

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

Case No. 1594

TRANSCRIPT OF HEARING

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February 4, 1959

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

Application of the Ibex Company for permission to install three separate lease automatic custody transfer systems. Applicant, in the above-styled cause, seeks an order authorizing it to install three separate lease automatic custody transfer systems, one on its Welch Duke State Lease, one on its Resler Yates State Lease and the other on its McNutt State Lease, all in the Artesia Field, Township 18 South, Range 28 East, NMPM, Eddy County, New Mexico. Applicant further seeks permission to consolidate multiple tank batteries on said Resler Yates State Lease in exception to Rule 309 of the Commission Rules and Regulations.

CASE
NO.

1594

BEFORE:

Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The next case will be Case 1594.

MR. PAYNE: Case 1594. Application of the Ibex Company for permission to install three separate lease automatic custody transfer systems.

MR. CAMPBELL: Mr. Examiner, I am Jack M. Campbell, Campbell and Russell, Roswell, New Mexico, appearing on behalf of the applicant. We have one witness to be sworn.

(Witness sworn.)

MR. UTZ: Are there any other appearances in this case? If not, you may proceed.

J. . . C. C H A P M A N, a witness called by and on behalf of the applicant, being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY: MR. CAMPBELL:

Q Will you state your name, please?

A J. C. Chapman.

Q Where do you live Mr. Chapman?

A Artesia, New Mexico.

Q By whom are you employed and in what capacity?

A Water flood engineer for the Ibex Company.

Q Have you testified previously before this Commission or one of its examiners?

A No, I have not.

Q Will you give the Examiner a brief summary of your educational and professional background, please?

A I have a BS degree in petroleum production engineering from the university of Pittsburg. I have been employed by the Skelly Oil Company for about twelve years as production engineer. I have been employed by the Ibex Company for approximately six months as water flood engineer.

Q In your capacity as water flood engineer working in the field --

A Yes.

Q --are you in charge of the operations in the Artesia Water Flood Project of the Ibex Company?

A That's correct, yes.

MR. CAMPBELL: Are the witness' qualifications acceptable?

MR. UTZ: They are, yes.

Q (By Mr. Campbell) Are you acquainted with the application of the Ibex Company in this case?

A Yes, I am.

Q Will you state to the Examiner what you, generally what you expect to do without going into the mechanical operation?

A We want to put three of these leases where we are water flooding, around Section 28 of 18 South, 28 East, put these leases on lease automatic custody transfer.

Q Will you refer to what has been identified as Exhibit, Ibex's Exhibit No. 1 in this case and state what that is please?

A We have three leases on which we are conducting water flood operations, and our Resler Yates State is outlined in purple. Our McNutt State is outlined in yellow, and the Welch Duke State is outlined in green. We have tank batteries for each of those leases located in the, along the North line of Section 28, right in the northeast corner of the NE/4 of the section. We would like to put those batteries on automatic custody transfer so that the oil would automatically be processed through treaters into a sales tank and metered from the sales tank to the pipeline.

Q Where will your LACT unit be situated then in relation to your tank battery there?

A It would be located in the center of the batteries that are located in that area.

Q Have you shown on Exhibit No. 1 where that location would be?

A Yes.

Q Is it identified with a small rectangular diagram?

A And marked LACT, yes, in that location.

Q Now, go ahead and return to your seat there. I also hand you what has been identified as Ibex Exhibit No. 2 in this case and ask you to state what that is?

A Exhibit 2 is a discussion of the operational sequence of the automatic tank battery, and has with it a schematic diagram showing the process of the oil through that system.

Q Are you acquainted with the operation of similar LACT units by the Graridge Company and Ambassador in the Caprock field?

A Yes, I am. Those are similar to this system and have previously been approved by the Commission.

Q Is there any material difference in the operation of the system you propose here and the systems that have been approved by the Commission in the Caprock?

A No, sir, there is not.

Q Would you state briefly in connection with your statement on Exhibit 1, which was also attached to the Application,

will you state briefly how this proposed system would operate, particularly with reference to the three leases going into one unit?

A Well, we have three separate units there, one for each lease. The oil, of course, goes into the treater where the water is separated. From the treater the oil goes to the monitor tank which has a capacity of approximately sixty-five gallons, goes into this tank through a down comer that is perforated. From the middle of this tank, mid point, a two inch tube is taking the oil out to the external part of the tank where the oil comes down to a probe, BS & W probe, monitor. This monitor records or keeps track of the amount of BS & W that is in the oil. A small rotary gear pump transfers that oil through that monitor and back to the bottom tank. If at any time the BS & W content exceeds what is set forth, for example one percent, an automatic valve that leads out from that monitor tank closes, and the pump, circulating pump automatically circulates the oil back from the monitor tank through the treater to be retreated.

As long as the oil is below the limit set on the monitor of one per cent, or whatever it is set down, to five-tenths of one per cent, the oil fills up the monitor tank and goes through the pipeline, the line with the automatic valve to the sales tank, which is a 210 tank, and from that point, the oil is pumped through into a skid unit on which is mounted an automatic sampler which takes a sample of each barrel as the oil goes through it and saves

it in a pressure controlled container from which later on it will be taken, a sample, for centrifuge to determine the BS & W content. After passing through the sampler, the oil goes through a strainer to take out any materials that might be injurious to the meter. From the strainer it goes to a deaerator to take any intrain gas or air where you have solid fluid going through the meter and to insure accurate measurement by the positive displacement meter. After going through the meter, the oil goes through a back pressure valve which maintains a constant pressure on the pump in order to insure accuracy of the meter and from then on it goes into the pipeline.

Q Now, in your experience in connection with the operation of these systems, is it your opinion that the oil in each of these leases can be accurately measured and controlled by the use of this automatic custody transfer equipment.

A Yes, sir, it is.

Q Now, there are three separate leases involved here, am I correct in my understanding that you will use separate tank batteries for each lease and separate LACT units for each lease?

A That is correct.

Q There will be no commingling of the oil from one lease to the other?

A That is correct.

Q So that if there should happen to be separate beneficiaries on the royalty in those state leases, their royalty oil will remain

identifiable in each separate system, is that right?

A Yes, sir.

Q In your opinion, will the approval of this application result in more efficient operation of the water flood project involved?

A Yes, sir, it will require less time for the operators of the units, so that they can spend their time elsewhere.

Q Has this matter been discussed with purchaser of the oil from this particular flood?

A Yes, sir, Malco Refining. Malco Pipeline Company takes the oil and they have indicated that they will approve this type of installation.

MR. CAMPBELL: I would like to offer Ibex's Exhibit No. 1 and 2 in this case in evidence.

MR. UTZ: Without objection, Exhibit 1 and 2 will be accepted.

MR. CAMPBELL: That's all I have at this time, Mr. Examiner.

MR. UTZ: Any questions of the witness? Mr. Payne.

CROSS EXAMINATION

BY: MR. PAYNE:

Q Can you tell me where the batteries are located on each of those leases?

A The batteries are located right around that corner, the northeast corner of the southwest -- I mean, of the northwest

quarter of Section 28. Actually, the tank battery is just over the line for the McNutt State lease and for the MRY, Resler Yates State lease and the battery for the Welch Duke State is on the south side of the line. They are all within one hundred feet or so of each other.

Q So that your application is correct in saying that the battery on the Resler Yates Lease is on the Southeast of the Southeast of 21, or is actually in 28?

A You are correct, it is actually in the SE of the SW of 21. However, the skid unit for the lease automatic custody transfer is in Section 28.

Q Now, what is the orange outline?

A That is a separately owned lease.

Q Has no bearing on this particular hearing?

A Has no bearing on this thing, yes.

Q Now, where is the Welch Duke State Lease battery to be located?

MR. CAMPBELL: Mr. Examiner, these batteries are presently located at the points you are referring to now, isn't that correct?

A Yes.

MR. CAMPBELL: They are there now?

MR. PAYNE: I understand there isn't going to be but one battery.

MR. CAMPBELL: There are three batteries.

MR. PAYNE: You intend to have three batteries?

MR. CAMPBELL: Yes.

MR. PAYNE: What I want to find out is where they are.

MR. CAMPBELL: He can tell you where they are. You are referring to where they would be. I simply want to point out where they are presently. Would you tell him where the Resler State tank battery is, please?

A The Resler State tank battery is in the SE of the SW/4 of Section 21, as also is the battery for the McNutt State, the battery for the Welch Duke State is in the NE corner, extreme NE corner of the NW/4 of Section 28.

Q (By Mr. Payne) In other words, they are all there in the immediate area, but there are three separate batteries?

A That's right.

Q And continue to be separate batteries?

A Yes, sir.

Q And each battery is on a separate lease?

A No, they are not on separate leases, but they are located very, very close together, within two hundred feet. Each battery is on their separate leases, except the Resler Yates State, and it is on that McNutt State Lease.

MR. PAYNE: That's all.

EXAMINATION BY MR. UTZ:

Q The Resler Yates State will be the only one that crosses the lease line before it goes into a tank battery?

A Yes, sir.

Q Mr. Chapman, is the royalty and working interest in each of these three leases common to each lease?

A The three leases are separate, have separate royalty interest, but the whole lease has a common royalty interest.

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

EXAMINATION BY MR. FISCHER:

Q Mr. Chapman, the sale of your oil, will it be a continuous process in that as you fill your first tank as shown here, the first sales tank, it will automatically go to the pipeline?

A Yes, sir.

Q In other words, you, in most instances, wouldn't have occasion to fill a second or third tank, as your first tank fills up it will drain to the pipeline?

A That's right, the only reason for the other two storage tanks is in the event there is malfunction of the automatic custody transfer. On normal operations, those two tanks will be used.

MR. FISCHER: Thank you very much.

EXAMINATION BY MR. UTZ:

Q Mr. Chapman, will your company be willing to make a thirty day meter test until further notice from the Commission?

A Yes, sir.

Q Mr. Chapman, are all of these wells pumping, or are some of them flowing?

A They are all pumping wells.

Q They are all pumping wells. In case of malfunction of the LACT system, what will shut in the well?

A Well, the wells will not be shut in. They are lower-- The oil will be diverted over into all three storage tanks, and if it happens that they will not be able to meter it, then they will go back to the conventional system of gauging each of the tanks.

Q Do I understand that there is no shut off, emergency shut off at the header ahead of this LACT system in case your BS & W gets too high or in case the meter goes bad or some other malfunction?

A If the BS & W goes too high, or there is malfunction, the oil will not go through the automatic meter.

Q Goes directly to the tank?

A It will be retained in the tank.

Q In the event -- Well, first let me ask this, under those conditions, will there be any, what would the pressure be on your flow lines to the LACT system or tank?

A Well, it will be equal to the pressure kept on the treater which will be less than ten pounds.

Q Wouldn't be any more than ten pounds?

A No, sir.

Q In that regard, there will be no more pressure on the flow lines of this system than there would be under an ordinary central tank battery system?

A That's correct, yes.

MR. UTZ: Any other questions of the witness?

MR. FISCHER: Yes, I have one.

MR. UTZ: Mr. Fischer.

EXAMINATION BY MR. FISCHER:

Q I notice that you don't have equalizing lines, doesn't seem to be any equalizing lines shown, so if your No. 1 sales tank fills up for any malfunction of the system, the pumper would have to open up the other plug valves or the other valves to this No. 2 tank? Is that right?

A No, sir, in case of any malfunction of the system, the automatic valve indicated on the sketch as V-3, between the monitor tank and the sales tank would automatically close. In this case the monitor tank would continue to fill up until it reached the upper line, and the oil would then proceed through that line to the other tank.

Q All right. In normal operation, would your valve V-10 and V-11 be opened or closed?

A They would normally be opened.

MR. FISCHER: Thank you.

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

(Witness excused.)

MR. CAMPBELL: That's all we have, Mr. Examiner.

MR. UTZ: Any other statements to be made in this case?

MR. PAYNE: I have one, Mr. Examiner. We received the following communication from Malco Refineries which reads as follows:

"We have no objection to application of the Ibex Company automatic custody transfer system in Artesia Field. Malco Refineries, Inc., W. B. McCombs."

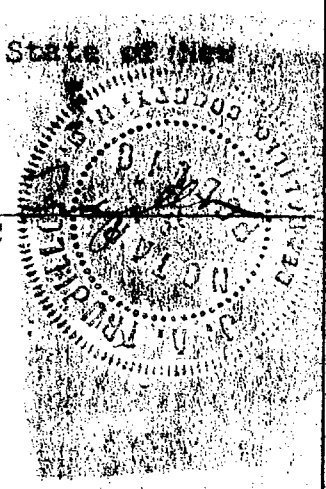
MR. UTZ: Any other statements to be made? If not, the case will be taken under advisement.

STATE OF NEW MEXICO)
)
 COUNTY OF BERNALILLO) ss

I, Joseph 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, and that the same is a true and correct record, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 10th day of February, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
 NOTARY PUBLIC



My Commission Expires:

October 5, 1960

ILLEGIBLE

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1589, heard by me on *Feb 7*, 19 *59*.
Elmer A. [Signature], Examiner
 New Mexico Oil Conservation Commission