

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.

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BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

TRANSCRIPT OF HEARING

Case No. 386

July 24, 1952.

E. E. GREESON
ADA DEARNLEY
COURT REPORTERS
BOX 1303
PHONES 5-9422 AND 5-9546
ALBUQUERQUE, NEW MEXICO

CASE 386

In the matter of the application of Magnolia Petroleum Company for permission to use for salt-water injection purposes (in accordance with Rule 701 of the Commission's Rules and Regulations) a well to be drilled on its E. O. Carson lease, projected well to be 660 feet north of the south line and 660 feet west of the No. 5 well already drilled on said Carson lease in Section 33, Township 21 South, Range 37 East, Lea County, New Mexico.

BEFORE: Hon. R. R. Spurrier, Secretary and Member.

R E G I S T E R

R. S. Christie, Amerada Petroleum Co., Tulsa, Okla.

Ed. McKellar, Jr., Magnolia Petroleum Co., Dallas, Tex.

W. L. Morris, ditto Eunice, N. M.

Bob Murphy, ditto Roswell, N. M.

Bill Macey, Oil Conservation Commission, Santa Fe., N. M.

MR. SPURRIER: The record should show that the minutes show a meeting of Governor Mechem and Commissioner Spurrier. And since Commissioner Shepard is not in town, and the Governor is busy, Commissioner Spurrier will sit and take the record in the case. Therefore, there can be no order issued until we get the record back.

Mr. McKellar.

MR. MC KELLAR: Mr. Spurrier, these two men that are going to testify I thought maybe you had better swear them.

(Witnesses sworn)

MR. MC KELLAR: I would like to have the record show that the hearing notice has been read. There is no use reading it I don't think. I will give a copy to the reporter.

MR. SPURRIER: All right.

MR. MC KELLAR: Now, Mr. Murphy will be the first witness. And he will have a copy of the testimony which will be the substance of what he will give.

R. E. MURPHY, having been first duly sworn, testified as follows.

DIRECT EXAMINATION BY MR. MC KELLAR:

Q There is a copy of the map. This will be our exhibit 1. Mr. Murphy, will you examine that map, please sir, and I will ask you -- first, state your name, please sir, for the record.

A R. E. Murphy.

Q And are you employed by Magnolia Petroleum Co.?

A Yes, sir.

Q In What capacity?

A District Geologist at Roswell, N. M.

Q Are you familiar with the Eunice field?

A I am.

Q Was this map prepared under your supervision and direction?

A It was.

Q I would like to have this map marked as Petitioner's Exhibit 1 and introduced as part of the record. It has already been marked. Mr. Murphy, please tell the Commission exactly what this map shows in regard to this salt water

disposal well we are petitioning for?

A There is a widespread zone of lost circulation, in porosity or lost circulation, in the upper part of the San Andres formation throughout the area of this field. And the fact that the many wells which have drilled through it have lost circulation or partial return indicates a high permeability and capacity to take water. It is also true to the best of our knowledge there is no commercial production in this part of the San Andres formation any where in this field. And it is proposed to use this zone for the injection of salt water waste from the Magnolia wells.

The vertical communication with the Penrose-Skelly pay above will be cut off by the -- by setting casing through it and cementing back . Vertical communication through the multiple pays will be cut off by the presence of dense dolomite in the areas between the proposed zone of injection and the next pay, which is the Paddock.

It is true this zone is already in use -- is used for salt water injection -- and is the same zone for which we are applying.

Q Mr. Murphy, what is this well -- this interpretive sample log in the column shown on the right-hand part of the chart? Is that the closest well Magnolia has to this proposed location?

A Yes. That is a sample log there to show the sub-

surface geology as it is in the nearest well, and defines the formations and the position of the proposed zone of injection.

Q And from your study of this A. O. Carson Well No. 11 and other Magnolia wells in the vicinity you anticipate that the well log of this proposed well once completed will be similar to the one shown here on your chart?

A Yes, sir. All these wells right close in this vicinity show essentially the same sub-surface section.

Q It is your opinion from your studies there are impermeable formations between this proposed zone of injection and the pay zone below to completely prevent any contamination there?

A Yes, sir. There are several zones of from 50 to 100 ft. of solid, massive dolomite and no porosity showing in samples taken.

MR. MC KELLAR: Any questions, Mr. Commissioner, you or the Commission's engineer would like to ask the geologist?

MR. MACEY: The only thought I have is that you are going to drill the well according to the information right exactly on the 40-acre unit line.

MR. MC KELLAR: Well, the proposed location -- yes, I think that would be approximately correct. It was to be 660 ft. north of our south lease line and 660 ft. west of our well No. 5, which would place it -- I don't know

THE WITNESS: It is right there by that Carson No. 11.

MR. MC KELLAR: That would place it 1980 ft. from the north line of Sec. 33 and 2640 ft. from the east line of Sec. 33.

MR. MACEY: The reason I mentioned it was if at any time, supposedly years from now, after your water volume may be down to nothing, it is perfectly possible you might want to do something else with the well.

MR. MC KELLAR: Re-complete it as a producer --

MR. MACEY: -- and in that case --

MR. MC KELLAR: -- it wouldn't be on a pattern location.

MR. MACEY: It wouldn't be a definite 40-acre location. Move it 25 ft. either way

MR. SPURRIER: Make sure it is on one lease or the other.

MR. MC KELLAR: It is all on the Carson lease.

MR. SPURRIER: On the E. A. Carson lease?

MR. MC KELLAR: On the E. A. Carson lease, so I don't believe that would be too great a factor.

MR. SPURRIER: Probably not exactly on the line, if you surveyed it.

MR. MC KELLAR: Bob, do you know why they set it right where they did?

A It puts it 660 from any boundary line or any other well.

MR. MC KELLAR: I think that is why they wanted it there.

MR. MACEY: It is something that might come up in the future. You would have to put it in one proration unit or the other to produce the well.

MR. MC KELLAR: It is all E. A. Carson lease. Maybe the other consideration --

A There was one more consideration. I believe Leo can check me on this. It is the lowest spot on the lease for gravity drainage.

MR. SPURRIER: Five feet would do it one way or the other.

MR. MORRIS: I imagine it would be that much off.

MR. MC KELLAR: Any other -- Mr. Murphy, you are excused. Mr. Morris, will you please take the stand.

W. L. MORRIS, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. MC KELLAR:

Q For the record, Mr. Morris, will you state your name?

A W. L. Morris.

Q And you are employed by Magnolia Petroleum Co.?

A Yes, sir.

Q In what capacity?

A Petroleum engineer.

Q How long have you been employed in that capacity?

A Four years.

Q Are you a graduate petroleum engineer?

A Yes, sir.

Q From what school?

A Texas Tech.

Q Are you familiar with the Eunice field?

A Yes, sir.

Q Have you made a study of this proposed injection plan into this E. A. Carson well?

A Yes, sir.

Q How does Magnolia intend to complete the surface casing string?

A Intend to complete -- set pipe to 4100 and complete as open hole approximately down to 4600.

Q Approximately from 4100 to 4600. Complete as open hole if and where you find the porosity?

A Yes, sir.

Q And you intend to set casing all the way down to the porosity?

A Yes, sir.

Q What size pipe will you set?

A Seven inch.

Q And you plan to cement and test before you start the injection program?

A Yes, sir.

Q At what pressure do you ordinarily test your casing?

A Between 1500 and 2000.

Q And what formation pressure does your study reflect you will find here in this San Andres?

A Approximately 100 lbs.

Q You are going to inject salt water under gravity or pressure?

A Under gravity.

Q What capacity do you think your injection program will be initially?

A 535 barrels.

Q Approximately 535 barrels per day?

A Yes, sir.

Q Building up eventually so far as your plans now reflect to approximately what?

A Approximately 10,000 barrels a day.

Q Approximately 10,000 barrels a day. That is about -- off the record.

(Off the record)

MR. SPURRIER: If there are no further questions, the witness may be excused.

MR. MC KELLAR: Mr. Commissioner, there has been an order entered in the Gulf's application in this matter which I will be glad -- I didn't bring an order prepared. This order will be satisfactory to me, or if you would like, I will draft one and send out to the Commission similar to this one.

MR. SPURRIER: That is all right.

MR. MC KELLAR: I would like to have marked as an exhibit and have introduced as a part of the record Mr. Murphy's statement also.

MR. SPURRIER: Without objection, it will be received -- both Exhibits 1 and 2.

MR. MC KELLAR: That is all we have on this case.

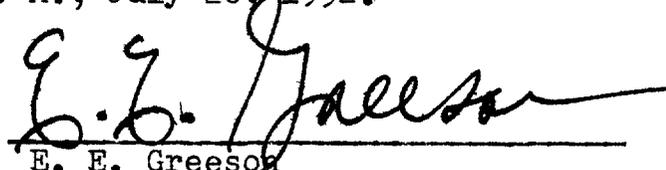
STATE OF NEW MEXICO

ss

COUNTY OF BERNALILLO

I HEREBY CERTIFY That the foregoing transcript is a true record of the matters therein contained.

DONE at Albuquerque, N. M., July 26, 1952.



E. E. Greeson

Notary Public

My Commission Expires: 8-4-52

