BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico July 11, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Humble Oil & Refining Company for approval of a unit agreement, Eddy County, New Mexico. Applicant in the above-styled cause, seeks approval of the Cedar Hills Unit Agreement comprising 1,440 acres of State Land in Township 21 South, Range 27 East, Eddy County, New Mexico.

CASE NO. 2595

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: This hearing will come to order, please. The first case will be 2595.

MR. MORRIS: Application of Humble Oil and Refining Company for approval of a unit agreement, Eddy County, New Mexico.

MR. HINKLE: Clarence Hinkle, Hervey, Dow and Hinkle, Roswell, New Mexico. We represent Humble Oil and Refining Company. We have one witness, Mr. Bob Best, we would like to have sworn.

(Witness sworn.)

MR. NUTTER: Mr. Hinkle.

MR. HINKLE: We have two exhibits here, exhibits 1 and 2

ALBUQUERQUE, PHONE 243.



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NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING - DANIEL S. NUTTER SANTA FE , NEW MEXICO

REGISTER

HEARING DATE	JULY 11, 1962 TIME:	9 A.M.
NAME:	REPRESENTING:	LOCATION:
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T. Lyon	CONTINENTAL OIL CO	Roswell
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to be marked.

(Whereupon, Applicant's exhibits 1 and 2 were marked for identification)

BOB BEST

called as a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

- Q Your name is Bob Best?
- A Yes, sir.
- Q You are employed by Humble Oil and Refining Company?
- A Yes, sir.
- Q Where do you live?
- A 1700 North Pontiac, Apartment 14, Roswell, New Mexico.
- Q How long have you lived there?
- A Roughly five years.
- Q In what capacity are you employed with the Humble Oil and Refining Company?

- A Sub-surface geologist.
- Q Are you a graduate geologist?
- A Yes, sir.
- Q What degree?
- A Bachelor of science.
- Q What university?
- A Texas A & M.



- Q What year?
- A 1957.
- Q Have you practiced your profession since your graduation?
- A Yes, sir.
- Q Have you been with Humble since graduation?
- A Yes, sir.
- Q Of what has your work consisted with Humble, mainly in New Mexico?

A Yes, sir. My work in New Mexico consisted of oil exploration in the southern portion of the state, lease acquisitions, drilling, and our oil exploration program.

- Q Are you familiar with Humble operations in New Mexico, and have you been for several years?
 - A Yes, sir.
- Q Have you made a geological study of the area in which this unit is situated, the Cedar Hills proposed unit agreement?
 - A Yes, sir.
 - Q Have you ever testified before the Commission before?
 - A No, sir.
- Q Are you familiar with the application of the Humble Company in this case? A I am.
- Q Do you have knowledge of the request for the approval of the Cedar Hills unit? A I do.
- Q This is mumble's Exhibit Number 1. Please explain to the Commission what it is?



A It shows the unit outline of the leasehold interest and royalty of the unit as a whole and that the unit outline consists of 1,440 acres.

- Q Is all the land State land?
- A Yes, sir.
- No fee or Federal lands involved?
- A No fee or Federal.
- Q The dates shown on the plat, does that show the completion dates?

A That is the acquisition dates of the various leases by the various companies.

- Q In other words, they could be drilled ten months or ten years from these dates?
 - A cThat's right.
 - Q Have you made a geological survey of this area?
 - A Yes.
- Q I hand you Humble's Exhibit Number 2 and ask you to explain what it is, and what it shows?

A That is a structural contour map contoured in part, of the Tansill formation, approximately here (indicating) north and from here (indicating) south on the Lamarr formation, shows the unit outline, shown in brown. It shows the wells used as drawn. It shows all the wells that have been drilled within the area, and it shows the proposed location within the unit as a whole.

Q What formation were these primarily drawn in?



A This area north is drawn on top of the Tansill formation and primarily equated the Tansill formation with the Lamarr and contoured over the front of the reef, and the south part is contoured to the Lamarr location.

- Q I assume you have sample logs and electrical diagrams of all wells in the area?
 - A Yes, sir.
 - Q From which - do you know if a sub-surface map was made?
 - A Yes, sir.
- Q In your opinion, does the proposed unit area cover all or substantially all of the formation or geological structure involved that could reasonably be expected to be productive in the event your test well is successful?
 - A We feel it does. Yes, sir, it does.
- Q That is a relatively shallow formation on which the contour map has been made, I assume?
- A That's right. This Tansill formation is shallow horizon, say 500 feet or so, and it would show as a low relief structure of relatively small drill depth.
 - Q Is it a separated tract?
 - A Small and higher relief.
- Q Devonian tracts, it is apparent that the top is really smaller than the unit area?
- A That's right, certainly smaller than the enclosure as shown on the shallow horizon.



- Q Does Humble propose to drill a test well in this area?
- A We do.
- Q To what depth?
- A To approximately 11,500 to 12,000 feet to quality test the rocks of Devonian age.
 - Q And this is encountered at approximately 11,500 feet?
 - A That's right.
- Q In your opinion, would the depth of this well equate less oil for the lower horizons to the area?
 - A Yes, sir.
 - Q Other than the Devonian formation, are there any others?
- A The Wolf Camp formation, the top of which can be encountered at approximately 6500 feet, could be a possible producing formation.
- Q The Wolf Camp is a formation of the lower and the upper pay sands, and it could be a producer in these sands?
 - A We feel that we would test all the pays.
- Q Are you familiar with the proposed unit agreement form of the companies which have been filed in connection with this application?
 - A Yes.
- Q Do you know whether or not that form follows substantially the same form as has been used in connection with other units and approved by the Oil Conservation Commission, and could you tell the Commission if only public lands - whether only State lands



are involved?

- A Yes, sir, it is.
- Q It follows the form of the Land Commission?
- A Yes, sir.
- Q Is Humble designated as the unit operator in the unit?
- A Yes.
- Q Does the unit agreement provide for the drilling of the test well which you referred to in your testimony?
 - A It does.
- Q And when is this well to be commenced under the terms of the unit?
 - A Within 60 days of the effective date of the unit.
- Q Do you know whether the proposed area and the unit form has been informally approved by the Land Commissioner or his staff?
 - A Yes, it has been formally approved.
- Q Now, in the event of the approval of this unit and of the drilling of the well, and if it is necessary to use unitized substances in any units, in your opinion, would the unit be in the interest of the prevention of waste?
 - A Very definitely.
- And in that case, if you do get production, would the unit attempt, in your opinion, to promote the greatest ultimate recovery of unitized substances?
 - A Yes.

MR. HINKLE: That is all.



MR. NUTTER: Are there any questions of Mr. Best?

MR. MORRIS: Yes.

MR. NUTTER: Mr. Morris.

CROSS EXAMINATION

BY MR. MORRIS:

Q Mr. Best, you said, "all unitized substances," are these hydrocarbon pools found below the basin of the units formation?

A That's right. Yes, sir.

Q At the present time, Mr. Best, how much of a working interest in the unit area has been submitted to the plan?

A All of the operators have been contacted and have indicated that they would join the unit after it had been purchased.

Once it is purchased, all of the operators have indicated they will join.

Q And all being State land, you will have it all and will have no big problems or no problems at all with royalty owners?

A Yes.

Q Mr. Best, now, you stated that the north position of the contour map is based on the Tansill formation and the south would be on the Lamarr. Is the Lamarr actually the equivalent of the Tansill?

A That has been a subject for debate. There are two ways of handling this here. One, it is contoured forward to Tansill as much as possible and then leave a wap for the reef front, and then go down and contour on it. Equate the two. There are

the topographical locations.

- Are you familiar with Highway 180 there with the point at which you switch from the Tansill to the Lamarr, in the area going due southwest from the unit, say a half a mile southwest from the hole, it would be on the reef proper and a little southwest of that Lamarr, and would that line parallel the highway?
 - A. More or less, yes, sir.
- Q Now, you stated that all the working interests had been contacted and had indicated they would sign when the purchase was complete. Have any working interest owners actually joined?
 - A None as yet.
- Q I see. There appears to be a little pool in the area where the initial well will be drilled. What well is that, Mr. Best?
- A There are two wells in the area, both of which are shallow pools, and I will give you the Yates, and I will give you roughly the approximate figures on those. The Magruder well there in Section 15, shallow Yates producers from 550 to 560, have produced cumculatively around 9,000 barrels of oil.
 - Q And this production commences at the base of the units?
 - A That's right.
 - Q So this well is not unitized?
 - A Yes, sir.



MR. MORRIS: Thank you, sir.

MR. NUTTER: Are there any further questions of Mr. Best?

If there are no further questions of Mr. Best, he may be excused.

MR. HINKLE: Thank you very much. I would like to offer these exhibits in evidence.

MR. NUTTER: Exhibits 1 and 2 will be accepted. Is there anything further in this case?

MR. MORRIS: The Commission has received a letter from Texaco, Incorporated, identifying themselves as prospective interest owners in the subject unit and stating, that they have no objection to the approval of Humble's application.

MR. NUTTER: Anything further in case 2595? If there is nothing further, the case will be taken under advisement.



STATE OF NEW MEXICO)

SS
COUNTY OF BERNALILLO)

I, MICHAEL RICE, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached transcript of hearing was reported by me in stenotype and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

Notary Public

My commission expires:

may 11, 1966



