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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
OIL CONSERVATION COMMISSION CONFERENCE ROOM
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO
Wednesday, November 29, 1972

)
IN THE MATTER OF:)
)
Application of Samedan Oil Corporation))
for a unit agreement, Lea County,)
Mexico)
_____)

Case No. 4871

Case No. 4872

BEFORE: Richard L. Stamets,
Examiner

TRANSCRIPT OF HEARING

1 MR. STAMETS: We call next Case 4871, application of
2 Samedan Oil Corporation for a unit agreement, Lea County, New
3 Mexico.

4 MR. KELLAHIN: If the Examiner please, Jason Kellahin,
5 Kellahin & Fox, Santa Fe, appearing for the applicant. We have
6 one witness we'd like to have sworn.

7 MR. STAMETS: Are there any other appearances in this
8 case?

9 (No Response.)

10 WILLIAM McCUEN

11 a Witness, having been first duly sworn according to law, upon
12 his oath, was examined and testified as follows:

13 DIRECT EXAMINATION

14 BY JASON KELLAHIN:

15 Q Would you state your name, please?

16 A William McCuen.

17 Q How would you spell that?

18 A M-c-C-u-e-n.

19 Q By whom are you employed and in what position?

20 A Production Superintendent for Samedan Oil Corporation,
21 Midland.

22 Q Are you a petroleum engineer?

23 A Yes, sir.

24 Q Have you ever testified before the New Mexico Oil
25 Conservation Commission?

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1 A No, sir, I have not.

2 Q For the benefit of the Examiner, would you briefly outline
3 your education and experiences as a petroleum engineer?

4 A I'm a graduate of the University of Tulsa; I've been
5 employed by Samedan for a little over 20 years, petroleum
6 engineer and superintendent.

7 Q And where did you get your education as petroleum engineer?

8 A University of Tulsa.

9 Q And you've been with Samedan since your graduation?

10 A Yes, sir.

11 Q Do you work in Southeastern New Mexico, as well as West
12 Texas?

13 A Yes, sir.

14 Q And is the area involved in this application under your
15 jurisdiction?

16 A Yes, it is.

17 Q And is the case involved in Case 4872 under your
18 jurisdiction, too?

19 A Yes, sir.

20 Q Are you familiar with what is proposed by the applicant in
21 these cases?

22 A I am.

23 MR. KELLAHIN: If the Examiner please, I would like to
24 move at this time to consolidate, for purposes of the record,
25 Case 4871 and 4872, and use one set of Exhibits for the two.

1 MR. STAMETS: Okay, Cases 4871 and 4872 will be
2 consolidated.

3 Case 4872 is the application of Samedan Oil
4 Corporation for a waterflood project, Lea County, New Mexico.

5 MR. KELLAHIN: And it does affect the same area as
6 in Case 4871.

7 MR. STAMETS: Mr. McCuen, what was your degree, B.S.
8 Petroleum Engineer?

9 THE WITNESS: Yes.

10 MR. KELLAHIN: Are the witness' qualifications
11 acceptable?

12 MR. STAMETS: Yes.

13 Q (By Mr. Kellahin) Briefly, what is proposed by the
14 applicant in these two cases?

15 A We propose to conduct secondary recovery operations on
16 this 240-acre tract as set out on our Exhibit 2.

17 Q It has been unitized, has it not?

18 A Yes, sir.

19 Q Now, referring to what has been marked as Exhibit Number
20 1, is that the unit agreement?

21 A Yes, sir.

22 Q Has it been executed by all of the working interest owners?

23 A Yes, sir.

24 Q And has it been executed by any or all of the overriding
25 royalty owners?

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- 1 A It has.
- 2 Q Are there any working interests or royalty owners who
- 3 have not signed it?
- 4 A There are not.
- 5 Q Has this been approved by the United States Geological
- 6 Survey?
- 7 A It has.
- 8 Q And is all of the acreage within the tract Federal
- 9 acreage?
- 10 A It is.
- 11 Q There is no State or fee acreage involved?
- 12 A No, sir.
- 13 Q And you have received preliminary approval from the
- 14 United States Geological Survey?
- 15 A Yes, sir, we have.
- 16 Q Is the form of the unit agreement in a form which has
- 17 heretofore been approved by the Commission?
- 18 A Yes, it is.
- 19 Q Now, referring to what has been marked as Exhibit 2, the
- 20 plat that you started to discuss, would you identify that
- 21 and discuss the information shown on it?
- 22 A This shows the location of all wells within two miles of
- 23 our proposed secondary recovery tract. Those wells in red
- 24 are the Seven Rivers-Queen oil wells, the Penrose Sand of
- 25 the Queen Formation.

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1 Q Now, is that the formation you are proposing to flood?
2 A Yes. It's composed of two tracts; tract #1 of 200 acres,
3 and tract #2 of 40 acres.
4 Q Now, where are their locations, could you give the
5 description?
6 A Tract #1 is located in the northwest quarter of Section
7 17 of 37 east, 23 south; and the other 40 acres of tract 1
8 is located in the northeast of the northeast of Section 18,
9 same range and township. Tract 2 is located in the
10 southeast and northeast quarter of Section 18 of the same
11 range and township.
12 Q Now, is that the same area that's covered by your unit
13 agreement?
14 A Yes, sir.
15 Q Now, do you show all of the proposed injection wells on
16 that Exhibit?
17 A Yes, sir, they are shown there with the blue arrows.
18 Q Then, you have 3 proposed injection wells?
19 A Yes.
20 Q And how many producing wells will you have?
21 A We will have 3 producing wells.
22 Q Are they all shown on the Exhibit?
23 A All, with the exception of #14, which has just been
24 recently drilled and completed.
25 Q And does that appear as a location on the Exhibit?

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1 A Yes, sir, as a location.

2 Q And it has been already completed, is presently producing
3 from the Queen Formation?

4 A Yes, sir.

5 Q Now, is this proposed waterflood project offset by a
6 waterflood project?

7 A Yes, it is offset to the north by the Skelly-Penrose B
8 Unit.

9 Q And have you incorporated an agreement with Skelly in
10 connection with your proposed waterflood project?

11 A Well, we are in the midst of working one out with them at
12 the present time.

13 Q Now, referring to Exhibits 3, 4, and 5, would you
14 identify those exhibits, please?

15 A 3, 4, and 5 are copies of the open hole logs of the
16 proposed injection wells.

17 Do you want those by name?

18 Q I don't believe it will be necessary to name them, they
19 appear on the exhibit.

20 Now, referring to what has been marked as Exhibits 6,
21 7, and 8, would you identify those exhibits, please?

22 A These are diagramatic sketches of the proposed completions
23 as injection wells; the three wells we have previously
24 mentioned.

25 Q Those are the same ones of which you have the logs?

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- 1 A Yes sir.
- 2 Q Are all of the completions to be the same?
- 3 A Basically the same, yes.
- 4 Q There are differences in the casing and cementing program,
5 as depicted on the Exhibit, is that correct?
- 6 A Yes, to some degree.
- 7 Q Now, how will you make your completion, will you inject
8 through tubing and under the packer?
- 9 A Yes.
- 10 Q And annulus internally coated tubing?
- 11 A Yes.
- 12 Q Do you propose to set a pressure gauge at the surface to
13 measure the pressure in the casing tubing annulus?
- 14 A Yes.
- 15 Q And what is the source of your fluids?
- 16 A Source of what?
- 17 Q What is the source of water?
- 18 A Skelly, in the area, has what is known as their Jowle
19 water supply system. We propose to purchase water from
20 that system.
- 21 Q And that's Capitan Reef Water, isn't it?
- 22 A Yes sir.
- 23 Q Now, what volume of water do you propose to use?
- 24 A 550 barrels per day, per well.
- 25 Q What kind of pressure do you anticipate you will encounter

1 on injection?

2 A All probability, a maximum of 2,000 P.S.I.

3 Q Will the casing and packers, as you have proposed on your
4 injection wells, withstand that kind of pressure safely?

5 A Yes, sir.

6 Q Is this reservoir at an advanced stage of depletion?

7 A Yes, sir, it is.

8 Q What, roughly, is the present production from the unit
9 area?

10 A Well, of the six wells, one being temporarily abandoned,
11 the other five wells are producing an average of 10 to 12
12 barrels a day.

13 Q Does that include the well that has just been completed,
14 the #14 well?

15 A No, the well that has just been completed, the #14, after
16 two months, it's pumping somewhere between 30 and 35
17 barrels a day.

18 Q Now, when was it completed?

19 A Approximately the end of September of this year.

20 Q And did it show a rapid decline in production?

21 A Yes, sir, it did.

22 Q Does that indicate to you that the reservoir has been,
23 well, exhausted on primary production?

24 A It has.

25 Q Is it ready for secondary recovery, in your opinion?

1 A It is.

2 Q In your opinion, will the injection of water as a
3 secondary recovery mechanism result in the recovery of
4 oil that would otherwise not be recovered from this
5 reservoir?

6 A Yes, sir, it would.

7 Q Have you any estimate of the approximate volume of
8 additional recovery you might achieve?

9 A We've recovered, to date, primary, in the neighborhood of
10 220,000 barrels. We expect 1 to 1 ratio of secondary,
11 somewhere in the neighborhood of 200 to 220 thousand
12 barrels of secondary oil.

13 Q And, in your opinion, will that be in the interest of
14 conservation?

15 A Yes, sir.

16 Q Will any waste occur?

17 A No, sir.

18 Q Were Exhibits 1 through 6 prepared by you or under your
19 supervision?

20 A They were.

21 MR. KELLAHIN: At this time, I'd like to offer Exhibits
22 1 through 8 inclusive.

23 MR. STAMETS: Without objection, they will be admitted
24 into evidence.

25 MR. KELLAHIN: That's all I have on Direct Examination.

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CROSS EXAMINATION

BY MR. STAMETS:

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3 Q Mr. McCuen, what are the productivity capacities of the
4 offsetting wells to your #14 well? Are they low marginal
5 wells?

6 A Yes, sir, they are.

7 Q And this Skelly-Penrose B unit, is that actually under
8 waterflood at this time?

9 A Yes, sir.

10 Q That's the water injection wells, the ones with the little
11 triangle?

12 A They would be three locations from our lease line.

13 Q And you are anticipating the lease line agreement with
14 Skelly?

15 A Yes.

16 Q You said the logs were on the openhole and I see here that
17 each of the wells has 5 1/2 or 4 1/2 inch casing. Is that
18 recently run, or was that run when the wells were completed?

19 A When they were completed.

20 Q How long ago was this?

21 A Well, let's see. The Federal H well is September of 1967;
22 and the Hughes B-4 #11, December of 1965; and in the case
23 of the Hughes B-4 #8, April of 1955.

24 Q And the packer that you proposed here would be well below
25 the top of the cement in each case?

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A Yes.

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

MR. KELLAHIN: No sir.

MR. STAMETS: He may be excused.

Are there any statements in this case?

MR. KELLAHIN: That's all we have, Mr. Stamets.

MR. STAMETS: We will take the case under advisement.

