# BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASES 1195 & 1433

TRANSCRIPT OF HEARING

November 12, 1958

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Mabry Hall
Santa Fe , NEW MEXICO

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November 12, 1958 Examiner HEARING DATE\_\_\_ TIME: 1:00 p.m NAME: REPRESENTING: LOCATION: Bringe Corp. Brickeninge, Deven allient. Grandge Corp. Sulf Dil Corp. Brechensing tear Rosnell, M. M. Nany Royal & M Statehamy Reporting Santa Fe

# BEFORE THE OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO NOVEMBER 12, 1958

IN THE MATTER OF:

#### CASES 1195 & 1433:

Application of Graridge Corporation for capacity : allowables for certain wells in a water flood project. Applicant, in the above-styled cause, seeks: an order authorizing capacity allowables for the : following described wells which are situated in : the project area of its water flood project in the: Caprock-Queen Pool in Lea and Chaves Counties, New: Mexico:

Cap Unit Well No.32-5, SW/4 NW/4 Section 32: Cap Unit Well No.32-11, NE/4 SW/4 Section 32:

both in Township 12 South, Range 32 East, Lea County, New Mexico.

BEFORE:

Mr. Daniel S. Nutter, Examiner

# TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: The hearing will come to order, please. The first case on the docket this afternoon will be consolidated Cases 1195 and 1433.

MR. PAYNE: Cases 1195 and 1433. Application of Graridge Corporation for capacity allowables for certain wells in a water flood project.

MR. CAMPBELL: Mr. Examiner, I would like to enter an

appearance for Mr. Russell Elliott, Breckenridge, Texas, and Jack M. Campbell of Campbell & Russell, Roswell, New Mexico, on behalf of the applicant.

MR. NUTTER: Are there any further appearances to be made in this case today? Would you state your name, please, sir?

MR. LAMB: Raymond Lamb of the Wilson Oil Company.

MR. NUTTER: Any further appearances? If not, will you proceed, Mr. Campbell?

MR. CAMPBELL: Mr. Examiner, I would like first to request the Examiner to incorporate by reference the transcript of testimony and Exhibits in prior hearings in Cases No. 1195 and 1433, insofar as this case is concerned.

MR. NUTTER: I believe there is one other case in this series, Mr. Campbell. 1324.

MR. CAMPBELL: And Case 1324.

MR. NUTTER: Is there objection of consolidation into the record in this case the transcript and testimony and the Exhibits in Cases 1195, 1324 and 1433? If not, these records will be incorporated in the record of this case.

MR. CAMPBELL: Mr. Examiner, this application is before you on the show cause provision of an emergency order entered by the Commission approving capacity allowables for two wells in the North Caprock-Queen Unit No. 1 in Chaves and Lea Counties, New Mexico.

We have one witness to testify in connection with this case, Mr.

Harrison.

(Witness sworn)

### B. G. HARRISON,

called as a witness, having been first duly sworn on oath, estified as follows:

#### DIRECT EXAMINATION

#### BY MR. CAMPBELL:

- Q Will you state your name, please?
- A B. G. Harrison.
- Q Where do you live, Mr. Harrison?
- A Breckenridge, Texas.
- Q By whom are you employed?
- A I am employed by the Graridge Corporation.
- Q In what capacity?
- A As manager of secondary recovery.
- Q Have you previously testified before this Commission or an Examiner for this Commission, Mr. Harrison, in a professional capacity?
  - A Yes, sir, I have, Mr. Campbell.
- MR. CAMPBELL: Are the witness' qualifications acceptable?
  - MR. NUTTER: Yes, sir, they are.
- Q Mr. Harrison, you are acquainted, are you not, with the North Caprock-Queen Unit No. 1 water flood project being operated by Graridge Corporation?

  A Yes, sir.

- Q Do you have some current information as to oil and water production from producing wells in the North Caprock-Queen Unit No. 1?
  - A Yes, I do, Mr. Campbell.
- Q I hand you, Mr. Harrison, what has been identified as Graridge's Exhibit No. 1, --
- MR. CAMPBELL: How would you like these Exhibits identified?
- MR. NUTTER: Call it Exhibit No. 1 with a suffix on it, 11-12 or -11/12. That will indicate the date on this.
- Q (By Mr. Campbell) -- what has been identified as Graridge's Exhibit No. 1, -11/12 in Case No. 1195, is that correct?

MR. NUTTER: And 1433.

- Q -- and 1433, and ask you to state what that is, please
- A This is a plat showing the outline of Caprock-Queen
  Unit No. 1 operated by Graridge Corporation, on which are identified
  the present injection wells, the proposed injection wells, the
  present producing wells, and three wells Nos. 32-4, 32-6, 32-10,
  indicated in red, which are proposed injection wells which have had
  a letter of administrative approval submitted to the Commission
  for conversion of these wells to water injection wells.
- Q Mr. Harrison, have all the wells indicated by the symbols on the plat received administrative approval as injection wells?
- A All of the wells identified as injection wells with the solid circled wells have been approved by the Commission.

Q Mr. Harrison, in your application to the Commission for an emergency order, you requested that you be permitted to produce your Well No. 32-5 in the SW/4 NW/4 of Section 32, and your Well No 32-11 in the NE/4 SW/4 of Section 32, both in Township 12 South, Range 32 East, at capacity. Will you refer to Exhibit No. 1 and point out to the Examiner what the most recent tests show with regard to the producing capacity of each of those wells, please?

A These wells were tested on the 4th and 5th of November, and as indicated by the red figure beside each well location, the upper figure is oil production, the lower figure indicates water production on twenty-four hour test that was made on these wells. Currently, the No. 32-5 is producing 52 barrels of oil and no water and the No. 32-11 is producing 39 barrels of oil and no water; both of these in excess of present unit allowable.

Q Now, immediately to the northeast of these two wells, Exhibit No. 1 indicates three wells in red. I believe you stated generally what that indicated. Will you please tell the Examiner what the status of those three wells is at the present time?

A These wells Nos. 32-6 and 32-10 are currently producing The No. 32-4 is a plugged and abandoned well. These will be made ready for water injection wells upon approval of the Commission.

Q And do you consider that, in view of the relation of Wells 32-5 and 32-11, that these three wells to which you referred should be converted to injection wells to back up the increase in the producing wells?

A Yes, sir, I do.

Q Now, Mr. Harrison, in your opinion, is it necessary for you to obtain authority to produce Wells 32-5 and 32-11 at capacity in order to avoid waste by obtaining the greatest ultimate recovery of oil?

A Yes, Mr. Campbell, that would be my opinion.

MR. CAMPBELL: I would like to offer Applicant's Exhibit No. 1-11/12 in evidence.

MR. NUTTER: Is there objection to the introduction of Graridge Corporation's Exhibit 1-11/12 in evidence in this case?

If not, the Exhibit will be received.

MR. CAMPBELL: I believe that's all the questions I have at the present, Mr. Examiner.

MR. NUTTER: Does anyone have any questions of the witness?

#### CROSS EXAMINATION

#### BY MR. NUTTER:

Q I didn't understand you correctly, sir. Now, the wells that you have circled in red and filled in the circles, you have requested administrative approval for the conversion of these two water injections, but has the approval been granted as yet?

A No, it has not.

Q Is it on a waiting period?

A Yes. The letter was mailed from our office on November 3, and we have not had sufficient time to receive any word from the Commission on those particular wells.

Q Do you anticipate the conversion of these wells to water injection soon after receiving authority to do so?

A Yes, we do. The No. 32-10 apparently is ready with the exception of pulling rods and tubing. The No. 32-6 will require a very small workover. No. 32-4 will have to be entered to be plugged effectively, and if upon such entrance we can effectively convert this well to an injection well, we will use it. If not, it will require the drilling of a new hole.

Q Do you have authority for the conversion of any well to water injection wells which has not been so converted as yet?

A The No. 6-12, which is an offset to the Ambassador Unit, has not yet been converted. The well should be converted within the next few days.

- Q Do you have authority to convert it?
- A Yes.
- Q Is that the only one that hasn't been converted?
- A Yes, sir, that's correct.
- Q What is the primary reason for requesting allowables in excess of the top unit allowable of these two wells, please?

A We feel that we will lose ultimate oil if we are unable to produce these wells at their capacity.

- Q Have you read the transcript of the previous cases --
- A Yes, sir, I have.
- Q -- in the previous hearings of these cases?
- A Yes, sir.

Q Do you agree in substance with the testimony which was presented in those cases substantiating this theoretical loss in ultimate recovery?

A Yes, sir, I agree with the supporting evidence.

Q And you would apply that same evidence to these two particular wells in question today?

A Yes, surely would.

MR. NUTTER: Are there any further questions of the witness? If not, he may be excused. Do you have anything further, Mr. Campbell?

MR. CAMPBELL: No, nothing further, Mr. Examiner.

MR. NUTTER: Does anyone have anything they wish to offer in this case?

MR. HOOVER: Mr. Examiner, I would like to make a statement. My name is John Hoover from Roswell, New Mexico, representing Gulf Oil Corporation. Gulf believes that the curtailment of production from water flood wells will result in ultimate oil, and being a working interest owner in the North Caprock-Queen Unit No. 1, concurs with the Graridge Corporation in their application in Cases 1195 and 1433, and urges approval by the Commission.

MR. NUTTER: Does anyone else have anything they wish to offer in the case?

MR. LAMB: I am Raymond Lamb with Wilson Oil Company.

We have appeared in this Case 1195 and 1433, and in the amended numbers as they appear. The latest date, I believe, was May,

1958, and have submitted testimony. Since this testimony is part of this case we wish to limit our remarks to a statement.

We would like to bring to the attention of the Commission, and in this case in particular, a report recently released on research on curtailment of production in water flood projects. This research was carried out by the Interstate Oil Compact Commission under the direction of Paul D. Torrey and his committee. This report entitled "Effects of Curtailment of Oil Production from Water Injection Projects" was released in September, 1958.

Since this paper and its conclusions are parallel in many respects to the Wilson Oil Company, and since this report is an important unbiased report, we request that this paper be considered a part of the record of this case and be identified as to its source. In the interest of time we will read into the record only the conclusion of the paper. (Quote)

"In reviewing what has already become a rather voluminous quantity of literature relating to the problem of curtailment, it is impressively apparent that the economic conditions have influenced many of the opinions that have been expressed on this subject. It is evident that if most of the projects cited as examples had not been curtailed in one way or another they would have been more profitable.

Thus, as was recognized near the beginning of this paper, the profit motive is just as important in the

development of secondary oil reserves as it is in the development of primary oil reserves. If the economic factor of time did not reduce income there probably would be little complaint about the damage resulting from prorated secondary oil production. Furthermore, if it should be possible to produce curtailed secondary water floods profitably over extended periods of time it is likely that the same amount of oil, or even more oil could be produced as would have been the case if production from them had not been curtailed. The difference in the thinking of the operators, of course, is that the uncurtailed projects are usually more profitable than the curtailed ones."

The Wilson Oil Company wishes to refer to Order 1214 which sets out the allowable for the Magnolia Vacuum water flood. This allowable is determined by multiplying the top unit allowable times the number of developed 40 acre tracts.

We urge the Commission to deny the applicant capacity allowable for additional wells in the Caprock-Queen water flood project in favor of allowable plan set out in Order 1244.

This request is based on these basic factors:

1. Capacity allowable in Caprock will not protect correlative rights. It will deprive operators of their fair share of the demand for New Mexico crude oil production.

2. Prorated allowable is in the best interest of conservation in the Caprock water flood project as has been the case of all primary production in New Mexico.

MR. NUTTER: Mr. Lamb, do you happen to have a copy of the Interstate Committee Report that you wish to offer in this case?

MR. LAMB: I have a copy, yes.

MR. CAMPBELL: Mr. Examiner, I am going to have to object to this being offered as an Exhibit in this case. Certainly, the Commission and its staff will have the opportunity, if they haven't already, I assume, to read this publication. I am not acquainted with it. However, the parties who wrote it or contributed to it are not here to testify; they are not here subject to cross examination, and I believe it is not proper to offer it in evidence in this case. I don't believe it is admissible because it is not competent evidence, in my judgment.

MR. NUTTER: You have objection to the introduction of the statement?

MR. CAMPBELL: No, not the statement. The statement will be a part of the record, but offering this publication which is not -- which we haven't seen, and prepared by people who are not here to testify, is the objection I have to that portion of the statement and its offer into evidence, as such, in the case.

MR. NUTTER: I believe Mr. Campbell's objection to the introduction of the document will have to be sustained. The statement will stay in the record, and that is all.

MR. CAMPBELL: Now, Mr. Examiner, I would just like to make one or two observations by way of statement and to some extent by way of answer to Mr. Lamb's comments. Toward the end of his statement, he indicated he did not object to an Order similar to one the Commission entered in the Magnolia case on a unit basis. might observe that insofar as this particular project is concerned. should the Commission enter its Order on a unit basis and set that as the allowable, that that allowable would be in excess of capacity allowables under the present operation of this particular project. It seems to me that once the Commission has adopted the policy, which at least to this time is the firm policy of the Commission, the principle of capacity allowables, that it is better and more realistic to recognize that principle without establishing an artificial or an artificial allowable which would, in fact, be greater ceiling than the allowable now permitted under straight capacity. For straight capacity purposes, I do not believe that there has been any evidence offered here to contradict the voluminous testimony and Exhibits heretofore taken in connection with capacity allowables in water flood projects, and I believe that until there is some evidence to the contrary, we certainly are prepared to stand on the evidence that has heretofore been presented, and on that basis we seek the capacity allowable for these two wells.

MR. NUTTER: Thank you.

MR. LAMB: Would the applicant, since the unit allowable number 40 acre units multiplied by the top unit allowable,

since it will be in excess of the allowable you expect, would you have any objection to having a greater allowable than you have so requested?

MR. CAMPBELL: Yes, we would, for the reason that we think it is an unrealistic approach to the matter. We think that the way it is set out now, where the capacity allowable has been approved by the Commission, as a matter of principle in water flood projects, that to create a situation where a unit allowable must be used, even though it is greater than the capacity allowable for the project, seems to us to be unrealistic and to be a wasted step. There are undoubtedly projects where the unit allowable will not permit capacity. This isn't one of them, but there probably are some, and in those cases, based on the Commission's previous findings, they would have to go ahead in the absence of some showing or tao change of the attitude on the part of the Commission and give the capacity anyway, so we can't see that setting the unit allowable up does a great deal to change the situation except create a rather artifical ceiling on the allowable for the project. I have never been able to see the advantage of the unit allowable approach from the point of view of control of allowable.

MR. NUTTER: I wonder if I could ask your witness a question. How many 40-acre tracts are in this unit?

THE WITNESS: There are seventy-two total 40-acre tracts.

MR. NUTTER: And do you know what the current allowable for the entire unit is at the present time?

THE WITNESS: No, sir, I couldn't state what the allowable is for the entire unit.

MR. LAMB: As I recall the case, we have operated on a pilot project for a number of months, and then the project was extended as far as the area and operation was concerned, and that the pilot allowable has been carried over, and this is the first extension of that pilot allowable, as I understand it, and we are asking for two additional wells to be put under the capacity. Of course, as Mr. Campbell says, in some cases the top unit allowable is unrealistic for us to have marginal wells, but we reduce the production on our well to meet the marginal allowable. Even though the State grants us a greater amount we reduce our production to the amount of oil that the well will produce. We are not particularly interested in this case solely on its own condition, but as a matter of absorbing the large part of the demand for New Mexico crude, which will affect all operators in the State. We do feel that each water flood project is entitled to its fair share and in our opinion that fair share is the top unit allowable times the acre units in I think they are entitled to it, and I think they should have it and since Case 1244 has been set out on a permanent basis for allowable, we suggest that that be carried over into this case too.

MR. NUTTER: Do you have anything further, Mr. Campbell?

MR. CAMPBELL: No, sir.

MR. NUTTER: If there is nothing further on Cases 1195 and 1433, we will take the case under advisement and the hearing is adjourned.

#### <u>CERTIFICATE</u>

STATE OF NEW MEXICO ) SS COUNTY OF BERNALILLO )

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 // day of 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Notary Public

Les, Examiner

Conservation Commission

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. 1195 11433 heard by me