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BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF COLORADO

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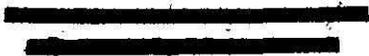
CAUSE NO. 34

GREENWOOD FIELD

JULY 17, 1956

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**KEITH WATSON**  
GENERAL STENOGRAPH REPORTING



60 BRONCO ROAD  
DENVER 11, COLO.

**ORIGINAL**

BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF COLORADO

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IN THE MATTER OF THE PROMULGATION )  
OF FIELD RULES TO GOVERN THE SPACING )  
AND DENSITY OF GAS WELLS IN THE ) CAUSE NO. 34  
GREENWOOD GAS FIELD IN BACA COUNTY, )  
COLORADO. )  
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PURSUANT TO NOTICE to all parties in interest,  
the above-entitled matter came duly on for hearing at  
Room 243, State Capitol, Denver, Colorado, at the hour  
of 11:00 o'clock a.m., July 17, 1956.

BEFORE:

Mr. F. M. Van Tuyl, Commissioner  
Mr. W. A. Dillon, Commissioner

APPEARANCES:

John J. Moran, Esq., for Moran Brothers  
Incorporated, the applicant;  
L. M. Pool, Esq., for Colorado Interstate  
Gas Company;  
Richard H. Shaw, Esq., Denver, Colorado, and  
R. O. Mason, Esq., appearing for Cities  
Service Oil Company;  
John Stanford, Esq., for Sinclair Oil &  
Gas Company;  
R. T. Robertson, Esq., for Shell Oil Co.;  
H. D. Bushnell, Esq., for Amerada Petro-  
leum;  
Messrs. Ted P. Stockmar and Ben H. Parker,  
Attorneys at Law, appearing for Frontier  
Refining Company;

APPEARANCES: (Continued)

R. L. Magnie, Esq., for Texas Company;  
George L. Selinger, Esq., for Skelly  
Oil Company  
Clarence E. Smith, Esq., for British-  
American Oil Producing Company;  
A. J. Jersin, Denver, Colorado, Director,  
Oil and Gas Conservation Commission;  
D. V. Rogers, Denver, Colorado, Deputy  
Director, Oil and Gas Conservation  
Commission; and  
Sam Freeman, Esq., Denver, Colorado, for  
the Oil and Gas Conservation Commission.

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I N D E XDIRECT CROSS REDIRECT RECROSSFor Moran Brothers Inc.

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E X H I B I T S

FOR IDENT.

IN EVIDENCE

For Moran Brothers Inc.:

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For Frontier Refining Co.:

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For Cities Service Oil Co.:

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P R O C E E D I N G S

COMM. VAN TUYL: That brings us to Cause No. 34 involving the Greenwood Field in Southern Colorado. I believe there are a number of parties to make appearances in this cause.

MR. MORAN: I would like to enter my appearance, John R. Moran, attorney for Moran Brothers Inc., the applicant.

MR. POOL: L. M. Pool for Colorado Interstate Gas Company.

MR. SHAW: Richard H. Shaw for Cities Service Gas Development Company. I also want to enter the name of R. O. Mason, a member of the Oklahoma Bar, representing Cities Service.

MR. STANFORD: John Stanford with Sinclair Oil & Gas.

MR. ROBERTSON: R. T. Robertson, Shell Oil Company.

MR. BUSHNELL: H. D. Bushnell, Amerada Petroleum.

MR. STOCKMAR: Ben H. Parker and Ted P. Stockmar for Frontier Refining Company.

MR. MAGNIE: R. L. Magnie, Texas Company.

MR. SELINGER: George L. Selinger, Skelly Oil

Company.

MR. SMITH: Clarence E. Smith for British-American Oil Producing Company.

MR. SHAW: Will you make one correction; that should be Cities Service Oil Company rather than Cities Service Gas Development Company.

COMMISSIONER VAN TUYL: I assume that each organization has one or more witnesses. You might as well come forward and be sworn.

MR. STANFORD: Will it be necessary for all of us to enter a statement to be sworn?

COMMISSIONER VAN TUYL: I don't believe it is necessary if you have just a statement.

(All witnesses were duly sworn.)

COMMISSIONER VAN TUYL: You may proceed.

MR. JERSIN: There is a letter on this. Do you want me to read it?

COMMISSIONER VAN TUYL: Mr. Jersin has a letter which he would like to read before we proceed further.

MR. JERSIN: This letter is written by Raymond D. Sloane, Division Manager of the Carter Oil Company, dated July 16, 1956, addressed to the Oil and Gas Conservation Commission of Colorado:

"Dear Sirs: Notice of Hearing in Cause No. 34 to amended Commission Order No. 34-2 has been received. After considerable study of this matter it is felt that no exception to the spacing order rules and regulations of this magnitude is justified. If one such exception is allowed the door will be open to many more such applications. Orderly spacing in the Greenwood Field, Baca County, Colorado, would no longer exist.

"It is felt that only by retaining the 640-acre regular governmental section spacing units can orderly development of the pool of this magnitude be maintained. It is also felt that by setting up any such irregular spacing unit unequal drainage and even waste might result.

"With the present day feeling toward unitization among royalty owners and working interest owners the unitization of the Moran acreage with other acreage in Section 21, Township 34 South, Range 41 West would be the best solution for all concerned in this matter.

"This memorandum is forwarded to show Carter's opposition to the application of the Moran Brothers Inc. as noted on notice of hearing dated

July 3, 1956."

MR. MORAN: May it please the Commission, I would like to make a preliminary statement to more or less inform the Commission of the background for this application. This application is filed on behalf of Moran Brothers Inc., who are the owners of oil and gas leases governing approximately 640 acres located in Sections 16, 17, 19 and 20 and 21 of Township 34 South, Range 41 West. That land is included in the extended area of the Greenwood gas field of Baca County, Colorado and was included in the extension of the ridge area by Order No. 34-2.

At the time the extension order was entered Moran Brothers had drilled and completed its No. 1 Holt in the northeast northeast northeast of Section 21, Township 34 South, Range 41 West. In the Order No. 34-2 the No. 1 Holt well was designated as an exception to the spacing pattern adopted for the so-called extended area of the Greenwood Gas Field, and it was the designated well for the 640-acres approximating Section 21 of Township 34 South, Range 41 West.

By the provisions of Order No. 34-2 additional unit areas comprising approximately 640 acres were created along the state line. The sections

along the state line in this particular township are irregular and contain less than 640 acres in each case. There is an irregular--an irregularity, I should say--in the survey of the lands in Section 21, Section 20 and Section 19.

By the application filed by Moran Brothers Inc. they have described the lands under which they have the oil and gas rights. These lands are described as Tracts numbered 49, 50, 51, and 52, based upon the re-survey of the township. Said tracts as outlined and described in the application contain approximately 640 acres running east and west beginning at the east line of Section 21 and continuing across approximately the north half of Sections 19 and 20 and a small area in the south half of Sections 18, 17 and 16.

To let the Commission better understand the area under consideration I would like to hand you a plat which will not be marked as an exhibit at this time which roughly indicates in blue Section 21 as being the spaced area for the Holt No. 1 well, which is located in the northeast northeast northeast of the Section 21, and the area outlined in red is the area held under lease by Moran Brothers Inc.

Now, as stated in the application, Moran

Brothers commenced operations on or about March 17, 1955 for the drilling of its No. 1 Holt. At that time the area including the Moran Brothers' leased premises were not included in any spaced area nor was there any order in effect at that time relating to the spacing of wells drilled upon the Moran Brothers' holdings.

Order No. 34-2 was entered by the Commission in September of 1955 following the completion of Moran Brothers' No. 1 Holt. Information developed since the entry of Order No. 34-2 dated September the 8th 1955 clearly shows that the Greenwood Gas Field extending into Colorado is a continuation of the Kansas portion of the field. Dry holes have been drilled in the extended area of the Greenwood Gas Field surrounding or in the vicinity of the Holt No. 1 well, and it indicates that the spacing on the 640-acre basis according to sections is not an equitable method of spacing and that additional development in the area will probably be delayed until some additional production has been obtained.

Now, with that background I would like to introduce Mr. Kirk as my first witness.

J. A. KIRK

called as a witness on behalf of Moran Brothers Inc., being first duly sworn according to law, upon his oath testified as follows:

DIRECT EXAMINATION

Q Mr. Kirk, will you please state your name and residence?

A J. A. Kirk, Amarillo, Texas.

Q By whom are you employed, Mr. Kirk?

A Management Services Corporation.

Q What is your profession or business?

A I am a practicing geologist.

Q And what school have you received your technical education from?

A I have a B.S. degree in geology from Oklahoma A & M College, Stillwater, Oklahoma. I graduated in the spring of 1950.

Q Are you a member of any geological societies?

A Yes, I am a member of the Panhandle Geological Society and a member of the Roswell Geological Society.

Q Will you give a brief statement of your experience in geology and your geological background?

A I was employed as a well logging engineer

by the Baywell Oil Logging Service, Baywell Division of the National Lead Company, in September of 1952, and terminated in January, 1954. My duties were to make microscopic and fluoroscopic examinations of cuttings from the well bore and prepare a progress report which was submitted daily to the operator.

COMMISSIONER VAN TUYL: We will consider the witness qualified.

Q Have you made a geological study of certain portions of the Greenwood Gas Field of Kansas and of Colorado?

A Yes, sir, I have.

Q Have you prepared a structural contour map covering Township 34,--Township 34 South, Range 41 West, and adjacent areas of the Greenwood Gas Field?

A Yes, sir.

Q I will hand you what has been marked Exhibit 1 and ask you to state whether or not you are familiar with the material and the contents of Exhibit 1?

A Yes, sir, I am.

MR. MORAN: If it is agreeable with the Commission, I will put that up on the door here where it can be seen.

Q Mr. Kirk, I will ask you to look at the map

or plat marked Exhibit 1 and ask you what geological data you used in contouring the area shown by the map.

A The datum point is the top of the Topeka.

Q And from your structural contour map have you established a reasonable strike for the Colorado portion of the Greenwood Field?

A Yes, sir, I have. I find that the regional strike on top of the Topeka to be generally northwest southeast.

Q Do you find edge production in dry holes to be on strike with one another?

A Yes, in the Colorado portion of the Greenwood Field and along the present western edge of the Greenwood Field I find that edge wells and dry holes are on strike with one another.

Q Have you prepared a cross section which begins in Section 3, Township 32 South, Range 42 West and trends southward and ends in Sections 16, 35 South, Range 41 West?

A Yes, sir, I have.

Q I will hand you a document which has been marked Exhibit B, or rather Exhibit 2 for reference, and ask you to describe the contents of Exhibit 2.

In other words, will you name the wells which are included in the cross section designated Exhibit 2?

A The wells used are designated by numbers enclosed in circles shaded red on the structural contour map and are numbered consecutively from north to south.

Q Now, the numbers shown in red circles on Exhibit 2, are they reflected on Exhibit 1?

A Yes, sir, they are.

Q In the same order numbered 1 through 7 on Exhibit 1, is that correct?

A Yes, sir, that is correct.

Q Now, can you designate each of those wells by name?

A Yes, sir.

Q And give its location or approximate location.

A The No. 1 well is the Amerada Petroleum Corporation Robbins No. 1 in Section 3, Township 32 South, Range 42 West.

Q Now, No. 2.

A Well No. 2 is the Amerada Petroleum Corporation No. 1 Watkins-Frink-Homsher Unit No. 1 in Section 19, Township 32 South, Range 41 West.

Well No. 3 is the Amerada Petroleum Corpo-

poration M. R. B. Nue, No. 1, in Section 33, Township 32 South, Range 41 West.

The No. 4 well is the Amerada Petroleum Corporation C. V. Cogburn No. 1, Section 17, Township 33 South, Range 41 West.

Well No. 5 is the Amerada Petroleum Corporation Colorado State "A", No. 1, in Section 36, Township 33 South, Range 42 West.

The No. 6 well is the Moran Brothers Inc. Holt No. 1, Section 21, Township 34 South, Range 41 West.

And the seventh, the final well in this particular cross section, is the Cities Service Development Company Stahlford No. 1 in Section 6, Township 35 South, Range 41 West.

Q Why have you chosen these particular wells on your cross section?

A To illustrate that there is no continuity of production between the production in Section 21, Township 34 South, Range 41 West, and the production in 32 South, Range 42 West in the Colorado portion of the Greenwood Field.

Q Now, in reference to your cross section, and with particular reference to the well located in

Section 17, Township 33 South, Range 41 West, designated as Amerada Petroleum Corporation Cogburn No. 1, will you tell us whether or not this well was productive?

A This well was not productive and was completed as a dry hole on June 17th 1954.

Q Now, again in reference to your cross section, which is Exhibit 2, and with particular reference to the well located in Section 36, Township 33 South, Range 42 West, designated as Amerada Petroleum Corporation State No. 1, will you tell us whether or not this well was productive?

A This well was not productive and was completed as a dry hole on February 18th 1954.

Q Now, referring again to Exhibit 1, which is your structural contour map, have you determined the direction and rate of dip of the Topeka Formation?

A Yes, sir, I have determined the direction to be generally easterly and the dip to vary from less than twenty-five feet per mile on the present western edge of the field to approximately 100 feet per mile on the present eastern limit of the field.

Q Have you also prepared an additional cross section which begins in Section 21, Township 34 South,

Range 41 West and trends to the northeast and terminates in Section 33, Township 32 South, Range 42 West?

A Yes, sir, I have.

Q I will hand you a cross section designated for identification as Exhibit 3 and ask you to state by name the wells which are included in this cross section?

A The wells used in this cross section are designated by numbers encircled with shaded blue on the structural contour map and are numbered consecutively from southwest to northeast. The wells include No. 1, Moran Brothers Inc. Holt No. 1 in Section 21, Township 34 South, Range 41 West.

The No. 2 well is the J. M. Huber Corporation U. S. A. No. 1, Section 18, Township 34 South, Range 43 West.

Well No. 3, Cities Service Oil Company, Fletcher "C" No. 1 in Section 27, Township 33 South, Range 43 West.

Well No. 4, Cities Service Oil Company Santa Fe "B" No. 1 in Section 23, Township 33 South, Range 43 West.

Well No. 5 is the Terminal Facilities, Inc. Hayward "E" No. 1 in Section 12, Township 33 South,

Range 43 West.

Well No. 6 on the cross section is the Colorado Oil and Gas Company Ramsey No. 1 in Section 5, Township 33 South, Range 42 West.

Well No. 7 is the Panhandle Eastern Pipeline Corporation Murphy No. 1-33 in Section 33, Township 32 South, Range 42 West.

Q Now, the wells numbered from 2 to 7 consecutively are located across the state line in Kansas, are they not?

A Yes, sir, that is correct.

Q Now, why have you chosen these particular wells in the preparation of your cross section?

A To illustrate that there is continuity of the gas column from the Greenwood Field of Morton County, Kansas and to the Greenwood Field of Baca County, Colorado.

Q Now, is there any other information that you would like to present to the Commission at this time with reference to the study which you have made of the Greenwood Gas Field in relation to the No. 1 Holt located in Section 21, Township 34 South, Range 41 West, Baca County? In other words, have you reached any conclusion with reference to the drainage pattern

of the Holt No. 1 well?

A Well, the drainage pattern of the Holt No. 1 well will drain--should drain in an updip area to the west.

Q Is it any more apt to drain the area to the west of the well than it is to the 640 acres lying to the south of it?

A I believe in that particular instance that it may well drain fairly equally.

Q There would be no more reason to unitize the 640 acres lying east and west containing the Moran No. 1 Holt than there would be to unitize the 640 acres comprising Section 21 upon which the well is located, is that correct?

A I believe that the--actually it may well drain the area east and the west area, as well as the south area. In fact, the way it is structurally situated, it should drain oil in all directions.

Q From your study of the area, Mr. Kirk, is it likely that the drainage is toward the Kansas side of the structure rather than toward the Colorado side?

A Yes, sir.

Q And if the No. 1 Holt well is shut in, in what direction is the drainage at this time?

A       Toward the Kansas side of the Greenwood Field.

MR. MORAN: I would like to offer at this time Applicant's Exhibits Nos. 1, 2, and 3. That would be all the direct examination.

MR. FREEMAN: Do you want to submit him for cross examination?

MR. MORAN: What?

MR. FREEMAN: Do you want to submit him for cross examination?

MR. MORAN: Yes.

COMMISSIONER VAN TUYL: Is there any cross examination of the witness?

MR. SHAW: Mr. Van Tuyl, we are going to waive cross examination at this time, but of course we will in connection with our own defense on behalf of Cities Service make full use of these Exhibits 1, 2 and 3 for our own explanation.

COMMISSIONER VAN TUYL: Do you wish to recall the witness later then?

MR. SHAW: May I ask that the witness remain, however, in case we do, so that he will be available in connection with the comments on these exhibits for examination? Is that all right, Mr. Moran?

MR. MORAN: Surely.

MR. STOCKMAR: I don't wish to object to the introduction of these as exhibits, but I would like to have the witness state very briefly what his purpose in introducing these particular exhibits is.

CROSS EXAMINATION

BY MR. STOCKMAR:

Q Summarize, if you will, the meaning of these exhibits?

A Well, my exhibits were prepared on the basis of showing the relationship geologically of the acreage in question with the Kansas portions of the Greenwood Field and with that portion of the Greenwood Field in Baca County, Colorado, in 32 South, 41 West.

Q And your testimony was that the Holt No. 1 well would drain as efficiently in all directions as it would toward the west?

A Well, the migration is going to be downdip toward the Kansas portion of the Greenwood Field. It is going to be a westward drainage.

Q In the absence of production from the Holt well?

A Yes, sir.

Q The Holt well is producing?

A The producing oil is over on across the Kansas-Colorado line; it may well drain the area.

Q If the Holt well is shut in?

A Yes, sir.

Q What difference does spacing have to do with the drainage pattern if the well is shut in?

A Well, of course, if the well is shut in and is not being produced the gas is going to be produced over on the Kansas side of the line.

Q What difference does the spacing pattern make? How will your proposed spacing pattern prohibit that drainage if the well is not produced?

A Well, it would get that well on production where it could be--if an agreement can be reached as to the spacing pattern--so that Colorado gas can be produced in Colorado.

Q I gather that you have no firm conclusion that the shape, size or whatnot of the spacing pattern would make any difference as to whether it was not produced?

A No, sir.

MR. ROBERTSON: Mr. Commissioner, just two questions.

EXAMINATION BY MR. ROBERTSON:

Q Mr. Kirk, I am a little confused. Is it your

opinion that the gas field extends to and includes the northwest quarter of Section 19 in 34-41?

A Yes, sir, in my opinion it does.

Q It also includes approximately the south half of Section 21, the section where the well is located?

A Yes, sir.

Q The Commission found in the causes in the previous hearing upon which orders 34-1 and 34-2 were based that 640 acres was not less than the maximum area that could be efficiently and economically drained by one well. Is that your opinion?

A Would you state that again, please?

Q Is 640 acres the maximum, in your opinion, the maximum area that could be efficiently drained by one well?

A There is a lot of factors that would enter into that. Some wells won't drain near that much; others would drain more depending on the porosity, permeability, et cetera.

Q Is it your opinion that the present Moran Brothers Inc. well on Section 21 will drain 640 acres as a maximum?

A No, sir, I wouldn't say that 640 acres would necessarily be the maximum that well would drain.

Q Could you give us a figure? Would it drain 320 acres?

A I wouldn't care to give a figure as to acres.

Q I am not trying to deride you now; I just wanted to find---

A I have just an opinion, and everyone has his own ideas as to the amount of acres that a well will drain.

Q Well, it certainly would not drain the area that is, let's say, two and a quarter miles a way; would you say that would be your opinion?

A Yes, sir, it may well drain that area.

REDIRECT EXAMINATION

BY MR. MORAN:

Q If there are no other wells drilled on that area it could very well drain that area?

A Yes, sir, that is my opinion.

RE CROSS EXAMINATION

BY MR. SELINGER:

Q May I inquire of the witness? Mr. Kirk, where is your Holt well located with respect to the north-east line of Section 21?

A 330 from the north and the east corner.

Q And would you say that that well--I believe

you said you made a study of the drainage of this area in which I believe in answer to a direct question you stated that it would be just as likely for a well to drain east and west as it was north and south; do you recall that Mr. Moran asked you that on direct?

A Yes, sir.

Q Would the drainage be equally east and west two and a quarter miles as it would be a half a mile south?

A No, sir.

Q Which would the drainage be more pronounced, a half a mile or a quarter of a mile south, or a drainage two and a quarter miles to the west?

A It should be more pronounced the closer to it.

Q And in your opinion would the area in the south half of the south half of 21, for example, be more easily drained by your Holt well than any acreage in Section 19 to the west?

A The south half of the south half of 21?

Q Yes, sir.

A It may more well be easily drained because it doesn't have as far a distance to travel.

Q Now, if the south half of the south half of

21 is excluded from the unit assigned to your Holt well, then it would be necessary for whoever owns that acreage to be required to drill a well on that acreage in order to prevent drainage from your Holt well, is that correct?

A Not necessarily on that acreage. They might well drill it in some other location and drain that acreage.

Q But in order to prevent drainage from that particular area, the south half of the south half of 21 by your Holt well it would be necessary to have a well drilled on that acreage to permit counterdrain, would that not be true?

A No, sir, I don't think it would be.

Q Then it wouldn't be any detriment with respect to the operator of the south half of the south half of 21 if he didn't drill any well on that acreage in order to prevent drainage, is that your opinion?

A He doesn't necessarily have to drill a well on that location, that acreage.

Q How would he prevent the drainage of the gas from under that south half of 21?

A Well, he might drill another well nearby,

allocating that acreage to it, and drain it.

Q Then suppose he went in the south half of 20, Section 20, would the gas under the south half of 21 still be drained by the Holt well?

A If he went to the south half of 20?

Q Yes, sir.

A Would the gas in the---

Q ---south half of 21 still be drained to your Holt well?

A Yes, it possibly would.

Q Would not the reason be that you are going downstructure towards the Kansas side and you would recover more gas going towards the state line than you would going westward?

A As long as you are going downstructure, but the acreage to the west is higher structurally and consequently would be easterly.

Q I understood you to testify that your drainage is toward the state line, toward the Kansas State line because you are going downstructure and you are getting more drainage. Was that your opinion in direct testimony?

A Now, what was that, sir?

Q I understood you to say that the drainage is

towards the Kansas portion of the Greenwood Field, is that correct, the better drainage downstructure? Wasn't that your testimony on direct?

A Well, if the wells are drilled down there they are going to drain that area and there is no wells intervening to the west, yes, sir. It will be drained downstructure. Naturally, the higher up on the structure that you get you are going to drain more.

Q Do you drain your area upstructure or do you drain more of an area downstructure?

A You drain an area upstructure.

Q You drain an area upstructure. Now, with respect to your Holt well in the northeast of 21, what is the nearest gas well to that particular well?

A The Holt well?

Q Yes; and after you have ascertained that, give us an approximate distance between them.

A It's the Cities Service No. 1 Burkett A, Section 22. It's located in the northwest quarter of the southeast quarter of the northwest quarter.

Q Approximately how far is it from the west line of 22?

A It would be 1650 feet.

Q If it was a 330 location it would be 1650; if

it was a 660 location it would be 1980 feet, wouldn't it?

A Yes, sir, if it's a 330.

Q In any event that well is either between 1650 feet and 1980 feet from the common line of Sections 21 and 22 and your Holt well is 330 from that common line, is that correct?

A Yes, sir, that's correct.

MR. SELINGER: That's all; thank you.

COMMISSIONER VAN TUYL: Do you have any questions, Mr. Jersin?

MR. JERSIN: No, I have no questions.

COMMISSIONER VAN TUYL: I have one question.

BY COMMISSIONER VAN TUYL:

Q Is the Cities Service well in Section 22 being produced at the present time?

A No, to my knowledge it isn't, sir.

Q It is not?

A Yes, sir.

(Witness excused.)

MR. MORAN: I would like to call Mr. Hinton.

C. H. HINTON

called as a witness on behalf of Moran Brothers Inc., being first duly sworn according to law, upon his oath testified as follows:

DIRECT EXAMINATION

BY MR. MORAN:

Q Where do you reside, Mr. Hinton?

A Amarillo, Texas.

Q What is your business or occupation?

A I am president of the Management Service Corporation which is a company that specializes on matters relating to oil, gas, particularly with respect to the development, maintenance and operation, state and federal regulatory matters.

Q Are you a registered professional petroleum engineer?

A Yes, sir.

Q Are you a member of the A.I.M.M.E.?

A Yes, the A.B.I., the A.G.A., the Panhandle Geological Society.

COMMISSIONER VAN TUYL: The witness is qualified.

MR. MORAN: You waive further qualification?

COMMISSIONER VAN TUYL: Yes.

Q Mr. Hinton, are you familiar with the Greenwood Field located in Kansas and Colorado, and more particularly the Colorado side of it, Township 34 South, Range 41 West, Baca County, Colorado?

A Yes, sir, I am. I advised on the taking of leases in that area as farback as in early 1940 and had charge of the drilling of many of the early wells on the Kansas side of the Greenwood Field.

Q Do you have any opinion as to whether or not the Greenwood Field in Colorado is a continuation of the Kansas portion of the field?

A In certain areas across the state line the Kansas portion of the Greenwood Field extends into Colorado and in certain other areas immediately across the state line it does not, as is evidenced by dry holes which have been drilled on the Colorado side of the Greenwood Field.

Q Do you-- Now, referring to Applicant's Exhibit No. 1, can you be more specific in reference to the dry holes drilled on the Colorado side?

A Yes, sir. I refer to Exhibit No. 1 and would like to point out that the Amerada Cogburn drilled in the approximate center of Section 17, 33-42, being approximately one and one half miles west of the Kansas-

Colorado state line, was completed as a dry hole. I would like to point out that on Exhibit 1 the sequence well No. 5 appearing on the cross section, Exhibit No. 2, Amerada, Colorado State, located in the approximate center of 36 and about three and a half miles to the west of the Kansas-Colorado line was a dry hole.

COMMISSIONER VAN TUYL: For the benefit of all concerned, would you be good enough to point out those wells on the map, please?

A Yes, sir. This is the Amerada Cogburn well in Section 17.

Q That's shown as No. 4 on the Applicant's Exhibit No. 1, is that correct?

A Exhibit No. 1 and keyed to cross section Exhibit No. 2. This well is approximately six miles to the north of the Moran Brothers Holt No. 1. The second well to which reference was made, the Amerada Colorado State, is about three and a half miles west of the Kansas-Colorado state line and approximately four miles to the northwest of the Holt, there being no evidence of production to the north of the Holt No. 1 well for approximately ten miles. To the south of the Holt No. 1 is the J. M. Huber No. 1 Morris located in 33 35-42, is approximately one mile

and a half west of the Kansas-Colorado state line. That well was completed as a dry hole and it is slightly more than two miles southwest of the Moran Holt No. 1.

The Cities Service Stahlford No. 1 drilled in Section 6, 35-41---I believe I should make a correction on that Huber; it was 35-41 instead of 35-42---located approximately three and a half miles west of the Kansas-Colorado state line, was also a dry hole; so there is no evidence of production either to the north or to the south except for the Cities Service Burnett well recently completed in the--I will have to get that location--located in the northwest quarter of Section---

Q Twenty-two?

A Oh, yes, Section 22 (indicating on diagram), which is also an irregular spacing and is not drilled near the center of any 640-acre unit. That well apparently was drilled close to the Moran Brothers well because Cities Service did not have enough faith in finding production to go to a regular spacing----

MR. MASON: Just a minute; we object to the witness stating whether Cities Service had confidence or not. I think the witness should be permitted to give his judgment, but he shouldn't be deciding what or

whether Cities Service had confidence or didn't or the reason for which they operate.

COMMISSIONER VAN TUYL: The objection is sustained.

Q In other words, Mr. Hinton, there is no production south of the Moran Holt No. 1 well in Township 34 South, Range 41 West, is that correct?

A That is correct, with the exception of the Cities Service well. Also there is no production to the north over the area covered by the extension of the original spacing order.

Q Are you familiar with the area which was originally added as the extension of the Greenwood Gas Field to the south of the original Greenwood Gas Field?

A Yes, sir, I am familiar with it, but I would have to have a map to give you the description of it.

Q With reference to the proposed extension as appears in the exhibit to the application of Cities Service Oil Company, I will ask you to state generally what is covered by the proposed extension?

A The original extension ended at the bottom of Section 9, 33-41, and extended west four miles, two miles north, one mile west, thence two miles north. That will describe the southern boundary of the original

order. The proposed extension commenced at the top of Section 9, extended three miles--south line, yes-- the south line of Section 9 extended three miles west, thence south to the Township line or the southeast quarter of Section 36, 33-41; jogged to the west to the creek line, and extended south to the Oklahoma-Colorado state line.

MR. SELINGER: Charley, that's the southeast, 42 West; you said 41 West.

THE WITNESS: You are correct, thank you. I gave you 33-41, the southeast quarter of 36; it should have been 33-42.

Q That's in Baca County, is that correct?

A Baca County, Colorado. The original spacing order extended only a mile and a half from the southernmost productive well drilled in Baca County. The extension of this order can certainly not be justified with no evidence of production to the south until the Moran Brothers' well was drilled.

Q Now, the Moran Brothers well was drilled and completed prior to the entry of the order extending the area, is that correct?

A Yes, sir, that's correct.

Q Do you know the approximate date when the

order was entered?

A No, sir, not without checking.

Q Would September of 1955 be about correct?

A Yes, sir.

Q Since that time you have mentioned that there has been one additional well drilled in the area?

A Yes, sir.

Q And that well, would you give the location of that again?

A That well is drilled in the southeast of the northwest of the northwest, that being an irregular section having been corrected for the Colorado-Kansas state line where all along that area there there is a correction line, and the units cannot be regular governmental 640-acre surveys.

Q Referring to Applicant's Exhibit 1, can you give the approximate distance of the Cities Service well from the Holt No. 1 well of Moran Brothers Inc.?

A Approximately a quarter of a mile.

Q Now, do you have any opinion with reference to the drainage area that will be affected by the Holt No. 1 well located in Section 21?

A The immediate drainage area of the Holt No. 1

will be the area which is influenced by the production from the Kansas side of the Greenwood Field. Of course, the drainage will be into the areas of lower pressure and such lower pressures will occur as a result of production. As far as the drainage area on the Colorado side, it cannot be determined at this time until there is further development and we just can't tell when that may occur.

The best evidence that the State of Colorado might obtain in my opinion for a drainage pattern would be by the production of the Holt well and the Cities Service wells because the reaction of pressure to withdrawal would pretty well tell how large an area that may be drained.

Q Would the drainage pattern of the Holt No. 1 well be directly affected by the drainage of the Cities Service well located to the southeast of the Holt No. 1?

A As soon as there is adequate production from the Cities Service wells to set up a drainage pattern.

Q Do you have any estimate of the potential production of the Holt No. 1 well at this time?

A No, sir. The indication, and it is only an indication because it cannot be proven, but the indication is that the extension of the productive sands

will be to the west rather than to the north or the south.

Q In your opinion, Mr. Hinton, would the formation of a unit consisting of 640 acres extending east and west including acreage embraced in oil and gas leases owned by Moran Brothers Inc. and constituting approximately the north half of three sections, including the No. 1 Holt well, would the unitization of an area that size be as equitable as the unitization of the area comprising Section 21?

MR. MASON: That's objected to as "equitable." The Commission is operating under the Colorado Conservation law.

MR. MORAN: I think it is a proper question. The witness has an opinion as to whether or not one unit or one area would be as equitable from the standpoint of drainage as another area.

MR. MASON: I withdraw the objection.

A My opinion is that at this time this cannot be determined. The only thing we have to go on is the structure and it looks as though a long unit east and west might be as equitable or a little more so than a square unit north and south.

Q Would the drainage of the area comprised of

Section 21 be directly affected by the Cities Service well located to the east of that area?

A I believe I answered that. The answer is yes, sir, when there was adequate production to set up a drainage pattern by the lowering of the reservoir pressure at the Cities Service well.

Q Now, if the No. 1 Holt were given an allowable of approximately 500,000 cubic feet a day for an annual allowable of approximately 182,500,000 cubic feet, do you have any estimate as to what the value of that production would be from the standpoint of the producer and the royalty owner?

A Yes, sir, I have made such an estimate. That would amount at the contract price of fifteen cents per MCF, that would amount to \$3,400.00 annually to the royalty owner and approximately \$23,800.00 to the operator.

Q Do you know whether or not any market exists for the gas that can be produced from the Holt No. 1 well at this time?

A Yes, sir; a contract was entered into between Moran Brothers Inc. and the Colorado Interstate Gas Company. Application was made through to the Federal Power Commission for a certificate of convenience and

necessity to sell such gas, which was granted; and the only thing which is holding up the production from this well at this time is the clarification of this spacing order matter, and of course, in a new field extension it is always necessary to have production before enough information can actually be obtained to arrive at what might be a proper spacing or drainage pattern.

Q Mr. Hinton, if an order for the spacing of this area was entered in September of 1955 and this is now July 1956, the fact that only one additional well has been drilled in that area, would that have, in your opinion any significance at this time?

A Yes, sir, particularly with respect to the location of the additional well. That well was drilled about as close to the Holt well as it would be possible for an operator to get unless he were on oil spacing, which shows a lack of confidence in trying to extend the field north of the Holt well or either to the south.

Q Do you have any other comments or statements which you would like to offer to the Commission at this time with reference to the spacing pattern effect and the extended area of the Greenwood Gas Field---

A I would like to---

Q ---in the State of Colorado?

A I would like to express my opinion that a spacing order covering an area where the predominance of tests have been or resulted in dry holes is premature and that some leeway should be afforded so that production can be carried on from the wells drilled in the area so as to try to evaluate the surrounding area for production.

MR. MORAN: I believe that's all the direct examination at this time.

EXAMINATION BY MR. JERSIN:

Q Do you have an area that you would like to recommend specifically?

A It would be my recommendation that the wells drilled in this area be given a--what do you lawyers call it?--an exception so that production could be carried on, and I believe that an exception which might be extended over a one or two year period would be highly beneficial to the additional development of Baca County in this area.

BY MR. MORAN:

Q In your recommendation, Mr. Hinton, is it your thought that an order granting an exception to the present spacing order could be effective for a

temporary period until such time as additional information with reference to the production could be obtained in the area was available for presentation to the Commission?

A Yes, sir, I think such an arrangement could be carried on and at the time additional development or additional wells would have been drilled, then would be the appropriate time to have a hearing to decide on what might be a proper spacing pattern in an area which has one producer and four dry holes--two producers and four dry holes.

MR. MORAN: You may examine.

CROSS EXAMINATION

BY MR. MASON:

Q Mr. Hinton, the position you are taking here is one that you have quite frequently taken before, and that is that the field should be drilled out before it is spaced, is that correct?

A No, I don't think that is correct at all. I believe that I worked as hard on the spacing patterns for the Hugoton Field as anybody and on other fields I have consistently taken this position, Mr. Mason: that a spacing order is premature when it must be based on the drilling of only one or two wells over a wide area.

Q But it is too late after a field is drilled out to space it, is it not?

A I have never taken the position that a field should be fully drilled out before spacing, but it certainly requires some evidence of the productivity and the extent of the productive area before a spacing pattern can reasonably be reached.

Q Mr. Hinton, are you giving the Commission the opinion that such a spacing order as this that Mr. Moran would like to attribute to this well over here in the northeast corner of the unit would be an equitable order as far as the other royalty owners and operators in that area are concerned?

A I would say that.

Q Would it protect correlative rights in your opinion?

A Mr. Mason, until such time as there is enough production experience and enough development to say what might be the proper drainage pattern that cannot be answered.

Q And do you think that this well would drill an area over here designated--over here in Section 19?

A I don't know and nobody else knows.

Q Now, you are familiar, of course, in your

work as an expert on this, with the laws of Colorado, are you not?

A Reasonably so, yes, sir.

Q And you know as a matter of fact that the Commission has no authority to make a temporary order of the character here that you have referred to?

A I don't know just how broad the powers of the Commission might be; it's a legal question that I can't answer.

Q I see. And this recommendation is about the same one as you advocated to the Oklahoma Commission under a similar law in connection with the Seminole Field, isn't that right?

A I said that I thought the order was premature and I think I was right, as has been evidenced by offset dry holes drilled in the area.

Q Not in the spacing units that you were getting there?

A Definitely, yes.

Q What?

A Yes, sir.

Q In the Laboalite pool?

A Oh, yes.

Q There was no permitted extra wells in those

spacing units, were there?

A Yes, but there were many dry holes drilled on units within the confines of the spaced area.

Q But not on the units where you had your wells?

A No.

Q You couldn't drill any more there?

A No, we had some situations in the early days similar to what has occurred here, that is, one company would drill a well, another company would get up just as close to the property line as it reasonably could and drill an offset well. When the 640-acre spacing pattern was entered and they went to the near center of the locations then the dry holes were drilled.

Q Now, the Cities Service well here in Section 22, let me ask you if that is a permitted location under the extended order?

A Not without exception, no, sir.

Q What? It isn't? Would you tell the Commission just why it isn't?

A The order--I may be confused.

Q I think you are.

A I may be confused with the Oklahoma order, but, of course, the Oklahoma order gives you a 330

leeway on the center of the section. You had me over in another state here.

Q I didn't mean to; I am talking about this one. This well that you have criticized, Cities Service, for drilling down there, isn't it a proper location under this particular order that you are talking about here?

A Well, all I know, Mr. Mason, is that it is not a governmental survey 640 acres for which this order provides.

COMMISSIONER VAN TUYL: I don't believe we ought to take any more time referring to the rules and regulations in Oklahoma. We are running short of time; let's concentrate on Colorado.

Q Now, you are familiar with the terrain out there, are you not?

A Yes, sir.

Q Don't you know that that river bottom extends from immediately south of where that well is drilled for about a half a mile south of there?

A I would say that would be about right, and the unit, the Cities Service unit is one and one half mile in length, so if your company really wanted to drill in the center of a unit it would have moved to about

the center of the south half of 22, which is some three-quarters of a mile south of the south bank of the river.

Q Of course, that is rather contradictory, if the river goes down there as far as you testified.

A I was just taking your estimate of the width of the river; you said a half a mile.

Q As a matter of fact, the well would have been right in the middle of the riverbed there if it was drilled in the center of that odd-shaped unit, would it not?

A Well, I am pretty familiar with that river and if that would be the fact then I believe your estimate of the width of the river is in error because that would be approximately three-quarters of a mile south of the location. I don't think the river was the controlling factor in the location of that well.

Q But you do know that it is a permitted location under the order of the Commission?

A It looks to be; it looks as though it would comply with the boundary distance.

Q Now, there were some questions asked about drainage from this Moran well. Where would it drain from? Which direction would it drain from?

A I am assuming that the well would be under



production?

Q Yes, sir.

A Otherwise the drainage pattern would be straight into Kansas. The common pattern would be radial drainage assuming that the formation, thickness of pay, porosity and permeability were uniform throughout the 640 acres. That being true it would drain from 15, 16, 22 and 21; however, we have no evidence that that would actually occur and will not have the information until such time as there is further development.

Q It is your opinion then that the drainage would be regular?

A Sir?

Q It is your opinion that drainage would be regular?

A No, I said under the assumption that everything was uniform it would be, but there is no evidence that there is uniformity in this area.

Q If the pressure is uniform and what is the fact as to the pressure from these two wells, the Moran Brothers well and the Cities Service well?

A I don't believe I have those tests here, Mr. Mason, but I have had enough experience with Greenwood

wells that I am quite certain that those wells would be drilled in at approximately verging pressures.

Q Both about the same?

A They should be, yes, sir.

Q Now, there isn't one chance in several million that this well, this Moran Brothers well, would drain the area which he seeks to attribute to the well, is that correct?

A Or by the same token any square 640 acres in that general area.

Q The only thing holding up production of this well is the fact that Mr. Moran doesn't want to produce it until this application is to be determined?

A No, sir, that is not true. Mr. Moran is very anxious to produce this well, but Colorado Interstate will not build a line over to the well until the spacing matter has been cleared up, and that situation has existed for months.

Q Is there anything about the order that the Commission has made that is unclear to you or Mr. Moran?

A I believe not. Colorado Interstate would not care to build the required connecting pipeline for a well which might be limited to just the fractional part

of Section 21 on which the well is drilled. I believe, Mr. Mason, you know that Mr. Moran has offered to have Cities Service join in this well.

Q No, I don't know that. Will you tell us the circumstances? Were you present and did you know that?

A Mr. Moran is here.

Q Well, I see. No, I didn't know that. Did you know it?

A Yes.

Q You did?

A Yes.

Q Did you witness any of the proceedings?

A No, that was not part of my assignment.

Q Then you don't know whether Cities Service was afforded an opportunity to go into this matter or not, do you?

A That would be for Mr. Moran.

Q I didn't ask you that; I said you don't know, do you?

A Yes, I do.

Q You do?

A Yes.

Q What were the circumstances?

A I don't know the circumstances, but if Mr. Moran

told me that he made such an offer, then I know it.

Q You have deliberately injected hearsay into this hearing?

MR. MASON: I believe that's all.

MR. SELINGER: May I ask Mr. Hinton a question?

COMMISSIONER VAN TUYL: Yes.

BY MR. SELINGER:

Q Mr. Hinton, have you just been called into this matter or are you familiar with the circumstances of the establishment of the original Greenwood spacing and proposed extension which resulted in Order 34-1?

A I became familiar by having one of my employees attend the spacing order when the hearing was first held.

Q Were you interested in this area other than just a general interest at the time the extension order was issued?

A Yes, sir, at that time I was employed by Panhandle Eastern, and Panhandle Eastern held leases in this area.

Q Were there any objections made to the proposed extension which resulted in Order 34-1?

A Not to my knowledge, however, if I would have attended the hearing the same objection would have been made that I always make on a--trying to arrive at a proper spacing order.

Q Aside from your feelings the fact remains that you made no objections?

A I believe the record would show that no objection was made.

Q And the Order 41-1 was issued and has been in existence since its issuance, is that correct?

A 34.

Q 34?

A 34-1 has, yes, sir.

Q Are you also familiar with the fact that the Moran well was drilled as a result or necessitated after the issuance of the spacing order resulted from an exception granted by this Commission?

A The well was not drilled under spacing order rules; the extension had not been made, 34-2, at the time the well was drilled.

Q But subsequent to that time this well was granted an exception, is that correct?

A I can't answer that; I am just a little fuzzy on it. I better let counsel advise you.

Q You don't know then whether or not an exception has been granted to the Moran well?

A An exception has been granted to the location and it is my opinion that such exception to the location was granted when the extension 34-2 was made effective.

Q And that exception was as to the location, is that correct?

A That is correct.

Q The exception was to the required minimum of 1250 feet from the unit line, is that correct?

A Yes; of course, the initial well was drilled as an oil well location.

Q Yes, but the fact remains that the Moran well did receive an exception as to its location?

A As to its location, yes, sir.

Q Will you explain to the Commission why at that same time you did not make a request for an exception as to the unit size or shape?

A I think it was a matter of Mr. Moran not being completely familiar with the rules and regulations of the State of Colorado.

MR. JOHN J. MORAN: We asked for an exception then.

MR. SELINGER: Yes, as to the location.

MR. JOHN J. MORAN: No, the acreage. Excuse me for interrupting.

Q Then you don't know whether or not the request was made for the exception for the unit?

A I think the exception was requested verbally but there was no formal hearing on the request for such exception.

Q Mr. Hinton, you are not familiar with the terms and with the circumstances, so let's go on, if you don't know. Let's go on; there is no use wasting time; but, you are not familiar with the circumstances?

A I am agreeable to going on.

Q All right. The nearest well is the Cities Service well to the east in Section 22, is that correct?

A Yes, recently completed.

Q Is that well in excess of 1250 feet from the nearest unit line?

A No, sir.

Q It is not?

A No.

Q How far is it from the north line of Section 22?

A It looks like 1980 to me from the location on

the map.

Q How far is it from the west line of Section 22?

A The same distance, 1980, which puts it--the location of the well--approximately a half mile from the center of the unit on which it was drilled.

Q Do you know the unit that is assigned to the Cities Service well?

A The records that I have seen indicate that the well consists of Section 22 and approximately the north half of Section 27, 34-41.

Q Now, if the unit consists of all of Section 22, will you point out where the well is closer than 1250 feet from the Section 22 line?

A I believe I have already done so when I said 1980 each direction.

Q I understood you to say that the well, the Cities Service well, was closer than 1250 feet from the nearest unit line? Do you wish to correct your answer?

A I don't believe that I gave such an answer, but if I did I wish to make such a correction.

Q Then to clarify it, the well is in excess of 1250 feet from the nearest unit line?

A Yes, sir, and not close to the center of the

unit on which it is drilled.

Q Well now, is Section 22 a normal section?

A No, sir, it is impossible to have a governmental 640 acres square acre survey along the Kansas-Colorado line. All the units will have to be irregular along that state line.

Q Then can you tell--- Excuse me.

A At this particular point.

Q Now, will you tell the Commission whether or not the well east and west of Section 22 is or is not close to the center of the east and west distance between the east line and west line of Section 22?

A Yes, it is fairly close to the center of the center of Section 22, north and south.

Q All right; now, how far is it--the Moran well from the east line and the north line of Section 21?

A That's an oil location.

Q I didn't ask you what the location was; I asked you what is the distance, how far?

A 330 each way.

Q Now, with respect to drainage would it be more likely for a well 1980 feet from the west line of 22 to drain Section 21, or a well 330 feet from the east

line of Section 21 to drain the acreage in 22?

A That would depend on the formation, conditions existing around each of the two wells.

Q Well, assume that the porosity and the permeability and thickness of the pay is the same; would you normally have more drainage of a well located close to a common line?

A Certainly; that is indisputable.

Q Now, are you familiar with this application that was filed for the hearing today?

A Yes, I have read it.

Q Do you know the unit requested to be assigned to this well?

A Yes.

Q The unit that you are requesting to surround your Holt well does not include all of Section 21, is that correct?

A That is correct.

Q And do you agree with Mr. Kirk that from his structure and contour map that all of 21 is productive of gas?

A We cannot tell.

Q Well, I asked you, do you agree with Mr. Kirk?

A No, sir.

Q Do you agree with Mr. Kirk as to that?

A No, sir.

Q You do not agree?

A I would not say that any full section in Baca County might be productive of gas at this time until there is further development.

Q Does structure alone determine the productivity of your gas wells in Greenwood Field?

A It certainly does not.

Q It does not?

A No, sir.

Q What does determine it?

A The drilling and production experience. That's the only two sure factors that we have in the Greenwood Field.

Q Then I take it from your testimony and conclusion that you do not favor the issuance of any spacing in the future, but only as to wells and units completed and put on production before they were taken into the spaced area?

A No, sir, you misunderstand me. I say that a spacing order at this time is premature and in this particular portion of Baca County. At a future date if future drilling shows a wider productive area and we

have some production experience, at that time will be the appropriate time to enter an equitable spacing order.

Q Then in the Greenwood Field do you advocate 640-acre spacing for the gas wells or not?

A Greenwood Field of Colorado?

Q Yes.

A That will depend upon future developments.

Q Do you have any opinion as to whether or not a well will drain 640 acres in the Greenwood gas portion of the Colorado Field?

A Given a proper time element I feel certain that the economic production can be taken out through one well on an equivalent of 640-acre spacing.

Q I notice you limit it to the economic consideration. Now, I am asking you with respect to drainage: Do you think a well will drain adequately and efficiently 640 acres in the Greenwood Gas Field?

A Some of the wells will not.

Q Is it your opinion that this well will or will not, the Holt well?

A We can't tell until we have some production.

Q You have no opinion?

A I have an opinion, yes.

Q You have no opinion, is that right?

A Yes, I do.

Q What is that opinion?

A My opinion is that if the well will be permitted to be placed on production before a serious drainage pattern is set up into the State of Kansas, that it will have good possibilities of draining 640 acres, providing that 640 acres of that area is productive.

Q And if the area in and about Sections 15, 16, 21 and 22 is productive of gas, where would most of the drainage from this particular well come from?

A Kansas.

Q It would come from Kansas? It would drain across Section 22?

A I mean the drainage would be into the State of Kansas.

Q Yes, sir, and it would drain across Section 22?

A Yes.

Q Would it drain from Section 19 to the west?

A If that is a productive area and the pressure situation is set up so as to form a pressure gradient across those sections, certainly it will drain.

Q Would it be more logical to say that the drainage would take the acreage in Section 19 as compared to the acreage in Section 22?

A It would probably not be more logical, but it certainly is highly possible.

Q Well, I believe you stated that most of the drainage would come from the pressure differential on the Kansas side, is that correct?

A Yes, because Kansas is being produced and has been produced for some months.

Q Based on that answer then, would not all of your drainage come from east of the well rather than from west of the well?

A No, sir; I put a time element in there. If the Holt well would never have been drilled or the Burkhardt well never would have been drilled, ultimately that area would be drained by production of gas from Kansas wells.

Q Mr. Hinton, we are sticking to the facts that both wells have been drilled. Now, let us assume that both wells have been drilled and both wells will be placed on production; with respect to your Holt well, would your drainage come from the area to the east where your pressure differential is lower than the area

to the west where your pressure differential is higher?

A The drainage would come from the west where you have a higher pressure.

Q Does the location of the well on the unit have any bearing on the drainage?

A Yes, assuming that there is continuity of the same thickness, permeability, porosity, yes.

Q And based on that assumption would you say that there would be more drainage from portions of Section 21 than from portions of Section 19?

A Based on that assumption?

Q Yes, sir.

A There would be more from Section 19.

Q More?

A No, excuse me, from Section 21.

MR. SELINGER: That's all, thank you.

MR. SHAW: I have some further questions.

Are you going to go ahead?

BY MR. SHAW:

Q Mr. Hinton, in connection with the order on page four--I mean of the application of the Moran Brothers Inc., there was a question asked of you awhile ago by Mr. Mason in connection with whether or not the gas in the Moran Brothers well could now be sold. AS

I understood, you said it could not be sold because Colorado Interstate--unless there was an amendment here. Now, in accordance with the application on page four near the top it states:

"The well"--I am talking about the No. 1 Holt--"has been completed and ready for connection for the past several months and Colorado Interstate Gas Company has offered to purchase the gas produced by this applicant from the above-mentioned well subject to compliance with Order No. 34-2, or an amendment to said order."

Now, in other words, you could sell the gas and produce it right now, couldn't you, Mr. Hinton, if they complied with Order No. 34-2 as it is written today without any amendment?

A No, sir.

Q In other words, you desire to correct this language then as used in the application?

A No, the application is all right. You said that the gas could be sold, as I understood it.

Q Do you find where I am reading?

A I think so.

Q On page four right here, "The well has been completed."

A What was your question?

Q My question is that actually Holt No. 1 can be produced and the gas can be sold today to Colorado Interstate without any amendment to Order No. 34-2, isn't that correct?

A That would be correct if Colorado Interstate would build a connecting line in with this shadow over the lease.

Q But there is no shadow over the lease as long as the exceptions have already been made for Holt No. 1 under order 34-2 and there is no shadow over it as long as you comply with 34-2, isn't that correct? In other words, the amount of acreage in Section 21 that is attributed to this Holt No. 1 is already provided for by an exception in 34-2, isn't that correct?

A Yes, but I believe what holds up the line is the fact that in the event this becomes pro-rated, under a proration rule similar to the Greenwood Field, and unless there was a consolidation of that unit, the allowable would be so low from that portion of the acreage comprising Section 21 that it would not be economical for Colorado Interstate to build a connecting line. That is actually what I think is holding up the sale of the gas.

MR. SHAW: Are there any representatives of Colorado Interstate here today? (No response)

Q Now, Mr. Hinton, have you ever attempted or do you know whether the Moran Brothers have attempted to pool in accordance with the oil and gas statute in order to attribute sufficient area to this particular well so that it would be economic, as you have just said, or just made reference to?

A Well, I don't want to be accused of bringing in more hearsay, so I will let somebody else answer that.

COMMISSIONER VAN TUYL: Do you have someone here who can answer that?

A Yes, sir, Mr. Moran is here.

Q Now, in connection with--you have made a statement here several times to the effect that a spacing order at this time is premature because it is necessary to have more development. You will agree, will you not, that if you don't have some limit to the number of wells that could be drilled for further development that it would be far too late to enter any kind of an effective spacing order?

A No, I don't agree to that at all.

Q How much development would you say? Will you

state your opinion then to the Commission as to how much development you feel should be allowed before this Commission exercises its prerogatives under the oil and gas statute?

A Well, I certainly think that the ten-mile area north of the Moran Brothers well should be proven by something other than dry holes before the original order 34-1 should be extended south to cover that area.

Q Now, with reference to wells Nos. 2 and 3 which are shown on your Exhibit 1, those are producing wells, are they not? That's the Amerada No. 1 Watkins and the Amerada No. 1 Nue.

A Yes, they are. The last well you referred to is the well which is ten miles north of the Holt well on which there is no proof of any production between the two wells and is eight miles of that extension of 34-2.

Q Now, Mr. Hinton, the Holt No. 1 well is No. 7, is that correct, on your Exhibit 1?

A No. 6.

Q Or No. 6, I beg your pardon.

A Yes.

Q Now, isn't it true that the same--that this

gas in Nos. 2 and 3 and the gas that can be produced from No. 6 when it is permitted to be produced, are coming from the same common reservoir, the Greenwood formation--I mean, the Topeka=Lansing formation?

A Not the same commonreservoir in Colorado. It would have to migrate around through the State of Kansas before any withdrawal effect would be felt.

Q You mean the gas is acquainted with the state line there and goes around and meanders back through Kansas before it comes out to Holt No. 1 well?

A No, sir, on the contrary; the gas has no respect or knowledge of state lines and will be drained into Kansas from each area unless equal production is achieved in the State of Colorado.

Q Well now, my question again: It isn't your opinion here, Mr. Hinton, is it, that the gas from wells Nos. 2 and 3 are being produced from entirely separate reservoirs than the gas that is capable of being produced from the Holt No. 1? You are not making an assertion like that here, are you?

A As far as the State of Colorado is concerned, yes, because there is no proof of production from the Amerada Nue. There are two dry holes drilled between, for reference purposes, well No. 3 and well No. 6, and

there is certainly no evidence that that is a common reservoir and that there could be any reaction to pressure from that well ten miles south, the Holt well and the Amerada Nue well, without that gas going over into the State of Kansas.

Q Now, didn't your geologist, Mr. Kirk, testify to the contrary on that? Didn't he acknowledge in his testimony here that this production from 2 and 3 was from the same reservoir and the same formation of the Topeka-Lansing as the gas in the Holt No. 1 which is marked 7?

A Mr. Kirk testified as a geologist, and geologically speaking that is correct, but when it comes to taking that gas out of the well bore, that does not apply.

Q In other words, you differ with the geologist, Mr. Kirk, then in his conclusion?

A No, I don't think so at all. Mr. Kirk was testifying on geological formation. I am testifying on what is actually going to happen to that gas if this matter is not clarified and the wells in Kansas continue to produce, why, certainly that gas is going to drain into the State of Kansas.

Q Well now, in other words, you agree then with

Mr. Kirk that it is from the same geologic formation?

A Oh, yes.

Q The gas in well No. 2 and No. 3 on Exhibit 1 and the gas from No. 6, which is the Holt No. 1, are from the same producing formation, isn't that correct?

A Yes, sir, and of course I also agree with Mr. Kirk that there are two dry holes drilled in the state of Colorado between the two wells.

Q Now, you say that gas doesn't have any regard for state boundaries. I will call your attention to the fact that in Section 6 in the Amerada No. 1 U.S.A. Brown, which is 33 South 43 West, is a producing well, is there not?

A Yes, it is so designated.

Q All right; now, how far is that located from the Kansas-Colorado line?

A About 2,800 feet.

Q All right. Now, in Section 7, south of that, the Cities Service No. 1 Neill B is a producing gas well, isn't it?

A (No response)

Q Did you find that, sir?

A I am looking on the official schedule of Kansas.

Q I am referring to your own Exhibit No. 1 prepared by Mr. Kirk, and it is indicated here as a producing gas well?

A Yes, sir.

Q Do you agree that it is a producing gas well?

A As soon as you will let me finish my examination I think I will, yes, sir (looking through documents). Yes, sir, that is a producing well. The reason that I was examining that well was because the Cities Services No. 1 Belmeade south of it in Section 18 is a dry hole.

Q Yes, thank you, and I was going to come to that. Now, that's a dry hole in Section 18, and that would be a little bit south, isn't that correct?

A That is correct.

Q Now, however, in Section 19 the Cities Service No. 1 Burnett A is a producing gas well, isn't that right, sir?

A Yes, sir.

Q And over in Section 17 to the north and east the Southwest Exploration No. 1-B Oberly is a producing gas well?

A Yes, I think I will say that it is.

Q As shown on Exhibit 1?

A Yes, sir.

Q Now, Mr. Hinton, doesn't this help to prove-- let me just interrupt one line of thought here-- doesn't this help to prove that merely drilling a dry hole, a dry gas well on Section 18, the Cities Service No. 1, did not in any way condemn the acreage to the northeast or south of it, isn't that right, sir?

A Yes, sir, and I am saying that as soon as we have wells drilled around the existing dry holes in Colorado, that will be the appropriate time for a spacing order to be made effective.

Q But then, I come back to my other question, wouldn't that be entirely too late at that time to enter an effective spacing order?

A No, sir, it would just be a matter of drilling a few additional wells.

Q And you in reply to a question from this gentleman awhile ago that you felt that the proper drainage area, taking most factors into consideration, would be approximately 640 acres to a well, isn't that right?

A Yes, that's been pretty well established by similar reservoirs.

Q Correct. And with the conflict in ownership,

with the number of different sections and parts of sections and tracts being owned by a number of different owners and some of the federal acreage and even some of the state acreage, as well as a lot of different owners of fee acreage, wouldn't you say that it would be nearly impossible to enter an effective spacing order after the development that you want to be permitted?

A Oh, no, sir, it was accomplished in the Hugoton portion of Oklahoma.

Q There was some mention made previously by you, Mr. Hinton, giving figures as to how the royalty owners in this proposed excepted unit of the Moran Brothers would be benefitted. You gave a certain number of dollars. Now, isn't it true that if acreage is attributed to the Holt No. 1 on the basis of the exception in 34-2, that those persons in the acreage attributed to that well would be benefitted economically in the same way without going clear over here to the west two and a half miles?

A That's something that we can't tell until there is further development in this area. It would be just as possible that this would drill over in 19 as it would to the south. We just can't tell that until--

nobody can tell that until there is additional development in the area, in my opinion.

Q In other words, you disagree with Mr. Kirk who testified previously upon questioning that it is logical and probable that the acreage that would be drained by the Holt No. 1 well is located in Section 21 is much more likely that it would drain that area than it would clear over here to Section 19. You disagree with Mr. Kirk on that?

A It is all supposition and I don't think Mr. Kirk or anybody else can say what specific area is going to be drained by the Holt well at this time.

MR. SHAW: Now, Mr. Van Tuyl, we have a few more questions; I don't want to hold the Commission up here too long.

COMMISSIONER VAN TUYL: Make them brief, if you can.

MR. SHAW: Sir?

COMMISSIONER VAN TUYL: Make them brief.

Q Now, Mr. Hinton, isn't it true that with respect to Exhibit 1 and the testimony, Mr. Kirk's testimony and your own testimony concerning the limits of the Greenwood Field, that you are basing that on the premise of a structure--in other words, this is based

upon the theory of structure only, isn't it? You are not taking into consideration porosity and permeability, are you?

A No, it's not. This Exhibit No. 1 was prepared merely to show structure and not to try to indicate that structure controls the selection of the location of a well in the Greenwood Field. I think Mr. Anderson will agree with that.

Q Then it is based upon the premise of structure?

A It is just to show the structural picture. As far as selecting a well on any condition that is shown on this will not prove that it is going to be a producer, and the only way we can prove production in the Greenwood Field is by drilling the well. Until the wells are drilled we don't know that the area will be productive.

Q Mr. Hinton, you are familiar with the history of the production in the Greenwood Field on the Kansas side, are you not, sir?

A Pretty well.

Q And you acknowledge, do you not, Mr. Hinton, that the Baca County portion of this Greenwood Field-- in other words, the Greenwood Field is extended into the Baca County, Colorado area, isn't that correct, from

Kansas?

A At certain points along the state line, yes, sir, that has been proven by producing wells. At other points the only evidence is that it does not, because only dry holes have been drilled.

Q Yes; but, we have already shown and we have already seen, have we not, that merely drilling a dry hole on one section doesn't necessarily condemn the sections to the north, south or east, isn't that correct?

A In certain---

Q Or even to the west?

A In certain areas of the Kansas portion of the Greenwood Field, that is correct, but as we progress westward toward Las Animas we just can't tell yet what those conditions may be and we can't tell until after the wells are drilled.

Q Now, since we can't tell until the wells are drilled isn't it true, Mr. Hinton, that based upon the experience and the history and the known facts already gained in the Greenwood Field on the Kansas side, don't all of those factors form the basis for a proper spacing order on the Colorado side if we acknowledge that this is an extension of the Greenwood Field into

the Colorado side?

A Not with the results that have been obtained in the drilling of townships and areas to the north and west of Baca County, no, sir. It might be the basis for forming an opinion, but as far as real evidence is concerned, no.

Q Wouldn't you go this far with me, Mr. Hinton, that it would be at least a good idea and good judgment on the part of this Commission to enter its order based upon the facts and experience that are already shown to exist in the Greenwood Field on the Kansas side so far as a spacing order is concerned rather than to try to second guess this thing after you have drilled wells in a helter-skelter manner all over the area?

A Well, I think if we would look at Exhibit No. 1, and the Holt well might have been drilled in the center of Section 21, and in that event it could easily have been a dry hole. If the Cities Service Burkhardt well would have had to be drilled in the center of 16 it could easily have been a dry hole, so---

Q Pardon me; you are not willing to answer my last question?

A I thought I was trying to, yes, sir.

Q I don't think it was responsive.

A I am sorry; would you read the question, please?

(The reporter read from his notes as follows:)

"Q Wouldn't you go this far with me, Mr. Hinton, that it would be at least a good idea and good judgment on the part of this Commission to enter its order based upon the facts and experience that are already shown to exist in the Greenwood Field on the Kansas side so far as a spacing order is concerned rather than to try to second guess this thing after you have drilled wells in a helter-skelter manner all over the area?"

Q Now, can you just answer that yes or no?

A I don't care to answer it yes or no.

Q All right.

A If I can't amplify I can't answer.

Q I am willing to let you amplify it, but I want you to be responsive.

A I was getting the foreground for my answer, and I will just briefly say this: Until there is further development the answer is no, sir.

Q Well, I will ask that question one more time then, Mr. Hinton: Can't you tell the Commission how much further development you need? In other words, if you are not willing to admit that the facts and

experience in the Greenwood Field in Kansas should be a guide to this Commission in entering a spacing order, then how much further development do you say should be permitted in this Baca County area before a proper spacing order could be entered?

A It would be my sincere recommendation that a spacing order not be entered until such time as there had been enough wells to really get an appraisal of the area involved in the spacing order.

Q And how many wells would that be?

A That would depend largely upon the spacing. If one well was drilled and then it was merely a pool extension and they got to be just development wells between certain wells, why, then it would take one number. I would say that there would have to be in the order of six to eight stepout or exploratory wells drilled in this area before it would be proper to enter a spacing order.

(Discussion off the record.)

MR. SHAW: I just have a few more questions, Mr. Van Tuyl.

Q By stepout drilling you would ordinarily go into separate sections, wouldn't you?

A Yes.

Q And wouldn't you want to try to have some kind of uniformity in the amount of acreage and in the shape of the acreage?

A Yes.

Q Even in stepout drilling?

A That's the reason I answered the question; the only second additional producer that has been drilled in the area involved is only a little more than a quarter of a mile away. That well would have been drilled two miles to the west--if it had been drilled two miles to the west we would have a much better answer than we have. That's the reason that you can't say six wells or twelve wells. I am saying it takes six to eight exploratory wells in the spacing area.

Q But the spacing area, you have got to have a spacing area, don't you, even for stepout drilling such as you are talking about?

A No, sir.

Q In other words, you would be in favor, you would favor drilling one well in one part of a section and 330 feet away drill another well?

A No, I don't think it would be necessary because certainly there are enough operators here intervening that believe in spacing that wells certainly should be

drilled on a 640-acre spacing pattern.

Q Therefore why not permit the Commission to-- if the operators feel that way about it--why not permit the Commission then to enter an order requiring a spacing of 640 acres, uniform size and shape?

A Because the wells which have already been drilled in the area--and I refer particularly to the Holt No. 1--was drilled without any advantage of having a spacing order entered in this area, and I think that that well should be excepted from the order and if such well is excepted, why, it seems to me like it solves the problems of the others involved.

Q You understand, of course, that the Holt No. 1 has been granted an exception?

A As to spacing?

Q In 34-2?

A As to location, yes, sir.

Q And you will agree, will you not, that if you were to grant--if the Commission were to grant all of this area which is shaded in red here (indicating) and which approximates the same in your exhibits, and in your application, if the Commission is to attribute all of this acreage going clear over to Section 19 or into Section 19, that that would completely

interrupt and prevent a proper spacing order or prevent the effectiveness of a spacing order?

A Not at all. You are going to have a regular spacing order on all the sections to the east adjoining this location (indicating). They are going to be at least a mile and a half; we are talking about two-mile spacing. I can't see where it upsets the area whatsoever.

MR. SHAW: That's all I was going to ask. I was just going to ask if the witness will keep himself available for the remainder of this hearing?

COMMISSIONER VAN TUYL: Is there any other cross examination?

MR. STOCKMAR: I would like to ask one question which might permit myself and my client not to return afterward.

COMMISSIONER VAN TUYL: All right.

BY MR. STOCKMAR:

Q Mr. Hinton, the Frontier Refining Company has four small odd lots in the north half of Section 21 where your Holt No. 1 well is located. Would you be willing to stipulate--possibly conferring with Mr. Moran--that whatever type of spacing order be issued include all of the north half of Section 21 or at least

that it include all of the lands of the Frontier Refining Company?

A I have not been authorized to make such a stipulation, but I believe it could be done off the record.

Q Well, I want it on the record.

MR. JOHN J. MORAN: I won't commit myself to anything of that type at this time. I have tried to do that.

MR. STOCKMAR: Let me ask one or two questions.

Q You did indicate that on a general basis that we have not sufficient drilling at the present time to adopt a spacing pattern. Speaking specifically in answer to Mr. Shaw, however, you said that one well on each section would be adequate development. Now, in your opinion is another well required in the north half of Section 21 to properly define it as part of some spacing area?

A On the north half of Section 21?

Q North half of Section 21, yes, sir.

A No, sir. There is no reason whatsoever that at the appropriate time the south half of Section 16 could not be unitized with the north half of Section 19

or those units can be formed; they don't have to be governmental survey sections.

Q Well, is it your opinion or not that the entire north half of Section 21 ought to be part of the same spacing pattern, whatever other lands might be involved?

A Not at this time. We cannot tell until perhaps a well has been drilled on Section 28, which would be an approximate midpoint between a dry hole on Section 33 and a producer on Section 19. I don't think we can tell.

MR. STOCKMAR: I failed in my effort to achieve a harmonious position for my client. I would like to be permitted to return for further cross examination.

COMMISSIONER VAN TUYL: All right.

BY MR. ROBERTSON:

Q Mr. Van Tuyl, before the witness is excused, is this a correct summary that on the basis of the information that you have available right now you actually have an insufficient amount of information upon which to base either an opinion or a recommendation to this Commission as to any proper spacing pattern?

A That is correct.

MR. STOCKMAR: Then I would like to rise to a point of law here. We have in existence an order based on certain information. Now, it is the general law of conservation matters that there must be adequate new evidence of a substantial weight to permit the Commission to alter that order, and if we do not have adequate information, opinion evidence or otherwise, to justify Mr. Hinton and Mr. Kirk in giving a firm opinion on these things, then I think we ought to dismiss the hearing and let the existing order stand as it has in the past.

MR. SHAW: I think that's a correct statement of the law; I agree with that.

MR. MORAN: This order was entered on September 8th of 1955. At that time it was represented to the Commission that this area of extension was tied into the original area which was spaced. There has been no additional development in the extended area that has in any way changed the facts or the circumstances that were presented to the Commission at the time the order of extension was entered, and it was upon the representation that additional development would prove that this was a proper area to be included in the Greenwood Field that this area was extended.

Now, the only well that has been drilled is the Cities Service well within about three-quarters of a mile or less from the Holt well, and that is to the east. There hasn't been anything drilled between the dry holes that were pointed out at the original hearing and the Holt well which was the only producing well in the extended area at the time the order was entered.

Now, this is a hardship case. Mr. Moran attempted to explain it at the time of the last hearing, and the leases are being permitted to expire in the absence of production, and I want to put Mr. Moran on the stand and let him testify with reference to that matter, that this hearing should not be dismissed without a proper opportunity to let Mr. Moran state his position and also bring this matter up-to-date.

This order was entered in September of 1955 and the protestants here haven't done a thing in the meantime to create any equities in their favor, but Mr. Moran drilled this well and completed it prior to the entry of any order, and he is now being deprived of his property without proper equity or without due process of law or anything else. And this order is

improper if left to remain as originally entered.  
The hearing should not be dismissed.

COMMISSIONER VAN TUYL: We will continue to hear the evidence on this cause.

We would like very much to get out of here within the next thirty minutes, if possible. The Commission has a meeting scheduled for 2:00 o'clock. Now, do you think we will be able to finish in that time?

MR. MORAN: It wouldn't take us any longer than that, sir.

MR. SHAW: The only trouble is, Dr. Van Tuyl, we have two witnesses for Cities Service. In other words, if the Commission does not dismiss this application upon the evidence presented by them, then we would have the burden of going forward in a defense and we would want to put on at least two witnesses and that will take some time.

(Discussion off the record.)

COMMISSIONER VAN TUYL: Do you think we can finish within an hour if we hold over until after 2:00 o'clock?

CHAIRMAN DOWNING: Gentlemen, as you know we have a most important conference set for 2:00 o'clock

and if you could finish, the sooner the better. We wouldn't like to have you come back.

(Discussion off the record.)

(Witness excused.)

JOHN J. MORAN

called as a witness on behalf of the applicant, being first duly sworn according to law, upon his oath testified as follows:

DIRECT EXAMINATION

BY MR. JOHN R. MORAN:

Q Will you please state your name?

A John J. Moran.

Q Where do you reside, Mr. Moran?

A Wichita Falls, Texas.

Q Are you a member of the firm or an officer of the firm of Moran Brothers Inc.?

A Yes, sir.

Q Are you familiar with the contents of the application made to this Commission for a modification of Order No. 34-2?

A I think so.

Q As Moran Brothers Inc. did you drill a well known as the Holt No. 1 well in the northeast northeast of Section 21, Township 34 South, Range 41 West, 6th

P.M., Baca County, Colorado?

A Yes, sir.

Q Now, are you familiar with an order which was entered by the Commission known as 34-2 in this proceeding in which your well was designated as an exception for the location of a well upon a spaced area to consist of 640 acres or approximately one section?

A Yes, sir.

Q Now, the exception that was contained in that order was merely an exception to the location, is that correct?

A To the location, yes, sir.

Q But the spaced area for your No. 1 Holt was designated as all of Section 21, is that correct?

A That's right.

Q You do not have an oil and gas lease on all of the lands comprising Section 21, do you not?

A No, sir.

Q Now, you do have oil and gas leases covering Tracts 49, 50, 51 and 52, do you not?

A Yes, sir.

Q Now, those tracts extend in an east-west direction from your No. 1 Holt well to the approximate east half of the east half--rather, the east half of

the northeast quarter of Section 19, is that correct?

A I think that is correct.

Q Now, having drilled your well in June of 1955, the entry of this order in September of 1955, were you present at the hearing on the order in September of 1955?

A Yes, sir.

Q And at that time did you attempt to secure any modification or exception for your Holt No. 1 well?

A Yes, sir.

Q What was your position as stated to the Commission at that time?

A I said the order was premature, that there had been no proof of necessity at that time, that the dry holes drilled in the area indicated that it was completely out of line. I asked that it be--if they had to issue it--that it be discontinued at the north line of our acreage and permit those people in 16 and along in there to drill them some wells and prove that the gas came down there, and if any of them chose to go south of us and drill a well and prove there was gas south of us, that we at that time would be most amiable to any sort of an order, but at that moment we had a lease that expired of its own terms and the only way we

could hold it was to have a gas well there and it happened to be the west part of the acreage.

Q You in fact have two oil and gas leases covering that land, do you not, Mr. Moran?

A That's correct.

Q Do you know the dates of those leases?

A No, I do not.

Q Are they dated on or about March 23rd 1945?

A I would judge that was about correct because I think the expiration date was---

Q And they were given for a term of ten years, is that correct?

A I think that's correct.

Q Now, there is some possibility that your leases are in jeopardy as a result of your not having been able to produce your Holt No. 1 well, is that correct?

A I have been so advised.

Q Have you made any attempt in connection with the unitization of Section 21 in accordance with Order No. 34-2?

A I think I wrote all of the interested parties in that section that the well had been completed and that we had an investment in it of a certain figure

and that it appeared that I might eventually have to unitize it and were they interested in going into it and I did not get a direct answer from any of them. They all gave me an evasive answer and they wanted to know what it would produce and the results of the bottomhole tests and other questions, and I said, "Now, it is there and that's as far as I can go."

Q Did you offer them an opportunity to participate in your Holt No. 1 well at that time?

A When I wrote them and told them what I was going to do?

Q Yes.

A I think that was the intent of the thing.

Q You expressed to them your willingness to attempt to comply with Order No. 34-2 by inviting them to participate in your well, is that correct?

A Yes, sir, I think that would be the interpretation of my letter. It wasn't written by a letter but that was my intent.

Q Now, at this time have you had any complaints from the royalty owners under the oil and gas leases which you own in Sections 21, 20 and 19?

A Not longer than last week I had a letter in my office from one of the Holt Brothers that--and a

copy to the other brother--that in his opinion we didn't have any lease and what was his opinion, and he gave me the courtesy of sending me a copy of the letter.

Q Is it your opinion at this time that your leases are in jeopardy unless you are permitted to produce the Holt No. 1 well, is that correct?

A Yes.

MR. MASON: We object to counsel giving legal opinions on this matter.

MR. MORAN: I asked him if that was his opinion.

MR. MASON: Well, that's a matter of legal opinion. He has a remedy under your Colorado law. That's subsection D of Section 100-6-4, which says:

"In the absence of voluntary pooling the commission upon the application of any interested person may enter an order pooling all interests in the drilling unit for the development and operation thereof."

THE WITNESS: Does that say the royalty interest?

COMMISSIONER VAN TUYL: It includes all interests, I believe.

THE WITNESS: He has read me out of that law before out of context and I just wanted to get that in the record.

Q The leases which you hold, Mr. Moran, cover portions of the lands which are described in your application, is that correct?

A No, I think they cover all of the land described.

Q By that I mean that one lease covers all of Tract 51 and 52?

A That's right.

Q And the second lease covers Tract 49 and Tract 50?

A That's right.

Q And that there is presently no production upon Tract 49 or Tract 50?

A Not at all.

Q Unless and until an order is entered here permitting your tracts 49, 50, 51 and 52 to be treated as a spaced area for your Holt No. 1 well?

A Yes.

Q And your leases presently include approximately 640 acres, is that correct?

A Yes, sir.

Q Have there been any other wells drilled in the extended area of the Greenwood Gas Field as spaced by the Commission under its order dated September 1955 other than the Cities Service well drilled to the east of your Holt No. 1 well since the entry of the order?

A I am under the impression that the Huber well has been drilled since then, hasn't it?

Q Do you have the approximate date of the completion of that Huber well?

A I do not.

Q It was drilled and completed as a dry hole, is that correct?

A Yes.

Q You don't have the approximate date of the completion of that well?

A No, I don't.

MR. MORAN: I believe that's all the direct testimony at this time..

CROSS EXAMINATION

BY MR. SELINGER:

Q Mr. Moran, you were present at the hearing held by this Commission which resulted in the extension area order being issued, is that correct?

A Yes, sir. I would like to explain my statement at that time that they had the most ignorant and unprepared man appearing before them that they had ever had before them.

Q And it was your opinion at that time that it was premature, is that right?

A Definitely.

Q Are you still of the opinion that the information in this area is premature?

A It is at this time more complete because the dry hole has been drilled south where I contended that it was dry, so to my mind it is more premature now than it was then.

Q Do you have any opinion as to whether or not your acreage in Sections 19 and 20 is productive?

A I haven't the slightest, sir.

Q You do not know whether it is productive or not?

A I haven't the slightest idea. At the time it was under discussion their order didn't even ask for an exception to the location, and I said, "Now, if you have found a way to move that well from that corner down in that section, I would like to know, because I have some dry holes within a quarter of a



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mile."

Q But, at the present time you have no information as to whether or not your acreage in 19 and 20 is productive?

A No, sir.

MR. SELINGER: Thank you, sir.

MR. SHAW: Just a couple of questions, Mr. Moran.

BY MR. SHAW:

Q Perhaps I would be trespassing here if I ask these questions. I will ask Mr. John Moran to see whether counsel will permit it, but he has asked concerning three leases. Now, these leases have provisions, do they not, which make them subject to the state and national statutes and the provisions of regulatory bodies and so forth? I mean the usual type of a provision that is found in almost every oil and gas lease?

A I don't know.

Q I see. I would like to just make this request: Would it be possible for you to furnish copies of the leases involved so that if necessary the attorney general's representative could advise the Commission as to the rights that you may have under those leases?

A You mean to whom?

Q To the Commission.

A Yes, they are of record down there. They are available for you to read or anybody that wants to, I presume.

Q You are not contending that you are in danger of losing your lease or leases with respect to all of the acreage that is under those leases in Section 21, are you?

A 21?

Q That's where your Holt No. 1 is.

A No.

Q You are not contending you are in danger of losing your leases as to that acreage, are you?

A No, I don't think so.

Q And do you realize that under Section 100-6-4 subsection 6 that this Commission has the power to order pooling of the other interests in Section 21 with the acreage that is attributed to your well in that section if voluntary pooling will not be entered into in order to conform to a 640-acre spacing pattern?

A I think you are correct, of course, but I also am of the impression that that statute says this commission has authority to make exceptions if they so

choose. Now then, my contention is that if they force me to take the royalty owners in 21 in as partners then that eliminates the west half of my property, and if that so happens then those people, then that lease expires of its own terms.

Q Well, I am not going to argue the legal consequences of that.

A You are the lawyer; I never went to school.

Q I can give you an argument on it, but I think that is incorrect. I think your conclusion is incorrect on that.

A It isn't based on assumptions; I am telling you the facts.

(Discussion off the record.)

THE WITNESS: While they are conferring I would like to get it in the record, the clarification of Mr. Hinton's statement---

Q Mr. Moran, it is true asset forth in your application for this hearing today and the application for the exception that you are praying for on page four, it is true, is it not, that Colorado Interstate Gas Company will buy the gas out of the Holt No. 1 well today if you comply with Order 34-2?

A I asked them to connect it up and impound

the money until such a time as it was determined what it was going to be, and they said no, they definitely would not connect it up even though they entered into a contract a year ago.

Q Well now, did you understand that they would not connect it up on the theory that even if you complied with 34-2 as it stands today----

A I didn't ask for any theory; I asked for them to connect it up and impound the money and then we would see who was going to get it, and they wouldn't do it.

Q But, isn't your statement here made that if you complied with Order No. 34-2 Colorado Interstate Gas Company would buy your gas out of Holt No. 1 well, isn't that right?

A That's elementary, my friend; that's all elementary. If we go ahead and do that they certainly will buy it.

Q All right.

A But we tried to do that and we haven't been successful.

Q But they will buy it if you comply with Order 34-2 as it is written, isn't that correct?

A They indicated such.

MR. SHAW: Thank you.

THE WITNESS: Now then, I would like to clarify Mr. Hinton's statement in here and get it in the record that I---

MR. SHAW: Just a moment. We object to any voluntary statements unless counsel desires to bring out further testimony. I think that is the proper way of procedure.

MR. MORAN: Any other questions?

COMMISSIONER VAN TUYL: I have a question, if you are through with cross examination.

QUESTIONS BY COMMISSIONER VAN TUYL:

Q There are two gas wells across the Kansas-Colorado line, Section 19, a little more than a mile east of the Moran well. Are those two gas wells producing at the present time?

A It is my understanding they are and have been for a long time. They were producing theirs, as I understand it, when we drilled the well.

COMMISSIONER VAN TUYL: Does anyone else here have any questions?

BY MR. ROBERTSON:

Q Mr. Moran, if your so-called exception to the spacing pattern is granted by including the north part

of Sections 19 and 20, do your present plans include a prospective well on any of the acreage lying to the west?

A No, sir.

Q If the exception is not granted do you plan any wells to the west on that land?

A No, sir.

COMMISSIONER VAN TUYL: Are there any other questions?

MR. MORAN: That's all.

(Witness excused.)

COMMISSIONER VAN TUYL: Do you wish to offer these exhibits?

MR. MORAN: I would like to offer the Applicant's Exhibits 1, 2, and 3.

COMMISSIONER VAN TUYL: Are they labelled?

MR. MORAN: Yes, they are marked.

(Discussion off the record.)

COMMISSIONER VAN TUYL: The exhibits will be received in evidence.

(Applicant's Exhibits Nos. 1, 2, and 3 for identification were received in evidence.)

COMMISSIONER VAN TUYL: Mr. Stockmar, I believe, requested sometime ago to be heard.

MR. STOCKMAR: I would just like to make a short statement, because I must leave before you are apparently going to conclude here. Was that the conclusion of the applicant's case here?

Gentlemen, the interest of the Frontier Refining Company, which I represent, is that of the owner of some small lots that are scattered throughout this area, and it does own four lots within Section 21, which is the section on which the Holt well is drilled. Now, we were quite disturbed when this matter came up for hearing because we have over the course of the last year and a half or so been--at least we thought we were--negotiating with the Moran people with respect to a participation in the drilling of this well and a participation after it was drilled, being ready, willing and desirous of paying our fair share of the costs and participating in it.

It now appears that we are faced with a so-called hardship position under which, if this gerrymander type of spacing unit is not granted Mr. Moran will lose or could lose his leasehold interest in several tracts to the west which he does not intend to drill one way or the other, and which to me he is not entitled to continue to own if he is not willing to

drill.

On the legal side of the argument I do not believe that these people have brought forth any testimony which this Commission could look to properly change the order. We have an existing situation to which no objection was made before the leases became in a precarious way. There is not any new information. We have some opinions; the testimony that they have given here as to the effect that the Holt well will at least as well drain Section 21 as it will this gerrymander--to me they simply have not made any kind of a case which this Commission under our statute would be justified in granting an order.

Now, I can sympathize with the hardship claims; we are all faced with that, but the answer to it is that if you want to hold your leases you have to drill wells on them, and to inject into this the authority of this Commission and the power to grant spacing orders of this size and shape solely to maintain the leasehold rights of one of the people when they are unwilling to drill on each of the reasonably sized and reasonably shaped spacing areas that you have already found to be in existence is really a rather preposterous suggestion and would be one of the most difficult precedents to

live under that I can imagine.

Now, I had planned to call Dr. Parker as a witness to substantiate that we have in good faith been trying to participate in this well on the proper basis. I don't think that I will do that. I will introduce as our Exhibit No. 1 the entire sheaf of correspondence. If Mr. Moran, the attorney, would like to cross examine Dr. Parker on any part of its contents he is certainly free to.

MR. MORAN: I would like to have an opportunity to examine the correspondence; is that agreeable?

COMMISSIONER VAN TUYL: Yes, sir.

MR. STOCKMAR: I think that's all. May I make one additional statement? The lands which Frontier owns are federal lands; they are the only federal lands in this particular section of which we have knowledge.

Now, under my construction of our Act this spacing order does not apply to these federal lands unless and until it is approved by the U.S.G.S. Now, we are faced with two alternatives, one of being good fellows and going along with proper development and spacing, which we intend to do; or the other is jumping

in here on a .29-acre tract--which we have one of--and drilling a well right in the middle of the proposed program.

Now, our analysis of that last is that it is a rather foolish venture even if we got a very good well and could take our fair share of the production.

COMMISSIONER VAN TUYL: Would you please identify the position and give us the position of the lots involved?

MR. STOCKMAR: Yes, I would like to.

COMMISSIONER VAN TUYL: Is it this narrow strip?

MR. STOCKMAR: If this could be properly marked as Frontier Refining Company Exhibit No. 2, it shows that its properties are Lots 15, Lots 17, Lots 18, Lots 19 and Lots 21, all in the north half of Section 21.

DR. PARKER

called as a witness on behalf of the Frontier Refining Company, having been previously duly sworn according to law, upon his oath testified as follows:

DIRECT EXAMINATION

BY MR. STOCKMAR:

Q At the suggestion of the Commission,

Dr. Parker, I would like to have you identify the correspondence which we have submitted as our Exhibit No. 1. You have already been sworn, have you not?

A I have been.

Q Will you review the photostats there and identify them as such?

A These are photographic copies made in our own office under my direction of letters received from Moran Brothers Inc. and also directed to Mr. R. J. Moran by myself or members of my staff.

COMMISSIONER VAN TUYL: Thank you.

MR. JERSIN: Did you finish examining this?

MR. MORAN: Yes.

MR. JERSIN: Is it acceptable?

MR. MORAN: We have no objection to its admission.

MR. STOCKMAR: Do you wish to examine Dr. Parker on the contents of them?

MR. MORAN: No.

COMMISSIONER VAN TUYL: Exhibit No. 1 is received in evidence.

MR. SMITH: Clarence Smith of British-American Oil Producing Company. I would like to make a statement at this time. We have an interest in this

area and we have reviewed the petition by Mr. Moran, and it is British-American Oil Producing Company's opinion that this petition is out of order in the fact that it is in violation of all good oil producing company practices and conservation principles. In that opinion we want to re-state our previous statement that we believe that the Commission's order 34-2 is a good order and we again urge you to uphold it and not to grant this petition.

MR. BUSHNELL: If I may, I would like to make a statement on behalf of Amerada so that we can be excused. We oppose the application of Moran Brothers Inc. and generally for the reasons that we do not think that it has brought forth any evidence to establish a basis for this exception asked for.

MR. JERSIN: Mr. Van Tuyl, Mr. John Stanford made an appearance for the Sinclair Oil Company. He had to leave and asked that I would just state for the record that Sinclair opposes the petition of Moran Brothers.

FRED BUCHER

called as a witness on behalf of the Colorado Interstate Gas Company, being first duly sworn according to law, upon his oath testified as follows:

## DIRECT EXAMINATION

BY MR. POOL:

Q Will you state your name and residence, please?

A Fred Bucher, B-u-c-h-e-r, Colorado Springs, Colorado.

Q By whom are you employed and in what capacity, Mr. Bucher?

A Colorado Interstate Gas Company, superintendent of gas control.

Q Will you state briefly your educational background and your experience in connection with the work that you are now engaged in?

A I graduated from the Colorado School of Mines in 1940 with the degree of Petroleum Engineer.

COMMISSIONER VAN TUYL: Just a minute. I believe he has testified before the Commission before.

THE WITNESS: That's right, sir.

COMMISSIONER VAN TUYL: We will accept his qualifications.

Q And you are familiar with the proration of gas areas within the various producing states within the midcontinent area, Mr. Bucher?

A That is correct.

Q Has it been your experience in your observation that an orderly spacing pattern within any producing gas field contributes to the prevention of waste and the protection of correlative rights?

A It has been and I believe that such an order should be entered early enough in the development of the field to provide for orderly development and should not be delayed.

Q In what way, Mr. Bucher, if a field is not developed upon an orderly basis, does it contribute to waste?

A If a field is not developed on an orderly basis the tendency is for the wells to be drilled on a very close pattern with the attribution of acreage a considerable distance away from the well, the result being that that acreage is never drilled and it is never ascertained whether gas does underlie that area. It also makes difficulties for us as a pipeline company in planning our program as to where to design our pipeline gathering systems.

Q Now, Mr. Bucher, are you familiar with the contract between Colorado Interstate Gas Company and Mr. Moran, the producer of this well?

A I am.

Q And what provision does it make with respect to takes of gas from the well?

A In our contract with Mr. Moran we stipulate that we will take on the basis of one MCF per day for each 8,000 MCF of reserves attributable to his lands.

Q Now, in the event that no proration order, no order had been issued in this docket, establishing 640 acres as a spacing unit and based upon your experience in the position that you now hold with the Colorado Interstate Gas Company, what acreage in your opinion would Colorado Interstate attribute to this well before taking gas?

A While the acreage would be all of that acreage which Mr. Moran has in Sections 19, 20 and 21, we would only be able to attribute reserves to that acreage in Section 21.

Q Would you attribute the entire Section 21 to the well?

A We would not be able to do that as long as Mr. Moran had only this odd-shaped unit. If Section 21 is unitized as is contemplated under Order 34-2, we would then be able to attribute the entire reserves under Section 21 to that well.

Q And you would take on that basis then, one for eight, on the basis of all the reserves under Section 21?

A That's correct.

Q Mr. Bucher, in the event that a unit is established in accordance with the application made by Mr. Moran in this hearing, what acreage would you attribute to the well in figuring your reserves?

A In computing reserves we would only be able to attribute his acreage in Section 21.

Q And all acreage outside of Section 21 that he holds under--that would be in Sections 19, 20--that would be excluded in the computation of your reserves?

A That is correct.

Q Now, has Colorado Interstate at any time advised Mr. Moran that they would not take the gas from this well to your knowledge?

A To my knowledge we have not so advised him. I do know that we have delayed connecting the well awaiting Mr. Moran's unitization of Section 21 in accordance with Order 34-2.

Q And that has been your understanding of the delay in making the connection?

A That is correct.

Q Would it be economically feasible for Colorado Interstate to extend its lines to the well at the present time under the acreage and reserves attributable to the well in the absence of unitization?

A In my opinion it would not.

MR. POOL: I believe that's all.

COMMISSIONER VAN TUYL: Is there any cross examination?

MR. MORAN: I would like to ask one question.

#### CROSS EXAMINATION

BY MR. MORAN:

Q Mr. Bucher, is it the practice of the Colorado Interstate to apply that same formula to purchasers of gas in the State of Kansas?

A That is correct.

Q You do purchase over there in connection with the proration orders of the Kansas Commission, do you not?

A That is correct.

Q But you have been purchasing gas in some areas over there from lands involving an area as much as six miles distant, is that correct?

A That is one of the difficulties of the Kansas-type spacing, that they do allow the unitization of

non-contiguous tracts which may be as much as six miles apart. There is one instance where they have attributed acreage that I know of that is thirty-four miles apart.

Q But, do you apply the same formula in your gas purchase contract to purchase gas in Kansas as you just have stated to the Commission here?

A That is correct; however, contracts in the State of Kansas all call for that same type of take; however, we have had to modify that to operate in accordance with the rules and regulations of the Commission which establishes allowables on the basis of adjusted deliverability, therefore we make our nominations on the basis of the total connected reserves of the field and the Commission assigns those allowables then to the well.

Q Well, in the State of Colorado you are establishing your own allowables, is that correct?

A That is correct, in the State of Colorado and the northern portion it was spaced under Order 34-1, and we are taking on the basis of the contract obligation.

Q You state that under Order No. 34-1 you are taking in accordance with that?

A The area spaced under 34-1 where those wells of Amerada are completed and connected.

Q If the area is not spaced in accordance with the order, then you reduce the amount of gas which you would take from any particular well in the area under lease to that particular operator, is that correct?

A No, we take into consideration what we consider to be productive acreage. If it happens that a portion of the acreage which is attributed to a well is considered to be non-productive, we cannot assign reserves to that.

Q Well, let me ask you this question, Mr. Bucher: Should the Commission see fit to grant the order applied for by Mr. Moran or the Moran Brothers Inc. and attribute the 640 acres which they hold under lease to the No. 1 Holt, would you purchase the gas attributed to Section 21 and set up the reserves on that basis?

A We would regulate our takes on the basis of the estimated reserves underlying Mr. Holt's properties, and it is my opinion that the acreage in Sections 19 and 20 held by Mr. Moran is non-productive.

Q Well, in other words, you feel it is non-productive at least until it is determined that the

area is productive?

A That is right.

Q And once it has been established that the area to the west is productive then you will reconsider your commitments?

A That is correct.

Q At least reapply your formula?

A That is correct.

MR. MORAN: I believe that's all.

#### CROSS EXAMINATION

BY MR. MASON:

Q I will ask you about what counsel asked you about what you have done over in Kansas. Does the Kansas law have such a provision as this, that they are given power to establish drilling units of specified and approximately uniform size and shape covering any pool?

A No, it was very unfortunate that they do not have such a law.

MR. MASON: I believe that's all.

BY MR. SELINGER:

Q Mr. Bucher, actually all the units that are formed on the Greenwood Pool on the Kansas portion is the result of voluntary unitization, isn't that correct?

A That is correct.

Q There is no provision in the Kansas law for forced pooling or the requirement of the uniform units?

A That is correct.

Q It all has to be done voluntarily?

A That is right.

Q And hence the reason why operators are forced to go six to thirty-four miles away to assign disconnected non-contiguous acreage for unit purposes?

A That is one of the results.

MR. SELINGER: That's all.

COMMISSIONER VAN TUYL: Are there any other questions? (No response)

(Witness excused.)

COMMISSIONER VAN TUYL: Do you have any more witnesses, Mr. Shaw?

MR. SHAW: Yes, sir. Would you wait just one second, please?

(Discussion off the record.)

MR. SHAW: If the Commission pleases, we have two witnesses that we can put on who will actually be reiterating pretty much the same testimony that they gave at the previous hearing in August of 1955 upon which the 34-2 order is based. These witnesses are

prepared to take exception to the views and opinions expressed by Mr. Hinton and Mr. Kirk. I don't know whether the Commission desires to go into it to that extent or not.

I would like to--before doing that and then asking the Commission to decide that--to make reference briefly to the Conservation Act, and I will be very brief, Dr. Van Tuyl. In connection with Section 100-6-4, which provides for drilling units and pooling interests, the exception that is here being asked is in direct conflict with Section 100-6-4 and it has already been stated by Mr. Stockmar and some other gentlemen that they have not made or put on substantial evidence or even a slight preponderance of evidence to show that they should be granted this exception.

I want to call your attention to subsection 3 under 100-6-4, reading on page 62 of the new publication:

"The order establishing drilling units shall permit only one well to be drilled and produced from the common source of supply on a drilling unit, and shall specify the location of the permitted well thereon, with such exception for the location of the permitted well as may be reasonably necessary

for wells already drilled."

In this case, of course, the Holt No. 1 well was given an exception as to the acreage within Section 21 that was under the Moran brothers leases.

"Or where it is shown upon application, notice and hearing, and the commission finds, that the drilling unit is located partly outside the pool or field and adjacent to a producing unit, or, for some other reason, the requirement to drill the well at the authorized location on the unit would be inequitable or unreasonable"---and then further down here it states:

"However, the commission shall take such action as will offset any advantage which the person securing the exception may have over other producers by reason of the drilling of the well as an exception, and include in the order suitable provisions to prevent the production from the drilling unit of more than its just and equitable share of the oil and gas in the pool."

Now, to permit this exception very obviously would be permitting the production of more than its just and equitable share of the oil and gas in the pool.

Now, this has not been introduced as an exhibit but it would be Cities Service Exhibit No. 1, and this gives you a fairly graphic representation of the acreage covered by the Moran Brothers leases. In other words, here is the Holt No. 1 well, and this is what they are attempting to get as an exception, all of this acreage clear into section 19 (indicating) attributed to this one well clear over here (indicating).

Now, another thing that should be mentioned, 100-6-4, is this:

"In the absence of voluntary pooling, the commission, upon the application of any interested person, may enter an order pooling all interests in the drilling unit for the development and operation thereof."

Now, that's a specific power that is provided for under this Act, and:

"Each such pooling order shall be made after notice and hearing and shall be upon terms and conditions that are just and reasonable, and that afford to the owner of each tract or interest in the drilling unit the opportunity to recover or receive, without unnecessary expense, his just and equitable share."

Now, I submit to the Commission that Moran Brothers Inc. have not proceeded under certain prerogatives here, under certain matters that are permitted to them under the statute. In other words, they could have come in here with an application for an enforced pooling order to be granted by the Commission, pooling the acreage in Section 21 so that it would be all of that acreage that would be attributable to this Holt No. 1 under the provisions of the 640-acre spacing order now as contained in Order 34-2.

Another thing should be mentioned in subsection 7 of 100-6-4, that:

"Each such pooling order shall make provision for the permitted well on the drilling unit and the operation thereof, and make provision for the payment of the reasonable actual cost thereof, including a reasonable charge for supervision and storage."

In other words, you have provisions here which helped Moran Brothers to share the costs of their well and so forth, and give them a right to a certain amount of supervisions expenses and so on.

"The order shall recognize the interest of each owner in the unit and may provide in substance

that, as to each owner who agrees with the person or persons drilling and operating the well for the payment by the owner of his share of the costs, such owner, unless he has agreed otherwise, shall be entitled to receive"---

Well, I won't read all of it; you are familiar with it. In other words, it provides for an equitable method of sharing costs and of providing for the proceeds to go to the various owners in the tract.

There was one other thing I wanted to mention in subsection 1 of 106-6-6, which has to do with the prevention of waste and protection of correlative rights;

"The commission shall have authority to prevent waste and protect correlative rights of all owners in each and every field or pool, and when necessary shall limit the production of oil and gas in any field or pool in the exercise of this authority."

Now, if you were to permit this exception that is here prayed for you would be violating the correlative rights of the other owners in Sections 19 and 20 because there is no production over here at the present time; no wells have been drilled over here and these other people down here (indicating)--let's

assume for a moment that there is gas under the Moran leases in Section 19 and 20--these other people here, if they weren't part of a pooling order, would get nothing and their land would be drained of the gas which would fly in the face of subsection 1 of 100-6-6.

Now, we submit, if the Commission please, that on the basis of the law it is the express provision of the law and the express remedy of Moran Brothers with respect to their right to come in and seek a pooling order by this Commission to carry out the spacing pattern, that they under the provisions that they already have at their command, that they haven't elected to take that provision or to take advantage of it, and they certainly should not be at this time permitted to have the exception that they pray for, which, as you look at this map, this colored map here, is manifestly silly to permit all of that acreage clear over into Section 19 to be attributed to that well in the extreme east of their leasehold acreage.

Now, as I said before--and I would like at this time to renew a motion that has already previously been made to dismiss the application of Moran Brothers Inc. If the Commission desires, however, we will continue; we will present two witnesses as briefly as

possible who will testify in opposition and in refutation to the opinions and testimony already expressed by the witnesses for the applicant here.

COMMISSIONER VAN TUYL: You mentioned that the testimony will be very much the same as in the previous hearing?

MR. SHAW: That is correct.

COMMISSIONER VAN TUYL: Can we not save some time here by incorporating the records of the previous hearing?

MR. SHAW: I think that would be helpful and I don't know whether a transcript has ever been made.

MR. JERSIN: Yes, I have a transcript here in the room.

MR. SHAW: At that time we had Mr. Absher and Mr. Whitney testify on behalf of Cities Service, and I believe that the substance, as you will see in the transcript, was that this area in Baca County, Colorado is a definite extension of the Greenwood Field from Kansas and that the Topeka-Lansing formation definitely continues into Baca County, Colorado; that there is a common source, common reservoir out of the Topeka-Lansing; the same formation in Kansas is continued into Baca County, Colorado, and that's the

reason why a spacing order of this sort should be permitted to stand, and no exceptions granted to it.

Now, am I correct, Mr. Absher? Is that a correct summary of it?

MR. ABSHER: That's correct.

COMMISSIONER VAN TUYL: Is there any objection on the part of anyone here to incorporate the records of the previous hearing in the records of today's hearing?

MR. MORAN: We have no objection, and in fact would like the incorporation of the previous hearing in this record of hearing.

MR. SHAW: If that's all right, then we won't put on these witnesses.

Let me just say one thing: We do want to introduce, if we may, if there is no objection, Mr. Moran, these colored plats. We will have them marked as Cities Service Exhibit No. 1, and I have several copies there.

(Cities Service Exhibit No. 1 was marked for identification.)

COMMISSIONER VAN TUYL: It will be received in evidence.

(Cities Service Exhibit no. 1 was received in

evidence.)

MR. SHAW: I believe Mr. Mason has a statement to make.

MR. MASON: I just have a very brief statement to make. I think that Mr. Adams most admirably stated our position in his letter to the Commission, which we would like to have considered as a part of the other proceedings. I do want to deal with the equities of this situation. I have no criticism whatever of Mr. Moran in attempting to do what he is attempting to do here, but I want to say to you that if the Commission allows him to do what he wants to do it will be a retreat from the conservation laws of this state. You might just as well repeal the laws as to start off making an exception of this kind, because it is quite clear that the law of capture would be right back in force and the spacing powers of the Commission would be ended.

Now, I think it is pretty clearly admitted by Mr. Hinton that the fastest way of developing any field is to step out a given number of feet under a spacing order. That is so. That is the purpose of these spacing statutes, so that the limits of the field can become quite clearly defined. It has been

asked that this Commission allow an exception. This Commission gets its power from the laws of Colorado and here is the basic law under which these spacing orders have been entered, and it is practically admitted that the Commission has the same thing before it now that it had before, to prevent or to assist in preventing waste, to avoid the drilling of unnecessary wells or to protect correlative rights. The Commission on its own motion or on proper application of an interested party, but after notice is given as provided, shall have the power to establish drilling units of specified and of approximately uniform size and shape.

Now, this evil about which Mr. Bucher was asked--it is developed over in Kansas--has developed because of the lack of the power of that Commission to establish uniform size and shaped units. They have never done it; they attribute acreage to a well on any sort of a basis, and that's why they have got around to attributing acreage thirty-four miles away from a well to another well.

Now, as I say, I have no criticism of Mr. Moran, but Mr. Moran and everyone else knows that when they take an oil and gas lease that that oil and gas

lease is subject to the police power of the state and the police power of the state is administered by this Commission for the prevention of waste and the protection of correlative rights. That's the purpose of this statute; and then that whatever their contract rights are under a unitization agreement or an oil and gas lease or anything of that kind, that that is subject to regulation by the Commission and subject to the exercise of police powers of the state. That's what has happened in this case.

I want to state that I don't agree that Mr. Moran has lost this acreage or these leases over here merely by reason of these orders of the Commission. That is not so under the adjudicated decisions that I have read where a part of a lease is taken into a spacing unit by a supervening order of this kind, the part of the lease that is in the unit--the royalty will go to the entire unit. Suppose there was just 160 acres of Mr. Moran's land going into this? That would go to the rest of his tracts; so that it would hold his lease.

There is another thing: when he drilled these wells into this common source of supply he knew that he was drilling it into a common source of supply,

and that this Commission had spaced on a 640-acre basis back up to the north. He knew that when he drilled into it that this Commission might extend the area in the exercise of its power which this Commission did after a hearing on the matter.

This well was not a wildcat well where he drilled; the record shows that Cities Service Gas Development Company had drilled within a very short distance, had drilled a producing well over on the Kansas side and that he got in there on that ten-acre oil location and drilled this well which he had a perfect right to do to protect his acreage there from the Cities Service well over on the other side of the state line.

Now, those are all things--there are no equities in favor of the applicant. You will just the same as nullify your spacing law if you permit this sort of thing to be done, and Mr. Moran, no matter whether he is treated as having been ignorant, as he said, or as being a very wise man, as I think he is---

MR. JOHN J. MORAN: Thank you.

MR. MASON: ---and a very capable man, he should be treated exactly like everybody else in connection with these spacing matters, and it's the only way

that waste can be prevented under the Colorado laws and correlative rights be protected. The rights of the Frontier Refining Company are just as precious as Mr. Moran's rights. The rights of the royalty owners in the south half of Section 21 are just as precious to those royalty owners as are the rights of the royalty owners under this unit that he voluntarily formed back there when he knew that this Commission might come along with spacing units and when he knew that north of him at the time he drilled the well, that north of him in this very common source of supply, and this reservoir was set up on a 640-acre basis, and that it had to be drilled on units of uniform size and shape.

COMMISSIONER VAN TUYL: Mr. Mason, you referred to a letter from Mr. Adams?

MR. MASON: From Mr. Adams to the Commission, yes, sir.

COMMISSIONER VAN TUYL: Dated September 7th 1955?

MR. MASON: Yes, sir.

COMMISSIONER VAN TUYL: That letter is not in the record. It is apparently not introduced.

MR. MASON: Isn't it? It is more or less a

brief is what it is.

MR. SHAW: I can refresh the Commission's mind on how that came about. At the last hearing Mr. Moran stated at that time that he was not prepared to put on any evidence and by acquiescence of all the parties including Cities Service it was agreed that Mr. Moran could furnish a letter or brief or memorandum to the Commission stating his position and that the other parties would have a right to reply, and that's the reason for those two letters. There are two letters only, I believe, one for Moran Brothers and an engineer named Osanka, and a letter from Cities Service, and they should be in the files of the Commission.

MR. JERSIN: They are on file in the Commission files and they are right here at this hearing

MR. SHAW: We would like to move that both of those letters be considered as part of the hearing today. In other words, we are perfectly willing to have Mr. Moran's letter from his engineer and we want to have our letter from Mr. R. E. Adams considered.

COMMISSIONER VAN TUYL: Is there any objection to that?

MR. MORAN: No objection.

MR. SHAW: Were there other letters from other

companies?

MR. JERSIN: Yes, there were several letters from other interested parties. I can't recall the names right now.

MR. SHAW: You have no objection to having them consider whatever is in the file that pertains to the last hearing, do you, John?

MR. MORAN: No, we have no objection.

MR. JOHN J. MORAN: I hope that Mr. Jersin meant me when he said "other innocent parties."

MR. JERSIN: Mr. Moran, I am certain that you are one of the most interested persons.

MR. MORAN: I would like to have an opportunity to reply to a technical point that was raised by Mr. Shaw that this proceeding is out of order and contrary to the statute. It is in accordance with Order No. 34-2, which concludes:

"It is further ordered that the Commission reserves"--"expressly reserves its right, after notice and hearing, to alter, amend, or repeal any and or all of the above rules and regulations."

And this is an application to alter and amend Order 34-2 to protect the correlative rights of the Moran Brothers Inc. with reference to a situation

that was created by a Cities Service application extending this area at a time after the Moran Brothers well was drilled, and it was a case of hindsight, looking back to see where that 640-acre order should be applied rather than anticipating that Mr. Moran should have drilled his well at some other location in Section 21. In fact, it was drilled in the northeast northeast northeast of 21 at the instance and request of Cities Service; otherwise they wouldn't support the drilling of the well.

I would like to call the attention of the Commission to one comment that is contained in a letter which they have just asked be made a part of the record:

"Mr. Whitney's testimony in support of the petition shows that the drilling of at least three wells in the proposed extension covered by this petition is being delayed by the absence of a spacing order in this area.

Those three wells have not been drilled; the area has been spaced. The only thing that has been drilled was a well drilled within about 1980 feet of Mr. Moran's well and he has still not drained any gas from the Cities Service properties, but the three wells that they promised in this report indicated that they

were going to drill haven't been drilled, and Mr. Moran still hasn't been able to produce his well, notwithstanding the entry of the order which did space this area at that time.

There is a new development in this matter since the entry of the order on September the 8th 1955 and that is that Cities Service hasn't done anything to justify the entry of the order at the time it was entered.

MR. SHAW: Might I say, Dr. Van Tuyl, that we are prepared to put Dr. Widney on the stand right now to refute that and to explain, if the Commission pleases, the reasons why only one out of the three wells have been drilled. If the Commission desires to hear that we can do it very quickly.

COMMISSIONER VAN TUYL: Yes, we will hear him.

R. T. WIDNEY

called as a witness on behalf of Cities Service Gas Development Company, being first duly sworn according to law, upon his oath testified as follows:

DIRECT EXAMINATION

BY MR. SHAW:

Q Will you state your full name and address?

A R. T. Widney, W-i-d-n-e-y, Cities Service Oil

Company, Bartlesville, Oklahoma.

Q And you are a petroleum engineer with Cities Service Oil Company?

A That's correct, I am a gas engineer with Cities Service Oil Company.

MR. SHAW: Now, this witness'es qualifications were previously accepted in a previous hearing.

COMMISSIONER VAN TUYL: Which hearing was it?

MR. SHAW: That was in August 1955, the first hearing in this matter. I will go into it if you want me to.

COMMISSIONER VAN TUYL: No, that will not be necessary.

Q Dr. Widney, in order to make this brief, I am just going to refer generally--you have just heard the statements referred to or mentioned by Mr. Moran and counsel for the applicant here concerning a statement made in a letter addressed to the Commission by R. E. Adams in September of 1955. If you desire you can refresh your recollection by referring to it.

A This is true. I made the statement at the previous spacing hearing that we were planning on drilling three wells. Of these three we have drilled the first one in Section 22. We have been working and

were working at that time on the formation of the field, and due to the small lots and the title difficulties that have been encountered, it has taken an abnormal length of time to get our units together to drill.

Now, at the present time our land department advises that they have now secured all the title requirements and they are preparing an operating agreement to drill a unit consisting of Section 15 in the south half of 10, and we expect that unit to be formed very shortly and to get an operating agreement so that we can drill there.

COMMISSIONER VAN TUYL: Give us the titles.

A That would be 34-41, 34 South, 41 West, 10 and 15. Referring to my exhibit 1 here, the exact location depends on the requirements on these two tracts here (indicating). Now, we are going to await the outcome of this well prior to stepping out in Section 16. We have done all of our title work there and should not take too long after the completion of this well.

BY MR. JERSIN:

Q How many different sections are involved? You mentioned Section 15.

A 10 to 15. Skelly owns a portion, Sinclair

owns a portion, and we own a portion. Now, this is the unit for the Burkhardt that consists of Shell Oil Company, ourselves, and I believe--I am not sure, but I believe Skelly has part of that. We are unitizing this one and we are unitizing this one, and then we are going to step over here (indicating).

(Discussion between the witness and counsel out of the hearing of the reporter.)

BY MR. SHAW:

Q Mr. Widney, the reporter I don't think got all you said there.

A We have unitized all of Section 22 and the north half of Section 27 for the Burkhardt, and we are in the process of unitizing all of Section 15 in the south half of Section 10 for a well to be drilled approximately in the center of that unit.

Q In other words, the only reason for the delay in the drilling of the other two wells that you mentioned out of the three in this letter in September was because of the problems of getting all of the various ownerships together under an operating agreement, is that correct?

A That's correct.

MR. SHAW: Is there anything further you would

like to hear on that, Dr. Van Tuyl?

COMMISSIONER VAN TUYL: No, sir.

Q How soon do you contemplate it will be possible to commence drilling the second and third wells?

A I would at the present time estimate that we should be ready to drill within at least a month on the first well and upon its completion then we will evaluate our acreage in Section 16 for a definite commitment on drilling there.

Q Of course, this is predicated on the theory that Order 34-2 will stay in effect as it is now, isn't that correct?

A That's correct, yes, sir.

MR. SHAW: That's all.

MR. ROBERTSON: Mr. Commissioner, just to add my voice to the others in opposition to the application on behalf of Shell Oil Company, I should like to review just what has transpired here, at least as I see it:

This is really a re-spacing hearing; it is no exception to the spacing hearing. You are re-spacing exactly three of the established units in the field. To do that some competent legal evidence should be

presented showing the necessity for re-spacing. As I remember, Mr. Kirk testified that he was certain that the land in the southern part of Section 21 did underlie the productive limits of the field. He said that the land in Sections 19 and 20 might underlie the productive limits of the field. Mr. Hinton, as I recall, stated that he wasn't sure exactly what was happening in the geological or from a practical standpoint in the drainage area of the field. Mr. Moran himself has stated that he has a difficult situation; he has a difficult problem. It's a problem that we can all appreciate, but can hardly condone the proposed solution for, and if for no other reason than with testimony and evidence such as that that has been presented here, if such a deviation from the accepted spacing regulation--from the size and shape of the units--is allowed, an unhealthy precedent will be established that could quite easily permit everyone to enter a spacing request for no other reason than convenience, and in actuality every operator in the State of Colorado should have been notified at this hearing if the possibility exists that this unusual situation will be recognized and the application approved; for the reasons that I have stated and for the reasons

that others have stated before me, I should like to on behalf of Shell Oil Company sincerely request that this application be denied.

COMMISSIONER VAN TUYL: Mr. Selinger?

MR. SELINGER: We have acreage in the originally spaced order, 34-1. We likewise have acreage in the proposed extension which resulted in Order 34-2. We can say in answer to some of the questions with respect to Mr. Widney's testimony that we do own acreage in Sections 10 and 27, Township 34 South, Range 41 West, in which we have been attempting to form a unit. Our acreage in Section 10 is part of a 667-acre unit and our acreage in Section 27 is to be part of a unit of 654 acres, and a portion in a unit of 654 acres.

We would like to point out that the very reason of our objection in this particular case is the result of our past experience in the Greenwood Field in Kansas, the Hugoton Field in Kansas, wherein there is no law authorizing the Kansas Commission to require any units excepts those that are voluntarily pooled and unitized, and as you know, in a great many instances it is almost impossible to unitize, and therefore operators are forced to use non-contiguous and

non-adjacent acreage in order to form units which results in the concentration of a great many gas wells in a small juicy spot in which other portions which may not be so productive are assigned so that in effect you do not have uniform patterns as we understand it. You have concentrated gas wells in a few areas in this great vast gas field.

Likewise, we are experienced with the Hugoton Field in Oklahoma. We have 110 and perhaps more gas wells in which it was true over a period of a number of years efforts were made to secure spacing, during which interim a great many wells were drilled which resulted in some instances four and five gas wells on the same section; but, nevertheless, the Oklahoma Commission, having the same legislative authority as you gentlemen have, have since that time established-- since I believe '39 have established one well to each government section, and they have adjusted the allowances of those wells that are drilled at a greater density in proportion to the amount of acreage that they have to the 640 acres; but, the fact remains as of the issuance of that basic order in Oklahoma they have not permitted more than one well to each governmental 640 acres. With that experience behind us we have no

alternative but to oppose Mr. Moran's application because we know from past experience it is bad practice.

Now, the practical effect of granting this exception is to require three additional exceptions; that is, in 21 in the south half, particularly in the south half of the south half of 21--that operator must of necessity have to drill a well there--so you immediately have two wells in Section 21, consequently if found productive there would have to be additional wells owned by different interests drilled in Sections 19 and 20. You immediately have set up a pattern for exceptions to drill more than one well to 640 acres. When you do that you have no way of stopping it, because everybody is entitled to drill an offset where he is being drained by a well.

Now, immediately with two wells in 21 you can see for yourselves, gentlemen, that you are required to grant another exception in 22 in order to permit the avoidance of drainage, because you are going to have two top allowable wells of 640 acres, assuming that they will be odd-shaped units. You will have two 640-acre wells offsetting a tract of 640 acres where you get one allowable.

For those reasons we think that the better

discretion would be to stick by your governmental sections.

Now, we realize that the applicant in this case is a resident of the State of Texas, and we realize that great emphasis has been placed upon the development in Kansas, but I want to remind you, too, gentlemen, that those are the two states that failed to have forced pooling; that the only kind of pooling you can have in those two states are those by voluntary unitization, and if you cannot do it voluntarily then you must of necessity be limited down to a smaller sized unit, but I want to remind you, gentlemen, in that connection, both those state regulatory bodies have reduced the allowables to where they are subnormal 640 acre units in the gas. Therefore, we feel that since this is the first time you gentlemen have been approached with an exception of this type--that is, an exception to a 640-acre unit in gas, or perhaps an exception to a spaced unit where it does not lie on the edge of the field in which an adjustment of allowable is noted--that it is best for you gentlemen to stop and think now before you embark on a road of exceptions; hence we feel that the impartial administration following your order of a uniform size and shape unit.

for either oil or gas should be continued and followed by you gentlemen.

COMMISSIONER VAN TUYL: Is there anyone else to be heard from? (No response)

We will accept the file, the complete file of the first hearing for consideration. This file will be consolidated with the record of the previous hearing.

The hearing is adjourned.

(Whereupon, the hearing in the above-entitled cause adjourned.)

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C E R T I F I C A T E

I, Keith Watson, do hereby certify that the foregoing pages, numbered 1 through 141, constitute a true, complete and correct transcript of my stenotype notes of the proceedings had in the foregoing matter, and that the same were thereafter reduced to typewriting under my direction.

To all of which I certify this 28th day of July, A.D. 1956.



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