Case 1976

PHONE CH 3-6691

# BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico June 1, 1960

#### EXAMINER HEARING

IN THE MATTER OF:

BEFORE:

Application of Caulkins Oil Company for approval of a gas-gas dual completion and for the establishment of a non-standard gas unit. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Reuter PC-297 well in such a manner as to permit the production of gas from the South Blanco-Pictured Cliffs Gas Pool and the production of gas from the Dakota Producing Interval through parallel of 1 1/4inch and 2 3/8 inch tubing respectively. Applicant further seeks an order establishing a non-standard gas unit to be dedicated to the subject well in the Dakota Producing Interval consisting of the SW/4 of Section 15 and the NW/4 of Section 22, Township 26 North, Range 6 West, Rio Arriba County, New Mexico.

# TRANSCRIPT OF HEARING

Elvis A. Utz, Examiner

MR. UTZ: The hearing will come to order. We'll take up next Case 1976.

MR. PAYNE: Application of Caulkins Oil Company for approval of a gas-gas dual completion and for the establishment of a non-standard gas unit.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa

Fe, representing the applicant. We'll have one witness, Mr. Frank



Gray.

(Witness sworn.)

(Whereupon Caulkins Oil Company Exhibits Nos. 1 & 2 were marked for identification.)

## FRANK GRAY

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

#### DIRECT EXAMINATION

## BY MR. KELLAHIN:

- Q Would you state your name, please?
- A Frank Gray.
- Q By whom are you employed and in what position?
- A I'm employed by Caulkins Oil Company as Superintendent of their operations in the Farmington, New Mexico area.
- Q Have you testified before this Commission as an expert and had your qualifications accepted?
  - A Yes, sir.
    - MR. KELLAHIN: Are the witness's qualifications accepted?
    - MR. UTZ: Yes.
- Q Mr. Gray, are you familiar with the application of Caulkins Oil Company in Case 1976?
  - A Yes.
  - Q Would you state briefly what is proposed in this case?
  - A It's proposed to complete the Caulkins Oil Company



Reuter PC-297 in such a manner as to permit the production of gas from the South Blanco-Pictured Cliffs Pool and the production of gas from the Dakota sand through the same string of casing.

- Q Does it also propose a non-standard proration unit for Dakota production?
  - A Yes, it does.
- Q Now, referring to what has been marked as Exhibit No. 1, would you discuss that exhibit, please?

A Exhibit No. 1 is a plat showing the wells in Section 15, 26 North, 6 West, Rio Arriba County, New Mexico. It also shows wells in those sections adjoining Section 15. The operators of the wells are also shown on those tracts not operated by Caulkins Oil Company. The colored portion of the map shows the acreage we desire to dedicate to the proposed Dakota well. The description of this acreage being the Southwest Quarter of Section 15 and the Northwest Quarter of Section 22, both sections being in Township 26 North, 6 West. These two Quarter Sections have the same royalty interest and working interest, as a matter of fact, that is all of Federal Lease SF03552.

Q If that acreage is dedicated to the well, will that prevent dedication of adjacent acreage for Dakota production in any manner?

A It should not affect the dedication of acreage in any way. It would avoid, in this particular case, any necessity for



unitizing or working out any sort of a unit agreement with anyone else.

- Q Has Caulkins Oil Company offered to unitize with anyone on adjacent acreage?
- A Yes, an offer was made to unitize 160 acres with the Southwest of Section 15, 26, 6, so that the operator of that Quarter Section could participate in the drilling of a Dakota well if he should so desire.
- MR. UTZ: Excuse me a moment. Did you say the Southwest of 15?
  - A Excuse me, that is the Southeast of 15.
- Q Does that constitute, then, your reasons for wishing to establish the non-standard proration unit, Mr. Gray?
  - A Would you repeat the question?
- Q Does that fully state your reasons for wishing to establish the proposed non-standard unit?
- A Yes, except there is economic reasons for wanting to use the well in the Southwest of 15 for the Dakota well.
  - Q Would that be more economical than any other procedure?
  - A Yes, sir, it would. That's an economic problem.
- Q Now, referring to what has been marked as Exhibit No. 2, will you discuss that exhibit, please?
- A Exhibit 2 is a diagramatic sketch showing the casing that's already in the well, also the mechanical arrangement and



cementing program for the proposed dual completion.

Q Is that exhibit identical with an exhibit which was attached to the application in this case?

A It's the identical with the exception of the cementing program. The one that was filed with the application showed that we would bring the cement back to the top of the, to the base of the Menefee zone and we have altered the plan so that the cement will be brought back to the top of the Cliff House zone.

Q Will that fully protect the production formations in-volved in this area?

A That will cover all of the probable producing zones with the exception of the Chocra zone. We prepare to cement from 3200 back through the Pictured Cliffs and with the top of the cement on the first stage above the Cliff House and the second stage from 3200 feet up through the Pictured Cliffs zone, it will isolate the Chocra zone effectively.

Q Is this a type of dual completion which has heretofore been approved by the Commission?

- A Well, the general plans here have been approved.
- Q In your opinion will it effectively separate the producing horizons?
  - A Yes, sir.
- Q There is nothing unusual about this type of dual completion in this case, is there?



A No, the mechanics of the dual are approximately the same as a number of others that have been done or have been approved in the area.

Q Would you just briefly outline for the record what you propose to do in regard to this completion?

A We would gas drill with a six and quarter hole to the present depth of 2936 to approximately 7500 feet, then run a string of 4-1/2 inch, 11.6 pound J-55 seamless casing to 7500 feet with a differential valve multiple stage cementer at 3300 feet and 2800 feet and pump approximately a hundred barrels of bentonite mud into the casing and then cement through the shoe with 150 percent of the calculated volume of cement necessary to bring the cement column back to the top of the Cliff House at approximately 4500 feet.

After waiting long enough for this cement to take its initial set, we would go ahead and cement through the DV cement at 3200 feet with 35 sacks of cement. Then, immediately after putting that cement away we would open the cementer at 2800 feet and flush out any cement above 2800 feet. Then the cementer at 2800 feet would be closed, and go ahead and perforate and sand frack the Dakota zone, then clean it up so that the gas production from the Dakota is free of frack sand, then set a Baker Model "D" production packer as close as possible to the Graneros perforations. This packer would be run containing aexpendable packer plug. We would then cut and pull the casing from approximately 2800 feet or immediately above



the DV tool.

Then the Pictured Cliff would be perforated and sand fracked and produced long enough so that its production is free of frack The well would then be killed with water and a string of 2-3/8 OD upset tubing run to the Baker packer. The expendable plug would be pushed out and the tubing would be latched into the packer. String of inch and quarter upset tubing would be run preliminary to the 2-3/8 tubing to approximately 2800 foot.

Would the well be so equipped that the production of the distillate and gas would be measured and produced separately?

Yes, the equipment would be installed on the surface so that the production from each zone could be produced and measured separately.

Were exhibits 1 and 2 prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: We would like to offer in evidence Exhibits 1 and 2.

MR. UTZ: Without objection Exhibits 1 and 2 will be entered into the record.

MR. KELLAHIN: That's all the questions, Mr. Utz.

#### CROSS EXAMINATION

#### BY MR. UTZ:

Mr. Gray, did the cement on the 10-3/4 inch surface



circulate or not?

A I don't know. I believe it did. The amount of cement was used should have circulated. This well was drilled in May, 1951. That was prior to my hiring by the group of people owning the property out there. so the entire well was drilled before I got I mean I had no part in the drilling of this particular well.

- Your well records don't show? Q
- The well records do not show. A
- How about the top of the cement on the top of the 7 inch? Q
- A I believe there was a temperature survey run on that. The Schlumberger temperature survey showed a probable cement top at 1397.
  - What weight was the 4-1/2 inch J-55? Q
  - 11.6. A
  - Who owns the Southeast Quarter of Section 15? 0
- The Pictured Cliff well on that Quarter Section is owned by R. E. Mead of Dallas. I'm not certain where his rights end, but I understand that the Dakota is owned by a Mr. Scott or one of the corporations that he's affiliated with.
  - Tom Scott. Brookhaven? A Tom Scott. Q
  - Brookhaven? Q
  - Brookhaven and Dacresa Corporation. A
  - You say you attempted to arrive at a communitization



agreement on the Dakota for the South Half of 15?

A No. He was not approached on the idea of communitizing the South Half of Section 15. I'm not certain which Quarter Section they offered to put in with his Quarter Section, but it was not, it did not include the Southwest of 15 or the Northwest of 22.

- Is there a Dakota unit in the North Half of 15?
- A No, there is not. There's no Dakota well in the North
  Half of 15. The closest Dakota well would be the East Half of 16.
  - Q What unit is dedicated to that well?
  - A The well in the East Half of 16?
  - Q Yes. sir.
- A It's the North Half of the Northeast, excuse me, I want to correct that, it's the South Half of the Northeast and the North Half of the Southeast. There's 160 acres as the record dedication to it, however, additional acreage can be dedicated to it out of that section if it's the Commission's wishes that we do that. That well was also drilled in 1951, I believe.
- Q I rather doubt that we would instigate such a proceeding but you probably would in the event of prorationing?
  - A Yes, sir.
- Q Why is it that you would rather not dedicate the Northwest Quarter of 15 rather than the Northwest Quarter of 22? Because of the difference in lease ownership?
  - A It's a difference in lease ownership, the group of



people that own this NMO3552 lease are different from those owning the Northeast Quarter of 15. It would be necessary to work out a unitization agreement to do that and to do what we would like to do here it will not be necessary to have any sort of a unitization agreement because that's the whole lease. That's all of it.

- Q Is there any Dakota wells in Sections 21, 22 or 23?
- A No, sir.

MR. PAYNE: Or 10 or 14?

A There is a Dakota well in the Southeast of Section 10, excuse me, it's in the Southeast of Section 9. There was a Dakota well in Section 10, the FL34, but it was plugged back several years ago and converted to a Tocito injection well. In Section 14, the Caulkins MD244 in the Northeast Quarter is a Dakota producer. In Section 11 there's also a, in the Northeast of Section 11, there's also a Caulkins Oil Company Dakota well, D140.

- Q Is there Dakota production South of this particular area shown on Exhibit No. 1?
  - A South of Section 22?
  - Q Yes, sir.
- A Not, no, I don't believe there is, not within four or five miles of it anyway.
- Q Do you believe that the Northwest Quarter of 22 can reasonably be assumed to be productive in the Dakota?

A Yes, sir, I think so.



MR. UTZ: Any other questions?

MR. PAYNE: Yes, sir.

#### BY MR. PAYNE:

Q Mr. Gray, what happens if the East Half of Section 15 is dedicated to a Dakota well, which it may well be, then you have got a 160-acre tract here in the Northwest Quarter that that's all that's going to be available to be dedicated to it?

A It would be in that one section. However, the Quarter Section in the Southwest of Section 10 is open.

Q Once you grant one of the non-standard units they keep compounding them so you get more and more non-standard units. Now, you say the ownership of the Northwest Quarter and Northeast Quarter of 15 are different?

A The ownership of the Northwest and the Southwest are different.

- Q All right.
- A That's of Section 15.
- Q Now, about the Northeast, is that owned by either of the parties that own the Northwest or the Southwest?
  - A The Northeast of 15?
  - Q Yes.
  - A The Northeast of 15 and the Northwest of 15 are the same.
- Q You didn't approach Mr. Scott to communitize the South Half of 15?



- No, sir. A
- Any particular reason for that? Q

Just in an effort to avoid having to unitize where we might be able to avoid it.

MR. PAYNE: Thank you.

If I might, there are several different directions that a person could go there on the unitizing. However, at least one of the 320-acre tracts that would be assigned the well probably would have to be located in two different sections. Beyond that I think it could be avoided.

(By Mr. Payne) Now. the Northwest of the Northwest are owned by the same party, so it, presumably the North Half of 15 would be dedicated to a Dakota well, is that right?

A Yes.

So then the Southeast Quarter of 15 presumably would be Q joined with the Northeast corner of 22 in order to form a Dakota unit?

Well. that could go most any direction. Α

If you take it over into 14 you are really going to have the pattern in bad shape, aren't you?

If I may, I would like to show you the layout of the block that we operate.

Please do. Q

This is speculative entirely. May I come around here?



The blue is owned by one group, the pink by another group and the yellow by still another group and the green still another. In trying to work it out it's possible, but purely speculative, I don't know whether they would want to do it, but this 320 --

- Q You are talking about the North Half of Section --
- A I'm just talking about the area in general.

MR. KELLAHIN: You have to describe it for the record.

Make a description of it for the record.

A All right, the North Half of Section 15 could be one unit. The Southeast Quarter of 15 and the Northeast Quarter of 22 could be a unit. The South Half of 22 could be a unit. What happens down in here is anyone's guess because we're moving away from production, but those quarter sections can be arranged so that they wouldn't overlap into other sections too many times.

Q Of course you are proposing the first one that will overlap a different section?

A Yes, sir.

## BY MR. UTZ:

- Q It would be necessary to cummunitize the Northeast of 22 with the Southeast of 15, would it not?
  - A Yes, sir.
  - Q Do your people own the Northeast of 22?
- A One group does that Caulkins operates for. The ownership on the yellow, however, is different from the blue.



Q You are not proposing at this time for that communitization to be effected?

A No, sir, only what we have asked for in the hearing today.

MR. KELLAHIN: What you have just suggested would result in only one communitization instead of two, would it not?

A Yes.

MR. PAYNE: But also by one communitization you could have a standard unit in the South Half of Section 15, couldn't you?

A We could have, we would have two communitizations if we ever decided to drill this tract here.

MR. PAYNE: Yes, sir.

MR. UTZ: Any other questions? If not, the witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in this case? The case will be taken under advisement.



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 9th day of June, 1960.

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 hereby a of Care No. 1976. heard by me on the complete of the proceedings in the Examiner hereby and the proceedings in the Examiner hereby and the complete of the proceedings in the Examiner hereby and the complete of the

New Mexico Oil Conservation Commission

