

BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO OCTOBER 2, 1958 IN THE MATTER OF: : CASE 1518 Application of Magnolia Petroleum Company for permission to commingle production from : two separate oil pools. Applicant, in the : above-styled cause, seeks an order authoriz -: ing it to commingle the production from the : Wantz-Abo (oil) Pool and Terry-Blinebry Oil : Pool on its Stephens Estate Lease comprising: the SW/4 of Section 24, Township 21 South, • Range 37 East, Lea County, New Mexico. : BEFORE: Mr. Elvis A. Utz, Examiner. <u>T R A N S C R I P T</u> OF PROCEEDINGS MR. UTZ: The hearing will come to order, please. The next case on the docket will be Case 1518. MR. COOLEY: Case 1518. Application of Magnolia Petroleum Company for permission to commingle production from two separate oil pools. MR. SPERLING: I am J. E. Sperling of Modrall, Seymour, Sperling, Roehl & Harris, Albuquerque, appearing for the applicant. I have one witness, Mr. Sanders. (Witness sworn) MR. UTZ: Any other appearances in this case? If not. you may proceed.

#### JOHN L. SANDERS,

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

# DIRECT EXAMINATION

BY MR. SPERLING:

Q Will you state your name, please?

A John L. Sanders.

Q By whom are you employed, Mr. Sanders?

A Magnolia Petroleum Company.

Q Have you testified on previous occasions before the Commission and been accepted as a qualified expert?

A I have.

Q Mr. Sanders, the application filed by your company herein requests exceptions to State Rule 303, and requests an order of the Commission for permission to commingle production from separate formations as to the lands identified in the application. I hand you what has been marked as Magnolia's Exhibit 1, and ask you if that indicates the location of the lease in question as well as the offset operators?

A Yes, this Exhibit 1 locates Magnolia's lease, the Stephens Estate, in the southwest of Section 24, Range 27 East, 21 South -- Township 21 South.

Q Will you explain what you propose to do in the event that the application is granted?

A In the event the application is granted, we propose to

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meter the oil production from the Wantz-Abo and commingle it with production from the Terry-Blinebry, using the measured volume of the Abo to establish the breakdown between the two zones. 4

Q What system do you propose to employ in order to accurately measure the production from the two separate formations?

A We propose to use a three-phase separator heater treater on the Abo and to use an approved dump type metering vessel or a positive displacement meter to measure the oil.

Q Have you identified the zones from which this lease is presently producing?

A No, I haven't. This lease is presently producing from the Terry-Blinebry Oil and the Wantz-Abo Oil.

Q How is the production from these two formations being handled currently?

A Currently, we have three low five hundred bolted steel tanks and two separators; one three by eleven and one three by thirteen. The production from the Abo goes through one separator and to two of the tanks. The production from the Blinebry goes through one separator and to one of the tanks temporarily until this approval -- until this application can be acted upon.

Q Now, I call your attention to what has been marked as Exhibit No. 2, and ask you to explain what information is shown on that Exhibit?

A Exhibit 2 shows the lease Magnolia operates as the Stephens Estate. The zones, the Wantz-Abo, which includes Well No.

the Terry-Blinebry, which includes Well No. 2 presently with 1, Well No. 1 to be dually completed; we received permit DC 651 to dual the No. 1, shows the gravity of the Abo to be 42.3, and of the Blinebry to be 43.6. Although it doesn't show it, both zones are sweet. The production rate on the Abo is 21 oil, 5 water with 2762 to 1 GOR. The production from the Blinebry Well is 47 oil, no water with 1647 to 1 ratio. That 47 is top allowable. The well is capable of producing up to 100 barrels a day. The equipment presently that will be used shows three low five hundred bolted steel tanks; one three by eleven National separator, and one three phase separator for the Abo zone with either dump type meter optional or positive displacement meter to be used if a dump type meter is not used.

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Q What is the reason for the listing of optional equipment that you propose to use?

A That's to give us flexibility in case the need for a heater treater develops for the Abo. At present, there is no facility for dumping the free water from the Abo. It is bled from the tanks, and although it is possible that the three-phase separation will drop the water out, it may at some future time require us to set the heater treater, and we propose to use a positive displacement meter in preference to a dump vessel built into the heater treater, although in three-phase separation, the metering vessel will be incorporated in the vessel itself.

Q I see. Is there common royalty interest ownership as to

all of the zones that are productive, in fact, the entire lease?

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A Yes, there is one royalty owner, and Magnolia owns the working interest one hundred percent.

Q In your opinion, Mr. Sanders, will the system of measurement which you propose to install provide an accurate and positive method for measuring the production from the two zones, including, of course, the dually completed well?

A Yes, it will. The continued metering or measuring of the production from the Abo will give us a breakdown of the production from the two zones.

Q Do you -- does your company expect to enjoy an economic savings as a result of such a system?

A Yes, we will enjoy an economic savings, as well as an economic cost savings. The elimination of acquiring or setting up of another battery will be the present economic savings, and the maintaining of an extra battery and the gauging of such will save on operating cost.

Q I hand you what has been identified as Exhibit No. 3, and ask you if that is a recapitulation of the savings which you have computed or estimated as resulting from the installation of the program or system that you have testified concerning?

A Yes. Exhibit 3 is a recapitulation of estimated savings to elimination of an extra tank battery. The initial -- the extra cost of a metering system or a dump type metering vessel is listed under cost, and the savings due to the elimination of an extra tank battery is listed under savings.

Q When was the No. 2 Well completed, approximately?

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A July of 1958.

Q By effecting the economic savings that you have described, Mr. Sanders, is it your opinion that such a saving will result in the prevention of waste?

A Yes, by use of this commingling, we will be able to produce the Abo to a lower barrel per day before abandonment due to the savings in operating cost. The Abo is very nearly depleted. We estimate two-year life left.

Q Mr. Sanders, do you know of instances where a system similar to the one which you propose has been approved by the Commission?

A A system similar to the one I have proposed has not been approved by the Commission, but the Commission has approved systems that require less metering, where they allowed commingling on tests in five previous cases. This commingling with this continuous metering, in my opinion, gives us a more accurate check of the breakdown.

Q Do I understand that the metering will be applicable to the production from the lower zone?

A From the lower zone in the dual completion.

Q In the dual completion. And the production from the upper zone will be on the basis -- I mean will be measured on the basis of tank measurement and differential as against the metered production?

A That's right.

Q Do you have anything further to add, Mr. Sanders, with reference to the proposed system; its operation, maintenance, and so forth?

A Nothing other than the -- that as in previous allowances of exceptions to Rule 303, we would, of course, comply with the monthly test requirement of each well, and submit all of C-115 complete, as it is required.

MR. SPERLING: That's all at this time. We will offer at this time Exhibits 1, 2 and 3 at this time.

MR. UTZ: Without objection, they will be received. Are there any questions of the witness?

### CROSS EXAMINATION

BY MR. FISCHER:

Q Mr. Sanders, does the same pipeline take both type crudes?

A Presently taking both crudes.

Q Do you know how many tanks of oil have been run from this Terry-Blinebry tank battery?

A We have not quite made our allowable due to having to run that one tank of oil. We've not quite got out during August, and we are going to lack just a little bit going out. In other words, we produced very nearly the allowable that has been assigned.

Q You say you have never filled a tank of oil from that Terry-Blinebry?

A I say we have produced our allowable. We've not quite produced it due to the shutdown.

Q Have you experienced very many days' delay, say, at your longest time, you know, from filling the tank with Terry-Blinebry oil to getting the run?

A Two days' delay is about what we've experienced due to the fact that we just have the one tank.

Q How long does your pipeline that takes the oil at that battery or either one of the batteries require that this crude be weathered at the present time? Do you have any idea?

A Well, I know that we've shut down one morning, and then they take it that day. In other words, when we fill the tank. As soon as the gauger gets there, they put it on, something like six hours or less.

MR. FISCHER: That's all.

MR.UTZ: Any other questions of the witness?

MR. COOLEY: I have a few.

MR. UTZ: You may proceed.

### QUESTIONS BY MR. COOLEY:

Q Mr. Sanders, I don't understand entirely the figures depicted on your economic portrayal here; Exhibit 2, is it?

- A 3.
- Q 3?
- A Yes.

Q How much savings over and above the present two tanks

set up would you enjoy, if you were permitted to install the proposed equipment?

А Our present setup is strictly temporary, you realize In other words, we set three tanks in anticipation. that. The three tanks will be sufficient for the two zones. The two tanks we had originally were for the Abo. We set one tank to make it sufficient for the three zones. If this request were not granted, we would require the installation of a three-tank battery or set up two more tanks. In other words, to handle the production from the Blinebry, a three-tank hookup, and, of course, we have already installed one tank, so we would be saving two tanks, the connection for these two tanks, the dirt work to set up, or the pad, fencing material, coating of the tanks, trucking and labor. Of course, we will still require the separator which we would have to put in for that battery. The additional cost is the cost of the metering equipment, and those two subtracted from the cost savings from the two tanks gives us a net savings of 7340 or 7650, depending on which system we install.

Q The Commission requires that you meter the production from both wells. How much would that cut down in savings?

A Approximately five hundred dollars.

Q That would be about the same figures that you have up here on cost?

A That's right. We wouldn't require any three-phase separation of the zones at present. The additional cost would be meter dump valve and labor.

Q In other words, there will still be a considerable savings?

A Considerable savings if we had to meter both zones, right.

Q I am not aware of the order that you referred to where they permitted commingling as a result of requiring periodic tests. On recent dates the Commission has been requiring installation of meters on both wells, and in the event that they saw fit to continue that policy, Magnolia would still pursue --

A We would still install the system.

Q Can you compare the advantages and disadvantages of two meters as compared to metering one and gauging the difference?

A It saves the reading of one meter and the additional -the initial expense of installation and expense of maintenance is all. It is not much extra effort on the pumper's part, it saves small expenses and in maintenance expense.

MR. COOLEY: I have nothing further.

QUESTIONS BY MR. UTZ:

Q Mr. Sanders, I am not clear now. I thought I was, but I don't seem to be at the moment, which one of these is the dual completion.

A The No. 1 will be the dual completion. It has presently been approved under Order DC-651. It is not presently dually completed, however, and it is not shown as a dual completion on the plat. Exhibit 2 shows the Well No. 1 on the Abo, and the Well No. 1 on the Terry-Blinebry to be dually completed.

Q And the No. 2 is now a Terry-Blinebry Well?

A The No. 2 was drilled through the Abo and plugged back and completed as a Terry-Blinebry Well.

Q It is a single completion?

A It is a single completion. The Tubb, Drinkard and Abo were dry on that well.

Q And you intend to commingle the Terry-Blinebry oil from the No. 2 and No. 1 Wells in this system?

A That's right, with the Wantz-Abo.

Q In the event that you go the route that you have proposed here, the oil will be commingled from both pools before metering takes place, is that correct?

A No. The oil will be -- the two Blinebry oils will be commingled before metering takes place, but the Abo will be metered prior to commingling.

Q The Terry-Blinebry oil will go into the tanks directly?

A To the separator and into the tanks directly.

Q The Abo will be --

A The Abo will be metered, and the difference will be the Blinebry production.

Q Actually, the oil from both pools will be commingled --

A That's correct.

Q -- before both are metered?

A That's right, before both are metered. I see your question now.

Q In the event you install the dual metering equipment, would you install that equipment in such a manner that both pools would be metered before commingling of the oil?

A Yes, both pools would be metered separately before commingling.

Q There would be no possibility of commingling the pools before metering?

A No.

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

(Witness excused)

MR. UTZ: Are there any other statements to be made in this case? If not, the case will be taken under advisement.

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# <u>CERTIFICATE</u>

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/or 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 and Seal, this, the  $2^{\frac{44}{2}}$  day of 0

<u>- A</u> Notary rublic

My Commission Expires: October 5, 1960.

I do hereby certify that the foregoing is a constant raised of the proceedings in the Endener Lorring of Case No. 1. 57. 8. heard by is an / Q - Z 1958. ., Examiner

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