BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APRIL 5, 1961

EXAMINER HEARING

IN THE MATTER OF

CASE 2232: Application of The Atlantic 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 Bluitt Pennsylvanian Pool production from all wells presently completed or hereafter drilled on the Rutter-Federal lease comprising the SW/4 of Section 28, Township 8 South, Range 37 East, Roosevelt County, New Mexico.

BEFORE:

Daniel S. Nutter

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: The hearing will come to order, please. The next Case will be Case 2232.

MR. MORRIS: Case 2232. Application of The Atlantic Refining Company for an automatic custody transfer system.

MR. BRATTON: Howard Bratton, appearing on behalf of the applicant, Atlantic Refining Company. We have one witness, Mr. Harold Frost.

(Witness sworn)

HAROLD FROST,

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

DIRECT EXAMINATION

BY MR. BRATTON:

Q Will you state your name and by whom you are employed and what capacity?

A Harold Frost, Junior Production Engineer with The Atlantic Refining in Midland.

Q You have previously testified before this Commission as an expert witness?

A Yes.

Q Are you familiar with the facts and matters covered in Case No. 2232?

A I am.

Q That area comes under your supervision?

A Yes, sir.

Q What is Atlantic Refining Company seeking in Case 2232?

A We're seeking to install an ACT system on our Rutter-Federal lease, located in the southwest quarter of Section 28, Township 8 South, Range 37 East.

Q The location of that lease and the location of the well is reflected on Atlantic's Exhibit A?

A Yes, sir.

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

Q That location is in the northwest quarter of the southwest quarter of Section 28?

A That's correct.

Q That is the only well that you have there?

A We only have one well on the lease at the present time. We are evaluating drilling the second well. It's a 160-acre lease, and wells are drilled on 80-acre spacing.

(Whereupon, Atlantic's Exhibit No. B was marked for identification.)

Q Now, Mr. Frost, refer to what has been marked as Exhibit No. 2, which is a statement of the proposed installation, and attached thereto is a plat of the proposed installation. Would you just go through the entire installation from beginning to end?

MR. PORTER: I believe that's Exhibit B.

MR. BRATTON: Exhibit B. Thank you, sir.

A We propose a 1000 barrel surge tank with the low level switch and high level switch. The low level switch will stop operation of the unit. The high level switch starts transfer of oil to the pipeline. We have an electrical driven pump to transfer oil from the surge tank to the pipeline. Following the pump, the pressure gauge and thermometer on the skid, we will have provision for adding a BS&W monitor at such time as the well starts making the water. The pipeline company has requested that we do not put the monitor in until unmerchantable oil is found in the sampler. We have a combination strainer-aireliminator to remove

any foreign particles from the oil which might interfere with operation of the meter. We have a sampler with a 15-gallon pressure storage vessel, equipped with a hand pump for mixing of the sample before draw-off for determination of gravity and BS&W content. This sampler is actuated by electrical impulses from the meter, which will give samples proportional to the amount of oil transferred. The oil meter is the positive displacement meter. It is equipped with a temperature compensator, a non-reset counter, which registers the amount of oil corrected to sixty degrees Fahrenheit. The transmitter on the meter delivers one electrical pulse per barrel to pass the shut down circuit, the monthly set-stop allowable counter, and the sampler.

A four valve meter proving loop permits calibration of the meter at any time. This loop has double in-line block valves with a bleed valve between to insure that the valves are not leaking. The back pressure valve maintains a constant pressure in the meter above the vapor pressure of the crude.

A check valve prevents any backflow of oil from the pipe line system to Atlantic's equipment. The control panel, which is located on the skid, will perform the following functions: It will stop the booster pump when the oil level in the surge tank reaches the low level switch. It will start the pump when the oil level reaches the high level switch. The manual override is provided so that a transfer can be started before the oil level reaches the high level switch, if the pipe line desires. The monthly set-stop

counter prevents overrunning of the scheduled monthly allowable. This must be manually reset each month by the pipe line and Atlantic representatives. When the monthly allowable has been run, this set-stop counter will prevent any further transfer of oil. The panel also will stop transfer of oil in the event of a meter failure or low flow rate in the meter. This must also be manually reset. The control panel sampler and the proving loop valves can be sealed by the pipe line company. The surge tank,1000 barrel surge tank has sufficient capacity to store all oil produced during the unattended operation in the event of any failure in the unit.

Q What is your daily production?

A 167 barrels per day.

Q How much storage do you have above your high level switch?

A We will have at least five, which would give us about three days' storage.

Q How often is the lease checked?

A The pumper will check the lease once a day, and possibly twice a day. We are anticipating to get it down to one trip per day.

MR. PORTER: That's every twenty-four hours?

MR. MORRIS: Including week-ends?

A Yes.

Q (By Mr. Bratton) Is there anything else you care to go into in connection with the installation?

A The gravity of that oil is fifty-five degrees corrected.

Q This is your Bluitt Pennsylvanian oil?

A Bluitt Pennsylvanian.

Q Is this installation substantially identical or is it identical to one that you have applied to the Commission for before?

A Yes,it's identical to one previously approved.

Q Where is that installation?

A That's in the Justis Field.

Q Is there anything further you care to go into in connection with the installation?

A I don't believe so.

(Whereupon, Atlantic's Exhibit C was marked for identification.)

Q Your Exhibit C, then, Mr. Frost, is a letter from the pipe line approving the installation?

A Yes, sir.

Q On that, Mr. Frost, I notice that they, in Item No. 2, called for a set-stop counter, what I'd call a daily set-stop counter. Could you explain how that arose?

A I asked the pipe line company how they would like to have us transfer their oil, that is, whether they would like to have the oil delivered over a twenty-four hour period, six hours a day, or four hours a day, or what schedule. Evidently, I didn't make my question clear, or they misunderstood it, and it came back

with this daily set-stop counter. That is satisfactory. However, it does get away from automatic operation in that our pumper would have to go by there each day and reset that counter. In other installations we have taken care of our daily allowable by the adjustment of our high and low level switches. We set the distance between those two switches to allow running of the daily allowable in the time that the pipe line desired to take the oil. In one case, we put a time clock in the control panel so that the unit would be in operation a set period per day, which would run only the daily allowable. Since the pump has a specific rate of through put, we prefer either the time clock or an adjustment of the switches over the daily set-stop counter. However, all three of them will do the same function.

Q Actually, you would prefer one of the first two methods you outlined, and as soon as you have an opportunity to work it out with the pipe line,you would prefer to install one of them --

A Yes.

Q -- or install the clock or set your switches?

A Yes, sir.

Q If you do get another well in here, you would still have in your 1000 barrel tank more than one day's storage,extra storage capacity, would you not?

A Yes, sir, we would.

Q Is there anything further you care to bring out in connection with this application?

Q So, then, that would just about double your daily allowable?

A That's correct.

Q Then, if it became necessary, you would add additional storage facilities, as time might require?

A If required, yes. With two wells we would still have over twenty-four hours' storage above our high level switch.

MR. MORRIS: That's all I have.

BY MR. NUTTER:

Q Mr. Frost, the high level switch for the operation of the tank would be at approximately half the height of the tank?

A It would not be above the half-way mark.

Q So, a minimum of 500 barrel capacity is going to be available at all times?

A Yes, sir.

Q What is the purpose of Item 6, the thermometer, when you have a temperature compensated meter?

A That's for the pipe line to check the termperature compensator, when they are calibrating the meter.

Q Is this a recording thermometer?

A No, it's just an indicating thermometer.

Q Nothwithstanding what McWood's letter of April 3rd says, that a daily set-stop counter would be provided, you would probably put it on a monthly --

A The monthly set-stop counter will be there,in any case.

Q The fourth paragraph, Item No. 3, of McWood's letter says they will assume complete responsibility for proving the meter. These meter tests or proofs will be witnessed by representatives of Atlantic, will they not?

A Yes, they will.

Q You stated that McWood did not want you to put a monitor on at the present time, but their letter states that they won't require you to put a monitor on at the present time. Which is it?

A When I talked to him, oh, it was two or three months ago, they said that they would prefer that we didn't put it on until such time as it was needed. Of course, here it says they won't require it done.

Q Now, your one well that you have at the present time, is it producing pipe line quality oil?

A Yes, sir.

Q No treating facilities are necessary?

A No treating facilities on the lease. Of course, any time that any water gets over into that sampler, we are more anxious to put that monitor on the pipe line because that water is metered in the meter just the same as used oil, and we don't get paid for it. At the end of the month, we have sold a lot less than our allowable, and then we can't make it up.

Q The meter proving loop is this combination of five valves, is that correct?

A That's correct.

Q And the one valve that sticks up to the top is the bleed valve?

A That's the bleed valve.

Q What will Mack Wood provide for proving this meter?

A Either a master meter or a meter proving tank, calibrated tank.

Q Have they indicated to you what system they will use to prove the meter?

A No.

Q At any rate, your installation will have the loop for tying onto some sort of proving facility?

A It will suffice for either method.

Q Your diagram here shows that the sampler has a return line to go in upstream from the transfer pump.

A That's right.

Q Will this be an automatic transfer or will this be a manually controlled transfer from the sampler back into the line?

A A small part of the stream of oil is circulated through the sampler. Let me correct that by the sampler back to the upstream side of the pump. It's through a three-way solenoid valve. This valve receives am impulse from the meter, which extracts a sample of that stream, by-passing through the solenoid valve.

Q Then, there's an accumulation of oil in the sampler tank No. 9, and it can be run back into the main line upstream from Item

4, the pump, correct?

A It is run back up there by means of the hand pump.

Q In other words, that is not an automatic function to drain the sampler tank and put it back into the main line --

A No.

Q -- that's a hand operation?

A That's a hand operation.

Q Is that sample diverting line there sealed by the pipe line, or by the operator, or can the sampler be drained without breaking the seal?

A Yes, it is sealed.

Q The dotted line running from Item 10, the meter to the sampler No. 9, is an electric line?

A That indicates the control line from the meter that controls.

Q That's your electric impulse line, is that correct?

A That's right.

MR. NUTTER: Any further questions?

BY MR. PAYNE:

Q Mr. Frost, if you have to reset this set-stop counter daily, when your allowable has been recorded on a meter, then you would be deprived of utilizing your daily tolerance, wouldn't you?

A If they set the exact allowable.

Q If it is required by the pipe line?

A If it is required by the pipe line.

MR. NUTTER: Where does this oil go when it's transferred by the LACT unit?

A It goes into McWood's pipe line.

Q (By Mr. Payne) What do they have, a gathering system in this field with storage tanks near by?

A I'm not exactly sure where the oil goes. They do have a gathering system in this field.

Q You don't know whether it goes into storage tanks or whether they're tied directly onto some major transporter?

A That, I do not know.

Q At any rate, it won't go into storage tanks that they may be operating right here at this lease?

A Not at this lease, no, sir.

MR. NUTTER: Any further questions?

BY MR. PORTER:

Q This oil is eventually taken through Magnolia Pipe Line, it doesn't make any particular difference?

A I'm not positive who the purchaser is. I believe it's Magnolia, but I'm not positive of that.

Q They have different kinds of setups, I believe, in the Bluitt area?

A Yes.

MR. PORTER: That's all.

MR. NUTTER: Any further questions? The witness may be excused.

(Witness excused)

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

MR. BRATTON: No, sir.

MR. NUTTER: Does anyone have anything further for Case No. 2232? We will take the case under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, 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 by me 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 15th day of April, 1961, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

NOTARY PUBLIC

My Commission expires:

June 19, 1963

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2232, heard by me on 4-5, 1961.

New Mexico Oil Conservation Commission, Examiner