

dearnley, meier & associates

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
OIL CONSERVATION COMMISSION CONFERENCE ROOM  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO  
Wednesday, July 11, 1973

EXAMINER HEARING

IN THE MATTER OF:

Application of Skelly Oil  
Company for a waterflood  
project, Roosevelt County,  
New Mexico.

Case Number 5023

BEFORE: Daniel S. Nutter  
Examiner

TRANSCRIPT OF HEARING

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MR. NUTTER: Call next case 5023.

MR. CARR: Case 5023, application of Skelly Oil Company for a waterflood project, Roosevelt County, New Mexico.

MR. BLODGET: Mr. Examiner, we have one witness and four exhibits.

WILLIAM T. THOMAS,

was called as a witness, and after being duly sworn according to law, testified as follows:

MR. BLODGET: I'm Chester Blodget also representing Skelly in this matter, and we have written entry of appearance by Mr. White which has heretofore been filed in this Cause.

DIRECT EXAMINATION

BY MR. BLODGET:

Q Would you state your name, occupation, and who you work for?

A Bill Thomas, presently employed as Advance Production Engineer, Skelly Oil Company.

Q Have you heretofore testified before this Commission?

A No, I haven't.

Q Mr. Thomas, would you give us a resume of your educational background, higher educational background?

A All right. I was graduated from Texas Tech in 1955 with a Bachelor of Science in Petroleum Geology, and I worked

1 approximately two years for Core Laboratories as a  
2 co-analyst in reservoir evaluations. For approximately  
3 the next nine years, I was employed by Riley G. Maxwell  
4 Company in similar-type capacity, and for the past  
5 six-and-a-half years I've been employed by Skelly.

6 Q And in what capacity have you been employed by Skelly?

7 A As a production engineer.

8 Q And in what areas has your experience been?

9 A Southeast New Mexico. In fact, approximately fifteen  
10 years of my experience has been in the Southeastern New  
11 Mexico area.

12 MR. BLODGET: We move to qualify this witness.

13 MR. NUTTER: The witness is qualified.

14 MR. BLODGET: Thank you.

15 Q (By Mr. Blodget) You are familiar with the application  
16 in this case, are you not, Case Number 5023?

17 A Yes.

18 Q What does Skelly seek by this application?

19 A We seek to institute a pilot waterflood in the Chaveroo-  
20 San Andres Pool to evaluate the floodability of the  
21 Chaveroo pay in the Southern portion of the pool.

22 Q Now, I notice that there were four exhibits attached to  
23 that application, and they were designated as A, B, C,  
24 and D. Were these exhibits prepared by you or under  
25 your supervision?

1 A Yes, they were.

2 Q And they have been marked for the purposes of this  
3 Hearing as Hearing Numbers 1, 2, 3, and 4; is that correct?

4 A Correct, right.

5 Q I call your attention to Skelly Exhibit Number 1. Would  
6 you state what that is and what it tends to show?

7 A Exhibit Number 1 is a map showing the location of a  
8 proposed injection well and the location of all other wells  
9 within a radius of two miles from the proposed well and  
10 the formation from which wells are producing or have  
11 produced.

12 Q I call your attention to Exhibit Number 2. What does  
13 that show?

14 A Exhibit Number 2 is a Borehole Compensated Sonic and Gamma  
15 Ray Log on the proposed injection well, and existing  
16 perforations are indicated on the log.

17 Q I call your attention to Skelly Exhibit Number 3. Would  
18 you identify that and tell us what it shows?

19 A Exhibit Number 3 is an analysis of the water which will  
20 be injected, and it indicates it's mineralized to a degree  
21 that it's unsuitable for drinking purposes or agricultural  
22 or irrigation usage.

23 Q I call your attention to Skelly Exhibit Number 4. What  
24 is that and what does it show?

25 A Exhibit Number 4 is a diagrammatic sketch of the proposed

1 injection well showing all casing strings' diameter,  
2 setting depths, quantities used and tops of cement,  
3 perforated intervals, tubing string diameter and setting  
4 depth, and type and location of a proposed packer.

5 Q All right. This shows the intervals through which you  
6 propose to inject water?

7 A Yes. We propose to inject water over the intervals as  
8 indicated from 4207 to 4418 and 4676 to 4849. Now, we  
9 are presently injecting into the lower intervals, but  
10 our plans are to set a packer above the upper interval  
11 and inject into both intervals.

12 Q Was this a well previously approved by the Commission  
13 as a disposal well for salt water?

14 A Yes. It was approved by the Commission for injection into  
15 the lower interval and production from the upper interval.  
16 However, it proved to be barren from the upper interval;  
17 and subsequently it was equipped to inject or dispose of  
18 water into the lower interval; and the upper perforations  
19 presently are open above the packer.

20 Q To your knowledge have the offset operators given their  
21 consent to this water injection pilot plan?

22 A Yes, they have. We have waivers of objections from the  
23 three offset operators.

24 Q Which operators are they?

25 A It would be Atlantic Richfield, Sun Oil Company, and

1 Western States Producing Company.

2 Q And copies of those consents were attached to the  
3 application and to the exhibits; is that correct?

4 A Yes, correct.

5 Q Do you have any opinion as to the reason you want to try  
6 this pilot waterflood project and the measure of its  
7 success?

8 A Yes. It's necessary that we, of course, dispose of our  
9 produced water; and as we are all on the South end of  
10 a pool, we would like to inject into a possible pay  
11 interval and possibly recover some updip oil, because  
12 we are structurally low on this well. And, of course,  
13 if we are successful, we are considering requesting  
14 administrative approval to extend the flood.

15 MR. BLODGET: Skelly moves the admission of Exhibits  
16 1, 2, 3, and 4.

17 MR. NUTTER: Exhibits 1 through 4 will be admitted  
18 into evidence.

19 MR. BLODGET: We have no further questions from this  
20 witness.

21 MR. NUTTER: You had another exhibit attached here.  
22 Does that one not count?

23 MR. BLODGET: That's just decoration. That's just  
24 got color on it.

25 \* \* \* \* \*

CROSS-EXAMINATION

1  
2 BY MR. NUTTER:

3 Q State what that shows.

4 A It was just for reference, just an additional plat.  
5 Skelly's leases are colored in yellow.

6 Q Mr. Thomas, referring to Exhibit Number 4 --

7 A Yes.

8 Q I note the old Model "D" Packer down here at 4644. You  
9 will just pull that tubing out of the packer and inject  
10 through it; is this correct?

11 A Right. Yes, sir, just purely in an economic standpoint  
12 we are going to leave it in; and, of course, if necessary,  
13 we could always put a plug in the packer.

14 Q It's a Model "D", so to remove it, you would have to drill  
15 it out?

16 A Yes, sir. That's a permanent-type packer.

17 Q Now, your exhibit does state that you will internally  
18 coat the tubing. What about the casing tubing annulus?  
19 Will that be loaded with an inert fluid?

20 A Yes, sir. It will be loaded with an inert fluid and  
21 equipped with a pressure gauge where we can detect any  
22 packer leakage.

23 MR. NUTTER: Are there any further questions of Mr.  
24 Thomas? He may be excused. Do you have anything further,  
25 Mr. Blodget?



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25I N D E XWITNESSPAGE

WILLIAM T. THOMAS

Direct Examination by Mr. Blodget

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Cross-Examination by Mr. Nutter

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E X H I B I T SOFFEREDADMITTED

Applicant's Exhibit #1

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Applicant's Exhibit #2

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Applicant's Exhibit #3

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Applicant's Exhibit #4

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