

EXAMINER HEARING

CASE
8039

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I N D E X

DANIEL S. NUTTER

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2 MR. STOGNER: We'll call next
3 Case Number 8039.

4 MR. PEARCE: That case is on
5 the application of Merrion Oil & Gas Corporation for special
6 pool rules, San Juan County, New Mexico.

7 MR. CARR: May it please the
8 Examiner, my name is William F. Carr, with the law firm
9 Campbell, Byrd, & Black, P. A., of Santa Fe, appearing on
10 behalf of the applicant.

11 I have one witness who needs to
12 be sworn.

13 MR. PEARCE: Are there other
14 appearances in this matter?

15 (Witness sworn.)

16 DANIEL S. NUTTER,
17 being called as a witness and being duly sworn upon his
18 oath, testified as follows, to-wit:

19 DIRECT EXAMINATION

20 BY MR. CARR:

21 Q Will you state your name and place of
22 residence?

23 A Dan Nutter, Santa Fe, New Mexico.

24 Q By whom are you employed and in what cap-
25 acity?

1
2 A I'm employed in this case by Merrion Oil
3 and Gas Corporation as a consulting engineer.

4 Q Have you previously testified before this
5 Commission and had your credentials accepted and made a mat-
6 ter of record?

7 A Yes, sir..

8 Q Are you familiar with the application
9 filed in this case on behalf of Mr. Merrion?

10 A Yes, I am.

11 Q Are you familiar with the subject area?

12 A Yes, I am.

13 MR. CARR: Are the witness'
14 qualifications acceptable?

15 MR. STOGNER: I believe Mr.
16 Nutter is so qualified.

17 Q Mr. Nutter, will you briefly state what
18 Mr. Merrion seeks in this application?

19 A Merrion Oil and Gas Corporation is
20 seeking the promulgation of special pool rules for the
21 Dufers Point Gallup-Dakota Oil Pool in San Juan County, New
22 Mexico, in this case.

23 Q Mr. Nutter, will you please refer to what
24 has been marked for identification as Merrion Exhibit One,
25 identify this, and explain what it shows?

A Exhibit Number One is a map of the Dufers
Point Pool. The pool was discovered by the Royal Develop-
ment Company Paquenche Federal No. 2, which is located in

Unit H of Section 3, Township 25 North, Range 8 West.

This well was completed in the Dakota formation on July the 13th, 1958. Subsequent to that completion Gallup discoveries were made in the area and in July of 1972 the Division combined the Gallup formations and the Dakota formations and intervening formations into one pool and renamed the pool from the Dufers Point Dakota Pool to the Dufers Point Gallup-Dakota Pool.

Since then there have been perforated intervals in the Gallup, the Sanastee, the Graneros, and the Dakota to make commercial wells in the area.

Exhibit Number One in green outlines the pool. Yellow acreage is acreage owned by Merrion Oil and Gas Corporation, which is almost a half of the total acreage in the pool. Merrion does operate about fifty percent of the wells in the pool.

We're seeking 160-acre spacing in this case and if you'll note from the location of the wells, voluntary spacing of the wells by the operators in the pool since its discovery in 1958 has been on at least 160-acre spacing.

In every instance a well drilled in this pool is capable of dedicating a full 160 acres to the well with the exception of one case, a very recently completed well way down in the far southeast corner, BEECO, Inc., very recently completed its Nancy Well No. 5, located in Unit K of Section 12.

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2 Prior to that No. 3 was located in Unit
3 N; No. 4 was located in Unit F of Section 12, and those
4 wells could have had 160 acres dedicated to them and would
5 be able to dedicate it, with the exception of this No. 5,
6 now, which would probably have to share an allowable with
7 the No. 3 Well in the southwest corner -- quarter of Section
8 12. However the wells are marginal, it's not going to be
9 any problem for them to share a single allowable.

10 Q Mr. Nutter, will you now refer to Exhibit
11 Number Two and review this for Mr. Stogner?

12 A Exhibit Number Two is an estimate of ul-
13 timate oil recovery from the various wells in this pool.

14 There's no indication on the exhibit as
15 to whether these are Gallup or Dakota completions, so some
16 of them are Gallup, some are Dakota, some are both, and some
17 have the intervening formations completed in them.

18 At the time this exhibit was prepared,
19 there were fourteen wells for which we had production de-
20 cline curves available, or fourteen wells that were listed
21 on the exhibit. Production decline curves were not avail-
22 able on all of the wells but we do have available reserves
23 on fourteen, fourteen wells.

24 The average reserves, by taking the pro-
25 duction decline curves, are 25,470 barrels; however, two of
the wells have extremely low estimated reserves, and two of
the wells have higher than average reserves just by eye-
balling it.

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2 So we eliminated the two highest and the two
3 lowest reserves to try to come up with a better idea of what
4 the actual average reserves of the pool would be.

5 We discovered by using ten wells that the
6 average reserves were 24,807 barrels. So we took the 25,470
7 barrels from the -- from all of the wells and the 24,807
8 barrels from the ten wells, we came up with an average re-
9 serve figure of 21 -- 25,139. I think that this is a fairly
10 representative average that you might expect to get from the
11 average well in the pool.

12 There will be some wells that will be
13 drilled that will produce more than this, of course, and
14 some that will produce substantially less, but a fair esti-
15 mate of average reserves in the pool, I believe, is about
16 25,000 barrels.

17 Q Will you now review Exhibit Number Three?

18 A On Exhibit Number Three we had gas/oil
19 ratios for a number of the wells in the pool. There were
20 some that we didn't have any ratio available because there
21 wasn't sufficient reliable data. These are producing
22 gas/oil ratios over the lives of these various wells.

23 The average gas/oil ratio in the pool, if
24 you exclude the El Paso Nageezi Well No. 3, which is the
25 third well from the top of Exhibit Number Three, if you ex-
clude that well, the average producing gas/oil ratio over
the life of the wells to date has been 1682 cubic feet of
gas per barrel of oil, or 1.682 Mcf of gas per barrel.

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2 Now if we take the previously obtained
3 average oil reserves of 25,139 barrels and apply this 1.682
4 Mcf of gas per barrel, we find that the average well would
5 have approximately 42,284 Mcf of gas reserves.

6 Q Will you now refer to Exhibit Number Four
7 and review that?

8 A Exhibit Number Four is an analysis of
9 some of the economics of the production of wells in the
10 pool. Of course, the original full interest lease would be
11 100 percent. This would include working interest, royalty
12 interest, and overriding royalty interests.

13 In the north end of the pool many of the
14 leases are Indian allottee leases carrying a royalty of 16-
15 2/3rds percent.

16 In the south end of the pool most of the
17 leases are standard State and Federal leases and carry a
18 regular royalty rate of 12-1/2 percent; however, many of
19 these leases carry overrides, sometimes approximately 10
20 percent, and it is believed that a safe estimate for the
21 average lease encumbrance for the pool as a whole, including
22 the 16-2/3rds percent Indian royalties, 12-1/2 percent
23 standard State and Federal royalty, and 10 percent over-
24 riding royalty applied to some of the leases, that the aver-
25 age lease encumbrance would be approximately 20 percent.

So we have a net working interest
remaining to the operator of the well of approximately 80
percent.

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2 If we take our previously obtained oil
3 reserves of 25,139 barrels and allocate 80 percent of that
4 to the working interest owner, we have 20,111 barrels.

5 If we take our previously obtained 42,284
6 Mcf of average gas reserves, apply the same 80 percent, we
7 have 33,827 Mcf of gas reserves available to the operator.

8 I might mention here at this point, we
9 then generous and allowing the operators the full use in
10 these economic studies of the entire 33,827 Mcf of gas re-
11 serves; however, in some cases all of the gas is used on the
12 lease. Other cases most of the gas is used on the lease,
13 and at least half of the gas is used on the lease for
14 pumping the engines.

15 Okay, we've got 20,111 barrels, the aver-
16 age price of Dufers Point oil today is \$29.60 a barrel. The
17 average price of Dufers Point gas today is \$2.83 per Mcf
18 with about 20 percent bonus for BTU content, for an average
19 value of approximately \$3.40 per Mcf.

20 Value of the oil at \$29.60 over the life
21 of the average well would be \$595,285.60.

22 The average price of the value of gas,
23 assuming it was all sold at \$3.40 would be \$115,011.80, for
24 a total revenue to the operator of \$710,297.40.

25 Q Would you now review Exhibit Five?

A Okay. Exhibit Number Five is an analysis
of the life span of the average well and the operating cost.

You'll recall on Exhibit Number Two that

1 we had the estimated ultimate reserves. I mentioned that
2 those were taken from production decline curves. On the
3 third column from the left on Exhibit Number Five we have
4 the date of first production from each of the wells that
5 we're studying. This ranges from 1958 to as recently as
6 1977.

7 The date of last production is the date
8 that was obtained from the production decline curves that we
9 had decline curves available on. Some of the wells have al-
10 ready been plugged, so the last production is already shown
11 as -- well, there's one there that was plugged in 1964, so
12 last production was 6-64; however, some of them have rather
13 long life and the first well on there, the Nageezi No. 1,
14 has an estimated final production of January, 2000.

15 So we have the life span calculated from
16 the date of first production to the date of estimated plug-
17 ging and abandonment and that would be the total life span
18 is 3181 months. We have down the middle part there of the
19 text on Exhibit Number Five, we have that -- or at the top
20 we find with the thirteen wells the average life span is
21 227.2 months.

22 Now we eliminated four of these wells on
23 the previous exhibit, so we're going to eliminate those same
24 four wells at this time that have the two highest and the
25 two lowest ultimate recoveries.

So therefore, we come up, eliminating
those four wells, with an average life span of 234.7 months

1 for the average well.

2 Now operating costs in the pool,
3 including the cost of cutting paraffin, maintenance, and
4 pumper time, and all other normal applicable expenses,
5 operating costs for these wells approximate \$1500 per month.

6 Assuming that that \$1500 per month would
7 apply over the average well's life span of 234 months, we'd
8 have a total operating cost of \$352,050.

9 Q Will you now review Exhibit Number Six?

10 A Exhibit Number Six is the final economic
11 analysis of the wells. We start off with well costs. Two
12 of the most recently drilled wells in the pool were
13 Merrion's Warito No. 1, completed in June of 1982, and Mer-
14 rion's Jalapeno No. 1, completed in July of 1983.

15 The Warito cost \$607,830.16 cents to
16 drill. The Jalapeno cost \$375,609.77 to drill. However,
17 the Warito encountered unusual mud and other expenditures
18 when it was being drilled and should not be regarded as
19 typical of drilling and completion costs in the area.

20 Jalapeno was drilled without those extra-
21 ordinary expenses and it is believed that its costs of
22 \$375,609 are average costs that you might expect for
23 drilling wells, barring unforeseen circumstances and unusual
24 costs.

25 The average well's income, as determined
from a previous exhibit, after royalties, would be \$710,297.

Now taxes are applicable to this revenue.

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2 We estimate that approximately 8.5 percent of the revenues
3 would be paid in taxes, not including income taxes, and not
4 including the windfall profits tax. We took windfall pro-
5 fits off because it varies so much from operator to opera-
6 tor.

7 But just applying the 8.5 percent State
8 taxes, we find that that would total \$60,000. We have an
9 income after taxes of \$649,922, less drilling and completion
10 costs of \$375,000, we have income before operating costs of
11 \$274,000. Less the operating costs we have a net loss of
12 \$77,737.

13 Now, we're hoping that this is not appli-
14 cable to all wells. There are two ways you could avoid
15 that, either reduce your operating costs or get a better
16 than average well, and that's what, of course, the operators
17 are seeking in here.

18 Q Mr. Nutter, in your opinion would appro-
19 val of special pool rules, including 160-acre spacing for
20 this pool, be in the best interest of conservation, the pre-
21 vention of waste, and the protection of correlative rights?

22 A Well, as I mentioned before, the pool has
23 been voluntarily spaced on wide spacing because the opera-
24 tors realize there's not a lot of reservoir engineering data
25 available on the pool. There's a complete dearth of it, as
a matter of fact. For a pool that's been drilled and oper-
ated since 1958 there have been no real reservoir studies
conducted in here. There's no pressure data available.

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2 There's no formation analyses, hardly, available, and all
3 we've got is economics to go on, and the fact that these
4 wells have been drilled on the rather wide spacing. We know
5 they're not interfering with each other and they are
6 recovering as much as they can.

7 Now, the Commission has approved 160-acre
8 spacing for a number of pools in the Gallup and in the
9 Dakota, and producing characteristics, log characteristics,
10 of those wells, of wells in those pools and the wells in
11 this pool, are very similar. Some of the pools that have
12 been developed on 160-acre spacing, Chacon Dakota Pool is an
13 oil pool; the Counselor's Gallup Pool is a 160-acre oil
14 pool; Devils' Fork Gallup Associated Pool is 160-acres for
15 the oil, 320 for the gas; La Plat Gallup is 160-acres; the
16 Media -- no, I won't talk about the Media Entrada. The West
17 Lindrith Gallup-Dakota is very similar to this. It's one of
18 the larger pools in the San Juan Basin and it's been
19 developed on 160-acre spacing.

20 We see the characteristics of this pool
21 so similar to those pools that we're going to have to go on,
22 rather than engineering data, on similarity of characteris-
23 tics, and recommend the 160-acre spacing in here.

24 Now, you asked if it would prevent waste.
25 If you don't have the economics you can't drill the wells,
so if you do have the economics maybe it will be possible to
convert that \$77,000 loss into a profit.

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2 You certainly couldn't do it if you had
3 wells too close together and interfering with each other,
4 and producing each other's reserves.

5 So I believe that the application will
6 prevent waste by enabling wells to be drilled that otherwise
7 might not.

8 It certainly won't impair correlative
9 rights because we do recommend that exception be made for
10 that Nancy No. 5, that it be allowed to produce on the -- on
11 the same unit. Our proposed pool rules would say that you
12 could have more than one well on the unit if you saw fit to
13 put it there.

14 Also, there are -- there's one well in
15 here, the Knowle Reynolds Paquenche No. 3 Well, located in
16 Unit C of Section 10, down in 25 North, Range 8 West, which
17 is on a 40-acre lease, and we would propose that Mr.
18 Reynolds be permitted to have this well as a nonstandard
19 unit, simply by filing a plat or a letter stating that he
20 would prefer a nonstandard unit here for this well.

21 He doesn't have any other additional
22 acreage to dedicate to the well and I'm sure he wouldn't
23 want to share the remaining production with anyone else
24 since he's only got the 40-acre lease.

25 So with those two exceptions, the excep-
tion for the Nancy No. 5, the Knowles Reynolds Paquenche No.
3, I think it would be standard pool rules very similar to
the pool rules for West Lindrith Gallup-Dakota.

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2 Q Were Exhibits One through Six prepared by
3 you or have you reviewed them and can you testify as to
4 their accuracy?

5 A Yes, they were prepared by me.

6 MR. CARR: At this time, Mr.
7 Stogner, we would offer Merrion Exhibits One through Six.

8 MR. STOGNER: Exhibits One
9 through Six will be admitted into evidence.

10 MR. CARR: That concludes our
11 direct testimony.

12 CROSS EXAMINATION

13 BY MR. STOGNER:

14 Q Mr. Nutter, you named off several pools
15 that presently have 160-acre oil spacing. Are those in this
16 vicinity or what is the nearest ones around this particular
17 pool?

18 A The Devil's Fork Gallup is not very far
19 from here.

20 Q Do you know approximately --

21 A West Lindrith Gallup-Dakota is quite a
22 ways east of here. Chacon Dakota is quite a ways east of
23 here, and I really don't know where Counselor's is.

24 Frank, where's Counselor's?

25 MR. CHAVEZ: The Counselor's is
about three townships to the south.

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2 A How about La Plata? I don't know where
3 that one is?

4 MR. CHAVEZ: (Inaudible.)

5 A It's up in the north end, is it?

6 MR. CHAVEZ: Yes, sir.

7 A Near Horseshoe? That way.

8 Q On your Exhibit Number One there's an
9 Ake, A-K-E, Well No. 1.

10 A Okay. That's a funny -- that's a funny
11 situation. Down here at the extreme southeast you'll notice
12 the red line on your exhibit. That's the Escrito Gallup
13 Pool and it's developed on 80-acre spacing, and it's Gallup
14 only.

15 Now that Ake No. 1 is not in the Escrito
16 but it's considered to be covered by the Escrito Pool rules,
17 although the -- the Dufers Point comes around and hooks
18 around it, and the Ake is carried in the Escrito Gallup
19 Pool.

20 So it would remain on 80-acres or if it
21 has a 40-acre unit in the -- in the Escrito Gallup it would
22 remain in the Escrito Gallup.

23 Do I have the Escrito Gallup marked on
24 those exhibits, on those maps?

25 Q No, you don't.

A Okay, if I might approach the bench.

Q Please.

A The Escrito Gallup comes across here,

comes right down here, comes across here.

(There followed comments by Mr.
Nutter off the record.)

Q Thank you, Mr. Nutter, for that enlightenment. However, on your Exhibit Number Two you carried the Ake No. 1 in your --

A Right, at first I thought it was in the -- in the Dufers Point, and then I found that in the proration schedule, I looked for it in the proration schedule and couldn't find it, and stumbled across it in the Escrito Gallup. It's odd that it is in Escrito, but that's where it's carried by the Division.

And it appears on exhibits as being one of the wells that we studied for determining reserves.

Q But it's producing from the same formation.

A It's producing from one of the formations that would be -- that is in the Dufers Point Gallup, yes. Gallup-Dakota, I mean.

Well, I'll tell you, we had it in the reserves and if you'll notice on Exhibit Number Three, it was one of the wells we threw out on the gas/oil ratios.

Now, it did get into the estimated oil reserves, however.

Q It looks like to me if you threw that out on Exhibit Number Two it wouldn't change your average recommendation, since it's almost a close average there.

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2 A It's almost an average well and we didn't
3 have any information on it for -- we didn't have any inform-
4 ation on gas/oil ratios for it, so we couldn't include it in
5 that.

6 MR. STOGNER: I have no further
7 questions of Mr. Nutter. Mr. Pearce?

8 MR. PEARCE: Mr. Carr, or Mr.
9 Nutter, as I understand the special pool rules you seek are
10 a set of pool rules very similar to the West Lindrith
11 Gallup-Dakota.

12 A That is correct.

13 MR. PEARCE: Does -- does that
14 set of special pool rules contain, for lack of an accurate
15 description, the kind of grandfathering that you're looking
16 for with regard to the -- to the BEECO well and the Knowle
17 Reynolds well?

18 A The only thing --

19 MR. PEARCE: Is that provided
20 for in --

21 A The only thing it provides for is that
22 more than one well, more than one well on a unit can be pro-
23 duced in any proportion. Now that provision is in the West
24 Lindrith.

25 Now the special provision we're asking
for on the -- on the Knowle Reynolds Paquenze is that
simply by writing to the Division Director he'd be eligible
for this 40-acre unit without having to go through the

1
2 procedure of notification of offset operators and all that
3 to get a nonstandard unit.

4 MR. PEARCE: Mr. Examiner, I
5 would request that Mr. Carr and Mr. Nutter draft that provi-
6 sion and provide it to us subsequent to the hearing, please.

7 MR. CARR: We'll be happy to
8 supply a proposed order.

9 MR. PEARCE: Thank you, sir.
10 Nothing further, Mr. Examiner.

11 MR. STOGNER: Does anybody else
12 have any questions for this witness?

13 MR. CHAVEZ: Yes, Mr. Examiner.

14 QUESTIONS BY MR. CHAVEZ:

15 Q Mr. Nutter, did you do an exact
16 (inaudible) under the tract or were your estimated reserves
17 done just off of the --

18 A Off the production decline curves.
19 That's the only thing we've got to go by. We have no
20 volumetric analysis under the tract available.

21 Q Okay, thank you. That's all I have.

22 MR. STOGNER: Does anybody else
23 have any further questions of this witness? If not, he may
24 be excused.

25 Is there anything else in Case
Number 8039 this morning?

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MR. CARR: Nothing further.

MR. STOGNER: If not, this case
will be taken under advisement.

(Hearing concluded.)

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. 8039
heard by me on January 18 1984.

Michael E. Slogner, Examiner
Oil Conservation Division