Case No.

1594

Application, Transcript,
Small Exhibits, Etc.

OPERATIONAL SEQUENCE OF AUTOMATIC TANK BATTERY
SHOWN ON NATIONAL TANK COMPANY DRAWING A-11460

This installation is very similar to present units now operating successfully for the Graridge Oil Corporation and The Ambassador Oil Corporation in the Caprock Field of New Mexico. The drawing shows a single battery operation hooked up to use a single meter prover.

This battery will perform the following functions:

1. Run only merchantable oil to the pipeline.
2. Measure the volume of the oil run with a provision for temperature compensation.
3. Provide a means of determining API gravity and BS&W content.

The sequence of operation to perform these functions is as follows: (refer to Drawing A-11460 attached)

1. Lease production, after passing through separating and dehydrating equipment, is flowed into vented merchantable oil monitoring tank through perforated down comer.

2. The merchantable oil monitoring tanks perform the following operation: From the central mid point section of the monitoring tank, oil enters and is piped to the exterior of the * . by means of a 2" tube and is caused to flow downward through the probe of an Instruments, Inc., BS&W Monitor, and the oil enters the suction of a 5 gpm gear rotary pump and is pumped back into the base of the monitoring tank. The function of the BS&W Monitor is to determine the actual BS&W content of the oil passing the probe, (A), the mechanical limits of this monitor are set for a maximum of .5 to .8 of one percent BS&W content and as long as the content remains below this point, the oil is allowed to leave the monitoring tank by valve V-3 and enter the pipeline surge tank through a perforated down comer.

3. In the event the BS&W Monitor gives indication of BS&W content above mechanical setting, the instrument by electrical control will close valve V-3, diverting the oil from pipeline sales tank, and will cause pump P-1 to circulate the oil in the monitoring tank back to the separating and dehydrating vessel until such a time as the monitoring instrument indicates a clean oil condition exists in the monitoring tank. At that time the P-1 pump will shut down and valve V-3 will open to pipeline sales. A chemical injection pump will inject oil treating compounds any time pump P-1 is operating.

4. As a means of eliminating a possible high bottom condition in the monitoring tank, a time clock actuator is also mounted in the circuit to pump P-1 which will allow a pre-determined time circulation of oil from the base of the monitoring tank back to the dehydrating tank.

5. If a bad oil condition continues to exist in the monitoring tank for some extended period, the level in the monitoring tank will rise to a pre-determined point and will bypass the sales tank and will go to surplus oil storage tanks in the battery. Oil will continue to the surplus storage tanks until such a time as the BS&W Monitor indicates clean oil at which time valve V-3 will open and clean oil will then go to pipeline sales tank.

6. When clean oil is again indicated in the monitoring tank, valves V-3 and V-12 in the base of the surplus storage tank can be opened to recirculating pump P-1 and by means of a mechanical switch on pump P-1, this oil may be recirculated back through the dehydrating system and again enter the monitoring tank.

7. Under normal operation the tank battery valves will be in the indicated positions:

   Valve V-3, open; valve V-4, open; valve V-5, closed;
   Valve V-6, closed; valve V-7, open; valve V-8, closed;
   Valve V-9, closed; valve V-10, open; valve V-11, open;
   valve V-12, closed; and valve V-13, closed.

8. Valve V-6 is included in the piping arrangment so that manual gauging operation of all three tanks in the battery may be assumed at any time that any malfunction should occur in the automatic operation of the battery.

9. In the sequence of operations, it is noted that valve V-7, the pipeline valve on the pipeline sales tank, is the only valve open to the automatic measurement skid when the meter is in use.

10. Under normal automatic operation (valves V-14, V-18 and V-19, open and valves V-15, V-16 and V-17 closed) clean oil enters the metering skid through pressure switch "B" which starts and stops pump P-3 through its' control panel C-2. This action is determined by the hydrostatic head of fluid in the pipeline sales tank and should be set to operate on start up at the 14' level in the tank to shut off at the 3' level in the tank.

11. The clean oil now under constant pressure from gear pump P-3 enters and passes through the probe on the sampler, item "C", which samples and stores in its own separate container under pressure, a measured volume of oil for each barrel passing through the sampler.

12. The oil then enters and passes through strainer, item "D", so that all foreign material may be removed from the clean oil stream which could possibly lock or make inoperative the meter. The oil then enters air eliminator, item "E", where all free gas and air is removed so that a solid column of fluid will enter the meter chamber.

13. Oil entering the meter, item "F", passes through a temperature condensating chamber which controls the gross barrel counter in the Smith S-12 Meter and corrects the meter reading to an API volume at 60 degrees F. In the meter is included a ticket printer with locking device which necessitates the stamping of the ticket prior to removal from the meter, and assures both the seller and the pipeline of a written figure showing the calibrated volume of fluid passing through the system.

14. The oil then enters and passes through the back pressure valve, item V-20, which maintains a constant pressure on the metering system and assures a true volume of oil processed.

15. At this point the oil may be diverted to the meter prover attached to this assembly which is calibrated under U. S. Bureau of Standards approved system of calibration, or the oil may be diverted to pipeline for continuous automatic sales.

16. During meter proving operations valves V-16, V-17 and V-19 are closed and valves V-14 and V-15 are open so oil goes from pump P-3 through the meter run to the meter prover. After the oil has been metered into the meter prover, it is then pumped directly into the pipe line by closing valves V-14, V-15 and V-18 and opening valves V-16, V-17 and V-19.

To provide fail safe operation, all controls and valves are designed to close in the event of gas or electric failure. On return of gas or electric service, normal battery operation is resumed automatically.

SUPPLEMENTAL DOCKET: EXAMINER HEARING FEBRUARY 4, 1959

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe, NM.

The following case will be heard before Elvis A. Utz, Examiner:

CASE 1595: Application of John J. Dempsey Associates for the assignment of a minimum allowable to one gas well in the Fulcher Kutz-Pictured Cliffs Gas Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order assigning a minimum allowable to one gas well in the Fulcher Kutz-Pictured Cliffs Gas Pool in order to prevent premature abandonment thereof, said well being the Hutchison Well No. 1 located 660 feet from the North line and 635 feet from the East line of Section 1, Township 29 North, Range 13 West, San Juan County, New Mexico.

No. 5-59

DOCKET: EXAMINER HEARING FEBRUARY 4, 1959

OIL CONSERVATION COMMISSION 9 a.m., Mabry Hall, State Capitol, SANTA FE

The following cases will be heard before ELVIS A. UTZ, Examiner:

CASE 1587: Application of Cabot Carbon Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its J. L. Reed Well No. 2 located 660 feet from the North and East lines of Section 35, Township 13 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the King-Wolfcamp Pool and King-Devonian Pool through parallel strings of 1½" tubing.

CASE 1588: Application of Atlantic Refining Company to commingle the production from several separate oil pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Ellenburger, McKee, Fusselman, Montoya, Blinebry, Drinkard, and Queen formations on its State "Y" Lease comprising the N/2 NE/4 and the SE/4 NE/4 of Section 25, Township 25 South, Range 37 East, Lea County, New Mexico. Applicant proposes to separately meter the production from each formation except the Queen prior to being commingled.

CASE 1589: Application of Humble Oil & Refining Company for an exception to Rule 16 of Order R-586 and for an exception to Rule 303 of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order permitting the classification of a 48-degree gravity oil well as a gas well in the Tubb Gas Pool, said well being its dually completed State "V" Well No. 11 located in the NE/4 SW/4 of Section 10, Township 21 South, Range 37 East, Lea County, New Mexico. Applicant further seeks permission to commingle the liquid hydrocarbons produced from the Tubb zone of said State "V" Well No. 11 with Tubb oil produced from its State "V" Well No. 7 located in the SE/4 SW/4 of said Section 10. Applicant further seeks permission to commingle the Blinebry condensate produced from said State "V" Well No. 11 with the Blinebry oil produced from its State "V" Well No. 1 located in the SW/4 SW/4 of said Section 10.

CASE 1590: Application of Rex Moore for an order authorizing a gas injection project in San Juan County, New Mexico, and for the promulgation of special rules and regulations in connection therewith. Applicant, in the above-styled cause, seeks an order authorizing it to inject gas into the Gallup formation of the Bisti-Lower Gallup Oil Pool through its Scott No. 5 Well located 2115 feet from the South line and 2080 feet from the West line of Section 3, Township 24 North, Range 10 West, San Juan County, New Mexico. Applicant further proposes that special rules and regulations be promulgated to govern the above-described project, which rules would provide for the transfer of the allowable from the injection well to producing wells, transfer of allowables from wells which have

been shut-in for observation or to increase the efficiency of the project, operation of the wells on a net gas-oil ratio basis giving allowance for gas injected, and such other rules and regulations as the Commission deems necessary.

CASE 1591: Application of Angels Peak Oil Company for the assignment of minimum allowables to two gas wells in the Fulcher Kutz-Pictured Cliffs Gas Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order assigning minimum allowables to two gas wells in the Fulcher Kutz-Pictured Cliffs Gas Pool in order to prevent premature abandonment thereof, said wells being applicant's Angels Peak Well No. 3 located 595 feet from the North line and 1240 feet from the East line of Section 11 and Angels Peak Well No. 5 located 285 feet from the North line and 1520 feet from the West line of Section 11, both in Township 28 North, Range 11 West, San Juan County, New Mexico.

CASE 1592: Application of Amerada Petroleum Corporation for an order extending the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool and for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order extending the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool to include the E/2 of Section 33, and the NW/4 of Section 34, all in Township 11 South, Range 33 East, Lea County, New Mexico. Applicant further seeks the establishment of a 320-acre non-standard gas proration unit in said pool consisting of the NE/4 of said Section 33, and the NW/4 of said Section 34, to be dedicated to the applicant's State BT "M" No. 2 Well located in the SE/4 NE/4 of said Section 33.

CASE 1593: Application of The Texas Company for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order authorizing a 241-acre non-standard gas proration unit in the Eumont Gas Pool consisting of the NE/4 of Section 5, Township 20 South, Range 37 East, and the S/2 SE/4 of Section 32, Township 19 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to applicant's J. W. Cooper Well No. 5 located 1668 feet from the North line and 1650 feet from the East line of said Section 5.

CASE 1196: Application of The Ibex Company for permission to expand its water flood project in the Artesia Pool, Eddy County, New Mexico, and for eight unorthodox well locations. Applicant, in the above-styled cause, seeks an order permitting the expansion of its Artesia Water Flood Project No. 2, authorized by Order No. R-966 in the Artesia Pool, Eddy County, New Mexico, to convert to water injection a well in the NW/4 NW/4 of Section 28 and a well in the SW/4 NE/4 of Section 28, both in Township 18 South, Range 28 East. Applicant further seeks approval of eight unorthodox well locations in Sections 21 and 28 of the aforementioned township.

CASE 1594: Application of The Ibex Company for permission to install three separate lease automatic custody transfer systems. Applicant, in the above-styled cause, seeks an order authorizing it to install three separate lease automatic custody transfer systems, one on its Welch Duke State Lease, one on its Resler Yates State Lease and the other on its McNutt State Lease, all in the Artesia Field, Township 18 South, Range 28 East, NMPM, Eddy County, New Mexico. Applicant further seeks permission to consolidate multiple tank batteries on said Resler Yates State Lease in exception to Rule 309 of the Commission Rules and Regulations.

CONTINUED CASE

CASE 1573: Application of Southwestern, Inc. Oil Well Servicing for permission to make a "slim hole" completion. Applicant, in the above-styled cause, seeks an order authorizing it to utilize the "slim hole" method of completion for a well located in the SE/4 NW/4 Section 32, Township 16 South, Range 30 East, Square Lake Pool, Eddy County, New Mexico. Applicant proposes to utilize 2½ inch tubing as a substitute for casing in the above-described well.

ir/

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF THE IBEX COMPANY FOR AN ORDER AUTHORIZING THE INSTALLATION AND USE OF LEASE AUTOMATIC CUSTODY TRANSFER EQUIPMENT ON THE WELCH DUKE STATE LEASE, THE RESLER YATES STATE LEASE AND THE MC NUTT STATE LEASE, ALL SITUATED IN THE ARTESIA FIELD IN TOWNSHIP 18 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND FOR CONSOLIDATION OF MULTIPLE TANK BATTERIES AS EXCEPTION TO COMMISSION RULE NO. 309 AS TO THE RESLER YATES STATE LEASE.

Case 1594

APPLICATION

Comes now Applicant, The Ibex Company, by its attorneys, and states:

1. That Applicant is the operator of wells situated on the Welch Duke State Lease, the Resler Yates State Lease, and the McNutt State Lease, all in Townsip 18 South, Range 28 East, N.M.P.M., Eddy County, New Mexico.

2. That said leases are being produced by water flood operations and that such operations have resulted in increased production of certain wells to the extent that additional storage tanks will have to be installed, unless lease automatic custody transfer equipment is authorized for more efficient use of present tank batteries.

3. That as to the Resler Yates State Lease, on which numerous tank batteries are situated, it is necessary that there be a consolidation of numerous tank batteries on said lease at some central point prior to installation of lease automatic custody transfer equipment and that such central location for the consolidated tank batteries is proposed to be in the SE¼SW¼ of Section 21, Township 18 South, Range 28 East.

4. That considerable additional expenses will be incurred and loss of efficiency result, and premature abandonment of the project for economic reasons might result in the loss of ultimate recovery

1-22-59 Docket Mailed BP

of oil unless this application is granted.

WHEREFORE, Applicant prays for the following relief:

1. That it be authorized an exception to Rule No. 309 of the Commission Rules and Regulations by being permitted to consolidate all tank batteries on the Resler Yates State Lease into one tank battery at a location of the lease operator's choice, which is proposed to be the SE¼SW¼ of Section 21, Township 18 South, Range 28 East.

2. That it be authorized to install lease automatic custody transfer equipment for each of the following leases in the Artesia Field:

(a) McNutt State Lease
(b) Welch Duke State Lease
(c) Resler Yates State Lease

3. That the Commission set this matter down for hearing before an Examiner at the earliest possible date and notice of such hearing be published as required by law.

DATED this 19th day of January, 1959.

Respectfully submitted,

THE IBEX COMPANY

By: Jack M Campbell

Campbell & Russell
P. O. Box 721
Roswell, New Mexico

Its Attorneys

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 2-10-59

CASE NO. 1594 HEARING DATE 2-9-59

My recommendations for an order in the above numbered case(s) are as follows:

Approve as follows;

1. 3 separate test & storage systems for each lease as follows.
   (a) McClutt St.
   (b) Welch Duke St.
   (c) Reeder Yates St.
2. The storage for the Welch Duke St. will be on that lease as well as the McClutt St. but the storage for the Reeder Yates St. will be located on the McClutt lease.
3. While no facilities for shutting down the pumps ~~soon~~ in the event the surplus storage tanks were full I recommend that we require facilities to shut down the wellhead on this system in the event the storage is full.
4. We could write identical order for this as R-1326 adding requirements in 3 above.

Staff Member

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. 1580
Order No. R-1326

APPLICATION OF CITIES SERVICE OIL
COMPANY FOR PERMISSION TO INSTALL
AUTOMATIC CUSTODY TRANSFER EQUIPMENT
ON ITS GOVERNMENT "B" LEASE, CAPROCK-
QUEEN POOL, CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 7, 1959, 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 21st., day of January, 1959, 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, Cities Service Oil Company, is the owner and operator of the Government "B" Lease in the Caprock-Queen Pool, Chaves County, New Mexico, comprising the following-described acreage:

TOWNSHIP 14 SOUTH, RANGE 31 EAST, NMPM	
Section 3:	All
Section 10:	N/2

(3) That the applicant proposes to install automatic custody transfer equipment on said Government "B" Lease and to produce all Caprock-Queen Pool wells on said Lease into a common tank battery.

(4) That the applicant proposes to measure the oil passing through the automatic custody transfer equipment by means of positive displacement meters.

(5) That positive displacement meters provide an accurate and reliable means for measuring oil and their use should be permitted.

(6) 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.

(7) That the applicant should be permitted to produce more than sixteen wells into a common tank battery provided that each well which is producing into said battery is periodically tested to determine the individual production from said well.

(8) That the positive displacement meters used in the above-described system should be checked for accuracy once each month until further order of the Secretary-Director.

IT IS THEREFORE ORDERED:

(1) That the applicant, Cities Service Oil Company, be and the same is hereby authorized to produce into a common tank battery all wells producing from the Caprock-Queen Pool on its Government "B" Lease, which comprises all of Section 3 and the N/2 of Section 10, Township 14 South, Range 31 East, NMPM, Chaves County, New Mexico.

(2) That the applicant be and the same is hereby authorized to install automatic custody transfer equipment utilizing positive displacement meters on the aforementioned Government "B" Lease.

PROVIDED HOWEVER, That the applicant shall make periodic production tests of all wells producing into the said common tank battery to determine the individual production of said wells.

PROVIDED FURTHER, That the positive displacement meters used in the automatic custody transfer equipment referred to above shall be checked for accuracy once each month until further order of the Secretary-Director and the results of such tests shall be furnished to the Commission.

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

S E A L
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Class of Service
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

1201

SYMBOLS
DL = Day Letter
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=OTL CONSERVATION COMMISSION=

SANTA FE NMEX=

=ATTENTION DAN NUTTER WE HAVE NO OBJECTION TO APPLICATION OF THE IBEX COMPANY AUTOMATIC CUSTODY TRANSFER SYSTEM IN ARTESIA FIELD=

MALCO REFINERIES INC W B MCCOMBS=.

Case 1594

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

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. 1594
Order No. R-1346

APPLICATION OF THE IDEX COMPANY FOR
PERMISSION TO INSTALL THREE SEPARATE
LEASE AUTOMATIC CUSTODY TRANSFER
SYSTEMS IN THE ARTESIA FIELD, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 4, 1959, 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 2nd day of March, 1959, 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 operator of certain wells being produced by water flood operations on the Welch Duke State lease, the Resler Yates State lease, and the McNutt State lease, all in Township 18 South, Range 28 East, Artesia Field, Eddy County, New Mexico.

(3) That the applicant proposes to install a separate automatic custody transfer system and a separate consolidated tank battery to handle the production from each of said leases.

(4) That applicant further seeks an exception to Rule 309 of the Commission Rules and Regulations inasmuch as the consolidated tank battery for said Resler Yates State lease is to be located on said McNutt State lease.

(5) That the applicant proposes to measure the oil passing through each separate automatic custody transfer system by means of positive displacement meters.

(6) That previous use of positive displacement meters and automatic custody transfer equipment, similar to that proposed by the applicant, has shown such equipment to be reliable and the use of same should be permitted.

(7) That each well producing into a central tank battery should be tested periodically to determine its individual production.

(8) That the positive displacement meters used in each of the automatic custody transfer systems should be checked periodically for accuracy.

IT IS THEREFORE ORDERED:

1. That the applicant, The Ibex Company, be and the same is hereby authorized to install a separate automatic custody transfer system to handle the production from each of the following leases in Township 18 South, Range 28 East, Artesia Field, Eddy County, New Mexico: Welch Duke State lease, Reeler Yates State lease, and McNutt State lease, and to produce all wells on each of said leases into a separate consolidated tank battery for that lease.

2. That the applicant be and the same is hereby authorized to physically locate the consolidated tank battery for the production from the Reeler Yates State lease on the McNutt State lease.

PROVIDED HOWEVER, That the applicant shall make periodic production tests of all wells producing into each of the consolidated tank batteries to determine the individual production from each well.

PROVIDED FURTHER, That the positive displacement meters used in each of the automatic custody transfer systems shall be checked for accuracy once each month until further order of the Secretary-Director, and the results of such tests shall be furnished to the Commission.

PROVIDED FURTHER, That the applicant shall install a mechanical device in each separate transfer system which will shut down each well's pumping units in the event the storage tanks are full.

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

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

March 3, 1959

COPY

Mr. Jack Campbell
Campbell & Russell
P.O. Box 721
Roswell, New Mexico

Dear Mr. Campbell:

On behalf of your client, The Ibex Company, we enclose two copies of Order R-1346 issued March 2, 1959, by the Oil Conservation Commission in Case 1594, which was heard on February 4th at Santa Fe before an examiner.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encls.

Order sent to Bill McCombs Mailed 3-2-59 BP

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

Case No. 1594

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE NEW MEXICO
Phone CHapel 3-6691

February 4, 1959

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

Application of the Ibex Company for permission to install three separate lease automatic custody transfer systems. Applicant, in the above-styled cause, seeks an order authorizing it to install three separate lease automatic custody transfer systems, one on its Welch Duke State Lease, one on its Resler Yates State Lease and the other on its McNutt State Lease, all in the Artesia Field, Townsnip 18 South, Range 28 East, NMPM, Eddy County, New Mexico. Applicant further seeks permission to consolidate multiple tank batteries on said Resler Yates State Lease in exception to Rule 309 of the Commission Rules and Regulations.

CASE NO. 1594

BEFORE:

Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The next case will be Case 1594.

MR. PAYNE: Case 1594. Application of the Ibex Company for permission to install three separate lease automatic custody transfer systems.

MR. CAMPBELL: Mr. Examiner, I am Jack M. Campbell, Campbell and Russell, Roswell, New Mexico, appearing on behalf of the applicant. We have one witness to be sworn.

(Witness sworn.)

MR. UTZ: Are there any other appearances in this case? If not, you may proceed.

J. . C. C H A P M A N, a witness called by and on behalf of the applicant, being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY: MR. CAMPBELL:

Q Will you state your name, please?

A J. C. Chapman.

Q Where do you live Mr. Chapman?

A Artesia, New Mexico.

Q By whom are you employed and in what capacity?

A Water flood engineer for the Ibex Company.

Q Have you testified previously before this Commission or one of its examiners?

A No, I have not.

Q Will you give the Examiner a brief summary of your educational and professional background, please?

A I have a BS degree in petroleum production engineering from the university of Pittsburg. I have been employed by the Skelly Oil Company for about twelve years as production engineer. I have been employed by the Ibex Company for approximately six months as water flood engineer.

Q In your capacity as water flood engineer working in the field --

A Yes.

Q --are you in charge of the operations in the Artesia Water Flood Project of the Ibex Company?

A That's correct, yes.

MR. CAMPBELL: Are the witness' qualifications acceptable?

MR. UTZ: They are, yes.

Q (By Mr. Campbell) Are you acquainted with the application of the Ibex Company in this case?

A Yes, I am.

Q Will you state to the Examiner what you, generally what you expect to do without going into the mechanical operation?

A We want to put three of these leases where we are water flooding, around Section 28 of 18 South, 28 East, put these leases on lease automatic custody transfer.

Q Will you refer to what has been identified as Exhibit, Ibex's Exhibit No. 1 in this case and state what that is please?

A We have three leases on which we are conducting water flood operations, and our Resler Yates State is outlined in purple Our McNutt State is outlined in yellow, and the Welch Duke State is outlined in green. We have tank batteries for each of those leases located in the, along the North line of Section 28, right in the northeast corner of the NE/4 of the section. We would like to put those batteries on automatic custody transfer so that the oil would automatically be processed through treaters into a sales tank and metered from the sales tank to the pipeline.

Q Where will your LACT unit be situated then in relation to your tank battery there?

A It would be located in the center of the batteries that are located in that area.

Q Have you shown on Exhibit No. 1 where that location would be?

A Yes.

Q Is it identified with a small rectangular diagram?

A And marked LACT, yes, in that location.

Q Now, go ahead and return to your seat there. I also hand you what has been identified as Ibex Exhibit No. 2 in this case and ask you to state what that is?

A Exhibit 2 is a discussion of the operational sequence of the automatic tank battery, and has with it a schematic diagram showing the process of the oil through that system.

Q Are you acquainted with the operation of similar LACT units by the Graridge Company and Ambassador in the Caprock field?

A Yes, I am. Those are similar to this system and have previously been approved by the Commission.

Q Is there any material difference in the operation of the system you propose here and the systems that have been approved by the Commission in the Caprock?

A No, sir, there is not.

Q Would you state briefly in connection with your statement on Exhibit 1, which was also attached to the Application,

will you state briefly how this proposed system would operate, particularly with reference to the three leases going into one unit?

A Well, we have three separate units there, one for each lease. The oil, of course, goes into the treater where the water is separated. From the treater the oil goes to the monitor tank which has a capacity of approximately sixty-five gallons, goes into this tank through a down comer that is perforated. From the middle of this tank, mid point, a two inch tube is taking the oil out to the external part of the tank where the oil comes down to a probe, BS & W probe, monitor. This monitor records or keeps track of the amount of BS & W that is in the oil. A small rotrary gear pump transfers that oil through that monitor and back to the bottom tank. If at any time the BS & W content exceeds what is set forth, for example one percent, an automatic valve that leads out from that monitor tank closes, and the pump, circulating pump automatically circulates the oil back from the monitor tank through the treater to be retreated.

As long as the oil is below the limit set on the monitor of one per cent, or whatever it is set down, to five-tenths of one per cent, the oil fills up the monitor tank and goes through the pipeline, the line with the automatic value to the sales tank, which is a 210 tank, and from that point, the oil is pumped through into a skid unit on which is mounted an automatic sampler which takes a sample of each barrel as the oil goes through it and saves

it in a pressure controlled container from which later on it will be taken, a sample, for centrifuge to determine the BS & W content. After passing through the sampler, the oil goes through a strainer to take out any materials that might be injurious to the meter. From the strainer it goes to a deaerator to take any intrain gas or air where you have solid fluid going through the meter and to insure accurate measurement by the positive displacement meter. After going through the meter, the oil goes through a back pressure valve which maintains a constant pressure on the pump in order to insure accuracy of the meter and from then on it goes into the pipeline.

Q Now, in your experience in connection with the operation of these systems, is it your opinion that the oil in each of these leases can be accurately measured and controlled by the use of this automatic custody transfer equipment.

A Yes, sir, it is.

Q Now, there are three separate leases involved here, am I correct in my understanding that you will use separate tank batteries for each lease and separate LACT units for each lease?

A That is correct.

Q There will be no commingling of the oil from one lease to the other?

A That is correct.

Q So that if there should happen to be separate beneficiaries on the royalty in those state leases, their royalty oil will remain

identifible in each separate system, is that right?

A Yes, sir.

Q In your opinion, will the approval of this application result in more efficient operation of the water flood project involved?

A Yes, sir, it will require less time for the operators of the units, so that they can spend their time elsewhere.

Q Has this matter been discussed with purchaser of the oil from this particular flood?

A Yes, sir, Malco Refining. Malco Pipeline Company takes the oil and they have indicated that they will approve this type of installation.

MR. CAMPBELL: I would like to offer Ibex's Exhibit No. 1 and 2 in this case in evidence.

MR. UTZ: Without objection, Exhibit 1 and 2 will be accepted.

MR. CAMPBELL: That's all I have at this time, Mr. Examiner.

MR. UTZ: Any questions of the witness? Mr. Payne.

CROSS EXAMINATION

BY: MR. PAYNE:

Q Can you tell me where the batteries are located on each of those leases?

A The batteries are located right around that corner, the northeast corner of the southwest -- I mean, of the northwest

quarter of Section 28. Actually, the tank battery is just over the line for the McNutt State lease and for the MRM, Resler Yates State lease and the battery for the Welch Duke State is on the south side of the line. They are all within one hundred feet or so of each other.

Q So that your application is correct in saying that the battery on the Resler Yates Lease is on the Southeast of the Southeast of 21, or is actually in 28?

A You are correct, it is actually in the SE of the SW of 21. However, the skid unit for the lease automatic custody transfer is in Section 28.

Q Now, what is the orange outline?

A That is a separately owned lease.

Q Has no bearing on this particular hearing?

A Has no bearing on this thing, yes.

Q Now, where is the Welch Duke State Lease battery to be located?

MR. CAMPBELL: Mr. Examiner,these batteries are presently located at the points you are referring to now, isn't that correct?

A Yes.

MR. CAMPBELL: They are there now?

MR. PAYNE: I understand there isn't going to be but one battery.

MR. CAMPBELL: There are three batteries.

MR. PAYNE: You intend to have three batteries?

MR. CAMPBELL: Yes.

MR. PAYNE: What I want to find out is where they are.

MR. CAMPBELL: He can tell you where they are. You are referring to where they would be. I simply want to point out where they are presently. Would you tell him where the Resler State tank battery is, please?

A The Resler State tank battery is in the SE of the SW/4 of Section 21, as also is the battery for the McNutt State, the battery for the Welch Duke State is in the NE corner, extreme NE corner of the NW/4 of Section 28.

Q (By Mr. Payne) In other words, they are all there in the immediate area, but there are three separate batteries?

A That's right.

Q And continue to be separate batteries?

A Yes, sir.

Q And each battery is on a separate lease?

A No, they are not on separate leases, but they are located very, very close together, within two hundred feet. Each battery is on their separate leases, except the Resler Yates State, and it is on that McNutt State Lease.

MR. PAYNE: That's all.

EXAMINATION BY MR. UTZ:

Q The Resler Yates State will be the only one that crosses the lease line before it goes into a tank battery?

A Yes, sir.

Q Mr. Chapman, is the royalty and working interest in each of these three leases common to each lease?

A The three leases are separate, have separate royalty interest, but the whole lease has a common royalty interest.

MR. UTZ: Are there any other questions of the witness? Mr. Fischer.

EXAMINATION BY MR. FISCHER:

Q Mr. Chapman, the sale of your oil, will it be a continuous process in that as you fill your first tank as shown here, the first sales tank, it will automatically go to the pipeline?

A Yes, sir.

Q In other words, you, in most instances, wouldn't have occasion to fill a second or third tank, as your first tank fills up it will drain to the pipeline?

A That's right, the only reason for the other two storage tanks is in the event there is malfunction of the automatic custody transfer. On normal operations, those two tanks will be used.

MR. FISCHER: Thank you very much.

EXAMINATION BY MR. UTZ:

Q Mr. Chapman, will your company be willing to make a thirty day meter test until further notice from the Commission?

A Yes, sir.

Q Mr. Chapman, are all of these wells pumping, or are some of them flowing?

A They are all pumping wells.

Q They are all pumping wells. In case of malfunction of the LACT system, what will shut in the well?

A Well, the wells will not be shut in. They are lower-- The oil will be diverted over into all three storage tanks, and if it happens that they will not be able to meter it, then they will go back to the conventional system of gauging each of the tanks.

Q Do I understand that there is no shut off, emergency shut off at the header ahead of this LACT system in case your BS & W gets too high or in case the meter goes bad or some other malfunction?

A If the BS & W goes too high, or there is malfunction, the oil will not go through the automatic meter.

Q Goes directly to the tank?

A It will be retained in the tank.

Q In the event -- Well, first let me ask this, under those conditions, will there be any, what would the pressure be on your flow lines to the LACT system or tank?

A Well, it will be equal to the pressure kept on the treater which will be less than ten pounds.

Q Wouldn't be any more than ten pounds?

A No, sir.

Q In that regard, there will be no more pressure on the flow lines of this system than there would be under an ordinary central tank battery system?

A That's correct, yes.

MR. UTZ: Any other questions of the witness?

MR. FISCHER: Yes, I have one.

MR. UTZ: Mr. Fischer.

EXAMINATION BY MR. FISCHER:

Q I notice that you don't have equalizing lines, doesn't seem to be any equalizing lines shown, so if your No. 1 sales tank fills up for any malfunction of the system, the pumper would have to open up the other plug valves or the other valves to this No. 2 tank? Is that right?

A No, sir, in case of any malfunction of the system, the automatic valve indicated on the sketch as V-3, between the monitor tank and the sales tank would automatically close. In this case the monitor tank would continue to fill up until it reached the upper line, and the oil would then proceed through that line to the other tank.

Q All right. In normal operation, would your valve V-10 and V-11 be operned or closed?

A They would normally be opered.

MR. FISHCER: Thank you.

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

(Witness excused.)

MR. CAMPBELL: That's all we have, Mr. Examiner.

MR. UTZ: Any other statements to be made in this case?

MR. PAYNE: I have one, Mr. Examiner. We received the following communication from Malco Refineries which reads as follows:

"We have no objection to application of the Ibex Company automatic custody transfer system in Artesia Field. Malco Refineries, Inc., W. B. McCombs."

MR. UTZ: Any other statements to be made? If not, the case will be taken under advisement.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, Joseph 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 Hearing before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript, 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 10th day of February, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1584, heard by me on Oct 7, 1959.

....., Examiner
New Mexico Oil Conservation Commission

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