BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico January 28, 1960.

T H E I N MATTER 0 F CASE NO. 1877

TRANSCRIPT OF PROCEEDINGS

January 28, 1960



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# BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico January 28, 1960.

## IN THE MATTER OF:

APPLICATION OF CONTINENTAL OIL COMPANY for permission to install an automatic custody transfer system and for permission to produce more than 16 wells in a common tank battery. Applicant, in the above-styled cause, seeks an order authorizing it to install an automatic custody transfer system to handle the production from all Skaggs Pool oil wells on its Southeast Monument Unit comprising lands located in Township 20 South, Ranges 37 and 38 East, Lea County, New Mexico.

CASE

NO. 1877

BEFORE:

Elvis Utz. Examiner

## TRANSCRIPT OF PROCEEDINGS

MR. UTZ: The hearing will come to order, please.

The next case on the docket will be 1877.

MR. PAYNE: Case 1877. Application of Continental Oil Company for permission to install an automatic custody transfer system and for permission to produce more than 16 wells in a common tank battery.

MR. KELLAHIN: If the Commission please, Jason Kellahin of Kellahin and KellaFok, Santa Fe, New Mexico, representing the applicant; and we will have one witness, Mr. Queen.

(Witness sworn.)



## JOHN A., QUEEN

a witness, called by and on behalf of the Applicant, having been duly sworn, testified as follows:

## DIRECT EXAMINATION

## BY MR. KELLAHIN:

- Q Would you state your name, please?
- A John A. Queen.
- Q And by whom are you employed, and in what position?
- A Continental Oil Company, as Division Engineer, New Mexico Division.
- Q You have previously testified before this Commission as an expert petroleum engineer, have you?
  - A Yes, sir.
  - Q Are the witness' qualifications acceptable?

    MR. UTZ: Yes, sir.
- Q (By Mr. Kellahin) Mr. Queen, are you familiar with Case 1877?
  - A Yes, sir, I am.
- Q Would you state briefly what is proposed in this application?
- A This application is to install an automatic tank battery, with the present existing centralized automatic tank battery, which was approved by Rule R-1002, and to produce 44 wells into the centralized automatic tank battery. The number was stipulated as 44, since the previous order had stipulated



35, and not more than 16. We actually, of course, will produce more than 16 wells into the automatic tank battery.

Q Now, referring to what is marked as Exhibit Number 1, a schematic diagram of the proposed installation, would you discuss how that installation will operate?

A Exhibit Number 1 is what is now classified as a routine exhibit, in that the oil is received into the storage tank, which is controlled by high and low level shut-off switches, and by an operating switch.

From there the fluid will pass to the sampler, a monitor, and into a pump. Should the monitor indicate that the B. S. and W. content is greater than that desired, it will be recirculated to the treater. Should the monitor indicate that the oils is all right for pipeline sales, it will pass it through a strainer, air eliminator, and sales meter. This is true if the sales meter is a positive displacement meter. If it is a positive volume meter, of course, it will not need the air eliminator.

From the sales meter, it will pass on to the necessary back pressure valves, to the pipeline.

Q Will you have adequate storage facilities for the operation of the unit, as you propose to operate it?

A The lease at the present time, of course, has a normal tank battery, and sufficient storage for weekend operations.

After the installation of the Lact, or Act, as you wish, there will be sufficient storage for a period of time, probably in the



neighborhood of 24 to 36 hours. However, it is not our intent to furnish sufficient storage for over weekends as previously. There will be safety shutting switches, in case the pipeline fails to pump the oil.

- Q Now, will the pipeline take the oil, under this arrangement?
  - A Yes, sir, they will.
- Q Will the installation be equipped with the safety features which are usual and customary in this type of installation?
- A Yes, sir, they will, It is our anticipation that eventually this system will probably go to complete automation, which means that we must have every piece of device safety controlled. At that time, or I should say at the time of the installation of the Lact, we will have sufficient safety controls to safely operate the equipment.
- Q Now, at the present time you are operating, as I understand, at a centralized tank battery?
  - A That's correct.
  - Q And how many wells are being produced into that?
- add, that this centralized tank battery has an automatic production and test programing system on, included in the centralized battery, installed at the time the central battery was put in. So, with the installation of the Lact, and a small additional expenditure for equipment, this lease will be an automatic lease.



Q Now, how many wells will be produced into the Lact system?

A If I may refer to Exhibit 2, I believe that this will aid in the explanation -- in this explanation. Exhibit 2 is the location plat of the Skaggs Pool area, in the Southeast Monument area. The Southeast Monument is bordered by a heavy dotted line, or heavy dashed line, I should say. At the present time, there are 35 wells within this Southeast Monument Unit, producing into the automatic -- beg your pardon, beg your pardon -- the centralized tank battery.

Q Now, you said this Southeast Monument Unit is shown by the heavy dashed line there, are you referring to the dashed blue line, or the red line?

A The dashed blue line. At the time these exhibits were prepared, that statement was completely true in its entirety. However, we did have an application in to the United States Geological Survey, wherein eight wells, lying to the North of the Southeast Monument Unit, were proposed to be brought into the Southeast Monument area. These eight wells are bordered by a red dashed line. We now have received approval from the United States Geological Survey to bring these into the unit, and they are now considered a part of the Southeast Monument Unit, making a total of 44 wells within the Southeast Monument Unit.

Q Now, is the desire of Continental Oil Company to include those wells, which were apparently brought into the South-



# east Monument Unit, within the Lact system?

- A Yes, sir, it is.
- Q That would include the wells in Section 3 and Section 18, and one well, I believe in Section 19, is that correct?
- A If I may correct you, it will be Sections 13, and 18, and 19.
  - Q 13 and 18 and 19?
  - A Yes, sir.
- Q Now, is the lease ownership common throughout the unit?
  - A Yes, sir.
  - Q Is it a working interest ownership?
  - A Yes, sir, it is.
  - Q Are the overriding royalties the same?
  - A Yes, sir, they are.
- Q And then, an installation of this type will pose no conflicting difficulties?
  - A No, sir, none whatsoever.
- Q In your opinion, would the granting of this application result in a more efficient operation, and prevention of waste?
  - A Yes, sir, we believe it will.
- Q Were exhibits 1 and 2 prepared by you, or under your direction and supervision?
- A Yes, sir, they were. And we have prepared another exhibit, which may be entered as Exhibit 3. We have no particular



It is just for the benefit of the Examiner, to show discussion. how we propose to -- or, beg your pardon -- show how the present wells are hooked into the centralized tank battery.

- Will that same installation be used in your Lact system?
- Yes, sir; the Lact will merely replace the use of the tanks that are presently being used.
- Were Exhibits 1, 2 and 3 prepared by you, or under your supervision?
  - Yes, sir, they were.

MR. KELLAHIN: At this time, we would like to offer in evidence, Exhibits 1, 2, and 3.

MR. UTZ: Without objection, they will be received into evidence.

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

## QUESTIONS BY MR. UTZ:

- Q Mr. Queen, where will the point of crude transfer be. in regard to your Exhibit Number 3?
  - At the central test station.
  - Q Central test station?

MR. KELLAHIN: I might, for the information of the Examiner, state that we now propose a pilot water flood in this area, to initiate a full scale deposit flood, upon the successful indication -- we have not come before the Commission as yet with



our application for this, but these applications here entered today are preparing for this initial pilot flood.

- Q (By Mr. Utz) How much oil is this lease producing at this time?
- A This lease is producing -- I have the figures, if I may take a minute -- I will have to beg your pardon. As I recall them, seven or eight hundred barrels per day. I can get those figures and return them to you; I do have them, but I don't recall the amount they are producing. As I recall them, somewhere between 12 and 15 barrels per well per day, at the present time, an average of that.
  - Q Are these wells pumping?
- A Some of these wells are pumping, and some of the wells are flowing. A majority of them, in fact, I should have said, almost all of them are pumping.
- Q Do you plan any low-pressure shut-off switches in your flow lines, to automatically shut in your well because of line breakage?
- A This has been a question at every Act hearing that I have been at. Because of the automatic production programming, an automatic test programming, we feel such a devisement in this particular installation. So, therefore, in this case, we will have.
  - Q That will be on all wells, or just the flowing wells?
  - A It will be on all wells. It must be, to make your



automatic test and production program to be fully automatic. As we said, we have gone, what we considered a complete step on this lease, or well, upon this installation, in having an automatic lease. In other words, the lease will be completely automatic.

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

QUESTIONS BY MR. PAYNE:

- Q Mr. Queen, has the Unit Agreement actually been amended to take in the acreage to the North of the unit area, as shown by the heavy dashed blue line?
  - A Yes, sir.
  - Q It has been?
  - A Yes; and has been approved.
- Q Now, do you have any corrosion problem in the Skaggs Pool?
- A No, sir, I do not believe we have at this time. At some future date, there may be, caused by some water flood problem which I have noticed in past experience; but, to date, we do not consider this area corrosive.
- Q Well, do you propose to install corrosion resistant meters at this time, or wait until the problems arise?
- A I do not think that I would recommend to my company to install corrosion resistant meters, Even if there is a problem, It is my contention that corrosion can be controlled by an inhibition program more economically than it can be by high-priced corrosion resistant material; and this is based on my years in a



## very corrosive area.

- Now, do you have any paraffin problems there?
- A No more than what might be expected in low producing wells.
- Q How do you -- what kind of safety devices do you have to take care of your paraffin problem, if any? Do you have your meters -- or do you have your meters plastic coated?

A All of our meters will be plastic coated, where there is any possiblity of paraffin, but the cost is so small, in the initial planning stage of the meters, only, of course if it is of positive volume. I don't believe a positive displacement meter can do this effectively. However, it does not become a problem because of the moving parts. It cleans itself.

- Q Do you propose any more Skaggs wells in this unit area?
- A We propose one more well, which we have included in our number of 44 wells, and that will be drilled after the installation of the pilot flood, and will offset one location. And if I recall properly, it is South of Well Number 40, and East of Well Number 21. I would like to check that, if you want to know the exact location of it, but we do have one more well proposed, sir.
- Now, Mr. Queen, once you start a water flood project in here, would Continental have any objection to taking monthly well tests on all wells outside the project area, which were producing into the centralized battery, along with the water flood oil?



A We certainly would have no objection. We would not like to see such an order put out, that they would be tested each month, but there are no reasons why your well cannot be tested each month. We believe that a monthly, or more frequent test, must be obtained to accurately evaluate and control the water flood. I believe our present requirements would probably be, and no doubt are, greater than that required by the Commission on such an item.

However, if you would so put it in an order, then this means that we would be subject to penalty any one month of any one year, that this failed to be done on any one well, and, of course, could be very binding.

Q You do though, generally test every well once a month, don't you?

A That's correct. In this particular lease, as I have previously testified, we have an automatic test programming, and we test constantly. There is a well, almost without fail, on test all the time, on weekends, and during the week. And there was by pumper.

- Q Are these wells in the stripper stage now, Mr. Queen?
- A If the Commission would define what the stripper stage is, I might be able to answr that question. We believe they are approaching the stripper stage.
  - Q Are any of them top allowables?
  - A No, sir.



- Q Do any of them make half of the unit allowable?
- A I would not be surprised if there were not a well, or more than one well, producing more than the unit allowable.
  - Q The average would be somewhat less then?
- A I believe the average is abut 12 and 15 barrels a day. And --
  - Q That's how I define stripper.
- A I feel certain we will approach the Commission on this, at a time after more detailed study and planning. And this would probably be classified, in our opinion, as a stripper stage, but I still do not know what a full stripper well is, or stripper pool.

MR. PAYNE: That's all.

MR. UTZ: Are there any other questions of the witness?
(No response.)

MR. UTZ: If not, the witness may be excused.

(Witness excused.)

MR. UTZ: Are there other statements to be made in this case? If there are none, the case will be taken under advisement.



STATE OF NEW MEXICO )

COUNTY OF BERNALILLO )

I, THOMAS T. TOMKO, Court Reporter, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand this 29th day of January, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Thomas T. Tomko, Court Reporter

I do hereby certify that the foregoing is a common of the last of

