

BEFORE THE OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

PROCEEDINGS

The following matter came on for consideration before a hearing of the Oil Conservation Commission of the State of New Mexico, pursuant to legal notice, at Santa Fe, New Mexico, on February 8, 1950, at 10 A. M.

NOTICE OF PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice of public hearing to be held February 8, 1950, beginning at 10:00 o^tclock A.M. on that day in the Capitol Building, Santa Fe, New Mexico.

STATE OF NEW MEXICO TO:

E. J. McCurdy, c/o Hervey, Dow and Hinkle, White Building, Roswell, New Mexico; E. J. McCurdy, Fort Worth, Texas; Buffalo Oil Company, c/o Jack M. Campbell, Roswell, New Mexico; Buffalo Oil Company, Artesia, New Mexico, and to all persons having an interest in:

Case 205

In the matter of the Oil Conservation Commission's Order No. R-5, dated January 23, 1950, granting a rehearing in Case 205 whereby E. J. McCurdy, Jr., was granted, by Order No. 849, December 27, 1949, authority for an unorthodox location, and Buffalo Oil Company, an interested party having filed application and timely motion for rehearing of said case.

Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on January 23, 1950.

> STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ R. R. Spurrier /t/ R. R. SPURRIER, SECRETARY

SEAL

BEFORE:

Guy Shepard, Chairman R. R. Spurrier, Secretary Don G. McCormick, Attorney for the Commission George Graham, Attorney for the Commission

REGISTER:

W. E. Scott Artesia, New Mexico For Buffalo Oil Company

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H. G. Ellis Artesia, New Mexico Før Buffalo Oil Company

Ralph L. Gray Artesia, New Mexico For Buffalo Oil Company

Jack M. Campbell Roswell, New Mexico For Buffalo Oil Company

John M. Kelly Roswell, New Mexico For E. J. McCurdy, Jr.

Haymie R. Edwards Fort Worth, Texas For E. J. McCurdy

Ford Bradish Fort Worth, Texas For E. J. McCurdy

R. T. Wilson Artesia, New Mexico For E. J. McCurdy

E. J. McCurdy Fort Worth, Texas For himself

John E. Cochran, Jr. Artesia, New Mexico For General American Oil Co. of Texas

R. J. Heard Artesia, New Mexico For General American Oil Co. of Texas

N. W. Krouskop Loco Hills, New Mexico For General American Oil Co. of Texas

R. F. Miller Artesia, New Mexico For General American Oil Co. of Texas Foster Morrell Roswell, New Mexico For the U. S. Geological Survey

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W. B. Macey Artesia, New Mexico For American Republics Corporation

W. C. Williamson Houston, Texas For American Republics Corporation

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

F. C. Barnes Santa Fe, New Mexico For the New Mexico Oil Conservation Commission

R. M. Blagden Santa Fe, New Mexico For the Albuquerque Journal

Betty Wistrand Santa Fe, New Mexico For the New Mexico Oil Conservation Commission

Glenn Staley Hobbs, New Mexico For Lea County Operators

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

Roy O. Yarbrough Hobbs, New Mexico For the New Mexico Oil Conservation Commission

Justin Newman Artesia, New Mexico For the New Mexico Oil Conservation Commission

Raymond Lawt Artesia, New Mexico For Wilson Oil Company

R. L. Adams Ft. Worth, Texas For Continental Oil Company

Jack R. Huffmyer Artesia, New Mexico For American Republics Co.

E. N. Brock Artesia, New Mexico Brock & Brock Drilling Co. William D. Morris Fort Worth, Texas For Worth Drilling Co., Inc.

Clarence E. Hinkle Roswell, New Mexico For Hervey, Dow & Hinkle

CHAIRMAN SHEPARD: The meeting will come to order. You may read the notice of publication, Mr. Graham.

(Mr. Graham read the notice of publication for Case 205.) MR. HINKLE: Members of the Commission, for the purposes of the record, I am Clarence E. Hinkle, firm, Hervey, Dow & Hinkle, Roswell, New Mexico, representing E. J. McCurdy. I would like to make a preliminary statement to the Commission concerning the matter of the application of E. J. McCurdy for approval for an unothodox location upon the northwest quarter of section 20, township 18 south, range 32 east. Application was made in November 1949. Due notice was published by the Commission of hearing which was to be held and which was held on December 1, 1949, at 10 o'clock. After consideration of transcript of proceedings of the hearing an order was entered December 27, 1949, approving the unorthodox location as requested in the application. Mr. McCurdy started the drilling of the well, and before the well was completed, an application was made by Buffalo Oil Company for a rehearing in this matter. And the Commission saw fit to grant the rehearing, and after the order was entered granted a rehearing. We filed in behalf of Mr. McCurdy consent to the modification of order, which contained a typographical error, describing said land as being in range 31 east rather than range 32 east. The heading of the order correctly described the land. That was simply a typographical error. We filed modification of order so

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as to correct the description of the acreage. Then we heard that it was contended that the order that was entered in the main was not consistent with previous orders entered by the Commission. I consented that the order be modified so as to provide for the unitization of the northwest quarter of section 20 for proration and allowable purposes and also consented to the modification of the order to provide that no well produce more than top allowable. That had been the intention of the application and we assumed that the order would so provide. We did not draw the order. It was drawn by the Commission. Its real intention was to so provide. Now, the attorney for the Buffalo Oil Company filed a response to the consent to modification of order in which he states in effect that the consent should be considered the same as a new application and that therefore the matter should be heard over. I think that is a little wishful thinking on the part of counsel for Buffalo and so hopes this will shift the burden of proof in the case. The 1949 Act amending the Conservation Act, Section 195 provides that within twenty days after the entering of an order application may be filed for rehearing, and goes on to say, may within ten days grant or deny in event of application for rehearing. If granted the Commission may enter such new order or orders after rehearing. It is contemplated the original order is in full effect today until after the rehearing, and then the Commission can go ahead and enter a new order or modification as it sees fit. The next paragraph goes on to provide that the burden of proof shall be on the party questioning the validity of such action of the Commission. I think it is very clear in this case the burden of proof is upon the

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Buffalo Oil Company to show wherein this order in its fullest force and effect is erroneous. I don't think the filing of consent to modification makes any difference. The order is still in effect, and if the Commission takes the view that the consent makes any difference, we would like to withdraw it at this time and submit it later if we see fit to. I submit that the burden of proof is upon the Buffalo Oil Company.

MR. CAMPBELL: If the Commission please, the original application which was filed with the Commission in this case makes a request in which there is no reference to allocation of production in event the fifth well is approved on a normal unit for which the maximum allowable is for four wells. We take the position that the consent to modification constitutes a different suggestion-as-to allocation. Further, there was no reference to unification of area involved, simply asked for the fifth well. If relief is granted and heard in that light, Mr. Hinkle has suggested that the provisions of the new statutes provides that the procedure in district court should apply to this Commission on rehearing. It is apparent particularly in this case that the applicant has the definite requirement to provide sufficient evidence to justify the retaining of the order or to changing or modifying it as seen fit. In the case of the hearing of the original application no testimony was offered and sworn to sustaining the application. The record was devoid of any prima facie evidence upon which the order was issued by the Commission, and Buffalo Oil Company would like to hear from the applicant itself some testimony, evidence, for the rentention of the order or modification of it. Mr. Hinkle

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requests that the burden of proof be placed on us as to the proposed order. There is a different situation in this case. The original order is without any basis in that they never entered any testimony on prima facie evidence. I say that in the establishment of the Commission's new rules or procedures, there are no orders we know of in which there was no testimony upon prevention of waste or the protection of correlative rights of adjacent owners. Our position is that it is not a question of who proceeds, but we feel that the Commission is entitled to hear evidence before \mathbb{R}^{n} before promulgation of the case. The hearing of the case is established in order to justify order which has been issued. MR. HINKLE: I don't think it is a question of the evidence at the original hearing. The matter was given due notice. Buffalo Oil Company was given an opportunity to appear or anybody else who had an interest. They failed to appear. It was a default matter. An order was entered. All jurisdictional requirements were complied with. There were no objections until after the application for rehearing. It is virtually setting aside the order without rehearing.

(Off the record discussion among members of the Commission and their attorneys.)

CHAIRMAN SHEPARD: We are not going to decide who has the burden of proof. Mr. McCurdy will proceed with his testimony. You may go ahead, Mr. Hinkle.

MR. HINKLE: Usually the one who has the burden of proof precedes. Does that mean that the Commission holds that McCurdy has the burden of proof? CHAIRMAN SHEPARD: We will hold for the purposes of this hearing that you may proceed with the testimony.

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E. J. McCURDY, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. HINKLE:

Q. State your name please.

A. E. J. McCurdy.

Q. Where do you live?

A. Fort Worth, Texas.

Q. What is your business?

A. I am engaged in the oil business.

Q. Do you have any profession other than the oil business?

A. I am a geologist.

Q. Are you the owner of the federal lease covering the

northwest quarter of section 20?

A. I am.

Q. When did you acquire that property?

A. Later part of 1944.

Q. Mr. McCurdy, I hand you Exhibit A which purports to be a plat showing what is known as the Young Pool Area in township 18 south, range 32 east and also North Shugart area in township 18 south, range 31 east, and ask you whether or not you prepared that plat or caused it to be prepared under your direction?

A. I did.

Q. Does it correctly show ownership of oil and gas leases in the Young Pool and in North Shugart Area?

A. It does.

Q. Does it correctly show locations of different wells drilled in respective areas?

A. It does.

Q. Does it show correctly depths of wells?

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A. In most cases it does.

Q. Does it in connection will all your wells in the Young Poll and Buffalo Oil Company's wells which are also in that area?

A. It does.

Q. Does it also show the amount of production in each of the wells in each area up to January 1, 1950?

A. It does.

Q. Does it also show initial production of respective wells?A. It does.

Q. Does it also show the elevation of wells and the redsand thickness from which they are producing?

A. It does.

Q. Does the map also correctly show the distance of the respective wells from lease lines or sub-division lines? Particularly as to your wells in the Young Area?

A. Yes, sir.

Q. Does it also correctly show the daily average, daily production of oil from wells in the Young Pool and North Shugart Area for December 1949?

A. It does so far as my lease is concerned.

Q. Mr. McCurdy, you were granted permission by the Commission to drill an unorthodox location located in approximately the center of the northwest quarter, section 20, township 18 south, range 32 east?

A. I was.

Q. The hearing in connection with this order was held December 1, 1949?

A. Yes, sir.

Q. What steps did you take after the hearing was held in

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regard to getting ready to drill that well?

A. Well, we went into a drilling contract to drill the well but not to start that well for about 20 days.

Q. Did you make application to the U. S. Geological Survey for drilling that well?

A. We did.

Q. Was notice of intention to drill approved by the Supervisor of the U. S. Geological Survey?

A. It was after we had agreed to keep the tract intact.

Q. You mean a non-segregation agreement?

A. Yes, sir.

Q. Do you recall or recollect the date of approval of that location by the U. S. Geological Survey?

A. I believe it was on December 9, 1949.

Q. Then how long after or what date did you actually commence the drilling of the well, if you did?

A. December 20, 1949.

Q. Did you have any reason to believe or did you know that Buffalo Oil Company or anybody objected to the drilling of this well?

A. I did not.

Q. How deep were you when you received notice that the Buffalo Oil Company had filed application for rehearing?

A. 2650 feet.

Q. Did you shut down the well after you received notice of rehearing?

A. No, it is shut down now.

Q. Why didn't you shut down at the time you received notice of rehearing?

A. Well, we had a turn key drilling contract.

Q. By that you mean what?

A. The contract was to drill the well to a certain depth?

Q. Were you permitted to shut down under the terms of that contract?

A. No, sir.

Q. Did the contract contain any provisions for shutting down the well?

A. It did not.

Q. Did you continue the drilling of the well after the order for rehearing was granted?

A. I did.

Q. What is the condition and depth of the well at the present time?

A. The well is a little past 3675 feet where we considered would be casing set.

Q. Are you shut down at this time in connection with running of casing in completion of well?

A. Yes, sir.

Q. I believe you are also a geologist?

A. Yes, sir.

Q. Where did you study?

A. Oklahoma University.

Q. What year did you finish your geology course?

A. First part of 1918.

Q. Did you continue your knowledge and practice as geologist after 1918?

A. I did.

Q. What did your work consist of?

A. Field geological work.

Q. Were you with any major company?

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A. Carter Oil Company.

Q. For how long?

A. Until 1925 approximately.

Q. After that you continued as a geologist?

A. I did.

Q. In what capacity?

A. I came to Texas and went in for myself.

Q. And were you consulting geologist?

A. Yes, sir.

Q. Were you also in the oil and gas business as an independent operator?

A. Yes, sir.

Q. You have continued that constantly as consulting geologist and independent oil operator?

A. I have.

Q. Up until the present time?

A. Yes, sir.

Q, When did you complete your well No. 1 upon the northwest quarter of section 20?

A. In the latter part of 1944.

Q. At that time was that your discovery well?

A. That was the discovery well.

Q. Did anybody contribute toward the drilling of that well? A. No, sir.

Q. It was really the discovery well in what was called the Young Pool?

A. Yes, sir.

Q. Did you examine samples or cuttings from the formation, particulary the Red Sand formation, which is the producing formation?

A. I did.

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Q. Did you keep close account of other wells you drilled, namely, Nos. 2, 3, and 4?

A. I examined all the samples sent in to the office. On Nos. 1 and 3 I was on the derrick floor when they were drilling and were brought in.

Q. And you examined all samples of red sand in each case?A. I did.

Q. You also examined sample logs from these wells and other wells?

A. Yes, sir.

Q. You have examined logs from the North Shugart Area?A. I have.

Q. Have you compared logs of the North Shugart Area with the logs of drilling in Young wells drilled upon your property?

A. Almost the same, a little higher, only difference the dip is to Young Field from the Shugart slightly.

Q. All the wells are producing essentially from the same geological formation?

A. Exactly the same. That is known as the Queen Red Sands.

Q. Queen Red Sands. Now, Mr. McCurdy, have you from your examination of the logs of wells and samples and your knowledge of production in these two areas and other similar areas of the State, have you formed an opinion of the porosity and permeability of Queen Red Sands?

A. I have.

Q. What is that?

A. It is very low, very low.

Q. You mean by that very low permeability?

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A. Yes, sir. It is erratic. It could be fairly porous in some spots. That doesn't mean it would be contiguous over 50 feet from there. It might be completely stopped, very silty, low permeability sand.

Q. In your opinion will one well drilled approximately in the center of 40 acres in these areas permit recovery of all oil which economically is possible to recover?

A. It will not.

Q. By that you mean that it will not drain the 40 acres?A. It will not.

Q. Do you believe, or in your opinion, do you think that it is necessary to drill "five spot" location, which is proposed, to recover all the oil it is economically feasible to recover in the northwest quarter of section 29, township 18 south, range 32 east?

A. It is necessary to drill the "five spot" well.

Q. Would that well permit the recovery of oil that would not otherwise be recovered?

A. It will.

Q. State whether or not in your opinion the drilling of the "five spot" well is in the interest of conservation and prevention of waste?

A. It is.

(Exhibit A, map, is placed on display board.) Q. Mr. McCurdy, what type of volumetric drive do you have in the Young Pool?

A. It is a gas drive field.

Q. What do you mean by gas drive field?

A. The oil is pushed toward the bore of well by gas expansion.Q. Do you have any considerable pressure or volume of gas

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in this field?

A. No, sir.

Q. What is that indicative of when you have low pressure and low volume of gas in a gas drive field?

A. Very mediocre drainage area for any one well.

Q. In other words, you would say gas drive in this particular area is very inefficient?

A. It is.

Q. Is this low pressure, low volume gas demonstrated by any physical means in the field?

A. Well, we have got our wells on pumps.

Q. Does that indicate they do not have any gas?"

A. To flow the wells.

Q. That is true of all the wells, is it not?

A. No. 1 when we first brought it in went dead numerous

times. We had to do considerable work to revive it.

Q. I would like to offer at this time in evidence the plat, Exhibit A.

MR. CAMPBELL: We would like to examine it.

(Mr. Campbell examined the plat.) CHAIRMAN SHEPARD: It will be accepted.

Q. Mr. McCurdy, I believe you just testified that you had just about reached the pay horizon with the "five spot" well you are drilling?

A. Yes, sir.

Q. I believe you have testified it is the red sands from which the other wells are producing, will you state whether or not it is possible to get a dry hole?

A. Very possible.

Q. Do you know now exactly the type of well you will get?A. That would be impossible.

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Q. It might be 5 or 10 or allowable or could be dry? A. That's right.

Q. Assuming that the well's production will be paying quantities, state whether or not in your opinion production from that well would infringe on any correlative rights of any adjacent lease cwners?

A. It would not.

CROSS EXAMINATION BY MR. CAMPBELL:

Q. Mr. McCurdy, you state that you filed application with the Commission in November 1945 for a "five spot" location? A. Mr. Hinkle filed.

Q. Did you contact owners of adjoining leases prior to that time with reference to this well?

A. I did not.

Q. You did not contact them?

A. I did not.

Q. Do you have any other "five spot" locations in New Mexico?

A. Yes, sir.

Q. Where?

A. I just drilled a dry hole on one, in the northeast quarter. Q. In that adjoining lease?

A. Yes, sir.

Q. Did they agree with the drilling of that?

A. We drilled it together.

Q. Do you know the date when you entered into the drilling contract?

A. I can*t say right off hand. It was after December 1.

Q. You commenced it December 20?

A. Yes, sir.

Q. You know the date of the Commission's order?

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A. I understood it was on the first.

Q. Have you seen the Commission's order?

A. No.

Q. I hand you a copy of the order. State the date of the Commission's order?

A. 27th of December.

Q. You commenced drilling on December 20?

A. I did.

Q. Were you acquainted with the provisions of the laws of New Mexico, which provide for a 20 day period after the entry of the order for granting of a rehearing?

A. I wasn't at that time. I am now.

Q. Mr. McCurdy, when you made the original application for a "five spot" location, what was your intention as to allocation of production from the area involved?

A. I be allowed to produce top allowable well was what I
was asking. I wasn^{*}t asking for anything but what had been granted to others. That is what I thought I was getting.
Q. What did you think would be the provision as to the marginal wells on that tract?

A. That I would be allowed to produce them still. Q. What maximum allowable in addition did the Commission give you for the 160 acres?

A. The order gave me considerably more than I thought. I expected a top allowable well if I could get one.

Q. What did you expect?

A. 160 acre unit. Four, allowable from four wells.

Q. What allowable, proration allowable, maximum allowable was your concept of it?

A. Well, just to be as plain as I can make it, I thought I would be allowed a top allowable well from the "five spot"

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location, if I was granted that location. That is what I thought.

Q. That is still you intention under the modified order that was filed?

A. Yes, sir.

Q. What do you request the Commission to grant by way of total allowable for the 160 acre unit?

A. What it is producing plus 42 or what the Commission allocates to the producing unit so long as it does not exceed four wells on four units.

Q. Are you asking for four top unit allowable under present concept?

A. No, sir, I have only asked for a top allowable well if I am fortunate enough to obtain one plus what the others will produce so long as it does not exceed the allowable for four regular 40-acre tracts.

Q. Four top allowable wells?

A. I don⁴t think I understand. I wouldn⁴t be allowed to produce more, including the "five spot" well, than top allowable for the four regular legal 40-acre tracts. I would be allowed to produce my other wells up to maximum so long as I didn⁴t produce more than allowable for four under present rules. 42 barrels. Other wells made 109 barrels a day, and 42 and 109 is 151, and four times 42 would be 168. I wouldn⁴t be allowed to produce that unless I can revive those wells some, which I have done in the past.

Q. 160 barrels for five.

A. If we make legal allowable.

Q. When you made these tests, took these samples on Nos. 1 and 3 wells, state to the Commission just the extent of that sampling. How many samples did you examine?

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A. I examined them as they drilled through pay.

Q. How much? Did you take core tests?

A. No, sir.

Q. Did you make core analyses?

A. I have studied cores and history of the area.

Q. Have you any core analyses in the Young Pool?

A. No, sir.

Q. Have any been taken to your knowledge?

A. No, Bufalo might have.

Q. As a geologist, you can state what the permeability and porosity is?

A. I can.

Q. You can?

A. I can to a pretty good extent, yes, sir. No. 1 flowed a lot of sand, big hunks.

Q. From the hunks of sand you can make statement as to porosity?

A. Not positively, not exact, you can tell pretty close. Q. You also stated that you examined logs in the Young Pool and Shugart Pool, what types of logs did you examine in the Young Pool?

A. Our own well logs.

Q. Do you have those well logs?

A. Not with me.

Q. What type of logs did you take on your wells in the Young Poll?

A. You mean?

Q. Did you take radioactivity logs?

A. No.

Q. What kind of logs did you examine?

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A. Sample logs.

Q. Did you examine samples for the Shugart Pool?

A. Yes, sir.

Q. Do you have information as to production in the Shugart Pool?

A. No, sir.

Q. Di you drill a dry hole in the Young Pool?

A. Yes, sir, one.

Q. Is it your opinion that this indicates silty conditions?
A. No one can tell. There are erratic sand conditions.
Q. Isn^{*}t it your opinion that one can^tt make an accurate comparison between the two areas?

A. ... Queen sand, very definitely same horizon.

Q. Any zones?

A. In our immediate vicinity, no, we get the same thing that they get in North Shugart.

Q. What zones--queen sand in the Young Pool?

A. We got the red sand.

Q. In Queen formation, there are different types of zones, aren⁴t there?

A. Not in producing horizon, no. Not in our wells, the only difference between any one well on our lease and another one would be more shallow than the other.

Q. Mr. McCurdy, you testified that you have gas drive in this field, and that there is no considerable pressure. Did you ever take any pressure tests for those wells?

A. I did.

Q. What type?

A. Bottom hole.

Q. When?

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A. I took a number after the first well came in, a short while.

Q. How long?

A. Several months.

Q. What were the results?

A. 1221 pounds.

Q. Did you take bottom hole pressure tests upon the completion of every well?

A. No, sir.

Q, You don't have the date on which it was actually taken?

A, No, sir.

Q. Were any other bottom hole pressure tests taken?

A. Not on my lease.

Q, Did you ever take any gas oil ratio tests?

A, No, sir.

Q. The first well was completed when?

A, 1945.

Q. Never been any gas oil ratio tests taken?

A. No, sir.

Q. You have no gas oil ratio--

A. It is very small. On a cold morning there is hardly any.

Q. What are you limited on gas oil ratio?

A. I don't know, maybe you can help on that.

Q. How do you know you aren't in excess?

A. I couldn't conceive of it.

Q. You don't know the gas oil ratio?

A. I know the limits.

Q. You don't know exactly?

A. I know its limitations.

MR. CAMPBELL: That is all.

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REDIRECT EXAMINATION BY MR. HINKLE:

Q. Mr. McCurdy, it was never your intention on filing this application to produce more than top allowable from any well in the area?

A. No, sir.

Q. Isn't it a fact that it is easy to tell whether a well is making very much gas?

A. Very simple.

Q. Simple observation, is it not?

A. Yes, sir. In my opinion the gas is all in solution. On a cold day when it gets really cold, there is hardly any gas, comes out separately in solution. On hot days there is more gas which will come out. That I have noticed time and time again.

MR. McCORMICK: If this well for which you have filed should be completed as top allowable well similar to other well in same forty, do you have any opinion as to whether or not that well for which you are applying would drain any oil from the one under 40-acre tract immediately north, the Buffalo Oil Company's tract?

A. I do not think it would. I have a definite opinion that the drainage of one well is very small. They could have asked if you drilled six and you got oil, I would have to say no. It just doesn't drain a very big area.

MR. McCORMICK: You don't believe it would drain from the Buffalo tract to the north?

A. It would not. We have produced our best well over three years and a half approximately, the Buffalo didn[‡]t drill offsetting for a long time. They then drilled a well and got the best well in the field.

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MR. SPURRIER: Would you care to estimate what the porosity of the sand is in this particular area?

A. Yes, sir.

MR. SPURRIER: Within certain percentage limits what would it be?

A. I would say in the neighborhood of between ten per cent and eighteen per cent.

MR. SPURRIER: How about permeability?

A. Well, the best I could say is low.

MR. SPURRIER: Low.

A. And erratic, you might have fair permeability in one well,

but how far from the bore of that hole no one in the world

can tell. Not in that red sand area.

MR. SPURRIER: Did you shoot these wells?

A. I shot 2 and 3. I did not shoot 1 and 4.

MR. SPURRIER: Did it materially increase production?

A. In one case, yes; in another case, no.

MR. SPURRIER: Have you finished?

MR. CAMPBELL: I have one more question.

RECROSS EXAMINATION BY MR. CAMPBELL:

Q. I believe you stated when you identified the exhibit that it reflects the thickness of the pay?

A. Well, it does in the red sands on your well, for instance, is 3736 to 3778.

Q. Is that pay?

A. No, sir.

Q. Is will state it in a different way, do you have anything to show the thickness of the pay under those wells?

A. Yes, sir.

Q. What is the thickness of the pay under No. 1?

A. Approximately 13 feet.

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Q. No. 2?

A. I wouldn't want to say. I know very positive about No. 1.

MR. CAMPBELL: That is all.

CHAIRMAN SHEPARD: You may be excused.

JOHN M. KELLY, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. HINKLE:

Q. State your name?

A. John M. Kelly.

Q. Where do you live?

A. Roswell, New Mexico.

Q. Are you a graduate mining engineer?

A. I am.

Q. Where did you graduate?

A. New Mexico School of Mines.

MR. CAMPBELL: We will waive the qualifications of this witness.

MR. SPURRIER: He has qualified before.

MR. HINKLE: We think the qualifications should show in the record in case this should go into court.

Q. When did you graduate?

A. 1936.

Q. After graduation from school what business were you engaged in?

A. The oil business.

Q. In what capacity.

A. I was in the proration office of the Lea County Operators from 1937 to 1941, State Geologist and Director, Oil Commission 1941 to 1945. Production, George P. Livermore, Inc., in 1945, and independent consulting geologist and operator since that time. Q. You are still a consulting geologist at this time and independent oil operator?

A. I am.

Q. Have you had any experience with red sands production in New Mexico?

A. I have.

Q. When and where.

A. In 1945 I completed approximately 12 wells in the Caprock Field. That was red sands.

Q. Was that during time you were superintendent of George P. Livermore Company?

A. It was.

Q. In connection with the drilling and completion of those wells, did you have occasion to check samples?

A. I drilled in 12 wells, yes, sir.

Q. Of red sands formation?

A. Yes, sir.

Q. Have you checked the sample logs of red sand wells in the Young and North Shugart Pool areas?

A. Yes, sir.

Q. How do the logs with those wells compare with those of the Caprock Field?

A. They have similar characteristics--pay zone section of Caprock and Young Pool and North Shugart appears to be silty sand.

Q. You would say the sand characteristics of all wells is silty red sand?

A. Yes, sir.

Q. What is your opinion as to the porosity and permeability of red sands in these respective areas?

A. The red sand zone appears to have a wide range of

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of permeability and porosity due to its characteristics, I would say very erratic.

Q. By that, you mean what?

A. Streaks wouldn't carry any considerable distance from the well bore.

Q. Have you formed any opinion as to production in New Mexico, whether or not one well located in the center of one tract would drain all the oil from the 40 acres?

A. I don't believe that it will. In Caprock we conducted interserence tests and found no interference.

Q. None whatever?

A. No interference.

Q. In your opinion is it necessary to drill "five spot" locations in these red sand areas to recover all oil economically feasible to recover from these areas?

A. I would state that the drilling of "five spot" wells will allow a greater percent of recovery than you would get with just one well.

Q. You would recover oil that would not otherwise be recovered from the normal center locations?

A. In my opinion it would.

Q. State whether or not in your opinion the drilling of "five spot" locations is in the interest of conservation and prevention of waste?

A. Yes, sir, recovery of more oil economically is in the interest of conservation.

Q. Are you familiar with the "five spot" well which is being drilled on the northwest quarter of section 20, township 18 south, range 32 east?

A. I am.

Q. State whether or not in your opinion that well would infringe upon the correlative right of adjacent lease owners?

A. By that you mean drain oil from under their land?Q. Yes, sir.

A. I don't believe it would.

Q. It is your opinion that production from the completion of that "five spot" location will not drain any oil from adjoining lands to the northwest quarter?

A. That is right.

Q. Do you know whether or not the Young Pool and the North Shugar Pool have water?

A. They are gas drive. They appear to be gas drive fields.Q. Do you know whether or not they have high pressure in connection with any of the wells.

A. It appears that the gas volume is very low in amount.Q. Are there any physical facts that show that to be the case?

A. Part of the wells are pumping in that area.

Q. Isn't it a fact that their low gas pressure, low volume of gas is indicative of inefficient drainage or recovery of oil from the field?

A. Yes, sir, due to fact the volume of gas in the formation is small, that relatively small expansion, therefore your drive toward the bore holes would be very weak and would not carry back too far.

Q. You are saying in effect your recovery from any particular one would not be from a very large distance?

A. That is right.

MR. HINKLE: That is all.

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CROSS EXAMINATION BY MR. CAMPBELL:

Q. Where is Caprock Field with respect to the Young Pool?

A. North of it.

Q. How far?

A. 25 miles.

Q. What types of tests did you examine in the Young Pool?

A. None.

Q. Have you ever seen any bottom hole pressure tests from that pool?

A. No, sir.

Q. Have you ever seen any gas oil ratio test results?

A. No, sir.

Q. Have you ever seen any cores?

A. In the Young Pool, no, sir.

Q. Have you seen core analyses taken from the Young Pool?

A. No, sir.

Q. Have you examined logs from the Young Pool?

A. I have seen samples.

Q. Samples is all you have seen?

A. Screenings.

Q. Anything with reference to the thickness of the pay sand in the Young Pool?

A. I have knowledge of the thickness of the red sand.

Q. At any particular well?

A. All four wells.

Q. What is it? You have this information from inspecting of pay sand?

A. No, sir, I have knowledge of the thickness of red sand.
Q. Do you have any estimate based upon examination of samples.
in consideration of Young Pool as to what the recoverable

reserves may be, say on McCurdy Young Well No. 1?

A. I have not made such an estimate.

Q. How did you make the interference test in the Caprock Pool?

A. By flowing wells completed wide open and shut down offset wells for several days to several weeks.

Q. How many?

A. Varied according to the capacity of the wells, until they filled the tanks.

Q. Do you have any opinion as to whether the Young Pool and the Caprock Pool are producing from the same sand? A. Producing from the same red sand zone.

MR. CAMPBELL: That is all.

CHAIRMAN SHEPARD: Any further questions? You are excused. We will take a five minute recess now.

(Recess.)

CHAIRMAN SHEPARD: The meeting will come to order. Mr. Hinkle, do you have any further witnesses?

MR. HINKLE: I would like to call Mr. Ford Bradish.

FORD BRADISH, having been first duly sworn, testified

as follows:

DIRECT EXAMINATION BY MR. HINKLE:

Q. State your name, please.

A. Ford Bradish.

Q. Where do you live, Mr. Bradish?

A. Fort Worth, Texas.

Q. What business are you engaged in?

A. Consulting geologist and engineer.

Q. Are you a graduate geologist?

A. Yes, sir, from the University of Chicago.

Q. What year did you graduate?

A. 1917.

Q. After your graduation, in what business were you engaged?

A. Geological profession.

Q. Did you work for any major companies?

A. I worked for major companies.

Q. For how long?

A. From 1917 until 1922, and in 1923 I was consultant in Okmulgee, Oklahoma. From 1923 to 1926 I was with Landright Production Company. Since 1926 I have been consulting geologist and engineer.

Q. Do you belong to the American Association of Geologists?

A. Since 1919.

Q. Have you qualified as an expert witness and testified in different cases in court?

A. ^Yes, sir.

Q. Have you ever had experience in a geological way in New Mexico?

A. Yes, sir.

Q. When was the first time you ever had any geological experience in New Mexico?

A. About 1932.

Q. What did that consist of?

A. That first work was a reconnaissance job, later surface and sub-surface.

Q. Was this in New Mexico?

A. Yes, sir.

Q. Have you had continuous geological contacts in New Mexico since that time?

A. Yes, sir.

Q. Do you now have any knowlege of the producing wells of the Worth Drilling Company, Inc., et al, in the south half of the southwest quarter, section 12, township 18 south, range 32 east and the northwest quarter of section 13?

A. Yes, sir.

Q. What was your first contact?

A. Made first locations on original well. I was back several times, examined the records which came into the office when first three wells were drilled.

Q. Are you familiar with the plat, Exhibit A.

A. Yes, sir.

Q. Does that correctly show the locations of the Worth Drilling Company, Inc., et al, situated in North Shugart Area?

A. I believe it does as I know them?

Q. Does the plat correctly show the amount of production up to January 1, 1950, from the respective producing wells in that area?

A. Yes, sir.

Q. Have you examined sample logs of all wells in that area?

A. All that they have.

Q. Have you examined sample logs from the McCurdy Young Pool Area?

A. Those available, yes, sir.

Q. How do they compare as to red sands?

A. As far as I am concerned they are almost identical, minor differences.

Q. How far between the closest producing wells in North Shugart and Young Pool?

A. About a mile, mile and three quarters, maybe two miles.
 Q. From a geological standpoint, they are all, in your opinion, in the same area?

A. Yes, sir.

Q. Tell the Commission your opinion as to the geological comparison, generally speaking, of the areas in the relation of the two pools.

A. They are both producing from the same geological horizon without exception. There is a dip in this particular area more east and southeast, little higher on map on top of red sand, dip over North Shugart, 40 feet, near the east to the mile, little southeast, general dip down southeast to Young Pool, there are little contours, nothing unusual.
Q. State whether in your opinion they are structural conditions?

A. I think structural conditions have very little to do with production.

Q. What does?

A. The character of the formation in which production is found.

Q. What do you mean?

A. It lacks permeability and porosity to such an extent in certain dry areas and producing areas.

Q. Probably a stratigraphic trap?

A. Type of stratographic trap, yes, sir.

Q. Have you formed an opinion as to the porosity and permeability of the red sands in the two areas?

A. I have.

Q. What?

A. Permeability is very low; porosity, low. Some stringershave high porosity, some fair porosity; very low permeability.Q. You think both areas are the same in that respect?

A. I do.

Q. State whether or not in your opinion one well located in

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approximately the center of a legal 40-acre subdivision in these areas would drain all the oil from 40 acres? A. No, I do not think so.

Q. You are familiar with the location of the E. J. McCurdy "five spot" location in the northwest quarter, section 20, township 18 south, range 32 east, N.M.P.M.?

A. Yes, sir.

Q. State whether or not in your opinion it is capable of draining any oil from any of the surrounding acreages, that is, contiguous acreage to the northwest quarter of Section 20? A. In my opinion it would not.

Q. State whether or not in your opinion the drilling of these "five spot" wells is necessary in order to recover all oil economically feasible to recover from 160 acre tract? A. Well, it will recover a lot of oil that would not otherwise be recovered, whether economically I couldn't say positively. It will recover oil that will not be recovered otherwise.

Q. State whether or not in your opinion if it is approved it would interfere with any correlative rights of any of the adjacent lease owners?

A. I can't see how it would in any way.

Q. Do you know what kind of drive--gas drive or water drive?

A. In my judgment it is gas drive.

Q. On what basis is that opinion?

A. Size of wells, action of them.

Q. Do any of these make any considerable gas?

A. I don't know about all the wells, but none that I know about make any volume of gas.

Q. Have you made any tests as to quantity of gas?

A. No, sir, I have not.

Q. Is it an easy matter or hard to determine whether or not

it is making gas of any amount?

A. There is lots of pop off from the gas as the wells are

producing.

Q. That doesn't seem to be the case here?

A. No, it is not the case here.

Q. Do most of the wells in these two areas have to be pumped?A. Nearly all.

Q. Is that indicative that the pressure volume is low?

A. Not enough pressure to raise oil for flowing.

Q. In an area such as this with very low gas pressure, your
low gas volume, is that conducive to greater or less drainage?
A. Indicates lesser drainage.

Q. By that you mean there would be a smaller area drained by that individual well?

A. Yes, sir.

Q. Now, Mr. Bradish, are you familiar with Well No. 7A which has just recently been drilled by the Worth Drilling Company? A. As to the records of it, yes, sir, from taking with owners and so forth.

Q. That well according to Exhibit A which has been introduced is located approximately in the center of four--two wells in the south half of southwest quarter, section 12 and the north half of the northwest quarter of section 13?

A. Yes, sir.

Q. That is a "five spot" well?

A. Yes, sir.

Q. Are you familiar and do you know of your own knowledge

if it is completed?

A. Yes, sir.

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Q. What is the production?

A. 65 barrels.

Q. When was it completed?

A. I believe--I don't know what date it was, within the last month.

Q. It has been within the last month?

A. Month or so ago.

Q. The production, amount of oil, from the four wells which surround it up to January 1, 1950, can you tell that as to number of each well?

A. Yes, No. 1, northwest of that 7A has 83,000 barrels.

Q. And how long has that well been in?

A. Since 1938, I believe it was in *38.

Q. All right, the production of the next well?

A. No. 3, northeast of No. 7 has produced 31,506 barrels.

Q. When was that completed?

A. Probably in ⁸45. No. 4, southwest of No. 7A, 25,761 barrels.

Q. How long has it been producing?

A. I don't have the completion date of No. 4 offhand; 4 and 5 have been completed since I have had charge of the geological work.

Q. What is the production of the No. 5 well?

A. No. 5, southeast of the No. 7 well, initial production 200 barrels, approximately 21,829 barrels.

Q. What would you say the initial production of the "five spot" location well is as compared to others?

A. An average well for the area.

Q. What if anything does it indicate?

A. It indicates to me that there is no drainage in other wells.
Q. Otherwise normal after wells have been in production

for a number of years?

A. That is right.

Q. With your knowledge of red sand in these two areas, state whether or not in your opinion it would be possible for "five spot" location being drilled by Mr. McCurdy to be a dry hole? A. Yes, it would be possible.

Q. Why do you say that?

A. Character of formation is such that it can change very quickly. Just look at the dry offsetting wells that will find both north and south.

Q. In your opinion is it possible for anyone to predict the character of the well to be obtained when that is completed-- could be 5 or 10 or allowable?

A. It could be anything, dry hole or big well.

MR. HINKLE: I believe that is all.

CROSS EXAMINATION BY MR. CAMPBELL:

Q. Mr. Bradish, with reference to the statement that it is impossible for anyone to tell what may happen in this particular well for this particular area, how can you make a positive statement that it won't result in an increase of drainage from the Buffalo Oil Company's tract?

A. If this is a producer or if it is not a producer doesn't have anything to do with your question.

Q. If true, it might be possible that character of producing zone changing rapidly might change in any direction?

A. Yes, sir.

Q. Perhaps to any degree?

A. Yes, sir.

Q. It is also possible that this well's pressures may result in drainage, is that correct?

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A. Not over a distance of a quarter of a mile.

Q. Would it make any difference as to rate of production?
A. Certainly, if producing more, naturally drainage if any offset outside territory.

Q. Would it make any difference in low pressure area already in existence, would it make any difference in rate of production of wells already in existence?

A. Not in overall net in the big area in my judgment.

Q. What is the basis for your opinion?

A. Looking at the map, half dozen or more of areas I have produced, and dry holes, these wells that just--No. 7 itself producing quantities of oil.

Q. That is not in the Young Pool?

A. I think it is similar, the two areas.

Q. Position of producing--

A. Identical, the North Shugart, identical horizon.

Q. You say it is the same producing horizon?

A. Yes, sir.

Q. On what do you base that?

A. By study of the logs.

Q. What logs?

A. For the whole area.

Q. Sample logs?

A. Yes, sir.

Q. Did you ever see a radio-activity log from this area?

A. No, sir.

Q. Have you ever seen a bottom hole pressure test from this area?

A. No, sir.

Q. Gas-oil ratio?

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A. No, sir.

Q. Did you ever see any core analyses of any wells drilled in the Young Pool?

A. No.

Q. On what basis did you form your opinion that one well will not drain 40 acres?

A. What I have studied of red sands led to the conclusion. As far as I can see the samples given indicates that.

Q. Yet it is your opinion that because of changing conditions, it might be a dry hole or a very fine well?

A. It is very erratic.

Q. Mr. Bradish, where is 7A with reference to intersection line?

A. 25 feet north.

Q. Is that a customary "five spot" location?

A. I don't know.

Q. Do you know where this "five spot" is?

A. I believe 125 feet north of line, if I may read, I believe that--

MR. SPURRIER: Can you go to the map and find out?

(Witness went to map and indicates location.) A. This No. 7 well isn't on this map. It doesn't show on this map.

CHAIRMAN SHEPARD: Are there any further questions? You may be excused.

MR. HINKLE: I would like, if the Commission please, to have identified and to offer in evidence certified copies of orders heretofore entered by the Commission in an umber of cases. In fact, I believe, most all of the cases which have heretofore been decided by the Commission in connection with applications for "five spot" locations, and also would like

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to offer at the same time a plat which has been compiled and which shows the different areas affected by these orders. Of course, I realize that this information is not necessary as far as the Commission is concerned. This is for the purpose of putting this information in the record in case this goes up to court for review. It would be a simple matter to place this information in the record at this time and less expensive for both parties concerned.

CHAIRMAN SHEPARD: Any objection?

MR. CAMPBELL: I have strenuous objection. If these orders are to be considered, the Commission should also consider certified copies of all other orders which have not followed this method of allocation. In my opinion we should confine our consideration to the pool which is here involved, not the fact that in other situations it may have followed that particular method of allocation. In this hearing the correlative rights of an adjacent owner are affected, a situation not present in previous cases. It is our opinion that what happened in other cases is wholly immaterial to this case. Each case is to stand on its own merits. I would further request counsel if he is going to offer the plat in evidence to state what the source of the plat is.

MR. HINKLE: It was prepared under the direction of Mr. McCurdy from orders which have been entered showing all "five spot" locations which have been granted, showing history, order number, case number, dates, names of applicants, spacing units involved.

MR. CAMPBELL: Legal 40-acre subdivisions with unorthodox "five spot" locations?

MR. HINKLE: Yes, colored areas showing unitization, and present production from 40-acres.

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MR. CAMPBELL: We will state that we object to the introduction of this evidence as being wholly immaterial to this case. Buffalo Oil Company objects to the granting of this application as notbeing material here. Orders issued are questionable in this case and ask the Commission to deny admission to the evidence presented here with reference to the Young Pool. MR. HINKLE: If the Commission caresto permit the introduction of all other orders, we have no objection. If the counsel wants to present any other orders, we won't object. We do want these which show clearly the method followed. We are not asking any more. There are already numerous other cases. If the case goes on to appeal, we want the record to show clearly the action of the Commission in the various areas, and we think it is very material. I would like to offer these orders and the plat.

MR. MCCORMICK: If it is appealed, this would probably not be necessary as the court would take judicial notice of the orders without their being in the record.

MR. HINKLE: I don't know of any decisions on that. I would be afraid to take a chance. I doubt if it would take judicial notice of the decisions of this Commission. CHAIRMAN SHEPARD: The exhibits will be received. We will try to get all the information in the record. The court can strain it out.

MR. CAMPBELL: If these exhibits are to be admitted, we would like to have the opportunity of having certified copies presented of decisions contrary to this method of allocation. CHAIRMAN SHEPARD: You may do so. Do you have any further witnesses?

MR. HINKLE: That is all of our case.

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CHAIRMAN SHEPARD: We will recess until 1:30.

(The Commission accepted McCurdy's Exhibits B through K.)

(Noon Recess.)

CHAIRMAN SHEPARD: The meeting will come to order. You may proceed, Mr. Campbell.

MR. HINKLE: Excuse me, if the Commission please, I understand that there is a signed order for the Worth Drilling Company, which was heard yesterday. I would like to obtain a certified copy of that order and introduce it along with the others. CHAIRMAN SHEPARD: Have it introduced by order number and that will be sufficient, order number rather than certified copy. Are there any objections?

MR. HINKLE: Let the record show that the Orderander entered by the Commission in Case No. 210, Worth Drilling Company, be a part of the record in this case.

CHAIRMAN SHEPARD: Don't you feel that would be sufficient? MR. HINKLE: Yes, sir.

W. E. SCOTT, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

Q. State your name?

A. E. E. Scott.

Q. Where do you reside?

A. Artesia.

Q. By whome are you employed?

A. Buffalo Oil Company.

Q. In what capacity.

A. Geologist.

Q. Have you testified on previous occasions before the Commission?

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A. Yes, sir.

Q. You have testified on those occasions as a geologist?A. Yes, sir.

MR. HINKLE: We will accept his qualifications.

MR. CAMPBELL: Will the Commission accept his qualifications on the basis of previous testimony?

CHAIRMAN SHEPARD: Yes, sir.

Q. Are you acquainted with the Young Pool in Lea County, New Mexico?

A. Yes, sir.

Q. For how long?

A. Since the completion of the first well.

Q. I hand you what has been identified as Exhibit B1 and ask you to state what it is, if you know?

A. It is a plat of the pool showing the locations of various wells which are producing within the legal 40-acre proration units within the pool.

Q. We would like to offer Buffalo Oil Company's Exhibit Bl in evidence.

MR. HINKLE: (Examined plat.) No objections. CHAIRMAN SHEPARD: It will be admitted.

Q. Mr. Scott, referring to that plat, point out to the Commission and identify the wells of the Buffalo Oil Company in that area?

A. Buffalo Oil Company has one producing oil well in the Young Pool, that being their No. 1-X Cox. It is located 685 feet from the west line and 510 feet from the south line of Section 17. They also drilled No. 2 Cox 660 feet from south and west lines in that same section, which was a dry hole. Q. Have you examined samples from all wells drilled in the Young Pool?

A. I have.

Q. Wells drilled by the Buffalo Oil Company and wells drilled by E. J. McCurdy?

A. That is right. That includes all producing and dry hole wells in that immediate area.

Q. Solely from examination of samples and study of logs, do you have an opinion as to the porosity and permeability of formations or the extent of drainage?

A. No, sir, I would not be qualified.

Q. Do you have any information as to structural conditions in the Young Pool?

A. Yes, sir.

Q. What is the basis of this information?

A. Examination of samples on all the wells correlation of correlative points from well to well.

Q. I hand you what has been identified as Exhibit B2, state what it is.

A. It is a Radioactivity Log of Buffalo Oil Company¹ No. 1-X Cox.

Q. We offer Buffalo Oil Company's Exhibit B-1 in evidence.

(Mr. Hinkle examined the exhibit.)

A. I might add on that log I have outlined my interpretation of the top of Queen Formation and the pay zone in that well. MR. HINKLE: That is your interpretation. Not--you have put on the log your own interpretation where the red sand, queen sand is?

A. I put on there the top of Queen Formation, and the hand lettering shows where it is.

MR. HINKLE: The information in the hand lettering under the

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red line and on top of it, that is your part, rather your interpretation.

A. Yes, sir.

MR. HINKLE: No objection.

CHAIRMAN SHEPARD: It will be admitted.

Q. I hand you Buffalo'Oil Company's Exhibit B3 and ask you to state what it is, if you know?

A. That is a plat of the Young Pool contoured on top of Queen Formation.

Q. This is an interpretation of contours based upon your information of the history of the pool?

A. That is correct.

MR. CAMPBELL: I offer Exhibit B3 in evidence.

MR. HINKLE: (Looked at Exhibit B3) No objection.

CHAIRMAN SHEPARD: It will be admitted.

Q. I hand you Exhibit B4 and ask you to state what that is, if you know?

A. That is contour plat of the Young Pool. The contours showing the thickness of the pay zones in various wells as determined by sample examinations.

Q. That is your interpretation of the contours and pay thickness in the Young Pool?

A. That is correct.

MR. CAMPBELL: Exhibit B4 is offered in evidence. MR. HINKLE: (Examined Exhibit B4.) No objection. CHAIRMAN SHEPARD: It will be admitted.

Q. Referring to the Exhibit B4 and based upon your knowledge of the history of the pool, state to the Commission your opinion as to the structural conditions in the Young Pool and producing zone?

A. As contoured on top of the Queen Formation, the Young Pool indicates a slight hosing effect on the top of that formation. The Buffalo No. 1-X Cox actually reflects a slight closure on top of that formation is my opinion. That very slight closure is not a result of folding of the beds, but rather a build up of the sand in that area. The accumulation apparently is due to a stratggraphic type trap much more than it is structural, and the slight nosing probably has some effect not so much on an accumulation as a result of that you have a deposit of sand on the flange of this slight nose. The Young Pool is producing from a red sand formation in the upper part of the Queen Formation. Immediately underlying the main body of the Artesia Red Sand is the top member of the Queen Formation. The main body of the Artesia Red Sand is very silty sand, and nowhere does it indicate any productivity. The actual producing zone immediately underlies this main body of sand and is separated from the main body by limestone stringers, but is very similar in many characteristics to the main body. But within the limits of production of the Young Pool, this lower sand is clearer, less silty than the main body of sand.

Q. Have you had access to any information as to geological conditions in the Caprock Pool?

A. I examined a number of logs and samples in that pool. Q. Based upon the facts of those logs and samples and your knowledge of conditions in the Young Pool, do you have any opinion as to the comparison of producing zones in the two pools?

A. The two pools are producing from sands of the Queen Formations, however, the Caprock Pool produces from the very

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top of the Artesia Red Sand whereas the Young Pool produces from sand stringers below that main body. Actually the two pools are not producing from identical zones of sand. MR. CAMPBELL: That is all.

CROSS EXAMINATION BY MR. HINKLE:

Q. Mr. Scott, how long have you been with the Buffalo Oil

A. Approximately six years.

Q. Were you with them at the time they acquired the southeast quarter of the southwest quarter of section 17 on which No. 1-X is located?

A. I believe it was 1943 the Buffalo Oil Company purchased outstanding leases of Maljamar Oil and Gas Corporation. This lease was a part of that purchase. I went to work for Buffalo Oil Company some six months after that purchase.
Q. You know they had that lease at the time Mr. McCurdy

drilled on the northwest quarter of section 20?

A. Yes, they did.

Q. Did you have samples on all wells McCurdy drilled?

A. Yes, sir, I have.

Q. You were familiar with the entire operation, acquainted with Mr. McCurdy's wells as far as the results of drilling these wells is concerned?

A. Yes, sir.

Q. From your examination of those logs and results obtained in drilling the wells and watching production, isn't it a fact, that you reached the conclusion that it was rather hazardous?

A. Yes, sir, in so far as defining the limits of the pool was concerned, that is true.

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Q. You drilled a dry hole in the southwest of the southwest of section 17?

A. That is correct.

Q. The first well drilled on that acreage was a producer? A. That is correct.

Q. How far north do you think, that 40 acres on which No. 1-X is located, do you think, in other words how far above that well could you drill and still get a producer?

A. From present information that would be very hard to say because the producing sand silts up or becomes impermeable rather rapidly as indicated by the presence of the dry hole offsetting our No. 1-S both to the east and to the west, and it would be suppositional to speculate on how far north the sand might remain clean and be reservoir sand.

Q. Is that same thing true going either east or west of the producing well?

A. East and west of our producing well are dry holes, which do limit the area to the extent of producing sand in those directions.

Q. You can't positively say how large the producing area is at the present time?

A. Exactly, no, sir. All I can do is to take thickness of sand as we know exists in pools that have been drilled and assume a very even body of clean sand, outside of slight nose, we can contour out and assume that is fairly accurate. Q. The way you have it contoured?

A. Yes, sir.

Q. Your top contour on one exhibit which you have introduced shows pay thickness, you show highest contour to be a little bit south and east of your No. 1-X. Does that mean that the best production probably can be obtained there on account

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of thickness?

A. That is probably true, yes, sir.

Q. Then the contours toward the north are going down, less thickness, that might indicate to you that you might not get production all over the 40?

A. You will notice going north those contours are dashed in, realizing, of course, it is a suppositional matter.

Q. In other words, it is impossible for you to say positively that that is the case?

A. I think the picture presented is a reasonable estimate of known facts.

Q. Now, do you know, Mr. Scott, when the McCurdy No. 1 well was completed?

A. I believe that No. 1 was completed in February 1945. Q. According to the map introduced in evidence, it was Feb. 14, 1945, when it was completed. The plat also shows that well No. 2 was completed January 3, 1946; Well No. 3, May 31, 1946. When Buffalo Oil Company's No. 1-X was completed November 15, 1948, that was approximately 3 years and 10 months after the completion of McCurdy No. 1 well.

A. That is about right, yes, sir.

Q. Also approximately 2 years and 7 months after the completion of McCurdy No. 4 well?

A. That sounds about right, yes, sir.

Q. I believe you have testified after years of watching the results of the McCurdy wells, you considered this a hazardous area, and when you started to drill No. 1-X, it was 3 years and 10 months after the completion of McCurdy No. 1, you made application 330 feet from the lease line?

A. That is correct.

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Q. Did Mr. McCurdy protest your geological survey for the drilling of that well?

A. He did.

Q. Mr. Scott, I hand you Mr. McCurdy's Exhibit K, which purports to be photostatic copy of a letter which you wrote to Mr. McCurdy, dated August 3, 1948, state whether or not that is your signature and if you didn't write the letter? A. Yes, sir.

(Exhibit examined by Mr. Campbell.) MR. HINKLE: I would like to offer the Exhibit K in evidence and read it to the Commission.

(Mr. Hinkle reads Exhibit K to the Commission.) Q. Now, Mr. Scott, in connection with this same matter, that is the protest which Mr. McCurdy made to the Buffalo Oil Company's location for the drilling of 330 feet from the lease line, did you write this letter, under date of May 14, 1948, to Mr. John A. Frost, Artesia, New Mexico, I ask if this is a copy of a letter which you wrote?

A. I assume that it is, yes, sir.
MR. HINKLE: I would like to read this letter into the record, if you please. This is dated May 14, 1948, Buffalo Oil
Company, signed by Wilton E. Scott.

"Dear Mr. Fost: Attached hereto you will find a Notice of Intention to Drill the Buffalo Oil Company No. 1 Cox, to be located in the Center SW4 SE4 SW4 section 17, T. 18S., R. 32E., Lea County, New Mexico. Since this is a Center 10 acre location, the purpose of this letter is to explain our reasons for applying for it rather than in regular Center 40 acre unit location.

"This proposed location is a direct north offset to the E. J. McCurdy, Jr. No. 1 Young, which was the discovery

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well of the Young Pool. That well was completed in February 1945, with an initial flowing gauge of 47 barrels of oil in three hours from a total depth of 3783' with the pay being from the Artesia Red Sand of the Queen Formation. Our last information on that test was that it now pumps approximately 50 harrels of oil per day.

" After the completion of the No. 1 Young by McCurdy, the Minn-Tex Oil Company of Dallas, Texas, drilled their No. 1 Young in the Center SW4 SE4 of Section 17, which is a direct east offset to the unit on which we now propose to drill. This test was completely dry in the Artesia Red Sand, yet the sand itself appeared to carry as much porosity as that encountered in the McCurdy No. 1 Young. On the top of the Artesia Red Sand the Minn-Tex test was only 9 feet lower than McCurdy No. 1 and was one foot higher than McCurdy No. 2, located in the Center SE4 NW4 of Section 20 and 4 feet higher than McCurdy No. 3, located in the Center SW4 NW4 of Section 20, both of which were completed as producers. Structure does not, therefore, seem to be the basic reason for the accumulation in the Red Sand in this Field. It is our interpretation that accumulation is due to a shoreline or near shore line bar deposit of clean sand with a barrier of silt within the sand, causing the trap. Such a barrier must occur within the sand between the Min-Tex dry hole and the four producing wells on the McCurdy Lease in Section 20.

"Naturally further development towards the north of the present producers would be quite hazardous and it is our desire to reduce these hazards as much as possible by drilling as far south and west on this unit as permissible.

By drilling in the southwest corner of this 40 acres, we will only be 330 ft. north of our lease line. We do not

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believe, however, that the McCurdy Lease to the south will suffer any drainage from such a location, as it is our information that his No. 1 Young has produced in excess of 60,000 barrels of oil and is now capable of producing only approximately one-half of its original potential. If any migration can be expected across the lease line, which is doubtful, we would expect it to be towards the south, rather than towards the north.

If there be any further information you might need before approving our application, please advise." MR. CAMPBELL: If the Commission please, if this letter is a copy of a letter directed to Mr. John A. Frost, Director of the U. S. Geological Survey, the record should show that it came from the files of the U. S. Geological Survey. MR. HINKLE: We have no objection to that. CHAIRMAN SHEPARD: The record will so show. Q. Now, Mr. Scott, you stated that this is a hazardous area, and you decided on that account to wait 3 years and 10 months before drilling No. 1-X. You weren't too much worried about drainage during that time with No. 1 well? A. Well, we were possibly concerned about drainage, that was the reason that we were desirous of determining if any portion of our lease was productive even though the drilling of a well was a hazardous undertaking under the stratigraphic conditions we thought to exist.

Q. You failed to get the approval of the 330-foot location?A. Yes, sir.

Q. You did get 510 feet from the north line of Mr. McCurdy's lease?

A. That's right.

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Q. That is as close as you were permitted by the U. S. Geological regulations?

A. That is correct.

Q. When you did complete well No. 1-X, what did it result in initial production?

A. I don't have befors me the initial production on that.Q. It was a good well?

A. Yes, sir.

Q. In fact it is the best well in the Young Pool, is it not?
A. According to my interpretation, it has less pay than
No. 1 Young of Mr. McCurdy. It is a good well. I don't
know how it compares with his No. 1 at this time.
Q. I believe No. 1 well at the time you made the application

had already produced about 60,000 barrels of oil?

A. I believe that is right, yes, sir.

Q. If it is a fact that you got a good well after waiting 3 years and 10 months and after No. 1 well had produced 60,000 barrels of oil, doesn't that indicate there wasn't any material drainage on account of production from No. 1 well? A. That would be whether or not that location--would be a matter of bottom hole pressures. I do not have the information on bottom hole pressures here.

Q. I believe that you stated on direct examination, you couldn't express positive opinion that one well in this area would adequately drain a 40-acre legal subdivision?
A. At that time we had very limited information on the pool so far as bottom hole pressure was concerned. We had nothing to base any opinion on.

Q. Now, Mr. Scott, as you know it has been testified time and time again before this Commission, and the Commission

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has found and entered a number of orders that is the case that one of these wells would not drain the 40-acre legal subdivision. Do you take a stand contrary to the stand taken by most all of the gentlemen on the Commission? A. Looking at it strictly from a geological point of view, I don't think from a visual examination it is possible to state whether or not one well will drain 40 acres, or less or more.

Q. You can't state positively that it will?

A. From the examination of samples, no, sir.

Q. Has Buffalo Oil Company run bottom hole pressures on your well?

A. I believe they have.

Q. They have?

MR. CAMPBELL: I don't believe Mr. Scott has that information. Mr. Gray, our engineer does have since that is engineering information.

Q. This being a hazardous area as you have testified, a dry hole offsetting a producing well demonstrates that, can you state positively what type of well we would get on the "five spot" location?

A. No, sir, I could not state positively.

Q. It could be a dry hole, could it not?

A. It is possible. I wouldn't anticipate it.

Q. It could be a very small well?

A. It could be, yes, sir.

Q. Well, now, if that is the case, how can you state positively that the well it is proposed to drill will drain the Buffalo Oil Company's acreage in any respect? MR. CAMPBELL: If the Commission please, the witness--MR. HINKLE: I will ask, could he state.

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CHAIRMAN SHEPARD: He may answer if he can.

Q. I will ask whether or not you could make a positive statement at this time that the proposed unorthodox well of Mr. McCurdy's, not knowing what kind and character of well it is going to be, will drain from the acreage of the Buffalo Oil Company in which is located well No. 1-X? A. From a geological point of view, no, sir--would depend on allowable they gave it.

Q. It would depends on what it was capablef, small or large? A. Allowable and withdrawal.

Q. Now, Mr. Scott, when was the first knowledge that you had that Mr. McCurdy had started this "five spot" well?

A. Well, I was advised by Mr. Ellis of our organization, which I believe was January 1.

Q. You had no previous knowledge that the well was being drilled?

A. I did not.

Q. Would your testimony be otherwise if Mr. Wilson should testify that he told you about the 22d or 23d of December that they had started drilling operations?

A. No, sir, my testimony would not be otherwise.

Q. You have no recollection of that conversation?

CHAIRMAN SHEPARD: Who is Mr. Wilson?

MR. HINKLE: Superintendent of production for Mr. McCurdy. Q. Now, you keep a man, do you not, in charge of your lease our there at the producing well?

A. That lease is pumped by one of our men who lives at Maljamar.

Q. They couldn't very well have moved in on this "five spot" location without your man seeing them?

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A. I think they could.

Q. It is open country. It would be easy to observe? A. I am not aware of surface conditions. I imagine our man makes two trips to our well a day carrying out his duties of pumping that well. I doubt if he pays any attention to what Mr. McCurdy is doing. As a matter of fact, I doubt if he feels that that is part of his duties to see what is going on on Mr. McCurdy's lease.

Q. Now, Mr. Scott, I believe you testified that you made some notations, entries on that electrical, what do you call that?

A. Radioactivity log.

Q. That has been introduced in evidence, did you compare that, have you electric logs of the Caprock Pool made up in same way?

A. No, sir.

Q. You have no others in this area that you compared it with?A. Not on radioactivity logs, no, sir.

MR. HINKLE: I think that is all.

REDIRECT EXAMINATION BY MR. CAMPBELL:

Q. When you wrote this letter to Mr. McCurdy, August 3, 1948, did you receive a reply?

A. Yes, sir.

Q. Enclosed in that reply was a copy of a letter from Lester S. Grant?

A. Yes, sir.

MR. CAMPBELL: I would like to read a copy of this letter into the record. Is there any question as to this letter? Do you have a copy of it, Mr. Hinkle? MR. HINKLE: Yes, sir. MR. CAMPBELL: McElroy Ranch Company, Oil Production and Royalties, Cattle Growers, 114 Leggett Building, Box 912, Midland, Texas, Lester S. Grant, Manager, August 9, 1948. (to) Mr. E. J. McCurdy, Jr., 1602 Fair Building, Fort Worth, Texas. Dear Mr. McCurdy: "Replying to the letter received from the Buffalo Oil Company geologist, Mr. Wilton E. Scott, and which you handed me in Fort Worth:

"The argument of Mr. Scott regarding the underground conditions along the line of our Young Lease and the Buffalo property seems to be one of having made the conditions fit his case, as I do not believe it possible that any geologist can say where there is or where there is not a silting up in any of those sands. I am entirely unimpressed by his argument. Mr. Scott also says that they wish to recover only the oil under their acreage. There is one simple and sure way to insure this and that is for them to conform to the pattern already established. We certainly recommend that you take such action as is necessary to prevent them from drilling on a location 330 feet from our line. That a geologist can tell that there will be a change of formation within 330 feet is too ridiculous to need comment.

"While we would have no objection to meeting Mr. Scott and his people before the Supervisor of the United States Geological Survey at Roswell, we see no need whatever for the meeting as the law is clear on the matter and the expenses of attendance by you or other representative of the Joint Account would be considerable and should be borne by them in such case.

"With kindest regards, Sincerely yours, /s/ Lester S. Grant."

Q. Is that your recollection of the letter--copy of letter--

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enclosed with the reply?

A. Yes, sir.

Q. Mr. Scott, at the time you wrote the letter, did you anticipate any request for production from 40 acre legal subdiviion in excess of top unit allowable?

A. No, sir.

Q. When you wrote this letter, what was your opinion as to whether your company had suffered drainage from 40 acres? A. We were fearful of that, and although we recognized the fact that the limits were hard to define, at that time we decided that the risk involved was worth attempting to protect our rights in our lease.

RECROSS EXAMINATION BY MR. HINKLE:

Q. Mr. Scott, as a matter of fact, Mr. Grant's letter has been shown to be good. You got back and got a good well, have you not?

A. His letter is shown to be true in that a geologist can not anticipate from visual examination exact limits of a pool.

Q. That goes to show all the more the uncertainty, you can't testify postively one well is going to drain 40 acres?
A. I think that would clearly illustrate from what information we had, it was impossible to limit pool at that time.
I don't see where drainage has anything to do with limitations of producing sand.

Q. Do you know whether or not the northeast quarter of section 20 will produce?

A. I haven't studied that situation. I wouldn't be prepared to state whether or not it would produce.

Q. Is it possible for you to say what any unproven portion

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will produce?

A. No, sir.

Q. Because of erratic conditions?

A. Any unproven portion, no, sir.

MR. MORRELL: I am Foster Morrell of the United States Geological Survey. I have something to add to this application. This is in respect to receiving evidence, admission of evidence. I am not testifying. It is in reference to admissibility of evidence. A letter was introduced, dated May 14, 1948, signed by Wilton E. Scott, to Mr. John A. Frost, U. S. Geological Survey, Artesia, New Mexico, to which Mr. Campbell made reference that it was from the files of the U. S. Geological Survey. I would like to say that that letter was obtained without my information or consent. From that standpoint it is not official. I would ask that it be withdrawn.

MR. HINKLE: It was admitted on the answer of the witness if he had written such a letter.

CHAIRMAN SHEPARD: We admitted it. Let it stand as introduced.

RALPH L. GRAY, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

Q. State your name, please.

A. Ralph L. Gray.

Q. Where do you reside?

A. Artesia, New Mexico.

Q. By whom are you employed?

A. Buffalo Oil Company.

Q. In what capacity?

A. Assistant Superintendent and Petroleum Engineer.

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Q. Have you testified before the Commission before?

A. I have.

Q. On those occasions you testified as a petroleum engineer?A. I did.

CHAIRMAN SHEPARD: His qualifications will be accepted. MR. HINKLE: We will accept his qualifications.

Q. Are you acquainted with the Young Pool, Lea County, New Mexico?

A. Yes, sir.

Q. In your capacity as petroleum engineer did you have occasion to take bottom hole pressure tests of Cox 1-X well in the Young Pool?

A. We have taken several pressures.

Q. You maintain records of the tests?

A. Yes.

Q. Will you give the results of the bottom hole pressure tests of that well?

A. An initial bottom hole pressure test was taken December 4, 1948, before well was completed but the pressure at a depth of 3600 feet was found to be 1,022 pounds per square inch,. correction, sea level datum, which is near pay section, pressure would be 1,072 pounds per square inch. The well was shut in 72 hours before taking pressure. Another pressure test was taken in July 1949 and pressure was found to be 947 pounds per square inch at a depth of 3750 feet. A third pressure was taken in January 1950, which showed 933 pounds per square inch at 3750 feet.

Q. Have you had occasion to take gas-oil ratio tests on Cox No. 1-X?

A. We have.

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Q. Do you maintain records of those tests?A. Yes, sir.

Q. Give the Commission the data on those?

A. Our first gas oil ratio test was made January 19, 1949, the well produced 45 barrels of oil in 11.2 hours, with a gas oil ratio of 322 cubic feet per barrel. On July 12, 1949, another test was made. The well produced 50 barrels of oil in 12.8 hours, with a gas oil ratio of 466 cubic feet per barrel. Another test was taken January 10, 1950. The well produced 52 barrels of oil in 14 hours, with a gas oil ratio of 944 cubic feet per barrel.

Q. What is the limiting gas oil ratios in the Young Pool?A. 2,000 cubic feet per barrel.

Q. Do you know the gas oil ratio of the Young Pool? A. Yes, we have knowledge of tests made by McCurry on their Young No. 1.

Q. I believe you testified--do you recall the bottom hole pressure test at that time, what was the result of that? A. The test was made at a depth of 3700 feet, which is 50 feet higher than sea level datum we use correcting downward oil gradient to put it on same basis of comparison with other bottom hole pressures. It would be 1229 pounds per square inch.

Q. That was in March 1946?

A. Approximately that is right.

Q. How long had the well be producing prior to that time?A. J+ had been producing over a year.

Q. Now, Mr. Gray, have you made any analyses of reservoir conditions based upon tests you have taken and information available?

A. We have made an analysis.

Q. This is your interpretation of available facts as to reservoir conditions?

A. Yes, sir.

Q. Will you state how the analysis was made and the results? A. There are methods for detecting oil drainage other than just mere guess work, the migration of oil or drainage, commonly speaking. Studies of reservoir pressures, reduction in reservoir pressure is evidence that some drainage has occurred. The movement of oil from an area of relatively high pressure to an area of low pressure. Once differential in pressure is established in reservoir tendency, equally reach state of equilibrium, movement of oil flows from high pressure to low pressure area. In the latter part of 1948 the Buffalo Cox No. 1-X well was completed. The offsetting McCurdy lease had four producing wells. Those wells had produced a total of 139,943 barrels, of which the No. 1 well which offset our Cox No. 1-X produced a total of 58,429 barrels. Before Cox No. 1-X was ready for production, it was shut in for 72 hours, and a bottom hole pressure was taken as I have previously stated. The pressure was found to be 1,072 pounds per square inch at sea level datum plan. This pressure is approximately 338 pounds lower than initial reservoir pressure, which was approximately 1410 pounds per square inch. This large decline in pressure on the Cox Lease shows that some oil had been drained from our lease before our well was drilled. Q. Do you know what methods were used in arriving at the original bottom hole pressure since no test was taken? A. That is right, no actual pressure was taken in initial reservoir. In our study we have found pools in Lea County,

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which have similar producing depths have initial reservoir pressures which fall within very close range of one another. We took several pools, in fact took all the pools in Lea County, which have initial reservoir pressure established, which are taken and all engineering reports of Lea County Operators. Pressure gradients of pools producing at depths similar to the Young Pool, and took average pressure in pounds per foot of depth, which was found to be .376 pounds per foot of depth; this was used to calculate initial pressure in the Young Pool.

Q. Did you use any other methods to obtain these facts? A. We did. 1410 pounds per square inch, to check that figure we used information which was developed on our Cox No. 1-X. The pressure decline to January 1950 in our well amounted to 139 pounds per square inch. This corresponded to 122 barrels of oil for each pound of drop in bottom hole pressure. The same amount of decline applied to McCurdy's lease, using the pressure it established, 1292 pounds per square inch, which figure we had obtained from the records, the amount of production that well produced up to that time; this was found to be 23,122 barrels of oil. The drop in bottom hole pressure calculated the No. 1 Young--22,132 by 122 pressure decline found in our well, and that gave us a decline of 190 pounds per square inch. Then the initial reservoir was established by adding this figure--1229 pounds, which gives initial pressure 1491 pounds per square inch--very close agreement with our first estimate.

Q. Based on the analysis of information of bottom hole pressure of Cox No. 1-X well and a bottom hole pressure test of McCurdy No. 1 well immediately offsetting, what conclusion.

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did you reach as to drainage at that time?

A. Well, in view of the fact that a large amount of oil had already been withdrawn from the offsetting McCurdy Lease, we knew reservoir pressure had been reduced substantially and we would suffer drainage because of the fact the pressure was lower than the initial pressure, and we had already lost some production from under our lease. Should McCurdy be permitted to increase withdrawals from 40-acre unit offsetting ours, we certainly would suffer additional drainage.

Q. What would be the effect of production of an additional well in the 40 acres immediately offsetting your acreage at this time?

A. Well, if another well is completed on the 40 acres offsetting ours, and an additional allowable given it in addition to No. 1 well, it would result in unequal withdrawals from our 40 acres--more withdrawal from the McCurdy Lease than from our lease. That in itself would cause unequal depletion of reservoirs, which changes the oil to migrate from our lease to McCurdy lease.

Q. What effect--what is the extent of the pressure area? A. Another well would enlarge the area of low pressure, and when you enlarge low pressure area, you permit a wider area to be effected by drainage from that lease, from that unit.

Q. What effect does the rate at which a well is produced have on reservoir conditions?

A. The rate has a very large effect upon your pressures, of course, as you increase withdrawals from the reservoir, increase the rate of withdrawal, the reservoir pressure is depleted correspondingly faster.

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Q. Mr. Gray, have you made computations as to estimated recovery under McCurdy No. 1 well?

A. I have.

Q. Explain to the Commission that computation.

A. It was our intention to determine what would be reasonable recovery figure for 40 acres on which No. 1 Young is located. For this purpose our calculations we used average pay thickness of 12 feet, which we feel is ample, maybe even thicker than average would be as can be found on pay thickness. We assumed an average porosity of 15, a content of water of 25 per cent, and assumed that they would recover 22 per cent of the oil in place. Using these figures, the amount of oil which would recoverable was calculated to be 2310 barrels per acre, or assuming one well would drain 40 acres, the well should recover about 92,400 barrels of oil as of January 1, 1950. Assuming again that No. 1 Young well will drain 40 acres, the well has already recovered a total of 1815 barrels per acre, which is a very substantial part of total ultimate recovery which we estimated would be produced. We feel that additional evidence that this well will drain at least 40 acres possibly more. Even assuming that the well will drain 40 acres, it is very evident that it will recover substantially more oil than our calculations showed it should recover. Q. The pay thickness you used was 1 foot less than that

testified to this morning?

A. I used the figure 12. It has been testified that the pay thickness is 13 feet, but the pay thickness in all directions from No. 1 well varies some, so we thought 12 would be liberal average for total 40-acre unit.
Q. The fact that on computations the amount of oil heretofore

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drained through No. 1 well is 1815 barrels per acre and the ultimate amount is 2310 barrels per acre, what does that indicate as to drainage?

A. It indicates that they have already recovered close to the total amount recoverable, and the well producing at top allowable indicates that they can very reasonably expect quite a great deal more oil to be recovered, and probably will drain more than the 40 acres.

Q. Based upon your knowledge of this pool, what is your opinion as to the effect upon the reservoir of assumed production of a top allowable well at the location which is proposed?

A. The producing of another top allowable well from No. 5 well would increase amount of oil withdrawn from the 40-acre unit on which the well is located. As previously explained, any increase in permitted withdrawal from the 40 acres would cause us to lose a volume from our 40-acre unit.
Q. You 40-acre unit has received one top unit allowable in all?

A. Yes, sir.

CROSS EXAMINATION BY MR. HINKLE:

Q. Mr. Gray, I don't understand all your figures. These conclusions you have are wholly your own?

A. These conclusions are based on engineering data that we possess.

Q. Are these public record on figures?

A. The figures that I have used are public record. However, those that are developed through calculations are not.
Q. The bottom hole pressure figures are taken from public records?

A. Yes, sir, filed--gas oil ratio figures are on state forms.

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State Form Cl16 we filed with the Commission of the pressure data, I am quite sure that is in the Lea County Operators¹ files.

Q. Do you know what the bottom hole pressure is on the McCurdy wells is at the present time?

A. No, sir, I do not.

Q. It could be as low or lower than that of the Buffalo well? A. I would not make any predictions. There is no point in guessing. I assume on all McCurdy wells it is much less than ours withdrawals have been considerably more.

Q. You can not state from oil gas ratios taken on just one well what whole field--or what drainage across lines would be? A. I can state that the drainage will be from area of high pressure to low pressure, migration of the oil is in that direction.

Q. How can you tell?

A. We can tell--we have all agreed that this is a volumetric type reservoir. One of the recognized characteristics is as you produce oil, pressures decline. The more oil withdrawn the more decline. The more oil withdrawn from any particular area, the lower the pressure.

Q. That would be true if the permeability and porosity carried that far?

A. We feel that the permeability does carry since the pressure on our 338 initial reservoir pressure reduced, it could only mean that there was oil draining from under the lease.
Q. Isn't it a natural thing for pressure to drop as you produce?

A. Our initial pressure test was made before the well was put in operation.

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Q. It dropped after that?

A. Yes, sir, after it had been in production.

Q. That is a natural condition?

A. That is right.

Q. You don't propose to tell this Commission that the unorthodox well that Mr. McCurdy is drilling is going to be a well, or the size of that well--it is possible to be a dry hole or a small well--in that case how could it drain the Buffalo Oil Company's lease?

A. We don't propose to say what type well it will be, but we do say if withdrawals from under the 40-acre unit are increased, we would suffer. If they assign No. 5 well top allowable, certainly withdrawals from under tha unit would be increased.

Q. Isn't it true that the well approximately in the center would drain also from other units, not all northeast of northwest? A. Certainly it all comes from one pool, might say most of it would.

Q. Isn't it a fact that No. 1 zone of interference makes it impossible to drain beyond that, beyond any other wells? A. No, sir, what happens if No. 5 is produced, it sets a comparatively low pressure area which surrounds that particular well bore. The same as there is around there a low pressure area which extends approximately, you might say, in a circle around a well. If you want to get ideal use particularly as you create more low pressure areas, they tend to tie into one and enlarge the low pressure area and increase the distance away from that point that would be affected by withdrawals from that area.

Q. That same thing holds true on No. 1 and also on your

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well being located as it is, the boundary of the circle you have drawn is farther than Mr. McCurdy's circle will extend around on your lease?

A. You have to follow contour lines of equal pressures, as I mentioned before, we don't have present pressures on Mr. McCurdy's lease. We assume that the pressure is much lower under his lease with a lower pressure area around the well bore of No. 1 well. You have considerable reservoir pressure under that 40-acre unit at all points.

MR. HINKLE: I believe that is all.

MR. CAMPBELLET No questions.

MR. SPURRIER: Mr. Gray, do you know whether Buffalo Oil Company paid compensatory royalty to the Government during those 3 years there was no offset?

A. I am not prepared to answer. I don't know whether they did or not. Possibly one of the other representatives would know.

CHAIRMAN SHEPARD: The witness may be excused.

H. G. ELLIȘ, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. CAMPBELL:

Q. State your name, please.

A. H. G. Ellis.

Q. Speak up, please.

A. I have a bad throat.

Q. Where do you reside?

A. Artesia, New Mexico.

Q. By whom are you employed?

A. Buffalo Oil Company.

Q. In what capacity?

A. Vice-president in charge of production.

Q. Do you have available the information as to the cost of Cox No. 1-X and costs of wells in the Young Pool?

A. I do.

Q. The source of that information is the records of the company?

A. It comes through the books of our company, actual expenses.Q. Those are records upon all wells drilled in the course of their business?

A. That is right.

Q. Based upon that information state last cost of No. 1-X Cox?

A. Cox No. 1-X cost \$33,689.75

Q. What is production cost?

A. Fifteen cents a barrel.

Q. At time of drilling of the well, were any unusual conditions encountered to affect the normal cost of a well?
A. Contract, lost first hole at 700 feet. We compensated them about, as I recall, about a thousand dollars.

Q. How did the cost of No. 1-X compare with the dry hole? A. The dry hole cost \$22,088.09, and from that well we recovered most of the casing.

Q. In your opinion has there been any appreciable change in the cost of drilling during the past--since your well was drilled?

A. No, no appreciable change.

Q. Based upon present price of crude oil and understanding there are royalty payments of approximately 15 per cent of your well, what period of time would it take to pay out to your company one the basis of 16 barrels per day?

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A. It would take about 3 years.

Q. At 10 barrels per day?

A. About 5 years.

MR. CAMPBELL: That is all.

CHAIRMAN SHEPARD: We will take a five minute recess.

(Recess.)

CHAIRMAN SHEPARD: The meeting will come to order. MR. HINKLE: If the Commission please, we have two witnesses whom we would like to have testify. Their testimony will be short as far as we are concerned.

R. T. WILSON, having been first duly sworn, testified as follows:

DIRECT EXAMINATION BY MR. HINKLE:

Q. State your name.

A. R. T. Wilson.

Q. Where do you live?

A. Artesia, New Mexico.

Q. Are you employed by Mr. E. J. McCurdy?

A. Yes, sir.

Q. In what capacity?

A. Production superintendent.

Q. How long?

A. Since 1940.

Q. Have you spent all that time in New Mexico?

A. No, sir, not all the time.

Q. When did you first come to New Mexico with Mr. McCurdy?

A. 1946.

Q. Where were you prior to 1946?

A. Lockridge, Idaho.

Q. Were you there in connection with Mr. McCurdy's business?

A. Yes, sir.

Q. Have you had complete charge of production since 1946? A. Yes, sir.

Q. You are familiar with his property in the northwest quarter, section 20, township 18 south, range 32 east? A. Yes, sir.

Q. You are aquainted with all the wells, conditions that exist, and production from wells, and how they are produced? A. Yes, sir.

Q. As wells No. 2, 3, and 4 declined, do you know whether or not Mr. McCurdy gave any thought to drilling a "five spot" well?

A. Yes, sir, we did.

Q. Did you make any investigation to see if it was feasible to drill such a well?

A. Yes, sir.

Q. Did you make any tests?

A. Yes, sir, I made an interference test.

Q. What do you mean by that?

A. Filling one hole completely full of fluid while other wells pumped.

Q. You would take one well, fill it with fluid, and produce other three wells?

A. Yes, sir.

Q. For how long a period of time?

A. Approximately 17 hours.

Q. Did you take each well successively?

A. Yes, sir.

Q. What were the results of the test?

A. After 17 hours our offset No. 4 pumping with No. 1

-71-
completely full of oil. After 17 hours it was still full of oil indicating no interference between the two wells. Q. What did the other wells show? A. They showed approximately the same thing. That column indicated to me that it had at least 1275 pounds bottom hole

pressure or that hole would have taken the fluid.

Q. In other words, the contents of that column would have gone back into the formation?

A. Yes, sir, certain amount of it.

MR. HINKLE: That is all.

CHAIRMAN SHEPARD: Any cross examination?

CROSS EXAMINATION BY MR. CAMPBELL:

Q. Are you an engineer?

A. No, sir, I am an electrical engineer.

Q. Was 17 hours the longest interference test you made on any occasion?

A. Yes, sir.

MR. CAMPBELL: That is all.

CHAIRMAN SHEPARD: You may be excused.

MR. HINKLE: I want to recall Mr. John Kelly for a question or two.

MR. HINKLE: L: May I ask Mr. Gray one question? What kind of test did you make on No. 1 with regards to bottom hole pressure, just how did you take that test?

MR. GRAY: The first test was made before the rods--it was made with Humble Bomb. The other measurements were made by an Edrometer device.

REDIRECT EXAMINATION OF MR. KELLY BY MR. HINKLE: Q. Mr. Kelly, you are the same witness who testified in this case this morning? A. I am.

Q. You have heard the testimony of Mr. Gray in regard to bottom hole pressures, oil and gas ratios?

A. I have.

Q. State whether or not these tests made in Buffalo Well No. 1-X are indicative of conditions that may exist in respect to the reservoir or area?

A. With respect to these tests which were conducted by Mr. Gray, I would state in my opinion in the southeastern part the volumetric drive fields, these tests show normal conditions. Gas-oil ratio increases with production of oil from the reservoir, therefore, I would state they probably show a normal condition. I do not believe testing just one well would indicate the condition of the field as a whole due to erratic condition of the reservoir.

Q. You have also heard the testimony of Mr. Wilson in regard to interference tests, what are your conclusions as to bottom hole pressures?

A. It would occur to me that the test of the McCurdy wells is equivalent to the weight of the column of oil which figured around 1275, which is higher than pressures as shown on the offsetting lease. This is standard data of a normal volumetric drive field.

Q. Is it your opinion that most of the Young Pool is erratic?A. As erratic as a field could be.

Q. Was bottom hole pressures of No. 1 well and No. 1-X Buffalo, the wells which are involved--do you recall the testimony as to bottom hole pressures of No. 1 McCurdy well? A. Yes, sir.

Q. Did he testify as to more than one well?

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A. He testified, to my knowledge, to 1229 pounds per square inch in 24 hours in No. 1 well and 1072 pounds per square inch in 72 hours in Buffalo well to answer the question about pressures taken in two wells, that is all. MR. HINKLE: I believe that concludes our case. CHAIRMAN SHEPARD: Any other testimony?

MR. CAMPBELL: No, sir, I have a statement to make when the Commission wishes to hear it.

CHAIRMAN: SHEPARD: Mr. Hinkle, do you have a statement you would like to make?

MR. HINKLE: I don't know whether the Commission would like to hear argument on this unorthodox location, but if you will give me a little time and listen, I would like to make a few remarks as briefly as I can. I think that the evidence which has been introduced on behalf of Mr. McCurdy shows conclusively that the correlative rights, so to speak, of the Buffalo Oil Company will not be infringed upon by the drilling of the proposed well on the unorthodox location on the northwest guarter of section 20. All the testimony here has been to the effect that one well will not drain a 40-acre legal subdivision. As you well know, mention has been made repeatedly that it is found that the red sand is the area of production. I believe that is the generally accepted theory among geologists, a few disagree, but as a whole you find all agree on that principle. Mr. Scott also stated plainly twice in two letters when they made application to the United States Geological Survey to locate a well 330 feet from the McCurdy line that there would likely not be any drainage across lines. He didn't make any statement. His testimony, as I take it today, was almost the same thing.

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I don¹t see how the Commission can reach any other conclusion than to grant this application of Mr. McCurdy. I think it would be eminently unfair to Mr. McCurdy not to grant the application as the Commission has approved other "five spot" locations as it has and in virtually the same situations as in this instance, and it would be unfair to treat him any differently from the way the Commission has treated all other applicants in connection with the "five spot" locations. The principle of "five spot" locations is one which should be encouraged, not contradicted. It will make possible recovery of oil that would not otherwise be recovered from drilling régulgel locations. I think it is a sound policy and one which should be encouraged by the Commission so that the greatest recovery of oil can be obtained, especially in cases such as this where the wells are marginal wells, so to speak. I think the testimony has supported the case with a preponderance of evidence for the application. I don't think there is any question beyond a shadow of a doubt about this. I think it would certainly be unfair and unequal if this should not be granted in face of the fact that the application has already been granted.

MR. CAMPBELL: If the Commission please, I find it necessary to again express the opinion and feeling of the Buffalo Oil Company that this case does not involve "five spot" drilling. This case in our opinion involves one proposition wherein allocation is contemplated. Assuming top or any degree less than top is obtained, it is uncompensated drainage from the Buffalo lease. That is the sole question in cases which have been heretofore and may hereafter be presented. That finding can be made so as not to drain from adjacent acreage. As to the proposition presented that one well will never drain

-75-

40 acres, I think that is not exactly correct. I think it is unfortunate if they have come to that conclusion. It has not been too long ago that a number of very reputable men appeared before this Commission and contended that it certainly would drain 80 acres. I don't think it can be determined except upon each application within each pool. When that comes about, the question of whether five wells or 10 or 15, how produced, and how allowable is to be given as relating to correlative rights -- these rights of adjacent lease owners. That is our position. The only testimony we had to offerswas meager, to say the least. Everybody realizes the analysis Mr. Gray made is based upon all available information and is a reasonable one sustained at least by some testimony given before. The testimony does show that this will, on the basis as proposed, result in uncompensated drainage to Buffalo Oil Company.

MR. J. O. SETH: I appear in behalf of Amerada Petroleum Company. They asked me to make this statement:

"An extra well on a proration unit should not be allowed where the existing well is capable of making the full allowable. If an extra well is permitted to be drilled on a proration unit, it should only be for good cause shown after notice and hearing before the Commission. In the event any operator, after such hearing, drills more than one well to the same producing horizon on any authorized proration unit and in accordance with the rules and regulations or special orders of the Commission, the additional well or wells on the unit should not result in the allowable oil or gas production for such unit being increased above the amount which such unit would receive from one unpenalized top unit allowable well on the unit,"

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Stanolind Oil and Gas Company would like to submit the following letter:

"Subject: Rehearing Case No. 205, Order No. 848, New Mexico Oil Conservation Commission. (To) State of New Mexico Oil Conservation Commission, Santa Fe, New Mexico. Gentlemen:

"This will have reference to Case No. 205, Order No. 849, as well as Order R-5 granting Buffalo Oil Company's motion for rehearing on Case No. 205.

"At the outset, Stanolind Oil and Gas Company would like to respectfully point out that it has no immediate interest in the Young Pool nor in the area immediately surrounding. Stanolind does feel, however, that the consequences of Order No. 849, if allowed to stand unmodified, may establish a dangerous precedent throught the State of New Mexico and eventually lead to the complete disruption of the present system of forty (40) acre unit allocation in this state.

"We respectfully invite your attention to the next to last paragraph of Order No. 849 which reads as follows: " "Provided however, that the production from the five wells shall be prorated and never be allowed to produce in excess of the allowable for four regular 40-acre tracts as now or may hereafter be allocated to the Young Pool - -." At its face value this paragraph does not appear particularly offensive; however, if one delves into and regards it closely, it is seen that the ramifications are widespread. We have made a thorough study of the order and, in our opinion, it has the following objectionable implied provisions:

"1. It sets up a lease allowable as opposed to the 40-acre unit allowable.

"2. It allows the lease, when the productivity of one

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or all of the wells thereon decreases to the "stripper" stage, a decided advantage over the offset leases due to the fact that allowable at such time will then be on a "per well" basis.

"3. It tacitly approves the taking of the entire lease allowable from any one of the five wells which in turn would permit the operator to take the entire lease allowable from one of the outside wells and, in so doing, effect immediate drainage from the offset lease or leases.

"4. It allows this lease to drain more than its fair share of the reserves, therefore, not protecting correlative rights.

"5. It allows the drilling of wells which will not increase ultimate recovery, thereby resulting in waste of natural resources, and, in so doing, reducing the resources available for the finding and devloping of additional reserves.

"6. It tends to jepardize the entire system of forty(40) acre unit allocation in New Mexico.

"We respectfully urge the Commission to set aside this order or, in the alternative, to modify same to the end that production will be allocated on the forty (40) acre unit basis. Yours very truly, /s/ C. F. Bedord." MR. BOB ADAMS: The Continental Oil Company, although not involved in this case, wishes to make a voluntary statement for the record, and with your permission I will read it into the record: "That in general it is opposed to the granting of an allowable to an acreage (or production being from the same horizon) which will permit the production of more oil from a 40 acre tract in that acreage than would normally be top allowable for it as a 40 acre proration unit. Continental

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is of the opinion that any deviation from the 40 acre proration unit should be done with caution and only in special cases which are in the interest of conservation." MR. EDWARDS: Letters testifying as to "five spot" location, I don't think should be taken into consideration in this case. CHAIRMAN SHEPARD: Everybody may state his position. Anyone else? Mr. Morrell? Mr. Staley? MR. SPURRIER: I have a letter, rather a telegram from Humble Oil & Refining Company, which I will read:

"Midland, Texas, February 6, 1950. Mr. R. R. Spurrier, Conservation Commission, State of New Mexico, Santa Fe, New Mexico. With reference hearing February 8, Order 849, Humble Oil & Refining Company approves the right of any operator to drill as many wells on any 40-acre unit as he may desire to drill provided the location of such wells is in accordance with the rules and regulations or the special orders of the Conservation Commission, and further provided that the drilling of such additional wells will in no event result in the allowable from any 40-acre unit being increased above the amount which such 40-acre unit would receive from one unpenalized top unit allowable well completed on the unit stop To permit the allowable of any 40-acre unit to be increased above unpenalized top unit allowable jepardizes the 15 year old system of allocation in Lea County and contravenes Section 13 of which the Conservation statutes by creating waste in forcing operators to drill wells which are not resonable necessary to secure their proportionate share of the production. /s/ HUMBLE OIL & REFINING COMPANY, BY: J. W. HOUSE."

MR. MORRELL: With these generalized statements, I merely would

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like to comment in Lea County, many aren't familiar with the elements you have under Commission Orders, there are many large pressure units in which wells exist which can drain in excess of 40 acres and where they don't, they are under unitization. What is involved is the right of the Commission to set its spacing allowable for proration unit allowable-for proration single unit and for unitization, for the Conservation Commission to set any unit for proration purposes. CHAIRMAN SHEPARD: Does anybody have anything further? I regret at this time not to decide this case and deviate from our usual practice of deciding on the spot, but I don't know anything about it, and I am sure Mr. Spurrier doesn't either. We will make a decision within a week or so. If there is nothing further, we will stand adjourned. V.

CERTIFICATE

I hereby certify that the foregoing is a true and correct transcript of the proceedings before the New Mexico Oil Conservation Commission, 10 o'clock, A.M., Santa Fe, New Mexico, February 8, 1950, to the best of my knowledge, skill and ability.

Dated this 28th day of February, 1950, at Albuquerque, N.M.

Margarit Bawell REPORTER

E. JAMES MOCURDY, JR. FORT WORTH (2) 1703 Fair Building

January 25, 1950

DIL CONSCRIPTION COMMISS.

To the Oil Operators of the State of New Mexico

Gentlemen:

Mr. Glenn Staley of the Lee County Operators Committee circularized a letter from the Buffalo Oil Company dated January 18, 1950, to him, in which they state they have requested a re-hearing in Case #205 and Order #849, which order granted me permission to drill a "five-spot" well in approximately the center of the NW/4 Section 20-18S-32E, in which letter it is said this order "makes possible the assigning of an allowable for a 40-acre unit, greater than State top . . ."

In my opinion, the above letter misconstrues the order of the Commission, which provided:

"Provided, however, that the production from the five wells shall be prorated and never be allowed to produce in excess of the allowable for four regular 40-acre tracts as now or may hereafter be allocated in the Young Pool, . . "

This order was entered after I had filed with the U.S.G.S. a nonsegregation stipulation as required by them and provided in the above order. This, in effect, unitizes the 160 acres. I made this application for a "five-spot" well and only ask the Commission to grant me the same privilege of drilling a "five-spot" well that has been granted to other operators in New Mexico and only expect the privilege of producing said well upon the same basis that other operators in the State, who have units with "five-spot" wells, are accorded under the provation schedules of the Commission.

I attach hereto a sketch showing the location of my wells in Section 20-18S-32E and the well of the Buffalo Oil Company in Section 17. I am convinced that one well in the Red Sand in the Young Pool will not sufficiently drain 40 acres to obtain all of the recoverable oil and I have gone to the expenditure of drilling this well with the idea that I will obtain more oil from the 160 acres. The United States Government and the State of New Mexico will likewise benefit by the drilling of this fifth well on the 160 acres. I do not believe by drilling this fifth well on my 160 acres that it will affect the Buffalo Oil Company lease by drainage. They have a well 510 feet from my North line, while my regular locations are 660 feet from their line.

If the Buffalo Oil Company wants to produce more oil, it is their privilege to drill more wells.

Very truly yours,

E. J. McCurdy fr. E. J. McCurdy, JR.

EJMc/hce



HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS

February 6, 1950

File: 6-1, New Mexico

Mr. R. R. Spurrier Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Dear Mr. Spurrier:

Supplementing our telegram, a copy of which is attached hereto, the Humble Oil & Refining Company submits the following statement in conjunction with the re-hearing February 8 of Order 849.

> STATEMENT CONCERNING FIVE-SPOT DRILLING IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO

The Humble Company does not operate in the Young Pool, but feels that such a precedent as this, once established in Lea County, would endanger the whole 15-year-old system of allocation in Lea County.

Based upon long experience and observation, we believe that the various pools in Lea County, certainly those in which we operate, can be efficiently and economically drained by one well to 40 acres.

We have no performance records of five-spot wells in Lea County, as there have been none drilled. We have not studied them in detail in Eddy County, but such information as we have is not impressive evidence of their necessity. As shown by State Proration Order No. 852 for January 1950, the 13 "unorthodox" wells of the Grayburg Oil Company which were produced during November averaged 30 barrels per day as compared to a 27.4-barrel-per-day average for the 52 wells surrounding them, a difference of less than 9 \$\$ despite the fact that the five-spot wells had an average age of less than seven months. This leads us to believe that good connection exists between the wells drilled in this pool on 40-acre units, and that the five-spot wells were unnecessary to drain the area efficiently and economically.

We believe further that the equity between operators cannot be maintained under a program of five-spot drilling in Lea County if the allowables of tracts so drilled are increased as a result

HUMBLE OIL & REFINING COMPANY MIDLAND, TEXAS

Mr. R. R. Spurrier Santa Fe, New Mexico February 6, 1950 Page 2

> of such drilling. Such procedure, in our opinion, would contravene paragraph one of Section 13 of the Conservation Statute, which is as follows:

"No owner of a property in a pool should be required by the Commission, directly or indirectly, to drill more wells than are reasonable necessary to secure his proportionate part of the production. To avoid the drilling of unnecessary wells, a pro-ration unit for each pool may be fixed, such being the area which may be efficiently and economically drained and developed by one well. The drilling of unnecessary wells creates fire and other hazards conducive to waste, and unnecessarily increases the cost of the products to the ultimate consumer."

It is obvious that nine 5-spot wells can be drilled on a 640acre tract, three on 320 acres, one on 160 acres, and none on 80 or 40 acres. It is equally obvious that if one operator in a pool secures an increased allowable as a result of five-spot drilling, not only would every other operator in the pool be forced to either drill unnecessary wells or to share the expense of unnecessary drilling in order to protect themselves from drainage, despite the statutory provision cited above, but the Commission would face an overwhelming task of protecting correlative rights.

It is our sincere hope that the Commission will not adopt a program of five-spot drilking in the oil pools of Lea County.

We will appreciate the Conservation Commission giving due consideration to the effects that a precedent granting additional allowable to units would have on the equities which have so kong been established in Lea County.

Yours very truly,

HUMBLE CIL & REFINING COMPANY

a J. W. HOUSE

Division Superintendent

RSD/rs Attachment



Mr. R. R. Sperrier Consistentian Consistion State of New Matico Santa Fo, New Matico

With reference hearing February 8, Order 849, Humble Oil & Refining Company approves the right of any operator to drill as many wells on any 40-acre unit as he may desire to Grill provided the location of such wells is in accordance with the rules and reguintions or the special orders of the Conservation Commission, and further provided that the drilling of such additional wells will in no event result in the allowable from any 40-acre unit being increased above the amount which such 40-acre unit would receive from one unpenalized top unit allowable well completed on the unit stop. To permit the allowable of any 40-acre unit to be increased above unpenalized top unit allowable jeopardises the fifteen year old system of allocation in Les County and contravenes Section 18 of the Conservation photomers to desting whete in forcing operators to drill wells which are not rememble motionary to desure their proportionate share of the production.

> HAMMEN OIL & REWINING COMPANY NY 1 J. W. HOURS

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Affidavit of Publication

State of New Mexico ss.

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I.	WIL	L Harrison	 being	first	duly	sworn,
•,			 - Contraction D			

declare and say that I am the (Bunness Hunnight) (Editor) of the Santa Fe

New Mexican , a daily newspaper, published in the English Language, and having a general circulation in the City and County of Santa Fe, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy which is hereto attached, was published in said paper **unmendment**

for **cone time** the regular issue of the paper during the time of publication, and that the notice was published in the newspaper proper, and not in any supplement, **meanwhitese**k for

one time		With t publ	ication being o	on the
25th	Janua ry			

for said advertisement has been (duly made), or (assessed as court costs); that the undersigned has personal knowledge of the matters and things set forth in this affidavit.

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day of January uma K. Drms	_, A.D., 1965
	Notary Public
My Commission expires	•
June 14, 1953	

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

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CASE NO. 205 ORDER NO. 849

THE APPLICATION OF E. J. MCCURDY FOR AN ORDER AUTHORIZING THE DRILLING OF AN UNORTHODOX (FIFTH) LOCATION TO THE "RED SAND" AND 1,214 FT. SOUTH OF THE NORTH LINE AND 1,426 FT. EAST OF THE WEST LINE (NE1NW1) OF SECTION 20, TWP. 18 S., RGE. 32 E., N.M.P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN SAID NW2 OF SECTION 20 IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO.

CONSENT TO MODIFICATION OF ORDER

Comes E. J. McCurdy, and respectfully shows to the Commission:

That a hearing was held before the Oil Conservation
Commission of the State of New Mexico on December 1, 1949, upon
the application of E. J. McCurdy for approval of the drilling of
a fifth well for oil and gas to be located upon the NW¹/₄ Sec. 20,
T. 18 S., R. 32 E., N.M.P.M., Lea County, New Mexico, in what
is known as the Young Pool.

That after said hearing, and being fully advised in the premises, the Commission entered Order No. 849 approving the drilling of said fifth well at a location 1,214 feet South of the North boundary and 1,426 feet East of the West boundary of said Sec. 20, T. 18 S., R. 32 E., N.M.P.M., said order having been entered on December 27, 1949.

2. That said order in granting permission to drill said fifth well erroneously described said land as being in Range 31 E., rather than 32 E., although the application for the approvel of the drilling of said well and the caption to the order correctly described said land as being in Range 32 E. 3. That said order further provided "that the production from the five wells shall be prorated and never be allowed to produce in excess of the allowable for four legal forty acre tracts as now, or may hereafter, be allowed to the Young Pool".

4. That the application for the approval of the drilling of said fifth well requested that applicant be permitted to allocate the normal unit maximum allowable for four wells upon said land to the five wells, and it was the intention and purpose of said application that the NW_4^{\perp} of said Section 20 be unitized for proration and allowable purposes and that applicant be authorized to produce from said unitized tract the total allowable production as fixed by the Commission for the total number of developed forty acre proration units comprising such unitized tract, and also that no well located upon such unitized tract should be permitted to produce at a rate in excess of the top allowable as fixed by the Commission.

5. That applicant assumed that said order would provide for the unitization of the said NW $\frac{1}{4}$ Section 20 for proration and allowable purposes, and that said order would limit the production from said unitized tract as above indicated and it was not the intention or purpose of applicant to request or that he be permitted to produce any well located upon the said NW $\frac{1}{4}$ of Section 20, including the fifth well to be drilled, at a rate in excess of the top allowable as fixed by the Commission, and applicant is willing that the order heretofore entered be modified and amended to carry out the purposes and intention herein expressed.

WHEREFORE, E. J. McCurdy hereby consents to a modification of Order No. 849 in the following respects:

- 2 -

a. That said order be amended so as to correctly describe the NW¹/₂ Sec. 20, T. 18 S., R. 32 E., N.M.P.M.

b. That said order be modified so as to provide for the unitization for proration and allowable purposes of the said NW¹/₄ Section 20, and that applicant be authorized to produce from said unitized tract the total allowable production as fixed by the Commission for the total number of developed forty acre proration units comprising such unitized tract.

c. That said order be amended to provide that no well located upon said unitized tract shall be permitted to produce at a rate in excess of the top allowable as fixed by the Commission.

Respectfully submitted,

HERVEY, DOW & HINKLE Roswell, New Mexico

PHILLIPS, TRAMMELL, EDWARDS & SHANNON

Haynie & Edward Fort Worth, Texas

Attorneys for E. J. McCurdy

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CERTIFICATE OF SERVICE

The undersigned, Clarence E. Hinkle, one of the attorneys for E. J. McCurdy, does hereby certify that he delivered a copy of the above and foregoing Consent to Modification of Order to Atwood, Malone & Campbell, attorneys for the Buffalo Oil Company, on the 1st day of February, 1950.

Barnet for

UIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO 6-1950

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 205 ORDER NO. 849

THE APPLICATION OF E. J. MCCURDY FOR AN ORDER AUTHORIZING THE DRILLING OF AN UNORTHODOX (FIFTH) LOCATION TO THE "RED SAND" AND 1,214 FT. SOUTH OF THE NORTH LINE AND 1,426 FT. EAST OF THE WEST LINE (NE4NW4) OF SECTION 20, TWP. 18 S., RGE. 32 E., N.M.P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN SAID NW4 OF SECTION 20 IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO.

RESPONSE TO CONSENT TO MODIFICATION OF ORDER

Comes now Buffalo Oil Company, and in response to the instrument filed herein by Applicant McCurdy and denominated Consent to Modification of the Original Order, states:

1. That the first application for approval of a five spot location as filed with this Commission contained no reference to the allocation of production in the event the application for the drilling of the fifth well was approved, and contained no reference to unitization of the $NW^{\frac{1}{2}}$ of Section 20, Township 18 South, Range 32 East for proration and allocation purposes.

2. That no testimony was offered to the Commission at the hearing on December 1, 1949 with reference to the requested exception to the existing State-wide and Lea County orders relating to spacing and proration. The transcript of the hearing contains no testimony relating to the prevention of waste or the protection of correlative rights of adjacent owners.

3. The Consent to Modification of Order filed herein by E. J. McCurdy constitutes a new application with reference to unitization and allocation of production.

WHEREFORE, Buffalo 011 Company moves the Commission to consider the Consent to Modification of Order to be a new application for exceptions to existing State-wide and Lea County orders, and that upon rehearing the matter be heard de novo.

Respectfully submitted,

ATWOOD, MALONE, & CAMPBELL By Company.

CERTIFICATE

Jack M. Campbell, being one of the attorneys for applicant, Buffalo Oil Company, hereby certifies that on February 2nd, 1950, he delivered a copy of the foregoing Response to Consent to Modification of Order to the offices of Hervey, Dow & Hinkle at Roswell, New Mexico, who are attorneys of record for E. J. McCurdy.

Jack M. Complet

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NOTICE OF PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice of public hearing to be held February 8, 1950 beginning at 10:00 o'clock A.M. on that day in the Capitol Building, Santa Fe, New Mexico.

STATE OF NEW MEXICO TO:

E. J. McCurdy, c/o Hervey, Dow and Hinkle, White Building, Roswell, New Mexico; E. J. McCurdy, Fort Worth, Texas; Buffalo Oil Company, c/o Jack M. Campbell, Roswell, New Mexico; Buffalo Oil Company, Artesia, New Mexico, and to all persons having an interest in:

Case 205

In the matter of the Oil Conservation Commission's Order No. R-5, dated January 23, 1950, granting a rehearing in Case 205 whereby E. J. McCurdy, Jr. was granted, by Order No. 849, December 27, 1949, authority for an unorthodox location, and Buffalo Oil Company, an interested party having filed application and timely motion for rehearing of said case.

Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on January 23, 1950.

> STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

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R. R. SPURRIER, SECRETARY

STHEOLS TANDARD TUME LAO9 SSA693 LERWA138 PD=ROSWELL NMEX 13 433P= 1950 JAN 13 PM 4 5* R R SPURRIER= OIL CONSERVATION COMMISSION SANTA FE NMEX= MOTION FOR REHEARING CASE NO 205 APPLICATION OF E J MCCURDY FOR AN UNORTHODOX "FIFTH" LOCATION YOUNG POOL BEING FORWARDED TO COMMISSION THIS DATE ON BEHALF OF BUFFALO OIL GIL CONSERVATION COMMISSION NO. COMPANY= ATWOOD MALONE AND CAMPBEL By 205 =

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

In the matter of the application of) E. J. McCurdy for an order authorizing) the drilling of an unorthodox (Fifth)) location to the "Red Sand" and 1214 Ft.) South of the North Line and 1426 Ft.) East of the West Line (NE1 NW1) of) Section 20, Twp. 18 S., R. 32 E.,) N.M.P.M., and to adjust the allowable) for the five wells in said NW1 of) Section 20 in the Young Pool, Lea County, New Mexico.

Case No. 205

OIL CONSERVATION COMMISSION SANTA FE NEW MEXICO.

APPLICATION FOR REHEARING

Comes now Buffalo Oil Company, a corporation, by its attorneys Atwood, Malone & Campbell and applies to the Commission for rehearing in this case, in which Order No. 849 of the Commission was entered on December 27, 1949, and as its reason for the application states:

1. That said Buffalo Oil Company is affected by said order in that it is the owner of certain properties situated in the SW¹/₂ of Section 17, Township 18 South, Range 32 East, and that there is situated in the $SE^{1}_{4}SW^{1}_{2}$ of said Section 17 a producing oil and gas well in which this applicant has an interest.

2. That 20 days have not elapsed since the entry of said order.

WHEREBY said applicant prays that its application for rehearing be granted.

ATVOOD, MALONE & CAMPBELL By: Actorneys for Applicant Buffalo Oil Company

CERTIFICATE

Jack M. Campbell, being one of the attorneys for applicant, Buffalo Oil Company, hereby certifies that on January 14, 1950, he delivered a copy of the foregoing application to the offices of Hervey, Dow & Hinkle at Roswell, New Mexico, who are attorneys of record for E. J. McCurdy.

Jack M. Campbell

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

In the matter of the application of E. J. McCurdy for an order authorizing the drilling of an unorthodox (Fifth) location to the "Red Sand" and 1214 Ft. South of the North Line and 1426 Ft. East of the West Line (NE4 NW4) of Section 20, Twp. 18 S., R. 32 E., N.M.P.M., and to adjust the allowable for the five wells in said NW4 of Section 20 in the Young Pool, Lea County, New Mexico.

AMENDED APPLICATION FOR REHEARING

Case No. 205

Comes now Buffalo Oil Company, a corporation, by its attorneys Atwood, Malone & Campbell and by this Amended Application applies to the Commission for rehearing in this case, in which Order No. 849 of the Commission was entered on December 27, 1949, and as its reason for the application states:

1. That said Buffalo Oil Company is affected by said order in that it is the owner of certain properties situated in the SW $\frac{1}{2}$ of Section 17, Township 18 South, Range 32 East, and that there is situated in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ of said Section 17 a producing oil and gas well in which this applicant has an interest.

2. That 20 days have not elapsed since the entry of said order.

3. That said order is believed by the applicant to be erroneous for the reason that it is prejudicial to its rights in that the allowable established is not upon a reasonable basis and the order fails to recognize its correlative rights with the result that there will be uncompensated drainage of the oil underlying the above described lands.

WHEREBY said applicant prays that its application for rehearing be granted.

ATWOOD, MALONE & CAMPBELL By: orneys for Abplicant Buffalo Oil Company

CERTIFICATE

Jack M. Campbell, being one of the attorneys for applicant, Buffalo Oil Company, hereby certifies that on January 14, 1950, he delivered a copy of the foregoing amended application to the offices of Hervey, Dow, & Hinkle at Roswell, New Mexico, who are attorneys of record for E. J. McCurdy.

Jack M. Campfell

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 205 ORDER NC. 849

THE APPLICATION OF E. J. MCCURDY FOR AN ORDER AUTHORIZING THE DRILLING OF AN UN-ORTHODOX (FIFTH) LOCATION TO THE "RED SAND" AND 1214 FT. SOUTH OF THE NORTH LINE AND 1426 FT. EAST OF THE WEST LINE (NE/4 NW/4) OF SECTION 20, TWP. 183, R.32E, N.M.P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN SAID NW/4 OF SEC. 20 IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 10:00 o'clock A.M. on December 1, 1949, at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW on this 27th day of December, 1949 the Commission having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS:

1. That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

2. That the acreage involved in said application is Federally owned and the Supervisor of the United States Geological Survey interposes no objection to the proposal after applicant executes and files a non-segregation stipulation.

3. That applicant has officially filed said non-segregation stipulation.

4. That heretofore there has been drilled to the "red sand" four producing wells upon the NW/4 of said section 20.

5. That a fifth well 1214 ft. south of the north boundary and 1426 ft. east of the west boundary of section 20, township 18 south, range 31 east, N.M.P.M. in the Young pool, Lea County, New Mexico in all probability would recover oil that otherwise might not be recovered.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy, Jr. for an order granting permission to drill the fifth well, McCurdy-Young #5, 1214 ft. south of the north line and 1426 ft. east of the west line (NE/4 NW/4) of section 20,

Twp. 18 south, R. 31E., N.M.P.M. in the Young pool, Lea County, New Mexico be, and the same hereby is approved,

PROVIDED HOWEVER, that the production from the five wells shall be prorated and never be allowed to produce in excess of the allowable for four regular 40-acre tracts as now or may hereafter be allocated to the Young pool and

PROVIDED FURTHER that a non-segregation stipulation satisfactory to the Supervisor of the United States Geological Survey is filed with the Commission.

DONE at Santa Fe, New Mexico on the date hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, MEMBER

R. R. SPURRIER, SECRETARY

IEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO January 9, 1950

ALTERNOV STATES

LAW OFFICES HERVEY, DOW & HINKLE RORWELL, NEW MEXICO

January 18, 1950

<u>Via Air Mail</u>

J. H. HERVEY HIRAH M. DOW.

CLARENCE E. HINKLE W. E. BONDURANT, JR

GEORGE H. HUNKER, JA



Mr. R. R. Spurrier, Secretary New Mexico Oil Conservation Commission Santa Fe, New Mexico

> Re: Case No. 205 - Five-spot Location of E. J. McCurdy, Jr.

Dear Dick:

We hand you herewith answer of E. J. McCurdy, Jr., to the amended application of the Buffalo Oil Company for rehearing in the above case.

As I advised you over the telephone, the depth of the well is such that it would certainly be a great injustice to Mr. McCurdy to permit a rehearing on this matter at this time.

The 1949 Act amending the Conservation Act providing for filing of applications for rehearing provides for granting of such rehearings where the order or decision is believed to be erroneous. The Commission certainly had jurisdiction in this case by reason of having given the statutory notice of the hearing, and the order is within the scope of the authority of the Commission to make, a d it could not possibly be erroneous in the sense that the Commission had no authority to enter the order or jurisdiction over the subject matter. We are inclined to believe that the 1949 Amendment was for the purpose of correcting orders or decisions of the Commission which for some reason have been irregularly entered, and that it was not the intent and purpose of the statute to open up all matters for re-trial or rehearing which may have been decided by the Commission after giving regular notice of the hearing. Otherwise, it would seem to us that you would have a situation where the first notice did not amount to anything and that anyone could simply sit back and wait to see what the Commission did, and if it did not happen to suit them they could come in and ask that the whole matter be opened up and heard again.

Yours sincerely,

DOW SAHINKLE HERVEY,

CEH:rh

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

In the matter of the application of E. J. McCurdy, Jr., for an order authorizing the drilling of an unorthodox (Fifth) location to the "Red Sand" and 1,214 feet South of the North Line and 1,426 feet East of the West Line (NE4NW4) of Sec. 20, T. 18 S., R. 32 E., N.M.P.M., and to adjust the allowable for the five wells in said NW4 of Section 20 in the Young Pool, Lea County, New Mexico.

Case No. 205

ANSWER OF E. J. MCCURDY, JR., TO AMENDED APPLICATION FOR REHEARING

Comes E. J. McCurdy, Jr., by his attorneys, Hervey, Dow & Hinkle of Roswell, New Mexico, and in answer to the amended application of the Buffalo Oil Company for rehearing in respect to the matters determined by the order entered by the Commission on December 27, 1949, in the above styled case, and respectfully shows:

That the order of the Commission entered herein on 1. December 27, 1949, was pursuant to a hearing before the Commission at 10:00 A. M. on December 1, 1949, due notice of which was given by publication as provided by law, and the rules and regulations of the Commission. That the order granted permission to the applicant, E. J. McCurdy, Jr., to drill a fifth well to be known as the McCurdy-Young No. 5, 1,214 feet South of the North line and 1,426 feet East of the West line of the NEANWA Sec. 20, T. 18 S., R. 32 E., N.M.P.M., Lea County, New Mexico. Said order further provided that the production from the five wells located upon the NW: Section 20 being four wells heretofore drilled by E. J. McCurdy, Jr., to the "Red Sand" located in approximately the center of each 40-acre legal subdivision within the said NWT Section 20, and the fifth well to be drilled should be prorated and never be allowed to produce in excess of the allowable for four regular legal 40-acre tracts as now, or may hereafter, be allocated to the Young Pool.

2. That no protests were filed or appearances entered contesting the application of E. J. McCurdy, Jr., by the Buffalo Oil Company or anyone else, and that said order was entered by all of the members of the Commission after considering the testimony adduced at the hearing and being fully advised in the premises.

3. That E. J. McCurdy, Jr., commenced actual drilling operations upon said fifth well approved by the order of the Commission on the 20th day of December, 1949, being twenty days from the date of said hearing and after the location thereof had been approved by the Supervisor of the U. S. Geological Survey, the same being located upon lands of the United States, and after filing with said Supervisor a non-segregation stipulation agreeing not to segregate any portion of the said NW¹/₄ Section 20 by assignment or otherwise so long as oil and gas is produced from said fifth well. That said well is being drilled under a contract with an independent contractor, and that at the time a copy of said application for rehearing was served upon the undersigned attorneys for E. J. McCurdy, Jr., said well had already attained a depth of approximately 2,650 feet, and that one of the strings of casing necessary to drill said well had already been run and cemented.

4. That the Buffalo Oil Company alleges in its application for rehearing that it is affected by said order by reason of the fact that it is the owner of a certain leasehold interest covering the SW¹/₄ Sec. 17, T. 18 S., R. 32 E., N.M.P.M., and that it has a producing well located upon the SE¹/₄SW¹/₄ of said Section 17, which said well is 510 feet from the North boundary line of the NW¹/₄ of said Section 20. That the location of said producing well of Buffalo Oil Company is such that Buffalo Oil Company, through its agents or employees, had actual knowledge of the time actual operations were commenced upon said fifth well by E. J. McCurdy, Jr., and

- 2 -

notwithstanding such fact, stood by and permitted said well to be drilled without protest to the depth hereinabove referred to before filing an application for rehearing.

and the

5. That said fifth well which is being drilled by E. J. McCurdy, Jr., is located in approximately the center of the NW¹ of said Section 20, and about 1,875 feet from the producing well of the Buffalo Oil Company above referred to, and that it is a matter of common knowledge that the permeability of the sand from which oil and gas is being produced in said area known as the "Red Sand" is such that a well situated in the center of a 40-acre legal subdivision will not drain all of the recoverable oil and gas from a 40-acre legal subdivision, and that the Buffalo Oil Company has not shown by its application for rehearing that the order in question would prejudice any property rights of the Buffalo Oil Company, or that it would in any way hinder or affect the Buffalo Oil Company in taking its allowable from its producing well located in the SEASWA of said Section 17. That there is attached hereto, made a part hereof, and for purposes of identification marked Exhibit "A" a plat showing the locations of the producing wells in said area and the location of the five-spot well which is being drilled by E. J. McCurdy, Jr.

6. That the Commission has heretofore approved quite a number of similar applications as the application of E. J. McCurdy, Jr., and that all of said applications have been approved in recognition of the well-established principle and fact that wells drilled in the center of 40-acre legal subdivisions will not adequately drain the 40-acre legal subdivision upon which they are located and permit the recovery of all of the oil and gas which it is economically feasible to recover from each 160-acre legal subdivision, and that such five-spot wells have been ap-

- 3 -

proved to prevent underground waste as defined by our statutes. That by reason of having established precedents in such cases, it would be unfair, inequitable, and unjust to deny E. J. McCurdy, Jr., the right and privilege of drilling said fifth well for the purpose of obtaining in the most economical manner possible all of the recoverable oil and gas from the said $NW_{\frac{1}{4}}$ of Section 20, and that the same privilege should be accorded to all operators under similar circumstances.

WHEREFORE, E. J. McCurdy, Jr., prays that the application of the Buffalo Oil Company for rehearing be denied.

HERVEY, DOW & HINKLE Roswell, New Mexico Attorneys for E. J. McCurdy, Jr.

CERTIFICATE OF SERVICE

The undersigned, Clarence E. Hinkle, one of the attorneys for E. J. McCurdy, Jr., does hereby certify that he delivered a copy of the above and foregoing answer to Atwood, Malone & Campbell, attorneys for the Buffalo Oil Company, on the 18th day of January, 1950.

Atuite




REGISTERED MAIL

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Mr. Glean Staley Lea County Operators Committee Drawer I Hobbs, New Naxleo

Dear Mr. Staleys

We enclose herewith, signed copy of Order No. R-5, Order for Rehearing, in connection with Case No. 205, which re-hearing is to be held in Santa Fe, New Mexico, on February 8, 1950.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

R. R. Spurrier Secretary-Director

RRS: by

MOISTERED MAIL

;

Hr. Jack H. Campbell Atwood, Malone & Campbell Manuell, New Herico

Deer Hr. Campbell:

We enclose herewith, signed copy of Order No. R=5, Order for Rehearing, in connection with Case No. 205, which re-hearing is to be held in Santa Fe, New Maxico, on February 8, 1950.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

R. R. Spurrier Secretary-Director

RRS: bu

REGISTERED MAIL

Mr. Clammes Hinkle Hervey, Dow and Hinkle Resuell, New Matieo

Dear Mr. Hinkles

We enclose herewith, signed copy of Order No. R-5, Order for Rehearing, in connection with Case No. 205, which re-hearing is to be held in Santa Fe, New Maxico, on February 8, 1950.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

R. R. Spurrier Scoretary-Director

RRS:bw encl.

BUFFALO OIL COMPANY Artesia, New Mexico 203 Carper Building

OIL CONSERVATION COMMISSION

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Jan. 18, 1950

Mr. Glenn Staley Lea County Operators Committee Hobbs, New Mexico -

Dear Sir:

A request for re-opening Case #205 and Order #849, which granted E. J. McCurdy, Jr., authority to drill a second well on a 40 acre-unit in Section 20-185-32E, and makes possible the assigning of an allowable for a 40 acre unit, greater than State top, has been filed by the Buffalo Oil Company. This company operates an offsetting lease to the McCurdy lease and desires to change the method of assigning oil allowable as granted by Order #849.

You have our permission to circulate this letter as notification to other operators.

Yours very truly,

/8/ H. G. Ellis Vice President

HGE:gi

LEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO Jan. 19, 1950

NOTICE OF PUBLICATION STATE OF NEW DEXICO OIL CONSERVATION COLDISSION

The State of New Mexico by its Oil Conservation Commission hereby gives notice of public hearing to be held February 8, 1950 beginning at 10:00 o'clock A.N. on that day in the Capitol Building, Santa Fe, New Mexico.

STATE OF NEW MEXICO TO:

E. J. McCurdy, c/o Hervey, Dow and Hinkle; White Building, Roswell, New Mexico; E. J. McCurdy, Fort Worth, Texas; Buffalo Oil Company, c/o Jack M. Campbell, Roswell, New Mexico; Buffalo Oil Company, Artesia, New Mexico, and to all persons having an interest in:

Case 205

In the matter of the Oil Conservation Commission's Order No. R-5, dated January 23, 1950, granting a rehearing in Case 205 whereby E. J. McCurdy, Jr. was granted, by Order No. 849, December 27, 1949, authority for an unorthodox location, and Buffalo Oil Company, an interested party having filed application and timely notion for rehearing of said case.

Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on January 23, 1950.

> STATE OF NEW MEXICO OIL CONSERVATION COLLISSION

all alles 1: 5, R. R. SPURRIER, SECRETARY

SEAL

SANTA FE NEW HEXIGAN

Senta Fe, New Maxico

Re: Notice for Publication State of New Maxico Oll Conservation Commission - Case 205 -

Gentlemens

Please publish the enclosed notice once, inmediately. Please proof read the notice carefully and send a copy of the paper carrying such notice to this office.

UPON COMPLETION OF THE PUBLICATION SEND PUBLISHER'S AFFIDAVIT IN DUPLICATE.

For payment, please submit statement in duplicate, and sign and return the enclosed voucher. (Please do not fill out the voucher - merely sign where indicated.)

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

R. R. Spurrier Secretary-Director

REStby encls.

HOBBS IESUS SUN

Hobbs, New Maxico

Re: Notice for Publication State of New Mexico Oil Conservation Commission - Case 205 -

Gentlement

Please publish the enclosed notice once, inmediately. Please proof read the notice carefully and send a copy of the paper carrying such notice to this office,

UPON COMPLETION OF THE PUBLICATION SEND FUBLISHER'S AFFIDAVIT IN DUPLICATE.

For payment, please submit statement in duplicate, and sign and return the enclosed voucher, (Please do not fill out the voucher - merely sign where indicated.)

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMPLESSION

R. R. Spurrier Secretary-Director

RRSsbw encls.

REGISTERED MAIL

Mr. Chem Staley Les County Operators Constitue Denner I Hobbs, New Maxieo

Dear Mr. Staley:

We are enclosing herewith, copy of Notice of Publication in connection with a hearing to be held in Santa Fe, New Maxico, on February 8, 1950.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

RRS:by

R. R. Spurrier Secretary-Director min

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 205 ORDER NO. 849

THE APPLICATION OF E. J. MCCURDY FOR AN ORDER AUTHORIZING THE DRILLING OF AN UN-ORTHODOX (FIFTH) LOCATION TO THE "RED SAND" AND 1214 FT. SOUTH OF THE NORTH LINE AND 1426 FT. EAST OF THE WEST LINE (NE/4 NW/4) OF SECTION 20, TWP. 183, R.32E, N.M.P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN SAID NW/4 OF SEC. 20 IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 10:00 o'clock A.M. on December 1, 1949, at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW on this 27th day of December, 1949 the Commission having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS:

1. That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

2. That the acreage involved in said application is Federally owned and the Supervisor of the United States Geological Survey interposes no objection to the proposal after applicant executes and files a non-segregation stipulation.

3. That applicant has officially filed said non-segregation stipulation.

4. That heretofore there has been drilled to the "red sand" four producing wells upon the NW/4 of said section 20.

5. That a fifth well 1214 ft. south of the north boundary and 1426 ft. east of the west boundary of section 20, township 18 south, range 31 east, N.M.P.M. in the Young pool, Lea County, New Mexico in all probability would recover oil that otherwise might not be recovered.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy, Jr. for an order granting permission to drill the fifth well, McCurdy-Young #5, 1214 ft. south of the north line and 1426 ft. east of the west line (NE/4 NW/4) of section 20,

Twp. 18 south, R. 31E., N.M.P.M. in the Young pool, Lea County, New Mexico be, and the same hereby is approved,

PROVIDED HOWEVER, that the production from the five wells shall be prorated and never be allowed to produce in excess of the allowable for four regular 40-acre tracts as now or may hereafter be allocated to the Young pool and

PROVIDED FURTHER that a non-segregation stipulation satisfactory to the Supervisor of the United States Geological Survey is filed with the Commission.

DONE at Santa Fe, New Mexico on the date hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, MEMBER

R. R. SPURRIER, SECRETARY

LEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO January 9, 1950 Docombor 14, 1949

Mr. Glenn Staloy Laa County Operators Countitoe Dressor I Hobbs, New Maxico

Doar Glonn:

We have your letter of December 7, stating that your office has never received the Notice of Publication for Cases 205 and 206.

We are enclosing herewith, copy of a letter addressed to you, which is selfexplanatory. Since the letter did not reach your office, the fault can only be with the postoffice department.

This thing has happoned to us many times before, to your office and to our a can office at Hobbs. We are therefore going to put a tracer on the letter from this office and I hope that you will do likewise at the Hobbs postoffice.

Hrs. Hoodworth personally handles the preparation and mailing of all our Notices of Publication and she has yet to encounter a similiar situation with letters mailed to any of the other postoffices. Unless you and I can be assured that negligence at the postoffice will not be continued, giving improper service to our mailing list, we will certainly have to consider having that list directly handled from this office.

Very truly yours,

R. R. Spurrier Secretary-Director

RRS:bu encl.



Mr. R. R. Spurrier Oil Conservation Commission Santa Fe, New Mexico

Dear Dick:

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I have your letter of December 5 containing notification of Hearing to be held on December 20, covering cases 191 and 207. Also note your post-script stating that Don McCormick, Foster Morrell and several others had not received notice of the Hearing held on December 1, 1949. For your information, todate this office has never received any notification of that hearing. The writer was not informed of the hearing until he reached Albuquerque, for the New Mexico Oil and Gas Association meeting on November 29. We realize, of course, that circumstances over which no one had any control disrupted the personnel in your office, and it may be that in the confusion, the notice to this office was over-looked.

With kindest personal regards, I am

Yours very truly Glenn Staley

DEC 12 1949

CGS:gi

P. S. We are in receipt of the Proceedings of the Hearings on Nov. 22 and Dec. 1 and "Petition for Approval of Unorthodox Location of Stanley L. Jones".

November 17, 1949

Mr. Glenn Staley Lea County Operators Committee Drawer I Hobbs, New Maxico

Dear Mr. Staleys

N

Re: Cases 205 and 206 Notice of Publication

We enclose herewith, signed copy of Notice of Publication, covering the cases to be heard at the Oil Conservation Commission's hearing on December 1, 1949.

Very truly yours,

R. R. Spurrier Secretary-Director

RRS:bw encl.



Township No.. Sec. of Range No. Buffalo mclundy 42 # 1 #4 o Sto Miles. Þ 2.

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 205 ORDER NO. 849

THE APPLICATION OF E. J. MCCURDY FOR AN ORDER AUTHORIZING THE DRILLING OF AN UN-ORTHODOX (FIFTH) LOCATION TO THE "RED SAND" AND 1214 FT. SOUTH OF THE NORTH LINE AND 1426 FT. EAST OF THE WEST LINE (NE/4 NW/4) OF SECTION 20, TWP. 188, R.32E, N.M.P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN SAID NW/4 OF SEC. 20 IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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This matter came on for hearing at 10:00 o'clock A.M. on December 1, 1949, at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW on this 27th day of December, 1949 the Commission having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS:

1. That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

2. That the acreage involved in said application is Federally owned and the Supervisor of the United States Geological Survey interposes no objection to the proposal after applicant executes and files a non-segregation stipulation.

3. That applicant has officially filed said non-segregation stipulation.

4. That heretofore there has been drilled to the "red sand" four producing wells upon the NW/4 of said section 20.

5. That a fifth well 1214 ft. south of the north boundary and 1426 ft. east of the west boundary of section 20, township 18 south, range 31 east, N.M.P.M. in the Young pool, Lea County, New Mexico in all probability would recover oil that otherwise might not be recovered.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy, Jr. for an order granting permission to drill the fifth well, McCurdy-Young #5, 1214 ft. south of the north line and 1426 ft. east of the west line (NE/4 NW/4) of section 20,

Twp. 18 south, R. 31E., N.M.P.M. in the Young pool, Lea County, New Mexico be, and the same hereby is approved,

PROVIDED HOWEVER, that the production from the five wells shall be prorated and never be allowed to produce in excess of the allowable for four regular 40-acre tracts as now or may hereafter be allocated to the Young pool and

PROVIDED FURTHER that a non-segregation stipulation satisfactory to the Supervisor of the United States Geological Survey is filed with the Commission.

DONE at Santa Fe, New Mexico on the date hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ THOMAS J. MABRY, CHAIRMAN GUY SHEPARD, MEMBER R. R. SPURRIER, SECRETARY

LEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO January 9, 1950

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 205 ORDER NO. 849

THE APPLICATION OF E. J. MCCURDY FOR AN ORDER AUTHORIZING THE DRILLING OF AN UN-ORTHODOX (FIFTH) LOCATION TO THE "RED SAND" AND 1214 FT. SOUTH OF THE NORTH LINE AND 1426 FT. BAST OF THE WEST LINE (NE/4 NW/4) OF SECTION 20, TWP. 18S, R.32E, N.M.P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN SAID NW/4 OF SEC. 20 IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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FINDS:

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2. That the acreage involved in said application is Federally owned and the Supervisor of the United States Geological Survey interposes no objection to the proposal after applicant executes and files a non-segregation stipulation.

3. That applicant has officially filed said non-segregation stipulation.

4. That heretofore there has been drilled to the "red sand" four producing wells upon the NW/4 of said section 20.

5. That a fifth well 1214 ft. south of the north boundary and 1426 ft. east of the west boundary of section 20, township 18 south, range 31 east, N.M.P.M. in the Young pool, Lea County, New Mexico in all probability would recover oil that otherwise might not be recovered.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy, Jr. for an order granting permission to drill the fifth well, McCurdy-Young #5, 1214 ft. south of the north line and 1426 ft. east of the west line (NE/4 NW/4) of section 20,

Twp. 18 south, R. 31E., N.M.P.M. in the Young pool, Lea County, New Mexico be, and the same hereby is approved,

PROVIDED HOWEVER, that the production from the five wells shall be prorated and never be allowed to produce in excess of the allowable for four regular 40-acre tracts as now or may hereafter be allocated to the Young pool and

PROVIDED FURTHER that a non-segregation stipulation satisfactory to the Supervisor of the United States Geological Survey is filed with the Commission.

DONE at Santa Fe, New Mexico on the date hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, MEMBER

R. R. SPURRIER, SECRETARY

LEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO January 9, 1950

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BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 205 ORDER NO. 849

THE APPLICATION OF E. J. MCCURDY FOR AN ORDER AUTHORIZING THE DRILLING OF AN UN-ORTHODOX (FIFTH) LOCATION TO THE "RED SAND" AND 1214 FT. SOUTH OF THE NORTH LINE AND 1426 FT. BAST OF THE WEST LINE (NE/4 NW/4) OF SECTION 20, TWP. 183, R.32E, N.M.P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN SAID NW/4 OF SEC. 20 IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 10:00 o'clock A.M. on December 1, 1949, at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW on this 27th day of December, 1949 the Commission having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS:

1. That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

2. That the acreage involved in said application is Federally owned and the Supervisor of the United States Geological Survey interposes no objection to the proposal after applicant executes and files a non-segregation stipulation.

3. That applicant has officially filed said non-segregation stipulation.

4. That heretofore there has been drilled to the "red sand" four producing wells upon the NW/4 of said section 20.

5. That a fifth well 1214 ft. south of the north boundary and 1426 ft. east of the west boundary of section 20, township 18 south, range 31 east, N.M.P.M. in the Young pool, Lea County, New Mexico in all probability would recover oil that otherwise might not be recovered.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy, Jr. for an order granting permission to drill the fifth well, McCurdy-Young #5, 1214 ft. south of the north line and 1426 ft. east of the west line (NE/4 NW/4) of section 20,

Twp. 18 south, R. 31E., N.M.P.M. in the Young pool, Lea County, New Mexico be, and the same hereby is approved,

PROVIDED HOWEVER, that the production from the five wells shall be prorated and never be allowed to produce in excess of the allowable for four regular 40-acre tracts as now or may hereafter be allocated to the Young pool and

PROVIDED FURTHER that a non-segregation stipulation satisfactory to the Supervisor of the United States Geological Survey is filed with the Commissio".

DONE at Santa Fe, New Mexico on the Cate hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, MEMBER

R. R. SPURRIER, SECRETARY

LEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO January 9, 1950

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 205 ORDER NO. 849

THE APPLICATION OF E. J. MCCURDY FOR AN ORDER AUTHORIZING THE DRILLING OF AN UN-ORTHODOX (FIFTH) LOCATION TO THE "RED SAND" AND 1214 FT. SOUTH OF THE NORTH LINE AND 1426 FT. BAST OF THE WEST LINE (NE/4 NW/4) OF SECTION 20, TWP. 183, R.32E, N.M.P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN SAID NW/4 OF SEC. 20 IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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NOW on this 27th day of December, 1949 the Commission having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS:

1. That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

2. That the acreage involved in said application is Federally owned and the Supervisor of the United States Geological Survey interposes no objection to the proposal after applicant executes and files a non-segregation stipulation.

3. That applicant has officially filed said non-segregation stipulation.

4. That heretofore there has been drilled to the "red sand" four producing wells upon the NW/4 of said section 20.

5. That a fifth well 1214 ft. south of the north boundary and 1426 ft. east of the west boundary of section 20, township 18 south, range 31 east, N.M.P.M. in the Young pool, Lea County, New Mexico in all probability would recover oil that otherwise might not be recovered.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy, Jr. for an order granting permission to drill the fifth well, McCurdy-Young #5, 1214 ft. south of the north line and 1426 ft. east of the west line (NE/4 NW/4) of section 20,

Twp. 18 south, R. 31E., N.M.P.M. in the Young pool, Lea County, New Mexico be, and the same hereby is approved,

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PROVIDED FURTHER that a non-segregation stipulation satisfactory to the Supervisor of the United States Geological Survey is filed with the Commission.

DONE at Santa Fe, New Mexico on the date hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, MEMBER

R. R. SPURRIER, SECRETARY

LEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO January 9, 1950

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 hearing to be held January 24, 1950, beginning at 10:00 o'clock A.M. on that day in the City of Santa Fe, New Mexico, in the House of Representatives.

STATE OF NEW DEXICO TO:

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

Case 208

In the matter of the application of Culbertson and Irwin, Inc. to dually complete, for oil and gas production from two separate zones, namely, the Yates gas zone and the Queen oil zone, their Lankford No. 1 well, located 1650 ft. from the north line and 1650 ft. from the east line of section 25, township 23 south, range 36 east, N.M.P.M., Lea County, New Mexico.

Case 209

In the matter of the application of the Standard Oil Company of Texas, for an order of approval of the unit agreement for the development and operation of the Carrizozo Unit Area, within Townships 6, 7 and 8 south, Ranges 8 and 9 east, N.M.P.M. containing 45,223.09 acres, Lincoln and Socorro Counties, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico at Santa Fe, New Mexico, on January 10, 1950.

STATE OF NEW LEXICO OIL CONSERVATION COLLISSION

R. R. SPURIER, SECRETARY

SEAL

AFFIDAVIT OF PUBLICATION

State of New Mexico, County of Loa 1,600

Of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supple-

nt thereof for a period of . herinni with the issue dated nember 20, 1979 ending with the issue dated 23, 1949

Sworn and subscribed to before

in

Publisher.

me this day of. w, 19 + 9 Notary Public. Setty -МУ commission _, 19<u>5</u>3 an (Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

Nov. 20, 1949 NOTICE OF PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION The State of New Mexico by its OII Conservation Commission hereby gives public actice public ant to haw of a public hearing the hereby gives public for the public ant to haw of a public hearing the hereby gives public for the public att to hav of a public hearing the hereby gives public for the public att to hav of a public hearing the hereby gives public for the public att to hav of a public hearing the hereby gives public for the public hereby gives public for the public hearing the public hearing the hereby gives public for the public hearing the public hereby gives public for the public hearing the public hereby gives public for the public hearing the public hereby gives public for the public hearing the public hearin

bess STATE OF NEW MEXICO TO: All named parties in the following cases, and notice to the public; CASE 205 In the malter of the application of E. J. McCurdy of Fort Worth; True for an order authorizing the things of an inforthodox (fifth) bention to the "red sand"; and 1214 feet south of the north line and 1426 feet east of the west line (MR NW 4) of Section 20, Town: ship 18S, Range 32E N. M. P. M.: and to adjust the allowable for the five wells in the northwest quarter of said Section 20, in the Young Pool, Les County, New Mexico. Given under the seal of the Oil Conservation Commission of New Mexico, at Sauta Fe, New Mexico. of November 17, 1949. STATE OF NEW MEXICO. OIL: GONSERV ATION (SEAL) R. R. SPUBRIER: Secretary.

Affidavit of Publication ss. Will Harrison ., being first duly sworn, t I am the (Bunknessen (Editor) of the Santa Fe a daily newspaper, published in the English OIL ing a general circulation in the City and County of Santa Fe, State of being a newspaper duly qualified to publish legal notices and adver-e provisions of Chapter 167 of the Session Laws of 1937; that the which is hereto attached, was published in said paper mannahmentk for one time consecutive destruction of the maintenance of the second s the regular issue of the paper during the time of publication, and that the notice was published in the newspaper proper, and not in any supplement, our management for one time werter conservation being on the 21st November, 19 49 and the last publica-_day_of____ day of..... tion on the..., 19____; that payment for said advertisement has been (duly made), or (assessed as court costs); that the undersigned has personal knowledge of the matters and things set forth in this affidavit. lon ILAC PUBLISHER'S BILL Editor-Managan 46_lines, one time at \$____4.60 71a Subscribed and sworn to before me this. lines, _times, \$__ mber Ave ., A.D., 194 Tax \$ 4.60 Total \$ Notary Public Received payment, My Commission expires ne 14, 1953

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NOTICE FOR PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives public notice pursuant to law of a public hearing to be held December 1, 1949, beginning at 10:00 o'clock A.M. of 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 205

In the matter of the application of E. J. McCurdy of Fort Worth, Texas for an order authorizing the drilling of an unorthodox (fifth) location to the "red sand", and 1214 feet south of the north line and 1426 feet east of the west line (NE NW/4) of Section 20, Township 188, Range 32E, N.M.P.M., and to adjust the allowable for the five wells in the northwest quarter of said Section 20, in the Young Pool, Lea County, New Mexico.

Case 206

In the matter of the application of American Republics Corporation for an order authorizing the drilling of an unorthodox location for its C. A. Russell No. 10, well located 2200 feet south of the north line and 2665 feet west of the east line (SE/4 NW/4) of Section 18, Township 17S, Range 31E, N.M.P.M., in the Grayburg-Jackson Pool, Eddy County, New Mexico.

Given under the seal of the Oil Conservation Commission of New Mexico, at Santa Fe, New Mexico, on November 17, 1949.

> STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

unas

R. R. SPURRER, SECRETARY

January 4, 1950

Mr. Clarence E. Hinkle Hervey, Dou & Hinkle Rossell, New Maxico

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Dear Mr. Hinkles

RRS:by

We enclose herewith, signed copy of Order No. 849, issued by the Oil Conservation Commission, in connection with Case No. 205, heard in Santa Fe, New Mexico on December 1, 1949.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

R. R. Spurrier Secretary-Director UNITED STATES OF AMERICA DEPARTMENT OF THE INTERIOR BURBAU OF LAND MANAGEMENT WASHINGTON, D. C.

> IN RR: OIL AND GAS LEASE, LAS CRUCES SERIAL NO. 064175

Stor

STIPULATION FOR FURPOSE OF SECURING APPROVAL OF UNORTHODOX DRILLING LOCATION

KNOW ALL MEN HY THREE PRESENTS:

That the undersigned, E. J. McCurdy, Jr., being the owner and holder of that certain Oil and Gas Lease bearing Las Gruces Serial No. 064175 embracing NWE Sec. 20, T. 18 S., R. 32 E., N.M.P.H., for the privilege of drilling a well at an unorthodox location 1,214 feet South of the North line and 1,426 feet East of the West line of said Sec. 20, T. 18 S., R. 32 E., N.M.P.H., embraced in Oil and Gas Lease Las Gruces Serial No. 064175, hereby stipulates and agrees that he will not segregate by assignment or otherwise the NWE Sec. 20, T. 18 S., R. 32 E., N.M.P.H., until such time as said well, which is to be known as the McCurdy-Young Well No. 5 shall have been properly plugged and abandoned.

IN WITHERS WHEREOF, this Stipulation is executed by the undersigned on this $\frac{2^{2}}{2}$ day of December, 1949.

Sm Same

J. N. HERVEY HIRAN M. DOW GLARENCE E. HINKLE W. E. BONDURANT, JÅ. -GEORGE H. HUNKER, JR. LAW OFFICES HERVEY, DOW & HINKLE ROSWELL, NEW MEXICO

December 15, 1949

WILLIAH C. SCHAUER



Mr. R. R. Spurrier, Secretary New Mexico Oil Conservation Commission Santa Fe, New Mexico

1

Dear Dick:

I enclose herewith copy of stipulation for securing approval of unorthodox drilling location in connection with the E. J. McCurdy, Jr., lease, Las Cruces Serial No. 064175 covering the NW²/₂ Sec. 20, T. 18 S., R. 32 E.

We are also enclosing a copy of a similar stipulation executed by the Worth Drilling Company, Inc., et al in connection with the five spot location which you also recently approved. Both of these stipulations have been filed in triplicate with the local Supervisor of the U.S.G.S.

We apparently have not yet received copies of your orders approving these five spot locations, nor has Mr. Morrell, local Supervisor of the U.S.G.S. received copies. We would appreciate your letting us have copies of the orders as quickly as possible so that we may obtain the approval of notice of intention to drill by the local Supervisor.

With kindest regards, I am

Yours sincerely,

HERVEX, DOW & HINK By

CEH:rh Enc.

November 17, 1949

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Santa Fo, Nov Moxico

Ret Case 205 & 206 - Notice of Publication

Gentlemen:

Please publish the enclosed notice once, incodiately. Please proof read the notice carefully and send a copy of the paper carrying such notice

UPON COMPLETION OF THE PUBLICATION SEND PUBLISHER'S AFFIDAVIT IN DUPLICATE. For payment, please submit statement in duplicate, and sign and return the enclosed voucher.

Very truly yours,

STATE OF HEW IEXICO OIL CONSERVATION COMPLISSION

R. R. Spurior Societary-Director

RRS: by enal,

November 17, 1949

Rea.

HOBBS HEMS SUN

Hobbs, Neu Maxico

Ro: Case 205 - Notice of Publication

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Gentlemen:

Please publish the enclosed notice once, inmediately. Please proof read the notice carefully and send a copy of the paper carrying such notice to this office.

UPON COMPLETION OF THE PUBLICATION SEND PUBLISHER'S AFFIDAVIT IN DUPLICATE.

For payment, please submit statement in duplicate, and sign and return the enclosed voucher.

Very truly yours,

STATE OF HEN MEXICO OIL CONSERVATION CONSISSION

RRS:bw

R. R. Spurrier Secretary-Director



SKELLY OIL COMPANY

PRODUCTION DEPARTMENT J. S. FREEMAN VICE PRESIDENT E. A. JENKINS GENERAL SUPERINTENDENT

TÜLSÄ 2, ÖKLAHOMA

February 6, 1950

H. J. GIBBONS CHIEF ENGINEER G. W. SELINGER PRORATION ATTORNEY J. H. MCCULLOCH CHIEF CLERK

Re: Case No. 205 Rehearing

Mr. R. R. Spurrier Oil Conservation Commission Box 871 Santa Fe, New Mexico

Dear Sir:

We are in receipt of Notice of Rehearing in Case No. 205, whereby Order No. 849 was issued. Since this matter involves one of the basic principles of the method of provation generally in the state, we, as a substantial operator, are naturally interested although we are not directly offset to the NW/4 of Section 20-18S-32E.

Order No. 849 permits the assignment of four regular 40 acre top allowables to five wells drilled on the 160 acres described as NW/4 of Section 20, and we believe that it is the first departure from the Commission's policy of heretofore permitting additional wells only on a 40 acre unitized area unit. We believe that the Commission should continue its wise policy of permitting only . unitized areas to be accorded exceptions of this nature, and if possible, to continue the 40 acre units as such, that is, maintain the 40 acre unit top allowable to one or more wells that may be drilled on such 40 acre unit. Consideration of larger non-unitized tracts can lead to the creation of a great many new and complexing inequitable problems.

In the event a hearing is held in this matter we, therefore, trust that the Commission will note our views since it is of fundemental importance to the entire proration structure of the state.

> Very truly yours, Searce W. Selinger

DIL CONSERVATION COMMISSION FEB IA 1950

GWS/dd

cc: Mr. J. N. Dunlavey

205 Carlo

(copy)

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

P. 0. Box 997 Roswell, New Mexico January 27, 1950

Mr. F. M. Jacobson Buffalo Oil Company 808 Gulf States Building Dallas, Texas

Subject: "Five Spot" Location, E. J. McCurdy, Lease Las Cruces 064175.

Dear Mr. Jacobson:

Reference is made to our telephone conversation of this morning concerning the above subject on which Buffalo Oil Company has filed with the Oil Conservation Commission an application for a re-hearing of Commission order 849 dated December 27, 1949. The re-hearing has been set as case 205 to be heard in Santa Fe on February 8, 1950.

As I explained to you over the phone, it is the position of this office that the drilling of "five spot" wells is desirable from the standpoint of prevention of waste and of non-recovery of otherwise recoverable oil. The practice is well established in Eddy County and at least eight cases have been issued to date by the Oil Conservation Commission on a basis similar to that granted to Mr. E. J. McCurdy, Jr., under order 849.

Additional orders have been issued by the Commission for the drilling of unorthodox "five spot" locations in which the operator requested only a single allowable for the 40-acre proration unit on which a regular location as well as the unorthodox well might be located. However, it is the opinion of this office that additional incentive is necessary to encourage the drilling of additional "five spot" locations phroughout the general area. This incentive is made possible by the unitizing of tracts for allowable and proration purposes only. Under such conditions, the unitized tract is allowed to produce the normal top allowable for the number of developed 40-acre tracts in such unit. Most orders of this kind include a provision that no well on such unitized tract shall be permitted to produce at a rate in excess of the normal top allowable as fixed by the Commission. It is my opinion that this latter provision could and should be incorporated in an amendment to order 849 involving the tract of E. J. McCurdy, Jr. I understand from Mr. Clarence E. Hinkle, attorney for Mr. McCurdy, that there would be no objection to such an amendment to order 849. Such a limit on production from a single well is included in "five spot" orders 802 and 819.
The outcome of the Buffalo Oil Company application for rehearing will have considerable bearing on not only the cases outstanding but on all future cases for "five spot" locations irrespective of the desire of Buffalo Oil Company to hold its application to the single case at issue. Consequently, this office is materially interested in your application and, as stated to you over the pelephone, I must take the position of sustaining the existing order issued to McCurdy amended as outlined above.

If the principle involved in the McCurdy case is upheld it is my intention to call a meeting of all Eddy County operators soon in Artesia for the purpose of explaining to them the benefits that may accrue from the drilling of additional "five spot" locations and how they may be obtained. In other words, it is my intention to encourage such development to secure a greater ultimate recovery of oil from Permian formations in the Eddy County area including that portion of Lea County in Rs. 32 and 33 B.

I would appreciate it if you will phone me Monday, January 30, and advise the results of your discussion of the matter with Mr. Taubman. I would like to see the difference of opinion between Buffalo and McCurdy ironed out immediately and preferably before the hearing in Santa Fe on February 8. To this end, I am ready and willing to hold a meeting in Roswell of accredited representatives of Buffalo and McCurdy to fully discuss the subject and endeavor to arrive at an amicable agreement, unless the amendment to order 849, as suggested above, is satisfactory to Buffalo, in which case appropriate action can be taken without further conference in this office or in Santa Fe.

Very truly yours,

Foster Morrell Oil and Gas Supervisor Southwestern Region

Har? hun E.A.

Mr. Clarence Hinkle Hervey, Dow & Hinkle P. O. Box 547 Roswell, New Maxico

Dear Mr. Hinkles

Enclosed you will find signed copy of Case No. 205, Order No. R-10, issued in connection with the hearing held by the Oil Conservation Commission, in Santa Fe, New Mexico, February 8, 1950.

Please note changes from the original rough draft, in Paragraph 6b of the Findings, and sub-paragraph b, of the order.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

RRS:by

R. R. Spurrier Secretary-Director

Mr. H. G. Ellis Buffale Oil Company Box 217 Artesia, New Mexico

Dear Mr. Ellist

You will find enclosed, signed copy of Case No. 205, Order No. R-10, issued by the Oil Conservation Commission, in connection with the hearing held in Santa Fe, New Maxico, on February 8, 1950.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMPLISSION

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R. R. Spurrier Secretary-Director

RRSsbw encl.

Mr. E. J. MoOurdy, Jr. 1602 Fair Building Ft. Horth, Texas

Dear Mr. McCurdys

You will find enclosed, signed copy of Case No. 205, Order No. R-10, issued by the Oil Conservation Commission, in connection with the hearing held in Santa Fe, New Mexico, on February 8, 1950.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

nerer

R. R. Spurrier Secretary-Director

RRS:by

Mr. Foster Morrell 011 & Gas Supervisor U. S. G. S. Box 997 Roguell, New Maxico

Dear Hr. Morrell:

You will find enclosed, signed copy of Case No. 205, Order No. R-10, issued by the Oil Conservation Commission, in connection with the hearing held in Santa Fe, New Mexico, on February 8, 1950.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION CONDISSION

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R. R. Spurrier Secretary-Director

RRSibw encl.

REGISTERED HAIL

Mr. Glenn Staley Lea County Operators Committee Drawer I Hobbs, New Maxico

Dear Hr. Staleys

You will find enclosed, signed copy of Case No. 205, Order No. R-10, issued by the Oil Conservation Commission, in connection with the hearing held in Santa Fe, New Mexico, on February 8, 1950.

When this order is mineographed, may we please have five copies?

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMPLESSION

irrier

R. R. purpler Secretary Director

RRS:by

Mr. Jack Campbell Atwood, Malone and Campbell J. P. Mhite Building Resuble New Mexico

Dear Mr. Campbell:

Enclosed you will find signed copy of Case No. 205, Order No. R-10, issued in connection with the hearing held by the Oil Conservation Commission, in Santa Fe, New Mexico, February 8, 1950.

Please note changes from the original rough draft, in Paragraph 6b, of the Findings, and sub-paragraph b, of the order.

Very truly yours,

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

R. R. Spurrier Secretary-Director

RRS:bw encl. J. N. KERVEY HIRAH M. DOW CLARENCE E. HINKLE W. E. BONDURANT, JR. GEORGE H. HUNKER, JR. LAW OFFICES HERVEY, DOW & HINKLE ROSWELL, NEW MEXICO

February 15, 1950



Mr. R. R. Spurrier, Secretary New Mexico Oil Conservation Commission Santa Fe, New Mexico

Dear Dick:

205

We enclose original signed copy of stipulation which has been entered into by and between E. J. McCurdy and the Buffalo Oil Company in connection with the application of E. J. McCurdy for a five spot location in the NW¹/₂ Sec. 20, T. 18 S., R. 32 E., and which is along the lines of our discussion with you yesterday.

We also enclose original and copy of proposed order of the Commission based upon the findings of the Commission and the above mentioned stipulation.

We would appreciate your making an effort to have the order promptly signed and advising us by telegram the date it is signed, or if there is any change which you deem necessary I would like for you to call me by telephone.

We have advised Mr. McCurdy that since the stipulation has been entered into that the order would be promptly entered and that he would be safe in going ahead and completing the well.

With best regards we are

Yours very truly,

HERVEY, DOW & HINKLE

UN CONSER

FEB 16 1950

CEH:rh Enc.

cc: Mr. Jack Campbell Atwood, Malone & Campbell Roswell, New Mexico

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

In the Matter of the Application of E. J, McCurdy (also known as E. J. McCurdy, Jr.) for an Order Authorizing the Drilling of an Unorthodox (Fifth) Location to the "Red Sand" and 1,214 feet South of the North Line and 1,426 feet East of the West Line (NEHNWH) of Sec. 20, T. 18 S., R. 32 E., N.M.P.M., and to Adjust the Allowable for the Five Wells in said NWH of Section 20 in the Young Pool, Lea County, New Mexico.

Case No. 205

STIPULATION

It is hereby stipulated and agreed by and between E. J. McCurdy and the Buffalo Oil Company, acting by and through their respective attorneys of record in the above styled case, as follows:

1. That an order may be entered in the above styled case by the Commission approving the drilling of a well for oil and gas by E. J. McCurdy at an unorthodox location located 1,214 feet South of the North line and 1,246 feet East of the West line of Sec. 20, T. 18 S., R. 32 E., N.M.P.M., the same to be known as the McCurdy-Young No. 5 Well.

2. That the approval of the drilling of said well shall be conditioned upon the allocation of production thereto upon the following basis:

(a) That said well shall have a minimum allowable of 25 barrels per day from the time of its completion.

(b) Commencing with the next monthly proration
schedule after the entering of said order said fifth well
shall be allocated production in conjunction with the
E. J. McCurdy No. 4 Well located upon the NW¹/₄NW¹/₄ Sec. 20,
T. 18 S., R. 32 E., N.M.P.M., and that E. J. McCurdy and

his succesors in interest shall only be permitted to produce from said wells the allowable as fixed by the Commission for the forty acre proration unit described as the NW4NW4 of said Section 20, and in no event shall the combined daily production of the two wells exceed the top allowable as fixed by the Commission for such forty acre proration unit; provided, however, that said fifth well shall be permitted to produce as much as 25 barrels per day, if capable of doing so.

Dated this the 15th day of February, 1950.

HERVEX, DOW & HINKLE Attorneys for E. J. McCurdy

ATWOOD, MALONE & CAMPBELL By Ack M. Aughell Attorneys for Buffalo Oil Company

BUF CRE THE OIL CONSURVATION CAT ISSIDE OF THE STATE OF NEW DEXICO

IN THE LATTIR OF THE HEARING CALLED BY THE OIL CONSERVATION COLLISSION OF THE STATE OF NEW LEXICOFOR THE FURPOSE OF CONSIDERING:

> CASE NO. 205 ORDER NO. R-5

ORDER GRAINTING REHEARING

The Commission having herotofore entered Order No. 849 in this case granting the application of E. J. McCurdy for an unorthodox well location, and Buffalo Oil Company being an interested party, having filed a timely motion for rehearing,

IT IS THEREFORE ORDERED:

1. The motion for rehearing filed by Buffalo Oil Company is hereby granted.

2. The rehearing will be held at Capitol Building in Santa Fe, New Mexico on February 8, 1950, at 10,000 A.M. and notice thereof shall be given as provided by law.

DOME at Santa Fo, Now Mexico, on the 23rd day of January, 1950.

STATE OF NEW MEXICO OIL CONSERVATION CONTINUESION

/s/ THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, LEHEER

R. R. SPURRER, SECRETARY

LEA COUNTY GERATORS COLLETTEE HOBBS, NEW MEXICO JANUARY 25, 1950 BUFFALO OIL COMPANY Artesia, New Mexico 203 Carper Building

Jan. 18, 1950

OIL CONSERVATION COMMISSION La La La La La

Mr. Glenn Staley Lea County Operators Committee Hobbs, New Mexico

Dear Sir:

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A request for re-opening Case #205 and Order #849, which granted E. J. McCurdy, Jr., authority to drill a second well on a 40 acre unit in Section 20-185-32E, and makes possible the assigning of an allowable for a 40 acre unit, greater than State top, has been filed by the Buffalo Oil Company. This company operates an offsetting lease to the McCurdy lease and desires to change the method of assigning oil allowable as granted by Order #849.

You have our permission to circulate this letter as notification to other operators.

Yours very truly,

/s/ H. G. Ellis Vice President

HGE:gi

LEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO Jan. 19, 1950

AFFIDAVIT OF PUBLICATION

State of New Mexico, County of Les

Of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supple-

mont thereof for a period of beginning with the issue dated 2 ang 21, 1950 and ending with the issue dated 2 (近,19人) Publisher. Robert I. Sun

Sworn and subscribed to before

26 ma this day of_ , 19.50 Notary Public. Jette 0 6 commission MV expires anung <u>3 کـ 19</u> スふ (Seal) Û

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

J. McCurdy, Fort Worth, Texas; Buffalo Oil Company, % Jack M. Campbell, Rowell, New Mexico; Buffalo Oil Company, Artesia, New Mexico, and to all persons having an interest in. in;

all persons having an interest in: Case 205 In the matter of the Oil Conser-vation Commission's Order No. R-5, dated January 23, 1950, granting a reheating in Case 206 whereby E. J McCurdy Jr, was granted, by Order No. 849, De-cember 27, 1949, authority for an unorthodore, location, and Buffaio Oil Conservation, and Inter-ested parts for the sent of the Oil cation and the sent of the Oil cation and the sent of the Oil cation and the sent of the Oil Caterystics, Communa of New Mexico, at Santa Fs, New Moxico, on Lasury 23, 1950; STATE OF NEW MEXICO OIL CONSERVATION COMMISSION R. R. SPURKIER, Secretary (SEAL)

LEGAL NOTICE Jan. 25, 1950 NOTICE OF PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION The State of New Mexico by its Oil Conservation Commission hereby gives notice of public hearing to be held Fébruary 8, 1950 beginning at 16 00 o'clock A.M. on that day in the Capitol Building, Santa Fe, New Mexico STATE OF NEW MEXICO TO E. J. McCurdy, % Hervey, Dow and Hinkle, White Build-ing, Roswell, New Mexico; E,

(SËAL)



WITH REFERENCE HEARING FEBRUARY 85 ORDER 849 HUMBLE OIL & REFINING COMPANY APPROVES THE RIGHT OF ANY OPERATOR TO DRILL . AS MANY WELLS ON ANY 40 ACRE UNIT AS HE MAY DESTRE TO DRILL PROVIDED THE LOCATION OF SUCH WELLS IS IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE SPECIAL ORDERS OF THE CONSERVATION COMMISSION, AND FURTHER PROVIDED THAT THE DRILLING OF SUCH ADDITIONAL WELLS WILL IN NO EVENT RESULT IN THE ALLOWABLE FROM ANY 40 ACRE UNIT BEING INCREASED ABOVE THE AMOUNT WHICH SUCH 40 ACRE UNIT WOULD RECEIVE FROM ONE UNPENALIZED TOP UNIT ALLOWABLE WELL COMPLETED ON THE UNIT STOP TO PERMIT THE ALLOWABLE OF ANY 40 ACRE UNIT TO BE INCREASED ABOVE UNPENALIZED TOP UNIT ALLOWABLE JEOPARDIZES THE FIFTEEN YEAR OLD SYSTEM OF ALLOCATION IN LEA COUNTY AND CONTRAVENES SECTION 13 OF THE CONSERVATION STATUTES BY CREATING WASTE IN FORCING OPERATORS TO DRILL WELLS WHICH ARE NOT REASONABLE NECESSRY TO SECURE THEIR PROPORTIONATE SHARE OF THE PRODUCTION= J W HOUSDE CONSERVATION COMMISSION

HUMBLE OIL AND REFG CO BY

COMPANY WILL APPRECIATE SUGGESTIONS PRO

8 849 40 40 40 40=

oie conservation comm Jeomany 8, 1950 address Represente Interia, nm Preecir lyth I Ina, GUM anglell Roswell MM " John Milly Roswell NM ESMilurly In Hoymin & Edward Forthout 2 5 mily Hord Bradish M.T. Mileo anteria MMM, 11 my land in Fort inter into my burg GENERAL AMERICAN tarine Hentle HAME GOLMERIN, JR ARTESIA, N. M. OIL CO. OF TEXES. R/Aferd. Crasia Up pourselp 2000 HILLS, N. MEX. B.J. Miller Artesia, N.M. " Foster Morrill Roswell, n. In. U.S. Geol, Survey W.B. Macey artered p. m. american Republies C. the Philiamson Nouston Jeras Umerum Kep Carpon Exercice aptesia, NW MM Bur g mines 7. Barnis Santa Fe Oil Coura R.M. Blagden Santa Fo allenguerpus Janual Betty Histrand Sate 7. Oil Commission Glebin States Hobbonim Leo Country Operators Elnis & Chit Scirila Do. A. Hey, Oil Com Commen Holey N.M. oil Conterna ROU. O. Marker Might Austennew and adera Arbain nm Willow Cit Co Kaymon Lawt R.L. adams It. World, Jiy Continentaboillo Jack R. Huffunger Artesia, N.M. American Republics Con C. N. Brock arteria 71 M. Dreck Buckdhilly C. M. Brock asteria 7 m Brock Buckdhilly WORTH DRILLING CO...INC WILLIAMD. MORAIS FORTWORTH. TERAS. Januar Huihl House, Dursting Rowell. M. M.

ORH 829 2-49

STANOLIND OIL AND GAS COMPANY

FORT WORTH, TEXAS

C. F. BEDFORD Division Production Superintendent

February 6, 1950

Subject: Rehearing Case No. 205 Order No. 849, New Mexico Oil Conservation Commission

State of New Mexico Oil Conservation Commission Santa Fe, New Mexico

Gentlemen:

This will have reference to Case No. 205, Order No. 849, as well as Order R-5 granting Buffalo Oil Company's motion for rehearing on Case No. 205.

At the outset, Stanolind Oil and Gas Company would like to respectfully point out that it has no immediate interest in the Young Pool nor in the area immediately surrounding. Stanolind does feel, however, that the consequences of Order No. 849, if allowed to stand unmodified, may establish a dangerous precedent throughout the State of New Mexico and eventually lead to the complete disruption of the present system of forty (40) acre unit allocation in this state.

We respectfully invite your attention to the next to last paragraph of Order No. 849 which reads as follows: "Provided however, that the production from the five wells shall be promated and never be allowed to produce in excess of the allowable for four regular 40-acre tracts as now or may hereafter be allocated to the Young Pool - - ." At its face value this paragraph does not appear particularly offensive; however, if one delves into and regards it closely, it is seen that the ramifications are widespread. We have made a thorough study of the order and, in our opinion, it has the following objectionable implied provisions:

1. It sets up a lease allowable as apposed to the 40-acre unit allowable.

2. It allows the lease, when the productivity of one or all of the wells thereon decreases to the "stripper" stage, a decided advantage over the offset leases due to the fact that allowable at such time will then be on a "per well" basis.

3. It tacitly approves the taking of the entire lease allowable from any one of the five wells which in turn would permit the operator to

Page 2

take the entire lease allowable from one of the outside wells and, in so doing, effect immediate drainage from the offset lease or leases.

4. It allows this lease to drain more than its fair share of the reserves, therefore, not protecting correlative rights.

5. It allows the drilling of wells which will not increase ultimate recovery, thereby resulting in waste of natural resources and, in so doing, reducing the resources available for the finding and developing of additional reserves.

6. It tends to jeopardize the entire system of forty (40) acre unit allocation in New Mexico.

We respectfully urge the Commission to set aside this order or, in the alternative, to modify same to the end that production will be allocated on the forty (40) acre unit basis.

Yours very truly,

C. J. Bulford

BRL/ek

aunda Statement

An extra well on a proration unit should not be allowed where the existing well is capable of making the full allowable. If an extra well is permitted to be drilled on a proration unit, it should only be for good cause shown after notice and hearing before the Commission. In the event any operator, after such hearing, drills more than one well to the same producing horizon on any authorized proration unit and in accordance with the rules and regulations or special orders of the Commission, the additional well or wells on the unit should not result in the allowable oil or gas production for such <u>unit</u> being increased above the amount which such <u>unit</u> would receive from one unpenalized top unit allowable well on the unit.

BUFFALO OIL COMPANY A Maryland Corporation

Artesia, New Mexico Box 517 May 14, 1948

Mr. John A. Frost U. S. Geological Survey Ward Building Artesia, New Mexico

Dear Mr. Frost:

Attached hereto you will find a Notice of Intention to Drill the Buffalo Oil Company No. 1 Cox, to be located in the Center SW1 SE1 SW2 section 17, T. 18S., R. 32E., Lea County, New Mexico. Since this is a Center 10 acre location, the purpose of this letter is to explain our reasons for applying for it rather than in regular Center 40 acre unit location.

This proposed location is a direct north offset to the E. J. McCurdy, Jr. No. 1 Young, which was the discovery well of the Young Pool. That well was completed in February 1945, with an initial flowing gauge of 47 barrels of oil in three hours from a total depth of 3783! with the pay being from the Artesia Red Sand of the Queen formation. Our last information on that test was that it now pumps approximately 50 barrels of oil per day.

After the completion of the No. 1 Young by McCurdy, the Minn-Tex Oil Company of Dallas, Texas, drilled their No. 1 Young in the Center SW1 SE1 of Section 17, which is a direct east offset to the unit on which we now propose to drill. This test was completely dry in the Artesia Red Sand, yet the sand itself appeared to carry as much porosity as that encountered in the McCurdy No. 1 Young. On the top of the Artesia Red Sand the Minn-Tex test was only 9 feet lower than McCurdy No. 1 and was one foot higher than McCurdy No. 2, located in the Center SE1 NW1 of Section 20 and 4 feet higher than McCurdy No. 3, located in the Center SW1 NW2 of Section 20, both of which were completed as producers. Structure does not, therefore, seem to be the basic reason for the accumulation in the Red Sand in this Field. It is our interpretation that acculation is due to a shoreline or near shore line bar deposit of clean sand with a barrier of silt within the sand, causing the trap. Such a barrier must <u>occur within the sand</u> between the Min-Tex dry hole and the four producing wells on the McCurdy Lease in Section 20.

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P Y Page 2 - John A. Frost 5/14/48

Naturally further development towards the north of the present producers would be quite hazardous and it is our desire to reduce these hazards as much as possible by drilling as far south and west on this unit as permissible.

By dilling in the southwest corner of this 40 acres, we will only be 330 ft. north of our lease line. We do not believe, however, that the McCurdy Lease to the south will suffer any drainage from such a location, as it is our information that his No. 1 Young has produced in excess of 60,000 barrels of oil and is now capable of producing only approximately one-half of its original potential. If any migration can be expected across the lease line, which is doubtful, we would expect it to be towards the south, rather than towards the north.

If there be any further information you might need before approving our application please advise.

Sincerely yours,

BUFFALO OIL COMPANY

By WILTON E. SCOTT Wilton E. Scott

Exhibit K

BUFFALO OIL COMPANY

A MANYLAND CORPORATION

Artesia, New Mexico Box 517 August 3, 1948.

Mr. E. J. McCurdy, Jr. 1602 Fair Bldg., Fort Worth 2, Texas.

Dear Mr. McCurdy:

RE: Buffalo Oil Company #1 Cox, Young Pool, Lea County, New Mexico

The U. S. Geological Survey has advised us that you object to the drilling of our #1 Cox in its present location, which is 330 feet from the South and 1650 feet from the West Lines of Section 17-138-32E., Lea County. The object of this letter is to explain to you our reasons for making a request for this Center 10 acre location, instead of the standard Center 40 acre location and, if you still object after considering our views, to arrange a meeting with you so that we may further discuss the matter in question.

Since you have drilled all of the presently producing wells in the Young Pool we know that you are rather thoroughly familiar with the sub-surface conditions under which the field produces, but we doubt that you have seriously considered it from the point of view of evaluating the possibilities of the 40 acre unit on which we propose to drill. As you know, structural position alone, as reflected on the top of the queen formation, will not account for the accumulation and also the dry hole located in the Center SW1SE1 of Section 17. That test, which is the Minn-Tex Oil Company #1 Young, encountered the top of the Artesia Red Sand at a depth of 3752' (minus 2), which is only 11 feet lower than your #1 discovery well and 1 foot higher than your #2 producer and 4 feet higher than your #3 producer. This test had a good development of the Artesia Red Sand and, although o drilled with cable tools, failed to encounter any show of oil, gas or water in the sand. This has lead us to believe that pr duction in the Young Pool is due to a stratigraphic trap within the Artesia Red Sand, probably due to a near-shore bar condition at the time the sand was deposited, with this dry hole being separated from the producers to the southwest by a silty condition that could be anticipated on the sides of such an off-shore bar. Your #3 Young encountered the top of the Queen formation, according to my correlation, 4 feet lower than that point in the #2 Young, one location to the east, yet normally it would be expected to be higher. This would indicate a very slight closure on the top of the Queen formation running in a northwest-southeast direction. It is our interpretation that this very slight

COPY



Page 2 - E. J. MoGurdBUPFALO OIL COMPANY R-3-48

structural condition is not due to any folding of the formation, but rather reflects a slight build-up of the sand on the off-shore bar. We think that your #1 Young is the best well so far drilled in the pool, because it had a thick development of the sand at this point and also because under the conditions described above, you would naturally expect the cleanest sand to be deposited on the seaward side of such an off-shore bar, and this well would amear to be located in about that position.

We consider our entire Cox lease, which covers the BW; of Section 17, as being rather hazardous to develop due to the anticipated unusual character of this reservoir. This is the reason we have not previously decided to offset either of your two producers just south of our lease line. From all the information we now have, we think the field will be rather limited in area. After following the production of this lease since its discovery, we have decided, however, that due to the relatively high recovery from your #1 well, that at least a part of our lease may be productive and have decided to drill a well in the Center of the southwest 10 sores of the 40 sore unit offsetting your #1 well to ascertain the productivity of that unit. We did not anticipate an objection from you as to this location as it did not seem feasible to us under the circumstances you would feel that there was any possibility of such a location draining any oil from your offsetting lease. Your #1 Young has been producing in excess of three years, during which time it has shown, we understand, a reasonable decline in production and if it is possible, under the reservoir conditions as existing in the Young Pool, for one well to drain in excess of 40 acres and 1f any part of cur 40 acre offsetting unit is productive, then we believe that it has already been subjected to such drainage. It will be hard to believe that at this late date any such migration that might have already been started 'could now be reversed by the drilling of a well 330 feet north of your lease line.

We believe that you will understand that it is our intent under these circumstances merely to secure only that production which might underlie our lease, and certainly not to injure any offsetting lease in any way. We do not believe that the risk involved would warrant the drilling of a test further north than that location proposed. If a commercial producer is secured at the proposed location we would not attempt to drill closer than 660 feet to our south lease line in developing the west offsetting 40 acre unit. Due to the risk involved, we would not at this time feel justified in drilling any location on our lease other than the one we have requested.

COPY



- B. J. Macurdy. LO'OIL COMPANY

We respectfully request that you give this matter serious consideration and since we would like to drill our well this year, we would apprediate receiving a reply at your earliest convenience. If we are unable to reach a mutual agreement on this matter, we would like for you to join with us in requesting the Supervisor of the U.S. Geological Survey at Roswell to call a meeting at the carliest feasible date of all interested parties so that we may discuss the matter in detail and errive at a fair and just settlement.

Youns very truly,

BUFFALO GIL COMPANY

TAMOR 6. 5 37

Milton E. Scott, Geologist

WES:1t cc: F. '. Jacobson Dall's, Toxas

Read (Preserve

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COPY

ILLEGIBLE

McElroy Ranch Company Oil Production and Royalties Cattle Growers

Lester 8. Grant Manager 114 Leggett Building Box 912 Midland, Texas.

August 9, 1948

Mr. E. J. McCurdy, Jr. 1602 Fair Building Fort Worth, Texas

Dear Mr. McCurdy:

Replying to the letter received from the Buffalo Oil Company geologist, Mr. Wilton E. Scott, and which you handed me in Fort Worth:

The argument of Mr. Scott regarding the underground conditions along the line of our Young Lease and the Buffalo property seems to be one of having made the conditions fit his case, as I do not believe it possible that any geologist can say where there is or where there is not a silting up in any of those sands. I am entirely unimpressed by his argument. Mr. Scott also says that they wish to recover only the oil under their acreage. There is one simple and sure way to insure this and that is for them to conform to the pattern already established. We certainly recommend that you take such action as is necessary to prevent them from drilling on a location 330 feet from our line. That a geologist can tell that there will be a change of formation within 330 feet is too ridiculous to need comment.

While we would have no objection to meeting Mr. Scott and his people before the Supervisor of the United States Geological Survey at Roswell, we see no need whatever for the meeting as the law is clear on the matter and the expenses of attendance by you or other representative of the Joint Account would be considerable and should be borne by them in such case.

With kkndest regards,

Sincerely yours,

/s/ Lester S. Grant

LSG:gh



BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

In the Matter of the Application of E. J. McCurdy (also known as E. J. McCurdy, Jr.), for an Order Authorizing the Drilling of an Unorthodox (Fifth) Location to the "Red Sand" and 1,214 feet South of the North Line and 1,426 feet East of the West Line (NE4NW4) of Sec. 20, T. 18 S., R. 32 E., N.M.P.M., and to Adjust the Allowable for the Five Wells in said NW4 of Section 20 in the Young Pool, Lea County, New Mexico.

Case No. 205

Order No. R-10

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for rehearing at 10:00 o'clock A. M. on February 8, 1950, at Santa Fe, New Mexico, before the 011 Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW on this <u>17th</u> day of February, 1950, the Commission having considered the transcript of testimony introduced at said rehearing and also having considered a stipulation filed herein by and between E. J. McCurdy and the Buffalo Oil Company, acting by and through their respective attorneys of record,

FINDS:

1. That due public notice was given and published as required by law and that the Commission has jurisdiction of this cause.

2. That E. J. McCurdy is the owner and holder of a certain oil and gas lease issued by the United States embracing the NW¹ Sec. 20, T. 18 S., R. 32 E., N.M.P.M., Lea County, New Mexico, located in what is known as the Young Pool.

3. That E. J. McCurdy has heretofore caused producing wells to be drilled in approximately the center of each legal subdivision of the said NW¹/₄ Section 20, which said wells are producing from the "Red Sand" formation.

4. That E. J. McCurdy is in the process of drilling a fifth well 1,214 feet South of the North boundary and 1,426 feet East of the West boundary of Sec. 20, T. 18 S., R. 32 E., N.M.P.M., which said well is being drilled pursuant to the previous order entered in this cause on December 27, 1949.

5. That it was intended that said fifth well be located in approximately the center of the NW_4^1 of said Section 20, and was located at the location described above due to topographical conditions of the area, and also due to the presence of certain physical installations which could not be disturbed except at considerable expense.

6. That E. J. McCurdy and the Buffalo Oil Company, acting by and through their respective attorneys of record, have entered into a stipulation which has been filed in the above styled case agreeing to the allocation of production to said fifth well upon the following basis:

- a. That said well shall have a minimum allowable of 25 barrels per day from the time of its completion.
- b. Commencing with the next monthly proration schedule after the entering of this order said fifth well shall be allocated production in conjunction with the E. J. McCurdy No. 4 Well located upon the NWHNWH Sec. 20, T. 18 S., R. 32 E., N.M.P.M., and that E. J. McCurdy and his successors in interest shall only be permitted to produce from said wells the allowable as fixed by the Commission for the forty acre proration unit described as the NWHNWH of said Section 20, and in no event shall the combined daily production of the two wells exceed the top allowable as fixed by the Commission for such forty acre proration unit; provided, however, that said fifth well shall be permitted to produce as much as 25 barrels per day, if capable of doing so.

7. That a non-segregation stipulation satisfactory to the Supervisor of the U. S. Geological Survey has heretofore been filed with the Commission.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy for an order granting permission to drill a fifth well designated as the McCurdy-Young No. 5, 1,214 feet South of the North line and 1,426 feet East of the West line of Sec. 20, T. 18 S., R. 32 E., N.M.P.M., in the Young Pool, Lea County, New Mexico be, and the same hereby is approved.

IT IS FURTHER ORDERED by the Commission that production from said fifth well shall be allocated upon the following basis:

- a. That said well shall have a minimum allowable of 25 barrels per day from the time of its completion.
- b. Commencing with the next monthly proration schedule after the entering of this order said fifth well shall be allocated production in conjunction with the E. J. McCurdy No. 4 Well located upon the NWHNWH Sec. 20, T. 18 S., R. 32 E., N.M.P.M., and that E. J. McCurdy and his successors in interest shall only be permitted to produce from said wells the allowable as fixed by the Commission for the forty acre proration unit described as the NWHNWH of said Section 20, and in no event shall the combined daily production of the two wells exceed the top allowable as fixed by the Commission for such forty acre proration unit; provided, however, that said fifth well shall be permitted to produce as much as 25 barrels per day, if capable of doing so.

- 2 -

IT IS FURTHER ORDERED that the order of the Commission heretofore entered in this matter upon December 27, 1949 be, and the same is hereby rescinded and shall be of no further force or effect, the same being superseded by this order.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

Suyshepard R. R. Spursier



BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

In the Matter of the Application of E. J. McCurdy (also known as E. J. McCurdy, Jr.), for an Order Authorizing the Drilling of an Unorthodex (Fifth) Location to the "Red Sand" and I,426 feet East of the West Line (NEINH) of Sec. 20, T. 18 S., R. 32 E., N.M.P.M., and to Adjust the Allowable for the Five Wells in said NHT of Section 20 in the Young Pool, Lea County, New Mexice.

Case No. 205 Order No. R-LO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on fer rehearing at 10:00 etcleck A. M. on February 8, 1950, at Santa Fe, New Mexice, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 23rd day of February, 1950, the Commission having considered the transcript of testimony introduced at said rehearing and also having considered a stipulation filed herein by and between E. J. McCurdy and the Buffalo Oil Company, acting by and through their respective attorneys of record,

FINDS:

1. That due public notice was given and published as required by law and that the Commission has jurisdiction of this cause.

2. That E. J. McCurdy is the owner and holder of a certain oil and gas lease issued by the United States embracing the NWT Sec. 20, T. 18 S., R. 32 E., N.M.P.M., Lea County, New Mexico, located in what is known as the Young Pool.

3. That E. J. McCurdy has heretofore caused producing wells to be drilled in approximately the center of each legal subdivision of the said NWT Section 20, which said wells are producing from the "Red Sand" formation.

4. That E. J. McCurdy is in the process of drilling a fifth well 1,214 feet South of the North boundary and 1,426 feet East of the West boundary of Sec. 20, T. 18 S., R. 32 E., N.M.P.M., which said well is being drilled pursuant to the previous order entered in this cause on December 27, 1949.

5. That it was intended that said fifth well be located in approximately the center of the NW1 of said Section 20, and was located at the location described above due to topographical conditions of the area, and also due to the presence of certain physical installations which could not be disturbed except at considerable expense.

6. That E. J. McCurdy and the Buffale Oil Company, acting by and through their respective attorneys of record, have entered into a stipulation which has been filed in the above styled case agreeing to the allocation of production to said fifth well upon the following basis:

- a. That said well shall have a minimum allowable of 25 barrels per day from the time of its completion.
- b. Commencing with the next monthly proration schedule after the completion of said fifth well, production from the fifth well shall be allocated in conjunction with the E. J. McCurdy No. 4 Well, located upon the NW1NW1 Sec. 20, T. 18 S., R. 32 E., N.M.P.M., and that E. J. McCurdy and his successors in interest shall only be permitted to produce from said wells the allowable as fixed by the Commission for the forty acre proration unit described as the NW1NW1 of said Section 20, and in

no event shall the combined daily production of the two wells exceed the top allowable as fixed by the Commission for such forty acre proration unit; provided, however, that said fifth well shall be permitted to produce as much as 25 barrels per day, if capable of doing so.

7. That a non-segregation stipulation satisfactory to the Supervisor of the U.S. Geological Survey has heretofore been filed with the Commission.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy for an order granting permission to drill a fifth well designated as the "cCurdy-Young No. 5, 1,214 feet South of the North line and 1,426 feet East of the West line of Sec. 20, T. 18 S., R. 32 E., N.M.P.M., in the Young Pool, Lea County, New Mexico be, and the same hereby is approved.

IT IS FURTHER ORDERED by the Commission that production from said fifth well shall be allocated upon the following basis:

a. That said well shall have a minimum allowable of 25 barrels per day from the time of its completion.

b. Commencing with the next monthly proration schedule after the completion of said fifth well, production from the fifth well shall be allocated in conjunction with the E. J. McCurdy No. 4 Well, located upon the NW1NW1 Sec. 20, T. 18 S., R. 32 E., N.M.P.M., and that E. J. McCurdy and his successors in interest shall only be permitted to produce from said wells the allowable as fixed by the Commission for the forty acre proration unit described as the NW1NW1 of said Section 20, and in no event shall the combined daily production of the two wells exceed the top allowable as fixed by the Commission for such forty acre proration unit; provided, however, that said fifth well shall be permitted to produce as much as 25 barrels per day if capable of doing so.

IT IS FURTHER ORDERED that the order of the Commission heretofore entered in this matter upon December 27, 1949 be, and the same is hereby rescinded and shall be of no further force or effect, the same being superseded by this erder.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, M ssur

R. R. SPURRER, SECRETARY

COPY

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 200 ORDER NO. 848

THE APPLICATION OF WORTH DRILLING COMPANY, INC. FOR AN ORDER AUTHORIZING AN UNORTHODOX LOCATION FOR THE A. C. TAYLOR WELL NO. 7A, 25 FT. NORTH OF THE SOUTH BOUNDARY AND 1295 FT. EAST OF THE WEST BOUNDARY (SW/4) OF SECTION 12, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M., IN THE NORTH SHUGART POOL, EDDY GOUNTY, NEW NKIGO.

ORDER OF THE COMMISSION

This matter came on regularly for hearing at 10:00 o'clock A.M. on the 22nd day of November, 1949 at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico hereinafter referred to as the "Commission".

NOW on this 27th day of December, 1949, the Commission having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS:

1. That due public notice having been given as required by law, the Commission has jurisdiction of this case.

2. That the acreage involved is Federally owned and the Supervisor of the United States Geological Survey interposes no objection to the proposal after applicant executes and files a non-segregation stipulation.

3. That applicant has officially filed said non-segregation stipulation.

4. That heretofore there has been drilled to the ("red sand") four producing wells upon the SW/4 of said Section 12, Township 18 South, Range 31 East, N.M.P.M.

5. That a fifth well 25 ft. north of the south boundary and 1295 ft. east of the west boundary of said Section 12 in all probability would cause recovery of oil that otherwise might not be recovered.

IT IS THEREFORE ORDERED that the application of Worth Drilling Company, Inc. for an order authorizing the drilling of a fifth well, 25 ft. north of the south boundary and 1295 ft. east of the west boundary (SW/4) of Section 12, Township 18 south, Range 31 east, N.M.P.M. in the North Shugart pool, Eddy County, New Mexico, be and the same hereby is approved.

PROVIDED HOWEVER that the production from the five wells shall be prorated and never produced in excess of the allowable for four 40-acre units within the North Shugart pool, Eddy County, New Mexico, and,

COPY

PRÓVIDED FURTHER that a non-segregation stipulation satisfactory to the Supervisor of the United States Geological Survey is filed with the Commission.

DONE at Santa Fe, New Mexico on the date hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

THOMAS J. MABRY, CHAIRMAN

GUY SHEPARD, MEMBER

<u>ن</u>

R. R. SPURRIER, SECRETARY

I, R. R. SPURRIER, Secretary and Director of the New Mexico Oil Conservation Commission, certify that this is a true and correct copy of Order No. 848, on file in the Commission's office at Santa Fe, New Mexico.

Dated: February 7, 1950.

R. R. Gussie

CQPX

BEFORE THE OIL CONSERVATION COMUSSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE NEW MEXICO OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:

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Beile at Barts Pa, not neclos, an six Conten No. 727 " " as so das troches "

IN THE MATTER OF THE APPLICATION OF BARNEY COCKBURN, INC. FOR AN UNORTHODOX WELL LOCATION IN THE NET OF THE SW1 (1330 FT. NORTH OF THE SOUTH LINE AND 1330 FT. EAST OF THE WEST LINE) OF SECTION 29, TOWNSHIP 17 SOUTH, RANGE 33 EAST IN LEA COUNTY, NEW MEXICO, IN CONNECTION WITH AN APPLICATION FOR UNIT OPERATION OF NEW MEXICO STATE OIL AND GAS LEASE NO. B-2516 INSOFAR AS IT COVERS THE SW1 OF SECTION 29, TOWNSHIP 17, SOUTH, REAL AND REAL

ORDER OF THE COMMISSION

BY THE COMMISSION DER decreases and Director of the New Maxico Gil Conservation Dorminsten, costify that this is a true and correct copy of Orthis matter came on regularly for hearing at 10:00 o'clock A.M., July 15, 1947, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico hereinafter, referred to as the "Commission."

NOW, on this 26th day of September, 1947, the Commission having before it for consideration the testimony adduced at the hearing of said cause and being fully advised in the premises;

FINDS:

1. That lawful public notice having been given the Commission has jurisdiction of this cause;

2. That State Oil and Gas Lease No. B-2516 insofar as the same covers the SWL of Section 29, Township 17 South, Range 33 East, in the Maljamar Pool, Lea County, New Mexico, is owned by Barney Cockburn, Inc., and there now is four regularly spaced producing oil wells thereon;

3. By reason of the sub-surface geology obtained in the Maljamar Pool, there is a question whether maximum ultimate recovery of oil may be had by one well to each 40-acre tract;

4. That the Commissioner of Public Lands of the State of New Mexico has heretofore approved a unit agreement for the 160-acre tract;

5. That the unit allowable in the Maljamar Pool is 25 barrels of oil per day.

6. That the Commission has no objection to an unorthodox well location in the approximate center of the unit, provided production from the unit area will not exceed the allowable in the pool for four 40-acre tracts.

IT IS THEREFORE ORDERED:

a. That the application of Barney Cockburn, Inc.¹ for the unitization of New Mexico State Oil and Gas Lease No.⁶ B-2516 insofar as the same covers the SW1 of Section 29, Township 17 South, Range 33 East, hereinafter termed the COCKBURN UNIT is approved by John E. Miles, Commissioner of Public Lands of the State of New Mexico, be and the same is hereby approved; provided, however, that the applicant Barney Cockburn, Inc., shall within a reasonable time file a statement with the "Commission" and with the New Mexico State Land Office designating the unit operator, together with a general plan of operations for the unit. b. That proper notice of intention to drill an additional well to be known as Shell State Well No. 5 in the NEZ of the SWH (1330 feet north of the south line and 1330 feet east of the west line) of Section 29, Township 17 South, Range 33 East in the Maljamar Pool, Lea County, New Mexico, will be approved by the Commission upon presentation, provided other requirements of the Commission have been met.

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c. That in event of production from the fifth well the unit shall not be produced in excess of the unit allowable in the Maljamar Pool for four 40-acre tracts.

DONE at Santa Fe, New Mexico, on the year and date hereinabove designated.

OIL CONBERVATION COMMISSION

s/ THOMAS J. MABRY, CHAIRMAN

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s/ JOHN E. MILES, MEMBER

s/ R. R. SPURRIER, SECRETARY

I, R. R. SPURRIER, Secretary and Director of the New Mexico Oil Conservation Commission, certify that this is a true and correct copy of Order No. 727, on file in the Commission's office at Santa Fe, New Mexico.

Dated: February 7, 1950.

l. R. Jursias

BEFORE THE

OIL CONSERVATION COMPLISSION

OF THE STATE OF NEW KENICO

IN THE MATTER OF A HEARING CALLED BD THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 119

·Exhibit C

ORDER NO. <u>741</u>

THE APPLICATION OF G. B. SUPPES, D. D. THEMAS, CARPER DRILLING COMPANY, INCOMPORATED, AND TEXAS THADING COMPANY FOR AN ORDER OF APPROVAL OF AN UNORTHODOX SPACING AND PROMATION PLAN COVERING AND INCLUDING SECTIONS 28, 33, and 34, TOWNSHIP 16 BOUTH, RANGE 30 EAST, N.M.P.M., WITHIN THE SQUARE LAXE FIELD, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COERISSION

BY THE COUNISSION:

This cause came on for hearing at 10,000 o'clock A.K., February 17, 1948, at Santa Fe, New Mexico, Before the Oll Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 9th day of April, 1948, the Cormission having before it for consideration the testimony adduced at the hearing of said case and being fully advised in the premises;

FINDS:

1. That due public notice having been given as provided by law, the Commission has jurisdiction hereof;

2. That the entire area involved in the application is Pederal acreage, and the United States Coological Survey, through its Oil and Cas Supervisor, has approved the proposed spacing and provation plan.

3. That the spacing plan, plat of which was submitted with the application, provides for Sections 28, 03, and 34,

Township 16 South, Hange 30 East, N.M.P.H., in the Square Lake Pool, Eddy County, New Mexico, to be divided into twenty-four tracts of 80 acres each, with primary, or locations to be drilled first, 330 feet from the west lines and 1370 feet from the north lines of the respective tracts, and secondary or optional locations 330 feet from the east lines, and 1270 feet from the north lines of such tracts, and which plan would result in some convonience to the operators and afford an opportunity for greater recovery of oil and gas in the Square Lake Pool.

IT IS THEREFORE CADERED that the applicants herein are hereby authorized to, for spacing and proration purposes, and in full compliance with all applicable rules of the Commission, to divide Sections 28, 33, and 34, Township 16 South, Hange 30 East, N.N.P.M. in the Square Lake Pool, Eddy County, New Mexico, into BO-acre tracts as per application and plat thereto attached, PhOVIDED, that primary locations for wells or locations to be drilled first shall be located 330 feet from the west lines and 1370 fast from the north lines of the respective 80-acre tracts, and the secondary or optional locations shall be 330 feet from the east lines and 1270 feet from the north lines of the said tracts respectively;

PROVIDED FURTHER, that if any one or all of the applicants herein desire or elect to drill upon a secondary location as hereinabove described, offset owners, the Commission, and the Oil and Gas Supervisor shall be notified; that such owners of offset acreage, or any uninterested parties, shall have ten days from date of receipt of such notice in which to protest to the Commission, which Commission, upon receipt of any proper protest shall call an immediate special hearing thereon and determine the matter. In case no timely protest is filed the applicants or any of them may proceed hereunder;

PROVIDED FURTHER, that the proration plan herein provided for covering Sections 23, 33, and 34 in Township 16 South, Range 30 East, within the Square Lake Pool shall after the entry of this Order be based upon 80-acre units, provided that production from such tracts irrespective of the number or location of wells shall in no case exceed the allowable for two 40-acre tracts in the Square Lake Pool as now, or which may hereafter be, fixed therefor.

PROVIDED FURTHER, that in the development and production of the units as provided for herein, all rules and regulations of the Commission, applicable to the Square Lakes Pool shall be complied? with, and applicants or any of them proposing to drill are required hereunder, to file copies of Federal location notices with the Commission for its information.

IT IS FURTHER ONDERED, that jurisdiction of this case is hereby retained by the Commission for the purpose of issuing any further order or orders as may be necessary or desirable in the premises. DONE at Santa Pe, New Moxico, on the day and year hereinabove designated.

STATE OF NEW MENICO OIL CONSERVATION COMMISSION

Whee Part shall be s

Chalrman Nember

Secretary

I, R. R. SPURRIER, Secretary and Director of the New Mexico Oil Conservation Commission, certify that this is a true and correct copy of Order No. 741, on file in the Commission's office at Santa Fe, New Mexico.

Dated: February 7, 1950.

L. Coussies
Exhibit E

DEFUNE THE OIL CONSERVATION CONTINUES OF THE STATE OF NEW MERICO

IN THE MATTER OF THE BRAATHO CALLED BY THE NEW PERICO OIL CONSERVATION CONFLICTION FOR THE PURPOSE OF CONSIDERINGS

> CASE NO. 96 ONDER NO. 703

IN THE MATTER OF APPLICATION FOR APPROVAL OF SCHEWRICH UNIT AGREEMENTS FOR AN UNCETHODOR WELL LOCATION READ FERT SOUTH OF THE MORTH LINE AND LOG FEET SAST OF THE MEST LINE OF SECTION 32, TOWNSRIP 17 SOUTH, RANCE 30 RAST, Holdon AND FOR A HODIFICATION OF ORDER NO. 362, WITH RESPECT TO ASTON & FAIN-SCHEWRICH STATE NO. 4, INPUT WELL.

ORDER OF THE COMPLESSION

BT THE CONTINUES

This matter came on regularly for hearing at 10s_____A.H., April 15, 1947 at Santa Fe, New Mexico, before the Oil Conservation Countssion of New Mexico, hereinafter referred to as the "Countssion".

NOW, on this 6 day of June 1947, the Commission having before it for consideration the totinony adduced at the bearing of said cause and being fully advised in the premises;

FINDS: -

1. That the Asten & Pair-Ochewrich, State No. 4 oil well, originally couple of making top allowable was designated by the Conmission's Order No. 562 as an "input" well in the Loco Hills Pressure Maintenance Project.

2. That the Loop Hills Pressure Haintenance Association, Inc. has consed componenting the ensure of Aston & Fair-Schourich, State No. 4 well for production loos resulting from the use of said well as an "input" well.

3. That the repeal by the Commission of paragraph 3 of Order No. 339 of July 1, 1941 by its subsequent Order No. 562, the owners of said Aston & Fair-Scheurich, State No. 4 "input" well are prevented from allocating its potential allowable to other wells on the lease.

4. That the unitization of the 3% NW and Ng SW of Section 32, Temphip 17 South, Range 30 East, NoNoPoHe as sought by all the lessees, with the approbation of the Lose Hills Pressure Maintenance Association, Inc., will tend to promote efficient and economic recovery of oil and gas and be a contributing factor in the prevention of waste.

5. That an additional well drilled on the proposed unit area at the location requested, if production is had, and the well operated in accordance with the terms of the proposed unit agreement, would in a manner compensate the owners of Aston & Pair-Geneurish, State No. 4 well for loss of production therefrom by reason of the designation of said well as an "input" well.

IT IS THEREFORE ORDERED.

(1.) That the proposed Scheurich unit agreement is hereby approved subject, however, to the filing with the Commission, within 30 days from the date hereof:

> (A.) A certificate of approval of said unit agreement by the Commissioner of Public Lands of the State of New Mexico.

> > -1-

(3.) A proper designation of a unit operator for the Schourish wit together with a statement of operator's plan of operation.

(2.) That a Notice of Intention to Drill properly filed with Considerion by the unit operator, when designated, will be approved by the Considerion for an unorthodox well location 2010 foot justs of the North line and 1860 foot East of the West line of Section 32, Township 27 South, Amage 30 North

(3.) That if production is had in such completed well, the same shall be emtitled to such allowable as may be determined by the Coundenies but not in encode of the allowable for a 40 acro with in the Leve Hills Field.

(4.) That Asten & Pair-Othourish State No. 4 well, shall be and remain an "input" well under the Lose Hills Pressure Maintenance Project.

(5.) That Grier Me. 562 incolar as the same relates to Actom & Feir-Schourich, State Me. 4 well, is hereby modified only to the extent meconomy to authorize transfer of alignable from said well to other wells on the same basis lense, provided homever, that production within the Schourich unit area shall not be in encour of top alignable prescribed for four 40 apro tracts within the Lose Hills field.

DONE at Sente Pu, now Mexico, on the day and year hereinebove designated.

OIL CONSERVATION CONNERSION

CHAINMAN

SECRETARY

I, R. R. SPURRIER, Secretary and Director of the New Mexico Oil Conservation Commission, State of New Mexico, hereby certify that this is a true and correct copy of the original order No. 708 on file in this office.

ذر.

Dated: Santa Fe, New Mexico, this 6 day of February 1950.

R. L. Spouries

Erlicht E

B._ JRE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF HEN MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 112

ORDER NO. 733

IN THE MATTER F APPLICATION OF GRAY-BURG OIL COMPANY OF HEN MERICO FOR PERMISSION TO PRODUCE WELL NO. 13-B OR ITS KEELEY (FEDERAL) LEASE IN THE NET OF SECTION 26, TOMNSHIP 17 SOUTH, RANCE 29 EAST, N.M.P.M., IN THE ORAT-BURG-JACKSON POOL, EDDY COUNTY, NEW MERICO.

ORDER OF THE COMPLESSION

BY THE COPPLESION:

This matter came on regularly for hearing at 10 o'eleck Addee of Ostaber 15, 1947 at Santa Pe, Hew Maxies before the Oil Conservation/Si New Maxies, bereinafter referred to as "the Coumission".

NON, on this 12th day of November 1947, the Commission having before it for consideration the testimeny adduced at the hearing of said cause and being fully advised in the premises;

FINDSI

1. That due public notice having been given, the Coumission has jurisdistion of the case and the subject matter thereof;

2. That well No. 13-B was authorized to be and was drilled as a wildent test of deeper horizons and reached a total depth of 5075 feet without enecuntering ell or gas other than in the known pay herizon of the area.

3. That the Keeley 13-5 well plugged back to the regular pay herizon at 3050 feet resulted is a producing well,

4. That the Supervisor of Oil and Cas Operations of the USOS is this area is agreeable to the producing of said well provided, however, the same is produced in conformity with the general and any special prevation orders of this Commission.

5. That the evidence shows that no drainage inequities would be invalved by production of five wells on the NE2 of Section 26, Township 17 south, Remge 29 east, NoNo-PoNo

IT IS THEREFORE ORDERED THAT:

1. The Keeley well No. 13-B located 1345 feet from the morth line and 1295 feet from the east line of Section 26, Township 17 south, Kange 29 East, NoHoPelle, may be preduced as an oil well; provided, however that the total daily production of wells 1-8, 4-8, 7-8, 5-8 and the subject well 13-8, all located on and produced from the MEL of Section 26, Township 17 south, Range 29 East, NoHoPelle, shall not enseed the daily allowable for four forty-acre units as fixed, or which may hereafter be fixed, by the Commission for the Grayburg-Jackson pool, Eddy County. New Mexice.

IT IS FURTHER ORDERED THAT:

Jurisdiction of this case be retained by the Commission for the purpose of reviewing any engineering studies initiated with regard to the productive characteristics of the reservoir and which may be treated as additional evidence in the future consideration of a more affiliatent well spacing pattern for the further development of the poel.

DONE at Santa Ye, New Mexice on the day and year hereinsbyve set forth.

011 CONSIDERY/ CONSISSION mo 's., 8. ML is SHCRETARY

I, R. R. SPURRIER, Secretary and Director of the New Mexico Oil Conservation Commission, State of New Mexico, hereby certify that this is a true and correct copy of the original order No. 733 on file in this office.

Dated: Santa Fe, New Mexico, this 6 day of February 1950.

Exhibit Is

BEFORE THE UIL CONSERVATION CONTISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF A HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 139 ORDER NO. 769

IN THE MATTER OF THE APPLICATION OF ROLAND RICH WOOLLEY, PATON BROS. A SAROHNY, ASTON A FAIR, AND PHEMIER PETROLEUM COMPORATION FOR APPROVAL OF AN UNORTHODOX WELL SPACING FLAN AND PROMATION FLAN FOR A PART OF THE FREMIER POOL AND INVOLVING CONTAIN SO-ACRE THAOTS IN SECTIONS 23,25,26, AND 27, IN TOWNENIP 17 SOUTH, RANGE 30 EAST, NoH.P.N., IN KODY GOUNTY, NEW MEXICO.

ORDER OF THE COUNTSSICH

BY THE COMMISSIONS

معني ا

This matter came on regularly for hearing at 10:00 e'clock A.M., April 30, 1948, at Santa Fe, New Mexice, before the 011 Conservation Commission of New Mexice, hereinafter referred to as the "Commission".

NON, on this 14th day of May 1948, the Commission having before it the testimony adduced at the hearing of said cause and being fully advised in the premises;

PINDS

1. That due public notice having been given in compliance with law, the Commission has jurisdiction bereaf.

2. That the entire acroage involved in the application is federally evend, and the United States Geological Survey, through its Oil and Gas Supervisor, has no objection to the proposed spacing and provation plan.

3. That the spacing plan, plat of which was submitted with the application, provides that:

> (a) 3/2 3E/4, (b) 3/2 3M/4, Section 23; (a) 3/2 5M/4, (b) N/2 9M/4 of Section 25; (a) E/2 NE/4, (b) 3/2 NE/4, (c) M/2 3E/4, (d) 3/2 3E/4, (e) E/2 NM/4, (f) 3/2 NM/4of Section 26; (a) E/2NE/4, (b) N/2 NE/4, (c) E/2NM/4of Section 27, all in township 17 South, Hange 30 East, NoMoPoHes.

are to be separate 80 acre spacing units, with unorthodex locations suthorised to be drilled to the Premier Sand, and located 1370 feet from the respective emillines and 330 feet from the respective side lines of each respective 80 sere unit.

4. That two additional wells on each 80 agre tract would more effectively drain the area and prevent underground maste.

IT IS THEREFORE ORDERED:

That the application of Roland High Hoolley, Paton Bros. & Sargent, Aston & Fair and Premier Petroleum Corperation is hereby approved and applicants are hereby authorized to drill two unorthodox locations, 1370 feet from the end lines and 330 feet from the side lines of each of the following described 30 nore tracts: (a) 8/2 = 85; (b) 8/2 = 81/4 of sec. 23; (a) 3/2 = 81/4; (b) 8/2 = 81/4 of section 25; (a) 1/2 = 82/4; (b) 5/2 = 82/4; (c) 1/2 = 52/4; (d) 5/2 = 52/4; (e) 1/2 = 81/4; (f) 3/2 = 81/4; of Soction 26; (a) 1/2 = 82/4; (b) 1/2 = 81/4; (c) 1/2 = 81/4; of Soction 27; all in termship 17 South, Hange 30 = 800, No.NoPallo

Such unorthodox locations shall be drilled to the Presser sand, and th Rivers pay is in each instance required to be eased off.

IT IS FUNTHER ORDERED.

That upon completion of one unerthodox well on any 80 acre tract of m above described, that treat thereafter shall be considered as 80 asso pro-ration unit and shall be estitled to an allowable not in encous of two for sere alloughlos as now or which may hereafter be set for the Frenier peaks

IT IS FURTHER ORDERORD:

That in the development and production of the units provided for herein all rules and requirements of the Commission and the U. S. G. S., shall be complied with, and the applicants or any of them proposing to drill as herein authorized shall furnish the commission with a copy of federal location notice for its files.

IT IS FURTHER ORDERED:

That the decket in this case shall be held open for any further order which may appear necessary in the promises.

DONE at Santa To, New HoxLoo, on the day and year hereisbefore dealgaste

STATE OF HEN HELLOO OIL CONSERVATION CONSERVATION

GNA TIMAN 1 2. miles Martiner L. Coursier

I, R. R. SPURRIER, Secretary and Director of the New Mexico Oil Conservation Commission, State of New Mexico, hereby certify that this is a true and correct copy of the original order No. 769 on file in this office.

Dated: Santa Fe, New Mexico, this 6 day of February 1950.

Exhibit H

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 164 ORDER NO. 802

THE APPLICATION OF GRAYBURG OIL COMPANY OF NEW MEXICO, AND WESTERN PRODUCTION COMPANY, INC., FOR AN ORDER GRAMTING PERMISSION TO UNITIZE CERTAIN TRACTS WITHIN THE BOUNDARIES OF THE GRAYBURG COOPERATIVE AND UNIT AREA, IN TOINISHIP 17 SOUTH, RANGES 29 AND 30 EAST, N.M.P. M., IN THE GRAYBURG-JACKSON POOL OF EDDY COUNTY, NEW MEXICO, FOR FROMATION AND ALLOWABLE PURPOSES

ORDER OF THE COMMISSION

BY THE COMMISSION:

*

This matter came on for hearing at 10:00 o'clock A. M. on the 28 day of October , 1948, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 19 day of November , 1948, the Commission, having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS:

1. That due public notice having been given, as provided by law, the Commission has jurisdiction of this cause.

2. That the acreage involved in the Application is Federally owned and the Supervisor of the United States Geological Survey interposes no objections to the Application.

3. That heretofore, in Case No. 152, upon which hearing was held before the Commission on July 29, 1948, the Commission granted to Applicants herein, permits to drill twenty-eight unorthodox "five spot" locations, upon the leases described in this Application.

4. That the creation and establishment of the tracts of land described in the Application, into unitized tracts for proration and allowable purposes only, will onable Grayburg Oil Company of New Mexico and Western Production Company, Inc. to produce the wells upon the respective proposed unitized tracts at a more efficient rate of withdrawal; that a greater ultimate recovery of oil will be obtained from each of said unitized tracts, and that such method of operation will be in the interest of conservation, prevent waste and enable Applicants to produce substantial quantities of oil that would not otherwise be recovered.

IT IS, TIBRENORE, ORDERED, that the Application of Grayburg Oil Company of New Mexico and Western Production Company, Inc., for an order author-

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izing the unitization for promation and allowable purposes of the tracts therein described, be and the same is hereby granted and approved, and it is further ordered that the following tracts of land located in the Grayburg-Jackson Pool of Eddy County, New Mexico are hereby established as unitized tracts for promation and allowable purposes:

GRAYBURG OIL COMPANY OF NEW MEXICO UNITS:

UHIT G-1, doscribed as S/2 S/2 Section 18, N/2 and H/2 S/2 Section 19, Township 17 South, Range 30 East, N.M.P.M.

UNIT G-2, doscribed as S/2 SW/4 Section 19, NM/4 Section 30, Township 17 South, Renge 30 Ecst, H.M.P.M.

UNIT G-3, described as SW/4 Section 23, Township 17 South, Range 29 East, N.M.P.M.

UNIT G-4, described as N/2 NW/4, SW/4 Hu/4, H/2 SW/4, H/2 SE/4 and NE/4 Section 24, Township 17 South, Rango 29 East, N.M.P.N.

UNIT G-5, described as S/2 SW/4 Section 24, N/2 NW/4 Section 25, E/2 Section 26, Township 17 South, Rango 29 East, N.M.P.M.

WESTERN PRODUCTION COMPANY, INC. UNITS:

UNIT W-1, described as S/2 SE/4 Section 19, N/2 NE/4 Section 30, Township 17 South, Range 30 East, H.M.P.M.

UNIT W-2, described as SE/4 Section 23, Township 17 South, Range 29 East, N.M.P.M.

UNIT W-3, described as W/2 Section 26, Township 17 South, Range 29 East, N.M.P.K.

UNIT W-4, described as S/2 SE/4 Section 24, S/2 NW/4, SW/4 and E/2 Section 25, Township 17 South, Rango 29 East, N.M.P.M.

IT IS FURTHER ORDERED, and Applicants are

hereby authorized to produce from each unitized tract, hereinabove described, the total allowable production, as fixed by the Commission for the total number of developed forty acre proration units comprising such unitized tract, and that Applicants are hereby authorized to produce the total allowable, so fixed by the Commission for each unitized tract, from all of the wells located upon or that may be hereafter drilled upon such unitized tract, producing from the Grayburg-Jackson Pay.

IT IS FURTHER ORDERED, that no well located upon any unitized tract shall be permitted to produce at a rate in excess of the top allowable as fixed by the Commission.

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dosignated.

- - -

DONE AT Santa Fo, New Mexico on the day and year hereinabove

/s/

STATE OF NEW MEXICO OIL CONSERVATION CONMISSION

CHAIREAN

MEMBER JOHN E. MILES

SECRETARY R. R. SPURRIER

LEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO February 9, 1949

> I, R. R. SPURRIER, Secretary and Director of the New Mexico Oil Conservation Commission, State of New Mexico, hereby certify that this is a true and correct copy of the original order No. 802 on file in this office.

Dated: Santa Fe, New Mexico, this 6 day of February, 1950.

Exhibit I

BEFORE THE CIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 180 ORDER NO. 819

IN THE MATTER OF THE APPLICATION OF MERICAN EPUBLICS CORPORATION FOR AN ORDER GRANTING PERMISSION TO DAILL EIGHT UNDETHODOX LOCATIONS, ON ITS ROBINSON "A" AND "B" LEASES, LOCATED IN SECTIONS 27, 34 and 35, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M. IN THE GRAYBURG JACKSON POOL OF EDDY COUNTY, NEW MEXICO, AND FOR PERMISSION TO UNITIZE CERTAIN TRACTS FOR PRO-RATION AND ALLOWABLE PURPOSES.

OKDER OF THE COM ISSION

BY THE COMMISSION:

N. Marine

This matter came on for hearing at 10 o'clock a.M., on the 13th day of April, 1949, at Santa Fe, New Mexico, before the Oil.Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 25th day of April, 1949, the Commission, having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS:

1. That due public notice having been given, as provided by law, the Commission has jurisdiction of this cause.

2. That the acreage involved in the Application is Federally owned and the Supervisor of the United States Geological Survey interposes no objections to the Application.

3. That leases covering the following described land are owned by American Republics Corporation:

NOBINSON "A" LEASE, Las Cruces Serial No. 028775(a), described as SE/4 Section 27, NE/4 Section 34 and W/2 NW/4 Section 35, Township 17 South, Range 29 East, N.M.P.M., in Eddy County, New Mexico, and containing 400 acres;

ROBINSON "B" LEASE, Las Cruces Serial No. 023775(b), described as NE/4, E/2 NW/4 and E/2 SW/4 Section 27, E/2 and E/2 W/2 Section 35, Township 17 South, Hange 29 East, N.M.P.M., and containing 800 acres.

4. That one well located in the center of each forty acre legal subdivision is not sufficient to obtain all of the recoverable oil under any forty acre tract and that the drilling of "five spot" wells, as proposed in the Application of American Republics Corporation, at the locations designated, would be in the interest of conservation, prevent waste and enable Applicant to obtain a greater ultimate recovery of oil, in that Applicant would be able to recover substantial quantities of oil which would otherwise not be produced if such "five spot" locations were not drilled.

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5. That the creation and establishment of the tracts of land described in the Application of American Republics Corporation into unitized tracts for promation and allowable purposes will enable American Republics Corporation to produce the wells upon the respective proposed unitized tracts at a more efficient rate of withdrawal; that a greater ultimate recovery of oil will be obtained from each of said unitized tracts and that such method of operation will be in the interest of conservation, prevent waste and enable Applicant to produce substantial quantities of cil that would not otherwise be recovered.

IT IS THEREFORE ORDERED by the Commission that the Application of American Republics Corporation for an order granting permits to drill eight unorthodox "five spot" locations, described in said Application, be and the same is hereby granted and approved. The numbers and locations of the wells to be drilled being as follows:

"ROBINSON "A" Well No. 13: Section 27, Tewnship 17 South, Range 29 East, N.M.P.M., 1345 feet from the South Line and 1345 feet from the East Line;

ROBINSON "A" Well No. 14: Section 27, Township 17 South, Range 29 East, N.M.P.M., 25 feet from the South Line and 1295 feet from the East Line;

ROBINSON "A", Well No. 15: Section 34, Township 17 South, Range 29 East, N.M.P.M., 1295 feet from the North Line and 1345 feet from the East Line;

ROBINSON "A", Well Nol 16: Section 34, Township 17 South, Range 29 East, N.M.P.M., 1295 feet from the North Line and 25 feet from the East Line;

ROBINSON "B", Well No. 23: Section 35, Township 17 South, Range 29 East, N.M.P.M., 1295 feet from the North Line and 2615 feet from the West Line;

ROBINSON "B", Well No. 24t Section 35, Township 17 South, Range 29 East, N.M.P.M., 1295 feet from the North Line and 1295 feet from the East Line;

ROBINSON "B" Well No. 25: Section 35, Township 17 South, Range 29 East, N.M.P.M., 2615 feet from the North Line and 1295 feet from the East Line;

ROBINSON "B" Well No. 26: Section 27, Township 17 South, Range 29 East, N.M.P.M., 1295 feet from the North Line and 1345 feet from the East Line.

IT IS FURTHER ONDERED that the Application of American Republics Corporation For an order authorizing the unitization for proration and allowable purposes, of the tracts therein described, be and the same is hereby granted and approved; and it is further ordered that the following tracts of land, located in the Grayburg-Jacksor Pool of Eddy County, New Mexico, are hereby established as unitized tracts for proration and allowable purposes;

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UNIT AREA I, Robinson "B" Lease, NE/4, E/2 NW/4 and E/2 SW/4 Section 27, Township 17 South, Honge 29 Dast, N.M.P.M.

UNIT AREA II, Robinson "A" Lease, SE/4 Section 27, NE/4 Section 34, W/2 NW/4 Section 35, Township 17 South, Range 29 East, N.M.P.M.

UNIT ANEA III, Robinson "B" Lease, E/2 E/2 W/2 Section 35, Township 17 South, Range 29 East, N.M.P.M.

IT IS FURTHER ORDERED, and Applicant is hereby authorized to produce from each unitized tract, hereinabove drscribed, the total allowable production, as fixed by the Commission for the total number of developed forty acre proration units comprising such unitized tract, and that Applicant is hereby authorized to produce the total allowable, so fixed by the Commission for each unitized tract, from all of the wells located upon or that may be hereafter drilled upon such unitized tract, producing from the Grayburg-Jackson Pay.

IT IS FURTHER ORDERED, that no well located upon any unitized tract shall be permitted to produce at a rate in excess of the top allowable as fixed by the Commission.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSEINATION COMMISSION

/s/ GUY SHEPARD, MEMBER

/s/ R. R. SPURRIER, SECRETARY

I, R. R. SPURRIER, Secretary and Director of the New Mexico Oil Conservation Commission, State of New Mexico, hereby certify that this is a true and correct copy of the original Order No. 819 on file in this office.

Dated: Santa Fe, New Mexico, this 6 day of February 1950.

R. R. Joursier

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Exhibit g.

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING

CASE NO. 187 ORDER NO. 828

THE APPLICATION OF CARPER DRILLING COMPANY, INC., FOR AN ORDER GRANTING PERMISSION TO DRILL UNORTHODOX LOCATION, DESIGNATED AS WELL NO. 9-N, ON THAT FORTION OF ITS SIMON "A" LEASE, DESCRIBED AS THE SW/4 OF THE SE/4 OF SECTION 29, TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M. IN THE MALJAMAR FIELD OF LEA COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 10 o'clock A. M. on the 28th day of June, 1949 at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 28th day of June, 1949, the Commission, having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS:

1. That due public notice having been given, as provided by law, the Commission has jurisdiction of this cause.

2. That the acreage involved in the Application is Federally owned and the Supervisor of the United States Geological Survey interposes no objections to the Application.

3. That the lease covering the following described land is owned by Carper Drilling Company, Inc.:

SIMON "A" Lease, Las Cruces Serial No. 029410 (a) described as E/2 NE/4, NW/4 and S/2 of Section 29, Township 17 South, Range 32 East, N.M.P.K.

4. That said tract hereinabove described is located in what is known as the Maljamar Pool of Lea County, New Mexico and that said lease covering the land hereinabove described is within the boundaries of and has been committed to the Maljamar Cooperative Repressuring Agreement.

5. That there has been drilled on said tract of land a total of thirteen wells which are producing from the Maljamar Pay, encountered at an approximate depth of 4,000 feet. That in addition to the thirteen wells producing from the Maljamar Pay, there have been drilled two additional wells to the Maljamar Pay upon said above described tract of land, which wells are designated as Input Well No. 3 and Input Well No. 13, which are being used at the present time as gas injection wells, through which gas is returned to the Maljamar reservoir.

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6. That Input Well #3 on the Simon "A" Lease is located in the center of the SW/4 of the SE/4 of Section 29, Township 17 South, Range 32 East, N.M.P.M. and that although said Input Well #3 was originally drilled and completed as a producing well on August 28, 1941, a short time thereafter on April 11, 1942, this well was converted from a producing well to a gas injection well, and has been used for the purpose of returning gas to the reservoir and is being used as a gas injection well at the present time.

7. That the lease hereinabove described being located within the boundaries of and committed to the Maljamar Cooperative Repressuring Agreement the Operators in the Maljamar Cooperative Repressuring Agreement are not allowed to make up, from other wells located upon the lease, the allowable production lost by reason of the conversion of a well from a producing well to a gas injection well.

8. That Input Well #3 is the only well located upon the SW/4 of the SE/4 of said Section 29, and that there is no producing well on this 40 acre tract at the present time.

9. That a well drilled in the SW/4 of the SE/4 of said Section 29 to be located 1295 feet from the South Line and 1345 Feet from the East Line of said Section 29, N.M.P.M. to the Maljamar Pay, in all probability will be capable of producing substantial quantities of oil and that the drilling of said well at this location would be in the interest of conservation and would prevent waste in that the drilling of said well would enable Applicant to recover a substantial quantity of oil which would not otherwise be recovered.

IT IS THEREFORE ORDERED BY THE COMMISSION, That the Application of Carper Drilling Company, Inc., for an order granting permit to drill one unorthodox "Five Spot" location to be drilled to the Maljamar Pay be, and the same is hereby granted and approved. The number and location of said well to be drilled, being as follows:

> SIMON WELL NO. 9-N to be located 1345 feet from the East Line and 1295 feet from the South Line of Section 29, Township 17 South, Range 32 East, N.M.P.M.

IT IS FURTHER ORDERED That Simon Well No 9-N hereinabove authorized, when completed as a producing well, shall be produced in accordance with the Allocation of Production Plan in effect and applicable to leases committed to the Maljamar Cooperative Repressuring Agreement, producing from the Maljamar Pay.

IT IS FURTHER ORDERED That the Applicant shall file with the Commission copy of Federal Location Notice for the hereinabove described location after approval thereof by the Oil and Gas Supervisor.

DONE at Santa Fe, New Mexico on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ GUY SHEPARD, MEMBER R. R. SPURRIER, SECRETARY,

LEA COUNTY OPERATORS COMMITTEE HOBBS, NEW MEXICO JUNE 30, 1949 I, R. R. SPURRIER, Secretary and Director of the New Mexico Oil Conservation Commission, State of New Mexico, hereby certify that this is a true and correct copy of the original order No. 828 on file in this office.

Dated: Santa Fe, New Mexico, February 6, 1950.

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 205 ORDER NO. R-5

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ORDER GRANTING BEHEARING

The Commission having heretofore entered Order No. 849 in this case granting the application of E. J. McCurdy for an unorthodox well location, and Buffalo Oil Company being an interested party, having filed a timely motion for rehearing.

IT IS THEREFORE ORDERED:

1. The motion for rehearing filed by Buffalo Oil Company is hereby granted.

2. The rehearing will be held at Capitol Building in Santa Fe, New Maxico on February 8, 1950, at 10:00 4. M. and notice thereof shall be given as provided by law.

DONE at Santa Fe, New Mexico, on the 23rd day of January, 1950.

STATE OF NEW MEXICO OIL CONSERVATION / COMMISSION 办 THOMAS MABRY CHATRMAN

GUY SHEPARD R. R. SPURRIER, SECRETARY

MEMORY

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 205 ORDER NO. 849

THE APPLICATION OF E. J. MCCURDY FOR AN ORDER AUTHORIZING THE DRILLING OF AN UN-ORTHODOX (FIFTH) LOCATION TO THE "RED SAND" AND 1214 FT. SOUTH OF THE NORTH LINE AND 1426 FT. EAST OF THE WEST LINE (NE/4 NW/4) OF SECTION 20, TWP. 18S, R. 32E, N.M. P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN: SAID NW/4 OF SEC. 20 IN THE YOUNG POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 10:00 o'clock A.M. on December 1, 1949, at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW on this 27th day of December, 1949 the Commission having before it for consideration the testimony adduced at said hearing and being fully advised in the premises,

FINDS

1. That due public notice having been given as required by law, the Commission has jurisdiction of this cause.

2. That the acreage involved in said application is Federally owned and the Supervisor of the United States Geological Survey interposes no objection to the proposal after applicant executes and files a non-segregation stipulation.

3. That applicant has officially filed said non-segregation stipulation.

4. That heretofore there has been drilled to the "red sand" four producing wells upon the NW/4 of said section 20.

5. That a fifth well 1214 ft. south of the north boundary and 1426 ft. east of the west boundary of section 20, township 18 south, range 31 east, N.M.P.M. in the Young pool, Lea County, New Mexico in all probability would recover oil that otherwise might not be recovered.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy, Jr. for an order granting permission to drill the fifth well, McCurdy-Young #5, 1214 ft. south of the north line and 1426 ft. east of the west line (NE/4 NW/4) of section 20, Twp. 18 south, R. 31E., N.M.P.M. in the Young pool, Lea County, New Mexico be, and the same hereby is approved,

PROVIDED HOWEVER, that the production from the five wells shall be prorated and never be allowed to produce in excess of the allowable for four regular 40-acre

. . . . ·

PROVIDED FURTHER that a non-segregation stipulation satisfactory to the Supervisor of the United States Geological Survey is filed with the Commission.

DONE at Santa Fe, New Mexico on the date hereinabove designated,

STATE OF NEW MEXACO OSL CONSERVATION COMMISSION

A. THOMAS RY. CHAIRMAN

L GUY SHEPARD MEMBER

R. R. SPURRIER, SECRETARY

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BEPORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW HEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COLOUSION OF THE STATE OF NEW MEXICO. FOR THE FURPOSE OF CONSIDERING.

> OASS NO. 205 ORDER NO. 849

THE APPLICATION OF E. J. HOOURDY FOR AN ORDER AUTHORIZING THE DRULLING OF AN UN-ORTHODOX (FIFTH) LOCATION TO THE "HUD SAND" AND 1214 FT. SOUTH OF THE NORTH LINE AND 1425 FT. RAST OF THE MEST LINE (NE/4 HM/4) OF SECTION 30, TYP. 155, R. JEE, H.M. P.M., AND TO ADJUST THE ALLOWABLE FOR THE FIVE WELLS IN BAID MM/4 OF 200. 20 IN THE YOUNG POOL, LEA OCCUTT, HUN MEXICO.

GROWN OF THE GOLSTINGTON

NY THE CONSCRETCHS

This matter cans on for hearing at 10:00 o'clock A.H. on December 1, 1949, at Santa Fe, New Maxies before the 011 Conservation Considerion of New Maxies, hereinsfor referred to as the "Considerion".

NON on this 27th day of December, 1949 the Countesion having before it for considuration the testimony adduced at said hearing and being fully advised in the provines.

FINDS

1. That due public notice having been given as required by law, the Countertion has jurisdiction of this enume.

2. That the assesse involved in said application is Federally ouned and the Supervisor of the United States Geological Survey interposes no objection to the proposal after applicant surveyes and files a non-segregation stipulation.

3. That applicant has officially filed said non-segregation stipulation.

4. That heretafore there has been drilled to the "red send" four pro-

5. That a fifth well 1214 ft. south of the north boundary and 1426 ft. east of the vest boundary of section 20, township 16 south, range 31 cast, H.M.P.M. in the Young poel, Les County, New Mexice in all probability would recover oil that otherwise might not be recovered.

IT IS THEREFORE ORDERED that the application of E. J. McCurdy, Jr. for an order granting persission to drill the fifth well, HoCurdy-Young #5, 1214 ft. south of the north 14ne and 1426 ft. east of the west line (NE/4 HM/4) of section 20, TMp. 18 south, R. JIN., N.M. P.H. in the Young pool, Les County, New Mexico be, and the same hereby is approved,

PHOVIDED HOMEVER, that the production from the five wells shall be prerated and never be allowed to produce in excess of the allowable for four regular 40-acre tracts as now or may imreafter be allocated to the Young pool and

PROVIDED FURTHER that a non-segregation stipulation satisfactory to the Supervisor of the United States Goological Survey is filed with the Countystan.

DONE at Santa Fe, New Maries on the date horsingheye designated.

STATE OF NEW MEXICO OIL CONSERVATION CONSTRUCT

THORMS J. MADRY, CHAIRMAN

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CHT MERPARD, MEMBER

R. R. SPURRIER, SHORSTARK

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

PROCESSO INCS

The following matter came on for consideration before a hearing of the Oil Conservation Commission of the State of New Mexico, pursuant to legal notice, at Santa Fe, New Mexico, on December 1, 1949, at 10:00 A. M.

HOTICE OF FUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

The State of New Maxice by its Oil Conservation Commission hereby gives public motice pursuant to law of a public hearing to be held December 1, 1949, beginning at 10:00 o'clock A.M. of that day in the City of Santa Fe, New Mexico, in the Senate Chambers.

STATE OF HEN MEXICO TO

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

Ca.m. 205

In the matter of the application of K. J. McGurdy of Fort Worth, Texas, for an order authorizing the drilling of an unorthodox (fifth) location to the "red sand", and 1214 feet south of the north line and 1426 feet east of the west line (ME NW/4) of Section 20, Township 188, Range 32E, N.M.P.M., and to adjust the allowable for the five wells in the northwest quarter of said Section 20, in the Young Pool, Lea Gounty, New Mexico.

In the matter of the application of American Republics Corporation for an order authorizing the drilling of an unorthodox location for its C. A. Russell No. 10, well located 220 feet south of the north line and 2665 feet west of the east line (SE/4 NW/4) of Section 18, Township 178, Range 312, N.M.P.M., in the Grayburg-Jackson Pool, Eddy County, New Mexico. Given under the seal of the Oil Conservation Commission of New Mexico, at

Santa Fe, New Mexico, on Nevember 17, 1949.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ R. R. Spurrier R. R. SPURRIER, SECRETARY

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BEFORE

R. R. Sparrier, Chairman George Graham, Attorney

REGISTER

John E. Coohran, Jr. Artesia, New Mexico For American Republics Corporation

W. B. Macey Artesis, New Mexico For American Republics Corporation

Signate E. Hinkle Recuell, New Mexico For E. J. MeCurdy

(The meeting was called to order in the Senate Chambers at 10 o'clock, The meeting was then adjourned to meet in Mr. Spurrier's office.) ONAIRNAN SPURRIER: Let the record show that Commissioner Shepard and Mr. Spurrier met on this day. Mr. Spurrier was directed to take the record in the two cases advertised for this date. No decisions can be rendered until the record is made svailable for the other members of the Commission. Ne will reverse the order of the cases and hear Case 206 first. Mr. Graham, will you please read the Notice of Publication?

(Mr. Graham read the Notice of Publication in Case 206.)

(Mr. W. B. Macey, witness in behalf of the American Republics Corporation was sworn.)

MR. COCHRAN: John E. Cochran, Jr., American Republics Corporation.

Mr. Spurrier, the American Republics Corporation owns what is called the C. A. Russell Lease which is located in Section 18, Township 173, Range 31E, N.M.P.M, in the Grayburg-Jackson Pool, Eddy County, New Mexico. This is a Federal lease, and I have letter addressed to me, dated November 14, 1949, from Foster Morrell, Supervisor of United States Geological Survey at Roswell, in which he states that no objection is offered by his office to well spacing plan providing for drilling of a well at the location specified in the application, and that it might afford an opportunity to obtain greater recovery of cil. We offer this letter in evidence as Applicant's Exhibit 1.

MR. SPURRIER: It will be received.

*(Off record discussion,)

MR. COCHRAN: Since the inception of production on this C. A. Russell Lease there have been drilled a total of 6 wells. All 6 of the wells are producing at present time and are producing from the Grayburg-Jackson Pay of the upper San Andres formation, encountered at a depth ranging from 3105 feet to 3480 feet. Upon the basis of geological information which American Republies Corporation has and studies made by Mr. Macey, American Republics Corporation doesn't believe that one well is sufficient to drain 40 acres in this area. They feel that by drilling well No. 10 at the proposed location that they would obtain substantial additional quantities of oil which would not otherwise be produced if such unorthodix location was not drilled; that the drilling of this well- is in the interests of conservation and prevention of waste. With reference to allowable for this proposed second well on a legal 40-acre subdivision, American Republics Corporation is not asking nov does it intend to ask the Commission to grant any additional allowable produced from the two wells upon the legal 40-acre. The allowable fixed by the Commission for that 40-acre provation unit in no event will the withdrawal from those two wells exceed the allowable as fixed by the Commission for that 40 acres. I have a proposed formal order to submit to the Commission. There are four copies; I believe you like two for your files. If we may, we would like to have two signed copies at such time as the Commission has considered the matter.

* The Commission will take notice of similar testimony offered by Mr. Macey in Case 180, and it will therefore not be necessary for Mr. Macey to offer complete testimony in this case which is of the same nature as Case 180. -3-

(Meeting recessed until 11 A. M.)

MR. SPURRIER: Mr. Graham, will you read the Notice for Publication in Case 2057

(Mr. Graham read the Notice for Publication in Case 205.) MR. HIMKEL: I am Clarence E. Hinkle of Hervey, Dow & Hinkle, representing E. J. McCurdy. This is a matter before the Conservation Commission, the application of E. J. McCurdy for drilling of a fifth well on the NW2, Section 20, Township 18 South, Range 32 East, N.M.P.M., Lea County, New Mexico. E. P. McCurdy is the owner and holder of northern gas lease issued by the U. S. Government: the NWI of Section 20, Township 185, Range 32 Bast. He has heretafore drilled four wells upon that 160 acres, each being located in approximately the center of each 40-acre legal subdivision. The four wells are producing from what is known as Red Sand or Queen Sand at a depth of approximately 3,750 feet. It is believed that the producing horizon or zone in which this area is such that four wells will not adequately drain the 160 acres, and that it is necessary to drill a fifth well to be located in approximately the center of the 160 acres to recover all of the oil from the 160 acres that it is economically possible to recover. The royalty cumership is uniform for the entire 160 acres, and the drilling of the well will not make may difference as far as the division of royalty is concerned. Mr. McCurdy desires to drill the well and have it allowed as an exception to regular spacing, and that he be permitted to allocate the normal unit maximum as to allowable on the 160 scres for the four wells to five wells. MR. GRAHAM: Do you have any information of the productivity of the present

MR. HINKLE: No, I don't.

wells?

MR. GRAHAM: Do you know whether or not they are making their allowable at this time?

NR. HINKLE: I believe he said there were two that were making their allowable and two that were under allowable.

MR. GRAHAM: That could be checked from production records? MR. HINKLE: Yes, that could be checked.

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MR. SPURRIER: For the purpose of the record, will Mr. McGurdy intend to produce more than the present allowable for the four wells in this 160 acre tract in which the proposed well would be drilled?

MR. HINKLE: It is my understanding that he would like, if he gets a well capable of making allowable, to produce from the 160 acres the regular allowable for the four wells prorated among the five wells. I assume that is what would be done in cases like these.

MR. GRAHAM: In some cases they unitize.

Ser Sta

MR. SPURRIER: What were they thinking about?

MR. HINKLE: Would be unitized for purpose of using allowable for unit. MR. GRAHAM: The whole thing from any number of wells not in excess of regular allowable for 40-acre tracts. In that 160 acres the five wells would never produce greater allowable than that fixed for four.

MR. HINKLE: That is the intention. The United States Geological Survey requires Mr. McGurdy to enter stipulation that he will not assign any of the forty acre legal subdivision involved in this 160 acres unless this fifth well is plugged up and abandoned. It will be maintained as a unit as long as those five wells are there. They require a stipulation to that effect to be filed before they give their approval to the fifth well. MR. SPURRIER: I wonder for the purpose of the record if we shouldn't have something in writing from Mr. Morrell to that effect or Mr. McGurdy. MR. HINKLE: We could furnish you with a copy of the stipulation which we will file with the Supervisor of the United States Geological Survey. MR. SPURRIER: I think we should have something like that. MR. GRAHAM: It would be entirely satisfactory for our purposes. MR. HINKLE: We would be glad to do that.

(Meeting adjourned.)

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QERTIFIGATE

I HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Commission of New Mexico in Santa Fe, New Mexico, on December 1, 1949, at 10:00 A. M., is a true record of such proceedings to the best of my knowedge, skill, and ability.

DATED at Albuquerque, New Mexico, this 1st day of December, 1949.

REPORTER

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BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

PROCEED INGS

The following matter came on for consideration before a hearing of the Oil Conservation Commission of the State of New Mexico, pursuant to legal notice, at Santa Fe, New Mexico, on December 1, 1949, at 10:00 A. M.

NOTICE OF PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

The State of New Mexico by its Oil Conservation Commission hereby gives public notice pursuant to law of a public hearing to be held December 1, 1949, beginning at 10:00 o'clock A.M. of 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:

Gase 205

In the matter of the application of E. J. McCurdy of Fort Worth, Texas, for an order authorizing the drilling of an unorthodox (fifth) location to the "red sand", and 1214 feet south of the north line and 1426 feet east of the west line (NE NW/4) of Section 20, Township 18S, Range 32E, N.M.P.M., and to adjust the allowable for the five wells in the northwest quarter of said Section 20, in the Young Pool, Lea County, New Mexico.

Case 206

In the matter of the application of American Republics Corporation for an order authorizing the drilling of an unorthodox location for its C. A. Russell No. 10, well located 220 feet south of the north line and 2665 feet west of the east line (SE/4 NW/4) of Section 18, Township 17S, Range 31E, N.M.P.M., in the Grayburg-Jackson Pool, Eddy County, New Mexico. Given under the seal of the Oil Conservation Commission of New Mexico, at

Santa Fe, New Mexico, on November 17, 1949.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

/s/ R. R. Spurrier R. R. SPURRIER, SECRETARY

SEAL

BEFORE :

R. R. Spurrier, Chairman George Graham, Attorney

REGISTER:

John E. Cochran, Jr. Artesia, New Mexico For American Republics Corporation

W. B. Macey Artesia, New Mexico For American Republics Corporation

Clarence E. Hinkle Roswell, New Mexico For E. J. McCurdy

(The meeting was called to order in the Senate Chambers at 10 o'clock. The meeting was then adjourned to meet in Mr. Spurrier's office.) CHAIRMAN SPURRIER: Let the record show that Commissioner Shepard and Mr. Spurrier met on this day. Mr. Spurrier was directed to take the record in the two cases advertised for this date. No decisions can be rendered until the record is made available for the other members of the Commission. We will reverse the order of the cases and hear Case 206 first. Mr. Graham, will you please read the Notice of Publication?

(Mr. Graham read the Notice of Publication in Case 206.)

(Mr. W. B. Macey, witness in behalf of the American Republics Corporation was sworn.)

MR. COCHRAN: John E. Cochran, Jr., American Republics Corporation.

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Mr. Spurrier, the American Republics Corporation owns what is called the C. A. Russell Lease which is located in Section 18, Township 17S, Range 31E, N.M.P.M, in the Grayburg-Jackson Pool, Eddy County, New Mexico. This is a Federal lease, and I have letter addressed to me, dated November 14, 1949, from Foster Morrell, Supervisor of United States Geological Survey at Roswell, in which he states that no objection is offered by his office to well spacing plan providing for drilling of a well at the location specified in the application, and that it might afford an opportunity to obtain greater recovery of oil. We offer this letter in evidence as Applicant's Exhibit 1.

MR. SPURRIER: It will be received.

*(Off record discussion.)

MR. COCHRAN: Since the inception of production on this C. A. Russell Lease there have been drilled a total of 6 wells. All 6 of the wells are producing at present time and are producing from the Grayburg-Jackson Pay of the upper San Andres formation, encountered at a depth ranging from 3105 feet to 3480 feet. Upon the basis of geological information which American Republics Corporation has and studies made by Mr. Macey, American Republics Corporation doesn't believe that one well is sufficient to drain 40 acres in this area. They feel that by drilling well No. 10 at the proposed location that they would obtain substantial additional quantities of oil which would not otherwise be produced if such unorthodix location was not drilled; that the drilling of this wells is in the interests of conservation and prevention of waste. With reference to allowable for this proposed second well on a legal 40-acre subdivision, American Republics Corporation is not asking nor does it intend to ask the Commission to grant any additional allowable produced from the two wells upon the legal 40-acre. The allowable fixed by the Commission for that 40-acre proration unit in no event will the withdrawal from those two wells exceed the allowable as fixed by the Commission for that 40 acres. I have a proposed formal order to submit to the Commission. There are four copies; I believe you like two for your files. If we may, we would like to have two signed copies at such time as the Commission has considered the matter.

* The Commission will take notice of similar testimony offered by Mr. Macey in Case 180, and it will therefore not be necessary for Mr. Macey to offer complete testimony in this case which is of the same nature as Case 180. -2-

(Meeting recessed until 11 A. M.)

MR. SPURRIER: Mr. Graham, will you read the Notice for Publication in Case 205?

(Mr. Graham read the Notice for Publication in Case 205.) MR. HINKEL: I am Clarence E. Hinkle of Hervey, Dow & Hinkle, representing E. J. McCurdy. This is a matter before the Conservation Commission, the application of E. J. McCurdy for drilling of a fifth well on the NW2, Section 20, Township 18 South, Range 32 East, N.M.P.M., Lea County, New Mexico. E. P. McCurdy is the owner and holder of northern gas lease issued by the U. S. Government: the NWt of Section 20, Township 18S, Range 32 East. He has heretofore drilled four wells upon that 160 acres, each being located in approximately the center of each 40-acre legal subdivision. The four wells are producing from what is known as Red Sand or Queen Sand at a depth of approximately 3,750 feet. It is believed that the producing horizon or zone in which this area is such that four wells will not adequately drain the 160 acres, and that it is necessary to drill a fifth well to be located in approximately the center of the 160 acres to recover all of the oil from the 160 acres that it is economically possible to recover. The royalty ownership is uniform for the entire 160 acres, and the drilling of the well will not make any difference as far as the division of royalty is concerned. Mr. McCurdy desires to drill the well and have it allowed as an exception to regular spacing, and that he be permitted to allocate the normal unit maximum as to allowable on the 160 acres for the four wells to five wells. MR. GRAHAM: Do you have any information of the productivity of the present wells?

MR. HINKLE: No, I don't.

MR. GRAHAM: Do you know whether or not they are making their allowable at this time?

MR. HINKLE: I believe he said there were two that were making their allowable and two that were under allowable.

MR. GRAHAM: Thet could be checked from production records?

MR. HINKLE: Yes, that could be checked.

MR. SPURRIER: For the purpose of the record, will Mr. McCurdy intend to produce more than the present allowable for the four wells in this 160 acre tract in which the proposed well would be drilled?

MR. HINKLE: It is my understanding that he would like, if he gets a well capable of making allowable, to produce from the 160 acres the regular allowable for the four wells prorated among the five wells. I assume that is what would be done in cases like these.

MR. GRAHAM: In some cases they unitize.

MR. SPURRIER: What were they thinking about?

MR. HINKLE: Would be unitized for purpose of using allowable for unit. MR. GRAHAM: The whole thing from any number of wells not in excess of regular allowable for 40-acre tracts. In that 160 acres the five wells would never produce greater allowable than that fixed for four.

MR. HINKLE: That is the intention. The United States Geological Survey requires Mr. McCurdy to enter stipulation that he will not assign any of the forty acre legal subdivision involved in this 160 acres unless this fifth well is plugged up and abandoned. It will be maintained as a unit as long as those five wells are there. They require a stipulation to that effect to be filed before they give their approval to the fifth well. MR. SPURRIER: I wonder for the purpose of the record if we shouldn't have

something in writing from Mr. Morrell to that effect or Mr. McCurdy. MR. HINKLE: We could furnish you with a copy of the stipulation which we will file with the Supervisor of the United States Geological Survey. MR. SPURRIER: I think we should have something like that. MR. GRAHAM: It would be entirely satisfactory for our purposes. MR. HINKLE: We would be glad to do that.

(Meeting adjourned.)

CERTIFICATE

-5-

I HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Commission of New Mexico in Santa Fe, New Mexico, on December 1, 1949, at 10:00 A. M., is a true record of such proceedings to the best of my knowedge, skill, and ability.

Menganit Samuel

DATED at Albuquerque, New Mexico, this 1st day of December, 1949.

J. H. HERVEY HIRAM M. DOW CLARENCE E. HINKLE W. E. BONDURANT, JR.

GEORGE H. HUNKER, JR.

LAW OFFICES HERVEY, DOW & HINKLE Roswell, New Mexico

OIL CONSERV.

NOV 14 1949

November 10, 1949

Graham

Mr. Dick Spurrier, Secretary New Mexico Oil Conservation Commission Santa Fe, New Mexico

Dear Dick:

We enclose herewith in triplicate application of E. J. McCurdy of a five spot location on the NW Sec. 20, T. 18 S., R. 32 E.

This is the application which I talked to you about over the telephone and I believe you stated that you would go ahead and give notice so that the hearing can be had as soon as possible. Mr. McCurdy, of course, is anxious to commence the well and anything you can do to expedite the matter will be appreciated. We also enclose copy of letter from Mr. Morrell showing that the government has no objection to the granting of the application.

If the plat which is attached to the application as Exhibit "A" is not drawn to proper scale or it does not reflect the information which you desire, please let us know and we will prepare a new plat and send it to you to be substituted. However, we would not like to have this hold up the giving of notice of the hearing.

Yours very truly,

HERVEY, DOW & HINKLE

CEH:ab

CC: Mr. R. T. Wilson C/o E. J. McCurdy Artesia, N.Mex.

UNITED STATES DEPARTMENT OF THE INTERIOR

1 ,444

GEOLOGICAL SURVEY

P.O. BOX 997 Roswell, New Mexico

Novembor 10, 1949

100

Mr. R. T. Wilson 601 West Dellas Street Artesia, New Rezico

Subject: Lease Las Cruces 064175

Dear Mr. Wilson:

Reference is made to the application of R. J. McGurdy, Jr. which you, as his agent and representative, propose to submit to the Oil Conservation Commission of New Mexico for approval to drill an unorthodox "five spot" well location in sec. 20, T. 18 S., R. 32 E., N.K.P.M., Les County, New Mexico. '

The land involved in the application is embraced in Federal oil and gas lease Las Gruces 064175, which is held and operated by R. J. HcCurdy, Jr. The unorthodox well location set forth in the application is 1214 feet south of the north line and 1426 feet east of the west line of section 20, or approximately 106 feet north and east of the boundaries of 40-acre legal subdivisions. No encroachment of outer boundaries of the leasehold is involved, as the proposed location would be 1214 feet from the nearest lease boundary.

No objection is offered by this office to the well spacing plan providing for drilling of a well at the location specified in the application to test the producing reservoir of Young pool. The drilling of this well may afford opportunity for additional recovery of oil and gas from the producing reservoir. Approval to drill the well will be contingent upon approval of the unorthodox location for provation purposes by the Oil Conservation Commission of the State of New Mexico.

Very truly yours,

Josrell osur

Foster Korrell, Gil and Gas Supervisor, Southwestern Region.



Mr. Wilson Artesia office

NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

APPLICATION FOR APPROVAL OF FIVE SPOT LOCATION

New Mexico Oil Conservation Commission Santa Fe, New Mexico

Comes the undersigned, E. J. McCurdy, of Fort Worth, Texas, and hereby makes application for approval of the drilling of a fifth well for oil and gas upon the NW¹/₂ Sec. 20, T. 18 S., R. 32 E., N.M.P.M., Lea County, New Mexico, the location of said fifth well being an exception to the regular spacing, and that applicant be permitted to allocate the normal unit maximum allowable for four wells upon said land to the five wells, and in support thereof respectfully shows:

1. That the undersigned is the owner and holder of a certain oil and gas lease issued by the Secretary of the Interior of the United States, embracing, with other lands, the NW# Sec. 20, T. 18 S., R. 32 E., N.M.P.M., said oil and gas lease bearing Las Cruces Serial No. 064175.

2. That the undersigned has heretofore drilled and completed four producing oil and gas wells upon the above described lands, each of said wells being located in approximately the center of each 40-acre legal subdivision of the said Northwest Quarter of Section 20. Said wells are producing from what is known, or commonly referred to, as the Red Sand or Queen Sand at a depth of approximately 3,750 feet. There is attached hereto, made a part hereof, and for purposes of identification marked Exhibit "A" a plat showing the above described lands and said wells, and also the ownership of surrounding leases and the producing wells located thereon. 3. That the formation from which said wells are producing is such that applicant does not believe that said wells will adequately drain the Northwest Quarter of said Section 20, or that said wells will permit the recovery of all of the oil and gas from said 160 acres which may economically be recovered, and is therefore desirous of drilling a fifth well upon said 160-acre legal subdivision to the same producing zone which said well would be located 1,214 feet South of the North line and 1,426 feet East of the West line of said Section 20.

4. That a copy of this application is being furnished to the Supervisor of the United States Geological Survey with the request that the Supervisor advise the Conservation Commission as to whether or not he has any objections to the approval by the Commission herein requested.

Respectfully submitted,

E. J. MCCURDY

By AV. Relia

STATE OF NEW MEXICO COUNTY OF Chaven

R. T. Wilson, being first duly sworn upon his oath, states:

That he is the duly authorized agent and representative of E. J. McCurdy and in charge of development operations in connection with the oil and gas lease referred to in the above and foregoing application, and that he has read the same and from personal knowledge knows the matters and things therein stated to be true and correct, and that the plat attached to said application as Exhibit "A" is accurately drawn to scale and that the information shown thereon is correct to the best of his knowledge and belief.

T. Miller

SUBSCRIBED AND SWORN TO BEFORE ME, this the

day of November, 1949.

Marion Koney Notary Public

My Commission Expires: Nar. 12 1951. Lee County, New Mexico

EXHIBIT "A"

TOWNSHIP 18 SOUTH

RANGE 32 EAST

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	Vera Ross		- L.C. 063	646 -	120.00 "						

NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

APPLICATION FOR APPROVAL OF FIVE SPOT LOCATION

New Mexico Oil Conservation Commission Santa Fe, New Mexico

Comes the undersigned, B. J. McCurdy, of Fort Worth, Texas, and hereby makes application for approval of the drilling of a fifth well for oil and gas upon the NW# Sec. 20, T. 18 S., R. 32 E., N.M.P.M., Lea County, New Mexico, the location of said fifth well being an exception to the regular spacing, and that applicant be permitted to allocate the normal unit maximum allowable for four wells upon said land to the five wells, and in support thereof respectfully shows:

1. That the undersigned is the owner and holder of a certain cil and gas lease issued by the Secretary of the Interior of the United States, embracing, with other lands, the NW# Sec. 20, T. 18 S., R. 32 E., N.H.P.M., said cil and gas lease bearing Las Cruces Serial No. 064175.

2. That the undersigned has heretofore drilled and completed four producing oil and gas wells upon the above described lands, each of said wells being located in approximately the center of each 40-acre legal subdivision of the said Northwest Quarter of Section 20. Said wells are producing from what is known, or commonly referred to, as the Red Send or Queen Send at a depth of approximately 3,750 feet. There is attached hereto, made a part hereof, and for purposes of identification marked Exhibit "A" a plat showing the above described lands and said wells, and also the ownership of surrounding leases and the producing wells located thereon. 3. That the formation from which said wells are producing is such that applicant does not believe that said wells will adequately drain the Northwest Quarter of said Section 20, or that said wells will permit the recovery of all of the oil and gas from said 160 acres which may economically be recovered, and is therefore desirous of drilling a fifth well upon said 160-acre legal subdivision to the same producing zone which said well would be located 1,214 feet South of the North line and 1,426 feet East of the West line of said Section 20.

4. That a copy of this application is being furnished to the Supervisor of the United States Geological Survey with the request that the Supervisor advise the Conservation Commission as to whether or not he has any objections to the approval by the Commission herein requested.

Respectfully submitted,

B. J. MCCURDY

By JAY. Nella

STATE	OF	NEW	MEXICO	
COUNTS	OF		haver	

R. T. Wilson, being first duly sworn upon his oath, states:

That he is the duly authorized agent and representative of E. J. McCurdy and in charge of development operations in connection with the oil and gas lease referred to in the above and foregoing application, and that he has read the same and from personal knowledge knows the matters and things therein stated to detrue and correct, and that the plat attached to said application as Exhibit "A" is accurately drawn to scale and that the information shown thereon is correct to the best of his knowledge and belief.

19. T. Relia

SUBSCRIBED AND SUGRN TO BEFORE ME, this the

day of November, 1949.

My Commission Expires:

Mar. 12. 1251.

Notory Public

PROPOSED LOCATION:

 $\vec{s}_{1}=\vec{s}_{1}\vec{s}_{2}$

1214¹ South of North Line 1426¹ East of West Line

Section 20, T18S, R32E, Lea County, New Mexico ALL LOCATIONS are in the center of the 40's and oroducing from the same horizon, known as the Red Sand or Queen Sand, at a depth of approximately 3750'.

EXHIBIT "A"

TOWNSHIP 18 SOUTH

RANGE 32 EAST

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Vera Ross - L.C. 063646 - 120.00 "

O PROPOSED LOCATION - McCurdy-Young #5

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