

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
NOVEMBER 30, 1960

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IN THE MATTER OF:

CASE 2133 Application of Humble Oil & Refining Company for :  
an automatic custody transfer system and for an :  
exception to Rule 309 (a). Applicant, in the :  
above-styled cause, seeks permission to install :  
an automatic custody transfer system to handle :  
the Gallup production from an undesignated Gallup :  
pool from all wells presently completed or here- :  
after drilled on its Navajo "L" Lease consisting :  
of all or portions of Sections 25, 26, 35 and 36, :  
Township 29 North, Range 14 West, San Juan County, :  
New Mexico. :  
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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: Case 2133.

MR. MORRIS: Case 2133. Application of Humble Oil & Re-  
fining Company for an automatic custody transfer system and for an  
exception to Rule 309 (a).

MR. BRATTON: Howard Bratton, appearing on behalf of the  
applicant. We have one witness, Mr. Lee Perry. I will ask that  
the record show he has already been sworn.

LEE N. PERRY,

called as a witness, having been previously duly sworn, testified



as follows:

DIRECT EXAMINATION

BY MR. BRATTON:

Q You are the same Lee Perry who testified in Case 2132?

A Yes, sir.

Q You are familiar with the area and the installation proposed in Case 2133?

A Yes, sir.

Q What is the purpose of the application in Case 2133?

A We wish to obtain an exception to Rule 309 (a) for permission to store the production for more than sixteen wells in common tankage, and permission to use automatic custody transfer for the production from all present and future wells producing from an undesignated Gallup pool, which, by the way, is the same area I believe you will have under advisement in the extension of the Chacha Gallup. This is on Humble's Navajo "L" Lease and six miles south, southwest in Farmington, San Juan County, New Mexico.

(Whereupon, Applicant's Exhibit A was marked for identification.)

Q This is reflected on Exhibit A, Mr. Perry?

A Yes, sir, the Navajo "L" Lease is shown in yellow on Exhibit A. However, we are only concerned at this hearing with the northern part, Sections 25 and 26, 35 and 36, Township 29 North, Range 14 West. As I said, the proposed extension of the Chacha Gallup cuts diagonally across these four -- diagonally south-

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east across these four sections. The producing wells at the present 1, 2, 3 and 4 and 5, I suppose to show that 5 is also a producer as of now, are shown in black on Exhibit A, and the tank battery in the south part of Section 26.

Q Are wells 6, 7 and 8 currently drilling?

A 6 is probably in the process of being completed. We've already set casing on it, and looks like it will certainly be a good full well. We should be moving in on 7, and 8 will come next.

Q Why did you complete an automatic custody unit here, Mr. Perry?

A If the extension of the Chacha Gallup is approved, our lease here will produce something like 2500 barrels per day, which we require, according to our rule of 410 10,000 barrels tankage, conventional operation with the automatic custody propose two 2500-barrel tanks to be adequate. A certain amount of cleaning loss in the tanks will be avoided by using automatic custody transfer, and labor for both the operator and pipeline company in rather distant areas will be reduced.

(Whereupon, Applicant's Exhibit B was marked for identification.)

Q Refer to Exhibit B, Mr. Perry, and explain the type of automatic custody transfer unit proposed.

A The automatic custody transfer unit we are proposing to use is a very conventional unit. To begin with, let me direct you to just run through it here. If you start there at the top left,



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the flow lines come in to the header, and production will move to the right, through the lease shut-in valve, through the separators and into a 500-barrel surge tank. From the surge tank the oil moves to the LACT down at the bottom left. This movement will be controlled by high-low pressure liquid level controller shown as Item No. 11 there over at the left edge of the automatic custody transfer unit. The high-low pressure switch would start the charging pump and open initial valve 9, the combination back pressure and shut-in valve no. 9 at a preset high level in the surge tank. The same high-low switch would stop the charging pump and allow the pump to lose oil, would proceed through the conventional equipment shown on this Exhibit B; same thing, normal monitor, same diverting valves wouldn't go that way through the strainer, through the devisory meter and sampler to the pipeline connection at the right if the oil is good. When the BS&W contents exceeds the limit set, the Monitor No. 3 there would open the diverting valve No. 5 and route the production of the bad oil back to the bad oil tank where it would be manually treated and returned to the automatic custody transfer unit. We provide an equalizer line between the surge tank and the bad oil tank and a major high level shut-in switch the 15th will be installed on the bad oil tank. This would prevent overflow and waste in the event of equipment malfunction or bad oil by shutting in the lease shut-in valve No. 14.

Q Mr. Perry, is that equipment which you propose here in common useage, has its reliability been established?



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A Yes, sir. There are numerous very similar systems in operation throughout New Mexico. Several in the Farmington area itself. As a matter of fact, that is one reason we chose the particular equipment we did. We have -- we will have a corrosion resistant meter, although this production here is not particularly corrosive. Both the diverting valve and the combination valves 5 and 9 as well as the lease shut-in valves normally closed, so that in the event of power failure the automatic custody transfer unit would be shut in. The area, Four Corners Pipeline Company, has approved our proposal and are willing to prove and maintain the automatic custody transfer equipment.

Q Do you have anything further you would care to explain about the system, Mr. Perry?

A I believe it pretty much a conventional system. Any other questions? I would be glad to answer them.

Q Were Exhibits 1 and 2 prepared by you?

A Yes, sir.

## CROSS-EXAMINATION

BY MR. PAYNE:

Q Your application here is for all of Sections 25 and 26 and 35 and 36, is that right?

A Yes, sir.

Q For all wells presently drilled or hereafter completed?

A Yes, sir.

MR. PAYNE: Thank you.



BY MR. NUTTER:

Q Mr. Perry, in the event that the monitor No. 3 detects bad oil, it opens up the diverting valve No. 3. It's also got to close the valve some place?

A It would also, if I left that on automatic, would close the back pressure of the combination valve here, No. 9.

Q Then that oil goes into the bad oil tank?

A Yes.

Q No automatic treating facility?

A No, sir.

Q Oil would accumulate in the bad oil tank until it either reached the high level switch in the bad oil tank or until the switcher came out on to the lease?

A That's right.

Q The whole thing is, when we reach a point where we are anticipating water production or bad, unacceptable oil, we will install treating facilities?

A That would take care of this. This bad oil tank, actually, we feel it would be more of a use in the event of equipment malfunction. We don't anticipate bad oil and when, and until a certain time, and when we do, well, we will put in treating facilities.

Q This might be a more or less just a storage for the present time with the LACT for some reasons of malfunction?

A That's right. We feel like we should be left when we proved to ourselves that this equipment is in good shape, it's going

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to operate, and when we get treating facilities in we would actually take out one of these tanks. At that time there will be plenty, also plenty of places for using tanks. We would like to be left with that possibility.

Q Well, now, at the present time you are planning to put the bad oil tank in?

A Yes, sir.

Q You have both?

A Three balance tanks in and we'll leave three tanks in for a little while. As I say, that is, up there, it's not too far from Farmington, but Farmington is a long ways from anything else. We would like to have plenty of storage there until such time as we do satisfy ourselves that everything is going to work just fine.

Q What's the interval of surge tank when the high and low level pressure switches?

A We can set that any way we want to by using this high-low pressure switch. My intention is to set it about 3 feet above the pipeline connection and have about a 6-foot interval between that and the high switch, something like 200 barrels.

Q 200 barrels and normally the bad oil tank would be empty?

A Yes, sir.

Q Some 700 barrels of storage in all probability?

A Yes, sir. You would have 700 -- no, you would have all but 3 feet of the surge tank actually because you would have to fill up this surge tank to get to the overflow line.



Q I see. You stated when this lease is fully developed, if this other pool down to the southeast is extended to include it, you would have a production of how much per day?

A Well, say, fifteen fields would be 2500 barrels, as I believe that's right. One time I figured it out 164, about 2300, closer to 2300.

Q Sixteen wells or seventeen wells, it's just according to how the development goes along?

A You all refer to that case and know we are reaching in that direction. We just don't know where it's going to stop.

Q So, in all probability, if you had a malfunction of the LACT, and had full development of the lease here, you would within a period of twelve or thirteen hours probably fill all of the available storage and have to rely on the high level shut-in switch?

A That's right.

Q What happens when these leases are shut in by the valves there, No. 14 on the schematic --

A You mean so far as production is concerned?

Q Yes, sir.

A This is a long narrow field and actually except on the ends we wouldn't be drained, so just wait until tomorrow to get our production.

Q Well, now --

A We should be able to make it up.





Q Are the wells flowing at the present time?

A The wells are flowing. The tests were considerably more than the 164 for the ChaCha Gallup. The tests on those things range from 227 to 331.

Q What about the pressures that the wells have, the pressure that would appear on the flow line?

A The shut-in tubing pressure?

Q Yes, sir.

A That ranges from about 415 to 1095, that's going down. I think I know what we are talking about here. Figuring on the flow lines right now have standard pipe on the flow lines. It looks like some way of either isolating one high pressure well, and putting in high pressure pipe on that. Let me put it this way. We intend to provide, or test our flow line to one and a half times the shut-in pressure so that there will be no danger of blowing them up.

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

MR. BRATTON: We offer Exhibits 1 and 2.

A A and B.

MR. BRATTON: A and B.

MR. NUTTER: Humble's Exhibits A and B will be entered into evidence.

(Whereupon, Humble's Exhibits A and B were received in evidence.)



MR. NUTTER: Do you have anything further?

MR. BRATTON: No.

MR. NUTTER: Does anyone have anything else? We will  
take the case under advisement.

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STATE OF NEW MEXICO     )  
   )    ss  
 COUNTY OF BERNALILLO    )

I, Lewellyn Nelson, Court Reporter, 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 in machine shorthand 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 and Seal this, the 16th day of December, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Lewellyn D. Nelson  
 NOTARY PUBLIC

My Commission expires:

June 14, 1964

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2133 heard by me on 11/30, 1960.

[Signature], Examiner  
 New Mexico Oil Conservation Commission

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