

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
September 9, 1957

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IN THE MATTER OF: \*  
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CASE 1314 \*  
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TRANSCRIPT OF PROCEEDINGS

## NEW MEXICO OIL CONSERVATION COMMISSION

OIL CONSERVATION COMMISSION (Examiner - DSN)SANTA FE., NEW MEXICOREGISTERHEARING DATE September 9, 195717TIME: 10 a.m.

NAME:	REPRESENTING:	LOCATION:
David A. Dunn	Union Oil Co. of Calif.	Roswell, N. Mex.
V. S. Baldwin	The Pure Oil Co.	Ft. Worth, Tex.
Robert L. Clarke	Union Oil Co. of Calif.	Midland, Texas
George Graham	Reeves Bros.	Santa Fe, N.M.
A. J. Reeves	Self	Fort Sumner, N.M.
J. P. Reeves	"	" "
R. D. Montross	Shell Oil Company	Midland, Texas
H. W. Bradshaw	The Pure Oil Co.	Fort Worth, Texas
Edgar S. Keefer	Union Oil Co. of Calif.	Midland, Texas
John S. Lusk	Self	Roswell, N.M.
Dr. Hunker, Jr.	Henry David Hunker	Roswell, N. Mex.
A. L. Patton, Jr.	O.C.C.	Santa Fe, N.M.

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
September 9, 1957

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IN THE MATTER OF:

THE APPLICATION OF UNION OIL COMPANY OF  
CALIFORNIA FOR APPROVAL OF ITS PROPOSED  
SOUTH VACUUM UNIT AGREEMENT FOR THE PURPOSES  
OF EXPLORATION AND DEVELOPMENT. THE PROPOSED  
UNIT AREA CONSISTS OF 2,240 ACRES, MORE OR LESS,  
OF STATE OF NEW MEXICO AND PATENTED LANDS COM-  
PRISING THE SE/4 OF SECTION 22, NW/4 AND S/2  
OF SECTION 26, E/2 OF SECTION 27, NE/4 OF SECTION  
34, ALL OF SECTION 35 AND THE W/2 AND SE/4 OF  
SECTION 36, ALL IN TOWNSHIP 18 SOUTH, RANGE 35  
EAST, LEA COUNTY, NEW MEXICO.

CASE NO. 1314

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BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

EXAMINER NUTTER: The Hearing will come to order please. The first  
case on the docket this morning will be Case No. 1314.

MR. COOLEY: Case No. 1314. Application of Union Oil Company of  
California for approval of its proposed South Vacuum Agreement in Lea County,  
New Mexico. Is there a representative of Union Oil Company of California  
present?

MR. HUNKER: Yes, sir. George H. Hunker, Jr., of the firm Hervey,  
Dow & Hinkle, Roswell, New Mexico, attorney for Union of California. Mr. Edgar  
S. Keefe, Division Landman with Union of California, is also present. I have  
two witnesses that I would like to have the Examiner swear at this time.

MR. COOLEY: Will they both please stand?

WITNESSES ARE SWORN IN

MR. HUNKER: Mr. Clarke, will you take the stand please? If the Commission please, I would like at this time to file an amendment to the application which deletes certain acreage from the original proposed unit. agreement, reduces the unit area from 2240 acres to 1640 acres - - - - - and I will file this now. Mr. Graham has been furnished with copy of the application.

EXAMINER NUTTER: Mr. Hunker, will you read into the record the acreage which is to be deleted from the advertised unit agreement?

MR. COOLEY: Just a moment, why don't you read the acreage of that - - will be included in it as now amended.

EXAMINER NUTTER: Well, either way.

MR. HUNKER: It is now proposed that there be included in the unit area the following described acreage in Lea County, New Mexico, in Township 18 South, Range 35 East, Section 27, the SE/4, Section 26, the S/2, Section 34, the NE/4, Section 35, all, Section 36, the SE/4, the N/2 of SW/4 and the N/4, containing 1680 acres, more or less. For the enlightenment of the Examiner, we have eliminated from the original application the SE/4 of Section 22, the SE/4 of - - - - - I beg your pardon, the NW/4 of Section 26, and the NE/4 of Section 27. We have also eliminated the S/2 of the SW/4 of Section 36.

MR. GRAHAM: Mr. Examiner, may I say that I am George Graham, representing the Reeves Brothers, owners of the royalty interest on the W/2 of the SE/4 and the E/2 of the Southwest of Section 26, and by reason of haste and lack of information upon this matter, I move that that be eliminated off - -

EXAMINER NUTTER: Mr. Graham, your motion is to eliminate the W/2 of the SE/4 of Section 26 and the E/2 of the SW/4 of 26?

A. The reason for that proposition is there - - - - is that the Reeves Brothers have four leases on this. Two leases covering the upper - - - down to 7,000 feet, that is - - - approximately. And then the Deep Lease underlying that. That lease becomes part of this unit, and production is had anywhere on the lease and the rental lost there - - - - potentially lost - - - - lease - - - - and that delayed rental.

EXAMINER NUTTER: What are the - - - Mr. Hunker, what are the terms of the unit agreement that you have drawn up for this unit area, can acreage be included within the boundaries of the unit area and not be dedicated to the unit?

A. The Unit Agreement provides for the working interest owners to participate on 100% basis insofar as the unit is concerned. It is not a participating area type of unit agreement, and we would like to have the Examiner - - - - not rule on the motion that has been made by Mr. Graham until such time as our testimony has been presented and the situation is fully explained to the Examiner and we would like to point out that if the Reeves do not choose to commit their royalty interest to the unit agreement, that the companies that are here involved will proceed to drill the test well whether it is committed or not. It would remain an uncommitted tract insofar as the 1/8 interest is concerned, which the Reeves have reserved in their oil and gas leases and which leases were sold to Mr. Don Blackmar and who in turn has assigned these leases to the Union Oil Company of California, the proposed unit operator.

EXAMINER NUTTER: Mr. Hunker, have you made a formal motion as yet to amend the application to describe the unit agreement as you described it awhile ago, have you made that motion?

A. I would like to at this time - - - - file my application - - - my amendment to the application that has previously been filed and ask that the Examiner accept it and place it of record in the application in the Commission's office.

EXAMINER NUTTER: Does anyone have any objection in the amendment of the application to include the acreage as described by Mr. Hunker a few minutes ago, being the SE/4 of Section 27, the S/2 of Section 26, the NE/4 of Section 34, all of Section 35, the SE/4, the N/2 of the SW/4 and the NW/4 of Section 36, containing 1600 acres more or less, 1680 acres more or less - - - Mr. Graham, the amendment to this application would be - - - - bearing in mind your objection to the inclusion of that certain acreage as described in Section 26, would you have objection to - - - - -

MR. GRAHAM: That would be purely the Land Office's matter and none of my client's business.

EXAMINER NUTTER: If there is no objection to the amendment of the application to include the acreage just as outlined to be in the South Vacuum Unit Area, the amendment to the application will be received.

MR. HUNKER: I would like to point out for the record, Mr. Nutter, that the acreage that is now included in the proposed unit area is a part and parcel of the same area that was originally included in the application, certain tracts have been deleted.

EXAMINER NUTTER: All of the acreage that is presently included was included in the advertised - - - - -

MR. HUNKER: In the advertised area, that is correct.

MR. GRAHAM: Would you let me see a copy of the original application?

A. Yes, sir. I would.

EXAMINER NUTTER: We will withhold ruling on your motion Mr. Graham, until after we have heard your testimony.

A. Thank you, Mr. Examiner.

EXAMINER NUTTER: Would you proceed Mr. Hunker?

A. Thank you sir. State your name please.

A. Robert L. Clarke.

Q. Where do you live Mr. Clarke?

A. In Midland, Texas.

Q. And what is your occupation?

A. I am a geologist.

Q. What company do you work for?

A. Union Oil Company of California.

Q. How long have you been employed by the Union of California?

A. For 16 years.

Q. What is your background Mr. Clarke with respect to your schooling?

A. I graduated from Stanford University in California in 1936 with a Bachelor's Degree in Geology.

Q. How long have you been working in the Permian Basin?

A. For 21 years less my war time service.

Q. What degree did you receive from Stanford University?

A. An AB Degree in Geology.

Q. Will the Commission accept Mr. Clarke as being an expert with respect to geological matters that I propose to have him testify to?

EXAMINER NUTTER: Mr. Clarke, are you familiar with the geology of the area in question?

A. Yes, I am.

EXAMINER NUTTER: Mr. Clarke's qualifications are acceptable.

MR. HUNKER: Thank you.

MR. HUNKER: Are you familiar Mr. Clarke with the application that has been filed by Union Oil Company of California? For approval of its proposed South Vacuum Unit Agreement?

A. Yes.

Q. What does the area of the proposed unit cover?

A. The area covers the S/2 of Section 26 and SE/4 of Section 27, the NE/4 of Section 34, all of Section 35, the NW and SE/4 in the N/2 of SW/4 of Section 36, all in Township 18 South, Range 35 East.

Q. How many acres does the proposed unit area cover?

A. 1680.

Q. How much of this acreage is state land?

A. 1520.

Q. And the other acreage that is involved, what is it?

A. 160 acres is fee land.

Q. You have before you a map of the proposed unit area. Will you explain to the Hearing Examiner for the New Mexico Oil Conservation Commission what that map is? And who prepared it? And how the various geological features were arrived at?

A. This plat represents a geological interpretation of the South Vacuum Unit. It was prepared by David A. Dunn, our District Geologist in Roswell.

Q. Under your supervision?

A. Yes, under my supervision. It represents our best idea of the true structure on top of the Devonian, using all of the geological and statistical information.

Q. Now, by that, what do you mean, that other companies cooperated with you in the preparation of this map?

A. No, sir. This map was prepared by our own representative. However, it was examined by the representatives of the other companies in the unit, and they agreed with us, the Union Oil Company, that this represents their best estimate of the true structure.

Q. What other companies are involved as working interest owners?



A. The Pure Oil Company, the Shell Oil Company and the Sinclair Oil & Gas Company.

Q. Does this map show a particular feature in this particular area?

A. It shows the closed anticlinal features favorable for the accumulation of oil or gas.

Q. Does the proposed unit area cover substantially all of the geologic feature?

A. Yes, it does. The closing contour of the feature includes all or substantially all of the acreage proposed for the unit.

Q. If this unit agreement is approved by the New Mexico Oil Conservation Commission and by the Commissioner of Public Lands, what will the result be, insofar as conservation and waste are concerned?

A. We believe that by the formation of the unit, that will enable the operator to most economically and efficiently recover the greatest amount of oil possible with the least amount of waste.

Q. And have you examined the unit agreement Mr. Clarke?

A. I have.

Q. Who is designated as the unit operator?

A. The Union Oil Company of California.

Q. When do you propose to commence operations on this unit?

A. The well located 1980 from the north and east of Section 35 was spudded yesterday.

Q. And is now drilling?

A. It is now drilling.

Q. And what do you propose to do insofar as this particular well is concerned, what's your program?

A. We will drill and test all possible producing formations down to and including the Devonian which we consider the principal objective and which is the horizon upon which this map was drawn. We will adequately test all of

those formations and complete the well if possible, wherever it will produce oil or gas.

Q. Approximately at what depth do you expect the Devonian to be encountered?

A. 12,300 feet should be the top of the Devonian.

Q. Have you examined other types of unit agreements involving mostly state lands Mr. Clarke?

A. I have examined some.

Q. Does the agreement that - - - or is the agreement that has been Submitted by your company substantially the same as this other type of unit agreements that have previously been approved?

A. Yes, sir.

Q. Has the agreement been submitted to the Commissioner of Public Lands for approval?

A. It has.

Q. Do you have anything else that you would like to elaborate on insofar as this geologic feature is concerned and for the enlightenment of the Hearing Examiner and the Commission?

A. The only thing I might say, that in addition to the Devonian, which we consider the principal objective, at least four other objectives, the Bone Springs limestone, the Wolfcamp dolomite or limestone, and in some occasions there may be a sand, strawn limestone and morrow sand. They may not all be present, but they are all reasonable objectives which will need to be investigated during the drilling of a well.

MR. HUNKER: I have no other questions of this witness.

EXAMINER NUTTER: Mr. Clarke, the original boundaries of the unit agreement as advertised included the SE/4 of Section 22, the NW/4 of Section 26 and the NE/4 of Section 27. I note that they are outside of the closure as

indicated on this map of the top of the Devonian structure. Why were those 480 acres included in the original application when they are not included in the structure?

MR. CLARKE: Well, in normal cases of this kind, we can't be positive of that closing contour. There is always some debate as to what is included in the enclosure and as I stated previously, this represents our best estimate of what the true structure is. We cannot positively rule that it is going to be exactly like this.

Q. To the best of the knowledge that you have available today, you believe that the 8200 foot contour is the closure on the structure?

A. We believe so.

Q. And that it substantially outlines the boundaries of the unit agreement as proposed now.

A. Yes, sir.

Q. Do you believe that any 160 acres in that 1680 acres could be excluded from the unit agreement and lose effective control of the structure?

A. I feel that it would be leaving possible productive acreage outside of the unit.

Q. Could the rest of the unit be operated effectively?

A. Not as effectively and not as efficiently for conservation and prevention of waste.

Q. Any 160 acres would amount to approximately 10% of the unit area.

A. That is correct.

Q. So you would lose in effect 10% of the control?

A. That is correct.

Q. Anyone else have any questions of the witness? Mr. Graham?

MR. GRAHAM: My question is directed at Mr. Hunker. With the information that was provided my client - - - - there is 5665 foot dry hole in the SW NE of Section 26 on there. Is there a possibility of working over that well?

MR. CLARKE: To my best estimate, there is not.

EXAMINER NUTTER: Mr. Graham, the map that is provided by Union Oil Company indicates a well to be drilled in the NW of the SE of 26.

MR. GRAHAM: NW of - - - -

EXAMINER NUTTER: NW of the SE of Section 26, would that be the well to which you were referring?

A. No, there is a PA Well on up here. Does your map show that?

MR. CLARKE: To my best knowledge it is the NW of the SE of 26.

MR. GRAHAM: NW of the SE? Lets confer here a moment.

MR. CLARKE: This is not a proposed well in the NW of the SE. There is a plugged and abandoned hole there.

MR. GRAHAM: The abandoned hole is a matter that concerns the Reeves boys. In the event that 160 designated as the Reeves land is included in this unit as far as their interest are concerned. Could that hole be worked over? You've answered that question with no opinion.

MR. CLARKE: I don't believe it could be made into a producer.

MR. GRAHAM: Now, in event that this location that you made yesterday and are drilling on - - - - in the event that is a failure, could this old hole be opened up and attempted to be made into a producer?

MR. CLARKE: I am not - - - -

MR. GRAHAM: To hold the unit, that is the idea.

MR. CLARKE: I am not familiar with the mechanical condition of that hole, I don't know whether it would be physically possible to get in that old hole.

MR. GRAHAM: Another question, would a small shallow producer hold this unit together?

MR. CLARKE: I believe it would, provided it is a commercial producer.

MR. GRAHAM: A few barrels a day would hold the unit together.

MR. CLARKE: I believe that the unit agreement provides for producing wells, any depth.

MR. GRAHAM: I don't believe I have any further questions. I want to mention that motion again if the Examiner will permit me. That relates only to the interest of the Reeves Brothers. I don't think you have any compulsory authority - - - in other words we are not attacking Mr. Blackmor's interests in the least, but their rights - - -

EXAMINER NUTTER: Mr. Graham, we still prefer to wait until all the evidence is in before we rule on the inclusion of that acreage.

MR. GRAHAM: O. K.

EXAMINER NUTTER: Mr. Clarke, on cross-examination by Mr. Graham, he asked you if you believed that this dry hole in the NW of the SE could be opened up and made into a producer in a shallow formation, what depth was that well originally drilled to?

MR. CLARKE: Approximately 5600 feet to test the San Andres formation. I considered they adequately tested the formation as far as being able to go on record without knowing the mechanical condition of the hole, as to whether or not it is physically possible to reenter.

EXAMINER NUTTER: Do you believe that that hole would have any possibilities of being drilled to a deeper depth and production obtained?

MR. CLARKE: Oh, yes. If it was mechanically possible to reenter it, it may well be deepened to whatever producing horizons you may later find beneath this 5600- - - -

EXAMINER NUTTER: But down to 5600 feet it was non-productive?

MR. CLARKE: That is right, in my opinion.

EXAMINER NUTTER: Does anyone else have any questions of Mr. Clark?

MR. GRAHAM: One more question, that <sup>well</sup> ~~drill~~ was drilled by the Texas Company about 15 years ago and the lease has been abandoned and the new lessees is involved at the present time.

EXAMINER NUTTER: Thank you Mr. Graham. Does anyone else have any more questions of Mr. Clarke?

MR. COOLEY: Yes, I do.

EXAMINER NUTTER: Mr. Cooley.

MR. COOLEY: Mr. Clarke, has the Land Office given tentative approval of the proposed unit agreement?

MR. CLARKE: I am not familiar with that.

EXAMINER NUTTER: Mr. Hunker, do you have a landman that can testify to that?

MR. HUNKER: Yes, sir. I have.

MR. COOLEY: Your other witness will testify on this?

MR. HUNKER: No, but I can call a witness who can testify on that point or I can make a statement for the Examiner with respect to that aspect, that is if the Commission wishes.

MR. COOLEY: That will be satisfactory.

MR. HUNKER: The Commissioner of Public Lands has indicated that if we would include paragraph 8a in the unit agreement which we have included in it, that he would approve the unit agreement in the event the Conservation Commission approved it.

MR. COOLEY: This is as good a point as any to bring up this matter. To my knowledge and that of the Examiner in this case, the unit agreement has never been submitted to the Oil Conservation Commission of New Mexico.

MR. HUNKER: If Mr. Cooley please, I have the three copies of the unit agreement here which I propose to file at the time my second witness is to testify.

MR. GRAHAM: Is there a representative of the Land Office present?

MR. BILBERRY: Yes, sir.

EXAMINER NUTTER: The Land Office is represented Mr. Graham.

Mr. Bilberry, you say that the - - - - - would you repeat that again please?

MR. BILBERRY: To my knowledge, the actual unit agreement has not been presented to the Commissioner of Public Lands.

EXAMINER NUTTER: To Mr. Bilberry's knowledge the actual unit agreement has not been presented to the Commissioner of Public Lands, is that correct? Thank you.

MR. BILBERRY: It has been discussed, but we have not received copy of the application.

EXAMINER NUTTER: An application for the unit agreement has been submitted and the unit agreement has been discussed but you have not received a copy of the unit agreement. Do you have any more questions?

MR. COOLEY: One further matter lets clear up here Mr. Hunker. The map to which has been referred to on several occasions, the contour map on the top of the Devonian, would it be satisfactory with you to have that marked as Exhibit 1 for identification purposes?

MR. HUNKER: It will, and I would like to see that it be admitted in evidence.

EXAMINER NUTTER: Without objection Union Oil Company's plat of the Devonian structure in the unit area will be admitted in evidence as Exhibit No. 1. Applicant's Exhibit No. 1.

MR. COOLEY: Mr. Clark - - - - -

MR. GRAHAM: No objection.

MR. COOLEY: Thank you. Mr. Clarke, on Exhibit 1, it is indicated that a hole has been spudded in Section 35 in the SW/4 of the NE/4. Is that correct?

MR. CLARKE: That is correct.

MR. COOLEY: Will you please give us the name of the drilling contractor who spudded this well?

MR. CLARKE: I am not familiar with the drilling contractor who spudded the well.

MR. COOLEY: Mr. Hunker, is there anyone here present who has that knowledge?

MR. HUNKER: Aldridge and Stroud. Yes, I'll get it for you. Aldridge and Stroud, 210 Phillips Building, Odessa, Texas. Mr. Cooley, I would like to make an additional statement if I may at this time with respect to some remarks that Mr. Graham has made with regard to the urgency of this particular situation. We have been working night and day in an attempt to get this unit agreement approved. The application for approval of the unit agreement was made with the Commission informally on the 28th of August 1957. The notice was published more than 10 days in advance of this hearing and the reason for the urgency is that there are - - - - there is a State lease in the unit area which will expire unless drilling operations are commenced on that lease prior to sometime today or tomorrow. That is the reason for all of the hurry. The deal could not have been - - - - it could not have jelled until the very, very last



moment, and we regret that there is some urgency to this situation but it has just come about that way, as with many other things in the oil business, you are always doing things at the very last moment.

MR. GRAHAM: Mr. Hunker, will you yield to a question?

MR. HUNKER: Yes, sir. I would.

MR. GRAHAM: This unit agreement to which you are more familiar than I am, does that provide that the Reeves Brothers at any time in the future could commit their acreage in case their information indicates that that's to their best interest?

MR. HUNKER: The unit agreement does not specifically contain a provision wherein the fee land owners - - - fee mineral owners, can subsequently join. I think that they will certainly be invited to join by the unit operator up until the time that production was obtained on the unit area if a dry hole is encountered the unit operator wouldn't be interested in inviting them to join and they probably would not be interested in joining if production is encountered.

MR. GRAHAM: They have the option though to drill one well at a time, if the first one is dry, they still have an opportunity to drill another one.

MR. HUNKER: That would depend upon the leases themselves that are involved in the unit and the terms of those particular leases. It would depend upon whether or not the well was drilled on the same lease or a different lease.

MR. BILBERRY: Question please.

EXAMINER NUTTER: Mr. Bilberry?

MR. BILBERRY: Do you mean the unit agreement does not provide for the drilling of oil wells until production is established if there is no production established in the first well?

MR. HUNKER: That is correct.

MR. GRAHAM: What happens if we don't drill?

MR. NUTTER: Will you repeat that question Mr. Graham?

MR. GRAHAM: Off the record.

MR. NUTTER: Off the record.

MR. NUTTER: Mr. Hunker, we were speaking of receiving a copy of the unit agreement at this time, I think it will make it a little easier to conduct this Hearing.

MR. HUNKER: I'll tender you three copies of the Unit Agreement at this time. They have been executed in several different counter parts. Paragraph 8 answers the question which I misunderstood, it provides for the continuous drilling of wells every six months in the event the first well is a dry hole. In the event of a discovery, then the unit operator must submit to the Commission and to the Commissioner a plan for the further development of the unit area. I answered the question the way I did because there are state leases that are involved and I don't know all there is to be known about state leases and their validation by unit agreements and their continuation.

MR. COOLEY: Mr. Hunker, in light of Mr. Bilberry's statement, that to his knowledge that the unit agreement had not been submitted to the Commissioner of Public Lands of the State of New Mexico, how is it, that I believe that your statement was a few minutes ago someone in the Land Office suggested that 8a as it appears now on the unit agreement be included in your proposed unit agreement?

MR. HUNKER: The unit agreement has been discussed in general terms with the Commissioner's Office and we've been so short of time that we haven't had an opportunity to submit to the Commissioner of Public Lands our amended application for approval of our unit agreement, nor have we had a chance to submit to him a copy of the unit agreement. We plan to go up to the Commissioner's office immediately after this hearing and furnish the Commissioner's office with the

papers at that time, but since Mr. Bilberry is here, I'll hand him a copy of the amended application to the Commissioner of Public Lands together with a copy of the unit agreement.

MR. GRAHAM: Do we have any information, George, as to the finding of the Commissioner of Public Lands as to the best interest of the state?

MR. HUNKER: As yet, we do not. I cannot speak for the Commissioner of Public Lands in that regard as I indicated earlier the Commissioner of Public Lands indicated to us that the unit agreement would be approved if we incorporated into it this plan for further development. The unit agreement that we had in mind at the time we talked to him was an earlier unit agreement which is exactly like this unit agreement, except it did not contain a clause for the submission to the Commissioner of Public Lands of a program for the further development of the unit area after discovery.

EXAMINER NUTTER: Mr. Hunker, I wonder if you would read Paragraph 22 of the unit agreement into the record?

MR. HUNKER: I'd like to point out before reading this particular paragraph that all of the working interest owners have committed their working interests to the unit agreement. It has been fully executed by all working interest owners having an interest in the unit area. I'll read the paragraph on page 11 of the unit agreement, paragraph 22, subsequent joinder. "Any oil or gas interest in lands within the area, within the unit area not committed hereto, prior to the submission of this agreement for final approval, either by the Commission or the Commissioner, may be committed hereto by the owner or owners of such rights. Subscribing or consenting to this agreement or executing a ratification thereof, and if such owner is also a working interest owner by subscribing to the operating agreement providing for the allocation of costs of exploration, development and operation. After operations are commenced hereunder, the right of subsequent joinder by a working interest owner shall be subject to all

the requirements of any applicable operating agreement between the working interest owners relative to the allocation of costs of exploration, development and operation. A subsequent joinder shall be effective as of the first day of the month following the find with the Commissioner and the Commission of duly executed counterparts of the instrument or instruments committing the interest of such owner to this agreement. But such joining party or parties before participating in any benefits hereunder shall be required to assume and pay to unit operator their proportionate share of the unit expense incurred, prior to such party or parties joinder in the unit agreement, and the unit operator shall make appropriate adjustments caused by such joinder without any retroactive adjustment of revenue.\* End of paragraph 22.

MR. COOLEY: The last clause that you have just read concerning that such joining party or parties before participating in any benefits thereunder shall be required to assume and pay to unit operator their proportionate share of the unit expenses incurred prior to such parties joinder in the unit agreement and the unit operator shall make appropriate adjustments et cetra, that would refer only to working interest owners would it not Mr. Hunker?

MR. HUNKER: Yes, sir. That is correct. The oil and gas leases covering the fee tracts, of course, provide that any well that is drilled on those fee tracts is to be drilled free of any cost or expense to the oil and gas lessor. Likewise, the state of New Mexico Lease provides that the state bears no part of the expense of drilling or operating any of the wells on its lands.

EXAMINER NUTTER: Well, Mr. Hunker, the leases that cover this fee land in the unit area, do those leases contain a pooling clause?

MR. HUNKER: They do not.

EXAMINER NUTTER: Well, one question, can a - - - - now you stated that all the working interests had committed their acreage. Can a working interest commit his acreage without a pooling clause or the agreement of the royalty owners?

MR. HUNKER: He can commit his interest, yes. He cannot commit without a pooling clause the interests of the royalty holder.

MR. COOLEY: Then, Mr. Hunker, assuming that the Commissioner of Public Lands, State of New Mexico, approves your unit agreement and your unit area, that would commit all the state royalty. You say that the working interests have already committed all the acreage outlined in the amended unit area.

MR. HUNKER: Correct.

MR. COOLEY: The only uncommitted interest would then be the fee royalty interests of the Reeves Brothers who are here represented by Mr. Graham.

MR. HUNKER: That is correct.

MR. COOLEY: And under the provisions of paragraph 22, they could at any time, after the approval of this agreement, commit their interests?

MR. GRAHAM: Without payment.

MR. HUNKER: Without payment, that is correct. After operations have been commenced, as I understand the terminology of the Unit Agreement, the interest may be - - - - that refers to working interest owners, I beg your pardon. As I understand it, they may commit their interest to the unit agreement any time. That is correct.

MR. COOLEY: Without any payment - - - -

MR. HUNKER: Without any payment of any costs.

MR. COOLEY: Correct.

MR. GRAHAM: Mr. Examiner, after conference with my client, I withdraw the motion made previously.

EXAMINER NUTTER: Is there objection to the withdrawal of Mr. Graham's motion? If not, the motion will be withdrawn. Does anyone have any further questions of Mr. Clark? If not, the witness may be excused.

MR. HUNKER: I would like to call Mr. David Dunn. Will you state your name please?

MR. DUNN: David A. Dunn.

MR. HUNKER: And by whom are you employed?

A. The Union Oil Company of California.

Q. I hand you herewith what has been marked Exhibit "2" and ask you to tell the Examiner what that instrument is.

A. This instrument is a unit agreement for the development and operation of the South Vacuum Unit Area of Lea County of New Mexico.

Q. If the Commission at this time please, I would like to offer Exhibit "2" in evidence.

EXAMINER NUTTER: Without objection Exhibit "2", the Unit Agreement in the case will be received in evidence.

MR. HUNKER: How long have you been employed by the Union Oil Company of California Mr. Dunn?

A. Slightly over five years.

Q. Have you testified before the Commission before?

A. I have.

Q. Have your qualifications been accepted by the Commission?

A. They have.

Q. As an expert?

A. Yes.

Q. If the Commission please, are the witness's qualifications acceptable?

EXAMINER NUTTER: They are. You may proceed.

MR. HUNKER: I would like for you to explain to the Examiner before the Commission the applicant's Exhibit "1" which is the area map which you have before you.

MR. DUNN: The map that I have before me, Exhibit "1" is a subsurface contour map drawn on the top of the Devonian formation by myself, under the supervision of Mr. Clark, Chief Geologist, Union Oil Company at Midland. This map was drawn, utilizing all the seismic information, the sub surface information, and the regional ideas that we have developed in the district in southeastern New Mexico. It shows the proposed anticlinal features which lies just off of the central basin platform in Lea County, New Mexico, between the Vacuum shallow Permian field and the Eunice Monument field. The Vacuum field being to the north, Eunice Monument to the southeast. The sub surface control of the area is relatively good, the seismic work in the area has shown indication of a high structure and this map represents a composite picture showing the best possible interpretation of the outlined of proposed structure. Earlier in the preparation of the map, we had some indication from seismic work that the structure might extend further to the northwest. The position of the Superior McAlpine Well in Section 23 and the later seismic work that was done indicated that the area to the northwest was low and the map was constructed as presented in evidence, which includes the area considered favorable for the accumulation of oil in the Devonian formation.

MR. HUNKER: Does the unit area embrace substantially all of that Devonian feature?

MR. DUNN: It does.

MR. HUNKER: The contour closes on all of it?

MR. DUNN: It does, substantially, within the best possible lines that can be drawn.

MR. HUNKER: I hand you herewith a USGS Map marked Roswell No. 9 and marked applicant's Exhibit "3" and I'd like for you to tell the Examiner what that

map represents.

MR. DUNN: This map represents USGS Pool Map of southeastern New Mexico showing the producing wells and dry holes which have been drilled in southeastern New Mexico as of January 1, 1957. In red on this map we have drawn a circle which shows the proposed unit location for the sake of locating a unit in the producing province of southeastern New Mexico.

MR. HUNKER: The applicant would like at this time to offer in evidence the applicant's Exhibit "3".

EXAMINER NUTTER: Without objection, Exhibit "3" will be entered in evidence.

MR. HUNKER: Mr. Dunn, I would like for you to go into the matter of conservation and the prevention of waste. Will you explain to the Hearing Examiner why you think this unit area is appropriate in that connection?

MR. DUNN: The unit area is in an area of a fair amount of geological control. However, we are unable to predict the type of fluids or the number of producing horizons that may be encountered, on a structure of this type. A unit such as proposed will allow for the adequate development regardless of the types of fluids that are encountered or regardless of the horizons in which they are encountered. It would take care of the prevention of waste should gas be encountered or should oil be encountered. It would allow for the proper submission of an operating agreement that would prevent waste both in the production of the unitized substances and in the expenditure of moneys for its development.

MR. HUNKER: In your opinion, if this unit agreement is approved, will the reservoir energy be conserved and will the unit tend to prevent waste?



MR. DUNN: It definitely will in my opinion. The unit operator controlling the area can freely reinject gas or other substance such as water flood in an economical method in which they can produce the maximum amount of hydro carbons. The gas or oil. Where without an adequate control of the area, frequently production is abandoned prior to the complete recovery of the substances that are available.

MR. HUNKER: Then in your opinion, the approval of this unit will tend to prevent waste. Is that correct?

MR. DUNN: Deffinitely so.

MR. HUNKER: Through the orderly development of this area, will all of the royalty owners receive their fair share of the oil in the pool? Should there be any.

MR. DUNN: The unit operating agreement provides for the submission of a development plan acceptable to the Commission. Such a plan is impossible to submit prior to exploration. In order to equally balance the return of all the royalty owners, it is necessary to know the reservoir characteristics and to be able to control the reservoir itself. In my opinion it will best balance the returns of all of the royalty owners within the unit area.

MR. HUNKER: I have no further questions.

EXAMINER NUTTER: Anyone have a question of the witness?

MR. COOLEY: Yes, I have two.

EXAMINER NUTTER: Mr. Cooley.

MR. COOLEY: Would you please state for the record what the unitized substances are covered by this agreement?

MR. DUNN: The unitized substances are all oil, gas, or distillate present within the unitized area.

MR. COOLEY: Within all formations underlying the unitized area?

MR. DUNN: That is right.

MR. COOLEY: And is there any provision contained in the unit agreement

for the expansion of the unit area in the event that the common source of supply is larger than anticipated at the present time?

MR. DUNN: No, sir.

EXAMINER NUTTER: Mr. Dunn, you spoke of the unit agreement being in the interests of the conservation of oil and gas and that controlled operation of the structure could be obtained. Do you feel that any possible exclusion of any of the acreage within the boundaries of the unit agreement would lessen that control?

MR. DUNN: I feel that it would.

EXAMINER NUTTER: Why was the S/2 of the SW/4 of Section 36 excluded from the boundaries of the unit agreement? That's within the closure.

MR. DUNN: It is within the closure as drawn sir. There is a possibility by sizing the interpretation, an extremely low point exists and that a closure might exist in the southeast, a separate closure might exist in the southeast corner of Section 36. That cannot be demonstrated by either sub surface or seismic control. However, a low point has control of a draw end of the structural contours within that 80-acre tract. It appears to be low, it may be considerably lower than contoured at that point.

EXAMINER NUTTER: Then there is a possibility you say that the southeast of Section 36 may be a localized find?

MR. DUNN: The structure is controlled as a strong knoll and while we have not drawn any separate closure within the southeast quarter of Section 36, there is a possibility that the minus 8200 foot contour or the minus 8100 foot contour could close in Section 36, but that the 8200 foot contour would include it within the same general structure.

EXAMINER NUTTER: Would you proceed with the answer to that last question Mr. Dunn?

MR. DUNN: I think I've lost the question Mr. Nutter.

EXAMINER NUTTER: You were talking about the closures that set around the

southeast quarter of Section 36.

MR. DUNN: We do not feel that the evidence is conclusive enough to show a separate closure in the southeast of 36, however, we felt that the evidence was sufficiently conclusive to show that it was a part and parcel of the same structure within the unit, and we have made the unit outline conform with the information as close as possible.

EXAMINER NUTTER: You don't feel that the exclusion of the S/2 of the SW/4 of 36 is going to injure control of the unit?

MR. DUNN: No, sir.

EXAMINER NUTTER: Anyone else have any questions of the witness? If not, the witness may be excused. Does anyone have anything further in this case? Any statements?

MR. HUNKER: I would like at this time, off the record - - - - I won't ask Mr. Bilberry to make any statements then and that concludes the number of witnesses that the applicant has in this case.

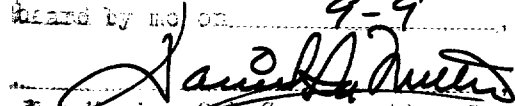
EXAMINER NUTTER: Does anyone have anything further at all they wish to offer in Case 1314? If not, we will take the case under advisement and the Hearing is adjourned.

STATE OF NEW MEXICO       )  
                                  : ss  
COUNTY OF SANTA FE       )

I, Doris Arnold, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Commission Examiner at Hobbs, New Mexico, is a true and correct record, to the best of my knowledge, skill and ability.

Dated at Santa Fe, New Mexico this 14th day of October, 1957.

  
DORIS ARNOLD

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 1314  
heard by me on 9-9, 19 57.  
 Examiner  
New Mexico Oil Conservation Commission

ap 9/9

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 1314  
Order No. R-1648  
BP

THE APPLICATION OF Union Oil  
Company of California  
FOR THE APPROVAL OF the South  
Vacuum UNIT  
AGREEMENT EMBRACING 1680  
ACRES, MORE OR LESS, LOCATED IN  
TOWNSHIP 18 South RANGE  
35 East NMPM, Lea  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 10:00 o'clock a.m. on  
September 9, 1957 at Santa Fe, New Mexico, before  
Daniel S. Natter, Examiner, duly appointed by the Oil  
Conservation Commission of New Mexico, hereinafter referred to  
as the "Commission." ~~In accordance with Rule 12.4 of~~  
~~the Commission Rules and Regulations.~~  
NOW, on this 9th day of September 1957, the Commission,  
a quorum being present, having considered the application, the  
evidence adduced, and the recommendations of the Examiner, Daniel  
S. Natter, and being fully advised in the premises,  
FINDS:

(1) That due public notice having been given as required by law,  
the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the proposed unit plan will in principle tend to  
promote the conservation of oil and gas and the prevention of waste.

IT IS THEREFORE ORDERED:

1. That this order shall be known as the

South Vacuum UNIT AGREEMENT ORDER

2. (a) That the project herein referred to shall be known as  
the South Vacuum Unit Agreement and shall hereinafter  
be referred to as the "Project."

(b) That the Plan by which the project shall be operated  
shall be embraced in the form of a unit agreement for the development  
and operation of the South Vacuum Unit Area, referred to in  
the Petitioner's petition and filed with said petition, and such plan  
shall be known as the South Vacuum Unit Agreement Plan.

3. (a) That the South Vacuum Unit Agreement Plan  
shall be, and hereby is, approved in principle as a proper conservation  
measure; provided, however, that notwithstanding any of the provisions  
contained in said unit agreement, this approval shall not be considered  
as waiving or relinquishing in any manner any right, duties or obligations  
which are now, or may hereafter, be vested in the New Mexico Oil Con-  
servation Commission by law relative to the supervision and control of

Use letter (a) only if  
Paragraph 3(b) is used.

Order No.

operations for exploration and development of any lands committed to said South Vacuum Unit Agreement, or relative to the production of oil and gas therefrom.

Use (3) only if no federal acreage is included.  
(b) That the unit operator periodically shall file with the Commission a South Vacuum Unit Statement of Progress, summarizing operations for the exploration and development of any lands committed to said South Vacuum Unit Agreement. This statement of progress shall be filed within 30 days after the expiration of each six-months during the term of the unit agreement, and shall contain such pertinent data as may be necessary for the Commission to determine the progress being made in the South Vacuum Unit Area.

4. (a) That the unit area shall be:

NEW MEXICO PRINCIPAL MERIDIAN

TOWNSHIP 18 South, RANGE 35 East

Section 26: SW 1/4 S/2  
Section 27: SE 1/4  
Section 34: NE 1/4  
Section 35: all  
Section 36: SE 1/4 NW 1/4, N/2 SW 1/4

containing 1680. acres more or less.

(b) The unit area may be enlarged or contracted as provided in said Plan. (omit if Agreement does not so provide.)

5. That the unit operator shall file with the Commission an executed original or executed counterpart of the South Vacuum Unit Agreement within 30 days after the effective date thereof.

6. That any party owning rights in the unitized substances who does not commit such rights to said unit agreement before the effective date thereof may thereafter become a party thereto by subscribing to such agreement or counterpart thereof, or by ratifying the same. The unit operator shall file with the Commission within 30 days an original of any such counterpart or ratification.

7. That this Order shall become effective upon the approval of said unit agreement by the Commissioners of Public Lands for the State of New Mexico and shall terminate ipso facto upon the termination of said unit agreement. The last unit operator shall immediately notify the Commission in writing of such termination.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

, Chairman  
, Member  
, Member & Secretary

S E A L