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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
February 2, 1972

EXAMINER HEARING

IN THE MATTER OF:

Application of Western Oil
Producers, Inc. for two
nonstandard gas proration
units, Lea County, New
Mexico.

Case No. 4655

and

IN THE MATTER OF:

Application of Western Oil
Producers, Inc. for an
unorthodox gas well
location, Lea County New
Mexico.

Case No. 4656

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

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1 MR. UTZ: Do you want to take these separately?

2 MR. KELLAHIN: We want to consolidate them if we may.

3 MR. UTZ: I see no reason why we don't have one when
4 we do this. Case 4655 and 4656.

5 MR. KELLAHIN: I am Jason Kellahin appearing for the
6 Applicant, and we have one witness I would like to have sworn.

7 MR. UTZ: Any other appearances?

8 You may proceed.

9 N. RAYMOND LAMB

10 a witness, having been first duly sworn according to law, upon
11 his oath, testified as follows:

12 DIRECT EXAMINATION

13 BY MR. KELLAHIN

14 Q Would you state your name, please?

15 A N. Raymond Lamb.

16 Q What business are you engaged in?

17 A I am in the petroleum engineering and geological business.

18 Q Have you testified before the Oil Conservation Commission
19 and made your qualifications a matter of record?

20 A Yes.

21 Q Are the witness' qualifications acceptable?

22 MR. UTZ: Yes, they are.

23 Q (By Mr. Kellahin) In connection with your business as an
24 engineer have you had anything to do with the two cases
25 filed by Western Oil Producers as Case 4655 and 4656?

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1 A Yes, I have been in direct contact with this operation from
2 its inception.

3 Q Briefly, what is proposed by the Applicant in these two
4 cases?

5 A Well, the application in the first two non-standard
6 proration units actually is to clarify and continue with an
7 established proration unit by the Oil Conservation Commission
8 consisting of the southeast quarter of 31 southwest quarter
9 of 32, upon which British American drilled a discovery
10 Morrow gas well.

11 This proration unit was established by the Commission.

12 Q That was also established at the request of the State Land
13 Commissioner, was it not?

14 A As I understand it, yes.

15 Q Now, since this proration unit was established, Gulf Oil
16 Corporation drilled a well identified as North Wilson No. 4
17 in the southwest of the northwest of 32, with the plan that
18 it would have a non-standard gas proration unit consisting
19 of the northeast of 31 and the northwest of 32 of 20-36.

20 Western Oil Producers, Inc. from Roswell has re-entered
21 the Gulf North Wilson 4 and identified it as the State M No.
22 1 and have completed it as a Devonian discovery, so to
23 continue with the non-standard proration units we propose
24 to establish this northeast of 31 and the northwest of 32 as
25 the proration unit for the State M, and to carry forward the

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1 non-standard proration unit previously established for the
2 Marrow and drill a well 660 from the west of 32 and 1,650
3 from the south of 32, which will be a standard location if
4 the unit is approved as a non-standard.

5 Q Now, referring to what has been marked as Exhibit No. 1,
6 would you identify that exhibit, please?

7 A Exhibit No. 1 is a survey plat. Actually it is a re-survey
8 plat of the location of the State M No. 1, establishing the
9 footage of the well, which was a re-entry, and completed as
10 as a two-discovery.

11 Q That complies with the rules of the Commission as to the
12 location?

13 A Yes, provided the non-standard unit is approved.

14 Q Now, referring to what has been marked as Exhibit No. 2,
15 would you identify that exhibit?

16 A It is a location established on the now present Marrow
17 proration unit of 320 acres, which Western Oil Producers,
18 Inc. produced to drill a Devonian producer, the location to
19 be 660 from the west and 1,650 from the south.

20 This will be a continuation of the Marrow non-standard
21 proration unit to extend down to the Devonian.

22 Q That is already dedicated for the Marrow production in that
23 fourth?

24 A Yes.

25 Q Now, referring to Exhibit No. 3, would you discuss that

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1 exhibit, please?

2 A Exhibit No. 3 is a lease holder plat identifying all three
3 of the tracts covered by these two cases.

4 The yellow one identifies the Devonian discovery well
5 which is now the State No. 1.

6 The blue designated area is the proration unit
7 previously established for the Marrow by British American
8 Gulf and proposed to be extended to the Devonian at the
9 location identified with a blue circle.

10 Then the pink area in the south half of 29 is the
11 proposed standard proration unit with an unorthodox
12 location.

13 By continuing with the British American non-standard
14 unit and unit proposed for the State M No. 1 will put the
15 schedule back on a standard half section proration unit for
16 the area.

17 The west half of 31 has been designated as a proration
18 unit by Texaco.

19 This then will give the east half of 32 to be a
20 proration unit, so by establishing these two for the
21 Devonian we can get back to a standard proration unit.

22 Q No operator would be denied the right to dedicate his
23 acreage to a standard unit?

24 A That is right.

25 Q Is that correct?

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1 A That is correct.

2 Q Now, referring to what has been marked as Exhibit No. 4,
 3 would you identify that exhibit, please?

4 A Exhibit No. 4 is a Marrow contour map of the general area
 5 in which these three cases are located.

6 The map was prepared in August of 1971 prior to the
 7 re-entry of the State M No. 1, and gives a review of the
 8 Marrow structure interpretation which has by far more
 9 control points than any other deep horizon in the area.

10 Q Was it on the basis of this interpretation you re-entered
 11 the old Gulf well?

12 A Yes.

13 Q Did the Gulf well substantiate your interpretation?

14 A Yes.

15 Q Referring to Exhibit No. 5, would you identify that
 16 exhibit?

17 A Exhibit No. 5 is a Devonian contour map on 50 foot intervals,
 18 and it is a map developed from the, basically the Morrow,
 19 with the interpretation for the Devonian, and identifies
 20 the structure generally where the Marrow map does, but you
 21 will note that there are steeper depths established in the
 22 Devonian than there were in the Marrow.

23 It gives the closure of the Devonian in the west half
 24 of the southwest of 29-20-36.

25 Q Now, this also reflects a well in the southeast quarter of

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1 Section 31. What is the situation with that well?

2 A That is now Gulf North Wilson 1 Morrow well. Which has a
 3 Marrow point identified as minus 7527 and has a green
 4 marking underneath it.

5 It also has a Devonian structure point of minus 9015,
 6 and then to the northeast is the State M No. 1, which is the
 7 only other well in the area that has penetrated the Devonian
 8 or encountered the Devonian, and the Devonian point there
 9 is a minus 8825, and the Morrow point is a minus 7415.

10 Q So it is a steeply dipping formation at that point?

11 A Yes. The Devonian has a steeper dip than the Marrow at
 12 these locations.

13 Q The well southeast of 31, is it the east Morrow?

14 A British American drilled the No. 1 North Wilson and drilled
 15 it into the Devonian at a total depth of 12,725 feet, and
 16 tested, in my opinion, a greater thickness of Devonian than
 17 it should have. This is hindsight, and it is my firm
 18 belief that if the well had been stopped shallower in the
 19 Devonian that it could have been a marginal Devonian
 20 producer within the producing area of this contour.

21 Q Then would that be approximately close to the gas water
 22 contact, Mr. Lamb?

23 A The gas water contact is probably slightly above the 12,725
 24 feet of this well.

25 Q Now, in your opinion, is all of the acreage proposed to be

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1 dedicated to your new well in the southern unit productive
2 of gas from the Devonian?

3 A In my opinion, it will all be productive of gas.

4 Q You show the 9,004 contour as cutting through a portion of
5 the south half of Section 29.

6 Does that indicate that that acreage may not be
7 productive of gas, or in your opinion is it?

8 A In my opinion, all of the south half of 29 will produce
9 Devonian gas. It will have a marginal point in the extreme
10 eastern portion of the area.

11 Q Now, referring to what has been marked Exhibit No. 6, would
12 you identify that exhibit, please?

13 A Exhibit No. 6 is a lined cross-section covering just the
14 two wells which have penetrated the Devonian.

15 To give the Examiner an idea as to the change in the
16 dip between the Marrow and the Devonian on the two wells on
17 which we have control points--you can see that the Devonian,
18 identified with the pink color, has by far a steeper dip
19 than the Marrow marker at the upper part, identified by a
20 green line.

21 So, with this control, I did prepare the Devonian
22 contour map by subjecting the Morrow map to this change of
23 dips.

24 Q Now, by the same interpretation you would expect a similar
25 type dip to the east in the south half of Section 29, would

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1 you not?

2 A That is correct, because we have that information
3 established from the Marrow control.

4 Q What is your reason then for wanting a well located at an
5 unorthodox location in the south half of 29?

6 A It is a matter of protection of the correlative rights for
7 the operator and gives him the opportunity to recover the
8 gas that is located reasonably underneath his tract, and
9 also to develop for the State significant amount of gas
10 reserve.

11 Q Now, would a well at an orthodox location in your opinion
12 recover all of the gas under the south half of 29?

13 A The furthest you would remove the location, the more gas
14 you are going to leave underproduced underneath this tract.

15 Q Why do you say that?

16 A Well, the gas well at the crest of your structure is the
17 optimum location for the production of gas.

18 Q Do you have a water drive?

19 A Very active water drive in this reservoir.

20 Q Would a well at a lower location water out sooner?

21 A That is right, and it would not be in the best interest of
22 the operator or the State, either way.

23 Q Would the location as you proposed give an unfair advantage
24 to Western Oil as against offset to the west?

25 A No, you will note that we have selected a location

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1 immediately east of the crest in our opinion which will give
 2 Western their rights to recover the oil which is the gas
 3 which is under their property, and will not be an unfair
 4 advantage to the operator to the west or to the north.

5 Q Is it your opinion that gas would not migrate across the
 6 crest if their production is to the west of you?

7 A The only way in which gas might migrate across the crest of
 8 the structure from the west would be in the event Union
 9 failed to develop the acreage at all, which is something
 10 that Western has no control over.

11 Q But if they do develop then, their correlative rights would
 12 be protected?

13 A That is right.

14 Q Now, referring to what has been marked as Exhibit No. 7,
 15 would you identify that exhibit, please?

16 A In support of my opinion that the British American well in
 17 the southwest of the southeast of 32 was at or near the gas
 18 water contact, the Johnson tester report is submitted as
 19 evidence showing that on a drill stem test they recovered
 20 the water cushion of 7.99 barrels. It is in the left
 21 portion of the page, about two-thirds of the way up.

22 Salt water cut with mud, 7.99 barrels; muddy salt water,
 23 slight traces of oil and gas, 7.4 barrels; salt water cut
 24 with traces of oil at .7 barrels, which indicates there was
 25 both oil, gas, and water recovered from this drill stem test.

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1 Q Does this substantiate your opinion that they drilled the
2 well too deep into the Formation?

3 A That is correct.

4 Q Now, referring to Exhibit No. 8, would you identify that
5 exhibit?

6 A Exhibit No. 8 is a page from a report prepared by the
7 Geological Engineering Services, and I believe their
8 address is Midland, Texas.

9 The report covers all oil and gas, shows what is
10 encountered during the drilling of the British American
11 North Wilson Unit No. 1, and this report is a determination
12 of the same people in which they felt were encountered the
13 latter item which was drill stem tested from 12-6-74 to
14 12,725, and may I read this into the record? "Is described
15 as clear to white medium-crystalline dolomite with bright
16 blue-white fluorescence, good vuggy porosity and fair to
17 good cuts. Also some tan, fine-crystalline limestone with
18 yellow-white fluorescence, good cuts and evidence of vuggy
19 and solution porosity. Traces of black stain within vugs
20 becoming more prevalent with depth, which gives, in my
21 opinion, an indication of gas in the upper part of this
22 section and definitely water in the lower.

23 Q Were you present when these samples were taken?

24 A I was on the well myself when the section was drilled. I
25 was in the trailer when these people described the samples,

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1 and my description coincides with this interpretation, so
2 I would not object to taking it as my own.

3 Q Mr. Lamb, were Exhibits 1 through 8 prepared by you or
4 under your supervision?

5 A These were.

6 Q At this time I would like to offer in evidence Exhibits 1
7 through 8 inclusive.

8 MR. UTZ: Without objection, Exhibit 1, 2, -- through
9 8 will be entered into the record.

10 Q (By Mr. Kellahin) You already had a well northwest quarter
11 section of 32; is that correct?

12 A Yes, that well is identified as a State M and as Devonian
13 discovery.

14 Q You are proposing to drill in the southwest quarter of 32?

15 A That is right.

16 Q Is there any urgency in getting an order in connection with
17 this case?

18 A Yes, the operators of this unit have obtained from Gulf the
19 right to drill at this location there on a time requirement
20 and they would appreciate expedience as the Commission sees
21 fit.

22 MR. UTZ: Both of these wells just mentioned are
23 standard locations providing the unit is approved?

24 A That is correct.

25 MR. UTZ: Are you through?

1 MR. KELLAHIN: Yes. That is all. Thank you.

2 CROSS-EXAMINATION

3 BY MR. UTZ

4 Q The non-standard location that you are requesting in Case
5 4656--

6 A Yes.

7 Q Would be the well in the southwest quarter of Section 29?

8 A Correct.

9 Q That is a Devonian, that is projected for a Devonian test?

10 A Yes. By the way, the well identified as the State M No. 1
11 was in the Morrow.

12 Q What is the foot location from the section line on the
13 Wilson line on the southwest of 29?

14 A It is 990 from the west line and at a legal location from
15 the sidelines, and that, of course, would be 660 from the
16 north line or 660 from the south line, or somewhere in
17 between.

18 Q Is it 1,980 from the south line of the section?

19 A Yes. We would like to hold that definition of distance
20 and take advantage of the geological formation we developed
21 from the drilling of the wells to the south.

22 Q These foot locations that I just asked about, are they the
23 same as that created in your Application?

24 A Yes. It says 660 from the side boundary of the proration
25 unit, south half of 21.

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1 The only exception to the distance is the 990 from the
2 west line, a legal location on that tract would be 1,980
3 from the west and 660 from the north of the south line, or
4 somewhere in between.

5 Q Now, you mentioned that someone, I think you did, anyway,
6 was a little busy--anyway--I was a little busy listening
7 and looking--on the east half of section 32 had a standard
8 unit that could be standard unit if these two non-standards
9 were approved, but it isn't now?

10 A There is no deep production over there. There is the Wolf
11 camp well in the southwest of the southeast, which has a
12 point of abandonment, the Morrow was tested in that well,
13 but was not productive.

14 Q Now, on the west half of Section 31, has that already been
15 dedicated?

16 A It is dedicated to the Texas CU, what they call the Texas
17 New Mexico State Gas communique situation. It is, best as
18 we are able to find out, since Texaco has not released the
19 logs on this well, probably the producing horizon is the
20 Dakota.

21 MR. UTZ: Any other questions?

22 MR. HATCH: Do you happen to have the order number that
23 authorized the original non-standard?

24 THE WITNESS: George, I looked for it, and I haven't
25 located it.

1 I think the date is somewhere around June.

2 MR. HATCH: That was after a hearing?

3 THE WITNESS: Yes, they had to have a hearing. The
4 well was originally completed as a bone springs well dual
5 completion in the bone springs. Then after depleting the
6 reservoir in about 90 days they went to the Marrow and completed
7 the well there. And Texaco's acreage in the west half of 31
8 was not a part of the North Wilson deep unit for reasons of
9 Texaco's only, so this gave Gulf and British American the only
10 choice of selecting those two 164's at a proration unit.

11 MR. UTZ: Any other questions?

12 The witness may be excused.

13 Any statements in the case?

14 No statements, the hearing will be--the case will be taken
15 under advisement and the hearing is adjourned.

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25I N D E XWITNESSPAGE

N. RAYMOND LAMB

Direct Examination by Mr. Kellahin

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Cross-Examination by Mr. Utz

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E X H I B I T SAPPLICANT'SADMITTEDOFFERED

Exhibits 1 through 3

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Exhibits 4 & 5

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Exhibit 6

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Exhibit 7

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Exhibit 8

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