

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

IN THE MATTER OF:

Case No. 1751

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES  
GENERAL LAW REPORTERS  
ALBUQUERQUE, NEW MEXICO  
Phone CHapel 3-6691

September 2, 1959

I N D E X

WITNESS

DIRECT

CROSS

W. G. Abbott

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IN THE MATTER OF:

Application of Rice Engineering and Operating, Inc., for a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing it to complete a salt water disposal well in the San Andres formation at a point 100 feet from the South line and 250 feet from the West line of Section 9, Township 20 South, Range 37 East, Lea County, New Mexico. Applicant proposes to inject the produced salt water into the San Andres formation in the interval from 4300 feet to 4900 feet.

CASE NO.  
1751

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BEFORE:

Elvis A. Utz, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. UTZ: The next case on the docket will be Case No. 1751.

MR. PAYNE: Case 1751. Application of Rice Engineering and Operating, Inc., for a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing it to complete a salt water disposal well in the San Andres formation at a point 100 feet from the South line and 250 feet from the West line of Section 9, Township 20 South, Range 37 East, Lea County, New Mexico. Applicant proposes to inject the produced salt water into the San Andres formation in the interval from 4300 feet to 4900

feet.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, representing the applicant. We will have one witness, Mr. Abbott.

(Witness Sworn.)

MR. UTZ: Are there other appearances in this case? If not, you may proceed.

W. G. ABBOTT

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name please sir?

A My name is W. G. Abbott. I'm Division Manager for Rice Engineering and Operating Incorporated in Hobbs, New Mexico.

Q Have you testified before this Commission before as an expert and your qualifications been accepted?

A Yes.

Q Are witness qualifications acceptable?

MR. UTZ: Yes.

Q Mr. Abbott, are you familiar with the application in Case 1751?

A Yes.

Q Will you state briefly what is proposed in this application?

A As outlined in our application, we would like to secure a

permit under Rule 701 and also an exception to Rule 104 to drill and complete a salt water disposal well in the Skelly Oil Company's Van Etten lease in Section 9, Township 20 South, Range 37 East, Lea County, New Mexico.

Q Have you prepared a plat of the area involved showing the wells within a half mile radius of the proposed salt water disposal well?

A Yes, Our Exhibit "A" shows this.

Q Are there any San Andres wells within half a mile radius of this well?

A No sir, there are not. Most of them are Grayburg with a few Queen dual completions, in the gas zone of the Queen and then one straight Queen gas well.

Q Now, have you prepared a plat showing the proposed completion of the salt water disposal well?

A Yes, this is our Exhibit "B". This shows the casing program that we plan on this well with the total depth marked ~~forty~~ nine hundred feet.

Q Now is that proposal adequate in your opinion to protect any fresh water zones?

A Yes, it is. We plan to use eight hundred feet of nine and five-eighths inch casing and we plan to circulate the cement on that nine and five-eighths, and then the long string, or injection string will be seven inch set at forty-three hundred feet. And this is considerably below the original water oil

in the area.

Q Are there any fresh water zones encountered in this area that you know of?

A Yes, the surface well drill through some fresh water right at the surface.

Q But this completion will protect against any contamination in your opinion?

A Yes.

Q Do you have any data on completions of the wells within the half mile radius of the proposed well?

A Yes, we have a cross section; it's our Exhibit "C". This cross section is also shown on Exhibit "A" as the Trace "AA" Prime and it runs from west to east through the proposed location of this S.W.B.M. 9. On this Exhibit you can see the disposal zone in blue and it's roughly four hundred feet below the lowest oil completion in that half mile radius.

Q What kind of separation do you have between the two zones, Mr. Abbott?

A Well, we have -- This disposal zone will be all in the San Andres and all the wells in that area are producing from the Grayburg.

Q And there is no danger of communication between the two zones in your opinion?

A No sir, not at this depth.

Q Now, have you made a tabulation of the completion in -

formation on the wells within the area?

A Yes, we have tabulated on our Exhibit "D" all the wells in this half mile radius of the disposal well.

Q And that does not indicate that any of the wells are completed in the San Andres formation does it?

A No, sir.

Q Are there any wells other than Queen or Grayburg wells shown?

A No sir, not in this half mile radius.

Q Now, on this property where will this well be located?

A This is located on the Skelly Van Etten lease. We have a letter from Mr. Dunlevy, the Superintendent of Skelly, and it's our Exhibit "E" where he gives us the approval to locate the well on that lease.

Q What about the surface ownership, Mr. Abbott?

A Surface ownership, we have a surface lease from the surface owner, a Mr. Buchanan who lives in California. Here is Exhibit "E".

Q Now what companies will be participating in this salt water disposal system?

A Well, the companies that will be in this are members of the Eunice Monument Eumont Salt Water Disposal System and our Exhibit "F" shows a list of those companies with their mailing address.

Q What volumes of water do you propose to dispose of in

this well?

A We hope to put a maximum of fifteen thousand barrels per day in this well by gravity.

Q In your opinion will the disposal zone take that much water?

A Yes, it should. Actually we won't probably, wouldn't operate the well for some time at the highest capacity in that we design our system so that we will have a little recess, and if and when the water does increase, we hope to take care of fifteen thousand barrels a day.

Q Do you anticipate any corrosion problem in the operation of this well?

A Yes, the water is salty and will contain some hydrogen sulphide so we will have some corrosion and we plan to protect our well by running an injection string of five and a half inch fourteen pound casing inside the seven inch casing, and this five and a half inch string will be lined with a plastic lining, and the outside is protected by loading the annular space between the seven inch and five and a half inch with a sweet oil and maintaining a blanket over the entire five and a half inch injection string.

Q Have you used that same system in other disposal wells?

A Yes, and it works very well.

Q Have you anything further to add, Mr. Abbott?

A No, sir.

Q At this time we would like to offer in evidence Exhibits

"A" through, it is "E" or --

A "F".

Q -- "F" inclusive.

MR. UTZ: Without objection, Exhibits "A" through "F" will be entered into the record.

MR. KELLAHIN: That's all the questions we have.

#### CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Abbott, can you say where the closest San Andres well is?

A No, sir, there possibly could be some San Andres wells north and west of this location, probably within one or two miles. You get up on the structure of the Monument Pay and some of the wells may be high enough that they would be producing in the San Andres although quite a few wells in this area have been plugged back from the San Andres to the Grayburg.

Q At any rate you feel that your injection zone here is below the water oil contact for the San Andres in this area?

A Yes.

Q With regard to your surface casing, your nine and five-eighths, that would be set at eight hundred feet?

A Yes.

Q What formation will that pass through?

A Well, that will pass through the recent formation, caliche, and then into the Ogollala, and then onto the redbeds, and it will

be cemented some place in the redbed.

Q Does that protect all fresh waters in this area?

A Yes.

Q Your seven inch, how much cement are you going to have behind that?

A We will use sufficient cement to return the cement to the base of the surface casing. We plan to use --

Q You actually come past of the surface casing?

A Yes, it will come up. We plan to use three hundred sacks of sulphate resistant Portland cement mixed with three hundred cubic feet of Possolan and four percent jel, and then we will follow that with four hundred fifty sacks of neat cement which will be around the casing shoe.

Q Now, between your five and a half inch and seven inch, well, more correct, will the five and a half inch just be hung in the seven inch?

A Yes, it will be hung in the seven inch and it will be down to the casing point of the seven inch.

Q It will be hung at forty-three hundred then?

A Yes.

Q I believe you said you wanted an exception to Rule 104 for an unorthodox location?

Q Yes, this well is located one hundred feet from the south line and two hundred feet from the west line of Section 9.

Q That's one hundred feet from the south?

A Yes

Q And two hundred --

A Two hundred fifty from the west.

Q Two hundred fifty. Are there any other questions of the witness?

MR. SELINGER: George W. Selinger for Skelly Oil Company. We have looked over the procedure outlined by the witness and we feel that the procedure therein outlined is wholly adequate to adequately protect both oil and fresh water horizons, and, therefore, we concur in the application and urge its approval.

MR. UTZ: Any other statements to be made? If not, the witness may be excused. The case will be taken under advisement.

C E R T I F I C A T E

STATE OF NEW MEXICO    )  
                                  )  
COUNTY OF BERNALILLO    )    ss

I, J. A. TRUJILLO, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me and/or under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 12<sup>th</sup> day of September, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

*Joseph A. Trujillo*  
NOTARY PUBLIC

My Commission Expires:  
October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1251, heard by me on Sept. 2, 1959.  
*Joseph A. Trujillo*, Examiner  
New Mexico Oil Conservation Commission