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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

October 9, 1968

EXAMINER HEARING

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IN THE MATTER OF: )  
)  
)

Application of Marathon Oil )  
Company for a unit agreement, )  
Eddy County, New Mexico. )  
)  
)  
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Case No. 3884

BEFORE: Elvis A. Utz, Examiner

Transcript of Hearing

MR. UTZ: Case 3884.

MR. HATCH: Case 3884, application of Marathon Oil Company for a unit agreement, Eddy County, New Mexico.

MR. MORRIS: Mr. Examiner, I am Dick Morris, of Montgomery, Federici, Andrews, Hannahs and Morris, Santa Fe, appearing for the applicant, Marathon Oil Company.

This is the application of Marathon for an exploratory unit located some twelve miles west of Carlsbad, New Mexico, and between Carlsbad and the Indian Basin area. We will have two witnesses to present; Mr. Butler, who will present the information concerning the unit itself, and Mr. McMichael, who will explain the geology of the area. I ask that they both stand at this time and be sworn, please.

(Witnesses sworn)

MR. MORRIS: At this time, I'd like to introduce to the Examiner and staff, Mr. William H. Holloway, who is a member of the Texas Bar and who is an attorney for Marathon Oil Company who will handle the presentation of evidence in this case.

MR. UTZ: Is that H-a-double l-o-w-a-y?

MR. HOLLOWAY: H-o-l-l-o-w-a-y.

MR. UTZ: Thank you.

(Whereupon, applicant's Exhibits Numbers 1, 2 and 3 were marked for identification.)

W. T. BUTLER,

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HOLLOWAY:

Q Please state your name, address and by whom you are employed and the position you hold?

A My name is W. T. Butler. I am employed by Marathon Oil Company and reside in Midland, Texas. I'm a land man now working in the southeastern two-thirds of New Mexico which includes Eddy County, the area in which the Miller Ranch Unit is located.

Q Have you testified previously before the New Mexico Oil Conservation Commission or any of its examiners?

A No, sir, I have not.

Q Would you please state for the Examiner your qualifications?

A I received a Bachelor of Science Degree in Business Administration from Mount Mary College in 1953 and have been employed by Marathon as Land man in the Midland District for fifteen years.

MR. HOLLOWAY: Are the witness's qualifications acceptable, Mr. Examiner?

MR. UTZ: Yes, sir. He's qualified to testify as a Land man.

Q (By Mr. Holloway) In your capacity as Land man for Marathon, have you been responsible for or participated in the formation of units and unit agreements similar to those which are the subject of this proceeding?

A Yes, sir. I have worked on projects of this type for the past five years in New Mexico and Texas.

Q Mr. Butler, please refer to the instrument which has been identified as Marathon's Exhibit Number 1 in this proceeding and is entitled, "Unit Agreement For the Development and Operation of The Miller Ranch Unit Area." Please state whether Exhibit 1 is a true copy of the Unit Agreement which has been agreed to by all of the working interest owners.

A Yes, this is a true copy of the Unit Agreement and has been agreed to by all of the working interest owners, and the agreement is presently in the hands of those working interest owners for signatures.

Q With certain variations which you will bring out later, is this instrument identical to the copies of the Unit Agreement submitted with Marathon's Application to the Commission?

A Yes, with the exception that Exhibits A and B to the agreement, have been changed.

Q Would you please point out the changes which have been made in Exhibits A and B?

A Yes, sir. In Exhibit A, the plat, tract 15, we originally showed Marathon as the Lease owner of this tract. Actually, Marathon has an option from --

MR. UTZ: Excuse me. Would you locate Tract 15?

THE WITNESS: That's Section 19, sir.

MR. UTZ: All right.

THE WITNESS: Marathon acquired an option on this lease, and so we, to satisfy the BLM, put the lessee of record on there, G. K. Hendricks, Junior.

In Tract 18, the southeast quarter of Section 8, we originally showed Mobil Oil Corporation. We have now shown Northern Natural Gas Producing Company. It has been determined that although Northern Natural is a subsidiary of Mobil, Mobil only has a power of attorney to execute for them.

Tenneco Oil Company was removed from Exhibit A in Tracts 12 and 2; again, the acreage out of the east portion of Section 17. Marathon has acquired Tenneco's leasehold interests.

And Exhibit B, we did remove Marathon and put G. K. Hendricks, Junior, in Tract 15 because Mr. Hendricks is actually lessee of record. James E. Logan, in Tract 11, is shown with an overriding royalty interest. Marathon has acquired his

interest in that tract. Tenneco has been removed, and Marathon owns their tracts. I believe that are all the changes in Exhibit B.

The signature pages and acknowledgement pages had to be changed for reason that Sinclair Oil and Gas Company changed their corporate name to Sinclair Oil Corporation.

Q Mr. Butler, this same change resulting from the corporate name change of Sinclair has been incorporated in Exhibits A and B, is that not true?

A That's true, sir. Yes, sir.

Q Please state what lands are included in the unit area.

A The Miller Ranch Unit, which is located approximately four miles east of the Indian Hills Unit, Eddy County, New Mexico, comprises 5,276.27 acres of Federal, State and fee lands described as follows: All of Section 32, Township 21 South, Range 25 East; the northeast quarter and south half, Section 6; all of Sections 5, 7, 8, 17, 18 and 19 and the west half of Section 20, Township 22 South, Range 25 East, Eddy County, New Mexico.

The Unit contains 84.84 percent Federal lands, 12.13 percent State lands and 3.03 percent fee lands.

Q These are the same lands that are set forth on page 2 of Exhibit 1?

A Yes, sir.

Q Exhibit A to the Unit Agreement is a plat of the Miller Ranch Unit area, Mr. Butler. Does this Exhibit A show the State, Federal and fee acreage and the working interest ownership of the tracts within the unit area?

A It does.

Q Exhibit B, which we've referred to before, is a schedule showing the percentage of ownership in all lands in the unit area. To your knowledge, are all of the lands included in the unit area and the ownership of such lands correctly shown in Exhibit B?

A That is true, with the exception that Marathon does have some assignments now in its possession that haven't been filed for record. They will be filed prior to the formation of this unit.

Q Mr. Butler, please state the names of the working interest owners in the area other than Marathon.

A Union Oil Company of California, Atlantic Richfield Company, Phillips Petroleum Company, Sinclair Oil Corporation, Gulf Oil Corporation, Cities Service Oil Company, Northern Natural Gas Producing Company, Jake L. Hamon, Joseph P. Burt.

Q Will you please state briefly the status of the commitments of the various royalty and overriding royalty

interest owners to the unit agreement as of this date.

A There are twenty-six overriding royalty owners under the Federal lands in the unit. We have received ratifications of the unit agreement from twenty-one of these owners, or 80.76 percent of the ownership. One overriding royalty owner has declined to join the unit at this time.

There are seven royalty owners and one overriding royalty owner under the fee tract. We have received ratifications from five of the royalty owners and from the one overriding royalty owner. This is 75 percent of the combined royalty owners under this tract. One royalty owner has declined to join the unit.

Q Has Marathon contacted all royalty and overriding royalty interest owners with regard to the proposed Miller Ranch unit?

A We have contacted all royalty and overriding royalty owners in the unit, with the exception of one overriding royalty owner under Tract 3.

At this time, we have been unable to locate this party, but we assure the Commission that we will continue our efforts to locate this overriding royalty owner.

MR. UTZ: Which one is that?

THE WITNESS: That's Everett E. Taylor, Tract 3,



and owns a one-eighth of \$300.00 per acre production payment out of two percent. We had an address: Route 1, Hillmon, Minnesota, but it was returned by the Postmaster, "Moved. Left no address."

Q We will continue, however, to try to contact this individual?

A That is right, sir, and I would like to add that there are no overriding royalty owners under the State Tract.

Q Did Marathon advise the royalty owners and overriding royalty interest owners of the time and date set for this proceeding?

A Yes, we furnished all the owners a copy of our application, advising that the hearing would be held before this Commission on October the 9th, 1968 with the exception to the one party that we could not locate.

Q Certainly. Returning, again, Mr. Butler, to Exhibit 1, the Unit Agreement, Marathon Oil Company has been designated as unit operator, has it not?

A It has.

Q What formations and what substances are unitized under the Unit Agreement?

A The Unit Agreement provides for unitization of all formations as to oil and gas rights only.

Q Will you now describe briefly Marathon's initial

drilling obligations under the Unit Agreement.

A The Unit Agreement provides that we will commence a well within six months from the effective date of the agreement. However, because several of the Federal leases will expire unless operations are commenced no later than October the 31st, 1968, we must commence the well prior to that date. We are required to drill the well to a depth not to exceed 8200 feet or to such ~~lessor~~ depth sufficient to test the Upper Pennsylvanian-Cisco Canyon Formation.

Q Mr. Butler, would you state for the record the number of acres and the percentage in regard to the Miller Ranch Unit of State of New Mexico lands proposed to be included in the unit area?

A Yes, sir. The State of New Mexico owns Section 32, Township 21 South, Range 25 East, containing 640 acres or 12.13 percent of the unit.

Q Has the Commissioner of Public Lands of the State of New Mexico given preliminary approval to the Miller Ranch Unit?

A Yes, sir, they have<sup>1</sup>.

Q Has the USGS given preliminary approval of the Unit Agreement and designated as a logical unit area the Miller Ranch Unit as herein proposed?

A Yes, sir, it has. And I have letters here, xeroxed copies of letters from the Commission and from the Department

of the Interior, if the Commission would like to see them.

MR. UTZ: I think so. You have them to enter?

THE WITNESS: Yes, sir.

(Whereupon, Applicant's Exhibits  
4 and 5 were marked for  
identification.)

MR. HOLLOWAY: I would like to offer Marathon's  
Exhibits 1, 4 and 5 in evidence at this time, Mr. Examiner.

MR. UTZ: Without objection, Exhibits 1, 4 and 5  
will be entered into the record in this case.

(Whereupon, Applicant's Exhibits  
1, 4 and 5 were admitted in  
evidence.)

MR. HOLLOWAY: This concludes our direct examination  
of Mr. Butler.

MR. UTZ: Did you name the location of the test  
well?

THE WITNESS: No, sir, I did not. It will be in  
the northwest -- the other witness will go into the location.

MR. UTZ: He will testify about that?

THE WITNESS: Yes.

MR. UTZ: All right. Are there any other questions  
of the witness? He may be excused.

MR. HOLLOWAY: I'd like to call now, Mr. McMichael.

BILL J. McMICHAEL,

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HOLLOWAY:

Q Please state your name, your address, by whom you are employed and your position.

A Bill J. McMichael, Midland, Texas, Staff geologist for Marathon Oil Company.

Q Have you testified previously before the New Mexico Oil Conservation Commission or any of its examiners and, if so, were your qualifications as an expert witness accepted at that time?

A Yes, sir.

Q In your capacity as staff geologist, have you worked in and have knowledge of the geological information concerning the proposed unit area?

A Yes, sir, I am familiar with the area.

MR. HOLLOWAY: Mr. Examiner, I assume you will accept previous qualifications of this witness?

MR. UTZ: Yes, sir.

MR. HOLLOWAY: Thank you, sir.

Q (By Mr. Holloway) Mr. McMichael, please refer to

Exhibits marked 2 and 3 in this proceeding; Exhibit 2 being a plat and Exhibit 3 being a geologic cross section. Were these exhibits prepared under your direction and supervision?

A Yes, sir.

Q Will you please state what the plat and the cross section show?

A Exhibit 2, the plat, is a subsurface contour map of the Upper Pennsylvanian-Cisco Canyon formation, which I will refer to as a reef, the primary objective of the proposed Unit test. Scale of the map is 1 inch to 2000 feet; contour interval, 100 feet. The unit is outlined by a pattern of small dots, and the State, Federal and fee lands are identified by the legend on the map. Cross section AA Prime on the map indicates the wells that were used in Exhibit 3, the cross section, and I'd like to go to that, first, for discussion.

Exhibit 3 is a cross section in dip section, electrical logs showing the Cisco Canyon Reef as we expect it to exist within the unit area. This is the carbonate in the same stratigraphic interval as found in the Indian Basin Field and in the Springs unit, approximately five miles north of the proposed Miller Ranch unit. The Wolfcamp shales form the seal. As you can see, Wells 1, 2 and 3 are in the back reef section showing an increase as we approach the prospect, Well No. 4, in my opinion, is on the fore-reef side. I would

especially refer to Well No. 3, the drillstem test data shown on this well, as well as all the other wells, gives the recovery, but particularly, in Section 3, there is a gas show of 55 mcf and the highest well drilled to date on the Cisco Canyon Reef.

Now, if you will turn your attention to the map, subsurface contour map, all of the wells on this plat are control wells. We have eliminated shallower tests in the area. We would expect the gas-water contact for this formation to be above the minus 4,077 subsea point on the Getty-Wilson Federal in Unit H, Section 13, Township 22 South, Range 24 East. A contour drawn through this subsea would depict the lowest possible productive area. We expect the production here to be gas inasmuch as it is on the same trend as the Indian Basin and Springs Unit, in my opinion.

Q Do you have anything further with regard to these Exhibits, Mr. McMichael?

A I believe that's the essence of it.

Q Does either of these Exhibits show the proposed initial well location?

A The plat shows the proposed location which is in the northwest quarter of the southeast quarter, Section 18, Township 22 South, Range 25 East. This location is also diagrammatically depicted on the cross section.

Q What is the objective depth in the proposed initial tests?

A The proposed depth is 8200 feet which should test the Upper Pennsylvanian-Cisco Canyon Reef.

MR. UTZ: What depth did you say?

THE WITNESS: 8200.

Q (By Mr. Holloway) And it is your opinion, I understand, that the proposed test well will adequately test the Upper Pennsylvanian-Cisco Canyon Formation in the unit area?

A Yes, sir. It is my opinion that that will adequately test the formation. Referring back to the cross section, I can give you a graphic idea. At the proposed location, an extension of 400 feet below the minus 4000 datum would be the point on the cross section for an 8200 foot test. This would be well below the water in the test to the west.

Q Is there, in your opinion, a possibility that formations productive of oil and gas will be encountered at shallower depth?

A Yes, sir. That is a possibility; rather remote, I'm afraid, and dependent upon permeability of an erratic development.

Q In your opinion, will the unit agreement tend to

promote the conservation of oil and gas, promote better utilization of reservoir energy and protect correlative rights in the unit area?

A Yes, sir, it will.

Q Is it your opinion that the Miller Ranch unit area can best be developed on a unitized basis?

A I believe that it would be best developed on a unitized basis. It would lead to faster development than the sharing of the risk and prevent unnecessary duplication of the cost.

Q Would you please state whether it is your opinion that the State of New Mexico and the beneficiary institution involved will receive their fair share of the recoverable oil and gas under the lands included in this unit area?

A Yes, sir, they would receive their fair share under their land.

Q In your opinion, at this time, Mr. McMichael, does the proposed unit area adequately cover the extent of the geological prospect?

A I believe that the unit outlined covers a reasonable interpretation of the productive area.

MR. HOLLOWAY: Mr. Examiner, I would, at this time, like to introduce our Exhibits 2 and 3.



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

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

MR. HOLLOWAY: This concludes our direct examination of Mr. McMichael.

MR. UTZ: The Northern Natural Makidrix down in Guadalupe were drilled many moons ago, were they not?

THE WITNESS: Yes, sir.

MR. UTZ: Do you have any idea how long ago?

THE WITNESS: No, sir. I don't have that figure in mind. It was before my time and that's more than ten years ago.

MR. UTZ: Well, I was going to say ten years at least.

Are there any other questions of witness? You may be excused. Any statements in this case?

MR. MORRIS: Yes, sir. Mr. Examiner, as the witness, Mr. Butler, testified, there are several Federal leases that will expire unless a Unit well is commenced before October or by October 31st of this year, and for this reason, we would urgently request that the Commission give consideration to this application as soon as possible and, hopefully, of course,

approve the application.

MR. UTZ: Any other statements? The case will be taken under advisement.

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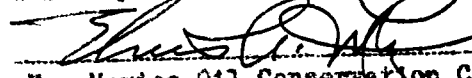
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STATE OF NEW MEXICO     )  
                                       )   ss  
 COUNTY OF BERNALILLO    )

I, CHARLOTTE MACIAS, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

  
 COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Bernalillo hearing of Case No. 3884, heard by me on 10-9-68, 1968.

 Treasurer  
 New Mexico Oil Conservation Commission