# BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico February 23, 1961 EXAMINER HEARING IN THE MATTER OF: Application of Gulf Oil Corporation for an automatic custody transfer system. Applicant, in the ) above-styled cause, seeks permission to install CASE an automatic custody transfer system to handle 2195 the production from an undesignated Abo pool from all wells presently completed or hereafter drilled on the Lea-State "LB" Lease comprising the NW/4, N/2 SW/4 and SW/4 SW/4 of Section 20, Township 17 South, Range 36 East, Lea County, New Mexico. BEFORE: Elvis A. Utz, Examiner TRANSCRIPT OF HEARING (Marked Applicant's Exhibits No's. 1, 2 & 3 for identification.) MR. UTZ: Case 2195. MR. PAYNE: Case 2195: Application of Gulf Oil Corporation for an automatic custody transfer system. MR. KASTLER: Bill Kastler from Roswell, New Mexico appearing on behalf of Gulf. Our witness will be Franklin Bridges. FRANKLIN BRIDGES, (Witness sworn.)

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

DIRECT EXAMINATION

BY MR. KASTLER:

Will you state your name and address, your employer and



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## your position?

- A My name is Franklin Bridges; I work for Gulf Oil Corporation in Hobb, New Mexico.
  - Q What is your position?
  - A Petroleum Engineer.
- Q Would you please briefly review your educational experience and background as a Production Engineer?
- A I attended UCLA where I received a BS degree in petroleum engineering in 1956 and went to work at Gulf Oil for trainees and pump and well tested until I was classified as an engineer. At which time, I began engineering work on work-overs, well completions, equipment design and other production properties. For the past year, I have been handed some drilling problems and primarily worked on LACT batteries and installation.
- Q Are you familiar with Gulf Oil Corporation's Lea-State "LB" Lease, and its application for installation of an automatic custody transfer system?
  - A Yes sir.
- MR. KASTLER: Are the witness' qualifications satisfactory?
  - MR. UTZ: Yes sir, they are.
- Q (By Mr. Kastler) I wish to call your attention to a least plat which you have caused to be marked Exhibit Number 1 in Case 2195. Would you please give the geographical location of the Gulf lease involved in this application?



A Yes sir, this Gulf Lea-State "LB" which is located in the Northwest Quarter of the North Half of the Southwest Quarter and Southwest Quarter of the Southwest Quarter of Section 20, Township 17 South, Range 36 East, Lea County, New Mexico.

- Q That is a State, Federal or fee lease?
- A State.
- Q What institution is the beneficiary and the royalty owner?
  - A This is common school.
  - Q Is there any divestity of common ownership?
  - A No sir.
  - Q Are there any wells on this lease at the present time?
- A No sir, we are not rigging up -- preparing to drill our first well.
- Q You expect to drill that well to what depth -- the pay zone?
  - A Approximately 9,000 feet to the Abo.
- Q Is there any Abo production nearby or offsetting this lease, and if so, state the location of that production.
- A Yes sir, Sunray Mid-Continent had the discovery well. It is a direct offset to our lease. It's located in the Northwest Quarter of the Fourth East Quarter of Section 20, Township 17 South Range 36 East, Lea County, New Mexico. This well potential is in excess of top allowable.
  - O Do you know the probable depth or approximate depth of



### this well?

- A Approximately 9,000 feet.
- Q Is there any other development presently going on in this area?
- A I understand Humble is now drilling a well just north of our lease in Section 17, same Township and Range. I understand that this is recently discovered and as yet an undesignated Abo pool for which Gulf is planning.
- Q Is that a standing problem of its State "LB" Lease, is that correct?
  - A Yes sir.
- Q How many locations potentially does Gulf have on this lease?
  - A Seven.
- Q Why did Gulf propose lease custody automatic transfer before drilling its first well?
- A Primarily a matter of economics. We like to go ahead and be able to install this ACT equipment. It would not put tanks in for a while and not have to take some of them out.
- 0 What are the present plans of Gulf in connection with this lease, or what is the state of things now
  - A Well, we are now rigging up to drill our first well there.
- Q There is no other undesignated elbow production offsetting this lease other than the Mid-Continent well, is that correct?
  - A As far as I know, no sir.



Q I wish to call your attention to Exhibit Number 2, Production Flow Diagram of Lea State "LB" Battery and ACT. I understand this is the proposed installation or production facilities alone. Would you please trace the flow?

A Yes sir, we plan to install a Production Separator, a 1,000 barrel Surge Tank, and a 500 barrel Test Tank. The production will come into the Production Separator, and the gas will go off that Separator -- which I didn't put on the drawing -- and the oil will go on to the Surge Tank where it will be running, if approved, to ACT methods, to the Tank link.

- Q You anticipate any water emulsion immediately?
- A No sir.
- Q What are your test facilites proposed?
- A Well, until we get more than two or three wells, we will just test through the Production Separator. If we just have one well, we'll just test straight into the Surge Tank. When we have two wells, we have to close one well in during the period of testing. Then later, as we get more wells, we will install a test Separator to test any well without shutting any of the other wells in, into the Test Tank.
- Q Isn't it true that the production facilities are substantially what any prudent operator would install whether or not an ACT was authorized?
  - A Yes sir.
  - O I then wish to call your attention to Exhibit Number 3



which is a schematic diagram for the automatic custody transfer system which is proposed. Would you please trace the flow through that?

- A Yes sir, when the oil in the Surge Tank reaches an upper pre-set level, the pump will start and the relief shut-in valve will open and kill contact through this run as long as the BS&W does upset the maximum as set on the marker. Until the oil drops into the Surge Tank to the lower pre-set level, at that time, the relief shut-in valve will close, and the pump will stop.
- Q What are those pre-set levels of turning and turning off?
  - A It will probably operate between six feet and three feet
  - Q All right, continue.
- A If the BF&W course ever exceeds the maximum set on the meter, then the oil will be diverted to the bad oil tank until the ES&W falls below the maximum set and go back on the pipe line.
- Q Is that tank the tank that you will have in the Number 2, the high, 500 barrel tank, is that correct?
  - A Yes sir.
- Q Would you proceed further with tracing the flow from the Surge Tank to the pipe line?
- A well, the course as this Exhibit Number 3 shows, the oil goes through the Strainer, the pump, by the BS&W marker probe and through the Aireator. A sample of oil will be taken at this point, and the oil continued through the PD Meter and onto the pipeline.



- Q What are the features of the proposed PD Meter?
- A The PD Meter will have an ACT Unit Calibrator; an LACT, Automatic Temp Compensator Calibrator and Stop-down, or visible register and barrel and safety shut-down circuit.
- Q Does this proposed LACT Unit differ substantially from any previous ACT Unit which Gulf has in operation approached by the New Mexico Oil Conservation Commission?
  - A No sir, this principle is the same.
- Q Would you please outline the safety precautions that are planned in the event of a time failure?
- A Well, if the pipeline pump should fail to come or break or something go wrong with it, or the meter should break, the linkage between the meter and chamber and register should fail, the safety shut-down curcuit would shut the pump and release shut-down until someone came by and corrected the trouble.
- Q In your opinion, are these production facilities adequate for sufficient storage during the unattended hours?
- A Yes sir, we will at all times have sufficient storage to handle the production during unattended hours or install safety devices to shut the well in if the storage is approved.
- Q What are your facilities for selling this to the pipeline? What pipeline company is connected ?
- A At the present time, there is no pipeline in this new field. The oil will be trucked for a time, and then one of two pipelines within three and a half miles will probably come in. Both



have been contacted and are receptive to SCT (ACT).

- Q Which are the pipelines which are situated and located within two and a half miles?
  - A Texas and New Mexico full pipeline.
- Q Is that in the interest in conservation of oil and gas and preservation of waste?
  - A Yes sir.
  - Q Does it impair any correlative rights?
  - A No sir.
- Q Were Exhibits 1, 2 and 3 prepared at your direction and under your supervision?
  - A Yes sir.

MR. KASTLER: That completes the questions. I would like to move at this time for entrance of Exhibits 1, 2 and 3.

MR. UTZ: Exhibits 1, 2 and 3 entered into the record of this case.

### CROSS EXAMINATION

### BY MR. UTZ:

- Q Mr. Bridges, did you say what your maximum unattended hours might be?
- A No sir, I didn't state it. Our plans now are to have a pumper there, and he will be there every day. If we operate this tank between six feet and three feet, we will have at least 600 barrels of room on the 1,000 barrel and as much as 475 at 1,100 or 1,125 barrels. At the time, the allowable will be 924 barrels a



day, so that it gives you a little over a day's storage. Of course if it becomes necessary, we will have to add another tank. Like I said a while ago, put in safety devices.

- Q These safety devices would consist of a high-level safety switch or shut-in on high pressure lines?
- A Yes sir, consisting of both high-level flood into the Surge Tank and devices of the well to shut the well in.
  - Q Do you know whether this oil is sour or sweet?
  - A It's intermediate, semi-sweet.
  - Q Semi-corrosive?
- A I don't know for sure about that, because we don't have any yet.

MR. UTZ: Any questions of the witness?

### CROSS EXAMINATION

### BY MR. PAYNE:

- Q Do you know what the gas-oil ratio is on Sunray Mid-Continent Oil?
  - A No sir, I do not.
- Q So you don't know whether there is any possibility in the near future as you get your wells drilled of someone coming in to take the casinghead gas?
  - A No sir.
  - Q Too early to anticipate this yet?
  - A Yes sir.

# RE-CROSS EXAMINATION



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### BY MR. UTZ:

- Q Where do you propose to drill the next well, in the Northeast of the Northwest?
  - A Yes sir.
  - Q Do you know where Humble is drilling theirs?
- A No sir, I don't know the exact location. It would be in the Southwest Quarter of Section 17.
- Ω And your unit will undoubtedly be set in the same quarter section as well?
- A Yes sir. It may be set down more in the middle of the lease, not necessarily in the Northeast Quarter of that Fourth West Quarter.
- Q Even though you don't know whether you are going to get production in the south end?
- A That's right. We feel we will get at least four wells in by putting the tank batteries down on the center of the lease.

  Our pull line links are going to be about the same for to put it up in the Northeastern Half.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Any other statements in this case? The case will be taken under advisement.



STATE OF NIW MEXICO )
: ss
COUNTY OF BERNALILLO )

I, LA VERNE E. JAMES, 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 /3 day of March, 1961.

Notary Public - Court Reporte

My commission expires: January 6, 1965.

I do hereby certify that the foregoing is a complete record of the mondings in the Examiner handles and the mondings in heard by me on the complete of the com

