### BEFORE THE

# OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

## PROCEED INGS

The following matter same on for consideration before a hearing of the Oil Conservation Commission of the State of New Mexico, Jursuant to legal notice, at Santa Fe, New Mexico, on September 8, 1949, at 10:00 A. M.

> NOTICE FOR PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice, pursuant to law, of the following public hearings to be held September 8, 1949, beginning at 10:00 o'clock A.M. on that day in the City of Santa Fe, New Mexico in the Senate Chambers.

STATE OF NEW MEXICO TO:

All named parties in the following cases, and notice to the public:

## Case 190

In the matter of the application of Twin Oil Corporation for an order unitizing the NE/4NE/4 of Section 4, Township 22 South, Range 37 East, N.M.P.M. or in the alternative, authorizing the drilling of a well or wells upon the following described lands:

Beginning at a point 660 feet west of the southeast corner of NE/4NE/4 of section 4, Township 22 South, Range 37 East, N.M.P.M., thence on a direct line north 420 feet, thence on a direct line west, 210 feet, thence on a direct line south 420 feet, thence on a direct line east 210 feet, containing approximately 2 acres of land more or less, and fixing an allowable therefor.

# Case 191

In the matter of application of Amerada Petroleum Corporation for the establishment of proration units and uniform spacing of wells for the common source of supply discovered in Amerada-State BTA No. 1 Well in NW/4 SE/4 Section 2, Township 12 South, Range 33 East, N.M.P.M., in Lea County, New Mexico.

## Case 192

In the matter of the application of Gulf Oil Corporation for an order authorizing dual completion and production from the Yeso formation (Drinkard pool) and from the Ellenburger formation (Brunson pool) from a single well bore in the Eunice King No. 17 well, located 660 feet from the north line and 2310 feet from the west line (NE/4 NW/4) of section 23, Township 21 South, Range 37 East, N.M.P.M., in Lea County, New Mexico.

## Case 193

In the matter of the application of Shell Oil Company for a special exception from the provisions of Order No. 72 relating to central tank batteries with respect to State oil and gas leases E-1830, B-9446, B7849 and E-276 under conditions existing in the West Wilson pool, Lea County, New Mexico.

#### Case 194

In the matter of the application of the Oil Conservation Commission upon its own motion at the suggestion of the proration office, to amend Section 3-A of Commission Order #784 also known as the Gas-Oil Ratio Order of September 10, 1048, by adding the following:

"When remedial work on a well has been completed by an operator to correct for high gas-oil ratio in a pool having a limiting gas-oil ratio the adjusted allowable shall become effective on the date the new test is completed as indicated by Commission Form C-116."

or such other wording in the premises as may be determined from testimony adduced in open hearing.

Given under the seal of the Oil Conservation Commission of New Mexico at Santa Fe, New Mexico, on August 19, 1949.

> STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

By /s/ R. R. Spurrier R. R. SPURRIER, Secretary

SEAL

BEFORE:

Hon. Guy Shepard, Chairman Hon. R. R. Spurrier, Secretary

REGISTER:

M. B. Penn Tulsa, Oklahoma For Mid-Continent Petroleum Corporation

E. J. Pierce Midland, Texas For Mid-Continent Petroleum Corporation J. P. Hammond Tulsa, Oklahoma For Amerada Petroleum Corporation Booth Kellough Tulsa, Oklahoma For Amerada Petroleum Corporation Roy O. Yarbrough Hobbs, New Mexico For the New Mexico Oil Conservation Commission G. L. Shoemaker Midland, Texas For Stanolind Oil Purchasing Company Frank R. Lovering Hobbs, New Mexico For Shell Oil Company Paxton Howard Midland, Texas For Shell Oil Company E. T. Adair Fort Worth, Texas For Texas Pacific Coal & Oil Company R. G. Schuehle Midland, Texas For Texas Pacific Coal & Oil Company Carl Barnhart Midland, Texas For Amerada Petroleum Corporation R. S. Christie Fort Worth, Texas For Amerada Petroleum Corporation J. W. House Midland, Texas For Humble Oil Company Herman Pressler Houston, Texas For Humble Oil Company Lloyd L. Gray Tulsa, Oklahoma For Gulf Oil Corporation E. J. Gallagher Hobbs, New Mexico For Gulf 011 Corporation

C. D. Borland Hobbs, New Mexico For Gulf Oil Corporation

R. E. Ganfield Roswell, New Mexico For the U. S. Geological Survey

Foster Morrell Roawell, New Mexico For the U. S. Geological Survey

Paul S. Johnston Lubbock, Texas For the Texas Tech. College

R. S. Blymn Hobbs, New Mexico For the Oil Conservation Commission

E. L. Shafer Hobbs, New Mexico For Continental Oil Company

I. H. Hinchfeld Hobbs, New Mexico For Lea County Operators

Elvis A. Utz Santa Fe, New Mexico For the Oil Conservation Commission

E. E. Kinney Artesia, New Mexico For New Mexico Bureau of Mines

B. C. Anderson Socorro, New Mexico For New Mexico Bureau of Mines

Dan McCormick Carlsbad, New Mexico For the Oil Conservation Commission

MR. SHEPARD:: The meeting will please come to order. Mr. Graham, will you please read the first case.

(Mr. Graham read the notice of publication in Case No. 190.)

MR. KELLOUGH: May it please the Commission, I am attorney for Amerada. I don't know whether anybody is here to represent the Twin Oil Corporation or not. This application is an application to unitize a lease covering two acres owned

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by a comstery tract in a 40-acre tract in which Amerada owns the lease on the other thirty-eight acres. The agreement has been entered into between the Twin Oil Corporation and the Cemetery Association and Amerada. We are, however, still negotiating with some of our lessors, to ask their joining in this agreement. If there is no objection, we would like to ask this matter be continued for sixty or ninety days so that we may complete the settlement. The case as between the Twin Oil Corporation and the Cemetery Association has been settled, and we would like the matter just continued over until we can finally get it wound up. MR. SHEPARD: Is there anyone representing the Twin Oil Company or the Cemetery Association here? Does anyone have any objection to this being carried over? If not, it will be carried over until the next hearing. Would you want ninety days?

MR. KELLOUGH: That would be agreeable--thirty, or sixty or ninety.

MR. SHEPARD: No will allow ninety days.

MR. KELLOUGH: That will be all right. We feel certain we will have it worked out in a few weeks. MR. SHEPARDI: Read the next case, please.

(Mr. Graham reads the notice of publication in Case No. 191.)

MR. KELLOUGH: If the Commission please, I would like to make a statement for the record in connection with this matter. We came here yesterday prepared to present our evidence in this case with the understanding that all the operators were in agreement to our application. However, yesterday afternoon we were advised by the Texas Pacific Coal Company that they desired a continuance of this matter.

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We have some properties which will be jointly owned in the 80-acre units if they are granted, and also the Texas Pacific Coal Company is now drilling a well located in the southeast of the northeast of Section 2, Township 12 South, Range 33 East, and they have requested that this matter be continued over until they complete their well. At the present time, it will be set down as soon as possible after the completion of their well. Their request is based upon the fact that additional information will be obtained from this well which is now drilling, and further that it will give us an opportunity to work out some arrangements with respect to these jointly owned leases. On behalf of Amerada, we have agreed to such a continuance with the understanding with Mr. Adair, the attorney for the Texas Pacific Company, that they will not seek any further continuance of this matter when it is set down as soon as possible after the well is completed and also with the understanding that any wells drilled in the meantime will not be located off of the pattern which Amerada has proposed in our application. Now, Mr. Adair, is that a correct statement?

MR. ADAIR: The well drilled by our company--I think possibly some other companies are involved--but any drilled by our company will conform to the proposed pattern. MR. KELLOUGH: And you will not seek any further continuance after the matter is set down after the completion of this well?

MR. ADAIR: That is true.

MR. KELLOUGH: There are other operators interested in the area, and I wish to state to the Commission at this time

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that it is possible that we now have sufficient evidence for 80-acre units in this field, and that we are not agreeing to the continuance with any hesitancy on our part that we do not have sufficient evidence, but because of the request of the Texas Pacific Coal Company, if there are any other operators here in the area, why then, of course, personally, I think I would welcome any statement they have to make as to their attitude on the continuance in this matter.

MR. SHEPARD: How long a continuance do you want? MR. MELLOUGH: I don't believe a definite time can be specified. Mr. Adair advises me he believes their well can be completed in approximately ninety days. Rather than set it down--it may be completed sooner. I don't know how they are getting along with the drilling. I believe they are down around seven or eight thousand feet, but we would be most anxious to advise the Commission immediately upon the completion of the well to have the matter set down as soon as possible, because we are urging it very strongly, and we don't want to be delayed any more than we possibly can. MR. SHEPARD: Any objections? If not, it will be continued indefinitely until you ask for it. Case 192.

(Mr. Graham reads notice of publication in Case 192.) MR. GRAY: We would like to ask for a continuance in that case also. At the present time, we have a well completed as an Ellenburger Well. There is some indication it may be making a little bit of water. We would like to observe it a longer period of time before we put on testimony since we may want to withdraw the application. MR. SHEFARD: Can we set that down for the first of November?

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MR. GRAY: Yes, I think that will be all right. MR. SHEPARD: If there is no objection, it will be continued until the first of November hearing. Case No. 193.

(Mr. Graham roads the notice of publication in Case No. 193.)

MR. HOWARD: Paxton Howard and Frank Lovering for the Shell Oil Company. We ask that Mr. Lovering be sworn.

(Witness sworn.)

FRANK R. LOVERING, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. HOWARD:

- Q. State your name, please.
- A. Frank R. Lovering.
- Q. You live at Hobbs, New Mexico?
- A. Yes, sir.
- Q. And are employed by the Shell Gil Company, inc.?
- A. That's right.
- Q. In what capacity?
- A. Superintendent.

4. In your capacity as superintendent you have jurisdiction of and are familiar with the field designated as the West Wilson Field, Lea County, New Mexico?

A. I do.

Q. You are familiar with the contents of the application filed for this hearing?

A. I am.

Q. I will hand you--will you identify--and please mark this as Exhibit A--please identify this.

A. This is a plan showing--Exhibit A is a plat showing the development to date in the West Wilson pool.

Q. It was prepared under your supervision?

A. That's right.

ME. HOWARD: I ask that it be admitted, please.

MR. SHEPARD: It will be admitted.

Q. Now, Mr. Lovering, will you point out to the Commission the Shell leases that are involved in this application.
A. In this particular application the leases involved are stated in the application, State Nos. E-1830, B-7849, B-9446, E-273. For purposes of well nomenclature we have designated them as our Shell State Leases A, B, C, and D.
Q. Those leases are all owned by Shell Oil Company, Inc.?

A. That's right.

Q. They are all state leases?

A. That's right.

Q. Now, will you state to the Commission the history of the development in the West Wilson pool, please. We are confronted here with a very unusual problem, as A. noted on this plat, the territory involved here is surrounded by four dry holes by the Vickers Petroleum up on the northwest corner of the plat, Davidson and Clower in the western portion, Cities Service well which was recently completed as a dry hole up in Section 16, and J. W. Brown with a similar well in Section 22. Further than that the J. C. Clower well No. 2 and the Shell State A-2 ind the southeast quarter of Section 16 are very weak wells and determine the eastern limits of the field. So that at the present time the center of the possible development there centers around four or five leases there, and it is indicated that production will probably be limited to about one well per lease. There is no room to the north. The

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eastern limits are already defined, and it looks like about a six-well field.

Q. Mr. Lovering, what was the discovery well?

A. It was the J. C. Clower No. 1.

Q. When was the discovery?

A. About a year ago.

Q. In what formation?

A. The formation is reef-type bump, drilled at a depth of about 3960 immediately below the Yates formation. Q. And it is your belief from the present indications that each of the leases involved in this application will probably be limited to one well, is that correct?

A. That is correct. The only exception to that would be to while there may be a possible extension southward, but the indications of the well drilled on State B-1 is that the pay is pinching out, and the development southward is only problematical. The pay is only about eleven to fourteen feet in thickness which overlies a water strata, and production is rather limited. All wells were brought in under the pump rather than open flow.

Q. In the present application you ask to be relieved from the necessity of having a separate tank battery on each lease and ask permission to use a central tank battery for all State leases?

A. That's right.

Q. At the present time, what type of battery facilities do you have in contemplation?

A. At the present time, we have two high 500-barrel tanks and one separator. We are at the present time installing heating and treating facilities which will include a 750-

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gun barrel and a jug-type water heater. We anticipate if our petition is accepted that we will add another 500barrel tank to the battery, one additional separator which will permit us to test any of the possible five wells that may be turned into that battery. We will be able to test them at any time at the pleasure of the Commission or any other authority.

Q. The tank battery is on Shell A as shown in the plat? A. Directly between wells 1 and 2.

Q. And what is the estimated cost of the installation of this tank battery?

A. Between sixteen and eighteen thousand dollars. It has been generally--we like to carry at least four and a half tank production in our batteries. And it has been, and it generally runs between five and six dollars a barrel exclusive of heating, treating, and settling facilties.

Q. Now, to construct separate tank batteries on each of the leases, do you have an estimate as to what the cost would be as to each lease?

A. With heating and treating facilities it would run around \$12,000.00, to state a rough estimate. Q.. Yes, sir, that's right.

A. The engineers gave us a figure here, I believe. Q. Well, it is stated in the application, and in your opinion that cost as regards each of these separate leases would be for the sole purpose of taking care of what at this time appears to be just one well? Q. By asking the central tank battery, there can be saved the cost of these separate installations and in

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addition to that the central tank battery can be equipped so that separate tests can be taken on all of these wells? A. That's right.

Q. In your opinion will the granting of this application in any manner aid in conservation and prevention of the waste of natural resources?

A. It will.

Q. In what manner?

A. In reduced further maintenance cost and operational cost. It will reduce operational cost in the neighborhood of 60 per cent. It will cut down maintenance cost tremendously, just the difference between one tank battery and four or five.

Q. And that matter will prolong the economic life of the various leases?

A. It will make it possible to continue producing those wells for a longer period of time due to the reduced operating and maintenance cost.

Q. All the royalty is the same, owned by the State?A. That is correct.

Q. Do you have anything else to add?

A. No, I would be glad to answer any questions. MR. HOWARD: Does the Commission have any questions? MR. McCORMICK: How about overriding royalties or oil payments?

A. None that I know of.

MR. McCORMICK: Mone on the other leases?

A. We were informed the royalties were all the same.

WR. HOWARD: That is \_\_\_\_\_\_ information that the royalties were all the same.

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MR. GRAHAM: Does your information disclose the institutional ownership of all the four leases? Is it the same institution? Do they all belong to the schools? MR. HOWARD: Yes, sir.

MR. McCORMICK: Do you have the leases with you, Mr. Howard? MR. HOWARD: No, sir, I do not.

MR. McCORMICK: What system will you have for actually measuring the oil produced from each separate lease? A. The facilities will be there to make periodic tests of at least two wells at a time, weekly, monthly, which we normally do anyway, and it would be no different than any other battery with the same facilities. MR. McCORMICK: How do you know exactly how much oil each well produces each month during a proration period? A. We never know exactly any more than we know on any two wells in the State of New Mexico. That is our general practice; it is based on period production. We can make those at the rule of the Commission, or at any specific interval, or at any time you wish for that matter. MR. McCORMICK: This testing device you will have to test the production, it can be run for any period? A. Any predetermined period, that is right. MR. HOWARD: Whatever tests the Commission requires, we are ready to make. We do have a peculiar problem, and it looks like it will be a very small field. They are all leases with a common royalty. MR. SHEFARD: Any objections? Does anyone have anything to say? If not, then it will be granted. MR. HOWARD: Thank you.

MR. SHEPARD: Case 194.

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(Mr. Graham reads the notice of publication in Case No. 194.)

MR. SHELARD: Mr. Staley, do you have anything to offer on this?

MR. STALBY: Under the present Commission the changing of allowable between the first of one proration period until the beginning of the next proration period on any new allowable -- I mean new wells -- are given an allowable. That is, during the opening and closing of any proration period; from time to time the operators have done remedial work and been able to correct for high gas-oil ratio on wells in fields having limited ratios, but it has been necessary to wait until the beginning of the next proration period before assigning an allowable to that well; that is, a new allowable based on the new gas-oil ratio tested after the remedial work is completed. Therefore, the Commission was requested to make a ruling regarding the placing of high gas-oil ratios--that is, giving a new allowable to a well that is penalized under the present system. MR. SHEPARD: Mr. Morrell, do you have anything to say on this?

MR. MORRELL: I see no objection to it.

MR. SHEPARD: Any other objections? Anyone have anything to say? If not, it will be granted. There being no further business, we will stand adjourned.

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STATE OF NEW MEXICO ) SS COUNTY OF BERNALILIO ;

I HEREBY CERTIFY That the foregoing transcript of proceedings before the Oil Conservation Commission is a true record of the matters therein set forth.

DONE at Santa Fe, New Mexico, this 20th day of September, 1949.

heison E. GREESON E.

Notary Public

My Commission Expires 8-4-52.