE, NEW MEXICO 3-6691 5-9546 BY MR. COOLEY:

Q Mr. Currens, I don't believe I completely understand the status of this communitization agreement. It hasn't yet been completely executed?

A It has been executed by the two operators.

Q By all working interest owners?

A By all working interest owners, yes.

Q And the only thing remaining to secure State approval, royalty owners approval, is setting the effective date?

A Yes, which, of course, will be subsequent to the issuance of the order allowing the non-standard unit.

Q There will be no necessity for making any approval contingent upon communitization since it has already been accomplished?

A No, sir, it has been accomplished.

MR. COOLEY: That is all.

MR. UTZ: Mr. Nutter.

BY MR. NUTTER:

Q Mr. Currens, I am having a little bit of difficulty here trying to pick the top of the Tubb. I suppose one of the differences is due to the contours on the Tubb markers?

A Tubb marker.

Q You have the top of the Tubb formation depicted on these various wells?

A Yes, sir, those are scout tickets and so forth. The contour was prepared by me, as well as the cross section to the Tubb markers.

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Q Did you have any control for picking the top of it, or the Tubb marker, in the lower half of your exhibit, besides this one well which was drilled by Lyon Oil Company? A There is control there, sir, in the two wells in the S/2 of Section 32. 14

Q Do both of those wells penetrate the Tubb formation?

A Yes, they do.

Q Do you have the top of Tubb on those wells?

A I do not have that top with me, sir.

Q Did you use any of the wells in Section 6 to help you draw this contour? A Section 6?

Q 23 South?

A As I recall, there were two wells in that section that I used, sir.

Q How about Section 5? The Tubb?

A The Tubb and the Lyon Well, and, I believe, I likewise had the Tubb and the Wyle Western Well immediately south of the Lyon's Well. I am not positive of that, I am sure they are.

Q Do you know if any test was made of the Tubb formation in Cities Service's No. 2 Well which is on the Northwest of the Southwest of 32?

A To the best of my knowledge there was no test on the Tubb.

Q How about Pan American's Well in the Northeast of the Southwest of 32, was any Tubb test made there?

A Not to my knowledge, sir.

MR. NUTTER: I believe that's all.

MR. UTZ: Are there any further questions of Mr. Currens? BY MR. UTZ:

Q Mr. Currens, what is the lowest productive well, structurally lowest Tubb completion in this area that you know of?

A That would be the Gulf's Watkins No. 1 there, sir, which we previously discussed.

Q So somewhere between where the Watkins No. 1 was completed and the Lyon Wyle No. 1 there ends the productive intervals of the Tubb, is that correct? A It would seem to be.

Q This entire unit is within the designated gas pool, Tubb Gas Pool? A Yes, it is.

MR. UTZ: Any further questions? If there are none, the witness may be excused. Are there any statements to be made in this case?

MR. MOTTER: I am E. F. Motter, with Cities Service. We would like to urge the approval by the Commission of Pan American's application.

MR. UTZ: Any further statements. If not, the case will be taken under advisement.

# <u>CERTIFICATE</u>

STATE OF NEW MEXICO ) : as COUNTY OF BERNALILLO )

I, J. A. TRUJILLO, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me and/or under my personal supervision; the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 28th day of December, 1957, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

J. G. Injella Notary Public

My Commission Expires:

October 5, 1960.

I do hereby certify that the foregoing is comple a sec 20 14 the man adings in the B 3471 . 31 Dec. TR 6 ur . Erauiner  $\mathcal{A} : \mathcal{I}$ her Merico Gil Conservation Summission

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