

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 27, 1960.

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)
IN THE MATTER OF:)
)

APPLICATION OF PAN AMERICAN PETROLEUM)
CORPORATION for permission to commingle)
the Empire-Abo Pool production from)
eleven separate State leases in Town-)
ships 17 and 18 South, Range 28 East,)
Eddy County, New Mexico. Applicant fur-)
ther seeks permission to install auto-)
matic custody transfer facilities to)
handle said commingled production.)
-----)

CASE
NO. 2030

BEFORE:

Hon. Daniel S. Nutter, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: Next case will be Case 2030.

MR. PAYNE: Case 2030. Application of Pan American
Petroleum Corporation for permission to commingle the Empire-Abo
Pool production from eleven separate State leases.

MR. NEWMAN: Kirk Newman, of Atwood and Malone, Roswell,
New Mexico, representing the applicant. We have one witness. Let
the record show the witness has already been sworn.

A L B E R T H. G R E E N, a witness, called by the Applicant,
having been previously sworn, was examined and testified as follows:

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DIRECT EXAMINATION

BY MR. NEWMAN:

Q Will you state your name, and your employment, please, sir?

A My name is Albert H. Green; employed by Pan American Petroleum Corporation as a petroleum engineer, Lubbock, Texas.

MR. NEWMAN: We will presume the witness' qualifications remain acceptable for this case?

MR. NUTTER: Yes, sir.

Q (By Mr. Newman) We have what will be designated as the Applicant's Exhibit 1, which has certain attachments thereto.

(Whereupon, Applicant's Exhibit 1 marked for identification.)

Q Mr. Green, would you refer to attachment 1 of Exhibit 1, and state to the Commission what that exhibit shows?

A Attachment 1 of Exhibit 1 is a lease plat, which shows the location of the proposed central battery Lact facilities to serve that acreage which is outlined by broken or dashed purple lines.

Q What quarter quarter section is the central battery located?

A Central Lact is located in the Southwest Quarter of Section 27, Township 17, Range 28 East.

Q For the purposes of the record, would you briefly state the descriptions of the lands to be covered by these State of New Mexico leases, which are described in your application?



A The acreage description is as follows: Includes the SW/4 NE/4 of Section 31, the W/2 SW/4 of Section 31, the NE/4 SW/4 Section 31, the N/2 nw/4 Section 32, the SW/4 NW/4 of Section 32, the E/2 SE/4 of Section 32, the NW/4 SE/4 of Section 32, the SW/4 SE/4 of Section 32, all of the preceding in Township 17 South, Range 28 East; and the NW/4 NW/4 of Section 4, the N/2 NE/4 of Section 5, and the NE/4 NW/4 of Section 5, the latter being in the Township 18 South, Range 28 East.

Q Are the lease numbers of the State of New Mexico, Oil and Gas leases, shown on your plat?

A Yes, sir, they are in each quarter quarter, or each lease, the State Lease number is shown.

Q And what institution of the State is beneficiary under all of these leases?

A The common school.

Q Do you have any other remarks in connection with this exhibit?

A No, sir, no other remarks pertaining to attachment 1.

Q Would you now refer to what is designated as Attachment 2 of Exhibit 1, and state what that attachment shows, please?

A Attachment 2 of Exhibit 1 is a schematic flow drawing which shows the proposed storage system serving those leases which I have just enumerated.

Q Is this schematic drawing of this system, does it show that the system to be installed is substantially the same as



other systems previously approved by the Commission, and for which application has been made in the preceding case?

A Yes, sir, for all the collecting equipment is identical.

Q Would you trace your flow through this system?

A Flow from each well passes through an individual well flow-line, through individual well automatic flow control valves, and into the lease production headers which are marked item "A". From the individual lease production headers, flow passes through the individual lease separators, the individual lease production meters, and then the flow is commingled and passes into the Lact unit surge tank, which is marked item "D". From the surge tank, flow passes through the Lact, the components of which are pipeline pumping, the strainer "H", the deaerator "I", the B. S. and W. monitor "J", the diverting valve "K", the pipeline sampling point "L", the positive displacement meter "M", the back-pressure valve "N", past the prover tank and prover loop connections "O", and through a back-flow connection valve marked item "P".

If production is of unmerchantable quality, the flow passes directly through the Lact. In the event that the B. S. and W., item "J", detects the presence of unmerchantable oil, flow is diverted from the pipeline into the resurgical tank, item "Q". Here, again, as in the previous case, water or production is very small, and when unmerchantable oil is collected in the resurgical tank, it will be chemically treated, the water drawn off, and the treated oil returned to the Lact unit surge tank, which

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is item "D".

Q What type flow lines are used in this system?

A The flow lines connecting the wells to this central battery are high pressure tubing, designed to withstand 3,000 pound pressures.

Q Is that substantially in excess of your top pressures, shut-in pressures on this well?

A Yes, sir, it is.

Q Is there any means, through the use of this system, whereby physical waste of oil would occur?

A No, sir.

Q Is there any possibility that physical waste would be prevented by the use of this system, rather than by the conventional system?

A We believe that hydrocarbons can be -- excuse me -- the waste of hydrocarbons can be reduced by such installation, because there is less residence time for the crude to be held in storage tanks, prior to delivery to the pipeline.

Other than the reduction in hydrocarbon waste, there also will be a savings in labor provided by these facilities not only to the producer, but to the pipeline and these facilities will effect a substantial reduction in capital investment for the operator.

Q Are the facilities of this system such that the production from the individual leases could be accurately gauged in



order that correlative rights of the various leasehold royalty overriding owners can be protected?

A Yes, sir.

Q Do you have any further remarks in connection with this exhibit?

A No, sir.

Q Was the entire exhibit, including the commentary included therein, and attachment therein, prepared by you or under your direction?

A Yes, sir.

MR. NEWMAN: We would like to offer the Exhibit Number 1, with attachments.

MR. NUTTER: They will be accepted. Does anyone have any further questions of this witness?

CROSS-EXAMINATION

BY MR. PAYNE:

Q Does this proposed delivery have any significance with respect to the one you testified to in the previous case?

A The only difference of any significance is the fact this particular installation is not to be set up for individual well testing. The reason for that being that no lease has more than two wells. We feel that with the wells of the type which we now have, or which are now completed, that with no more than two wells per lease, the well testing can be accomplished with existing type facilities, which are proposed without setting up special or



separate well testing facilities.

MR. NUTTER: Would this involve the shutting in of one well?

A That is right.

Q (By Mr. Payne) These leases are not continuous, are they?

A No, sir, they are not. We have right-of-way for those across that acreage where it is necessary to lay flow lines.

Q What will the longest distance be?

A I believe approximately one and a half miles will be the longest flow line.

Q Your flow line on your "B" --

A "B" lease, which is in the W/2 SW/4 of 31, will have the longest flow lines.

MR. PAYNE: Thank you.

QUESTIONS BY MR. NUTTER:

Q What is the capacity of the surge tank?

A The tanks will be either four or five hundred barrel tanks.

Q Both of them?

A Yes, sir, that is our current plans.

Q Now, normally, your resurgical tank would be empty, or approximately empty?

A Normally, the resurgical tank will be empty.

Q You have available storage in the surge tank from the high level flow on up to the top?

resurgical?

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A Yes, sir.

Q What do you have there, approximately, 200 barrels?

A Let's see, that is -- just one second -- Yes, sir, that is correct, a little more than 200.

Q This line that connects these two tanks is a restricting overflow line?

A That is correct. Your existing, that line is a 6-inch line so as to easily handle the production into that tank.

Q Now, if your Lact fails to deliver oil, the production would either go into the surge tank, in the remaining capacity, and then overflow into the resurgical tank, or go into the re-surgical tank directly, and flow back into the surge tank, is that correct?

A Yes, sir. And in the event the Lact does not deliver oil, on signal from the working level in the surge tank, the surge tank fills into, flows in the ^{? recycling?} resurgical tank, and fills that tank until the maximum high level float switch is tripped. When the fluid level reaches that point, then that switch causes each individual well flow control valve to shut in.

Q At the inlet to the separator?

A At the inlet to the separator.

Q Then you rely on your 3,000 pound tubing to hold the wells?

A To prevent waste.

Q What kind of meter is it that you propose to use in this



installation and the difference in the one we had in the previous case?

A In both cases, all meters are the positive displacement type.

Q What type?

A A. O. Smith.

Q What about the gas that is produced at these various separators? Is that commingled prior to metering, or separate sales?

A The gas will be separately metered to achieve proper allocation.

Q Would the same thing hold true in this instance as you stated in the previous instance, that when you commence making free water or emergent^{2.}, you would install heaters upstream from there and make compressions, continuously sample the production?

A That is correct.

Q What application of emergent^{2.} over water are you making in this estimation?

A I am -- well, less than one percent also.

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

(No response.)

MR. NUTTER: You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further?

MR. NEWMAN: No, sir.

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MR. NUTTER: Does anyone have anything further in Case 2030?

(No response.)

MR. NUTTER: We will take the case under advisement.

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, LLEWELYN NELSON, Notary Public 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 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 the 2nd day of August, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Llewellyn J. 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. 2030, heard by me on 7/27, 1960.

[Signature], Examiner
New Mexico Oil Conservation Commission

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I N D E XWITNESSPAGE

ALBERT H. GREEN

Direct Examination by Mr. Newman

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Cross Examination by Mr. Payne

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QUESTIONS by Mr. Nutter

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<u>NUMBER</u>	<u>EXHIBIT</u>	<u>MARKED FOR IDENTIFICATION</u>	<u>OFFERED</u>	<u>RECEIVED</u>
App.#1	Lease plat	2	6	6

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