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MR. UTZ: Case 3560.

MR. HATCH: Case 3560, An application of Phillips Petroleum Company for a unit agreement, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please. Jason Kellahin, Kellahin and Fox, appearing for the applicant. I have three witnesses.

(Witnesses sworn.)

MR. UTZ: Are there any other appearances in this case?

MR. KELLAHIN: I would like to call as my first witness, Mr. Cunningham.

W. A. CUNNINGHAM, called as a witness on behalf of the Applicant, first having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A W. A. Cunningham.

Q By whom are you employed and in what position, Mr. Cunningham?

A Phillips Petroleum Company, as District Contract man.

Q In connection with your work as District Contract

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man, where are you located?

A In Midland.

Q And, do you have anything to do with the work of organizing a unit agreement?

A Yes, I do. I prepare the unit agreements and unit operating agreements.

Q And, in that connection, did you have anything to do with the unit agreement designated as the Hat Mesa Unit?

A Yes, I prepared it.

(Whereupon, Applicant's Exhibit Number 1 was marked for identification.)

Q Referring to what has been marked as Exhibit Number 1, is that a copy of the unit agreement?

A That's correct.

Q And attached to that agreement is there a plat showing the acreage involved in this unit?

A Yes, sir, there is a plat showing the outline of the unit area, of the proposed unit area.

Q And, also, attached to the plat is there an exhibit showing the ownership of all the lands within the unit area?

A Yes, sir.

Q Now of the lands that are in the unit area, what percentage are Federal, what percentage are State and what

percentage are Fee?

A Approximately 58.82 percent are Federal lands, and 41 percent are State lands and there is no Fee acreage within the boundaries of the proposed unit area.

Q Now, is this a unit agreement designed as an exploratory unit?

A Yes, sir.

Q Is it in a form that has been used heretofore and approved by the United States Geological Survey and the Department of Interior and the State of New Mexico Land Office?

A Yes, sir, it is.

Q And by this Commission?

A Right.

Q Has this unit agreement been submitted to the Department of Interior?

A Yes, it has.

Q Has it received tentative approval?

A It has received preliminary approval for the unit agreement.

Q And the area has been designated by the Department of Interior as appropriate for unit development, is this true?

A As to area and depth.

Q As to area and depth? Now, in connection with

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that, what depths are you talking about?

A We are talking about a 15,500 foot Devonian wildcat.

Q Is the unit agreement confined to the Devonian production?

A No, sir.

Q It would include any producing horizon that might be encountered in the well deep enough to test the Devonian, is that correct?

A Yes, that's correct.

Q So, that it covers all possible producing formations from the surface to the Devonian?

A That is correct.

Q Has the unit agreement been submitted to the Commissioner of Public Lands?

A Yes, sir.

Q Has it received preliminary approval there?

A Yes, sir.

Q What is the status of the agreement, insofar as participation of the working interest is concerned?

A All parties, there are nine working interest owners within the boundaries of the unit outline and eight of the nine companies have agreed to commit their acreage to the unit area.

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Q And what acreage is not committed to the unit area?

A The acreage not committed to the unit area is the Atlantic Richfield tract which is the East half of the Southwest Quarter of Section 9, Township 21 South, Range 33 East, which is on the east side of the unit area.

Q It is on the boundary of the unit, is that correct?

A Yes, sir.

Q And it is an eighty acre tract?

A That's correct.

Q Is there a provision in the unit agreement for a subsequent joinder for a tract such as that?

A Yes, sir, there is.

Q Is there a provision in the unit agreement for any expansion of the unit --

A Yes, sir.

Q -- should it become necessary on the development of this area?

A Yes, sir.

Q As I understand, you prepare the unit agreements. Was this unit agreement prepared under your supervision?

A Yes, sir.

MR. KELLAHIN: At this time I would like to offer

in evidence Exhibit Number 1.

MR. NUTTER: Without objection Exhibit Number 1 will be entered into the record.

(Whereupon, Applicant's Exhibit Number 1 was admitted into evidence.)

MR. UTZ: Any questions of the witness? The witness may be excused.

(Witness excused.)

MR. KELLAHIN: We would like to call as our next witness Mr. Charles W. Betton.

CHARLES W. BETTON, called as a witness on behalf of the Applicant, first having been duly sworn was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Charles W. Betton, B-e-t-t-o-n.

Q By whom are you employed and in what position, Mr. Betton?

A Phillips Petroleum Company, Area Exploration Geologist.

Q And where are you located?

A Midland, Texas.

Q Have you ever testified before the New Mexico Oil

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Conservation Commission?

A No, I haven't.

Q For the benefit of the Examiner, will you briefly review your education and experience as a geologist?

A I received a Bachelor of Science Major in Geology Degree from Colorado College in 1951, was employed by Phillips Petroleum in May of 1952 and have been employed by them since that time. I have been an Area Geologist for our western area for approximately four years, the last four years.

Q Now, in connection with your work as Area Geologist, do you have anything to do with the area that is included in what has been designated as the Hat Mesa unit area?

A Yes, it is under my supervision.

Q Have you made any investigation of this area yourself?

A Yes, sir, I have.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. UTZ: Yes, sir, they are.

(Whereupon, Applicant's Exhibit Number 2 was marked for identification.)

Q (By Mr. Kellahin) Mr. Betton, referring to what has been marked as Exhibit Number 2, would you state what that

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exhibit is?

A Exhibit Number 2 is a seismic structure map contoured on the Devonian **top**, contour intervals 100 feet. The plat also depicts the proposed unit outline and the well control which is available in the area.

Q Now, as I understand, you say that is contoured on the top of the Devonian. What type of information did you have in the preparation of this map?

A Well, this is a map prepared by a reflection seismograph method, our latest magnetic tape recording technique, using a dynamite method as opposed to the surface technique.

Q Was it also used in connection with a computer of some kind?

A Yes. The results are in a computerized program.

Q There are other zones than the Devonian present in this area that may be productive, is that correct?

A That is correct.

Q What would those zones be?

A We consider the Morrow Pennsylvanian Sands, and sandstones and carbonates of the Bone Springs-Leonard H formation to be secondary objectives in this well and in addition, there are other, what we consider less attractive objectives in the Wolfcamp and Delaware Mountain group.

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Q Would the Strawn possibly be --

A Yes, the Strawn and Ben 2, as a matter of fact.

Q The unit agreement Mr. Betton is an exploratory unit. In reference to your Exhibit Number 2, that reflects a structure in the Devonian, does it not?

A That is correct.

Q Does the unit area embrace substantially all of the structure as reflected by this information?

A Yes, the unit outline has been drawn to include all that we feel is potentially productive within this.

Q Would the unit area, as outlined, give the unit operator effective control of the structure in the event production is encountered there?

A Yes, it would.

Q Now, do you have the same situation as to the other zones you have mentioned?

A Yes we have shallower depth mapping, also seismic mapping, in which the interpretation is essentially the same at the Morrow horizon with slightly less relief and it is also similar on the middle Bone Springs horizon as mapped by seismic methods.

Q Is it your opinion as a geologist as to those other zones, the operator of the unit would have effective control of any area of development?

A Yes.

(Whereupon, Applicant's Exhibit Number 3 was marked for identification.)

Q Now, referring to what has been marked as Exhibit Number 3, would you identify that exhibit, please?

A Exhibit Number 3 is the geological report concerning the proposed unit.

Q Is there any information in that report that you would like to call to the attention of the Examiner?

A Well, the report states briefly our interpretation of the structure, the stratigraphy to be expected at the proposed drill site, the productive possibilities which we feel are most likely, and the **proposed** method of development if the unit is approved.

Q Now, you said at the proposed drill site. **Where** is the proposed drill site?

A The proposed drill site is located in Section 11 of Township 21 South, Range 32 East, of Lea County and is located 1980 from the north and east lines of Section 11.

Q Is that marked in red on Exhibit Number 2?

A Marked in a red 'X'.

Q On Exhibit Number --

A On Exhibit Number 2, yes.

Q Now, there are some dry holes that have been

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drilled in this area, are there not?

A Yes, there are.

Q Where are they located?

A Well, there are a number of shallow dry holes scattered, actually, several of them within the unit, proposed unit outline which penetrated approximately to the top of the Capitan Reef. We do not consider these to be detrimental to the proposed test, inasmuch as they are dry holes, as compared to the objectives that we are scheduling this well for.

The Phillips Number 1S immediately on the outside of the boundary, at the north in Section 1, Township 2132, was drilled to a total depth of 16,396 feet in 1956 and the hole was lost at that depth. This well is one of our key points that we are basing our interest in, in that our seismic picture clearly shows this well to be low by some 450 feet to the crest of our seismic structure and separated from this structure by synclinal trough, synclinal trough running through the northern part of Sections 2 and 1 of 2132. This well also is of considerable significance to us, in that the Morrow Sands that we contemplate of being perspective were not tested in any fashion in this well and the zones in the Bone Springs, which we consider to be perspective were also not tested in this well. However, correlation from this

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well to the Lea pool, some eight miles to the northeast, is quite good and we feel that we have good correlation between known producing horizons in these two formations at the Lea pool, so we consider the likelihood of these perspective reservoirs as being present on the structure to be quite good.

Q Were Exhibits 2 and 3 prepared by you, or under your supervision?

A Exhibit Number 3, the report, was prepared by me. The Exhibit Number 2, the seismic structure map, was not prepared by me. This map was prepared by our district geophysicist.

Q Have you examined Exhibit Number 2 and in your opinion does it correctly reflect the information shown on the Devonian?

A Yes, it does.

MR. KELLAHIN: At this time I would like to offer Exhibits 2 and 3.

MR. UTZ: Without objection, Exhibits 2 and 3 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 2 and 3 were admitted into evidence.)

MR. KELLAHIN: That's all I have of this witness, Mr. Utz.

MR. UTZ: Are there any questions of the witness?

He may be excused.

(Witness excused.)

MR. KELLAHIN: I would like to call Mr. Wolfenberger.

DON WOLFENBERGER, called as a witness on behalf of the Applicant, first having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Don Wolfenberger.

Q How do you spell that, Mr. Wolfenberger?

A W-o-l-f-e-n-b-e-r-g-e-r.

Q By whom are you employed and in what position?

A Phillips Petroleum Company, Senior Lease Man.

Q Where are you located, Mr. Wolfenberger?

A Midland, Texas.

Q Have you ever testified before the Oil Conservation Commission?

A No, I haven't.

Q In your duties as Senior Lease Man, how long have you been working in the state of New Mexico?

A Since 1959.

Q And have you handled leases for Phillips in this

area during that period of time?

A Yes.

Q Did you have anything to do with the examining of lease data and getting agreement to the proposed Hat Mesa unit agreement?

A Yes, I did.

Q In that connection, Mr. Wolfenberger, did you find anything about the leases in regard to the potash area?

A Yes, we found that our unit fell in the secondary potash area as designated in October 16, 1951, also, the revised area of May 11th, 1965 and a small portion in the south part of the unit area falls in our 1 11A area.

(Whereupon, Applicant's Exhibit Number 4 was marked for identification.)

Q Now, referring to what has been marked as Exhibit Number 4, does that show the potash area?

A Yes.

Q How is it shown on that Exhibit?

A It is outlined in red.

Q The area outlined in red is that portion of the area included under the Oil Conservation Commission's Order R No. 1 11A?

A True.

Q What does the other colored area signify?

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A The orange area is potash leases owned by Potash Company of America and the green acreage is U. S. Borax.

Q And the entire unit area, as I understand it, is in the area designated by the Secretary of Interior as a potash area, is that correct?

A Yes.

Q Now, is there any potash development in the vicinity of this unit?

A No.

Q How far away is the nearest potash development?

A Kerr-McGee, approximately eight miles west.

Q As far as you know, then, there is no prospect of development in the immediate vicinity of this unit?

A That's true. The federal acreage in the area does not have potash leases on it.

Q And the leases that are there are all state leases?

A State leases held by production over ten years.

Q Now, in connection with Exhibit Number 4, is that a revision of Exhibit A attached to the unit agreement?

A Yes.

Q Now, is there an error in connection with one of the lease numbers there?

A Right. On, except in the unit agreement, Tract 2

there is two inverted numbers there. That number should be 028705 on the federal.

Q Now, you are familiar --

MR. UTZ: Tract 2?

THE WITNESS: Yes and the corrections have been made on the unit agreement.

Q (By Mr. Kellahin) Are you familiar with the exploration dates on the various leases involved in this unit?

A Yes, indeed.

Q Is there any reason for immediate action on this application before the Oil Conservation Commission?

A Yes, Tract 2, which is the same eighty acre tract, is Phillips' tract and the ten year term expires May 31st, 1967. We would like to get this well drilling prior to, or before, the 20th of May.

Q Now, do you anticipate that you can have not less than seventy-five percent of the working interests signed up by that date?

A Absolutely yes.

Q What is the situation as to the royalty interests, or do you know?

A We have twenty-six royalty interests owners in the unit, overriding royalty owners in the unit, and at the present time, twenty-two have executed a ratification and

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and the four others have indicated they would as soon as possible.

Q And, other than the one Atlantic tract, you anticipate one hundred percent participation on the working interests, is that correct?

A Yes, sir.

Q Was Exhibit Number 4 prepared by you or under your supervision?

A Yes, sir.

MR. KELLAHIN: I would like to offer Exhibit Number 4.

MR. UTZ: Without objection, Exhibit Number 4 will be entered into the record.

(Whereupon, Applicant's Exhibit Number 4 was admitted into evidence.)

MR. KELLAHIN: That's all I have Mr. Utz.

MR. UTZ: Are there any questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: Statements in this case? The case will be taken under advisement.

STATE OF NEW MEXICO )  
 ) ss  
COUNTY OF BERNALILLO)

I, JERRY POTTS, Notary Public, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission Examiner at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

In Witness whereof, I have affixed my hand and notarial seal this 17th of June, 1967.

Jerry Potts  
Notary Public

My Commission Expires:

July 10, 1970

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3560 heard by me on Sept 20 1967.  
[Signature] Examiner  
New Mexico Oil Conservation Commission

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