BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1645

TRANSCRIPT OF HEARING

April 22, 1959

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BEFORE THE
OIL CONSERVATION COMMISSION
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APRIL 22, 1959

IN THE MATTER OF:

CASE 1645 Application of Sinclair Oil & Gas Company for permission to commingle the production from three separate pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Monument-McKee Gas Pool, the Eunice-Monument Pool, and the Monument-Blinebry Pool on its J.R.Phillips "A" Lease consisting of the SW/4 of Section 31, Township 19 South, Range 37 East, Lea County, New Mexico.

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. NUTTER: Take next Case 1645.

MR. PAYNE: Case 1645. Application of Sinclair Oil & Gas Company for permission to commingle the production from three separate pools.

MR. WHITE: If the Commission please, I am Charles White of Gilbert, White & Gilbert, Santa Fe, New Mexico, appearing on behalf of the applicant.

(Witness sworn)

R. M. ANDERSON,

called as a witness, having been first duly sworn on oath, testi-

fied as follows:

DIRECT EXAMINATION

BY MR. WHITE:

Q Mr. Anderson, will you state your full name for the record, please?

A Richard M. Anderson.

Q And by whom are you employed and in what capacity?

A Sinclair Oil & Gas Company as senior petroleum engineer in their Midland division office.

Q Mr. Anderson, have you previously testified before this Commission?

A I have.

MR. WHITE: Mr. Examiner, are Mr. Anderson's qualifications acceptable?

MR. NUTTER: Yes, sir, they are. Please proceed.

Q Mr. Anderson, are you familiar with the subject application in Case No. 1645?

A I am.

Q Will you state where Sinclair's Phillips "A" Lease is located and in what pool?

A Sinclair's J. R. Phillips "A" Lease is a 160-acre lease, and it occupies the SW/4 of Section 31, Township 19 South, Range 37 East, Lea County, and it is in the Monument-Multi pay field area.

Q Who are the offset operators, if you know?

A We have three offset operators, Gulf, Amerada, and Texas Company.

Q What production are you presently obtaining from the recently completed Well No. 8?

A The well at present is shut in, but it had 4. back pressure test run on it, and it tested at four million, nine hundred sixty-three cubic feet per day, produced distillate at a rate of 25 barrels per million.

Q Mr. Anderson, do you have a diagramatic sketch showing the present physical batteries on this lease?

A Yes, sir, I do.

(Thereupon, Applicant's Exhibit No. 1 was marked for identification.)

Q Will you refer to what has been marked Exhibit No. 1 and explain what it is?

A This diagramatic sketch of the lease shows the wells that are on the lease, shows the relative location of the tank battery. Wells 1, 2, 3 and 4 are completed in the Eunice-Monument Oil Pool, Monument areas. Wells 5 and 7 are completed in the Monument-Blinebry Oil Pool. And Well No. 8 is a recent completion in the Monument-McKee Gas Pool. Well No. 6 is a Eumont Gas Pool. gas well.

Q And you propose to commingle production from all of these wells?

A Propose to commingle the Monument-Blinebry crude.

the Eunice-Monument crude, and the Monument-McKee distillate.

Q Do you have a diagramatic sketch that would show the proposed facilities that you intend to install?

A Yes, I do.

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

Q Will you refer to what has been marked Exhibit No. 2, state what it is and explain it?

A Exhibit 2 reflects the flow line and battery installation. If our application is granted, we will salvage and recover two of 500-barrel tanks that are presently installed. It will not be necessary to set additional new tankage for the distillate Well No. 8. We propose to set either an LTX unit or conventional separation equipment for Well No. 8, and after separation we propose to meter the distillate, and commingle it into common tankage with the Monument and Monument-Blinebry crudes.

Q Will you trace the flow of production on this new installation?

A The wells 1, 2, 3 and 4 in the Eunice-Monument Oil Pool are shown to flow to one point, which is the header, and from the header the crude flows through a separator. From the separator it flows through a heater treater. It will come out of the heater treater and be metered prior to being stored in the three 500-barrel storage tanks that we have on the lease. Wells 5 and 7 are the Blinebry Wells, and they have not been flowing

through a separator and will not flow through a separator after the battery is changed, but they flow directly into a heater treater, and the oil coming from the heater treater will be metered prior to storing it in the 500-barrel tanks. And likewise, with Well No. 8, the distillate separated from the Monument-McKee Gas Field will be metered prior to commingling and storing in those same 500-barrel tanks.

Q And are we to understand from your testimony that the production will be metered from each producing formation?

A Yes, we propose to meter the production from all three zones before commingling.

Q What type of meters do you intend to install?

A Well, positive displacement meters that are in usage in Lea County at the present by Shell and Phillips and Pan American, among others.

(Thereupon, Applicant's Exhibit No. 3 was marked for identification.)

Q Now, I refer you to what has been marked as Exhibit No. 3. Will you state what that is and explain it to the Examiner, please?

A Exhibit 3 reflects most of the pertinent information concerning these crudes, and it is a calculation showing the increased product value as a result of commingling the three crudes. The top half of the Exhibit I have calculated the selling price of the crudes if they were sold separately. And we -- this

Exhibit reflects that we are producing about 1100 barrels per month of 32 gravity sour Monument crude for a selling price of $2,985. The Blinebry crude, we are currently producing about 600 barrels a month. It is 39 gravity and it is sweet. However, there is not a sweet crude line in the area, and all the crude that is picked up in this area is picked up in the sour line, and the sour price is paid, so I've calculated the selling price because of the selling price seven cents differential, and it comes out $1,750. The McKee distillate is 76 gravity and sweet, and I estimate that this well is 9,500 feet deep. I estimate that if we were to have an allowable of a million feet a day that we would then produce 25 barrels of distillate a day, a total of 750 barrels of distillate a month, and the selling price of that distillate would be subject to a twenty-two cent penalty by virtue of its high gravity. And the selling price of that distillate would be $2,045 for a total of $6,780, if sold separately into a sour line.

Then I have shown my calculation for the gravity of the mixture. And using the same amounts that I used above, and I find that gravity calculates out 45.4 degrees, which is subject to a two-cent penalty for being above a full -- a full degree above 44 degrees gravity. It is a two-cent penalty for high gravity, and the selling price of the mixture would be $7,180. And this Exhibit reflects that the additional value of the mixture would be $400 a month.

MR. WHITE: At this time we move the introduction of Exhibits 1 through 3.

MR. NUTTER: Without objection, Sinclair's Exhibits 1 through 3 will be admitted.

(Thereupn, Sinclair's Exhibits 1 through 3 were marked in evidence.)

Q Mr. Anderson, is the ownership interest common as to all zones?

A Yes, it is.

Q In your opinion, will the proposed installation provide an accurate and positive method of measuring the production from the various zones?

A Yes, sir, I believe it will.

Q Does one pipe-line take all the production?

A Yes, it does.

Q Has the Commission previously approved similar installations and equipment that you propose to install?

A Yes, I believe it has.

Q Will your facilities be such that you can test each well at least once a month?

A Yes, they will.

Q How often do you propose to test the accuracy of your meters?

A At first and until we are satisfied with the installation, we will check them very often until we are satisfied. How-

ever, I would like to recommend to the Commission that we not be required to file calibration checks on the meters officially more often than once every six months.

Q What economic advantage will Sinclair gain by the granting of this application in addition to the increased market value of the product to which you have already testified?

A Well, we will salvage two existing 500-barrel tanks, and we will not have to purchase and install tankage for the distillate, and that total saving would be offset by the cost of three meters. But taking the cost of the meters into account, we would save over $6,000 in equipment, if this application were granted.

MR. WHITE: We have no further questions on direct examination.

MR. NUTTER: Any questions of Mr. Anderson? Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Anderson, I note that you have five tanks at the present time, is that correct?

A Yes, sir.

Q And if this application is granted, you will have three, releasing two for use elsewhere?

A Yes.

Q Would that tankage be adequate, the three tanks?

A Yes, I believe that it will. They are 500-barrel

tanks, and the total production on the lease is 2,450 barrels per month, and we feel that three tanks would be more than adequate.

Q Now, you propose to use positive displacement type meters. We recently had a situation, Mr. Anderson, where we issued an Order granting the use of positive displacement meters, and it subsequently turned out that they were not accurate. So the applicant wanted to switch to dump type meters and necessitated another hearing, the point being since the Commission has previously approved both types, it is sometimes better not to make your application too specific. Would you have any objection to an Order which would say that you could use positive displacement meters or dump type meters?

A No, sir, we have no objection to the Order. In fact, I think we would prefer it.

MR. PAYNE: That's all. Thank you.

QUESTIONS BY MR. NUTTER:

Q Mr. Anderson, what is this LTX unit that you propose for the No. 8 Monument-McKee Well?

A Well, we are not sure at this time whether we will set the LTX unit. It is a low temperature extraction unit. It works with -- combination of the heater and high pressure separator and heat exchanger, and it is a more efficient method of separating the distillate from the gas. It depends upon the analysis of the gas, the amount of light ends. If the gas is rich in light ends, the LTX unit will be very satisfactory and will be well worth setting.

However, there are certain difficulties that are encountered in its use, and we have not -- I thought we'd decided to use it then, and I was advised after the Exhibit was prepared that we may use conventional separation.

Q In any event, you will get adequate separation so that this production that goes through the meter will be liquid and solely liquid?

A There will be at least two stage separations, in either case, yes, sir.

Q Now, I note that you don't have a separator on the Blinebry production; I think you so stated. Doesn't this produce any gas, or does the heater treater remove all the gas?

A The heater treater does remove all of the gas very efficiently and effectively, and has been for years.

Q And you think that the production that comes from the heater treater is solely liquid and can be metered efficiently?

A Yes.

Q Mr. Anderson, in the event that a sweet gathering system should be installed in the area, this perhaps would be due for a review to determine whether it would be advisable to commingle this sweet and sour production, wouldn't it?

A No, I believe that I reviewed that possibility even though it is very remote prior to the hearing, and in recalculating the ceiling price of the Blinebry crude and the McKee distillate, which are sweet, recalculating them with the sweet price, I find

that we would get $90.00 a month more for those two crudes which makes my additional value of the mixture only $310 instead of $400. So, the picture is substantially the same,in either event.

Q You still feel that this would be preferable from a standpoint of economics, if you had an opportunity to sell the sweet crude separately?

A Yes. If we had that opportunity, we would gain $310 a month more by commingling than we would by selling separately in the sweet line. By commingling and selling the sour line, we would still gain $310 more for the mixture than we would for the individual products.

Q Do you encounter any difficulties in using a positive displacement meter to measure sour crude?

A No. I checked on the corrosiveness of the crude, and I was advised that it was not severely corrosive and it would not bother the meter, and that there would be no difficulties encountered by virtue of it being sour.

Q You are aware, Mr. Anderson, that the Commission heretofore has always required that the meters be tested at least once a month?

A I know it has occasionally. I don't know that you have always required that. In that respect, I might further state that these products will be sold to pipe-lines with conventional tank gauging methods. These meters will be used to proportion the products to the different fields and not determine the quantity

to be sold, so I feel that they are less important to that extent.

MR. NUTTER: Any further questions of Mr. Anderson?

MR. PORTER: Mr. Nutter, I was talking to Mr. Payne and Mr. Anderson was discussing this matter, I believe, this matter of calibration, so I didn't hear the discussion.

QUESTIONS BY MR. PORTER:

Q Has your company experience with positive displacement meters of that type either been such that you think it would warrant six months' calibration instead of monthly or quarterly?

A I stated earlier in my testimony that we would calibrate them very frequently at first until we were satisfied as to their accuracy, and we probably would calibrate them for our own information on a monthly basis even after we were satisfied. I am sure we would.

Q But you wouldn't want the monthly requirement written into the Order?

A I feel from an administrative standpoint, to reduce the paper work and the formal reports, that six months calibrations would be sufficient. We certainly, as a prudent operator, would be interested in the meters being accurate at all times.

MR. PORTER: That's all the questions I have.

MR. NUTTER: Mr. Utz.

QUESTIONS BY MR. UTZ:

Q Mr. Anderson, what are the No. 5 and No. 8 Wells producing from?

A No. 5 is a Monument-Blinebry Well. On my plat I've shown the well numbers at the top of the plat and the field that they produce from. I've not shown Well 6, which is a Eumont Gas Pool Well, and is not involved in this application.

Q Nos. 1, 2, 3 and 4 are Monument Oil Wells, which produce sour crude?

A Yes, sir.

Q Are your stock tanks galvanized tanks?

A I'm almost certain they are. They are bolted tanks, and I believe that they would have to be galvanized.

MR. UTZ: That's all I have.

QUESTIONS BY MR. FISCHER:

Q Mr. Anderson, do you have any idea as to the approximate range of sourness or degree of HTS of the mixture?

A No, sir.

Q Have you actually mixed these crudes together and tested them?

A No, sir.

Q This No. 8 Well on your Exhibit here shows it to be plugged and abandoned, is it?

A No, that is our gas well exhibit symbol.

MR. FISCHER: Thank you. That's all.

MR. NUTTER: Any further questions of Mr. Anderson? You may be excused.

(Witness excused)

MR. NUTTER: Do you have anything further, Mr. White?

MR. WHITE: That's all, sir.

MR. NUTTER: Does anyone have anything further in Case 1645? If not, we will take a ten-minute recess. Take the case under advisement first.

STATE OF NEW MEXICO)
) ss
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 Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, 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, the 29th day of April, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
NOTARY PUBLIC

My Commission Expires:
October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1645, heard by me on 4-22, 1959.

Examiner
New Mexico Oil Conservation Commission