

Case No.

601

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

TRANSCRIPT OF PROCEEDINGS

Case No. 601

October 28, 1953. - Special Hearing

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

October 28, 1953

IN THE MATTER OF:

The application of Stanolind Oil and
Gas Company for the establishment of
320-acre proration units and a uniform
spacing pattern in the common source of
supply discovered in its State 'AB' Well
No. 1, NW/4 SE/4 Section 29, Township
17 South, Range 28 East, NMPM, Eddy
County, New Mexico.

Case No.
601

BEFORE:

R. R. Spurrier, Secretary.

TRANSCRIPT OF PROCEEDINGS

(Notice of Publication read by Mr. Graham)

MR. SPURRIER: The meeting will come to order, please.

Who is to appear for Stanolind?

MR. SMITH: J. K. Smith representing Stanolind Oil and
Gas Company. I have two witnesses, Mr. Hiltz and Mr. Ingram. At
the outset, I would like to direct the Commission's attentions
to our application and clarify in some respects the order which
we request. I would like to make it clear that the request for
the proration units involved here are for gas proration units. It
is not spelled but it is inferentially contained in the entire
application. Also, that we are confining the establishment of
these proration units to the deeper horizons as a matter just to

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the horizon in which the State A.B. Well was completed.

T. L. I N G R A M

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. SMITH:

Q You are employed by Stanolind Oil and Gas Company?

A I am.

Q What is your position?

A District geologist in the Roswell District.

Q You have testified before the Commission before, haven't you?

A I have.

MR. SMITH: I would like to ask the Commission to accept his qualifications as an expert.

MR. SPURRIER: They are accepted.

Q Do you have in your possession a map or plat showing the area which we propose to include within the application of these rules?

A I have.

(Stanolind Exhibit No. 1
marked for identification)

Q I would like to direct your attention to the Exhibit there. The red line on the exhibit is that the outline of the area in which you desire or the Stanolind Oil and Gas Company desires that the rules have application?

A That is correct.

Q Roughly, for the purpose of the record here, they start in Section, the middle of Section 19 and go east through the mid

part of Section 19, 20, 21 and 22 and Range 28 East Township 17 South. They follow the section lines of south direction of Section 19, 30, 31 and to the midpoint of Sections 6 which is in Range 29, East, Township 18, South, and proceeds in an easterly direction across the midpoint of the sections in there to the intersecting point of the line proceeding south on the section lines of 22, 27, and 34 and to the midpoint of Section 3, which is in Township 18 South.

Q Mr. Ingram, as a geologist, you had occasion to investigate the possibility of the production in the area as outline there?

A We have.

Q There has been a well completed in there. I wish you would give us the name of the well and date completed.

A Stanolind One State A B which was completed August 24, 1953.

Q This well is located at what point?

A 1900 feet from the south and east lines of Sections 29, Township 17, South Range 28 East.

Q What is your opinion with respect to the reasonable probability of their bring productions in the area included within the red lines on Stanolind Exhibit No. 1?

A Geologically and from our seismic information, it is possible for the area outline in red to be productive from this sand.

Q What sand is the well producing from?

A It is Pennsylvanian sand, the exact age of it has not been determined.

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Q Have there been any electric logs or micrologs made of the well?

A There have been.

Q Do you have a Schlumberger?

A Yes.

(Stanolind's Exhibit No. 2 marked for identification.)

Q I hand you what has been marked for identification as Stanolind Exhibit 2 and ask that you explain to the Commission the information contained therein.

A It is a Schlumberger electrical log which was run on the Stanolind Number one State A B from a depth of 538 feet to total depth 12,431 feet. The formation tops are so indicated on the log.

Q They are clearly set forth on the log?

A They are.

Q With respect to the producing zone which was encountered in the Stanolind State A B One, what does the electro-log reflect with respect to the formation encountered at what depth?

A It indicates a sand zone, the top of which is at 10,102 and the base at 10,174 feet.

Q That is from the surface?

A That is correct.

Q Do you have another exhibit, micro-log, showing the pay zone?

A We have detailed sections of the electrical log with the micro-log indicated on the right hand portion.

(Stanolind Exhibit No. 3 marked for identification.)

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Q Referring again to Stanolind Exhibit 3, the area marked in yellow there is the pay zone?

A That is correct.

Q And what other information is reflected there on which would be of value to the Commission?

A Well, there is the one major sand body approximately 74 feet thick and also there are five other sand stringers above and below which would approximate 12 more feet.

Q At what point in the major thickness was the well completed?

A The perforations were from the upper 25 feet, 10,102 to 10,127.

Q From the information available to you, what is your opinion with respect to the possible pay or potential, of course, I recognize the fact that you as an engineer cannot testify too much with respect to the potential. Can you give us some idea of this particular discovery?

A Well, the wells potential for 20 million cubic feet of pressure approximately 24 barrels of distillate per million cubic feet.

Q Has there been more than one test made?

A That is the only well completed, there is another test drilling in the area now.

Q Who is drilling that well, now?

A San Juan Drilling Company, Number one B San Juan at the same time, 660 feet from the south and west lines of Section 28, Township 17, South Range 26, East.

MR. SMITH: No further questions.

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MR. SPURRIER: Anyone have a question of this witness?

MR. COLVIN: A. L. Colvin representing Delhi Corporation,
San Juan Drilling Company.

By MR. COLVIN:

Q Mr. Ingram, did that well encounter any shows of oil production at shallow depth?

A It did. Some shows in the Glorieta and also in the Wolfcamp.

Q What was the nature of the shows in the Wolfcamp.

A On the drill steam test from 7,247 to 7,310 which was open four hours, gas came to the surface in 20 minutes recovered 840 feet of heavy oil and gas cut mud, 60 feet of free oil.

MR. COLVIN: That is all.

MR. SPURRIER: Mr. Kellahin.

MR. KELLAHIN: Kellahin representing Buffalo Oil Company,
I would like to ask some questions.

By MR. KELLAHIN:

Q Mr. Ingram, when Stanolind's well was drilled it was a discovery well, was it not?

A That is correct.

Q Was it drilled primarily as an oil well?

A That is correct.

Q At least it was anticipated to be an oil well. Is its location substantial, the location in the center of the 40-acre unit?

A That is true.

MR. KELLAHIN: That is all.

MR. SPURRIER: Anyone else? If not, the witness may be

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excused.

(Witness excused)

R. G. H I L T Z

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. SMITH:

Q Will you state your name, please?

A R. G. Hiltz.

Q By whom are you employed?

A Stanolind Oil and Gas Company.

Q What capacity?

A As an proration engineer in the Fort Worth Office of the Stanolind Oil and Gas Company.

Q You have testified before the Commission on other occasions, have you not?

A Yes, sir, I have.

MR. SMITH: I would like to ask the Commission to accept his qualifications?

MR. SPURRIER: They are accepted.

Q Mr. Hiltz, you have certain data on the completion of that well which I think the Commission would be interested in hearing, I would like for you to relate it to them.

A The information obtained from the completion of the one well which is located 1980 feet from the south line and 1960 feet from the east line in Section 29, Township 17, South Range 28, East, in Eddy County, New Mexico. The well had a surface elevation of 3717 feet. Operations commenced on the well on March 5th, 1953 and the well was officially completed on August 24, 1953. The

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well was drilled to an original total depth of 12,430 feet. Where it tested Ellenburger. Subsequently, the well was plugged to a total depth of 10,270 feet, the top of the pay formation was encountered at 10,102 feet. In completing the well, the casin had been set in the well was perforated from 10,102 to 10,127 feet giving a 25 foot perforated interval out of approximately 74 feet of indicated pay. On initial potential test, the well was tested and the calculated open flow from that test was 30 million cubic feet of gas per day with approximately 24 barrels of 5.6 distillate per million cubic feet. The initial bottom hole pressure measured on the well was 4,068 pounds at a datum subsea of 6420 feet. The completion program of the well consisted of thirteen three inch casing set at 503 feet with 500 sacks of cement circulated to the surface. Nine and five eighths inch casin was set at 2,003 feet with 150 sacks, the purpose of that intermediate string being to isolate producing formations which occur above the top of San Andreas formation. Seven inch was set at 10,370 feet with 400 sacks of cement. The calculated fill in the pipe indicated that the cement behind the pipe satisfactorily isolated the Wolfcamp producing zone.

Q Do you have any other data with respect to the completion or is that you have given the potential test?

A I have given a potential test date.

Q What reasons do you have in mind for the promulgation by the Commission at this time of proration rules applying for 320 acre spacing or 320 proration units rather in the area outlined in red on the Stanolind Exhibit No. 1?

A There are many factors which govern the spacing of a well,

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but in the ultimate, I think that the proper consignment is one of economics. The initial cost of this first well, the total cost was over \$300,000.00. It was almost \$350,000.00 I believe. The estimated portions of that cost which would be attributed to drilling, just to the producing formation in which the well is now completed, was approximately \$242,000.00. It is estimated that additional wells in the field will cost on the order of \$236,000.00, from the discovery well. We at this time don't have enough information in order to determine what the proper spacing pattern in the field should be. In relation to the cost of the wells, we feel that the spacing should be held to as large a spacing pattern as possible in order to give us an opportunity to get the information that we need from an engineering and geological standpoint to determine what the optimum spacing pattern should be eventually in the field.

Q Do you believe that it would be possible to support and substantiate 640 acres spacing in this field?

A We have no concrete evidence at this time to definitely support any program, but I would say on the basis of experience, we have gained in other areas that it is quite probable that further development of this area will reveal information which will indicate that one well will effectively drain an area considerably in excess of 640 acres. In further considerations of the matter of spacing, I would like to point out other reasons which I think have merit. Actually some type rule is necessary in order to insure orderly and uniform development of this area. The spacing pattern of the type we will recommend will eliminate the drilling of unnecessarily and costly wells until such time as the optimum

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spacing pattern is determined, thus diverting funds for development in other portions of the State and in this same area. It will promote more rapid delineation of the field limits. That is a factor which is very desirable in developing a market outlet for the production produced from the well. Another factor which is worthy of consideration is that a wider spacing pattern will permit a larger number of working interest and royalty interest to participate in production from the field at an early time in the early life of the field, giving them a better opportunity to recover their fair share of the reserves in the field. Another factor is this type spacing pattern on a temporary basis will possibly hold at a minimum the number of wells required to meet market demands from the field.

Q You are not familiar with any possible or available market that may exist at this time?

A No, I understand that negotiations which have already directly led to any consummation of contracts.

Q There is no early anticipation of a well connection at this time to immediately start producing?

A To my knowledge, no.

Q Do you have any other comments to make?

A I have no further comments to make on the necessity of the rules. I am prepared now to recommend rules.

Q Will you discuss the rules set forth, the various elements that you are suggesting to the Commission?

A We would recommend to the Commission that they issue a temporary order providing for rules essentially as follows: "The adoption of 320 acre proration units comprising essentially two

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continuous and contiguous governmental quarter sections substantially in the form of a rectangle. For the spacing of wells, we would recommend that the wells be located 330 feet from the center of either the southeast quarter or the northwest quarter of a normal section according to United States Government survey with 200 feet additional leeway permitted for tolerance for topographical conditions.

We feel that there should be some specifications as to the type of casing program that should be followed in order to properly isolate and protect all known producing horizons above the pay. For that reason we would recommend that 300 feet of casin be set with sufficient cement to circulate to the surface. We would recommend that an intermediate string be set no higher than the top of the San Andres in order to protect the Seven Rivers, Yates and Grayburg producing formations in that general area. We would also recommend that the production string in the well be set no higher than the top of Pennsylvanian and encountered with sufficient cement circulated behind that pipe to fill the hole above the Wolfcamp which is known to be productive in that area or I should say, is indicated that it possibly can be producing commercially.

As an alternate cementing program on the production string, we think it would be desirable that the rules provide that a two stage tool might be used to isolate the Wolfcamp. We would also recommend that the area covered by this initial order be as outlined on Stanolind's Exhibit No. 1. As to the time for which the order would be effective, we would like to suggest to the Commission that this order remain in effect until five wells have been

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completed or until 18 months have elapsed whichever occurs first.

There is one other factor as previously mentioned, there is a second well drilling offsetting the State A B No. 1 that is the San Juan Production Company, San Juan Number 1, I believe. If that well is completed in the same producing formation, the Pennsylvanian, it would be that well would not be on the uniform spacing pattern which we have recommended to the Commission.

It would be our feeling that that well should be granted an exception to the rule, temporary rule, since a permit to drill that well was actually granted prior to the time this application was filed.

Q Do you have any other comments to make?

A No, sir, I don't.

MR. SMITH: No further questions.

MR. SPURRIER: Mr. Hiltz, look in paragraph 2, that is, yes, paragraph 2 on your first page of your application, 303 feet off the center, that actually describes the circle?

A Yes, sir, that is true. I think I know what you mean. We would have no objection to the type rule which you have recently adopted in San Juan calling for 990 feet from the outer boundaries, that would be satisfactory.

MR. SPURRIER: Does anyone have a question of the witness? Mr. Colvin.

By MR. COLVIN:

Q Is it true that Stanolind owns most of the acreage inside the red outline on the plat, Stanolind or its associates?

A Yes, sir, there are a lot of joint interest operations which I am not wholly familiar.

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Q For my information, was the area arbitrarily picked or was it based on sub surface work for this rule?

A I believe, Mr. Ingram pointed out, I will confirm what he stated, that that area was estimated to be that which could be reasonably expected to be productive based on seismic information which was obtained by Stanolind.

Q In the event 320 acre spacing is established, how do you propose which way, do you propose to form a unit around your well, the south half of the section or the east half of the section or otherwise?

A We have not specified in our rule, Mr. Colvin, what manner the proration units would be established. We have merely indicated that they should comprise two ordinary quarter sections according to governmental survey.

Q And it could, under that basis, it could be two legal quarter subdivisions, say the southeast and the northwest quarter, they adjoin at the corners?

A No, I believe I said it should be continuous and continuing substantially in the form of rectangle.

Q It could be the southeast quarter of 29 and the northeast of the section below, I believe 32?

A The southeast of 29 and the northeast of 29.

Q No, the northeast of the one down below, 32.

A That is possible.

Q I believe you stated the well was completed at 10,000 foot intervals, that the total cost was \$350,000.00 but that the prorated amount to the producing horizon was around 242,000.

A That is an estimate.

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Q In forming your spacing unit, taking your parties on the acreage there, would the cost of the first well be prorated on the basis of the \$242,000.00?

A I am not familiar with any contractual obligations we have there. I am not qualified to answer that question.

Q Just off hand, it doesn't seem right, if the well was drilled primarily for oil, hit gas and it formed 320 acres that the partners or the people joining in the spacing unit would have to pay for that exploratory work done by the drilling company?

A Well, I believe that is a matter, Mr. Colvin that can best be settled within the operators and myself.

Q I believe you gave, the party preceeding you, gave the information about the Wolfcamp, you have indicated that it is possibly productive in that area?

A Yes, sir.

Q Take the company that owns a small amount of acreage in the area that doesn't own 320 acres in any one body with the showing encountered on the Stanolind test, it might be an economic gamble for them to drill a well to the Wolfcamp to try for Wolfcamp Oil if they had a pretty good assurance that if they didn't get something in the Wolfcamp, they could carry it on to the Pennsylvanian and probably get production in this gas horizon, do you not think that would be a true assumption?

A It might be a true assumption but I think it is essential if you are going to adequately protect correlative rights that you have a uniform and orderly development program.

Q It would have some weight, if you would want to take the chances in the Wolfcamp, it would kind of help if you wanted to

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get a dry hole in that.

MR. SMITH: I think he is asking for the witness to conjecture to a matter that may or may not exist. I would like to object to his question.

MR. COLVIN: I will withdraw the question, but it is a basis for our position in this particular thing which will be brought out later. You stated that the question of economics is involved. A well to that formation, estimated future well, \$236,000.00. I don't know whether you are qualified, Mr. Smith can correct me if I am wrong, I don't know if you are qualified to project a pay out using the current market price for gas?

A No, sir, I am not, I would hesitate to make any estimate at this time because we simply don't have reliable information. It is the objective of this application to make certain that we do not commit ourselves to any development program other than the minimum necessary until we have the information on which we can base a determination of the optimum spacing program.

Q Well, you are basing it though on the economics and partly on economics. We have projected such a pay out that was the reason I asked that question. We find that it would be economical to drill even on 160 acres if they could get a well comparable to what you were all fortunate in getting.

A In my estimate, that can only be confined by obtaining the necessary information.

Q And drilling future wells?

A Yes.

MR. SMITH: With respect to the formations of these 320 acre units, the rule is silent as to whether or not it should

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cross section lines, that has been left open purposely for the Commission's consideration. In other words, we have no official confirmation on that one way or the other?

A That is right.

MR. KELLAHIN: Buffalo Oil Company.

Q Mr. Hiltz, did I understand you to say, do you have any core information from the well that you drilled?

A No, no, sir, no cores were obtained on the initial wells.

Q In connection with these units as they are proposed by Stanolind's order, I believe you testified that it would be possible to communitize the southeast quarter of 29 with the northeast section of 32?

A That is a possibility.

Q It would then be possible to communitize the northwest quarter of 32 and the northwest quarter of 31?

A No, sir, it would not.

Q I mean the northeast of 31?

A It would be possible under that rule to communitize the northwest of 32 with the northeast of 31.

Q And the east half of Section 30?

A Well, we are projecting this pretty far into the future but assuming there were no conflictions, you could make 320 pi-
ration units out of the east half of the section of 30.

Q I mean under the provisions of the proposed rule, it would be possible to communitize the north half of 29 too, wouldn't it?

A Yes, sir, it would be possible.

Q Where would that leave the southwest quarter section of

29?

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A Well, we projected into the future under that assumption, I believe we have some acreage unaccounted for, I believe the east half of Section 30 is unaccounted for, so there would be a total there. . . .

Q I did mention the east half of 30, perhaps, you didn't understand me.

A Are you assuming to make it brief, are you just assuming that you would have the southwest quarter of 29 isolated?

Q Yes, sir.

A That is a very definite possibility.

Q Under the rules as they are now proposed?

A Yes, that is true.

Q It is your testimony on the information you have now available it is uneconomical to drill on 160 acres?

A I have made no statements whatever about the economics of drilling on any spacing.

Q You did state based on that those . . .

A I stated that the spacing of wells in any field is primarily the field of economics. I didn't necessarily relate it to this field.

Q As I understand it you want this order until you do get the spacing pattern?

A That is the need for this application.

Q Assume that you do not drill, what do you propose to do with an isolated tract of that nature?

A I think that would be a matter, Mr. Kellahin, that would have to be presented to the Commission and after hearing all the evidence they would have to issue an order covering the matter

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that they felt was justified in the case.

Q You have no objection to confining it to the sections as I understand.

A Our application is silent on that. As Mr. Smith pointed out, we are essentially neutral.

Q You would have no objection as far as your company is concerned to requiring it to be the north half, south half or east half or west half of the section?

A We will express no objection to that.

Q Referring again to the southwest quarter of Section 29, in the event it was communitized in that fashion, would that not leave on the spacing pattern proposed that 160 acres directly offset by four wells?

A Yes, sir, well, yes, it would, that is correct, if you follow the proper spacing pattern, it would be.

Q On the adjacent 160 acre tracts?

A Yes, that is correct.

Q Isn't there also a distinct possibility that under this proposed spacing pattern leaving it open as it is, is there not a distinct possibility that some operator would have to step out at least a mile in order to protect himself, to fulfill his drilling operations?

A I haven't carried it quite that far. I would be glad to study any plan of drilling you want to propose and perhaps we can develop a hypothetical case.

Q It would be possible, he would have to step out almost a mile?

A I would judge without further study that probably in most

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cases he would be confined to half a mile step out.

(Marked Buffalo Exhibit No. 1
for identification.)

Q I hand you what has been marked as Buffalo's Exhibit No. 1 and ask you, with that starred well representing the present Stanolind well to the adjacent tract to the west, on that type of spacing pattern shown on the plat, there would be required a step-out of almost a mile, would there not?

A From the initial well, that is correct. Assuming that is the next well drilled that is a possibility, yes.

Q Assuming that there were drilling obligations in this to offset the productions here then that well would be a necessary well, wouldn't it?

A Would you ask that question again?

Q Assuming that there were drilling obligations to protect against drainage from this well, would that well be necessary?

A Would this well be necessary?

Q Yes, sir.

A I am afraid that is bordering on the matter of a legal question as to what the obligations are under contracts as related to orders issued by the Commission and I would not be qualified to answer that question.

Q Mr. Hiltz, referring to this plat again and the location of the Stanolind Well, and assuming that they communitized with the acreage to the south, as indicated here, your testimony is to the effect that you believe that well will drain at less 320 acres, what acreage would be drained?

A Well, let me be certain I make this clear. I have not

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testified that one well in the field will actually drain 320 acres. I, on the basis of experience we had gained, I felt there was a complete possibility that information would show that one well was capable of draining in excess of 640, I want to reiterate the fact that we have no concrete information at this time to determine what acreage one well would drain.

Q I do not wish to misstate your position. Assuming that additional information shows that the well will drain 320 and it is communitized with the tract to the southwest, most of the gas coming from that tract committed go to the well?

A Under the concept of radio drainage theory, it would not.

MR. KELLAHIN: We would like to offer this in evidence. We would put on a witness if you prefer.

MR. SPURRIER: Any objections? If no objections it will be admitted.

MR. SMITH: I would like to ask one question, since he is not offering a witness. It is in regard to your question about the radio drainage, I would like to say that the Courts have generally recognized the compensating radio drainage when you have an unusual --

MR. KELLAHIN: (Interrupting) Yes.

MR. COLVIN: In line with what Mr. Kellahin said, it would be a very definite, not only possibility, but probability that if Delhi should drill a well on any of their acreage under this proposed plan with one exception, our well would be over one mile from that other, than the well that we farmed out to San Juan.

MR. SMITH: Mr. Hiltz, one other thing, I don't think we have explained the legend on the Stanolind Exhibit 1, the green

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acreage is state leased acreage, is that correct?

MR. INGRAM: Yes, I believe.

Q The blue is United States of America?

MR. INGRAM: Yes.

Q And the yellow is

MR. INGRAM: Yes.

MR. SMITH: No further questions.

MR. SPURRIER: Mr. Macey.

MR. MACEY: Do you have a name to recommend for this pool?

MR. HILTZ: No, I don't. It is my understanding that maybe submitted on the form C123. I don't know whether it has been submitted.

Q I think if we write an order it would be a good idea to refer to a pool name?

MR. HILTZ: We will be happy to dream up a name and submit it at our earliest opportunity.

MR. SPURRIER: Does anyone have a further question of Mr. Hiltz? If not, the witness may be excused.

(Witness excused.)

MR. SPURRIER: Do you have anything further?

MR. SMITH: I would like to offer in evidence Stanolind Exhibit 1, 2 and 3 which have been marked for identification up to now.

MR. SPURRIER: Without objection, they will be admitted. Does anyone have anything further in this case?

MR. COLVIN: A. L. Colvin representing Delhi Oil Corporation San Juan Drilling Company. I would like to say this off the record to the Commission. In line with what Judge Foster said, we

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can come here to the Commission and as oil men, we can disagree without being disagreeable but we are disagreeing with Stanolind but we are not going to be disagreeable with them. We do offer objection and I have written out since I have been here, our position which I will read.

We are interested parties to Case 601 in that we own acreage in the immediate vicinity of the Stanolind State A B 1 well located in the Southeast/4 Section 29-156-28E, Eddy County, New Mexico, the discovery and only well completed at this time. Primarily, we feel that there has been insufficient development in this immediate area to draw adequate rules and regulations to prevent waste and protect correlative rights and are therefore recommending to the Commission that the matter be continued until such time as sufficient wells have been drilled and are producing to adequately define the field reservoir, at which time appropriate rules and regulations should be established by the Commission.

In the event the Commission feels spacing units should be established at this time we recommend they be in conformity with the state-wide rule of 160 acre spacing units for gas wells.

We also recommend that said spacing units, regardless of size be designated by legal subdivisions inside section lines; that is, the spacing units will be legal quarter sections or legal half sections within an individual legal section. Secondly, a further reason for our position in addition to the foregoing is as follows: For example, in Sections 28 and 30 adjoining Section 29 to the east and west and the three sections adjoining these sections to the south, according to map furnished us by Stanolind,

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Stanolind and its partners own the majority of the acreage and in only one unit on the basis of 320 acres spacing would Stanolind and its partners own less than 50 percent of the unit acreage and they would more or less control the unit to the possible, and I emphasize possible as we do not believe it would be intentional, detriment of the lesser unit interest owners.

Thirdly, on the basis of showings encountered in the Stanolind well, there is a possibility a well capable of commercial production of oil might be completed in the Wolfcamp formation by moving such well short distances from the Stanolind well and if an operator believed he had a fairly certain assurance of getting a gas well in the deeper horizon, it would be more of an incentive to drill a well in search of oil in the more shallow formation, using as a hedge against a dry hole, the better possibility of production by carrying the well to the deeper horizon. However, if there is already a well on the 320 acre unit, he possibly would be unable to produce his gas well if he got production, or his takings would be reduced. We believe this would act as a hindrance to full development of all possible producing horizons in the area.

We therefore make our recommendation as set out before that the case be continued until such time as there have been more wells drilled and placed on production and an adequate study of the field be made to warrant the Commission to issue field rules and regulations.

MR. SMITH: May it please the Commission in view of Mr. Colvin's statement, I would like to make a further statement on behalf of Stanolind. I think that this field here represents a classic example of what we have been talking about in the past

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with respect to orderly development in the early stages of a field. To follow the suggestion made by Mr. Colvin would of course compound our troubles, because the necessary implication has stated that they will go ahead and develop a 160 acre pattern, so that you will be in the position if ultimately it is determined after the field is developed that 320 is your optimum pattern, no doubt Delhi might be in a more favorable position with respect to early withdrawal also with respect to the placement of the wells.

I think that in equity and justice to the further development of the field and the very thing we have talked about and are talking about, we should go ahead and develop the field on the 320 acre spacing basis. I think that the possibility of Wolfcamp production as indicated here shows in our well it would be just as encouraging to drill a well on a 320 acre spacing pattern as it would be to drill the well on a 160 acre spacing pattern. Furthermore I am inclined to believe that since the knowledge of the possible production and gas is there that whoever goes down is going to go ahead and complete a gas well anyhow.

It is going to be necessary to drill an additional Wolfcamp well, so I think the hedge that Mr. Colvin is talking about can best, be stated that they are going to hedge by drilling to gas producing formations down there and selling their gas at the earliest moment. He is talking about the economic detriment of the minority holders which might be devised by the communitization of some of the 320 acres. I don't know quite what he has in mind. Certainly, it has been my experience that the operating agreements are entered into on an equal yard stick basis and that every person

has the opportunity to protect himself by contract by negotiation and certainly, I don't think Stanolind at any time has ever taken any advantage of any of the minority holders and the acreage in any of the units that we have ever operated. It just occurs to me that if we don't go into this matter as I say, the objection that has been raised by Delhi very pointedly brings out the necessity for the promulgation of 320 acres in this field.

Now, our past experience as Mr. Hiltz has indicated has shown that this area, this type of gas production is probably, can drain in excess of 640 acres. Certainly, when we come to the Commission and ask for development on 320 acres, we are doing a reasonably fair thing.

Actually, the question of economics enters into it to a very substantial point. I don't want the Commission to become confused from the standpoint of economics, well, from a standpoint of a well that will not pay out as distinguished from the economics involved in the oil and gas business.

The statute doesn't necessarily write into the statute books the same type of provisions you have in oil and gas leases. In other words, you are to consider the overall economics so that the operators can arrive at the optimum amount of profit to be derived from the drilling of the wells. Furthermore we have the proposition if after we go in and develop the field and step out and if sufficient reserves are available that have been definitely demonstrated so that we can attract possibly another pipeline or in some manner get additional capacity, we may solve some of the proration problems in Southeastern New Mexico. I think on the overall long range viewpoint, the quicker this reservoir can be

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explored and found out how extensive it is, the greater benefits and interest to the State of New Mexico and to the operators of New Mexico will be furthered.

MR. SPURRIER: Anyone else?

MR. KELLAHIN: If the Commission please, we would like to call Mr. Gray as a witness if Stanolind has completed their case.

MR. SMITH: I thought the case was over.

M R. R A L P H L. G R A Y

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. KELLAHIN:

Q Would you state your name, please?

A Ralph L. Gray.

Q By whom are you employed?

A Buffalo Oil Company.

Q What capacity?

A As assistant superintendent.

Q Have you ever testified before this commission before?

A I have.

MR. KELLAHIN: Does the Commission accept his qualifications?

MR. SPURRIER: They will be accepted.

Q Mr. Gray, you made a study of the proposed spacing pattern which has been proposed by Stanolind in the nameless pool, the pool without a name?

A Yes, we have given some broad considerations to the spacing question. Of course, as has been pointed out previously, there were not any cores taken so until such time as such data is

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available it will not be possible to accurately establish definitely the proper size units.

Q In view of that situation, Mr. Gray, what size unit do you recommend?

A We think that at least under these temporary rules and until such additional information is developed, that we should conform to 320 acre units and we would like to carry Stanolind's idea of uniformity a little further. They have suggested a uniform spacing in which the wells would be located either in the northwest or the southeast quarter of the sections and we also think that the 320 acre units should be uniform to the extent that they should be all within a common section. Either they could be the section could be divided either in a north, south or east, west direction and then the proration units would be common to a section.

Q Would that insure a uniformity that would not be possible if it is allowed to cross section lines?

A That is right. If the proration units are confined to a common section, it eliminates the possibility of someone getting hurt. I think our Exhibit No. 1 that has previously been presented in the case indicates very definitely that in crossing section lines, it is possible to arrive at a situation where one quarter section is not protected. In such a case, the operator of that particular quarter section would not be provided with the opportunity of developing a normal well on a normal 320 acre spacing unit.

Q Would it also be possible for such an isolated tract to be without an orthodox drilling location?

A If such a condition arose and the operator had to protect his rights by drilling it might mean the drilling of a well that was not in conformance with the standard uniform spacing pattern.

Q Would it be possible for a well so located to be surrounded by wells to which a higher allowable has been allotted?

A That is possible.

Q Do you have anything else to add to that?

A No.

MR. KELLAHIN: That is all.

MR. SPURRIER: Anyone have a question of the witness. If not the witness may be excused.

(Witness excused.)

MR. SPURRIER: Do you have another closing statement?

MR. SMITH: I will just have the stenographer read it back to you.

MR. KELLAHIN: We would like to make clear Buffalo's position in this matter in that we wholeheartedly support Stanolind's application for a temporary order for 320 acre spacing. We base that on the fact that there is a lack of information on this reservoir which will be supplied by the drilling of additional wells and the great depth at which this formation is found, the cost of drilling these wells may well show that one well will drain their 120 acres, a fact which we do not know.

The adoption of a temporary order cannot possibly harm anyone in that, if it is found that additional wells are needed, they can go back in and be drilled. We urge the immediate adoption of the well for the reason that we already have one off pattern well being drilled. Unless the Commission takes some action there

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is a distinct possibility that other wells will be started which will require exceptions once the rule is adopted. We do not believe that in forming the drilling units, it should be permitted to cross section lines.

We urge the Commission to adopt a rule which would require communitization within the boundaries of a section either the north half, south half or east half or west half and in that manner insure uniformity throughout the development of the pool. We have a situation here where we have one well producing. We have an opportunity to set up a regular unit and if the Commission does not take that action, then irregular patterns are almost inevitable. For that reason we urge the Commission to confine units to section lines.

MR. COLVIN: May I make a closing statement for Delhi and San Juan in that we agree with the statement of Stanolind and Buffalo Oil Company for the very reasons that they brought out, that there is only one well capable of production.

We do not believe there is sufficient evidence to warrant the establishment of the rules at this time and in the case of the small operator or with the acreage and the position that Delhi and San Juan have, it makes it necessary for us to move way out away from the well to protect our rights under the leases, and particularly in connection with San Juan with relation to the west half of Section 20. It would be necessary for them to commence their well there in the northwest quarter of the section, some mile and a quarter from the well, the Stanolind Well there in 29. We believe and recommend that until such time there is a well being drilled, God forbid, but it could be dry, we have drilled

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them before that close to production and Stanolind and Buffalo might be wrong that one well might drain the 160 it is located on and that is all. If they are wrong, we have been penalized. If they are right, I don't believe that they have been penalized because we have projected figures which indicate that wells on 160 acres are economical from a pay out basis and from sources of revenue both to the lessor and to the leasee and the royalty owner.

MR. SPURRIER: Anyone else?

MR. HULL: C. A. Hull, Shell Oil Company. Shell concurs with Stanolind's recommendations.

MR. SPURRIER: Anyone else?

MR. RICHARDSON: W. S. Richardson, Malco Refineries. We concur with Stanolind's recommendation.

MR. SPURRIER: Anyone else? If not, the case will be taken under advisement, and the docket is completed for today.

* * * * *

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings in Case No. 601, taken before the Oil Conservation Commission on October 28, 1953, contains a true and correct record of said proceedings to the best of my knowledge, skill, and ability.

Ada Dearnley
REPORTER

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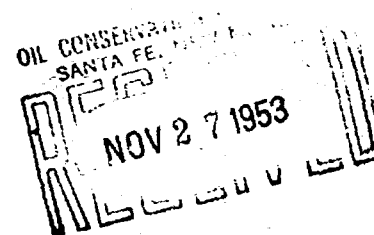
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DELHI OIL CORPORATION

CORRIGAN TOWER

DALLAS 1, TEXAS

November 24, 1953



Oil Conservation Commission
Santa Fe, New Mexico

Attention: Mr. R. R. Spurrier, Secretary

Re: Case No. 601, Special Hearing
October 28, 1953

Gentlemen:

This will acknowledge receipt of Transcript of Proceedings in connection with the above case for which I am very grateful.

I call your attention to certain portions of the testimony which I believe should be clarified when being reviewed by the Commission.

On Page 14 at the bottom of the page the last question is not clearly stated in that as I recall the question it should have been worded similar to the following:

"It would have some weight, don't you think, if you wanted to take the chance of drilling for a Wolfcamp well; it would help if you could hedge against a dry hole in that formation if there was a possibility you could carry the well deeper and make a gas well in the Pennsylvanian."

On Page 20, the last complete paragraph on this page regarding my testimony, this paragraph is not clear and as I recall from my notes, the statement I made was as follows:

"In line with what Mr. Kellahin said, it would be a very definite, not only possibility, but probability that if Delhi should drill a well on any of their acreage on this proposed plan with one exception, our well would be over one mile from the Stanolind well and that exception is the well we farmed out to San Juan."

On Page 29, the closing statement, the first paragraph of same should read as follows:

"May I make a closing statement for Delhi and San Juan in that we disagree with the statement of Stanolind and Buffalo Oil Company for the very reason that they brought out, that there is only one well capable of production."

DELHI OIL CORPORATION

PAGE
DATE
NAME

2
November 24, 1953
Oil Conservation Commission

This is very important in our opinion should a third party read this report as a basis for his decision.

On this same page, beginning with the next to last line, the following is according to our notes, more or less, the statement made by me,

"We believe and recommend that until such time as there are more wells drilled and completed in this area that spacing rules of 320 acres should not be promulgated by the Commission. There is a well being drilled and God forbid, but it could be dry, we have drilled them before

We do not desire to have this letter misunderstood as objecting to the transcript of the testimony except we do not believe it gives a correct picture of our position as presented to the Commission.

In reviewing the testimony, we call the Commission's attention to the portion on Page 10 relative to available market and we feel the best market cannot be obtained until such time as additional wells are drilled and completed to adequately establish at least a portion of the proved reserves; and smaller companies such as Delhi and San Juan will be unduly penalized if they are forced to join in 320-acre spacing and have their wells shut down until a sufficient number of wells is drilled to warrant a pipeline company laying a line in the area. If the smaller company is permitted to drill on a 160-acre spacing, they cannot only protect their vested interests, but will also hasten the early market of the established production, which will be beneficial to them and to the State as royalty owners.

Very truly yours,

DELHI OIL CORPORATION

Aaron L. Colvin
By

Aaron L. Colvin
Land Department

ALC/ms

cc-Mr. Bill Macey

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 601
ORDER NO. R-391

THE MATTER OF THE APPLICATION OF
STANOLIND OIL AND GAS COMPANY FOR
A TEMPORARY ORDER ESTABLISHING
UNIFORM 320-ACRE SPACING PATTERN AND
320-ACRE PRORATION UNITS IN THE COMMON
SOURCE OF SUPPLY DISCOVERED IN THE
STANOLIND OIL AND GAS COMPANY'S,
STATE "AB", WELL NO. 1, NW/4 SE/4,
SECTION 29, TOWNSHIP 17 SOUTH, RANGE 28 EAST,
NMPM, EDDY COUNTY, NEW MEXICO.

TEMPORARY ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 28th, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this _____ day of ~~November~~, 1953, the Commission, a quorum being present, having considered the testimony adduced and exhibits received 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 and the subject matter thereof.

(2) That a common source of supply was discovered by the Stanolind Oil and Gas Company's, No. 1, State "AB", located 1980 feet from the South and East Lines of Section 29, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico; the well being completed at a plugged-back depth of 10,270 feet through casing perforations 10,102 to 10,127 in a basal Pennsylvanian sand, the well having an initial open-flow potential of 30 millions cubic feet of gas per day.

(3) That geological and engineering data now available to the Commission indicate that one well will apparently drain 320 acres, and that this common source of supply should be developed on 320-acre proration units for a further period of 18 months ^{from this date} or until 5 wells have been completed, whichever date is sooner.

(4) That the common source of supply discovered by the aforementioned well should be named Empire-Pennsylvanian, and should cover the following described area in Eddy County, New Mexico:

TOWNSHIP 17 South, Range 28 East, NMPM.

S/2 Section 19, S/2 Section 20, S/2 Section 21,
S/2 Section 22. All Sections 27, 28, 34, inclusive
thru

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM

N/2 Section 3, N/2 Section 4, N/2 Section 5,
N/2 Section 6.

(5) That certain rules should be adopted to adequately protect fresh water zones in the area and the shallow producing horizons now productive in the Empire, Red Lake and Artesia Pools.

(6) That operators in the pool should submit certain Geological and engineering data upon completion of each well in the pool.

IT IS THEREFORE ORDERED:

That the application of Stanolind Oil and Gas Company be, and the same hereby is in part approved, as follows:

(1) That a new pool be, and the same hereby is created, designated for gas production, denominated the Empire-Pennsylvanian Pool, Eddy County, New Mexico, and described as follows:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM.

S/2 Section 19, S/2 Section 20, S/2 Section 21,
S/2 Section 22, All Sections 27 thru 34, inclusive.

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM.

N/2 Section 3, N/2 Section 4, N/2 Section 5, N/2 Section 6.

(2) That effective on the date of this order, the following rules and regulations shall apply to wells hereafter drilled, or completed or recompleted to the Empire-Pennsylvanian Pool, defined herein, in addition to the Commission's applicable rules, regulations and orders heretofore or hereafter adopted to the extent not to conflict herewith:

Sec 3
SECTION (A). No well shall be drilled, or completed or recompleted, and no Notice of Intention to Drill or Drilling Permit shall be approved, unless,

Order
(a) Such well be located on a designated drilling unit of not less than three hundred twenty (320) acres of land, more or less, according to legal subdivision of the United States Land Surveys, in which unit all the interests are consolidated by pooling agreement or otherwise and on which no other well is completed, or approved for completion, in the pool;

(b) Such drilling unit be in the shape of a rectangle except for normal variations in legal subdivisions of the United States Land Surveys, the north half, south half, east half or west half of each section of land constituting a drilling unit;

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(c) Such well shall be located ^{Northwest} ~~990~~ feet from the ^{outer boundary} ~~corner~~ of either the northeast or southwest quarter of the section, subject to variation of 200 feet for topographic conditions. Further tolerance shall be allowed by the Commission only in cases of extremely rough terrain where compliance would necessarily increase drilling costs.

Sec 4. ^B
~~Section 2~~ Section 2 Proration Units: The proration unit shall consist of 320 acres or ~~a~~ a legal United States General Land Office Survey half-section, and ~~the~~ the approximate 320 acre unit shall follow the usual legal subdivision of the General Land Office Section Surveys, and ~~(c) where proration units lie along the edge of field boundaries described in Section 1 above, exceptions shall be permissible in that contiguous tracts of approximately 320 acres, following regular United States General Land Office subdivisions may be classed as proration units.~~

(a) The pooling of properties or parts thereof shall be permitted, and if not agreed upon may be required in any case when and to the extent that the smallness or shape of a separately owned tract would, under the enforcement of the uniform spacing plan of proration units, otherwise deprive or tend to deprive the owner of such tract of the opportunity to recover his just and equitable share of the ~~same~~ petroleum oil and natural gas in the Pool; provided, that the owner of any tract that is smaller than the drilling unit establishment for the field, shall not be deprived of the right to drill on and produce from such tract if same can be done without waste; but in such case the allowable production from such tract, as compared with the allowable production therefrom if such tract were a full unit, shall be in the ratio of such tract to the area of a full unit of 320 acres.

SECTION C. CASING ~~PROGRAM~~ AND CEMENTING PROGRAM:

(a) Surface Pipe:

The Surface pipe shall be set through all shallow potable water-bearing beds and a sufficient amount of cement shall be used to circulate the cement behind the pipe to the bottom of the cellar.

(b) Intermediate String:

The intermediate string of casing shall be set through the shallow oil-producing beds in the area and in no event shall be set higher than the top of the San Andres formation and a sufficient amount of cement used to ~~circulate~~ circulate the cement to the base of the surface casing.

(c) Production String:

The production string shall be set no higher than the top of the ~~producing~~ producing formation and ~~shall be cemented with sufficient~~ a sufficient amount of cement shall be used to circulate the cement to a point above the top of the Wolfcamp producing formation encountered in the area at an approximate depth of 7000 feet. An alternate cementing method may be employed using a two-stage tool, provided that the method is satisfactory to the ~~District Oil and Gas Inspector~~ District Oil and Gas Inspector.

SECTION D. GEOLOGICAL AND ENGINEERING DATA:

(a) ~~Examination of logs and reports of the well and the surrounding area~~

Upon completion of each well within the defined limits of the Empire-Pennsylvanian pool each operator shall submit to the District Office of the Commission at Artesia, two copies of either an electric log or sample log showing thereon the estimated formation tops as encountered in the well. In the event that the producing formation is cored in the well and a core analysis made, two copies of this analysis shall also be submitted to the Commission.

Provided, However, that the above Rules and Regulations shall remain in full force and effect for a period of at least 18 months or until five wells are drilled to the Producing formation of the Empire-Pennsylvanian pool.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 601
ORDER NO. R-391

THE MATTER OF THE APPLICATION OF
STANOLIND OIL AND GAS COMPANY FOR A
TEMPORARY ORDER ESTABLISHING UNIFORM
320-ACRE SPACING PATTERN AND 320-ACRE
PRORATION UNITS IN THE COMMON SOURCE OF
SUPPLY DISCOVERED IN STANOLIND'S STATE 'AB',
WELL NO. 1, NW/4 SE/4 SECTION 29, TOWNSHIP 17
SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO.

TEMPORARY ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on October 28, 1953, 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 *November*, 1953, the Commission, a quorum being present, having considered the testimony adduced and exhibits received 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 and the subject matter thereof.

(2) That a common source of supply of gas was discovered by the Stanolind Oil and Gas Company's No. 1, State 'AB', located 1980 feet from the south and east lines of Section 29, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico; the well being completed at a plugged-back depth of 10,270 feet through casing perforations 10,102 to 10,127 in a basal Pennsylvanian sand, the well having an initial open-flow potential of 30 million cubic feet of gas per day.

(3) That geological and engineering data now available to the Commission indicate that one well will apparently drain 320 acres, and that this common source of supply should be developed on 320-acre proration units for a period of 18 months from date of entry of this order, or until five wells shall have been completed, whichever date is sooner.

(4) That the common source of supply discovered by the aforementioned well should be designated as the Empire-Pennsylvanian Gas Pool, and should cover the following described area in Eddy County, New Mexico:

Township 17 South, Range 28 East, NMPM
S/2 Section 19, S/2 Section 20,
S/2 Section 21, S/2 Section 22,
all Sections 27 through 34, incl.

Township 18 South, Range 28 East, NMPM
N/2 Section 3, N/2 Section 4,
N/2 Section 5, N/2 Section 6

(5) That certain rules should be adopted to adequately protect freshwater zones in the area, and the shallow oil-producing horizons now productive in the Empire, Red Lake and Artesia Pools.

(6) That operators in the pool should submit certain geological and engineering data upon completion of each well in the pool.

IT IS THEREFORE ORDERED:

That the application of Stanolind Oil and Gas Company be, and the same hereby is in part approved, as follows:

(1) That a new pool be, and the same hereby is created, designated for gas production, denominated the Empire-Pennsylvanian Pool, Eddy County, New Mexico, and described as follows:

Township 17 South, Range 28 East, NMPM
S/2 Section 19, S/2 Section 20,
S/2 Section 21, S/2 Section 22,
all Sections 27 thru 34, incl.

Township 18 South, Range 28 East, NMPM
N/2 Section 3, N/2 Section 4,
N/2 Section 5, N/2 Section 6

(2) That effective on the date of this order, the following rules and regulations shall apply to wells hereafter drilled, completed or re-completed in the Empire-Pennsylvanian Gas Pool, defined herein, in addition to the Commission's applicable rules, regulations and orders heretofore or hereafter adopted to the extent not in conflict herewith:

SPECIAL POOL RULES
EMPIRE-PENNSYLVANIAN GAS POOL

SECTION A. No well shall be drilled or completed or recompleted, and no Notice of Intention to Drill or drilling permit shall be approved, unless,

(a) Such well be located on a designated drilling unit of not less than 320 acres of land, more or less, according to legal subdivision of the United States Land Surveys, in which unit all the interests are consolidated by pooling agreement or otherwise and on which no other well is completed, or approved for completion, in the pool;

(b) Such drilling unit be in the shape of a rectangle except for normal variations in legal subdivisions of the United States Land Surveys, the north half, south half, east half or west half of each section of land constituting a drilling unit;

(c) Such well shall be located 990 feet from the outer boundary of either the northwest or southeast quarter of the section, subject to variation of 200 feet for topographic conditions. Further tolerance shall be allowed by the Commission only in cases of extremely rough terrain, where compliance would necessarily increase drilling costs.

SECTION B. Proration Units: The proration unit shall consist of 320 acres or a legal United States Land Office Survey half-section, and the approximate 320-acre unit shall follow the usual legal subdivision of the General Land Office Section Surveys.

(a) The pooling of properties of parts thereof shall be permitted, and if not agreed upon may be required in any case when and to the extent that the smallness or shape of a separately owned tract would, under the enforcement of the uniform spacing plan of proration units, otherwise deprive or tend to deprive the owner of such tract of the opportunity to recover his just and equitable share of

the natural gas in the pool; provided that the owner of any tract that is smaller than the drilling unit establishment for the field shall not be deprived of the right to drill on and produce from such tract if same can be done without waste; but in such case the allowable production from such tract, as compared with the allowable production therefrom if such tract were a full unit, shall be in the ratio of such tract to the area of a full unit of 320 acres.

SECTION C. Casing and Cementing Program.

(a) Surface Pipe:

The surface pipe shall be set through all shallow potable water-bearing beds, and a sufficient amount of cement shall be used to circulate the cement behind the pipe to the bottom of the cellar.

(b) Intermediate String:

The intermediate string of casing shall be set through the shallow oil-producing beds in the area, and in no event shall be set higher than the top of the San Andres formation and a sufficient amount of cement used to circulate the cement to the base of the surface casing.

(c) Production String:

The production string shall be set no higher than the top of the producing formation, and a sufficient amount of cement shall be used to circulate the cement to a point above the top of the Wolfcamp producing formation encountered in the area at an approximate depth of 7,000 feet. An alternate cementing method may be employed using a two-stage tool, provided that the method is satisfactory to the District Oil and Gas Inspector.

SECTION D. Geological and Engineering Data.

(a) Upon completion of each well within the defined limits of the Empire-Pennsylvanian Gas Pool, each operator shall submit to the District Office of the Commission at Artesia two copies of either an electric log or sample log showing thereon the estimated formation tops as encountered in the well. In the event that the producing formation is cored in the well and a core analysis made, two copies of this analysis shall also be submitted to the Commission.

PROVIDED, HOWEVER, That the above rules and regulations shall remain in full force and effect for a period of at least 18 months, or until five wells are drilled to the producing formation of the Empire-Pennsylvanian Pool.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
E. L. Mechem
Edwin L. Mechem, Chairman

E. S. Walker, Member
R. R. Spurrier
R. R. Spurrier, Member and Secretary

S E A L

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

November 19, 1953

IN THE MATTER OF:

The application of Stanolind Oil and Gas Company for the establishment of 320-acre proration units and a uniform spacing pattern in the common source of supply discovered in its state "AB" Well No. 1, Northwest quarter, Southeast quarter, Section 29, Township 17, South, Range 28, ENMPM Eddy County, New Mexico.

Case No. 601

BEFORE:

Edwin L. Mechem, Governor
E. S. Walker, Land Commissioner
R. R. Spurrier, Secretary, Oil Conservation Commission

TRANSCRIPT OF PROCEEDINGS

(Notice of publication read by Mr. Graham.)

MR. SPURRIER: I have a letter addressed to the Commission dated November 6, written by the attorney in this case. It is as follows: "On September 25, 1953, we filed with your office on behalf of the Haynes & V. T. Drilling Company a petition for order excepting the northwest quarter of section 21, township 29, north range 11 west from Rule 104 paragraph D of the Commission. We received notice that hearing on this petition would be had before the Commission on the 19th day of November, 1953. Since that time, the contract commitments have changed and we respectfully request the withdrawal of this petition and vacating of the setting already made."

Without objection, the Commission will dismiss this case on motion of counsel.

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
PHONES 7-9648 AND 5-9548
ALBUQUERQUE, NEW MEXICO

C E R T I F I C A T E

7 I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing transcript of proceedings were taken by me on Thursday, November 19, 1953; that the same is a true and correct record to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 27th day of November, 1953:

Ada Dearnley
COURT REPORTER

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
PHONES 7-9545 AND 5-9546
ALBUQUERQUE, NEW MEXICO

Stanaland Oil and Gas Company
P. O. Box 899
Roswell, New Mexico

February 8, 1954

Attention: Mr. Wayne Blankenship

Re: Drilling Units - Empire Pennsylvania
Gas Pool, Eddy County, New Mexico

Gentlemen:

This letter will confirm telephone conversation between your Mr. Blankenship and the writer under date of February 3, advising of Stanaland's unwillingness to meet with representatives of our companies and go over geological data and agree upon more than one drilling unit for this particular area.

Upon completion of the hearing before the Commission in Santa Fe wherein the Commission granted the protection order requested by you against our objections, you called the writer requesting that we join you in a unit covering the S/2 of Section 29 and advised by letter that same date that communitization agreement and operating agreement were being drawn at that time. You were advised that (1) we had never received a copy of the Commission's order, and (2) there had never been any discussions or request for discussions as to whether or not the unit around your well should cover the S/2 or the E/2 of the section.

During the above referred to conversation, suggestion was made that we hold the joint meeting and plan not only a unit around your well but a unit around the San Juan-Delhi well and other locations.

It seems to the writer that under the Commission ruling, units in this area are now more or less joint ventures due to Delhi and San Juan acreage ownership in practically all sections included in the pool outline and each well drilled will more or less be on a joint venture basis; and it is our understanding that if either party desires to form a unit and the other does not, recourse can be made to the Commission for relief.

As the matter now stands, we have no objection to voluntary joining units in which we can be assured of adequate protection but we have not been given the opportunity of voluntarily joining a unit covering the E/2 of Section 29 but have been requested to join in only the S/2 of 29. We do not know the attitude of the Commission in situations of this kind where a party is willing to join a unit around a well but desires some consideration in the manner the unit is formed.

Inasmuch as there is usually difference of opinion in situations of this kind, we still believe a joint meeting for the purpose of agreeing to not one unit but several units would have been a logical approach to this situation.

Very truly yours,
DELHI OIL CORPORATION

By *Aaron L. Colvin*
Aaron L. Colvin
Land Department

ALG/ms

Case 601

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

March 23, 1954

C
O
P
Y

Mr. C F Bedford
Stanolind Oil and Gas Company
Oil and Gas Building
Fort Worth, Texas

Dear Mr. Bedford:

This is in reply to your letter of February 27 relating to Order No. R-391, your Proration File No. 174.

The only way which we can clarify Order No. R-391 is to say that the vertical interval of 2,780' from the top of the Pennsylvanian at 7,790' to the top of the Mississippian at 10,570' cannot be considered, nor completed, nor produced as one common reservoir and the actual producing intervals within that 2,780' must be cased and completed and produced as the separate reservoirs, which they actually are.

Very truly yours,

R. R. SPURRIER
Secretary and Director

RRS:vc

April Harris
Memo

From
usom

To RRS

The vertical limits of this pool have never been established. The productive zone of this pool is only identifiable as Penn. The sand zone which is productive is either the Atoka or Morrow

Memo

From

To

but standard's proposal is impossible. They have possibilities of other gas & oil pools in that Penn. section which are in no way related to the zone discovered by this well

MEMORANDUM

3/3

From: R. R. SPURRIER

To:

Macey

What are the vertical limits of this pool?

STANOLIND OIL AND GAS COMPANY

OIL AND GAS BUILDING

FORT WORTH, TEXAS

February 16, 1954

RE: Case No. 601
Order No. R-391
Eddy County, New Mexico
Our Probation File No. 174

OIL CONSERVATION
COMMISSION

RECEIVED
FEB 27 1954

Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico

Attention: Mr. R. R. Spurrier, Secretary

Gentlemen:

By temporary order of the Oil Conservation Commission, dated November 25, 1953, special pool rules for the Empire-Pennsylvanian Gas Pool were established, said order having been issued as a result of the discovery of gas in the State "AB" well of Stanolind Oil and Gas Company located 1980 feet from the South and East lines of Section 29, Township-17-South, Range-28-East, N.M.P.M., Eddy County, New Mexico.

In the hearing before the Oil Conservation Commission held on October 28, 1953, there was presented as a part of the testimony, the electric log taken in said well of Stanolind Oil and Gas Company, upon which log the top of the Pennsylvanian formation was shown at 7790 feet, and the top of the Mississippian formation was shown at 10,570 feet. Inasmuch as the order of November 25, 1953, does not specifically set forth the limits of the Empire-Pennsylvanian formation, we shall appreciate very much your clarifying the order as covering and applying to the formation encountered in the State "AB" well between a depth of 7790 feet and 10,570 feet, as shown on the electric log introduced in evidence in the hearing on October 28, 1953.

Your early attention to this matter will be greatly appreciated.

Very truly yours,

STANOLIND OIL AND GAS COMPANY

By *C. F. B. [Signature]*
Attorney in Fact

APPROVED
AB 2/24
1/18

HOH/rlh
cc: Malco Refineries, Inc.
P. O. Box 660
Roswell, New Mexico

Resler Oil Company
Carper Building
Artesia, New Mexico

Yates Brothers
Carper Building
Artesia, New Mexico

STANOLIND OIL AND GAS COMPANY

OIL AND GAS BUILDING

FORT WORTH, TEXAS

C. F. BEDFORD

DIVISION PRODUCTION SUPERINTENDENT

October 8, 1953

File: RGH-4104-175

Subject: Request for Hearing

New Mexico Oil Conservation Commission
Santa Fe
New Mexico

ATTENTION: Mr. R. R. Spurrier

Gentlemen:

We are transmitting herewith the application of Stanolind Oil and Gas Company for a hearing to consider the adoption of rules governing the development of the area in the vicinity of Stanolind's State "AB" Well No. 1, 1980 feet from the south line and 1980 feet from the east line, of section 29, Township 17 South, Range 28 East, Eddy County, New Mexico.

It is requested that this matter be set for hearing on October 28, 1953.

Yours very truly,

C. F. Bedford
C. F. BEDFORD

RGH:cp
Attachments

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
STANOLIND OIL AND GAS COMPANY FOR
THE ESTABLISHMENT OF 320-ACRE PRORATION
UNITS AND A UNIFORM SPACING PATTERN IN
THE COMMON SOURCE OF SUPPLY DISCOVERED
IN THE STANOLIND OIL AND GAS COMPANY'S
STATE "AB" WELL NUMBER 1, 1980 FEET FROM
THE SOUTH LINE AND 1980 FEET FROM THE EAST
LINE OF SECTION 29, TOWNSHIP 17 SOUTH,
RANGE 28 EAST, EDDY COUNTY, NEW MEXICO.

Case 601

A P P L I C A T I O N

An application is hereby made by the Stanolind Oil and Gas Company, a corporation, for the establishment of 320-acre proration units and a uniform spacing pattern for the common source of supply encountered in the Stanolind Oil and Gas Company's State "AB" Well No. 1, 1980 feet from the south line and 1980 feet from the east line, section 29, Township 17 South, Range 28 East, Eddy County, New Mexico. This common source of supply was discovered upon completion of the Stanolind Oil and Gas Company's State "AB" Well No. 1 in the Pennsylvanian formation on August 24, 1953. This discovery well encountered the top of the Pennsylvanian at 10,102 feet and was completed at a total depth (plug back) of 10,270 feet.

It is the purpose of this application to request the Commission, after proper notice and hearing, to issue an order adopting a temporary spacing pattern in this field which will provide for uniform and orderly development of this common source of supply and will allow sufficient time for the operators to obtain necessary engineering and geological information to determine the appropriate spacing pattern to be followed in completing development of this pool. Such an order will also serve to prevent waste and avoid the drilling of unnecessary wells, to obtain the optimum ultimate recovery therefrom and to protect the correlative rights of the interested parties therein.

The Oil Conservation Commission is hereby requested to enter an order providing for the development of this common source of supply as follows:

1. Establish 320-acre proration units comprising two normal quarter sections, according to survey by the United States Government.
2. Require location of wells within 330 feet of the center of either the southeast quarter or the northwest quarter of a normal section, according to survey by the United States Government, with 300 feet tolerance for topographical conditions.
3. Establish appropriate casing rules to properly protect all gas or other fluid bearing formations.

Applicant will also request that the order be issued making these rules effective to govern development and operation of the following described acreage:

In Township 17 South, Range 28 East

S/2 Sections 19, 20, 21, 22

All Sections 27, 28, 29, 30,
31, 32, 33, 34

In Township 18 South, Range 28 East

N/2 Sections 3, 4, 5, 6

The Commission is respectfully requested to set this matter and application down for special hearing on October 28, 1953. It is also requested that the Commission give due and proper notice of this hearing, as required by law, and that the Commission after hearing, issue its order granting approval of the application as set out herein.

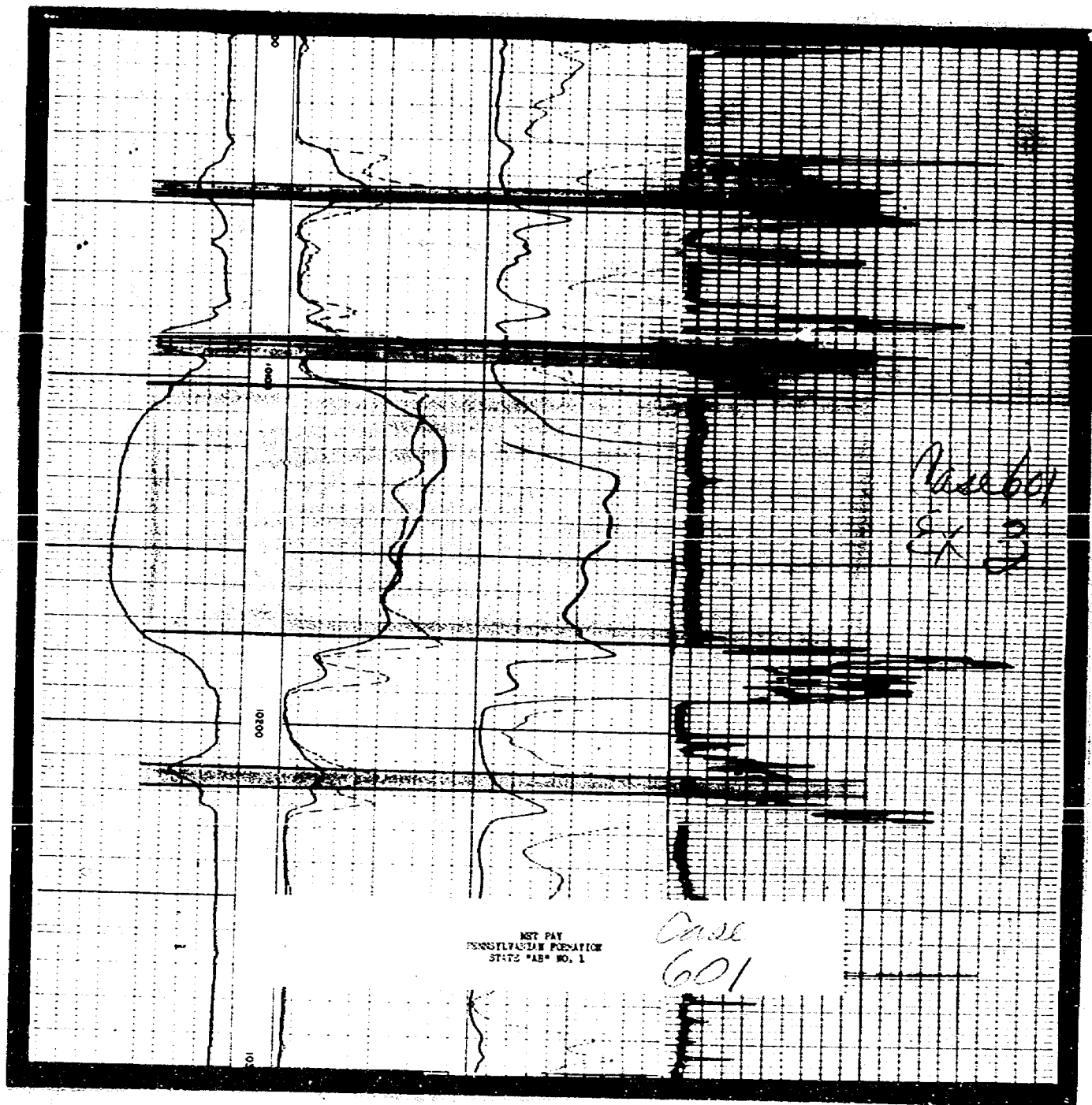
Dated this 8th day of October, 1953.

STANGLIND OIL AND GAS COMPANY

C. F. Bedford

C. F. BEDFORD

RGH:ep



November 24, 1953

NOV 27 1953

Oil Conservation Commission
Santa Fe, New Mexico

Attention: Mr. R. R. Spurrier, Secretary

Re: Case No. 601, Special Hearing
October 28, 1953

Gentlemen:

This will acknowledge receipt of Transcript of Proceedings in connection with the above case for which I am very grateful.

I call your attention to certain portions of the testimony which I believe should be clarified when being reviewed by the Commission.

On Page 14 at the bottom of the page the last question is not clearly stated in that as I recall the question it should have been worded similar to the following:

"It would have some weight don't you think if you wanted to take the chance of drilling for a Wolfcamp well; it would help if you could hedge against a dry hole in that formation if there was a possibility you could carry the well deeper and make a gas well in the Pennsylvanian."

On Page 20, the last complete paragraph on this page regarding my testimony, this paragraph is not clear and as I recall from my notes, the statement I made was as follows:

"In line with what Mr. Kelleher said, it would be a very definite, not only possibility, but probability that if Delhi should drill a well on any of their acreage on this proposed plan with one exception, our well would be over one mile from the Stanolind well and that exception is the well we farmed out to San Juan."

On Page 29, the closing statement, the first paragraph of same should read as follows:

"May I make a closing statement for Delhi and San Juan in that we disagree with the statement of Stanolind and Buffalo Oil Company for the very reason that they brought out, that there is only one well capable of production."

2
November 24, 1953
Oil Conservation Commission

This is very important in our opinion should a third party read this report as a basis for his decision.

On this same page, beginning with the next to last line, the following is according to our notes, more or less, the statement made by me:

"We believe and recommend that until such time as there are more wells drilled and completed in this area that spacing rules of 320 acres should not be promulgated by the Commission. There is a well being drilled and God forbid, but it could be dry, we have drilled them before

We do not desire to have this letter misunderstood as objecting to the transcript of the testimony except we do not believe it gives a correct picture of our position as presented to the Commission.

In reviewing the testimony, we call the Commission's attention to the portion on Page 10 relative to available market and we feel the best market cannot be obtained until such time as additional wells are drilled and completed to adequately establish at least a portion of the proved reserves; and smaller companies such as Delhi and San Juan will be unduly penalized if they are forced to join in 320-acre spacing and have their wells shut down until a sufficient number of wells is drilled to warrant a pipeline company laying a line in the area. If the smaller company is permitted to drill on a 160-acre spacing, they cannot only protect their vested interests, but will also hasten the early market of the established production, which will be beneficial to them and to the State as royalty owners.

Very truly yours,

DELHI OIL CORPORATION

Aaron L. Colvin

By
Aaron L. Colvin
Land Department

ALC/ms

cc-Mr. Bill Macby



WESTERN UNION

W. P. MARSHALL, PRESIDENT

SYMBOLS
DL=Day Letter
NL=Night Letter
ET=End of Line Telegram
VLT=End of Victory Line

Day letters and night letters are sent by day and night letters in STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination.

LA19 DBO 10

1953 NOV 4 AM 8 57

D=FWDO42 RX PD=WUX FT WORTH TEX 4 943A MC=

NEW MEXICO OIL CONSERVATION COMM, ATTN R R SPURRIER=

SANTA FE NMEX=

RE CASE 601 APPLICATION OF STANOLIND OIL AND GAS COMPANY FOR
CERTAIN FIELD RULES IN AREA OF STATE "AB" WELL NO. 1,

SECTION 29, T-17-S, R-28-E, EDDY COUNTY, NEW MEXICO.

RE COMMEND COMMISSION ADOPT FIELD NAME OF EAST ARTESIA DEEP=

C F BEDFORD=

OIL CONSERVATION COMMISSION
SANTA FE, N. M.

RECEIVED
NOV 4 - 1953

Penn
Crane - Penn

601 AB 1 29 T-17-S R-28-E=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE