Gil Conservation Commission
Santa Fe, New Mexico

IN THE MATTER OF:

CASE No. 749 Regular Hearing

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES

COURT REPORTERS

ROOMS 105, 106, 107 EL CORTEZ BUILDING TELEPHONE 7-9546 ALBUQUERQUE, NEW MEXICO

BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico July 15, 1954

IN THE MATTER OF:

Application of Humble Oil and Refining Company for approval of the Huapache Unit Agreement embracing 38,658 acres of land in Townships 23 and 24 South, Ranges 22 and 23 East, Eddy County, New Mexico.

Case No. 749

BEFORE:

Mr. E. S. (Johnny) Walker Mr. R. R. Spurrier

TRANSCRIPT OF HEARING

MR. SPURRIER: Case 749.

MR. HINKLE: Clarence Hinkle, representing Humble Oil and Refining Company. This is an application on behalf of the Humble Oil and Refining Company for the approval of the Huapache Unit Agreement in Eddy County. At the time that the application was filed, we filed three copies of the proposed unit agreement. At that time the unit agreement was not complete, in that the copies filed did not have attached Exhibits A and B. I would like to substitute, at this time, the final draft and the Exhibits A and B. Take one of these and lay it out before you so we can give you a picture of the unit. I have a witness to be sworn.

ROBERT W. BIBEE,

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

DIRECT EXAMINATION

By MR. HINKLE:

- Q State your name, please?
- A Robert W. Bibee.
- Q Where do you live, Mr. Bibee?
- A Roswell, New Mexico.
- Q By whom employed?
- A Humble Oil and Refining Company.
- Q In what capacity?
- A I am Assistant Division Geologist in charge of the Roswell Office and in charge of exploration for Humble in New Mexico and Arizona.
 - Q Have you ever testified before the Commission?
 - A I have not.
 - Q Are you a graduate geologist?
 - A Yes, sir, from the University of Texas.
 - Q What year?
 - A 1941.
 - Q How long have you been with the Humble?
 - A Since that time, 13 years.
 - Q In a capacity of geologist?
 - A Geologist, yes, sir.
- Q Are you in charge of the geological work for the Humble Company in New Mexico at this time?
 - A Yes, sir.
- Q Are you familiar with the application of the Humble Company for the approval of the Huapache Unit Agreement?
 - A Yes, sir.

- Q Where is this proposed unit located?
- A In Eddy County, New Mexico in Townships 23, 24, South, Ranges 22 and 23 East.
 - Q How many acres does it consist of?
 - A 38.657.59 acres.
 - Q How many acres in the proposed area are Federal lands?
 - A 29.266.32 acres or 75.7065 percent of the unit area.
- Q How many acres are State lands and what percentage of your unit?
 - A 7,354.76 acres, or 19.0254 percent of the unit area.
- Q How many acres are fee lands, and what percentage of the unit?
 - A 2.036.51 acres or 5.2681 percent of the unit area.
- Q Has this area been heretofore designated by the United States Geological Survey as an area suitable and proper for uniti-zation?
 - A Yes, sir, it has.
- Q Do you know whether or not a copy of that designation has been filed with the application for approval?
 - A Yes. sir.
 - Q That is dated April 1, 1954?
 - A Yes, sir, or thereabouts.
- Q At the time your application was filed with the United States Geological Survey for approval of the area, did you file with the application a geological report?
 - A Yes, sir.
 - Q Do you have available a copy of the report which you filed

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- A I do.
- Q Will you hand it to the stenographer and have it identified?

(Marked Humble's Exhibit No. 1, for identification.)

- Q Of what does the report consist? Are there any exhibits attached to the report?
- A The report consists of several pages describing the geology of the Huapache Unit Area, plus a surface, geological subsurface cross section and two electric logs.
 - Q Will you show to the Commission the map that is attached?
 - A (Witness complies.)
- Q Explain briefly to the Commission what the plat or map shows.
- A The map is on a scale of approximately 8,000 feet to the inch and shows contours based on surface geology on top of the San Andres Formation of the area of the Huapache Unit, and the area of the East Texas Hill Unit to the north along the Huapache-Monocline. It shows the outline of Humble's proposed Huapache Unit.
- Q Explain briefly to the Commission what the cross section plat shows that is attached to the geological report?
- A The cross section is an attempt, from sub-surface control to visualize what the beds might look like in the sub-surface on the up-side and the down-side of the Huapache-Monocline.
- Q State to the Commission in your own words, briefly what the report shows and contains.
 - A In general the Huapache Monocline is a surface feature

extending from the southern portion of Township 24 South, Range 23 East, northwestward some 40 miles to Township 19 South, Range 18 East, the monocline is a zone of steep dip, with dips approximating eight to twelve degrees along the monocline, dipping to the northeast, whereas the normal dip in the country is one to two degrees on the up-side and the down-side of this monocline. It is our belief that this monocline may be the surface evidence of a subsurface fault or an extremely steep monoclinal dip in the neighborhood of some 5,000 feet of displacement.

One of the most interesting geological facts of the monocline is that the Continental No. 1 Reswildcet located on the up-dip, southwest side of the monocline in Section 5, Township 22 South, Range 21 East, encountered a very thin Permian Wolfcamp section and no Pennsylvanian beds. Whereas, The Magnolia State W wildcat located in Section 15, 22 South, of Township 21 South, Range -- Excuse me again -- 22 East, had some 760 feet of Permian Wolfcamp beds in excess of that encountered in the Continental-Bass well, plus 3,405 feet of Pennsylvanian beds that were not present at all in the Continental Bass Well. In fact, that all of the Pennsylvanian rocks and a large part of the Permian Wolfcamp rocks were not present in the well on the top of the monocline, establishes the fact that these rocks likely pinch out near or against the monocline.

Of course, these Permian and Pennsylvanian beds are excellent producers of oil and gas in other portions of the Permian Basin. The possibilities of oil accumulation would be in the Wolfcamp and Pennsylvanian rocks, as they either truncate against the fault or pinch out against the monocline, and also in the Siluro, Devonian, Ellenberger and Montoya beds, if they were truncated

against the fault or monocline.

- Q Was this report prepared by you or under your direction?
- A Under my direction.
- Q This is the same report that you have filed with the United States Geological Survey?
 - A Yes, sir.
 - MR. HINKLE: We would like to offer the Exhibit in evidence.
 - MR. SPURRIER: Without objection it will be admitted.
- Q Mr. Bibee, state whether or not this proposed area covers all, or substantially all of the geologic features which you have just described to the Commission?
 - A Substantially all of the south end.
- Q And there is another part of this same monocline that is covered by another unit agreement?
 - A Yes, sir. The East Texas Hill Federal Unit.
 - Q Which end is that, which direction?
 - A That would be to the northwest.
 - Q What lies to the southeast?
- A The Carlsbad Caverns National Park or Monument, and the edge of the Capitan reef thers.
- Q Are you familiar with the form of unit agreement which is proposed to be used in this case and which has been filed with the Commission?
 - A Yes, sir.
- Q State whether or not the Humble is designated as the operator in the unit?
 - A Humble has been designated as the operator.

- Q Does the unit agreement provide for the drilling of any test well?
- A Yes, sir, for one 11,000 foot or basement completion wild-cat.
- Q In your opinion, will that well be sufficient to test the beds that they are probably producing in the area?
 - A We hope so.
- Q Do you know whether or not this form of agreement is in substantially the same form as unit agreements heretofore used in like cases and approved by the Commission?
 - A To my knowledge it is.
- Q Do you know whether or not an application has been made to the Commissioner of Public Lands for approval of the unit?
 - A Yes, sir, it has.
- Q State whether or not, in your opinion, if production should be obtained and this unit approved, that it would be in the interest of conservation and the prevention of waste?
 - A Yes, sir, it would be.
- Q Is it your opinion that it would promote the greatest ultimate recovery of unitized substances by operation under the unit?
 - A Yes, sir.
 - MR. HINKLE: That is all.
- MR. SPURRIER: Anyone have a question of the witness? If not the witness may be excused.

(Witness excused.)

- MR. SPURRIER: Anyone have a comment in the case?
- MR. HINKLE: I would like to let the record show that re-

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

STATE OF NEW MEXICO)

COUNTY OF PERNALILLO)

I, ADA DEARNLEY, 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 19th day of July, 1954.

Notary Public, Court Reporter

My Commission Expires:

June 19, 1955