

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 1926
Order No. R-1643

APPLICATION OF HONDO OIL & GAS
COMPANY FOR APPROVAL OF AN AUTO-
MATIC CUSTODY TRANSFER SYSTEM
IN THE EMPIRE-ABO POOL, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 23, 1960, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 4th day of April, 1960, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant is the owner and operator of the State 647 lease comprising the following-described acreage in Eddy County, New Mexico:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM

Section 31: E/2 E/2
Section 32: SW/4 and NE/4

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM

Section 6: NE/4 SE/4, S/2 NE/4, and NE/4 NE/4

(3) That the applicant proposes to install an automatic custody transfer system to handle the Empire-Abo Pool production from all wells presently completed or hereafter drilled on said State 647 lease.

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(4) That all meters used in the above-described automatic custody transfer system should be checked for accuracy once each month and the results of such tests furnished to the Commission.

(5) That the previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil, and that the use of such equipment should be permitted, provided adequate safety features are incorporated.

IT IS THEREFORE ORDERED:

That the applicant, Hondo Oil & Gas Company, be and the same is hereby authorized to install automatic custody transfer equipment to handle the Empire-Abo Pool production from all wells presently completed or hereafter drilled on its State 647 lease comprising the following-described acreage in Eddy County, New Mexico:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM

Section 31: E/2 E/2
Section 32: SW/4 and NE/4

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM

Section 6: NE/4 SE/4, S/2 NE/4, and NE/4 NE/4

PROVIDED HOWEVER, That the applicant shall install high level safety shut-in switches in the storage tanks which will shut-in the wells at the header, thus preventing the overflow of oil in the event of malfunction of the equipment.

PROVIDED FURTHER, That the automatic custody transfer system shall be so equipped as to shut-in the flowing wells at the wellhead in the event of a flow-line break.

PROVIDED FURTHER, That the applicant shall install adequate facilities to permit the testing of all wells on said State 647 lease at least once each month to determine the individual production from each well.

IT IS FURTHER ORDERED:

That all meters used in the above-described automatic custody transfer system shall be operated and maintained in such a manner as to ensure an accurate measurement of the liquid hydrocarbon production at all times.

That meters shall be checked for accuracy at least once each month until further direction by the Secretary-Director.

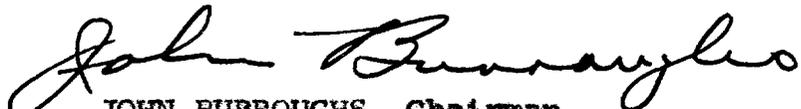
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That meters shall be calibrated against a master meter or against a test tank of measured volume and the results of such calibration filed with the Commission on the Commission form entitled "Meter Test Report."

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JOHN BURROUGHS, Chairman


MURRAY E. MORGAN, Member


A. L. PORTER, Jr., Member & Secretary



esr/

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 23, 1960
EXAMINER HEARING

IN THE MATTER OF:)

Application of Hondo Oil & Gas Company)
for approval of an automatic custody)
transfer system. Applicant, in the)
above-styled cause, seeks an order auth-)
orizing it to install an automatic custody)
transfer system to handle the Empire-Abo)
Pool production from all wells located on)
its State 647 Lease consisting of the)
NE/4 SE/4, S/2 NE/4, and NE/4 NE/4 of)
Section 6, Township 18 South, Range 28)
East, and the E/2 E/2 of Section 31 and)
the SW/4 and NE/4 of Section 32, all in)
Township 17 South, Range 28 East, Eddy)
County, New Mexico.)

Case 1926

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 1926.

MR. PAYNE: "Case 1926. Application of Hondo Oil & Gas Company for approval of an automatic custody transfer system."

MR. DAVIN: My name is S. H. Davin, an attorney for Hondo Oil & Gas, Roswell, New Mexico, and appearing for Hondo in this case and seeking an order to install an automatic custody transfer system to handle the Empire-Abo Pool production from all wells located on its State 647 Lease consisting of the NE/4 SE/4, S/2 NE/4, and NE/4 NE/4 of Section 6, Township 18 South, Range

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I N D E X

WITNESS

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28 East, and the E/2 E/2 of Section 31 and the SW/4 and NE/4 of Section 32, all in Township 17 South, Range 28 East, Eddy County, New Mexico.

Our only witness in this case is Mr. J. R. McMann.

(Witness sworn.)

J. R. McMANN

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

DIRECT EXAMINATION

BY MR. DAVIN:

Q Mr. McMann, will you please state your name, position and employer?

A My name is J. R. McMann. I'm petroleum engineer for the Hondo Oil & Gas Company. I live in Roswell, New Mexico.

Q Have you previously appeared before the New Mexico Oil Conservation Commission and qualified and testified as an expert witness?

A I have not.

Q Would you please state your educational background in petroleum engineering?

A I was graduated from the Colorado School of Mines in 1942 with the degree Petroleum Engineer.

Q Would you tell us what your experience in petroleum engineering in Southeastern New Mexico has been?



A I've worked nine years for Malco Refineries, Incorporated, now Hondo Oil & Gas Company as petroleum engineer in drilling and production of oil and gas.

Q Are you familiar with Hondo's application for the automatic custody transfer system?

A Yes.

MR. DAVIN: Does the Examiner have any questions as to the qualifications?

MR. UTZ: No, sir, the witness is qualified.

Q What is the purpose, Mr. McMann, of the application for lease automatic custody transfer system in this case?

A The primary purpose is to effect economy and to effect improved operations on this lease.

Q How will this economy be effected?

A Through the conservation of crude oil and the saving of manpower through the operation of this automatic equipment and savings in investment in the equipment.

Q Have you prepared, or at your direction had prepared, a plat showing the location of the lease?

A Yes, I have.

Q The plat of Hondo State Lease 647, sometimes known as State A, is shown in our Exhibit No. 1.

Mr. McMann, will you please state in detail what we have on Exhibit No. 1?



A It covers a portion of State 647 Lease insofar as it covers the Northeast Quarter, Southeast Quarter and South Half, Northeast Quarter and Northeast Quarter, Northeast Quarter of Section 6, Township 18 South, Range 28 East, and the East Half, East Half of Section 31 and the Southwest Quarter and Northeast Quarter of Section 32 all in Township 17 South, Range 28 East, Eddy County, New Mexico. There are several wells on these premises all of which are completed in the Empire-Abo Pool. There are drilling wells on this lease at the present time.

Q Are those the wells that are concerned in this application?

A That is correct.

Q Does Hondo plan any further producing wells on this lease?

A Yes, they do.

Q Is it correct that the working interest in this lease is jointly owned by Hondo Oil & Gas Company and Western Development Company of Delaware and the Yates Brothers, and that Hondo is presently operating it as to the Empire-Abo Pool under a joint operating agreement between these parties?

A That is correct.

Q The wells referred to on the plat designated Exhibit 1 are Empire-Abo wells?

A Correct.

Q Hondo is the operator for Western Development Company of



Delaware and Yates Brothers as to this horizon?

A That is correct.

Q Is there any diversity of ownership in this lease or is it all commonly owned?

A It is all the same ownership.

Q Has the pipeline been notified of your plan for this automatic custody transfer system?

A They have been notified and have accepted the plan as it will be presented here.

Q Have you prepared, or at your direction had prepared, Exhibit No. 2, schematic diagram which shows the lease automatic custody transfer system and the allied equipment on the lease?

A Yes, I have.

Q Are you familiar with the Exhibit No. 3, schematic diagram which shows in detail the lease automatic custody transfer system which we propose?

A Yes, I am.

Q Who prepared the diagram Exhibit No. 3?

A Exhibit No. 3 was prepared by Basin Engineering of Midland, Texas, who are unitizing the lease automatic custody transfer equipment on a skid mount and who are selling this equipment to us.

Q Are they installing this equipment?

A Yes, they are.



MR. DAVIN: If the Commission please, we are planning to offer the schematic diagrams Nos. 2 and 3 as Exhibits later on.

Q Mr. McMann, will you state what is shown on the diagram designated Exhibit No. 2 and explain its operation?

A Exhibit No. 2 constitutes the total layout of the tank battery and automatic equipment for production storage and transfer to the pipeline of crude oil produced on this lease. Included you will see a test separator from which the crude oil is metered, is the lower separator in the diagram, and arrangements for measuring the gas produced through this test separator. You will also note both the electrical system for control of the storage and for transfer of crude oil outlie to the pipeline by the lease automatic custody transfer unit skid mounted in the lower center of the diagram.

You'll also note the compressed air system which is shown at the lower part of the lact unit skid mounting and the compressed air line which carries the air over to manipulate the automatic control valves or motor valves at the flow line inlet to the manifold.

Q Will you state what is shown on your Exhibit No. 3? Explain its operation.

A Exhibit No. 3 is a detailed diagram prepared by Basin Engineering to cover the items constituting the lact unit. The item A shown thereon is a suitable pump, which in this case is a

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three inch pump, capable of handling about 170 barrels of oil per hour if required, powered by a five horsepower electric motor. Item B is a three inch basic sediment water monitor probe, a coaxial cable and monitor. Item C is the three inch fissure three-way valve. This is the valve which in the event oil is not merchantable as determined by the monitor probe will return the oil to the right-hand tank or the initial tank into which oil flows in the battery system.

Item D is shown, although it is not actually required, for Service Pipeline Company who happens to be the company having the pipeline in the field. It is a deaerator. Item E is a three inch A. O. Smith strainer. Item F is a two inch A. O. Smith meter with automatic temperature compensation. The item number 464, it has an allowable set stop counter, and a transmitter to space the sampler, it has a ticket printer and a safety shutdown switch. Item G is a two inch fissure back pressure valve. Item H is a two inch figure 143 plug valve in the proving loop of the system. Item I is a sampler, Item J is the fabricated skid itself. Item K is the control panel for the lact unit.

Q Is your installation that you have described here substantially the same as those used on other leases in the Empire-Abo Field and approved by the New Mexico Oil Conservation Commission?

A Yes. Specifically Pan American Petroleum Corporation,



Hondo Battery A in the Northeast section of the field and the most recent Pan American battery in Section 1 of 18, 27 East are essentially the same.

Q Would you now tell us how the equipment particularly described in Exhibit E controls the flow of oil from the subject lease to the pipeline?

A The pump which was previously mentioned as Item A draws the oil out of the left tank of the system, which is the delivery tank, if the oil is merchantable with the seating between zero and three percent water, the oil continues through the system to the meter. If it isn't merchantable it is returned to the right-hand tank, or we call it the first tank, of the battery to trace on through this shipped oil, it is sampled by the sampler, Item I on Exhibit 3. A ticket is written on that metered oil which is temperature corrected and continues into the pipeline system itself. The meter can be proved through the prover tank which will be size ten barrels or more in volume to meet P. I. code which requires that the volume be sufficient to have three minutes or more flow through the meter at the capacity of the lact unit into the prover tank in filling it.

Q Would you explain the so-called fail safe features of this unit?

A The fail safe features include the wiring in such a way that the unit will stop in the event the meter counter stops

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counting, the unit will stop if the transmitter malfunctions and the transmitter is the spacer for the sampler, the unit will stop if the allowable set stop counter stops turning. The unit will stop if the pipeline pump loses suction; the motor valve or control valves which are automatically operated by the level control switches on both tanks are held open so that the wells will flow only with continuance of electrical contact and with air pressure available. Therefore, if electricity isn't delivered or if electrical supply is interrupted or failed, the wells will be shut in and if the air supply fails the wells will be shut in.

Q In your opinion would the granting of this application be in the interest of conservation and would it protect correlative rights?

A Yes.

MR. DAVIN: If the Commission please, I would like to move at this time for the Commission to accept in evidence Exhibits 1, 2 and 3 heretofore referred to. That's all the questions I have.

MR. UTZ: Without objections, Exhibits 1, 2 and 3 will be entered into the record. Are there questions of the witness?

MR. PAYNE: No questions.

CROSS EXAMINATION

BY MR. UTZ:

Q I note that some tanks have an extra high level switch as a safety feature. Can you explain why this doesn't have that



particular feature? In other words, they have a high level operating switch which is ordinarily in operation and if that should fail they have one above that.

A This is an added safety feature which we have not considered to be necessary and have not included.

Q In the event your high level switch failed here, what would happen?

A As we have it set up now the highest high level switch would be the last shutoff that would take place and the tanks would be run over.

Q How often will personnel visit this lact system?

A Personnel will be in the vicinity of this lact system eight hours a day, seven days a week, and they will actually visit this system daily.

Q Do they live on the lease?

A No, they live in Artesia about seven miles away.

Q In other words, if the tanks should start running over, well, they might run over up to eight hours?

A That is correct.

MR. PORTER: Eight hours a day, they would be on the job seven days a week, so it would be the sixteen hours.

BY MR. PORTER:

Q What would be the additional expense to install an extra high level switch?



A I can't answer that. If you will pardon me a moment, I have a quotation. I don't have an exact quotation. I couldn't say exactly what that cost would be.

Q Do you know in the neighborhood what the expense would be?

A I imagine that this is lumped here, it would be around \$225.00.

Q Per switch? A Yes.

Q Have you had experience with this type of equipment before?

A Our experience is limited to that which we have in a 50-50 partnership with Pan American on other leases in installations in the Abo Field.

Q Is it similar to this?

A I believe it is similar to this. I'm not fully aware whether they have the second high level switch. I don't know for sure if they do have or not.

MR. PORTER: Do you know whether or not they do, Mr. Utz, on that one, or do you recall?

MR. UTZ: As I recall, virtually all, if not all, the ones that I have heard have an extra safety feature in the form of a high level switch. I don't know about those, I haven't heard.

A May I state that it is in our mutual interest that this be installed and I don't believe that we would have any objection to including this in our design.



