

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
May 22, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Texas Pacific  
Oil Company for a unit agreement,  
Lea County, New Mexico.

Application of Texas Pacific  
Oil Company for a waterflood  
project, Lea County, New Mexico.

Case No. 3769

Case No. 3770

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please.  
The first case this morning will be Case 3769.

MR. HATCH: Case 3769. Application of Texas Pacific Oil Company for a unit agreement, Lea County, New Mexico.  
And Case 3770. Application of Texas Pacific Oil Company for a waterflood project, Lea County, New Mexico.

MR. RUSSELL: John F. Russell, appearing on behalf of the applicant. I am from Roswell, New Mexico, and I have one witness.

(Witness sworn.)

(Whereupon, Exhibits 1, 1-a & 2 through 9 were marked for identification.)

JERRY I. MORITZ

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

DIRECT EXAMINATION

BY MR. RUSSELL:

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

A My name is Jerry Moritz, M-o-r-i-t-z, and I am an area engineer for the Texas Pacific Oil Company, Midland, Texas.

Q You have previously qualified to give testimony before this Examiner, have you not?

A Yes, I have.

Q Are you familiar with the application of Texas Pacific Oil Company in these two cases?

A Yes.

Q And it asks for an approval of your South Leonard Unit Agreement and also for a secondary recovery project in this unit, is that correct?

A Yes.

Q I refer you to what has been marked as Exhibit 1 and ask you what that is.

A This is the Unit Agreement for the South Leonard Unit, Lea County, New Mexico.

Q And what type of lands are included in there?

A There is only fee and federal acreage.

Q Has the United States Geological Survey given you preliminary approval of your Unit Agreement?

A Yes.

Q And that letter is Exhibit 1-a, which is in the folder, is it not?

A Yes.

Q Have all the working interest owners and royalty interest owners executed this agreement?

A Yes.

Q Going to the folder which contains the exhibits, the first map, which is Exhibit No. 2, will you explain that?

A This is a map of the area surrounding the South Leonard Unit showing the wells to be included in the unit, and the different colors are designating the different tracts, with all of them being federal except for the purple one, which is Shell's.

Q These tract numbers are the same designations as are in the Unit Agreement, is that correct?

A Yes.

Q Go to Exhibit No. 3.

A Exhibit No. 3 is a structure map contoured on the K marker, which is near the top of the Queen. It shows the five proposed injection wells, one of which is to be drilled. It shows the water supply well which is in the Southwest Quarter of the Northwest Quarter of Section 13.

Q That's the square with the blue?

A The square with the blue in it.

Q And your injection wells, which are existing wells, are colored in red?

A Right.

Q And the one which is to be drilled, will you locate that for the Examiner?

A The well to be drilled is in the Southeast Quarter of the Northeast Quarter of Section 24 and is designated as Unit Well No. 10.

MR. NUTTER: What is the footage location of that well, Mr. Moritz?

THE WITNESS: It is to be 1980 from the north line and 990 from the east line of Section 24.

Q (By Mr. Russell) Is there anything further on Exhibit 3 that you want to bring out?

A No, I don't believe so at this time.

Q Go to Exhibit No. 4. Explain what that is.

A Exhibit No. 4 is a cross section, a north-south cross section through the unit showing the logs that are available on the producing wells. It has the top of the unitized interval as explained in the Unit Agreement and the bottom of the unit interval; the K marker is shown here, it is depicting the continuity of the pay through the interval and I believe that's about all.

Q Now, the last well to the right, is that the water production well or not?

A No. The one to the left is.

Q The one on the left is your water production well?

A Yes.

Q Was that a dry hole?

A Yes, it was.

Q Now, go to your Exhibit No. 5 and briefly tell what that is.

A Exhibit No. 5 is a monthly tabulation of the unit production starting in 1960, of oil, water and gas, and bringing it up to the present of showing the cumulative to 3-1-68 of 596,738 barrels of oil. This would figure out to be an average production of 4.9 barrels of oil per well per day plus 1.5 barrels of water, and a gas-oil ratio of 3,071.

Q All of the wells are in the stripper stage?

A Yes.

Q How many producing wells are in the unit at this time?

A There are fifteen producing wells, there's only eleven producing presently.

Q But originally there were fifteen and presently there are eleven?

A Right.

Q Are any of the wells which are no longer producing, are they to be injection wells?

A Yes, two of them are. We plan to put the other temporarily abandoned ones back on production.

Q When the flood is in operation?

A Yes.

Q Now, go to Exhibit No. 7 and explain what that is.

A Exhibit No. 7 is a tabulation of the available reservoir data that we have been able to assemble and estimate within reasonable accuracy for this unit.

Q What is the formation which is included within the unit and to be flooded?

A It is to be the Queen.

Q Now, what percent of primary do you feel that has been recovered from the unit at this time?

A At this time I think it has been estimated to be 98 percent.

Q How much additional oil do you anticipate that the secondary recovery will produce?

A 610,000 barrels.

Q As to your water source for the flood project, where is that to come from?

A It is to come from the water source well that I pointed out on Exhibit 3, which will be from the San Andres at approximately 4,000 feet.

Q Now, that is fresh water or non-potable water?

A It is non-potable water.

Q And you have advertised your intent to appropriate as required by the statute, and you have received acknowledgment of following the statute from the State Engineer?

A Yes.

Q What quantities and what rates do you anticipate injecting this water?

A We expect to inject 500 barrels of water per well per day at an expected pressure of 1800 pounds. This will be a total of 2500 barrels for the unit.

Q Now, go to Exhibit No. 8, this is a diagrammatic sketch of your injection wells and the manner in which you intend to complete them, is that correct?

A Yes.

Q Will you explain this exhibit and also point out what is being done to insure that not any of this water will get back into any fresh water supply that may exist in this area?

A This exhibit shows the five injection wells and the various casing strings involved. The last one to the right is the proposed drilling well. In each case there is either surface casing protecting the fresh water or with cement circulated back to surface, or there is an intermediate string, again protecting it with cement back up to the surface, or part

of the way up. We plan to run plastic-coated tubing on a packer and set near the casing shoe. We plan to fill the casing annulus with an inhibited fluid and are planning to install pressure valves on the annulus so that we can constantly survey this pressure.

Q That will determine whether or not there may be some leaks, is that correct?

A Right.

Q Now, the water is being injected in the same formations from which these wells have produced, is that correct?

A Yes.

Q Is there anything else on Exhibit No. 8 that you want to comment on?

A No, I don't believe so.

Q Go to Exhibit No. 9 and explain what that exhibit is.

A Exhibit 9 is just a quick reference tabulation of the five injection wells with the size casings, where they have been set, the tubing linings and where we plan to inject, and showing that we are planning to inject through tubing in all cases.

Q You have not as yet received final approval from the United States Geological Survey, have you?

A No.

Q And you would not commence operations until that had been obtained?

A Right.

Q But under the terms, original terms of the Unit Agreement, this was to be started on or before June 1st of '68, is that correct?

A Right.

Q And you have received extensions from all parties for an additional six months from that date to be able to get final approval, is that correct?

A Yes.

MR. RUSSELL: At this time I would like to offer in-  
to evidence applicant's Exhibits 1, 1-a and 2 through 9.

MR. NUTTER: If no objections, applicant's Exhibits  
1, 1-a and 2 through 9 will be admitted in evidence.

(Whereupon, Exhibits 1, 1-a and  
2 through 9 were offered and  
admitted in evidence.)

MR. RUSSELL: I have no further questions of this  
witness.

MR. NUTTER: Does anyone have any questions they  
wish to ask of Mr. Moritz?

CROSS EXAMINATION

BY MR. NUTTER:

Q I notice on your diagrammatic sketches of the

injection wells, of the existing four wells, three of them are equipped with surface pipe and an intermediate string. The intermediate string has been set from eleven to twelve hundred feet, right?

A Yes.

Q The fourth well does not have the intermediate, but a staging tool was set at 1241 feet and cement circulated to the surface on that well?

A Yes.

Q And this fifth well to the right is the one that's proposed to drill and you will run a long surface string there to approximately 1150 feet and cement to the surface on that pipe?

A Right. We feel that we can accomplish this easily.

Q Each of the injection wells is to be equipped with a packer?

A Yes.

Q This tubing, will it be plastic-coated?

A Yes.

Q The tubing will be set in the packer and the packers will be down near the shoe or immediately above the perforations?

A Right.

Q And the annulus loaded with inhibited fluid and

equipped with a gauge?

A Right.

Q This type of casing and cementing program is, in your opinion, adequate to protect the fresh waters in this area?

A Yes.

Q What is the approximate depth of the fresh water here?

A I would say running from about 120 to possibly 350.

Q The water supply is San Andres and would be non-potable?

A Right, at about 4,000 feet.

MR. NUTTER: Are there any further questions of Mr. Moritz? Mr. Russell, did you have someone to testify as to the unit, itself, or is Mr. Moritz familiar with the terms of the unit?

MR. RUSSELL: Are you familiar with the terms of the unit, itself?

MR. FREELS: I am familiar with it.

MR. NUTTER: We will swear Mr. Freels and have him testify about it.

(Witness excused.)

(Witness sworn.)

RON FREELS

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

DIRECT EXAMINATION

BY MR. NUTTER:

Q Mr. Freels, now as to the Unit Agreement, what percentage of the working interest has signed the Unit Agreement?

A One hundred percent.

Q One hundred percent of what?

A And one hundred percent of the royalty interest, with the understanding that the United States Geological Survey has given preliminary approval.

Q What are the provisions in the Unit Agreement for the participation of the various tracts?

A Participation is based -- Let me read this to you. It is based on production. I wanted to read the exact terms, if I could, to you. It's based on the ultimate recovery from tracts.

Q It's on page 10, I believe?

A Yes. Percentages of tract participation as set out in Exhibit "B" are based on the ultimate primary recovery of the tract plus five percent surface acres -- I am sorry,

I was in error on that five percent surface acres, and ninety-five percent ultimate recovery.

Q When is it expected that ultimate primary will have been achieved?

A Very shortly. We feel that we have recovered eighty percent of the ultimate primary recovery as of now.

Q Does it have a cutoff date?

A No. It is a one-phase operation on this, we have.

Q Ninety-five percent of the participation is based on that, five percent is on straight acreage?

A Right.

MR. NUTTER: I believe that's all. Does anyone else have a question of Mr. Freels?

MR. SMITH: Do they have a permit for that San Andres water from the State Engineer?

MR. NUTTER: They said the permit was being processed at the present time.

MR. RUSSELL: I would like to explain that. This water is below 2500 feet, is not potable water, is not within the jurisdiction of the State Engineer, and therefore, no permit can be issued by the State Engineer to appropriate it. Under the statute we have to file a Notice of Intent with the State Engineer showing where the well will be, the depth

and so forth; advertise that Notice of Intent in the Lea County paper, and then when it is completed, file a copy of that, Proof of Publication with the State Engineer. They merely advise us that they have received it and prior to commencing any work on the well, to have the well driller contact them. But there is no permit.

MR. NUTTER: This is in the process of the Notice being let and all that?

MR. RUSSELL: It has been completed.

MR. SMITH: You have free access to that water, is that right?

MR. RUSSELL: Yes.

MR. NUTTER: Are there any other questions of Mr. Freels? He may be excused.

(Witness excused.)

MR. RUSSELL: I have nothing further to offer.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3769 or 3770? We will take the case under advisement.

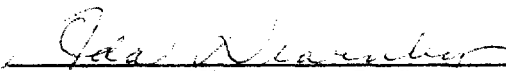
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STATE OF NEW MEXICO    )  
                               )   ss  
 COUNTY OF BERNALILLO )

I, ADA DEARNLEY, Notary Public 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.

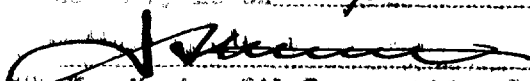
Witness my Hand and Seal this 10th day of June, 1968.

  
 NOTARY PUBLIC

My Commission Expires:

June 19, 1971.

I do hereby certify that the foregoing is  
 a true and correct record of the proceedings in  
 the hearing of Case No. 3769-3770  
 held on 5/22, 1968.

  
 Examiner  
 New Mexico Oil Conservation Commission

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE

NEW MEXICO

Hearing Date

MAY 22, 1968

TIME: 8 A.M.

NAME	REPRESENTING	LOCATION
Nina L. Duffaine	RW Byram & Co.	SF
John D Russell	TP	Roswell
Jerry I. Moritz	TP	Midland
Ron Freels	Texas Pacific Oil Co.	Dallas, Tex
Guy Buell	Pan Am	Fort Worth
Jim Surrency	Rhodes, McCallister & Surrency	Albany, N.M.
Charles A. Brown	Pennzoil United, Inc.	Midland, Tex.
W. A. Edwards	"	"
Jason Kellah	Kellah & Son	Santa Fe, N.M.
Robert M. Orr	George L. Buckles Co	Monahans, Tex
J. J. Smith	J. J. Smith Ranch	Jal m m
Phil B. Cooper	Phil B. Cooper	Jal N.M.
S. L. Motter	Elmer Service Oil Co	Midland, Tex
Jack McGrzw	Coastal States	Midland, Tex
James H. Hinder	"	Roswell, N.M.
W D Elliott	"	Corpus Christi, TEX
Robert Zinke	"	Midland Tex
John Yaronka	John Yaronka	Midland, Tex

3679  
3769

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date MAY 22, 1968 TIME: 8 A.M.

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John B Russell	TP	Roswell
Jerry I. Moritz	TP	Midland
Ron Freels	Texas Pacific Oil Co.	Dallas, Tex
Guy Buell	Pan Am	FORT WORTH
Jim Surrency	Rhodes, McCallister & Durrett	Albino, T.M.
Charles A. Brown	Pennzoil United, Inc.	Midland, Tex.
Elmer Edwards	" "	" "
Jason Kellah	Kellah & Fox	Santa Fe, N.M.
Robert M. Orr	George L. Buckles Co	Monahans, Tex
J. J. Smith	J. J. Smith Ranch	Jal m m.
Frederic B. Cooper	Frederic B. Cooper	Tex 20021.
S. J. Motter	Cities Service Oil Co	MIDLAND, Tex
Jack McGraw	Coastal States	Midland, Tex
James H. Hinkle	" "	" "
W D Elliott	" "	Corpus Christi, TEX
Robert Zinke	" "	Midland Tex
John Yvonha	John Yvonha	Midland, Tex