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I N D E X

LES MUNSON

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3 MR. STOGNER: Call next Case
4 8467, which is the application of Gulf Oil Corporation for
5 downhole commingling, Lea County, New Mexico.

6 At this time we'll call for ap-
7 pearances.

8 MR. KELLAHIN: If the Examiner
9 please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing
10 on behalf of the applicant and I have one witness.

11 MR. STOGNER: Will the witness
12 please stand and raised your right hand?

13 (Witness sworn.)

14 LES MUNSON,
15 being called as a witness and being duly sworn upon his
16 oath, testified as follows, to-wit:

17
18 DIRECT EXAMINATION

19 BY MR. KELLAHIN:

20 Q Mr. Munson, for the record would you
21 please state your name and occupation?

22 A I'm Les Munson and I'm a petroleum engin-
23 eer with Gulf Oil Corporation, Midland Division Office.

24 Q Mr. Munson, have you previously testified
25 as an engineer before the New Mexico Oil Conservation Divi-
sion?

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A Yes, I have.

Q And pursuant to your employment, have you made a study of the facts surrounding this application by Gulf Oil Corporation?

A I have.

MR. KELLAHIN: We tender Mr. Munson as an expert engineer.

MR. STOGNER: Mr. Munson is so qualified.

Q Mr. Munson, would you please refer to what we've marked as Exhibit Number One and summarize what you intend to accomplish with this application?

A Exhibit -- Exhibit One is a copy of the original application sent with our administrative request. It's a copy of the original administrative request to down-hole commingle this well, the C. D. Woolworth No. 7, in the Jalmat and Langlie Mattix Oil Pools.

Q That application was submitted to the Division's District office --

A It was.

Q -- and the Santa Fe office for approval?

A That's correct, and a copy was sent to all offset operators.

Q And what is your understanding of the reason that this case was set for hearing, Mr. Munson?

A It is my understanding that Jerry Sexton

1
2 had -- had a problem with the gas production from the Jalmat
3 zone.

4 Some of the early forms sent in on that
5 well had estimated that it would be a gas producer with
6 100,000, or greater, GOR.

7 After the well was completed that was
8 found not to be the case and the well was -- the Jalmat --
9 Jalmat portion of this well was subsequently put in the oil
10 -- carried in the oil proration schedule with a GOR much
11 less than 100,000.

12 Q Okay. When's the last contact you had
13 with Mr. Sexton concerning his concerns about this applica-
14 tion?

15 A Oh, the exact -- I may have the exact
16 date here. It was last week sometime.

17 Q Were you able, in your conversations with
18 Mr. Sexton last week, were you able to resolve his concern
19 about this application?

20 A Yes, brought him up to date on some of
21 the facts, especially involving the GOR and the fact that
22 the Jalmat zone was making oil, and I don't know whether he
23 was aware of that or not, but he -- I did ask him at that
24 time if in light of these new facts would he have any objec-
25 tion to us cancelling the hearing and he said, no, he
wouldn't have any problem with it but he did suggest that we
perform a packer leakage test to confirm the two zones were
not in communication.

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Q And is Gulf willing to conduct that test?

A Yes, we are.

Q Let me direct your attention, Mr. Munson, to the next exhibit, which is a plat, and have you identify that for us.

A Okay. This Exhibit Number Two is an acreage plat. It's the one sent in by our area outlining the acreage to be dedicated as a proration unit for this well.

Q The well is a Jalmat oil well and a Langlie Mattix oil well to which 40 acres has been dedicated?

A That's correct.

Q All right, sir, would you now turn to what we've marked as Exhibit Number Three and identify it?

A Exhibit Number Three is -- well, it's actually two plats.

The top plat shows Jalmat and Langlie Mattix oil wells that are offsetting the Gulf CD Woolworth Lease.

In the center of this plat you see circled in red the CD Woolworth No. 7 Well, which is the subject of this application.

The second plat shows essentially the same information but for the Jalmat gas wells in this -- in this immediate vicinity.

The purpose of the plat is to show offset ownership.

Q All right, let's go now to Exhibit Number

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Four and have you identify that for us.

A Exhibit Four is a depiction of present and proposed wellbores.

On the left you see the condition -- the present condition of the wellbore, the Jalmat perfs, the Langlie Mattix perfs, and between the two a packer, also tailpipe below that packer running to a point of approximately mid-perfs of the Langlie Mattix zone. If -- when this application is approved the packer will be removed and two installed to a depth shown in the righthand wellbore.

Q Is the proposed downhole commingling one that complies with the Division rules with regards to downhole commingling?

A I believe so. I have not found any conflict, as yet.

Q Let's turn to Exhibit Number Five, Mr. Munson, and have you give us some of the historical background about this well.

A All right. Exhibit Five is a summary of the history of this well to date.

In August -- September '84 the well was spudded, drilled to total depth 3750 feet; casing was set, surface casing was set at 450, cement circulated to surface. A 7-inch production string was set at 3737, cement was again circulated to surface.

September 22, 1984, excuse me, I believe that's August 22, 1984, the Langlie Mattix zone was per-

1
2 perforated and the interval is shown there, and completed with
3 acidizing -- with acid and then fraced.

4 And September of 1984 electric service
5 was installed and the Langlie Mattix was equipped to pump.

6 In October -- on October 3rd, 1984, the
7 Jalmat was perforated in the zones shown here. That zone,
8 those zones were acidized and then fractured. The Jalmat
9 was then equipped to pump October 10th, 1984.

10 Q Are you currently artificially lifting
11 both of those zones?

12 A Yes, we are.

13 Q Would you tell Mr. Stogner what the cur-
14 rent production rates are from each of the zones?

15 A The current production rates, a test
16 taken within the last thirty days, and which we'll present
17 on our Exhibit Number Seven, shows the Jalmat producing
18 three barrels -- excuse me -- three barrels of oil and 108
19 mcf gas per day, 14 barrels of water.

20 The Langlie Mattix zone is producing six
21 barrels of oil, 15 mcf gas per day, and 18 barrels of water
22 per day.

23 Q All right, sir, if you'll turn to Exhibit
24 Number Six and describe the information contained on that
25 exhibit.

A Exhibit Number Six is a response to each
of the parts of Rule 303 C (2), which in the New Mexico
Rules are the requirements for downhole commingle applica-

1 tion.

2
3 I'll just go quickly through each of
4 these points.

5 The operator is listed as Gulf Oil Cor-
6 poration with the correct address.

7 The lease, well location, is the CD Wool-
8 worth No. 7, Unit J, located 1980 feet from south and east
9 lines, Section 30, Township 24 South, 37 East, Lea County,
New Mexico.

10 The plat showing the dedicated acreage
11 and offset ownership have already been introduced as Exhi-
12 bits Number Two and Three.

13 Exhibit Number Seven, which you should
14 have, is copies of Form C-116, which is a current within 30
15 days well test of each of these zones.

16 Part E, historical information, predicts
17 the Jalmat gas is expected to decline at a rate of 20 per-
18 cent per year and oil will decline at a rate of 20 percent
19 per year after an IP in the Jalmat of 3 barrels of oil per
day.

20 The Langlie Mattix gas is expected to de-
21 cline 15 percent per year and the oil production from that
22 well at 23 percent per year.

23 Part E indicates bottom hole pressures
24 for each zone. I direct your attention to Exhibit Eight,
25 which goes along with this part. This is field data. Exhi-
bit Eight if field data for each of the zones that was

1 gathered by wireline survey.

2
3 It indicates that the Jalmat bottom hole
4 pressure is 3224 -- at 3224 feet is 202 psi, and that the
5 Langlie Mattix bottom hole pressure corrected to the Jalmat
6 depth is 242 psi.

7 Q You have a corrected bottom hole pressure
8 information to show the pressure differential of about 40
9 pounds?

10 A That's correct.

11 Q In your opinion is that a minimal pres-
12 sure differential so that there will not be a crossflow of
13 products from one pool to the other?

14 A Yes, especially in view that both zones
15 will be artificially lifted.

16 Q All right, sir, let's turn to the second
17 page of that exhibit.

18 Are the fluid characteristics of the Jal-
19 mat and Langlie Mattix compatible?

20 A Yes. The Jalmat and Langlie Mattix are
21 currently commingled on the surface by Order PC-683, dated
22 12th and '84, and to date there's been no evidence of fluid
23 incompatibility or increased scaling tendencies from the
24 commingling of those fluids.

25 Q Do you have a proposed method of alloca-
tion of production between the two pools?

A Yes. We're proposing to -- to allocate
the production based on initial production from the zones

1
2 and that percentage is split up as indicated on Part I of
3 this Exhibit Six.

4 I believe that's based on the C-104 pro-
5 duction data.

6 Q In your opinion is that an appropriate
7 allocation between these --

8 A I believe so.

9 Q -- zones? All right.

10 Is the ownership with regards to each of
11 those zones in the proration unit common?

12 A It is.

13 Q And is it economic for Gulf to continue
14 to produce the two zones as a dual completion?

15 A As a dual completion each of the zones
16 will become economic rather quickly and allowing the com-
17 mingling of these zones downhole will enable us to produce
18 the wellbore through a longer -- for a longer period of time
19 than would have otherwise have been possible as a dual com-
20 pletion.

21 Q Would you identify for us Exhibit Number
22 Nine?

23 A Exhibit Number Nine is a tabulation indi-
24 cating that the value of the commingled fluids will not be
25 reduced by this action. This information was presented at
the time the surface commingling permit was applied for and
it is -- it is up to date, even now.

Q Will approval of this application allow

1 Gulf to continue to produce this well and recover oil re-
2 serves that would not otherwise be recovered?

3 A It will.

4 Q And will the downhole commingling impede
5 the possibility of using this wellbore for a waterflood at
6 some time in the future?

7 A No; shouldn't be any problem with water-
8 flooding in the future.

9 Q Were Exhibits One through Nine prepared
10 by you or compiled under your direction and supervision?

11 A They were.

12 MR. KELLAHIN: We move the in-
13 troduction of Gulf Exhibits One through Nine.

14 MR. STOGNER: Exhibits One
15 through Nine will be admitted into evidence.

16 CROSS EXAMINATION

17 BY MR. STOGNER:

18 Q Mr. Munson, is there currently waterflood
19 production -- waterflood operations in either one of the
20 zones here?

21 A Not that I'm aware of. There's none --
22 there's none indicated in the statistical data or proration
23 schedule.

24 Q But I mean in either one of the zones.

25 A Anywhere in the pool?

Q No, either the Langlie Mattix or the Jal-

1
2 mat? Certainly you would be familiar if there was any
3 waterflooding --

4 A Well, I know there had been but not in
5 this particular area.

6 Q Okay.

7 A Close. I know we've got one, in fact, we
8 applied for recently.

9 Q Okay.

10 MR. STOGNER: I have no further
11 questions of Mr. Munson.

12 Are there any further questions
13 of this witness?

14 MR. KELLAHIN: No, sir.

15 MR. STOGNER: If not, he may be
16 excused.

17 Anything further in Case 8467?
18 If not, this case will be taken
19 under advisement.

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(Hearing concluded.)

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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.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8467, heard by me on 30 January 1985.
Michael E. Stewart, Examiner
Oil Conservation Division