BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 3, 1961

IN THE MATTER OF:

Application of Humble Oil & Refining Company for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to install an automatic custody transfer system to handle the commingled production from the Eumont, Arrowhead and Langlie-Mattix Pools from all wells presently completed or hereafter drilled on the State "M" Lease, comprising portions of Sections 17, 18, 19, 20, 29 and 30, Township 22 South, Range 37 East, Lea County, New Mexico.

) Case 2210

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Call 2210.

MR. MORRIS: Application of Humble Oil & Refining Company for an automatic custody transfer system.

MR. BRATTON: Howard Bratton appearing on behalf of the applicant. We have one witness and ask that he be sworn.

(Witness sworn.)

LEE PERRY,

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

DIRECT EXAMINATION

BY MR. BRATTON:

Q Will you state your name, by whom you are employed and in

what capacity?

A I am Lee Perry, employed by Humble Oil & Refining in Hobbs, New Mexico, as a senior engineer.

Q Have you previously testified before this Commission as an expert witness?

A Yes, sir.

Q Are you familiar with the area and the matters covered in Case No. 2210?

A I am.

Q What is Humble's objective in this hearing, Mr. Perry?

A We wish to obtain permission to store the production for more than 16 wells in a single tank battery and permission to use automatic custody transfer for production of all present and future wells in the New Mexico "M" Lease, south of Eunice, Lea County, New Mexico. Langlie-Mattix, Eumont and Arrowhead production from this lease are commingled under provisions of OCC Order R-663.

Q Referring to your Exhibit No. 1, will you locate the State "M" lease and describe the facilities shown thereon?

A The "M" lease is outlined by crosshatched line on Exhibit 1. It consists of the SE/4 of Section 18, all of sections 19 and 30, the N/2 of Section 31. In Section 29 there is the W/2 of the NE/4 of the SE/4 and the W/2 of the Section. In Section 20 the W/2 of the SE/4, the E/2 of the SW/4 and theSW/4 of the SW/4 and the N/4 of Section 17, all in Township 22, South, Range 37 East, Lea County, New Mexico. Existing batteries are shown in red.

producing wells are shown as blue dots, and approved locations as circles. We propose to abandon Battery 4 down in Section 31, build separate stations as shown at separator 1 in Section 29, and two in Section 19, and flow from each of these through a single line to Battery 4 where we propose to install the automatic custody transfer unit. This is not, this rigamarole I have just been through is not a part of our request, but it contributes to the economics on the automatic custody transfer.

Q When you were referring to the W/4 of Section 17, do you mean the W/2 of the W/2?

A Yes.

Q What would be the advantages of this consolidation and installation of the LACT unit, Mr. Berry?

A Due to the continuing expansion of the Langlie-Mattix production on this lease we are faced with a problem of providing additional storage. It is our hope that we will eventually have just about twice as many wells producing from the Langlie-Mattix and Elmont on this lease as we now have. Another battery is needed right now at the location of separator station 2 in Section 19, and at least one additional tank at Battery 4 when the indicated locations are drilled. We can consolidate, using Battery 4 as a central battery using an automatic custody transfer for less investment than providing additional storage. Other benefits, there is an operating advantage from reduction of total flow line length by about 40% and a heavily paraffinic production; savings in labor for

for both the pipeline and the producer, reduction in weathering loss, less maintenance.

Q Describe the LACT unit you propose there, Mr. Perry.

A The schematic diagram of the equipment is shown on the Exhibit 2. We will leave two 500-barrel tanks at Battery 4 at least until all the operating difficulties with automatic custody transfer are resolved. At that time one 500-barrel tank may suffice as a surge tank. The equipment itself is a conventional skidmounted unit with one exception: Since we have adequate treating facilities at Battery 4 and no unusual treating problems, Texas-New Mexico Pipeline Company, the purchaser, has not required a BS & W monitor. Time controls will be used to start the unit, with pressure controls for low working level and high level lease shut-in switches. Solenoid-operated lease shut-in valves will be installed at headers, with pressure shut-in switches on pumping unit. Flow lines will be tested to assure they will stand wellhead pressures. P.D. meter will be corrosion resistant.

Q Why don't you just run through the diagram from left to right, there?

A Oil would be produced through the treater into the 500-barrel surge tank, the tank to the right there. At preset intervals the time controller would start the transfer pump and open the combination back pressure and shut-in valve over at the right-hand end of the diagram. Oil will be pumped from the surge tank through the equipment on the skid. That is, through the strainer, deaerator,

sampler, meter, and the proving loop to the pipeline connection on the right. When the oil in the surge tank reaches a preset low working level a pressure switch will stop the transfer pump and allow the combination valve to close. Manual diverting valve is provided so that oil can be routed back to the treater if necessary. One provision the pipeline did ask when they said we could do without the monitor was a sight glass on the sampler so water could be detected there.

An equalizer line between the tanks and the emergency high level shut-in switch are shown. When both tanks are filled the switch will close the lease shut-in valves at the header.

Q This installation has been approved by the pipeline?

A Yes, sir.

Q You stated the commingling has already been approved by previous order of the Oil Commission?

A It was approved sometime ago. This was a general order called on the motion of the Oil Commission itself.

Q In your opinion, is thestorage capacity here sufficient with your high level and low level switches and your shut-in equipment to protect against overflow?

A It is.

Q Anything else you care to state in connection with this application, Mr. Perry?

A No, sir.

Q Would the installation be in the interests of conservation

and would it protect correlative rights?

A Yes, sir.

Q Were Exhibits 1 and 2 prepared by you or under your supervision?

A Yes, sir.

MR. BRATTON: We would offer Humble's Exhibits 1 and 2.

MR. NUTTER: Humble's Exhibits 1 and 2 will be admitted.

MR. BRATTON: I believe we have nothing further at this time.

MR. NUTTER: Does anyone have any questions of Mr. Perry?

BY MR. PAYNE:

Q What is the total number of wells you anticipate having on this lease?

A Mr. Payne, I ought to be able to answer that question, but I am not real positive. We now have about 24 wells, about 7 of which will not go into this battery at present. We will probably add another, roughly, 20 wells, or we hope to add if we are lucky.

Q You do anticipate morethan 16?

A Yes, sir. There will be when we finish this consolidation. There will be more than 16 wells going into the battery right now.

Q What is the total allowable at present?

A It is approximately 600 barrels. It changes pretty frequently. We bring in a well about once a week down there.

Q You have a thousand barrels of storage?

A We now have a thousand barrels of storage, yes, sir.

Q You are going to leave those two 500-barrel tanks in?

A Until we are completely satisfied that our automatic custody transfer is working properly, that there are no problems. We can't afford to be shut in. There are four or five low capacity wells involved and we can't afford to be shut in, so, until we are sure our equipment is working properly we will leave two tanks there.

Q Does the pumper visit this lease every day?

A Yes, sir.

Q Does he live on the lease?

A No, sir.

Q When thereis a malfunction and the lease is shut in at the header, how much pressure do you anticipate will be on the flow lines?

A About 3 or 400 pounds. I believe the highest pressure we have at present, shut in wellhead pressure at present is 450 pounds.

Q And you are going to pressure test your flow lines prior to installation?

A Yes, sir.

Q For what, a thousand pounds?

A We have been using about one and a half times the maximum shut in well head pressure.

Q Your Form C-110 shows your production is being commingled pursuant to Order 663?

A Yes.

BY MR. NUTTER:

Q Mr. Perry, as I understand it the transfer pump and the ACT unit is turned on by a clock?

A Yes, sir.

Q And it is turned off by a low level switch in the surge tank?

A That's right. This allows the pipeline to schedule their production and possibly, in some cases -- eventually we are all thinking in terms of their being able to install smaller lines by scheduling their production, and possibly we will save them on some pump capacity, too.

Q That is the reason for using the choke instead of using a high level switch in the tank?

A Of course, these things are all interchangeable. For one thing, it is less expensive than a high level switch is. It is about $60 less.

Q Is that an electric clock?

A Yes, sir.

Q If the ACT fails to transfer oil, the emergency high level switch shuts in the header, correct?

A That's right. One thing I might say there, this lease is completely electrified and it is possible that instead of putting a shut in switch at the header we might elect to put it at the well because all of these wells will be pumping before long.

Q But for the time being you shut them in at the header and

your pressure builds up in the flow line and operates a mercury switch or something back there on the pumping unit?

A Yes, sir.

Q And the flowing wells, it doesn't shut them in at the wellhead, but your flow lines are designed to handle the maximum pressure of the well?

A Yes, sir.

Q How do you determine how much production comes from each well? Do you have testing facilities at the separator stations?

A We will have a test separator at each separator station and one at the battery itself to take care of the adjacent wells. If at some future time we decide to take Battery 1 in we will have a station there with a separator and sampler at that point.

Q In other words, your separating facilities are the normal type of installation; that is the reason you didn't include it on here?

A That's right. This is all one lease.

Q That's all one basic State of New Mexico lease?

A Yes, sir.

MR. NUTTER: Any further questions of Mr. Perry? He may be excused. Do you have anything further, Mr. Bratton?

MR. BRATTON: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2110? Take the case under advisement.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 11th day of March, 1961.

Notary Public - Court Reporter

My Commission expires:

May 11, 1964.

DEARNLEY-MEIER REPORTING SERVICE

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, JUNE PAIGE, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 11th day of March, 1961.

June Paige
Notary Public - Court Reporter

My Commission expires:

May 11, 1964.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2219 heard by me on 3/3, 1961.

, Examiner
New Mexico Oil Conservation Commission

I N D E X

E X H I B I T S

NUMBER	EXHIBIT	IDENTIFIED	OFFERED	ADMITTED
Ex.#1	Plat	2	6	6
Ex.#2	Schematic Diagram	4	6	6