

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

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TRANSCRIPT OF RECORD

ANTELOPE LAKE UNIT AREA HEARING

Held at Santa Fe, New Mexico

Thursday, November 1, 1951

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

Public Hearing held November 1, 1951 at 10:00  
o'clock A. M. in the City of Santa Fe, New  
Mexico, in Mabry Hall (new Capitol Office  
Building).

BEFORE: Hon. Edwin L. Mechem, Governor, State of New Mexico,  
Chairman

Hon. R. R. Spurrier, Secretary and Director

Hon. Jason Kellahin, Attorney

REGISTER: L. G. Welsh, Applicant

Hart Brown, Brown Geophysical Company,  
Houston, Texas

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The meeting was called to order by the Chairman, who  
presided.

Attorney Kellahin read the Notice of Publication which  
had been published as provided by law and the rules and regula-  
tions of the Commission, as follows:

\*\*\*\*(Prescribed Preamble)\*\*\*\*

CASE 322

In the matter of the application of L. G.  
Welsh for an order approving a proposed unit agreement  
for the development and operation of the Antelope Lake  
Unit Area, Lincoln and Chaves Counties, New Mexico, em-  
bracing lands as follows:

New Mexico Principal Meridian, New Mexico

T. 9 S., R. 19 E.,  
Sec. 1, all  
Sec. 12, all  
Sec. 13, N $\frac{1}{2}$

T. 7 S., R. 20 E.,  
Sec. 34, S $\frac{1}{2}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ , S $\frac{1}{2}$ SE $\frac{1}{4}$

T. 8 S., R. 20 E.,  
Secs. 3 and 4, all  
Secs. 9 and 10, all  
Sec. 11, S $\frac{1}{2}$   
Sec. 12, S $\frac{1}{2}$   
Secs. 13-16, inclusive, all  
Secs. 21-28, inclusive, all  
Sec. 29, E $\frac{1}{2}$   
Secs. 31-36, inclusive, all

T. 9 S., R. 20 E.,  
Secs. 1-18, inclusive, all  
Secs. 22-27, inclusive, all  
Sec. 34, N $\frac{1}{2}$   
Sec. 35, N $\frac{1}{2}$

T. 8 S., R. 21 E.,  
Sec. 7, Lots 9-16, inclusive  
Sec. 18, Lots 1-16, inclusive  
Sec. 19, Lots 1-16, inclusive  
Sec. 30, Lots 1-16, inclusive  
Sec. 31, Lots 1-16, inclusive

T. 9 S., R. 21 E.,  
Sec. 6, Lots 1-22, inclusive, S $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ , all  
Sec. 7, Lots 1-20, inclusive, E $\frac{1}{2}$ , all  
Sec. 17, SW $\frac{1}{4}$   
Sec. 18, Lots 1-20, inclusive, E $\frac{1}{2}$ , all  
Sec. 19, Lots 1-20, inclusive, E $\frac{1}{2}$ , all  
Sec. 20, all  
Sec. 21, SW $\frac{1}{4}$   
Sec. 28, S $\frac{1}{2}$ NE $\frac{1}{4}$ , W $\frac{1}{2}$ , SE $\frac{1}{4}$   
Sec. 29, all  
Sec. 30, Lots 1-20, inclusive, E $\frac{1}{2}$ , all  
Sec. 31, Lots 2, 3, 4, 5, 12, 13, 17, 18, 19,  
20, E $\frac{1}{2}$

Comprising 44,635.59 acres, more or less.

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MR. HART BROWN took the stand and was sworn.

MR. BROWN: If it please the Commission I will make the following statements in support of the application of Mr. L. G. Welsh for approval of the Antelope Lake Unit Area, centering

about thirty miles northwest of Roswell.

My name is Hart Brown; I reside in Houston, Texas. I hold a B. S. degree in electrical engineering from Rice Institute and an M. S. degree in physics from Washington University in St. Louis.

I have been engaged in exploration for oil and gas by geophysical means for more than twenty years. During the period of exploration I have directed the surveying by gravity methods of almost all of the Mid-Continent states south of Montana and almost all of the coastal states from Maryland to Florida and to Texas. Most of this work was done by me as a consultant for various major oil companies. I was responsible for the writing of reports setting forth the most probable geologic meaning of these surveys.

Beginning five years ago I mapped at my own expense an area including half of New Mexico and nearly all of Texas. I sell these data to prepare reports on specific areas.

I have here such a report which I prepared on behalf of Mr. L. G. Welsh and which was submitted to the Commission in support of his application for approval of the Antelope Lake Unit Area agreement.

MR. KELLAHIN: Is the Commission satisfied with Mr. Brown's qualifications.

CHAIRMAN: Yes.

MR. BROWN: I would like to introduce this report as "EXHIBIT B." Also, I would like to introduce as "EXHIBIT A" a map on which the unit area is outlined in red and the State acreage is outlined in green.

The proposed Antelope Lake Unit Area is an outgrowth of the studies made by me to which I have referred. This Unit Area totals 44,635 acres, more or less; of this, 35,887 acres are federal lands; 4,974 are state; and 3,774

are privately owned.

In my opinion this unit includes essentially all of the area overlying the most promising geophysical prospects in this vicinity, and the well which Mr. Welsh proposes to drill is the next logical step which should be taken to evaluate petroleum possibilities in this wildcat area. In the report marked "EXHIBIT B" I have stated:

"The writer believes that if the proposed well is drilled, that basement will be encountered at 6500 feet or a less depth; that there is excellent chance for petroleum accumulation to be encountered in structural traps typically found in connection with faulting, in any rocks encountered between the base of the Pennsylvanian and the top of the basement; that there is possibility of production from reef type formations or from pinch-out developments in the lower Permian or in the Pennsylvanian."

I have read the Unit Agreement and it is my opinion that development under such an agreement will tend to promote the conservation of oil and gas and the prevention of waste, should Mr. Welsh's well result in a discovery.

(Mr. Brown and the members of the Commission here inspected and map ("EXHIBIT A") which was explained and discussed in some detail by Mr. Brown.)

MR. SPURRIER: (Q. to Mr. Welsh) When do you figure on drilling this well?

MR. WELSH: We expect to commence operations in the next 30 to 60 days, if possible.

MR. KELLAHIN: As I understand from your testimony, Mr. Brown, there is no one separate geological structure, but several possibilities in this area?

MR. BROWN: There is no way of surveying that area at present to determine that until an exploratory well is drilled but we believe it contains a single structure or a series of related structures.

Q. But, in your opinion, in event of discovery of oil or gas, this unit area will afford control of the entire structure or structures?

A. Yes.

Q. (To Mr. Welsh): You are familiar with the proposed unit agreement for Antelope Lake Area as drawn, are you not?

A. Yes.

Q. And after the issuance of an order by the Commissioner you will properly execute that agreement with the Commission, will you not?

A. Yes, sir.

There being no further testimony or questions, the hearing was adjourned.