| 1 | TATE OF NEW MEXICO | | | |
|----|--|--|--|--|
| 2 | ENERGY AND MINERALS DEPT. OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. | | | |
| 3 | SANTA FE, NEW MEXICO 11 April 1984 | | | |
| 4 | EXAMINER HEARING | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | IN THE MATTER OF: | | | |
| 8 | Application of J. Cleo Thompson CASE and James Cleo Thompson, Jr., a 7945 | | | |
| 9 | partnership, for statutory uniti- zation, Eddy County, New Mexico. | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | BEFORE: Richard L. Stamets, Examiner | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | TRANSCRIPT OF HEARING | | | |
| 16 | APPEARANCES | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | For the Oil Conservation W. Perry Pearce Division: Attorney at Law | | | |
| 21 | Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501 | | | |
| 22 | Sanda (C) MCW MCXICO 07501 | | | |
| 23 | For the Applicant: Chad Dickerson Attorney at Law | | | |
| 24 | LOSEE, CARSON, & DICKERSON P. O. Drawer 239 | | | |
| 25 | Artesia, New Mexico 88210 | | | |

Γ

| 1 | ? |
|----|--|
| 2 | APPEARANCES |
| 3 | For Joseph W. Foran: Scott Hall |
| 4 | Attorney at Law CAMPBELL, BYRD, & BLACK P.A. Jefferson Place |
| 5 | Santa Fe, New Mexico 87501 |
| 6 | |
| | |
| 7 | INDEX |
| 8 | |
| 9 | TOXIE EUGENE BEAVERS |
| 10 | Direct Examination by Mr. Dickerson 5 |
| 11 | |
| 12 | |
| 13 | |
| 14 | EXHIBITS |
| 15 | |
| 16 | Thompson Exhibit One, List 5 |
| 17 | Thompson Exhibit Two, Packet 7 |
| | Thompson Exhibit Three, Schedule 7 |
| 18 | Thompson Exhibit Four, Letter 8 |
| 19 | Thompson Exhibit Five, Replacement pages 10 |
| 20 | |
| 21 | |
| 22 | |
| 23 | |
| 24 | |
| 25 | |
| | |

1 3 2 MR. STAMETS: We'll call next Case 7945. 3 MR. PEARCE: That case is on 4 the application of J. Cleo Thompson and James Cleo Thompson, 5 Jr., a partnership, for statutory unitization, Eddy County, 6 New Mexico. 7 MR. DICKERSON: Mr. Examiner, 8 I'm Chad Dickerson of Artesia, New Mexico, on behalf of the 9 applicant and I will swear two witnesses; hopefully, just 10 call one. MR. PEARCE: Are there other 11 appearances in this matter? 12 MR. HALL: Mr. Examiner, my 13 name is Scott Hall from the law firm of Campbell, Byrd, and 14 Black, P. A., Santa Fe, appearing on behalf of William 15 Joseph Foran. 16 MR. Are you going to PEARCE: 17 call any witnesses at this time, Mr. Hall? 18 MR. HALL: No. sir. 19 (Witnesses sworn.) 20 21 MR. DICKERSON: Mr. Examiner, 22 I'd like to briefly summarize the proceedings which have 23 gone on in this Division before. 24 On October 12th of 1983 in Case 25 7945 and subsequently under Order R-7375, the Number unit

area which is the subject of this statutory unitization was 2 3

approved as a voluntary, cooperative unit.

4

5

6

1

The applicant in this case controls 100 percent of the working interest in the entire unit. The unit consists entirely of State and Federal lands approximating 3300 acres in Lea County.

7

8

14 15

17

16

18

20

22

23

25

19 21 24

The proceedings in the previous case last -- Lea County, excuse me, Eddy County, Mr. Examiner -- the proceedings in this previous case covered, adequately all requirements of statutory unitization except for the fact that at that time the applicant had had difficulty contacting because of many years time passage many of the overriding royalty owners, and at that time had not had an adequate opportunity to obtain voluntary consent of those overriding royalty owners to the unit, and during the October hearing the Examiner was requested to retain jurisdiction of this cause to enable the applicant to come back at a later date in order to supplement the record with evidence as to his attempts at that time, which is now, to obtain the voluntary joinder of these overriding royalty interest owners.

The applicant is here to do that today and we would ask that the Examiner take administrative notice of the previous proceedings in this case if it would be helpful, we have a transcript of the hearing in that case.

> MR. STAMETS: don't think

1

owners, their last known -- giving their last known address, name and addresses in the first column. The center column gives the tracts in which the interest would participate in the unit. The third column indicates a "Y" for yes or for no regarding whether or not we received ratification from each owner.

7

8

6

And the tract numbers refer back to Exhibit 2 to the unit agreement on file in this case, do they not?

9

Α That's correct.

10 11

What efforts have you made to contact these royalty interest owners and obtain their voluntary consent to joinder of this unit, Mr. Beavers?

12 13

Α For the last six to eight months we've been making phone calls and also by mail to contact these owners.

14

15

0 What is the status of approval of Commissioner of Public Lands as to the State royalty in this

16 17

unit and the BLM as to the Federal ownership?

18

The Commissioner of Public Lands given us preliminary approval last summer.

20

19

The BLM has given us preliminary approval either yesterday or today.

21 22

Both the BLM and the Commissioner of Public Lands had some changes that we have made and are going to resubmit those changes to them, and we don't anticipate

23

24

25

any problems.

| 1 | | 7 | | | | |
|----|--|---|--|--|--|--|
| 2 | Q | Resubmit the unit agreement for final ap- | | | | |
| 3 | proval. | | | | | |
| 4 | A | That's correct. | | | | |
| 5 | Q | Refer to Exhibit Number Two, Mr. Beavers, | | | | |
| 6 | and tell us what that is. | | | | | |
| 7 | A | This is a complete packet which shows all | | | | |
| 8 | of the consent and | ratifications that we have received that | | | | |
| 0 | were sent out for forming this unit. | | | | | |
| 9 | Q | So the parties who executed these have | | | | |
| 10 | voluntarily committed their overriding royalty interest to | | | | | |
| 11 | the West Square Unit. | | | | | |
| 12 | A | That's correct. All consent and ratifi- | | | | |
| 13 | cations that were received were voluntary. | | | | | |
| 14 | Ŏ | Okay, turn to Exhibit Number Three and | | | | |
| 15 | tell us what's shown on those papers. | | | | | |
| 16 | A | This is a schedule which sets out the | | | | |
| | royalty, overriding | ng royalty, and production payment partici- | | | | |
| 17 | pation by tract i | n each and every tract, giving the tract | | | | |
| 18 | participation. | | | | | |
| 19 | Q | That's the tract participation factor in | | | | |
| 20 | the second column | there, or the third column? | | | | |
| 21 | А | On the second column. | | | | |
| 22 | Q | From the unit agreement on file. | | | | |
| 23 | А | That's correct, and the ratified in the | | | | |
| 24 | | next column, next over, gives the percent | | | | |
| 25 | that has been rat: | ified for that tract. | | | | |
| | | The next column over gives the percent | | | | |

that has not been ratified for that tract and that's factored on to total unit participation and the same ratification and not ratified.

We go on to the second page, it continues for all total twenty-five tracts giving the percentage ratified, 89.00847 percent that has voluntarily ratified, percentage not ratified was 10.99153 percent.

Those that have not ratified, there have been none that have objected. They have just not been located. Their whereabouts are unknown. Those people are indicated below those figures on page two. There are four individuals.

Q So to summarize, Mr. Beavers, of all royalty, overriding royalty, and production payment owners, including the government royalty, on a 100 percent basis 89 percent of the royalty has approved your proposed unit.

A That is correct.

And voluntarily joined.

Mr. Beavers, at the previous hearing on this case the Examiner requested that the applicant submit additional information regarding the next or the initial plan of development and the economics in the proposed unitization.

Will you refer to Exhibit Number Four and briefly summarize those factors for the Examiner?

A Exhibit Four is a letter written by Mr. Thompson to Mr. Dickerson, dated March 7, 1984, and it gives

that information for the West Square Lake Unit, Eddy County, New Mexico, that our first stage of development for the first stage of the unit, we will contemplate drilling five wells, average cost of \$160,000 per well.

Likewise, we plan on equipping these wells for primary production initially and after a given period of time, twelve to thirty months, approximately, four otner wells will be converted to injection at an additional cost of \$20,000 per well, making a grand development cost of \$880,000.

After -- we anticipate the five wells producing 20,000 barrels of oil prior to conversion to water injection, total of 100,000 barrels. A value based upon \$25.50 after all taxes, which would equal \$2,550,000 gross, less royalty and overriding royalties of 17 percent, or \$433,500, leaving a gross revenue to the working interest owners, \$2,116,500.

At this time it is expected that operating expenses are anticipated to be approximately \$800 per well per month prior to the water injection. After water injection is commenced on the four injection wells, it is anticipated the five-spot pattern will ultimately produce an additional 80,000 barrels of oil, using the same value of \$25.50, or \$2,040,000 gross.

Q So based on that information the operation of the proposed unit area would be profitable both for -- as to all working interest owners and as to all royalty

| 1 | |
|----|--------------------------------|
| 2 | interest owners. |
| 3 | Α |
| 4 | Q |
| 5 | Number Five and |
| 6 | A Fubibit D |
| 7 | to Exhibit B of est. These pag |
| 8 | corrections have |
| 9 | 0 |
| 10 | of Joseph Willia |
| 11 | Mr. Hall is appe |
| 12 | А |
| 13 | |
| | at this time ap |
| 14 | through Five. |
| 15 | |
| 16 | tion, these exhi |
| 17 | |
| 18 | cludes our case, |
| 19 | questions of the |
| 20 | quescions of the |
| 21 | may. |
| 22 | - |
| 23 | Exhibit Number (|
| 24 | "Y" or "N" for y |

25

A That's correct.

Q Mr. Beavers, will you refer to Exhibit

Number Five and tell the Examiner what that is?

A Exhibit Number Five are replacement pages to Exhibit B of the unit agreement correcting royalty interest. These pages can be substituted in Exhibit B and those corrections have been made.

Q Those corrections deal with the interest of Joseph William Foran, et al, for whom or on whose behalf Mr. Hall is appearing here today, does it not?

A That is correct.

MR. DICKERSON: Mr. Examiner, at this time applicant moves admission of its Exhibits One through Five.

MR. STAMETS: Without objection, these exhibits will be admitted.

MR. DICKERSON: And that concludes our case, Mr. Examiner, unless you have questions.

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

MR. PEARCE: Excuse me, if I

I'm a little unclear, Chad. On Exhibit Number One, the column, Ratification Received, noted 'Y" or "N" for yes or no.

MR. DICKERSON: Right.

1 11 MR. PEARCE: How -- how does 2 that match up with the summary on page two of Exhibit Three? 3 MR. DICKERSON: It would be the 4 same except for mistakes, if any, and you've obviously 5 caught one somewhere? 6 MR. PEARCE: Well, just looking 7 this I find four names listed on the bottom of page two 8 of Exhibit Three. 9 MR. DICKERSON: Uh-huh. MR. PEARCE: As not participat-10 ing but there appear to be ten or fifteen entries marked "N" 11 on Exhibit Number one. 12 MR. STAMETS: Take, for ex-13 ample, Max Coll on page one. 14 MR. DICKERSON: Uh-huh. 15 MR. STAMETS: Where is he re-16 flected on Exhibit Number Three? 17 MR. DICKERSON: Let's see, you have to -- it's -- Exhibit Number Three is on a tract basis 18 so you have to look for Mr. Coll's interest, let's see, Max 19 Coll, Tracts 5, 6, 7, 8, 13, 14, and 15, so in each one of 20 those tracts he has an interest of some type. 21 MR. STAMETS: So on Tract 5 on 22 Exhibit Three, Max would be reflected in the not ratified 23 column. 24 MR. DICKERSON: That's correct.

MR. PEARCE: And I'm still un-

25

2

3

5

6

7

8 9

10

11

12

13

14

15 16

17

18

19

20

21

22

sir.

23

24

25

clear on what the four names on the bottom of page two are.

MR. DICKERSON: Those are parties who are simply unlocated. They have not been heard from since the early 1940's when this area was first developed and they are also included in the not ratified interest and that, the purpose of that, Mr. Pearce, was simply to point out that all -- this 10 percent of the royalty which has not ratified, it's not the -- it would not be true say that they have refused to ratify. A large portion of those who have not ratified have simply failed to respond to any contact or correspondence or have not been able to be located, and, as a matter of fact, not a single one has said, no, we're not going to execute the ratification under any instruments, and that was the purpose of that portion of that exhibit.

MR. PEARCE: So then any not ratified interest shown on Exhibit One would be reflected in the difference between the not ratified column total on the top of page two, being 1.93+ percentage and the total at the bottom of page two for those four particular interest owners who can't be found, which is something under 1 percent.

> MR. DICKERSON: That's correct.

> MR. PEARCE: Okay, thank you,

MR. STAMETS: Any other ques-

tions of the witness? He may be excused.

Anything further in this case?

```
13
1
                                   The case will be taken under
2
    advisement.
3
4
                         (Hearing concluded.)
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
```

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Saly Willow COR

Oil Conservation Division

| 1 2 3 | STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 12 OCTOBER 1983 | | | |
|-------------|---|--|--|--|
| 4 | EXAMINER HEARING | | | |
| 5 | | | | |
| _ | | | | |
| 6 | IN THE MATTER OF: | | | |
| 7 | Application of J. Cleo Thompson for CASE statutory unitization, Eddy County, 7945 New Mexico. | | | |
| 8 | new heartest | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | popopo pickani I Okomoko Prominan | | | |
| 12 | BEFORE: Richard L. Stamets, Examiner | | | |
| 13 | TRANSCRIPT OF HEARING | | | |
| 14 | AINIMOONEE A OF HILLIANGEN | | | |
| 15 | | | | |
| 16 | APPEARANCES | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | For the Oil Conservation W. Perry Pearce, Esq. Division: Legal Counsel to the Division State Land Office Bldg. | | | |
| 20 | Santa Fe, New Mexico 27501 | | | |
| 21 | | | | |
| 22 | For the Applicant: Chad Dickerson, Esq. LOSEE, CARSON, & DICKERSON P.A. P. O. Drawer 239 | | | |
| 23 | Artesia, New Mexico 87501 | | | |
| 24 | · | | | |
| 25 | | | | |

| 1 | | Ģ | |
|----|--|----|--|
| 2 | | | |
| 3 | INDEX | | |
| 4 | | | |
| 5 | | | |
| 6 | J. CLEO THOMPSON, JR. | | |
| | Direct Examination by Mr. Dickerson | 3 | |
| 7 | Cross Examination by Mr. Stamets | 19 | |
| 8 | Questions by Mr. Quintana | 22 | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| 15 | F X H I B I T S | | |
| 16 | | | |
| 17 | Applicant Exhibit One, Plat | Ľ | |
| 18 | Applicant Exhibit Two, Proposed Unit Agreement | g | |
| | Applicant Exhibit Three, Operating Agreement | ۶ | |
| 19 | | 9 | |
| 20 | applicant Exhibit Four, Schedule | | |
| 21 | | | |
| 22 | | | |
| 23 | | | |
| 24 | | | |
| 25 | | | |

í

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21 22

23

24

25

MR. STAMETS: Call Case 7945.

MR. PEARCE: That case is on

the application of J. Cleo Thompson for statutory unitization, Eddy County, New Mexico.

MR. DICKERSON: Mr. Examiner. I'm Chad Dickerson of Artesia, New Mexico, on behalf of the applicant, and I will call one witness.

MR. PEARCE: Do we have other

appearances?

(Witness sworn.)

J. CLEO THOMPSON, JR.,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. DICKERSON:

Will you please state your name, your occupation, and where you reside?

J. Cleo Thompson, Jr., I reside at Dallas, Texas. My occupation is an oil producer, operator, and I'm a reservoir engineer.

Thompson, have you previously testi-Mr. fied before this Commission or one of its examiners and had your credentials made a matter of record?

I really -- I think I have but I'm not

1

3

5

6

8

9

10

11 12

13

14

15

16 17

18

19

20 21

22

24

25

23

land in Townships 16 and 17 South, Range 30 East, Eddy County, New Mexico.

2760 acres are Federal, PLM, acreage, representing approximately 83.13 percent of the unit area, and 560 acres are State lands, representing 16.87 percent of the unit.

Mr. Thompson, is water injection 0 currently authorized for this proposed unit area?

Yes, it is, by Orders R-1354, R-2823, and Our predecessors in title of the current owners instituted a secondary recovery program beginning back in 1959.

Numerous administrative expansions of the authorization are also in effect. These orders permit water injection into both the Grayburg and San Andres reservoirs, which is the same interval to be unitized here today.

Although the injection water has not been secondary recovery program has continuous, the been neglected -- excuse me -- although the vater injection program has been continuous, but it has been neglected and it is not currently being operated in an efficient manner.

Mr. Thompson, would you refer to what is 0 marked as Exhibit Number One and describe what's shown that exhibit?

is a map of the unit area and Α This surrounding leases, located a few miles north and east the Town of Loco Hills, New Mexico. The boundary lines are are outlined in red.

As you can see from the map, the area is largely developed, most of which occurred in the 1940's. Ownership of the leases in the area is reflected on the exhibits -- exhibit. We and our associates own 100 percent of the working interest in the unit area.

Q Mr. Thompson, upon what factors was the geographical extent of your proposed unit area based?

A I'm going to need to elaborate in some detail on this matter and if you have any questions while I'm going through, please stop me.

First of all, the area to the south, southeast, east, as well as the southwest and west, are either under flood by a working interest owner agreement or by unit. I hope I'm clearly stating that. In Texas we call them working interest owner units and they're really not units.

This has been in progress for a number of years, dating back to the mid-sixties, and later development into the early seventies. Most of the development is in its primary -- in its latter stages of depletion at the present time.

For example, Newmont operates a flood immediately to the east of this area and they're in the process of plugging out at the present time; however, there are still some operations, but we would have to contend that they were probably in excess of 95 percent

depleted from secondary reserves.

The same thing is true in nearly all of the remaining area to the south and the southwest and west to somewhat lesser a degree. Consequently, we could not expect to form a unit here and encompass this acreage surrounding us to the -- from the northeast to the -- clear around into the west side, due to the fact that the working interest owners would not be interested in joining us on the development type program that we have planned.

Further still, Newmont Oil Company attempted to flood this immediate area and most particularly in Section 34, back in the mid-sixties and early seventies. They were somewhat successful but on a very limited scale.

Their, we feel the primary reason for their failure is due to their development program and the density of their development program, as well as their water injection pressures that they experienced, which was brought upon by a number of factors, one being the completion technique the wells were originally drilled; two, the density; three, the nature of the original stimulation, which in most cases was nitroglycerin; four, their lack of true knowledge of all the reservoir characteristics of this immediate area, due to lack of information.

As I stated earlier, most of these wells were drilled in mid-forties. I think there's two open hole logs that are of the quality that we're used to today. There's one core analysis in the entire area and it's not

1

3

6 7

8

9 10

11

12

13 14

15

16

17

18 19

20

22

21

23

24

25

truly, we don't consider it representative.

The area to the north of us, our proposed unit, is -- encompasses other zones of completion. quently a secondary recovery program including that acreage would not be, we wouldn't be flooding homogeneous reservoirs.

Mr. Thompson, would you refer to what are \bigcirc marked Exhibits Two and Three and state what they are?

Exhibit Two is a draft of the proposed Α unit agreement. You'll note pencil changes are requested by the Office of the Commissioner of Public Lands. We have not revised the form pending any changes required by the Bureau of Land Management with respect to the Federal lands.

When the unit agreement has been revised and executed by all parties, we will submit the required copies for final approval. This is a standard from for a combined State and Federal areas.

Exhibit Three is a unit operating agreement.

Mr. Thompson, what is the proposed uni-0 tized formation?

The unitized formation is the Grayburg-7. San Andres formation, as identified by the bore hole compensated sonic gamma ray log in the Mewmont Oil Company Dtz "C" No. 1 Well, located in Section 34, 16 South, Range 30 East, Eddy County, New Mexico, with the top of the unitized forma-

and the base of the unitized formation being found at a depth of 3150 feet below the surface.

Q What is the status of participation by the working interest owners?

A We have 100 percent participation by the working interest owners, all of whom have executed the unit agreement as well as the unit operating agreement.

Two-thirds of the working interest is controlled by the Thompson family; the balance one-third is owned by the Lett family of Dallas.

Q Mr. Thompson, refer to Exhibit Number Four and tell us what is shown on that document?

A Exhibit Four is simply a schedule reflecting the royalty and overriding royalty burden on each tract. These burdens taken with the tract participation factor are then expressed as percentage of the unit production.

Q What is the status of participation by the royalty interest owners?

A In early June we submitted the unit agreement for preliminary approval to the New Mexico Commissioner of Public Lands with respect to 18.91 percent of the royalty in the unit area.

Mr. Graham, Director of the Oil and Gas, requested the changes shown on Exhibit Two, and we will resubmit the unit agreement and unit -- unit agreement and unit operating agreement upon final revision.

The Bureau of Land Management has not acted on our request for preliminary approval, although it was submitted over four months ago.

We have been in consultation with -- with them and believe that the Sureau of Land Management will approve the proposed unit area insofar as it applies to the Federal lands, which represent 52.45 percent of the unit royalty.

Overriding royalty interests, representing 28.64 percent of the unit royalty, we propose to contact all owners whose whereabouts are known and invite them to voluntarily join the unit. We believe that far in excess of the required 75 percent will participate voluntarily in the unit.

Q Mr. Thompson, in view of this situation, what do you propose that the Oil Commission, or Oil Conservation Division, do with regard to final written approval of the unit agreement and unit operating agreement?

A We request the Division allow us a reasonable period of time, not to exceed six months from the date on which the order approving the unit operation is entered, to obtain formal written approval by the persons owning the required percentage of interest in the unit area, and at such time, enter a supplemental order finding that the plan of unit operations has been so approved.

In addition, we request that in the event there are royalty owners who cannot be located or who refuse

this will be any such a problem; however, Article 11 of the

23

24

25

Q Is there a provision for expansion of the unit area?

21

22

23

24

25

A Section 3 of the unit agreement provides for expansion of the unit area.

Q Wr. Thompson, in your opinion has the unit area sought to be unitized been reasonably defined by development?

A Yes.

Q Would you briefly summarize your plan for operations on the unit area?

A Going back to your last question, it's been developed from a standpoint of primary means. As far as secondary means, we don't think it has been developed.

Now in answer to your guestion for the development of -- of the unit area for secondary, we contemplate a procedure that we have found to be very satisfactory in other similar reservoirs under similar circumstances and conditions, which is largely a 5-spot pattern developed on a 10-acre spacing. This allows contiguous reservoir conditions to exist that won't exist in this type of reservoir on 40-acre spacing.

At the same time it allows wells to be more homogeneous with one another that doesn't exist on 40 acres.

We feel like that we will be able to substantially reduce injection pressures to below -- a figure something in the order of 1100 psi, whereas Newmont experienced injection pressures in excess of 1850 psi.

veloping on 10-acre 5-spot pattern; completing the wells with a modern technique; taking advantage of logging equipment that's available today; selectively perforating said wells at desired intervals to control stimulation from primary means of production, as well as controlling the flow

of water once they're converted from primary production to secondary by injection.

Carrying that point further, we would place these wells on production by primary means for two purposes; one, to establish a net cash flow; two, to withdraw the reservoir pressure down in the vicinity of the wellbore. This process will probably take in the order of from 10 to 30 months to accomplish and it will depend upon the reservoir conditions. It has been successfully tried and done in a number of fields in west Texas, primarily the Means Field in Andrews County, Levelland Field, Sundown Field, McIlroy Field. The recoveries are better than what we initially anticipated.

My organization has had guite a bit of experience in development of these procedures and we feel very proud of our accomplishments.

Mr. Thompson, in your opinion are the producing wells located on the proposed unit area in an advanced state of depletion by a primary means?

A Yes, sir, extremely advanced.

In your opinion will the proposed waterflood operations substantially increase the amount of oil to
be recovered over primary methods alone?

A Very definitely.

In your opinion how much additional oil will be recovered through the proposed secondary recovery operations in excess of what would be recovered through pri-

mary means alone?

A Approximately 30 to 33,000 barrels per 10

acres.

In your opinion, Mr. Thompson, will the value of the estimated additional oil to be recovered exceed all estimated costs of the project?

A Yes, sir.

Q And yield a reasonable profit?

A Yes, sir.

Q Will you now describe the method by which the production is to be allocated to the various tracts?

A We arrived at a formula that doesn't have a lot of scientific approach to it, because, the reason for that is very simple: The information for a good, scientific set of parameters isn't available. As I stated earlier, some of these wells were drilled prior to World War II and some were drilled during the war and a few shortly thereafter. The information that's available on them is very, very poor. Most of them were drilled with cable tools and all we have is cable tool, old cable tool drillers logs, which you know what that consists of.

So we took what we thought was the best parameters that we could truly hang our hat on that were representative of the -- of the recoverable oil hereafter, which consists of one-third to cumulative production prior to January the 1st, 1960.

We felt that a cumulative figure after

that date was not representative and had been influenced in certain areas by water injection, where in other areas it wasn't.

The second parameter used, which amounts to one-third of the participation is surface acres. The surface acres, we feel, from the information that we have, which hasically is old drillers logs, performance of the wells, the surface acres has a tendency to strongly let show the true productive capacity of the reservoir.

The third parameter is current oil production for the last half of 1982. This was used due to the fact that there were three new wells drilled during the latter half of '82. Part of the time this lease, these leases where the three wells were drilled had a good influx of current production.

And this pretty well summarizes. It's about the only parameters that we have available to us unless we go to counting fenceposts.

Mr. Thompson, in your opinion does that participation formula which you've described allocate the produced and saved unitized substances to each separately owned tract on a fair, reasonable, and equitable basis?

A We have looked at this very closely and I feel like that it does.

Q In your opinion is the unitized management, operation and further development of the West Square Lake Unit reasonably necessary to carry on secondary

1 18 of Applicant's Exhibits One, Two, Three, and Four, Mr. 2 Examiner, and that concludes our direct testimony. 3 MR. STAMETS: These exhibits will be admitted. 5 STAMETS: Is Exhibit Four, MP. 6 the participation there shown in the one, two, three, 7 four, fifth column, is that participation in the project as 8 a whole? 9 MR. DICKERSON: No. that's the participation of the tract, Mr. Examiner, and then by multi-10 plying the royalty interest by that, then the participation 11 as a percentage of the total unit income is expressed in the 12 columns on the right. 13 STAMETS: The two righthand MR. 14 columns and here's one that says participation. 15 MR. DICKERSON: Uh-huh. 16 MR. STAMETS: Is that the 17 participation --18 DICKERSON: That's the MP. participation factor from Exhibit A to the unit agreement. 19 STAMETS: So these would MR. 20 all add up to one? 21 MR. DICKEPSON: No, Mr. 22 Examiner, these add up to the figure shown at the bottom of 23 each column. For instance, under the royalty interest column

total Federal royalty is 9.21 percent of unit production.

Total overriding royalty on the Federal leases is 3.32

24 25

2

3

4

5

6

7 8

10

11

12

13

14

15

16

17

18

19 20

21

22

23

24

25

percent.

STAMETS: And the partici-MR. pation column doesn't have a total on it.

MR. DICKERSON: That's -- it's

100 percent.

MR. STAMETS: Okay. So if we go back and talk about the participation column, then, and assuming that it's 100 percent of Tract No. 1, which Lease NM-02425, their participation in income and cost of the unit would be 6.1402 percent.

MF. DICKERSON: That's correct. MR. STAMETS: Okay, and those participation factors are based on the one-third production to 1-1-60; one-third surface acreage; and one-third production for the last half of 1982.

> That's correct. Α

> > MR. STAMETS: All right.

CROSS EXAMINATION

BY MR. STAMETS:

Mow, Mr. Thompsons, you haven't told us about the costs involved in all of this. We have a rough idea of what the additional recovery is but what are the costs going to be? Seems like there's going to have to be a lot of wells drilled and a lot of start up costs.

Α We anticipate development program on a pilot basis probably two 5-well pilots within the first

to 12 months. They would -- one would be located in Section 34 and one would be located in Section 35.

Development will amount to, on each program, approximately \$700,000.

After -- in order to make this work in a manner which would be economical from the operator's -- from the working interest standpoint, timing will be of great importance. We feel like that after approximately, after both programs are initiated, that we'll be able to operate on a cash flow basis.

Have I answered your question?

Well, partly, but you indicated that you already have 100 percent of the working interest signed up.

A That's correct.

So the people who are going to pay the bills have all agreed to join.

A That's correct.

And so those folks must think that they're going to get more money than they're putting in.

A That's correct.

You're not running a charitable --

Where were we? All right. Mr. Thompson, why is it necessary to have a unit in here in order to conduct this type of operation?

A In our opinion it's very necessary due to the fact that eventually we will want to do some development on lease lines. Now I realize that that's -- it can't be on

a flat lease line in New Mexico, but 10 feet off, or whatever the required distance is off the lease line will be a necessary part of our program.

another reason is, obviously, that certain tracts may be converted to injection wells and no oil will be physically produced from those tracts and the royalty interest owners on those tracts in the absence of unitization would receive no income.

A In other words, it would help protect correlative rights.

I believe you've indicated this area has been developed on primary production and also has had water-flooding in it, and what you're doing is, even though it's not tertiary recovery, it's the third trip around for much of this territory.

A That's correct.

Okay. Anything you get out will be gravy.

A Hopefully so.

Okay.

I say that jokingly. We've got quite a bit of confidence that this program will work and work satisfactorily. Again, I call your attention to the fact that it's not just a pipedream. We have been doing it in the Means Field and in the McIlroy Field for in excess of ten years. Levelland, about four and a half, five years.

1

3

4

5

6

7

8

9

10

11 12

13

14

15

16

17

18 19

20

21

22 23

24

25

STAMETS: Yell, let's go off the record a minute, Sally.

> (Thereupon a discussion was had off the record.)

WR. STAMETS: Are there any other questions of Mr. Thompson?

QUESTIONS BY MR. QUINTANA

The injection program you're going to have on that field, are you going to have a central battery to utilize the current injection system? What are you going to do about that, and what pressures do you plan to inject it in?

First of all, in regard to a centalized battery, yes, sir, we'll probably have one central battery with three satellites.

Do we, the next question was do we plan on utilizing the present injection. No, sir, in all likelihood, no.

Me're trying to allow -- there's only -only one well that's truly being injected into at the present time. We're trying to let the reservoir come back to a natural state as much as possible and feel like, and all indications are, that it's doing it more rapidly than we anticipated.

Let me, excuse me, let me interrupt you, I'm sorry, but let me, in order to save time, let me get, I

guess, straight to the point and have my question in a different way.

wells, will you have one central pump that sets out a certain pressure, pumps at a certain pressure, set pressure, or will it be a variable type that can be controlled?

A Variable type.

Q Okay, that's basically what I want to know.

MR. STAMETS: I think, too, we probably would be treating this as a new project and probably would require the submittal of the same forms, and what not, we would on a brand new waterflood, if you're not going to be using the same wells.

A Well, we'll be using the same, part of the same system, sir. Let me defer that in response to you definitely, if could defer that to a later date.

The only thing I would be concerned about would just be new wells that were converted over. Old wells would be under the grandfather clause.

MR. STAMETS: Well, I'm not sure about that. We'll want to think about it.

Q Yeah.

A ctually we hope to be able to utilize some of the former injection wells as producing wells.

MR. STAMETS: Any other questions of Mr. Thompson at this time? He may be excused.

```
24
1
                               Anything further in today's
2
    case?
3
                               Me'll take the case under
4
    advisement.
5
6
                     (Hearing concluded.)
7
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
```

CERTIFICATE

I, SALLY W. BOYD, C.S.F., DO HERERY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Salvy W. Boyd Core

I do hereby certify that the foregoing te a complete record of the proceedings in the Examiner hearing of case No. 7945 heard by me on

Oil Conservation Division

→ Examiner

| 1 | 1 |
|----|--|
| 2 | STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION |
| 3 | STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO |
| 4 | 31 August 1983 |
| 5 | EXAMINER HEARING |
| 6 | IN THE MATTER OF: |
| 7 | Application of J. Cleo Thompson for CASE |
| 8 | a unit agreement, Eddy County, New 7945 Mexico. |
| 9 | |
| 10 | |
| 11 | |
| 12 | BEFORE: Michael E. Stogner, Examiner |
| 13 | |
| 14 | TRANSCRIPT OF HEARING |
| 15 | |
| 16 | |
| 17 | APPEARANCES |
| 18 | |
| 19 | For the Oil Conservation W. Perry Pearce, Esq. |
| 20 | Division: Legal Counsel to the Division State Land Office Bldg. |
| 21 | Santa Fe, New Mexico 87501 |
| 22 | For the Applicant: |
| 23 | |
| 24 | |
| 25 | · |

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

CERTIFICATE

July W. Boyd COR

I do hereby certify that the foregoing is a complete or an of the proceedings in the Excellent many of the proceedings in heard by the Capture of the proceedings in 19 83.

Makes Some Examiner

Oil Conservation Division

| 1 | CMAME OF MEN MENICO |
|----------|--|
| 2 | STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION |
| 3 | STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO |
| 4 | 14 September 1983 EXAMINER HEARING |
| 5 | DARFINDI IIDAKING |
| 6 | IN THE MATTER OF: |
| 7 8 | Application of J. Cleo Thompson for CASE a unit agreement, Eddy County, New 7945 Mexico. |
| 9 | |
| 10 | |
| 11 | |
| 12 | BEFORE: Richard L. Stamets, Examiner |
| 13 | |
| 14 | TRANSCRIPT OF HEARING |
| 15 | |
| 16 | |
| 17 | APPEARANCES |
| 18 19 | |
| 20 | For the Oil Conservation W. Perry Pearce, Esq. Division: Legal Counsel to the Division |
| 21 | State Land Office Bldg. Santa Fe, New Mexico 87501 |
| 22 | |
| 23 | For the Applicant: |
| 24 | |
| 25 | |

.

| 1 | STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT |
|--------|---|
| 2 | OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. |
| 3 | SANTA FE, NEW MEXICO 28 September 1983 |
| 4 | EXAMINER HEARING |
| 5 | IV THE WATTER OF |
| 6 | IN THE MATTER OF: |
| 7 8 | Application of J. Cleo Thompson for CASE statutory unitization, Eddy County, 7945 New Mexico. |
| 9 | |
| 10 | |
| 11 | |
| 12 | BEFORE: Michael E. Stogner, Fxaminer |
| 13 | |
| 14 | TRANSCRIPT OF HEARING |
| 15 | |
| 16 | APPFARANCES |
| 17 | |
| 18 | For the Oil Conservation W. Perry Pearce, Esq. |
| 19 | Division: Legal Counsel to the Division State Land Office Bldg. |
| 20 | Santa Fe, New Mexico 87501 |
| 21 | For the Applicant: |
| 22 | Tor the apprount. |
| 23 | |
| 24 | |
| 25 | |

Γ

Case Number 7945.

MR. STOGNER: We'll call next

MR. PHARCE: That case is on

the application of J. Cleo Thompson for statutory unitization, Eddy County, New Mexico.

Mr. Examiner, applicant has requested continuation until October the 12th, 1983.

MR. STOGNER: Case Number 7945 will be continued to October 12th, 1983.

(Hearing concluded.)

| 1 | |
|----|---|
| 1 | STATE OF NEW MEXICO |
| 2 | ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. |
| 3 | SANTA FE, NEW MEXICO 14 March 1984 |
| 4 | EXAMINER HEARING |
| 5 | |
| 6 | IN THE MATTER OF: |
| 7 | |
| 8 | Application of J. Cleo Thompson and James Cleo Thompson, Jr., a Partner-CASE ship, for statutory unitization, Eddy 7945 County, New Mexico. |
| , | county, New Mexico. |
| 10 | |
| 11 | |
| 12 | BEFORE: Richard L. Stamets, Examiner |
| 13 | |
| 14 | TRANSCRIPT OF HEARING |
| 15 | |
| 16 | APPEARANCES |
| 17 | |
| 18 | For the Oil Conservation W. Perry Pearce, Esg. |
| 19 | For the Oil Conservation W. Perry Pearce, Esq. Division: Legal Counsel to the Division State Land Office Bldg. |
| 20 | Santa Fe, New Mexico 87501 |
| 21 | For the Applicant: |
| 22 | |
| 23 | |
| 24 | · |
| 25 | |

MR. STAMETS: Call next Case 7945, being the application of J. Cleo Thompson and James Cleo Thompson, Junior, for statutory unitization, Eddy County, New Mexico. MR. PEARCE: Mr. Examiner, applicant requested continuance of that matter until April the 4th, 1984. I'm sorry, April the 11th. I apologize, sir. MR. STAMETS: Okay, that case will be so continued. (Hearing concluded.)

| 1 2 | STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION |
|-----|---|
| 3 | STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 29 February 1984 |
| 4 | EXAMINER HEARING |
| 5 | |
| 6 | |
| 7 | IN THE MATTER OF: |
| 8 | Application of J. Cleo Thompson and James Cleo Thompson, Jr. a CASE 7945 Partnership, for statutory unit- ization, Eddy County, New |
| - | Mexico. |
| 10 | |
| 11 | |
| 12 | BEFORE: Michael E. Stogner, Examiner |
| 13 | |
| 14 | TRANSCRIPT OF HEARING |
| 15 | |
| 16 | APPEARANCES |
| 17 | |
| 18 | Por the Oil Componentian II Day D |
| 19 | For the Oil Conservation W. Perry Pearce, Esq. Division: Legal Counsel to the Division State Land Office Bldg. |
| 20 | Santa Fe, New Mexico 87501 |
| 21 | For the Applicant: |
| 22 | |
| 23 | |
| 24 | |
| 25 | |

Γ

1

3

Number 7945.

County, New Mexico.

the 14th, 1984.

1984.

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

23

25

Call next Case MR. STOGNER:

PEARCE: That case is on MR. the application of J. Cleo Thompson and James Cleo Thompson, Junior, a Partnership, for statutory unitization, Eddy

MR. PEARCE: Mr. Examiner, applicants have requested this matter be continued until March

MR. STOGNER: Case Number 7945 will be continued to the Division hearing on March 14th,

(Hearing concluded.)

22

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Jally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7745.

neard by me on February 29 1984.

Examiner

Oil Conservation Division