

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
22 November 1983

EXAMINER HEARING

IN THE MATTER OF:

Application of McClellan Oil Corpor-
ation for a unit agreement, Chaves
County, New Mexico.

and

Application of McClellan Oil Corpor-
ation for a waterflood project,
Chaves County, New Mexico.

CASE
7985

CASE
8002

BEFORE: Richard L. Stamets, Esq.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

Sim B. Christy, IV, Esq.
JENNINGS & CHRISTY
P. O. Box 1180
Roswell, New Mexico 88201

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I N D E X

MARK McCLELLAN

Direct Examination by Mr. Christy	3
Cross Examination by Mr. Stamets	14

JOE JOHNSON

Direct Examination by Mr. Christy	15
Cross Examination by Mr. Stamets	19

E X H I B I T S

Applicant Exhibit One, Report	6
Applicant Exhibit Two, Map	8
Applicant Exhibit Three, Plat	9
Applicant Exhibit Four, Unit Agreement	9
Applicant Exhibit Five, Operating Agreement	11
Applicant Exhibit Six, Plan of Operation	11
Applicant Exhibit Seven, Water Analysis	13
Applicant Exhibit Eight, C-108	13
Applicant Exhibit Nine, Report	18

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2 MR. STAMETS: We'll call next
3 Case 7985.

4 MR. PEARCE: That case is on
5 the application of McClellan Oil Corporation for a unit
6 agreement, Chaves County, New Mexico.

7 MR. CHRISTY: Sim Christy of
8 Jennings and Christy for the applicant, McClellan Oil Cor-
9 poration.

10 We move that 7985 now be conso-
11 lidated with Case 8002 in that they cover the same subject
12 matter.

13 MR. STAMETS: Okay. Let's call
14 3002 and we'll consolidate those for the purposes of testi-
15 mony.

16 MR. PEARCE: That case is on
17 the application of McClellan Oil Corporation for a water-
18 flood project, Chaves County, New Mexico.

19 MR. STAMETS: You may proceed.

20 MR. CHRISTY: Thank you. By
21 way of introduction, Mr. Examiner, this is an application
22 for a waterflood unit in Chaves County, New Mexico.

23 The testimony will go over and
24 relate also to the Suelimar (sic) unit which is immediately,
25 I think, to the south. And I advise the Examiner that the
Unit Agreement which we are proposing is a carbon copy of
the Suelimar (sic) unit, so that you would understand that
that has been previously approved.

1
2 When you see the Unit Agreement
3 you will find that it's so much of a copy that I
4 intentionally omitted Paragraph 25, which has to do with
5 federal leases, because this is only State. And I used
6 exactly the same paragraphs throughout the Unit Agreement,
7 by way of explanation.

8 Also, the rule requires us to
9 notify offset operators by certified mail and the applica-
10 tion shows that we did so notify them. And here are the re-
11 gistered return receipts by everyone.

12 I've had no responses to those
13 registered return receipts except one letter from Santa Fe
14 Energy Company to me of November 9 approving the
15 application, and there is the letter.

16 I have two witnesses. Would
17 you both stand please.

18 (Witnesses sworn.)

19 MR. CHRISTY: Our first witness
20 is Mr. McClellan.

21 MARK McCLELLAN,
22 being called as a witness and being duly sworn upon his
23 oath, testified as follows, to-wit:
24
25

DIRECT EXAMINATION

BY MR. CHRISTY:

Q Would you please state your name, your address, by whom you're employed, and in what capacity?

A Mark McClellan; 878 East Agate; McLellan Oil Corporation; petroleum geologist.

Q And that's in Roswell, New Mexico?

A Yes.

Q I see. Mr. McClellan, I don't believe you've ever testified before this regulatory body, have you?

A No, sir.

Q What schools of higher learning did you go to?

A I graduated from Texas Tech University in 1980.

Q What degree, if any, did you receive?

A In petroleum geology.

Q I see. What have you done since 1980 in the geology field?

A After graduation from Texas Tech I worked for W. S. Wallace and Associates out of Wichita Falls, Texas as a wellsite geologist. And I have been employed with Jack McClellan for the past two years.

Q This application relates to lands in 14 South, 29 East, Chaves County. Are you generally familiar

1
2 with the wells in that area?

3 A Yes, sir.

4 Q Particularly the wells involved in this
5 unit?

6 A Yes, sir.

7 Q I see. Do you belong to any societies or
8 organizations relating to geology?

9 A Yes, sir. The Roswell Geological Society
10 and the American Association of Petroleum Geologists.

11 Q I see.

12 MR. CHRISTY: Are the witness'
13 qualifications as a geologist acceptable?

14 MR. STAMETS: They are.

15 MR. CHRISTY: Thank you.

16 Q Now, Mr. McClellan, tell us briefly what
17 you seek in these consolidated cases. What do you seek?

18 A We are trying to--are in the process of
19 putting together two leases into a State unit for the
20 purpose of waterflooding.

21 Q All right, now, would you--have you got a
22 map or something that we can refer to that would be easier
23 for the Examiner?

24 A Yes.

25 Q I'm going to-- Take a copy. I'm going
to hand you what's been identified as Exhibit One and ask
you if you'll refer to the last page, please. Now referring
to the last page of Exhibit One, does that reflect the unit

1
2 area? What is the unit area?

3
4 (There followed a discussion off the record.)

5 A That will be shown--this is the--

6 Q We're looking at the last page of Exhibit
7 One. Right here.

8 A Right.

9 Q All right.

10 A Well, it is not outlined on this, but it
11 is the north half of Section 24.

12 Q North half?

13 A Yes, and the north half of the southeast
14 and the south and, excuse me, the northeast of the southwest.

15 Q All right. Now, what kind of lands are
16 they? Are they Federal lands, State lands, fee lands? What
17 are they?

18 A They are both State leases.

19 Q State leases?

20 A Yes, sir.

21 Q How about the working interest? Is it
22 uniform throughout?

23 A Yes, sir. It is.

24 Q And how about the overrides?

25 A There is a override on the 40-acre tract
by Marathon Oil Company. They have a one-eighth override.

Q Is that the north, northeast southwest?

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A Yes, sir.

A All right. Now, go ahead. How about the overrides on the other?

A There was a one-eighth override owned by Sun Oil Corporation, but that has been assigned to us.

Q So the present override is the Marathon one-eighth?

A Right.

Q All right. Now, let's start with the royalty.

Has the Commissioner of Public Lands approved your proposed form of Unit Agreement?

A Yes, sir.

Q Informally?

A Yes, sir.

Q And let me hand you what's been marked as Applicant's Exhibit Two and ask you if that is the approval letter from the Commissioner.

A Yes, sir. It is.

MR. CHRISTY: I would mention to the Examiner the letter is to me. It is dated June 20, 1983 and says that it gives preliminary approval to the unit. Requires eight things to be furnished. The only one that we could do at this time was Item One, which has been done. The rest of them have to come in with the application for final approval, like paying filing fees and redesignating well numbers and that type of thing, which will be done, and we

1
2 will furnish to the Commission the formal approval by the
3 Commissioner at the--when we receive it.

4 A Sim, here are four copies of the outline
5 of the unit.

6 Q All right. Let me hand you what's been
7 marked as Applicant's Exhibit Three and ask you if that's
8 a little better picture of the outline of the unit that
9 you're referring to.

10 A Yes, sir.

11 Q All right. Now, now let's take the unit
12 itself. The Unit Agreement.

13 Let me hand you what's been marked as
14 Applicant's Exhibit Four. Is that the proposed form of Unit
15 Agreement?

16 A Yes, sir.

17 Q You heard my initial statement that it
18 was almost a carbon copy from the Suelimar (sic). Is that
19 true?

20 A Yes, sir.

21 Q And the changes are because there's no
22 Federal lands involved?

23 A Yes, sir.

24 Q Is that correct? What is the allocation
25 of production except working interest? Is that on a acreage
basis, service acreage basis, or is it factors depending
upon the tracts?

A I'm not exactly sure what you mean.

1
2 Q Well, did you allocate production
3 strictly on a service acreage basis or did you give weighted
4 averages to the particular tracts? In the Unit Agreement.

5 Let me refer you to--how do you allocate
6 production? Let's go at it that way.

7 A By leases. The Marathon will be Tract
8 One and the 400 acres involved in the Marlisue will be Tract
9 Two.

10 Q All right. Look at Exhibit C to the Unit
11 Agreement. Does that show the allocation of production?

12 A Yes, sir.

13 Q Both in Phase One and Phase Two?

14 A Yes, sir.

15 Q So it's a weighted situation, which is
16 rather standard in waterflooding, isn't it?

17 A Yes, sir.

18 Q All right. Now the working interest.
19 You said that is all uniform?

20 A Yes, sir. It is.

21 Q Did the working--excuse me. Let me go
22 back. Did Marathon approve this Unit Agreement? Did they
23 ratify it?

24 A Yes, sir. They did.

25 Q They have. And the other override is Sun
Oil Company, and McClellan Oil Corporation has purchased
that?

A Yes, sir.

1
2 Q All right. Now, how about the working
3 interest owners? Have they ratified the Unit Agreement?

4 A Yes, sir. They have.

5 Q Have they entered into a working inter-
6 interest--a unit operating agreement?

7 A Yes, sir. They have.

8 Q Do you have one?

9 A Yes, sir.

10 Q I'll hand you what's been marked as Ap-
11 plicant's Exhibit Five and ask you if that is a true copy of
12 the Unit Operating Agreement as approved by the working in-
13 terest owners.

14 A Yes, sir. It is.

15 Q All right. Now what about a Plan of
16 Operation? What are you going to do? Have you got a Plan
17 of Operation?

18 A Yes, sir. I do. There are--all four
19 copies are in that.

20 Q I'll hand you what's been marked as
21 Applicant's Exhibit Six and ask you if this is your proposed
22 initial Plan of Operation.

23 A Yes, sir. It is.

24 Q Now, will you briefly explain to the Exa-
25 miner what the initial Plan of Operation is?

A Our initial plan is to drill an addi-
tional four wells for the purpose of water injection and the
Marlisue No. 7, which is currently shut-in, will be

1 converted to a water injection well. And I guess that's it
2 basically as far as our plans read.
3

4 As far as our water source, it will come
5 from about 5-1/2 miles to the south. It will come from the
6 City of Carlsbad. So we will have to lay a 3-inch line to
7 transport this water up to this flood.

8 Q On the water, you have a--McClellan has
9 an agreement concerning furnishing water to the Suelimar
(sic) just to the south. Does it not?

10 A Yes, sir.

11 Q Is this the same contract?

12 A Yes, sir. The contract will be amended
13 to include the Marlissue.

14 Q And is this fresh or salt water?

15 A It's fresh.

16 Q All right.

17 MR. CHRISTY: We have another
18 witness, Mr. Examiner, in connection with more of the
19 engineering relative to the waterflood operation itself.

20 Q Did you file a C-108 with the Commission?

21 A Yes, sir. I did.

22 Q And is it true and correct?

23 A Yes, sir. And there's something I--at
24 the time that was submitted I did not have a water analysis,
25 and I do have those at this point.

Q May I have one, please?

Let me hand you what's been marked as

1
2 Applicant's Exhibit Seven and ask you if this is the water
3 analysis you just referred to.

4 A Yes, sir. It is.

5 Q So, in summary, as I understand it this
6 Unit Agreement is basically the same Unit Agreement as the
7 Marlisue--as the Suelimar. I beg your pardon.

8 It has been approved by 100 percent of
9 the working interest. It has been approved by 100 percent
10 of the royalty interest, and has been approved by 100 per-
cent of the overriding royalty, is that true?

11 A Yes, sir.

12 MR. CHRISTY: No further ques-
13 tions from this witness.

14 MR. STAMETS: Can't find the C-
15 108 is our main problem this morning.

16 Is your other witness going to
17 introduce the 108 again?

18 MR. CHRISTY: I have one here.
19 I was going to introduce one through him, yes.

20 MR. STAMETS: Okay, we'll wait.

21 MR. CHRISTY: I tell you, let
22 me--let me--may I borrow that one second?

23 Let me take one more question,
24 Mr. Examiner, in response to your suggestion.

25 Q Let me hand you what's been marked as Ap-
plicant's Exhibit Eight. Is this the application for
authority to inject--

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A Yes, it is.

Q The C-108 we're speaking of?

A Yes.

MR. CHRISTY: Now I have no further questions.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. McClellan, this is the far northern extension to the Double-L Queen Field, is that correct?

A Yes, sir.

Q And did you go out there to see if there was any fresh water in the area?

A No, sir, but I--we drilled seven wells there ourselves with a cable tool rig and I do have the reports from the drillers, which I have looked at, and in five or six wells they did encounter some water at around 250 feet and in all those instances casing was run past that depth and cement circulated.

Q One of the requirements for filing the 108 is a sample of any fresh water from water wells within a mile of the--of the project.

Have you had anybody go out there and see if there are any windmills or fresh water sources in that area?

A I have been out there and to my knowledge there is not any type of a fresh water there at the surface

1
2 there that I could catch a sample from, any type of a wind-
3 mill.

4 MR. STAMETS: Are there other
5 questions of the witness? He may be excused.

6 MR. CHRISTY: Call Mr. Joe
7 Johnson, please.

8 JOE JOHNSON,
9 being called as a witness and being duly sworn upon his
10 oath, testified as follows, to-wit:

11
12 DIRECT EXAMINATION

13 BY MR. CHRISTY:

14 MR. CHRISTY: Mr. Examiner, we
15 will recheck the question of whether there's any windmills
16 or anything within a mile, and Mr. McClellan, would you re-
17 port that to the Commission, please?

18 MR. McCLELLAN: Yes, sir, I
19 will.

20 MR. CHRISTY: Thank you, and
21 whether you find it yes or no, either way.

22 MR. McCLELLAN: Okay.

23 Q Please state your name, your address, by
24 whom you're employed, and in what capacity?

25 A My name is Joe Johnson, Junior. I live
at 2409 Brentwood, Wichita Falls, Texas. Employed by Ste-
vens Engineering; I'm a partner in the firm.

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Q You're a petroleum engineer?

A Yes, sir.

Q Have you previously testified before this regulatory body and had your qualifications as a petroleum engineer accepted?

A Yes, sir.

Q Are you familiar with what is sought in consolidated Cases 7985 and 8002?

A Yes, I am.

Q And the wells involved?

A Yes, I am.

Q All right. Now, would you please briefly explain to the Commission what is sought in your opinion with respect to engineering practices which could be adopted to institute the waterflood?

A Generally what--what is sought is that we desire to first unitize the two leases involved and secondly, to install a waterflood project in the Queen Sand at approximately 1900 feet in the Marlisue area.

This is very similar to--similar to other projects that have been installed to the south, the nearest project being the Burk Royalty Company Double-L Queen Sand Unit.

And then south of it is the McClellan Oil Corporation Suelimar Queen Sand Unit.

Suelimar is probably--is the oldest of these projects and it has been under flood now for approxi-

1
2 mately ten to twelve years.

3 This project is a very similar project to
4 it. It is the extension of, but a separate sands from, the
5 Burk Royalty Project, and appears to have the same floodable
6 characteristics as the other two projects have.

7 Q What would be your recommendations with
8 respect to operations or initial operations?

9 A We studied the property and have prepared
10 a report concerning what should be done. Generally speaking
11 we're requesting that the operator drill four water injection
12 wells at locations shown on the maps that have already
13 been presented, and install the waterflood project utilizing
14 these four wells plus one well that would be converted from
15 the existing wells that would give us five water injection
16 wells.

17 We'll utilize the remaining wells for
18 producing wells, plus drill a clean-up well in probably one
19 to two years. This well would be located in the center portion
20 of the peripheral injection pattern that we have recommended.

21 Q You say you've gotten--you've made a report
22 on your recommendations?

23 A Yes, I have.

24 Q Have they been accepted by the operator,
25 McClellan Oil Corporation?

A Yes, they have.

Q Do you have a copy of that report?

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A Yes, sir.

Q May I have it, please, sir?

Let me hand you what has been marked as Applicant's Exhibit Number Nine and ask you if that is your report and your recommendations as accepted by the operator?

A Yes, it is.

Q All right, sir, is there anything you'd like to comment about the report or do you feel it's self-explanatory, or what?

A The report is self-explanatory. It goes through all of the history of the project, the geology, an estimate of recoverable oil both by primary and secondary, recommended injection program, organization, cost estimates, economic analysis, general summary, concerning the entire project.

MR. CHRISTY: I'd like to state to the Commission, I personally know that McClellan has accepted that report and is planning to operate under that commendation.

Q Anything else, Mr. Johnson?

A No, sir, I don't believe I have anything else.

MR. CHRISTY: No further questions.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Johnson, do you have a copy of the C-108 there?

A No, sir, I do not.

(There followed a discussion off the record.)

Q Let start at the beginning of this thing and let me run through it.

On the typical data sheet, you show, I believe, one, two, three, four, five wells; third or fourth page back; yeah, that page you have folded down.

A Yes, sir.

Q All right, let's start right there.

There are five wells shown there. Are those all wells to be drilled?

A No, sir, there is one of those would be-- that has been drilled. The other four are wells that will be drilled.

Q Which well is already drilled?

A The--

MR. McCLELLAN: It's the Tract 2-7.

A It would be the second one on the list, Tract 2, Well No. 7, Section 24.

That well is shut-in at present.

1
2 Q Okay, now are all of these wells either
3 drilled or to be drilled more or less identically with 150
4 feet of surface casing and 1975 feet of 4-1/2?

5 A Yes, sir.

6 Q Okay, and you plan to use the same amount
7 of cement on every well, and this top of cement at 1200
8 feet, is that what you've been finding out there on wells
9 that have been drilled?

10 A Yes, sir, that's approximately correct.

11 Q Okay. Now the injection interval is not
12 going to be exactly 1925 to 1936 on every one of these
13 wells.

14 A No, sir, it is not.

15 Q So it's going to be about 1925.

16 A Yes, sir.

17 Q Okay. As a matter of fact I see on the
18 next page that the one well that is already completed, the
19 interval is 1942 to 1948.

20 A Yes, sir.

21 Q Will you know exactly what the interval is
22 until the wells are drilled?

23 A No, sir, we will not know until they're
24 drilled.

25 Q All right, then the next page, I presume,
is just a sketch of a typical injectionw well.

A Yes, sir, that is correct.

Q Okay, the next page shows the project

1
2 with the half mile circle around the wells?

3 A Yes, sir.

4 Q And we begin with, let's call it Exhibit
5 B, these are 105's. Are these the 105's on all the wells
6 within this half mile circle?

7 A Yes, sir.

8 Q Now I see the second sheet there, the
9 Marlisue No. 1 looks like a P&A well, is that right?

10 A Marlisue No. 1, yes, sir.

11 Q Because I don't see that any--

12 A Yes, sir, that is correct.

13 Q --production is run.

14 A Yes, sir, that is correct.

15 Q Same thing is true with the next one, the
16 Marlisue "A" No. 1, and are there schematics of those plug-
17 ged and abandoned wells included in this package?

18 A Yes, sir.

19 Q Okay, so we'll get to those in a little
20 bit.

21 A Yes, sir.

22 Q Of the plugging reports that are included
23 in here, the diagrammatic sketches, what's the source of
24 that information?

25 A State files.

Q I see here on the Exhibit C, it talks
about average daily injection rate, it's a closed system,
then it says the proposed average and maximum injection

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2 pressure is 1000 psi. I presume you're aware that we've got
3 that .2 pound per foot--

4 A Yes, sir.

5 Q --limitation.

6 A Yes.

7 Q And anything over that would require a
8 step rate test.

9 A Yes, sir.

10 Q All right.

11 MR. STAMETS: Any other ques-
12 tions of the witness? He may be excused.

13 Anything further in this case?

14 MR. CHRISTY: Applicant offers
15 an evidence Applicant's Exhibits One to Nine, inclusive.

16 MR. STAMETS: The exhibits are
17 admitted.

18 MR. CHRISTY: Thank you. Mr.
19 Examiner, we will furnish to the Commission the unit agree-
20 ment as executed and the--a copy of the unit operating
21 agreement as executed, with the Commission's approval.

22 MR. STAMETS: That will be
23 fine.

24 MR. CHRISTY: That's all.

25 MR. STAMETS: If there is
nothing further, this case will be taken under advisement.

(Hearing concluded.)

