

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY)
THE OIL CONSERVATION DIVISION FOR THE)
PURPOSE OF CONSIDERING:)
)
APPLICATION OF COLEMAN OIL AND GAS,)
INC., FOR SIMULTANEOUS DEDICATION,)
SAN JUAN COUNTY, NEW MEXICO)

CASE NO. 13,894

ORIGINAL

2007 JUN 7 AM 9:00

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: WILLIAM V. JONES, Jr., Hearing Examiner

May 24th, 2007

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, WILLIAM V. JONES, Jr., Hearing Examiner, on Thursday, May 24th, 2007, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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May 24th, 2007
 Examiner Hearing
 CASE NO. 13,894

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A P P E A R A N C E S

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By: W. THOMAS KELLAHIN

* * *

1 WHEREUPON, the following proceedings were had at
2 1:34 p.m.:

3
4
5
6 EXAMINER JONES: Okay, let's go back on the
7 record this afternoon and call Case Number 13,894,
8 Application of Coleman Oil and Gas, Incorporated, for
9 simultaneous dedication, San Juan County, New Mexico.

10 Call for appearances.

11 MR. CARR: May it please the Examiner, my name is
12 William F. Carr with the Santa Fe office of Holland and
13 Hart, L.L.P.

14 We represent Coleman Oil and Gas, Inc., in this
15 matter, and I have one witness.

16 EXAMINER JONES: Other appearances?

17 MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of
18 the Santa Fe law firm of Kellahin and Kellahin. I'm
19 appearing today on behalf of Mr. Gene Gallegos, who does
20 business as Pro New Mexico Energy, Inc. We are an offset
21 operator to the Coleman tract, and I have one witness to be
22 sworn.

23 EXAMINER JONES: Any other appearances?

24 Will the witnesses please stand to be sworn?

25 (Thereupon, the witnesses were sworn.)

1 case?

2 A. Yes, I am.

3 Q. Are you familiar with the status of the lands in
4 the portion of the Basin-Fruitland Coal Pool that is the
5 subject of this hearing?

6 A. Yes.

7 Q. Have you made a study of the area that is the
8 subject of the Application?

9 A. Yes, I have.

10 Q. And are you prepared to share the results of that
11 work with the Examiner?

12 A. Yes.

13 MR. CARR: We tender Mr. Emmendorfer as an expert
14 in petroleum geology.

15 MR. KELLAHIN: No objection, Mr. Examiner.

16 EXAMINER JONES: Mr. Emmendorfer is an expert in
17 petroleum geology.

18 Q. (By Mr. Carr) Could you explain to the Examiner
19 what it is that Coleman is seeking with this Application?

20 A. Mr. Examiner, Coleman Oil and Gas with this
21 Application seeks an order granting exception to Rule
22 7.(d).(1) of the special rules and regulations of the
23 Basin-Fruitland Coal Gas Pool by simultaneously dedicating
24 the west half of Section 18, 26 North, Range 11 West, San
25 Juan County, New Mexico, for four existing coal gas wells,

1 the Ricky Number 1 and the Ricky Number 1R in the northwest
2 of Section 18, and the Ricky Number 2 and the Ricky Number
3 2R in the southwest of Section 18.

4 Q. Has Coleman been producing these wells for the
5 last two years, pursuant to orders from the Oil
6 Conservation Division?

7 A. Yes, a little over two years ago I came before
8 the Examiner with Division Order R-12,201, granted on
9 August 24th, 2004. We were allowed to simultaneously
10 produce the Ricky 1 and 1R and the Ricky 2 and 2R as a test
11 to see the commerciability of the upper coal stringers as a
12 Fruitland Coal well.

13 The test authorized -- was extended for an
14 additional year when I came before you, Order -12,201-A,
15 where you granted another year's production test. At that
16 time one of the questions you asked me was, Well, why don't
17 you make this permanent? And we felt we had good data, but
18 we needed -- we thought another year's data would be
19 helpful, and now we're back to ask for simultaneous
20 dedication of the four wells.

21 Q. Do you have sufficient data to enable you to
22 reach conclusions about the wells on this tract and how
23 they are draining the reservoir?

24 A. Yes.

25 Q. Are you continuing your study in this general

1 area to determine how to effectively produce the various
2 portions of the Basin-Fruitland Coal?

3 A. Yes.

4 Q. Could you identify what has been marked as
5 Coleman Exhibit Number 1 and review this for the Examiner?

6 A. Okay, I don't know how good your memory is, Mr.
7 Examiner, but they're very similar to the ones we had a
8 little over a year ago. Exhibit Number 1 is an activity
9 map called the Ricky area. Predominantly it's the western
10 portion of 26 North, 11 West, and the eastern portion of 26
11 North, 12 West, with a little bit of 27 North, 11 and 12
12 West, located.

13 Shown here are all the wells that are currently
14 producing out of the Basin-Fruitland Coal. With the
15 exception of two wells which I'll identify later, they've
16 been drilled but have not been completed at this time.

17 Also, in yellow, are the lands and the subsequent
18 wells that are operated by Coleman Oil and Gas in this
19 area.

20 There's a red outline around the west half of
21 Section 18 that is the subject 320-acre proration unit for
22 the Ricky wells.

23 In blue are the operators' names and the well
24 names for each of the different wells. And likewise, if
25 the operator's name is at the top of the section, then it's

1 a standup 320; and if they're divided such as in Section 7,
2 where those are dedicated as laydowns, where the Western
3 Federal Number 7 would be a south-half dedication, so
4 that's the key to that.

5 As I mentioned earlier, all the wells that are
6 currently producing out of the Basin Fruitland Coal on this
7 map are located -- with the exception of two wells, they
8 are located in the east half of Section 18. They were
9 drilled by Pro New Mexico in March of 2007. I don't know
10 if they've been completed or not. It was Tuesday afternoon
11 before I left my office to drive down here. I checked the
12 New Mexico Oil and Gas website, and there had not been a
13 completion report filed on either well at that time, so if
14 they've been completed and haven't had the completion in, I
15 don't know. But my records show that they have not been
16 completed at this time.

17 Q. Let's go to Exhibit Number 2. Would you identify
18 this and review it for Mr. Jones?

19 A. Exhibit Number 2 is a type log for the Ricky
20 area. As a matter of fact, it's utilizing the Ricky Number
21 1 well in the northwest of Section 18, 26 North, 11 West.
22 It shows the three principal formations in this portion of
23 the Basin, where the Pictured Cliff formation -- Pictured
24 Cliff sandstone is the lowest portion of the well log.
25 Typically these Basin-Fruitland Coals, we drill about 100,

1 150 feet into the Pictured Cliff for rathole purposes. The
2 Fruitland formation, and then above the Fruitland formation
3 it's the Kirtland shale. It's standard lithologic sequence
4 in this portion of the Basin.

5 Also within the Fruitland formation, it's further
6 broken down into what I'm referring to as the basal coal
7 zone, which lies directly above the Pictured Cliff
8 sandstone. And then there are series of upper stringers of
9 coal. We just call them upper coal zones.

10 And then this particular log -- and I will show
11 another log in detail later -- shows where the perforations
12 are in this well, where they're perforated and completed in
13 these upper coal zones.

14 Q. Let's go now to Exhibit Number 3. This is your
15 completion map. And review the information you have placed
16 on this map for the Examiner.

17 A. Exhibit Number 3 is the same area as Exhibit
18 Number 1. However, the addition of some red alphabet
19 letters that indicate the type -- what zones within the
20 Fruitland Coal have been completed.

21 There has been a -- several things tried.
22 Coleman -- when we have developed our acreage, initially
23 we've gone in and just completed the basal coal only.
24 Therefore you'll find a B for basal coal next to almost
25 every single well that Coleman operates in this area.

1 Some of the operators have only completed in the
2 upper coal, such as the two wells in Section 7, and the
3 Ricky Well Number 1 and Number 2 also were only completed
4 in the upper coals before we purchased the wells.

5 Some of the operators have completed in all -- or
6 both the basal and the upper coals. Those are designated
7 as C for a combination of both coals being produced, or
8 several coals being produced.

9 And then there is also, down in Section 16 and in
10 17 of 26 North, 11 West, there are two wells that have been
11 drilled horizontally in the basal coal. Again, there's --
12 every well that's been completed is on here.

13 And I've also added the two wells in the east
14 half of 18 that are operated by Pro New Mexico. I do not
15 show them as being completed yet. I would imagine that
16 they will probably complete both the upper and lower coals.
17 Based on their well logs that they submitted to the State,
18 they look very similar to the Ricky wells. And from the
19 fact that in Section 8 they have drilled two coal wells in
20 there and completed them in both the upper and the basal
21 coals, I would imagine that they would probably be similar
22 completions.

23 I'd also like to point out that this is an
24 exhibit similar to my last hearing, but since then there's
25 been a change to that, and that's the well in the northeast

1 of Section 13, operated by Redwolf Production. They
2 originally drilled that well in 2004, and completed it only
3 in the basal coal. And since our last hearing, they've
4 come back in October of 2005 and completed the upper coals
5 in that well, so now there is both the upper and the basal
6 coal completed in that well, and therefore I've changed
7 that designation to C to indicate the combination of those
8 coals.

9 Q. Mr. Emmendorfer, if we look at this exhibit, with
10 the exception of your wells that are the subject of today's
11 hearing in Section 18, all of your wells are produced in
12 the basal --

13 A. That's correct.

14 Q. -- portion of the Fruitland Coal?

15 A. Yes.

16 Q. And is it fair to say what you've been trying to
17 do is determine how you can add the upper perf- -- or how
18 you can access the upper coal sands in this area?

19 A. The Fruitland Coals, yes, coal --

20 Q. Yes, coals, I'm sorry.

21 A. Yes.

22 Q. Okay. Let's go to Exhibit Number 4, the north-
23 south cross-section, and I'd ask you to explain what this
24 shows and then review the information on that well by well
25 for Mr. Jones.

1 A. Exhibit Number 4 is north-south cross-section
2 showing the four Ricky wells in the west half of 18. I'd
3 like to start by reviewing kind of a little bit of history
4 of why there's four wells within the west half of Section
5 32 -- or excuse me, Section 18.

6 Originally the Ricky 1 and the Ricky Number 2
7 were drilled in 1983. Yes, 1983. They were dedicated on
8 160-acre spacing, and they were dedicated as South
9 Gallegos-Fruitland-Pictured Cliff Gas Pool. They were
10 completed -- both of the wells were -- two sets of
11 perforations were frac'd and completed in each of the
12 wells, just in these upper coals.

13 When the Fruitland -- Basin-Fruitland Coal Pool
14 was established, there were a number of these wells that
15 were considered problem wells because they were actually
16 coal wells, but they were completed in the Fruitland-
17 Pictured Cliff Pools at 160-acre location. And those were
18 grandfathered in as 160-acre location Fruitland Coal wells.

19 These wells were drilled as slimhole completions,
20 they're the 2-7/8-inch casing, which makes it very hard to
21 do any kind of remedial work on them.

22 With Coleman we tried unsuccessfully in the late
23 1990s to buy those two wells, but in 2002 we were
24 approached by the operator to see if we still wanted to buy
25 those wells, which we did.

1 Our goal was to complete the basal coal zone
2 similar to all the other wells that are adjacent that we
3 operate in there. We're figuring that was the best way to
4 produce the wells, the Fruitland Coal.

5 Because they were slimholes, we knew we couldn't
6 frac down below those existing perfs, so our idea was to
7 drill replacement wells and once those wells were on
8 production, then plug the existing wells.

9 In anticipation of that, we set up compression
10 for the -- which were going to be for the replacement
11 wells, but we had put the -- the compressor became
12 available, we purchased the compressor and installed it on
13 our gathering system for the initial two original wells.
14 And notice that production went from 10 to 20 MCF a day to
15 40 to 60 MCF a day. So we thought that was kind of a nice
16 surprise.

17 After we drilled the replacement wells, which we
18 drilled as twins on the original locations -- they're
19 approximately 50 feet apart -- we completed the basal coals
20 in those two replacement wells and shut in the original
21 wells.

22 And before we plugged them, we realized that
23 there was probably -- well, one, that there was a lot of
24 gas left in those coals and, two, that there was a lot of
25 data that we could -- would benefit from by producing those

1 coals separately from the basal coals. Either -- Most of
2 the wells were either completed in just the basal coal like
3 ours, all our other wells, or they're all commingled in
4 one, so you never can get a good production test of
5 individual coals at that -- you know, because of that. So
6 we then came back to the Commission and asked for a
7 production test.

8 So with that long explanation, I'd like to first
9 go to the Ricky Number 1 and the 1R, which are the wells on
10 the right-hand side of the exhibit. Being as they were
11 twins, approximately 50 feet apart, there really wasn't
12 much surprises in the stratigraphy. We have the upper
13 coals and the basal coal, and we completed within the Ricky
14 Number 1, the basal coal, showing the perforations at
15 approximately 1260 to 1268 feet. You'll note that there's
16 about a 50-foot shale interval between the basal coal and
17 these upper coals.

18 Likewise on the Ricky Number 2R, being a twin,
19 the logs look very similar, and we again completed the
20 basal coal at a depth of approximately, oh, 1268 to -78.
21 And like I said again, there's about 50 feet between the
22 basal coal and the upper coals of the Ricky Number 2.

23 When we frac'd both of these wells, we had shut
24 in the original wells on the location, the Ricky 1 when we
25 did the 1R, and the Number 2 when we did the 2R, and we

1 carefully monitored surface pressures on those shut-in
2 wells. Our goal was to try to not -- if our frac from the
3 basal coal was going to intersect and get into that other
4 wellbore, we had to shut the fracs down. One is that that
5 small casing wasn't going to be very good with a modern
6 frac like that, but also the fact that we'd be done
7 frac'ing at that time, we didn't need to pump any more sand
8 or fluid into the other coals.

9 And what we noticed was -- we were thankful, and
10 we noticed that there was no increase in pressure, which at
11 that time told us that we hadn't communicated by fracturing
12 process the basal coal with the upper coals in either well,
13 even though they're only 50 feet apart vertically and
14 horizontally.

15 Q. Let's go now to Exhibit Number 5, the summary of
16 production information.

17 A. Exhibit Number 5, I have production decline
18 curves and production data for all four wells, the Ricky 1
19 and the 1R, the 2 and the 2R, both separately and together
20 as the Ricky 1 and the 1R are grouped together on a
21 production curve to show the differences, and on the Number
22 2 well.

23 What I'd like to point out in the Ricky 1 and 1R
24 is that on the Number 1 well, which actually has the
25 longest history, it's in an orange color dating back from

1 1983, the last two or so years that it's been producing,
2 it's actually been inclining in production slightly,
3 whereas the Number 1R, which is producing out of the basal
4 coal, is on a decline. And like I said, I've got the --
5 attached behind the decline curves is the actual data that
6 we reported to the State on both of those.

7 Likewise, on the Number 2 and the 2R, you see the
8 same kind of relationship where the Number 2 has been on an
9 incline for the last year or so, and the 2R has been on a
10 decline, showing that both the replacement well and the
11 original well are producing separate characteristics, and
12 it does not appear that there's communication between those
13 two zones.

14 Q. What is Exhibit Number 6?

15 A. Exhibit Number 6 is bottomhole shut-in pressure
16 data. With our production tests, we were required to
17 gather shut-in pressure data on a quarterly basis for all
18 four wells. What I have done is, on the top page is a
19 compilation of all four wells from the very top, and then a
20 side-by-side comparison of the original well and the
21 replacement well for both the Ricky 1, 1R, and the 2 and
22 the 2R.

23 And in subsequent pages we have, both in linear
24 graph form and in bar graph form, the pressure data, shut-
25 in pressure data, for -- quarterly for the last two years.

1 I'd like to point out on the third page of this
2 exhibit a graph of the shut-in pressure data for the four
3 wells, and that the original wells, the 1 and the 2, are
4 very similar, and they're higher shut-in pressures than the
5 replacement wells that are 50 feet apart from them.
6 They're at a lower pressure, although they're similar to
7 each other and the upper coals are similar. Again, this
8 tells us that the wells -- the coals are not in
9 communication with each other, despite the fact that the
10 two wellbores are 50 feet apart on the surface, and there's
11 about 50 feet vertical distance in the subsurface between
12 them.

13 Q. If we look at your earlier exhibits, there are a
14 number of wells that are operated by Coleman in the basal
15 coal. Does this information tell you whether or not
16 they're actually able to access and produce the shallower
17 coals in these wellbores?

18 A. Based on the data from these Ricky wells, I would
19 say that it's very difficult or impossible to produce the
20 gas out of these upper coal stringers without actually
21 completing them, perf'ing and frac'ing them separately or
22 at the same time as with the basal coals. But without an
23 actual completion attempt within these upper coals, I don't
24 think that you're going to access that gas.

25 Q. Mr. Emmendorfer, have you reviewed this

1 information with the Bureau of Land Management?

2 A. Yes, I have. The west-half dedication is also
3 two Indian-allotted leases. They're each -- approximately
4 160 each. And although they're not federal leases, the
5 Farmington office of the BLM is in charge of making sure
6 that the -- lots of leases are taken care of. They asked
7 for the data before the hearing. I talked with both Joe
8 Hewitt and --

9 MR. KELLAHIN: Objection, hearsay, Mr. Examiner.

10 MR. CARR: May it please the Examiner all we have
11 done is -- all Mr. Emmendorfer has testified to is that he
12 reviewed the information with the BLM.

13 MR. BROOKS: Yeah, well, but we don't know for
14 what purpose -- what he's going to say or for what purpose
15 it's going to be offered, so I would recommend that the
16 Examiner wait to rule on the hearing till -- wait to rule
17 on the objection till we hear what the rest of the
18 testimony is.

19 Q. (By Mr. Carr) Mr. Emmendorfer, is the BLM aware
20 that this matter is going to hearing here today?

21 A. Yes, they are.

22 Q. They have not appeared?

23 A. That's correct.

24 Q. If you're unsuccessful in this Application, what
25 will Coleman have to do on this acreage?

1 A. Well, we will have to shut in the Ricky 1 and the
2 Ricky 2 wells and eventually plug them. I would imagine
3 we'd probably have to plug them within a year of being shut
4 in. There are no uphole zones to complete in those wells.
5 They're obviously producing natural gas.

6 If we want, and as a prudent operator we would
7 need to capture that gas and produce it, what we would have
8 to do would be complete the 1R and the 2R in the upper
9 coals so that all four -- all coal zones currently
10 producing would be producing out of one or two wells, one
11 in the northwest and one in the southwest.

12 Q. If we look back at Exhibit 3, a number of wells
13 have combined production from the upper and basal coals
14 inside the wellbore?

15 A. I'm sorry?

16 Q. There are a number of wells in which the upper
17 and basal coals -- the production from those zones is
18 combined in a single wellbore?

19 A. That's correct.

20 Q. If you are required to plug and abandon two of
21 the wells on this acreage, would you be able to combine the
22 production from these two zones in the existing well?

23 A. Yes.

24 Q. And what would you have to do, to do that?

25 A. We would have to shut the wells in, pull the

1 tubing and the pump -- they're on rod pump because they
2 make water -- put a frac plug in each of the wells,
3 perforate, frac the coal zones, go back in, drill out the
4 frac plug, clean the wells up, run the pump -- tubing and
5 pump back in the holes and complete them.

6 Q. Do you know what the approximate cost of this
7 would be?

8 A. Well, we're looking at doing that in another well
9 in the area, and it's between \$50,000 and \$70,000 per well.

10 Q. So to access the reserves you're now producing,
11 you would plug a well and incur this kind of cost to
12 re-perforate in the existing wellbore, and then have a
13 perforation in the same zone that you have today; is that
14 right?

15 A. Yes.

16 Q. In terms of your experience in the area, are
17 there any risks associated with this procedure?

18 A. Well, yes. The one is, I wish every frac job
19 we've ever done has gone off smoothly. It's always a risk
20 that the frac would not be as good a frac as you would
21 like. Beyond that -- I mean, that's a business risk you
22 take every time you frac a well.

23 But beyond that, we run the risk of frac'ing into
24 the old fracture of those original wells and screening out
25 and not getting a good frac off. Traditionally whenever

1 I've been asked to, you know, propose or pick a location
2 for a replacement well, the rule of thumb that I've always
3 used and the industry, I think, is pretty used to is, try
4 to be at least 200 feet away from that original wellbore,
5 to get away from areas of depletion, to hopefully get a
6 good frac off and to access the reservoir.

7 So there's always a risk that that frac would go
8 in -- that new frac would go into the old fracs in those
9 upper coals, that -- The wells are only 50 feet apart, and
10 I think that's a very big risk.

11 Q. If you did all of that and your frac went into
12 the basal coal frac system, is it possible that you would
13 not be able to access the reserves from the shallower
14 horizons as effectively as you were today?

15 A. Yes, even experience in our other wells that are
16 on this map, several of the wells that we've completed only
17 in the basal coal, they look exactly the same as the
18 offsets. They -- I mean, the fracs went as good as you
19 could hope for, and yet they're not commercial wells.
20 Whereas offsetting wells are commercial wells.

21 A case in point for the upper coals would be the
22 Redwolf well that I had mentioned earlier. That well was
23 producing, based on State records, of approximately 15, 20
24 MCF per day. When they went back in and completed the
25 upper coal zones, from the records after several months of

1 poor, erratic production, it looks like the well is
2 producing about 15 to 20 MCF a day. To me it doesn't look
3 like they helped production from that well, even though
4 they stimulated the upper coals.

5 Q. If you're required to go in and plug these two
6 wells, you'll incur expense, correct?

7 A. Yes.

8 Q. And the net result is that you very possibly will
9 not be able to access reserves under your acreage as
10 effectively as you can today?

11 A. Yes.

12 Q. In the offsetting acreage where wells are
13 completed or combined -- there are Fruitland Coal wells
14 combining upper and -- upper coal and basal coal, in each
15 of those 320-acre units, how many points are the upper
16 coals perforated?

17 A. Could you explain that again?

18 Q. You have one well per 160 acres, is the effective
19 density when these tracts are fully developed; is that
20 correct?

21 A. Yes.

22 Q. If we go to Section 8, the Pro New Mexico wells,
23 in the northwest of Section 8, how many perforated
24 intervals are there in the upper coal?

25 A. In the upper coal I believe there's two.

1 Q. The point I'm having is, how many wells there are
2 intersecting and producing the upper coal?

3 A. One.

4 Q. And how many wells are intersecting and producing
5 the basal coal when they're commingled?

6 A. One.

7 Q. And if your wells are left as they are in the
8 northwest of 18, how many wells are intersecting and
9 producing the upper coal in the northwest quarter?

10 A. One.

11 Q. How many wells are producing and intersecting the
12 lower coal?

13 A. One.

14 Q. You just have them in two wellbores 50 feet apart
15 instead of one wellbore, correct?

16 A. That's correct.

17 Q. Is Exhibit Number 7 a copy of an affidavit
18 confirming that notice of today's hearing has been
19 provided?

20 A. Yes.

21 Q. And to whom was notice provided?

22 A. All of the offset operators.

23 Q. In the Fruitland Coal?

24 A. That's correct.

25 Q. Does this exhibit also contain a copy of the

1 legal advertisement for this case published in San Juan
2 County?

3 A. Yes.

4 Q. Were Coleman Exhibits 1 through 7 either prepared
5 by you or compiled at your direction?

6 A. Yes.

7 MR. CARR: May it please the Examiner, at this
8 time we'd move the admission into evidence of Coleman
9 Exhibits 1 through 7.

10 MR. KELLAHIN: No objection.

11 EXAMINER JONES: Coleman Exhibits 1 through 7
12 will be admitted.

13 MR. CARR: That concludes my direct.

14 CROSS-EXAMINATION

15 BY MR. KELLAHIN:

16 Q. Mr. Emmendorfer, back in February of '03 Coleman
17 made -- Sir?

18 A. Could I ask you to talk up a little bit? Sinuses
19 have -- Sinuses and old age keep me from -- preclude me
20 from hearing real well.

21 Q. Mr. Emmendorfer, back in February of '03 Coleman
22 made the choice to replace the Ricky 1 and the Ricky 2,
23 correct?

24 A. Yes.

25 Q. You obtained permits to plug and abandon the

1 original Ricky 1 and the original Ricky 2, right?

2 A. Correct.

3 Q. And each of those was to be replaced with another
4 wellbore?

5 A. Correct.

6 Q. Coleman made the conscious choice to assume the
7 risk of placing each replacement well approximately 50 feet
8 from the parent well, true?

9 A. True.

10 Q. After the permits were issued, Coleman drilled
11 the replacement wells, did it not?

12 A. Yes.

13 Q. And as part of producing the replacement wells,
14 you then put the parent well on compression, true?

15 A. The parent wells were on compression before we
16 drilled the original wells --

17 Q. Okay.

18 A. -- in anticipation of having compression on the
19 lease.

20 Q. The replacement wells were both drilled before
21 you decided to subject the parent well as a test of the
22 upper coal. True?

23 A. Subject the parent well --

24 Q. Huh?

25 A. I'm trying to understand what subject the parent

1 well means, but yes, I --

2 Q. The parent well would be the original Ricky 1
3 and --

4 A. That's correct.

5 Q. -- the Ricky 2?

6 A. Yes.

7 Q. So after you had drilled the replacement wells,
8 Coleman made the choice to try to get additional production
9 information out of the upper coal in the original two
10 wells, correct?

11 A. Correct.

12 Q. And as a result of that effort you came to the
13 Division and obtained a permit to test the Ricky 1 and
14 Ricky 2 for a period of time to gather the data from the
15 upper coal?

16 A. Yes.

17 Q. The point was that if you could satisfy your
18 concerns about the productivity of the upper coals in those
19 two wells, it would then justify spending the dollars in
20 the other wells that you had in the area that were only
21 producing out of the basal coal, true?

22 A. Yes.

23 Q. So the plan, then, is to gather the data and see
24 if it's economic to go back into your other wells and add
25 the upper coal at whatever time you chose to do that?

1 A. Correct.

2 Q. When you look at the logs of the Ricky 1 and
3 compare it to the Ricky 1R, the replacement well, and look
4 at the upper coal interval, they are substantially the same
5 geologically, are they not?

6 A. Correct.

7 Q. Is there any material difference between the
8 upper coal in either the original well or the infill well
9 that we should know about?

10 A. No.

11 Q. When you look at the Ricky 2 and compare the
12 Ricky 2 to the replacement Ricky 2, is there any difference
13 in the log characteristics in the upper coal between those
14 two wellbores?

15 A. Nothing dramatic, no.

16 Q. Do you see any material geologic difference to
17 cause you to believe that they're any way different?

18 A. No.

19 Q. What would be the cost of plugging the Ricky 1?

20 A. I'm just throwing out a guess, but probably about
21 \$10,000, I would imagine.

22 Q. Are you aware of any other operator in the Basin
23 that's been allowed to maintain four producing gas wells in
24 the Basin-Fruitland Coal Pool on a single spacing unit?

25 A. Not that I'm aware of.

1 Q. This is the only one, isn't it?

2 A. Apparently.

3 Q. Have you calculated what is the remaining
4 recoverable gas in the upper coal out of the Ricky Number
5 1?

6 A. No, I have not.

7 Q. Have you calculated what you think is the
8 remaining recoverable gas out of the Ricky Number 2?

9 A. No, I have not. Well, I'll take that back. We
10 had a reserve estimate done for other purposes, and for
11 private purposes of the --

12 Q. That would not have been your work, though;
13 that's an engineering discussion, right?

14 A. Well, it was an outside reserve auditor. I'm in
15 charge of helping gather that data. Yes, I have not did a
16 remaining reserve calculation.

17 Q. Back in March of '04, Coleman requested the
18 Division to grant administrative approval to allow you to
19 produce all four wells on the same spacing unit, did you
20 not?

21 A. Yes.

22 Q. That was done by a letter dated March 30th of
23 '04; do you remember that?

24 A. I don't have it in front of me, I don't --

25 Q. Let me put one in front of you, sir.

1 A. Okay. Thank you.

2 Q. Do you recall this letter, Mr. Emmendorfer?

3 A. Yes, I do.

4 Q. Who is the author of the letter, Michael Hanson?

5 A. Michael Hanson is an engineer in our Farmington
6 office.

7 Q. Does he still work for you?

8 A. Yes, he does.

9 MR. KELLAHIN: Mr. Examiner, we would move
10 the introduction at this time of what we've marked as
11 Coleman -- I'm sorry, as Pro New Mexico's Exhibit Number
12 A --

13 MR. CARR: No objection.

14 MR. KELLAHIN: -- Letter A.

15 EXAMINER JONES: Pro New Mexico Exhibit --

16 MR. KELLAHIN: -- A.

17 EXAMINER JONES: -- A will be admitted to
18 evidence.

19 Q. (By Mr. Kellahin) On the bottom of that letter,
20 on the last paragraph, Mr. Emmendorfer, I've outlined in
21 yellow the last sentence. Would you read that for us?

22 A. "Information can then be used to determine if it
23 would be economically viable to complete other wells in
24 this area in the upper intervals."

25 Q. Based upon that request, then, Mr. Stogner

1 required a hearing of that request?

2 A. Yes.

3 Q. And as a result of the hearing, then, Coleman was
4 granted the opportunity for a one-year period after that
5 order to conduct the test and gather the data?

6 A. That's correct.

7 Q. What was the purpose of the data?

8 A. To see how the upper coals would respond to being
9 produced with compression and to gather additional
10 production data to help determine the economic viability of
11 these upper coals.

12 Q. And with that data, then, the objective would be
13 to then go back into the basal coal wells and add the upper
14 coals as producing intervals in those wells, right?

15 A. If the upper coal -- if the wells had a good
16 upper coal interval, yes.

17 Q. And with the Ricky 1 and Ricky 2, have you now
18 received the data that justifies adding the upper coal in
19 your basal coal wellbores?

20 A. Honestly, I don't know if the remaining economics
21 would support that or not.

22 Q. Is there anything contained in this letter that
23 suggests to the Division that it was Coleman's intent to
24 always keep the original wells in a producing status?

25 A. No.

1 Q. The cost associated with taking the Ricky 1
2 replacement well and recompleting it so it could then
3 produce the upper coal was what, was your estimate?

4 A. \$50,000 to \$70,000.

5 Q. Is that a similar cost associated if you have to
6 recomplete the Ricky Number 2 well and produce the upper
7 coal through that wellbore?

8 A. Yes.

9 Q. If you do that, then the two original wells could
10 in fact be plugged, could they not?

11 A. That's correct.

12 MR. KELLAHIN: No further questions, Mr.
13 Examiner.

14 MR. CARR: May I follow up with a little
15 redirect?

16 EXAMINER JONES: Go ahead.

17 REDIRECT EXAMINATION

18 BY MR. CARR:

19 Q. Coleman Oil and Gas wrote the Oil Conservation
20 Division back in 2004 the letter that's been marked Pro New
21 Mexico Exhibit A and stated that you were attempting to
22 determine whether or not it would be economically viable to
23 complete other wells in this area, in the upper coal
24 intervals; is that -- That's what it says?

25 A. Yes.

1 Q. Have you obtained that information?

2 A. Yes.

3 Q. Are you still attempting to determine how to
4 effectively develop the upper coals in this area?

5 A. No, I think with the data that we've got we can
6 complete other wells in there.

7 Q. It shows no communication, does it not?

8 A. That's correct.

9 Q. And it establishes volumes --

10 A. That's correct.

11 Q. -- that can be produced?

12 Now, when you go out and determine how you're
13 going to try to produce these reserves, are you still
14 studying the area?

15 A. Yes, we are.

16 Q. Are you not trying now to determine whether or
17 not you can effectively come back and complete in the upper
18 coals without just tying into the basal coal?

19 A. Yes.

20 Q. And aren't you planning to attempt that now?

21 A. Yes.

22 Q. And isn't that partially because the well
23 immediately west of you was an attempt to do that, and it
24 was unsuccessful?

25 A. Yes, that's correct.

1 Q. Now if you go in and plug and abandon the
2 original wells and perforate the upper zones, I mean, that
3 can be done? That's what you've testified?

4 A. Yes.

5 Q. And if you do that, to do two wells with the
6 plugging cost, it would cost you \$150,000?

7 A. Yes.

8 Q. And you'd gain what?

9 A. Nothing.

10 Q. Would you be accessing a different interval than
11 is currently open?

12 A. No.

13 Q. Would you be accessing more interval than is
14 currently open?

15 A. No.

16 Q. Are the wells at standard locations from all the
17 offsets?

18 A. Yes.

19 MR. CARR: That's all I have.

20 EXAMINATION

21 BY EXAMINER JONES:

22 Q. Mr. Emmendorfer, the history of the Number 1 and
23 Number 2 wells, you say it was originally a Fruitland Sand-
24 PC pool?

25 A. Well, we didn't drill them, but yes, at the time

1 there were no ways of producing -- or permitting as a coal
2 well that I'm aware of. Again, it wasn't the operator, but
3 they were dedicated as South Gallegos-Fruitland Sand-
4 Pictured Cliff Gas Pool, which is still -- I believe that's
5 still a viable field, and traditionally the sands are
6 perforated and completed in those wells. The coal
7 intervals are now separated and produce only as the Basin-
8 Fruitland Coal.

9 Originally, even though both intervals were
10 Fruitland Sand, some operators completed coal zones in
11 there. That happened several different portions of the
12 Basin, and that was a problem that had to be resolved when
13 they formed the Basin-Fruitland Coal Pool.

14 Q. These wells could be -- You could initiate your
15 perforations and your frac job in the sands; is that right?
16 Or would you be violating pool rules?

17 A. I think you'd be violating pool rules.

18 Q. But you're saying that little pool is still
19 there, and it overlaps this Fruitland pool?

20 A. Well, they're kind of intertwined.

21 Q. Oh, boy. What about the original frac jobs that
22 were done on these two wells, the Number 1 and the Number
23 2? Did you only perforate -- I mean, did they only
24 perforate those two coal intervals and not that -- there's
25 a --

1 A. Based off of the records, the completion reports,
2 and you plot them on those logs, it's in those coal
3 intervals.

4 Q. They didn't try that -- There's another interval
5 above that that's almost a coal. They didn't ever try
6 that? But you --

7 A. No, they didn't.

8 Q. Did you have the mudlogs available?

9 A. I doubt if there were mudlogs. That's not very
10 standard for -- This is in the southern portion of the
11 Basin, where they're under pressure, and you're going to
12 run wireline logs. Typically, we don't use a mudlogger. I
13 doubt if most of the other operators do. Traditionally,
14 you just drill, log, case and perf.

15 Q. What about on these new ones, these replacement
16 wells? Did you run a mudlog?

17 A. No.

18 Q. What about the gas -- you measured the gas,
19 didn't you? Total gas?

20 A. No.

21 Q. Were they drilled with fluid that would have
22 damaged the upper coals, the new replacement wells?

23 A. No.

24 Q. What kind of fluid -- I notice the -- it looks
25 like a real freshwater base.

1 A. Yes, it's what every -- I mean, these are all
2 turnkey, and so the drilling contractor provides a mud
3 system, and it's just the standard freshwater mud that
4 they're able to deliver us, a log of the hole.

5 Q. Yeah. It's amazing how fast they can do it, when
6 you do it on a turnkey basis.

7 What about the Pictured Cliffs down here? Is it
8 any good?

9 A. Right in this -- on this lease, I don't see
10 evidence of commercial production out of the Pictured
11 Cliffs.

12 Q. How about any production at all? Do you think it
13 would make any? That basal coal was fractured. Do you
14 think any of that is coming from the Pictured Cliffs?

15 A. Probably not. The tracer surveys we've done in
16 other areas in the southern portion of the Basin show that
17 fracs have not grown down into the Pictured Cliff, and frac
18 gurus tell us that when you initiate a frac in the coal it
19 traditionally stays within that coal, that that sand-coal
20 interface is a very good boundary.

21 Q. What kind of rate did you use on your frac job?

22 A. I wasn't there, and I don't recall. I would have
23 to go back to the files.

24 Q. You probably have in your files the treatment
25 report though?

1 A. Yes.

2 Q. And the Nolte plot or the net pressure plot?

3 A. Probably we have that too, yes.

4 Q. And that would be real indicative of whether the
5 frac grew -- Do you know what kind of sand they put in
6 there?

7 A. I think they're about 50,000-pound -- Well,
8 actually I have the completion reports that we filed.

9 10,000 gallons of gel, more or less, and 60,000
10 pounds of 20-40, and 22,000 gallons of crosslink gel.

11 Q. Does it say what the average -- the rate was?

12 A. No, not on the completion report.

13 Q. Oh, that's a state report -- or the federal
14 report.

15 So would it be fair to say that there's about a
16 10- or 15-foot separation between your basal coal and your
17 Pictured Cliffs?

18 A. Yeah, between the basal coal and the porous sands
19 in the Pictured Cliff, yes.

20 Q. And about what would it be, 25 feet between the
21 basal coal and the first of those upper --

22 A. 25, 30, somewhere in there, yes.

23 Q. Okay, I guess one pertinent thing is the
24 compression that you got on -- Are all four of these wells
25 tied to the same system?

1 A. Yes, they're metered separately at the wellhead
2 and then at a central delivery point, and we have the
3 compressor upstream from that central delivery point.

4 Q. One compressor --

5 A. That's correct.

6 Q. -- for all these wells?

7 So your -- Let's see, your surface pressures on
8 each of these wells are real similar.

9 A. Yes.

10 Q. So that -- It looks like your upper coals are for
11 some reason responding after all these years?

12 A. Well, we've lowered the suction pressure recently
13 at the compressor, and the upper coals in the original
14 wells have responded favorably to that, but the original
15 wells, it hasn't seemed to have done any difference.
16 Probably kept them from declining more, but they're on a
17 steady decline.

18 Q. From the basal coal?

19 A. Yes, that's correct.

20 Q. Are they more water in the basal coal?

21 A. Yes, we have to -- we produce water, we have to
22 haul water, if the upper coals are water-free.

23 Q. So that water is hampering those lower coals
24 then?

25 A. Probably.

1 Q. Those pressure charts that you have, does it show
2 that the pressures are -- I know we could dig into it
3 ourselves, but your pressures are real predictive between
4 the upper coals and lower coals. In other words, they're
5 not exactly the same, they're a little bit higher in the
6 lower coals? The upper coals have been producing for many
7 more years?

8 A. Yes, and they're still higher pressure than the
9 basal coal is, that's correct.

10 Q. Okay.

11 A. Twenty years or more.

12 Q. Okay. Twenty years. The coal reserves in each
13 of these -- this was kind of done as a pilot, as I
14 understand it, so -- You say someone in your company has
15 done the volumetrics and the decline analysis of the coal?

16 A. Well, we had a -- outside reserve auditors do all
17 the reserves for all the wells for the company, and yes, we
18 have that data.

19 Q. What about permeabilities in the upper coal
20 versus the lower coals, the basal coal versus that upper
21 coal? It's real thin, the upper coal is, but is the
22 permeability higher on that?

23 A. I don't have any direct measurements of
24 permeability.

25 Q. What's your -- what's your opinion?

1 A. With that -- with no water production, I would
2 say that they're higher permeability than the basal coal.

3 Q. So there's no drainage calculations that you're
4 -- that you guys have done so that you're affecting any of
5 the offset wells or -- Of course, it looks like there was
6 no offset wells, except Pro -- Redwolf has an offset well,
7 and that's a pretty new well; is that correct?

8 A. Yes, that's 2004.

9 Q. And is it West Gas, right straight north?

10 A. Western -- That's Dugan Production.

11 Q. That's a Fruitland well, isn't it?

12 A. Yes, they're producing out of the upper coal
13 only.

14 Q. Upper coal only?

15 A. Uh-huh.

16 Q. Have you noticed any effect on their wells, or
17 your wells from their wells going on line, or vice versa?

18 A. Knowing Tom Dugan, if we had adversely affected
19 his production we'd hear about it. And we haven't gotten a
20 call that I know of.

21 Q. Okay.

22 A. And I'm sure he'd be here screaming.

23 Q. This business about the frac screening out on the
24 recompletion on that replacement well, isn't it true also
25 that as the pressure has declined over the years in that

1 formation that the frac might go in a different direction
2 because of the change in stress, and it might actually help
3 you?

4 A. I think there's several schools of thought on
5 that. I've looked at that in the past, and in stuff that
6 I've read fracs tend to curve toward a pressure sink, which
7 would be an area where it's been productive for 20-some-odd
8 years. Being 50 feet apart, I doubt if they would have a
9 different pressure regime -- I mean a different stress
10 regime that would cause the frac to grow in a different
11 direction.

12 Q. Okay. You may have to pressure up on that old
13 well while you're frac'ing the new one, then, it sounds
14 like, or do some kind of innovative way to keep from
15 screening out, like you said.

16 A. Uh-huh.

17 Q. Mike Hanson is pretty experienced at this. But
18 you still don't want to do it?

19 A. Well, my question would be why? We've got four
20 wells existing right now. They're producing the gas that's
21 within 160-acre spacing effectively, two wells versus four.
22 If we were required to plug those wells -- we're going to
23 have to plug those wells eventually at the end of their
24 life anyway, so that cost is going to be occurring sometime
25 down the road anyways.

1 We would have to spend \$50,000 to \$70,000 per
2 well, what I would consider -- and I know my boss would
3 consider -- needlessly, just to get the wells back to
4 producing the way they are. To me, that constitutes waste.
5 You're wasting dollars for no real benefit.

6 Q. I can see that argument, but when these were
7 granted for one year and then extended for another year, I
8 think it was kind of with the understanding there was going
9 to be some deliverables from the pilot that maybe, you
10 know, because the other operators in the Fruitland Coal
11 didn't -- I think the first time they objected, the second
12 time they didn't, and -- but it might be helpful to have
13 something deliverable besides just what they can read from
14 this record at the hearing about, you know, the reason for
15 that, because I can kind of see that your lower coal is
16 more wet and you have to pump it probably --

17 A. Uh-huh.

18 Q. -- and so you have to -- it's a different
19 producing mechanism, or it's a different producing method,
20 at least, and your upper coals, you can maybe flow them,
21 but if you can't afford to drill the wells separately for
22 the upper coals anyway, is that true?

23 A. Well, we wouldn't be drilling separate wells.
24 You would -- at the time of drilling, you would -- the
25 cheapest method would be to complete both zones before you

1 ran the tubing. Obviously if you wanted to -- chose, like
2 we have done, to complete the basal coal, you have to incur
3 a little bit more expense shutting the well in and pulling
4 the tubing and pipe and stuff like that.

5 Q. And the pressure data that you got was from echo-
6 meters?

7 A. Yes.

8 Q. Did you ever zero that in with any kind of dip in
9 pressure readings?

10 A. I don't know what Mike Hanson has done. He's
11 done those personally himself.

12 Q. Mike did all this?

13 A. Yes. But you're right, there's a lot of data
14 that's been available, and there's more data that can be
15 every year gained from having these wells producing.

16 Q. What would you --

17 A. It would be a good master's study --

18 Q. Yeah.

19 A. -- very similar.

20 Q. Is there any difference in the coal -- did you
21 get -- when you drilled that second replacement well, did
22 you do canisters on the coal or get any kind of ^{description} disruption?
WWS

23 A. No, we did not.

24 Q. What kind of gas content numbers is the coal at?

25 A. I can't speak for the upper coals. The few that

1 we've done on the basal coal and the stuff that I've read
2 from other people, I think approximately 120 standard cubic
3 feet per ton. That's --

4 Q. That low?

5 A. Yes. That's another reason why having production
6 data on these upper coals would give a lot more data to any
7 operator in the Basin.

8 Q. What about the upper sands around those upper
9 coals? How much contribution does that make to the
10 production from that upper interval?

11 A. Well, it would depend on if the frac grew out of
12 the coal or not.

13 Q. But you probably did because it was considered a
14 sand pool, and those coals are so thin that surely the frac
15 grew out of them?

16 A. I couldn't say.

17 Q. That was 20 years ago, I guess, they were frac'd,
18 right, those wells?

19 A. 1983.

20 EXAMINER JONES: '83.

21 David, do you have questions?

22 MR. BROOKS: No questions.

23 EXAMINER JONES: I have no more questions.

24 MR. CARR: No further questions.

25 MR. KELLAHIN: No, sir.

1 EXAMINER JONES: Is that your case, Mr. Carr?

2 MR. CARR: Yes, sir, that concludes our
3 presentation.

4 MR. KELLAHIN: We have a witness, Mr. Examiner.
5 Mr. Examiner, at this time we'll call Dana
6 Delventhal.

7 DANA DELVENTHAL,
8 the witness herein, after having been first duly sworn upon
9 her oath, was examined and testified as follows:

10 DIRECT EXAMINATION

11 BY MR. KELLAHIN:

12 Q. Mrs. Delventhal, would you please state your name
13 and your occupation?

14 A. My name is Dana Delventhal, and I'm a petroleum
15 engineer.

16 Q. And where do you reside, ma'am?

17 A. Farmington, New Mexico.

18 Q. When and where did you obtain your degree in
19 petroleum engineering?

20 A. I graduated in 1984 with a bachelor's in
21 petroleum engineering from the New Mexico Institute of
22 Mining and Technology.

23 Q. Subsequent to obtaining your degree, have you
24 been a practicing petroleum engineer?

25 A. I have for 23 years, yes.

1 Q. And generally where has been your area of
2 practice?

3 A. San Juan Basin.

4 Q. Practicing in San Juan Basin, are you familiar
5 with the engineering aspects of the coal gas production in
6 the San Juan Basin?

7 A. Yes, sir.

8 Q. Do you for your own account operate coal gas
9 wells?

10 A. I do.

11 Q. And what is the name of the company that you
12 operate?

13 A. I own Redwolf Production.

14 Q. When Mr. Emmendorfer testified a while ago, he
15 was referring to a Redwolf Production in Section 13 to the
16 west of the west half of the Ricky wells in Section 18.
17 Are those your wells?

18 A. It's one well, but yes, sir, it is.

19 Q. In addition to -- Let me hand you the locator map
20 so I don't lose track of --

21 A. Thank you.

22 Q. Ms. Delventhal, I've handed you a copy of the
23 locator map that Mr. Emmendorfer was talking about a while
24 ago. It was the second color display, the foldout that
25 identifies the wells and shows a B for basal and a U for

1 the upper coals. Do you have that before you'?

2 A. Yes, sir.

3 Q. In addition to operating your own wells adjacent
4 to the subject tract, are you also involved as a consultant
5 for other operators in the area?

6 A. Yes, sir.

7 Q. And who do you represent?

8 A. Today I'm representing Pro New Mexico Energy.

9 Q. As part of your duties as a petroleum engineer,
10 do you have access to the Division's database with regards
11 to coal gas production?

12 A. Yes, I do.

13 Q. Have you made an examination of the data
14 available to you through the Oil Conservation Division for
15 the Ricky 1 and Ricky 2 and the replacement Ricky 1 and
16 Ricky 2?

17 A. I have.

18 Q. In addition, have you examined the documents that
19 Mr. Carr had provided Mr. Gallegos as part of the
20 prehearing process?

21 A. I have.

22 Q. Based upon all that information and study, do you
23 now have opinions and expert decisions with regards to this
24 case?

25 A. I do.

1 MR. KELLAHIN: We tender Ms. Delventhal as an
2 expert petroleum engineer.

3 MR. CARR: No objection.

4 EXAMINER JONES: Ms. Delventhal is qualified as
5 an expert petroleum engineer.

6 Q. (By Mr. Kellahin) Let me go back and have you
7 give us some background. Mr. Emmendorfer talked about the
8 two original Ricky wells as being slimhole wells. Describe
9 for us what that means.

10 A. At times in the Basin when gas prices were poor,
11 there were marginal horizons, marginal production that
12 would not justify normal drilling cost. As an attempt by
13 the operators to access these reserves, they would drill a
14 slimhole, by that to reduce the drilling cost as much as
15 they physically could. And in this case they sacrificed
16 running normal casing sizes and instead ran tubing as
17 casing, to lower the cost. It's wells that wouldn't have
18 been drilled otherwise.

19 But the downside of it is, they're unforgiving.
20 There's not much work you can do on the well after it's
21 done. It completes its life and it's pretty well over.

22 Q. What type of wellbore did Mr. Gallegos drill in
23 the east half of the section?

24 A. A standard wellbore.

25 Q. And the well that you have in the western spacing

1 unit, is that a standard --

2 A. Yes, sir.

3 Q. -- coal gas well?

4 Are there any further limitations about the
5 slimhole completion with regards to how to re-enter that
6 wellbore and now try to add the deeper basal coals?

7 A. It really can't be done. It wouldn't be
8 feasible. Normally, to complete a horizon under an
9 existing horizon, you would need to isolate that during the
10 completion, to frac under a packer so that what work you
11 were doing wasn't interfering with what was already frac'd
12 and open. And in a slimhole, 2-7/8, you don't have room to
13 do that.

14 Q. Have you been involved with drilling replacement
15 wells for other wells like this?

16 A. I have.

17 Q. And what did you have to do with the original
18 well?

19 A. According to regulations, you're required to plug
20 them.

21 Q. Were those wells capable of producing additional
22 gas from the upper coals?

23 A. Painfully so, yes.

24 Q. Does Coleman enjoy a competitive advantage by
25 having a difference in the ability to produce their gas

1 from the upper and basal coals by using four wellbores
2 instead of two?

3 A. Generally to set aside existing spacing
4 regulations, there would need to be a compelling reason.
5 The two reasons that would come to mind would be that for
6 some reason to combine them would impact the correlative
7 rights. Testimony has shown that they're able to go ahead
8 and complete those coals in the replacement wells.

9 The second would be whether because of economic
10 feasibility, the cost to do so, if Coleman would be
11 dissuaded from that completion and therefore he would lose
12 his recoverable reserves.

13 And I have prepared decline curves, and the
14 economics would show that completing those coals in the
15 replacement wellbores is a highly economic project.

16 Q. Have you utilized the test data that's been
17 furnished to you by Coleman?

18 A. I've looked through it and have no arguments with
19 it.

20 Q. At this point, then, are you able to conclude as
21 an expert witness that it's economically viable to produce
22 both the upper coal and the basal coal with replacement
23 wellbores?

24 A. Yes, sir.

25 Q. What is the approximate cost, in your opinion, of

1 plugging the slimhole original wellbores?

2 A. I would estimate \$12,000 to \$14,000.

3 Q. If Coleman is required to plug the two original
4 wellbores, in your opinion will there be any reduction in
5 the ultimate recovery of gas from the upper coal?

6 A. In theory, no. There's no reason to assume that
7 when you move to the replacement wellbore you're basically
8 in the same coal seams. If you complete it, you may
9 benefit from modern completion techniques.

10 Another advantage might be that in the slimhole
11 wellbores you're not able to artificially lift them, the
12 question being, do upper coals not produce water because
13 they don't have water, or do they not produce water because
14 you can't pump it out of the hole? With that horizon being
15 completed in the replacement wellbore they're on beam lift,
16 and they would benefit from that.

17 Q. If the two original wells are plugged and the
18 upper coal then has to be produced by the two replacement
19 wellbores, can the replacement wellbores still achieve the
20 same ultimate recovery of gas from the upper coal?

21 A. You would assume so, yes.

22 Q. Do you believe that the two original wellbores
23 are necessary in order for Coleman to achieve the recovery
24 of gas from the upper coal?

25 A. No.

1 Q. Are you aware of any other situation where any
2 other operator in the Basin has been allowed to produce
3 four wellbores like this in the same Fruitland Coal pool?

4 A. To my knowledge, all of the redrills that I've
5 been involved with, we were forced to plug the original
6 well.

7 Q. Let's go through your exhibits.

8 A. Okay.

9 Q. If you'll start with what is marked as Exhibit
10 Number 1, take a moment before we talk about the details
11 and describe for us what it is we're looking at?

12 A. As I mentioned, Pro New Mexico's concern was
13 whether there was a justification for changing the pool
14 rules, the correlative rights issue not being a problem,
15 but the second would be whether it's economically feasible
16 to transfer those reserves into the redrilled wellbore. If
17 it was uneconomic, then if they had to plug the original
18 wells those reserves would be lost.

19 So what I did is, using decline curve analysis,
20 determine remaining reserves for the two parent wells. I
21 estimate --

22 Q. Give us the conclusion, then, before we talk
23 about the details. What do you show to be the remaining
24 EUR for the Ricky Number 1 well, in the upper coal?

25 A. The Ricky Number 1 well has remaining reserves of

1 347 million cubic feet.

2 Q. To get to that point, then, you take the
3 production curve and you plot the data?

4 A. Correct. You plot the data, and based on decline
5 curve estimates, you project future production. You
6 project gas prices, you project operating costs, and boil
7 it back down to determine if the cost to recomplete those
8 reserves in the replacement wellbores would be a viable
9 project.

10 Q. All right, looking at Exhibit Number 1 for the
11 Ricky 1, starting over, you first started plotting
12 production data back in 1984?

13 A. Correct, that's the original production.

14 Q. Describe for us what happens.

15 A. You can see from the original production curve
16 that production is fairly sporadic. It hit a hard decline
17 in the mid 1990s. After -- Between 2002, 2003, you can see
18 the increase in production when that was placed on
19 compression.

20 Q. Start then at the plot where we have the red line
21 just before 2005, and it goes up to just under 100 MCF a
22 day?

23 A. Correct.

24 Q. What happens then?

25 A. From the data that was gathered with the well

1 under compression during that time period, you can see it
2 hasn't established a strong decline at this point; it's
3 fairly steady production.

4 For purposes of determining the economics of
5 completing it in the original wellbore, I assumed that
6 today it would start declining. That would be the most
7 conservative estimate; it would yield the lowest amount of
8 reserves. In this area a typical decline rate of 10
9 percent would be expected, and that was the mathematical
10 decline rate that was applied to the well.

11 Q. And then when you run through the calculation
12 based upon your assumed decline, the additional gas
13 recovered is displayed somewhere over on the far right?

14 A. Right, if you look at Exhibit Number 2, basically
15 the nuts and bolts are in the top part --

16 Q. Well, you've moved to another exhibit. Stay with
17 1 for me, for a moment.

18 A. Oh, I'm sorry.

19 Q. Over on the far right of Exhibit 1, you have a
20 bunch of numbers shown here?

21 A. Right. It shows, based on the decline rate, if
22 you skip through down to the gas section --

23 Q. Uh-huh.

24 A. -- it will give effective dates and rates,
25 ultimate and remaining gas by decline rate, shows the

1 247,000 MCF remaining on that well. It's right in the
2 center with all the little type on the right.

3 Q. On the Number 1 exhibit?

4 A. Yes, on the decline curve.

5 Q. You'll have to -- Let me approach --

6 A. I'm sorry, they're small numbers.

7 Q. I can't see it. Show it to me on this.

8 A. Okay.

9 Q. It says, Remaining gas (decline), and you get 346
10 plus?

11 A. Correct.

12 Q. Okay. And that's using a presumed decline rate
13 of 10 percent?

14 A. Yes, sir.

15 Q. When you go back before the assumption, the gas
16 rate continues to climb. We don't have a break over on the
17 curve yet?

18 A. That's correct. As I -- By assuming that it
19 declines today or tomorrow, that would be the most
20 conservative estimate. If it's an economic project at that
21 point any additional time that it stays steady or inclines
22 will be just additional reserves for them.

23 Q. Now take Exhibit 1 and take me to Exhibit Number
24 2 --

25 A. Exhibit Number 2 is the economic projection based

1 on the decline curve, and this is for the Ricky Number 1
2 well. The top two-thirds of it is basically a year-by-year
3 breakdown of all the variables, and the nuts and bolts is
4 in the bottom third of the printout.

5 If you look under the Economics Summary section,
6 you'll see that it shows that the remaining gross reserves
7 are at the 347,000 MCF, and that correlates with the
8 decline curve information.

9 Q. Let me ask you this. When you look at the
10 spreadsheet, find me the point of the spreadsheet that you
11 introduce the cost associated with recompletion into the
12 upper coal.

13 A. The second section of the data is expenses, and
14 in the middle of that column you'll see a column labeled
15 Other Costs. I assumed that Coleman would need to spend
16 \$60,000 to recomplete those Fruitland Coals in the
17 replacement wellbores, and so that cost is figured into
18 this economics. The question being, is that a viable
19 project? If it is, then moving from one wellbore to the
20 other would not affect waste. And if you go down to the
21 economic information, the rate of return exceeds 100
22 percent.

23 Q. So when I look at Exhibit Number 2 and I'm
24 looking down in the lower left corner, there's a bold
25 caption that says Discount Present Worth?

1 A. Yes. That is the value of the future revenues.
2 And the different percentage discounts would be discounting
3 those future revenues at those given percents, what the
4 present value --

5 Q. Can you give us a general range of what companies
6 utilize for a discounted rate so they can see what the
7 present worth of doing the work is?

8 A. Most production that I see sell, sells in the
9 range of a 5-percent discount. So if you were selling this
10 well you would assume at 5 percent you're probably at
11 \$800,000 in value.

12 Q. And if you assume it's at 10 percent?

13 A. At 10 percent, we're at \$612,000.

14 Q. The \$612,000 would be after you had paid for the
15 cost of the recompletion?

16 A. It includes the cost of the work.

17 Q. Making this cash-flow analysis, what assumptions
18 are you making?

19 A. One, you assume that the decline curve is
20 accurate. Secondly would be on a gas price. In the top
21 section under Average Prices, I have a gas price at \$5.26,
22 which is last year's average less the cost of gathering and
23 compression.

24 Q. Is this the kind of analysis that you would run
25 for your own account if you were acquiring or selling gas

1 production out of your wells?

2 A. Yes.

3 Q. Is it going to be economically viable, then, in
4 your opinion for Coleman to plug the Ricky 1 and use the
5 Ricky 2 as a recompleted well to add the upper coal and
6 produce that gas?

7 A. Yes, sir.

8 Q. Let's turn, then, to the Ricky 2 and look at
9 Exhibit Number 3. Would you identify --

10 MR. BROOKS: I think you may have misspoken --

11 MR. KELLAHIN: Did I?

12 MR. BROOKS: -- Mr. Kellahin. Did you -- you
13 mean to use the Ricky 1R --

14 MR. KELLAHIN: I'm sorry.

15 MR. BROOKS: -- rather than the Ricky 2 --

16 MR. KELLAHIN: Yeah, and I'm good at doing that,
17 misspeaking. Thank you.

18 MR. BROOKS: Go ahead.

19 Q. (By Mr. Kellahin) So we're talking about the
20 replacement well in each instance?

21 A. Yes, sir.

22 Q. So let's turn now to the Ricky 2 and look at the
23 parent well --

24 A. Okay.

25 Q. -- and see what happens with those reserve

1 numbers and whether you can justify plugging the Ricky 2
2 and producing those gas reserves out of the Ricky 2
3 replacement well.

4 A. Okay, basically the procedure was the same, is to
5 generate a decline curve. You can see that the Ricky 2,
6 the parent well, is less productive than the Ricky Number
7 1, and it still has not reached a decline at this point.
8 But if you take their highest rates and decline it at 10
9 percent, again, you'll get the lowest calculation of
10 remaining reserves, which is what I did, declined it at 10
11 percent. The remaining gas from that decline is 142,000
12 MCF.

13 Q. When you look at Exhibit 3, there's a period
14 before 205 [sic] where the production information is zero.
15 What's happening there?

16 A. On both wells, when Coleman drilled the
17 replacement wells and before they had gotten approval for a
18 production test on the original parents, they're not
19 allowed to produce both. So there was a period of time
20 while that was transpiring that the wells were shut in.

21 Q. So Exhibit 3 reflects the shut-in period for the
22 parent well on the Number 2?

23 A. You can see that on the curve, yes.

24 Q. And then after it goes back on production --

25 A. So everything after that space is gas produced on

1 this temporary test.

2 Q. Take us through the test information then. What
3 happens to the production of the Ricky 2 when it's put on
4 compression and tested?

5 A. It looks like the compression obviously increased
6 the production from about 15 to, you know, 40, somewhere in
7 that range, a bump in production.

8 Q. And with your assumptions, then, you get
9 recoverable remaining gas out of the upper coal of --

10 A. -- 142,000 MCF.

11 Q. Now take that over and run it through the
12 economic analysis.

13 A. Running it through the economic analysis in a
14 similar manner, you can see --

15 Q. On Exhibit 4?

16 A. -- correct, Exhibit 4 -- that the remaining gross
17 reserves are shown at 142,000 MCF. The gas price is
18 unchanged. Again, I assumed a \$60,000 cost to recomplete
19 them, and again the rate of return exceeds \$100,000 -- or,
20 excuse me, 100 percent.

21 Q. If the company buying or selling the property is
22 looking at a 10-percent discounted present worth, what is
23 the after-cost value of the project?

24 A. \$201,000.

25 Q. Is it profitable to have Coleman as the operator

1 plug and abandon the Ricky 2 and to replace that production
2 by accessing it with the Ricky Number 2 replacement well?

3 A. It's a good economic project.

4 Q. What would you recommend to the Examiner?

5 A. I would recommend that the original wellbores be
6 plugged, that Coleman as an operator has the right to
7 decide whether to produce the upper coals in the
8 replacement wellbores, and that the current spacing
9 regulations be adhered to.

10 MR. KELLAHIN: That concludes my examination of
11 Ms. Delventhal, and we move the introduction of her
12 Exhibits 1 through 4.

13 EXAMINER JONES: Objection?

14 MR. CARR: No objection.

15 EXAMINER JONES: Exhibits 1 through 4 will be
16 admitted, from Pro New Mexico.

17 CROSS-EXAMINATION

18 BY MR. CARR:

19 Q. Ms. Delventhal, you testified that you consult
20 for various operators in the San Juan Basin.

21 A. Yes.

22 Q. Do you consult for Dugan?

23 A. No.

24 Q. Or Running Horse Production Company?

25 A. No.

1 Q. My question really is, who are you appearing here
2 for today, just Pro New Mexico?

3 A. Pro New Mexico, yes.

4 Q. And your relationship with them is as a
5 consultant?

6 A. Correct.

7 Q. If I understand your testimony, what Pro New
8 Mexico is seeking is an order that would require Coleman to
9 plug the old wells in the west half of Section 18 that are
10 now producing from the upper coal; is that right?

11 A. Yes.

12 Q. And my question for you is, why?

13 A. It would be twofold. If you take a snapshot of
14 the production at this moment, by producing the upper and
15 the basal in twin wells, that there's really no harm or
16 foul. The problem being that life is dynamic, wells sell,
17 engineers come and go. There's no rule on the books that
18 would disallow them from opening the upper coals in the
19 replacement wells while the upper coals are producing in
20 the original wellbores. You simply file a sundry with the
21 BLM for adding pay. Our correlative rights at this instant
22 may not be affected, but we have no way to determine that
23 they wouldn't in the future.

24 The second part would be that the offset
25 operators, Pro New Mexico, to develop those reserves will

1 have to drill a well, complete the basal coal, set a plug,
2 complete the upper coals, and assume all of those risks
3 that are associated with that. By requiring one operator
4 to assume risk and one to be sheltered from risk is
5 inherently an effect of correlative rights.

6 Q. If you're concerned about in the future someone,
7 either Coleman or a successor operator, opening the upper
8 coal in the other wellbore, the order entered in this case
9 could prohibit that, could it not?

10 A. It could, but it would be difficult to police.
11 Who's going to keep watch?

12 Q. Isn't any rule difficult to police?

13 A. Yes.

14 Q. Are you suggesting that they're going to try and
15 do something in violation of --

16 A. No, I don't believe anybody would, and again
17 rules are there to limit the problems.

18 Q. When you talk about a risk that Pro New Mexico is
19 going to have to take because of this, I didn't understand
20 your answer.

21 A. My answer was that all the offset operators
22 around this section, or in the Basin for that matter, if
23 they want to produce the upper coals and the lower coals in
24 a single wellbore, they take inherent risks because they're
25 working within a single wellbore to do that.

1 If you had a concern that by completing the upper
2 coals in the replacement wells that there is a risk in that
3 completion process, it's certainly a risk that's borne by
4 everyone else.

5 Q. And so what you're recommending is that Coleman,
6 with wells that are currently able to produce upper coals,
7 plug those and now take the risk of trying to make a well
8 in the upper coal that they're now producing?

9 A. Yes, that's the pool rules.

10 Q. All right. Now I think you have testified that
11 there isn't a correlative rights issue here; is that right?

12 A. My testimony is that from Coleman's aspect, no,
13 there is not a correlative rights issue. And from Pro New
14 Mexico's aspect, I don't feel that they have a correlative
15 rights issue unless there's not a protection that those
16 upper coals aren't completed.

17 Q. Pro New Mexico has drilled two wells in the east
18 half of 18; is that correct?

19 A. Yes.

20 Q. Have they completed those wells?

21 A. No.

22 Q. Do you consult with them on those wells?

23 A. I do.

24 Q. Are they intending to complete them in the upper
25 and the basal coals?

1 A. Yes.

2 Q. Just as they did in Section 8?

3 A. Yes.

4 Q. And as it stands, once those wells are completed
5 Pro New Mexico would be -- would have two wellbores in the
6 east half of 18 accessing the upper coal; isn't that right?

7 A. Correct.

8 Q. And they would have two wells in the east half of
9 18 accessing the lower coal, correct?

10 A. Correct.

11 Q. At the present time, Coleman is proposing to have
12 two wells in the west half accessing the upper coal,
13 correct?

14 A. Correct.

15 Q. And two wells in the lower coal accessing -- or
16 in the basal coal, accessing --

17 A. Yes.

18 Q. Mr. Kellahin asked you if this present situation
19 resulted in an advantage to Coleman. My question is, how?

20 A. Again, it applies to risk in one aspect.
21 Operators under existing pool rules have to make an
22 economic decision if they want to redrill a well. They're
23 burdened with that decision, and part of that decision is
24 the understanding that the original wells have to be
25 plugged. It's a decision you have to make.

1 I'm sympathetic. Nobody likes to plug a
2 producing well, and certainly nobody likes to plug a
3 producing economic well, especially a petroleum engineer.
4 But if you required of everybody in the Basin to make one
5 exception, that is unfair.

6 Q. Is your testimony is, the rules are the rules and
7 they should be enforced?

8 A. Largely, yes.

9 Q. You understand the rules are designed to prevent
10 waste of oil and gas?

11 A. Correct.

12 Q. They're designed to protect correlative rights?

13 A. Correct.

14 Q. And the rules allow for exceptions, you
15 understand that?

16 A. Yes.

17 Q. And those exceptions are viewed on a case-by-
18 case, fact-by-fact basis, isn't that -- you understand
19 that?

20 A. Yes.

21 Q. And in this circumstance what you're recommending
22 is that an offset operator who has access to the upper coal
23 be required to plug that off and then assume the risk that
24 you're concerned about, trying to re-access that same coal?

25 A. Yes.

1 Q. And you testified that you did not believe in
2 theory, is how you qualified it, that this could result in
3 a reduction -- or reduce the ultimate recovery from the
4 acreage?

5 A. Correct.

6 Q. But that's in theory?

7 A. Correct.

8 Q. And when you take these risks, you run the risk
9 that you won't be able to get as good a well as you --
10 access to the upper coal as you now have?

11 A. That's possible, and you could get a better well
12 as well.

13 Q. But if you don't get as good a well, then you
14 could leave reserves in the ground?

15 A. True, but it's the risk that Pro New Mexico has
16 to assume next door.

17 Q. In drilling the initial well?

18 A. Uh-huh.

19 Q. And when you say everyone has a standard coal gas
20 well, you mean a single wellbore that has perforations in
21 one wellbore in the upper --

22 A. Standard-size casing, yes.

23 Q. That's what you meant by that?

24 A. Correct.

25 Q. You're not objecting for Redwolf?

1 A. No.

2 Q. Redwolf is the direct west offset with a well
3 about 1600 feet away?

4 A. Correct.

5 Q. Pro New Mexico's well, closest well, is
6 approximately 3000 feet away to the east; is that correct?

7 A. Correct.

8 Q. You're not testifying that anything happening in
9 this Coleman well at these rates is going to drain reserves
10 from the Pro New Mexico well, are you?

11 A. Again, if you look at a snapshot, there's nothing
12 producing in the Coleman acreage that isn't legally able to
13 produce, and the question being, is it legally able to
14 produce from four wells?

15 The reason Redwolf Production didn't come and
16 speak against the original proceedings was, they were
17 originally -- the application was to gain production data.
18 I love production data. It's important for other operators
19 to take a look and see whether the upper coals are
20 individually productive and whether their completion is
21 economic. That's why we didn't object to the case.

22 Since then, it has mutated into a request to
23 produce on, basically, double spacing.

24 Q. When you say four wells, you mean four wellbores?

25 A. Uh-huh.

1 Q. And we're still, though, talking about only four
2 access points to the Fruitland Coal. You understand that?
3 Two in the upper and two in the basal?

4 A. Correct.

5 Q. Now there is no correlative-rights issue for Pro
6 New Mexico; is that correct? Is that what you've said?

7 A. There's a risk to them, that risk being that
8 there is no --

9 Q. The well is almost 3000 feet away; isn't that
10 correct?

11 A. Uh-huh.

12 Q. What is standard setback on spacing units?

13 A. 660 feet.

14 Q. So they could be 1320 feet, but more than twice
15 that; isn't that right?

16 A. Sounds right.

17 Q. Okay. Now as to the waste issue. I believe
18 you've testified that you're suggesting Coleman go take a
19 risk that now isn't there; isn't that right? You're
20 suggesting they plug wells and then go and attempt a
21 recompletion in the upper well?

22 A. Yes, I do.

23 Q. And it is your opinion that in theory they would
24 be able to -- once they plug the old well, they'd be able
25 to increase the production, get it back up by going in and

1 perforating in the upper zones; isn't that right?

2 A. Yes.

3 Q. Now you're the owner of Redwolf Production
4 Company, are you not?

5 A. Yes.

6 Q. And since the original Coleman case you, in fact,
7 in the west offset in Section 13 decided to do just that,
8 go back into the well and attempt to perforate the upper --

9 A. We assumed that risk.

10 Q. And how much did it cost?

11 A. About \$60,000.

12 Q. And it wasn't successful, was it?

13 A. Yes, we have seen an increase in production.

14 Q. But not what you were hoping?

15 A. No, there's sign in our well that there's
16 depletion.

17 Q. And so basically what you're recommending is that
18 this Commission [sic] tell Coleman to do what you've done
19 with marginal success?

20 A. If I had 340,000 MCF in estimated reserves, it
21 would be a different figure. I don't.

22 Q. And you would agree with me that what you're in
23 the bottom line recommending is this to access the same
24 reserves to significantly increase the costs of recovering
25 those?

1 far as where the gas comes from that's in the PC and that's
2 in the Fruitland Coals. And then keep in mind that the
3 sands of the Fruitland are horrible, they're very dirty,
4 very shaly. And a lot of the chemical analysis indicates
5 that what gas comes out of these nasty little sands is
6 basically generated from coals.

7 Q. So it's stored in the ~~s~~ands, but --

8 A. Yes.

9 Q. -- it's generated in the coals?

10 A. And then it gets ugly, because there's some areas
11 where the Fruitland sands are a pool.

12 Q. Are -- Pardon?

13 A. Are a pool, in and of their own. It's
14 complicated.

15 Q. Isn't it true that this -- Well, let's look at
16 the decline analysis here. I'm -- and on this Ricky Number
17 1, which apparently is the best well, right, compared to
18 the Number 2?

19 A. Of the parent, yes.

20 Q. Okay, because it's already getting surrounded by
21 three more. Back in '95 or so it had been kind of rocking
22 along, and then all of a sudden it starts on this -- Let's
23 see what this is here. Wow, this is about a 47-percent
24 decline or so.

25 A. Yes.

1 Q. So what happened there, and why?

2 A. During that time period a lot of production was
3 being brought on line in the Basin. There was a large
4 switch to wellhead compression. Wellhead compression
5 caused gathering line pressures to increase. The wells
6 that were terribly hurt by this higher line pressure are
7 the low-pressure, marginal producers, slimhole PCs,
8 slimhole coal wells.

9 You can see from the reservoir pressure that
10 there's nothing there. If you have any increase in line
11 pressure, if you only have a hundred pounds of bottomhole
12 pressure, ten pounds at surface, you've lost ten percent of
13 your reserves. All of the Basin suffered during that
14 period, until everybody else got wellhead compression, and
15 then it all evens out.

16 Q. Okay, the pipelines were built and they were
17 finally able to afford compression or --

18 A. You had to --

19 Q. -- regional compression --

20 A. -- keep up.

21 Q. -- or -- keep up.

22 Now this shut-in period -- Well, first of all,
23 let's march forward in time here. The water reported
24 obviously not very much. This is a daily rate. And then
25 -- but it -- and it wasn't reported after that. So what do

1 you suspect on water?

2 A. I suspect they're reporting zero on the C-115s,
3 where it would show up in the data. Again, it's not beam-
4 lifted. If it produced any water, it would be through an
5 emitter to atmosphere. There's really no way to determine
6 amount.

7 Q. Okay, during the shut-in period, which Coleman
8 shut it in the way they're supposed to, it didn't kill the
9 well, did it? I mean, when they put it back on, it even
10 did better than it did before?

11 A. Uh-huh.

12 Q. So why was that?

13 A. It's hard to say. There's a lot of variables
14 that determine the production. As Alan said, if they lower
15 their suction pressure on the compressor, you'll get a bump
16 in production. Until all of that settles out and forms
17 some sort of continuation, there's little bumps. But
18 basically the well did respond well to compression.

19 Q. Yeah, and -- but you slapped a 10-percent decline
20 on this where -- Do you really think it can produce for
21 another -- What have we got here? Twenty-two years or --
22 or no, it's actually 30 years. And --

23 A. It's produced 25 now and gotten better.

24 Q. And gotten better.

25 A. Yeah, it's -- the way the numbers shake out. If

1 in fact -- if it stayed at a horizontal rate for a longer
2 period of time, the reserves would be higher.

3 Q. But if you actually look at that -- those
4 pressures -- What do you think about those pressures
5 anyway, that they took from echo-meters? Especially in the
6 -- in that slimhole --

7 A. They're -- The fluid level echo-meter is a rough
8 guess. Again, its accuracy is going to be determined by
9 how much reservoir pressure you have to work with. If
10 you're in a well with 500 pounds' reservoir pressure, you
11 could be accurate within -- you know, 50 pounds is not a
12 big deal. If you have a hundred pounds' reservoir
13 pressure, the amount of error increases.

14 It's low pressure. I don't doubt that the
15 numbers that they received are reasonably close to the
16 reservoir pressure.

17 Q. The lift -- If it's making water at all, what
18 kind of rate would it finally load up and not be able to
19 produce anymore? I mean, you've got it going out to like
20 -- What is it, 5 MCF a day or something like that? Your
21 economic limit is -- your economic limit. But is it a
22 practical -- in your opinion is it -- At that rate can it
23 lift any water at all?

24 A. It's not lifting any water now.

25 Q. Not --

1 A. Yeah --

2 Q. Okay.

3 A. -- you know. The way --

4 Q. Okay.

5 A. Yeah, it's -- Keep in mind that on running
6 economics, that the lion's share of your present value is
7 in your early years. It's why operators will take a
8 marginal slimhole completion and redrill.

9 Q. Yeah.

10 A. You can get those reserves, but it isn't going to
11 be in my lifetime, maybe not my child's. Instead, they
12 take an economic decision to go ahead and use modern
13 completion techniques, artificial lift, separation and that
14 sort of thing, to speed up the recovery of those reserves.
15 So in 40 years if it's still producing 5, who cares? It's
16 not going to affect it.

17 Q. Okay, so you're sticking with this long life and
18 -- which means that it wouldn't be a -- just four wells
19 producing in one spacing unit, you think, would go on for a
20 long time to come if -- if it's not cure itself by loading
21 up here in a few years?

22 A. There's no reason to think so, no.

23 Q. Okay. Okay. \$60,000 to recomplete. And what
24 kind of frac job would you put on it if you had that well
25 sitting there for several years with no completion, but the

1 well right next door is -- Now how would you keep your well
2 from frac'ing -- from screening out --

3 A. The standard -- the standard frac, probably, in
4 that area would be to use -- perforate those upper coals
5 and use a foam frac, probably 70,000 pounds with 20-40
6 sand.

7 Granted, they drilled them within 50 wells [sic]
8 of each other, and that was their choice. Keep in mind, if
9 you had a frac that -- and 360 degrees actually lines up
10 with each other, because there's only 50 feet of
11 separation, then basically you've doubled your effective
12 frac length, because not only have you frac'd your well,
13 you've tied into their fracture.

14 Q. As long as you don't screen out?

15 A. Even if you do, you wouldn't screen out unless
16 you got there. Once you've gotten there you've tied into
17 the existing frac and it's a freebie.

18 Q. Have you seen wells that, you drill them and you
19 hit a big fracture while you're drilling them and it
20 produces really good for a while, and you go -- well, they
21 go -- something happens, they cement it or something, and
22 you try to get back into that fracture with a frac job.
23 Have you seen -- have you been successful doing that
24 before? Haven't you seen where that has failed to happen?

25 A. If you go to a Mancos shale, if you go to a type

1 of reservoir that is naturally fractured or that sort of
2 thing happens, it's all rock mechanics as far as where your
3 frac is going to go. It's a shot in the dark.

4 When you're drilling in the sands in the San Juan
5 Basin, the PCs and the Fruitland Coals and that sort of
6 thing, there aren't natural fractures. You don't really
7 have to contend with that. I would love to drill through
8 something and actually have it come to surface, but
9 generally when you perforate them they go on vacuum.

10 Q. Did you look at the surrounding wells compared to
11 this well as far as their -- even equality of the Fruitland
12 Sands or the thickness of the coals, the upper coals, to
13 see if -- why this well is so much better than the others?

14 A. It's difficult to tell from well logs. If you
15 look at well logs in, say, a two-township section around
16 here, they may vary in thickness by 10 percent or 15
17 percent. Sometimes the thinner horizons are better
18 producers. There are a lot of variables, and very few of
19 it can you determine through a well log. A lot of it is
20 trial and error.

21 Q. These economics, are those Aries? No, it's Power
22 Tools?

23 A. Correct.

24 EXAMINER JONES: That's the second person today
25 to use Power Tools.

1 Help me out here. I'm running out of questions.

2 MR. BROOKS: Are you through?

3 EXAMINER JONES: I'm through.

4 MR. BROOKS: Well, I just have a few, just to
5 kind of summarize what seems significant here.

6 EXAMINATION

7 BY MR. BROOKS:

8 Q. You are not disagreeing with the testimony that
9 there is no communication between the upper coals and the
10 basal coals; is that correct?

11 A. That's correct.

12 Q. And you are not testifying that there is anything
13 about this -- granting of this order, that you know of,
14 that will reduce the amount of gas that Pro New Mexico
15 would be able to recover through the wells they're drilling
16 on the offsetting acreage?

17 A. Their concern would be that the way the rulings
18 have been written regarding those wells in the past, there
19 has been no verbiage that states that additional pay can't
20 be opened in the replacement wells. If they're allowed to
21 simultaneously dedicate, then basically a sundry is
22 required to open up that pay, and then you would have 80-
23 acre infills for whatever zone that they open --

24 Q. So if they were --

25 A. -- instead of 160.

1 Q. So if, but -- in your opinion, if, but only if,
2 the replacement wells were allowed to produce
3 simultaneously with the original wells from the upper
4 columns, then it would affect the ability to recover from
5 the offset?

6 A. Correct.

7 Q. But if the replacement wells are not perforated
8 in the upper coals, then that would not happen? I mean,
9 for you -- you don't know of any reason to believe it
10 would?

11 A. No.

12 Q. That was my understanding. I wanted to make that
13 clear -- I wanted to get that clear in mind.

14 Now when -- I don't know anything about working
15 on wells in the San Juan Basin, so -- I'm a lawyer, and I'm
16 not a petroleum engineer, so if my questions sound ignorant
17 they probably are.

18 But when you do a re-work, such as a re-entry to
19 recomplete an upper zone, which would be what would have to
20 be done, according to both your testimony and Mr.
21 Emmendorfer's, to produce from the upper coals in these
22 other wells, is there not some risk that in that
23 recompletion process there will be damage to the well so
24 that it will not be as productive from where it's now
25 producing from as it otherwise would have been?

1 A. There's always risk. It's possible that you
2 would have completion problems. It's an operator's call.
3 Certainly Pro New Mexico is going to be forced to bear that
4 risk when they do their completions, and they'll have to
5 complete the lower coal and make that choice and assume
6 that risk if they complete the upper coals.

7 It's also possible with new completion techniques
8 -- It's 25 years old; there's a lot of improvements in frac
9 design and quality, also with artificial lift, that you
10 could get a bump in ultimate recovery. Again, there's
11 always those variables.

12 MR. BROOKS: Thank you, I think that's all I
13 have.

14 MR. CARR: Nothing further.

15 MR. KELLAHIN: Nothing further.

16 MR. CARR: I have a brief closing.

17 EXAMINER JONES: Okay, who wants to go first?

18 MR. CARR: Tom --

19 MR. KELLAHIN: Opponents usually go first.

20 Curious problem. It's apparently unique in the
21 pool to have four wells in competition with -- in a pool
22 where two are allowed.

23 This is a problem that Coleman created for
24 themselves, and for some reason it's been deflected and put
25 on you to decide and for us to somehow be the bad guys, to

1 ask you to plug a well that's commercial and still
2 producing gas. But they made those decisions for
3 themselves, or we wouldn't be here at all.

4 The replacement wells were permitted by them and
5 were -- obtained approval only because they were intended
6 to be replacement wells. Their intention was to plug the
7 parent wells and replace them. They were slimhole
8 completions that couldn't access the basal coal, and that's
9 where they wanted to go.

10 And then after they did that work, they changed
11 their mind and decided that they would protract the
12 production of the upper coal with the original well and ask
13 you for approval to postpone plugging it by creating a
14 science project. That was the perception we had when we
15 came before Mr. Catanach back in '04, that it was intended
16 to be a science project to gather data so that Coleman and
17 others in the area might learn if it's going to be economic
18 to take the basal coal wells in these larger wellbores, and
19 add the upper coal to it. That was Coleman's intention as
20 part of their science project.

21 And they continued it in '06 after another
22 hearing before you, Mr. Jones, and got an additional year's
23 extension. For the last four years, almost, they've been
24 running a science project. Our engineer has studied the
25 data they've provided and demonstrated it's economic to

1 recomplete the basal wells and add the upper coal, and it
2 can be done for -- profitably, and the costs can be paid
3 for out of that production.

4 Having demonstrated that, we're now in the
5 position of being the bad guys, to ask you to do -- to
6 require what Coleman said they were going to do back in
7 February of '03, which was to plug the original wells and
8 replace them.

9 While it's hard to quantify, and Mrs. Delventhal
10 could not articulate precisely the correlative-rights issue
11 at hand, it seems inherently unfair to me to somehow change
12 the rules and allow Coleman to do something that they now
13 say that they want to do, when three years ago they said
14 they didn't need to do this. And Mr. Carr's about to tell
15 you the rule's the rule, and that's all I'm arguing is the
16 rule, and there's no damage, no harm, no foul, don't make
17 us plug our well.

18 It's like undrilling the well at the unorthodox
19 location. Once it's done, you can't get rid of it. And
20 what do you construct? Some kind of penalty? They never
21 work. And the stake here is, Coleman has changed their
22 mind and wants to be absolved from the consequence of doing
23 that.

24 Mrs. Delventhal suggested that one way that might
25 provide an element of protection is to make it abundantly

1 clear in the order, if you decide to approve this at all,
2 that they cannot add perforations to the wellbore. I don't
3 know how you police all that. It's hard to do. As you can
4 see, you can file a sundry notice and add perforations
5 without notice to anybody. I don't know how we're going to
6 know if that happens by Coleman or the successor-in-
7 interests.

8 So I share with you the frustration about what to
9 do. But I'm annoyed that somehow this turned to be your
10 fault and my responsibility for complaining about plugging
11 a producing well. It's what they asked for. They now need
12 to do what they said they were going to do, and they can do
13 so profitably without unusual expense and put them back in
14 compliance and not grant them the exception that no one
15 else has ever had.

16 MR. CARR: I don't think anybody's talked about
17 bad guys here but Tom. And I would suggest he should take
18 his sackcloth off, because Coleman has not suggested that
19 Mr. Kellahin has caused anything, that it's his fault, or
20 that it's your responsibility. This is -- You know, I
21 guess a good offense is a great defense, but the facts
22 being portrayed by Mr. Kellahin are not true.

23 If you look at Exhibit Number 3, this is the
24 exhibit that shows the wells that are completed in the
25 area. You can see that Coleman has acquired a number of

1 wells that are completed only in the Basin Coal.

2 In 1983 -- I'm sorry, in -- when we came for our
3 original hearing, we were telling you we wanted to go out
4 and test wells to try and gain information to determine how
5 we could economically and effectively produce these upper
6 coals. And we had a unique situation, and it was of our
7 creation. We drilled replacement wells close to the
8 original wells, planning to plug the original wells. And
9 then we put compression on the original wells and we were
10 surprised, because there was a significant jump that showed
11 there was significant coal. And we are -- or gas in this
12 coal.

13 And we came to you with a geological
14 interpretation that suggested that this was separate from
15 the basal coal being produced in the lower zone. And we
16 asked because of this unique fact to be able to go out and
17 gather information, and we have. And the information we
18 have and we've presented shows these 50 feet apart,
19 vertically and horizontally, they're not in communication
20 with one another. And that is important information.

21 And it's important to Coleman as they go forward,
22 trying to develop the gas in the area shaded in yellow, and
23 it's probably important to Merrion who offsets us to the
24 east, it may be important to Dominion off to the northeast.
25 But we have acquired the data, and we have done what we

1 told you what we were going to do.

2 And we have also told you today that we are now
3 going out to try and -- in a well completed only in the
4 basal coal, to complete in the upper coal, to see if it can
5 be done. Because in this intervening period Redwolf, Ms.
6 Delventhal, went out and tried to do that as our immediate
7 west offset, and the results were very disappointing.

8 And you can call it a science project, or you can
9 call it prudent operations, but that's what we have been
10 about from the beginning here. And we don't really don't
11 appreciate being characterized as someone who's trying to
12 lob things at Pro New Mexico.

13 Because, you know, I asked Ms. Delventhal one
14 question which I think is the overall question here: Why
15 are they objecting?

16 Well, you know, I guess -- I'm going to tell you
17 what Mr. Kellahin said. I think they're just saying the
18 rules are the rules. That's what I hear. But you know,
19 there's no correlative-rights issue for them. Pro New
20 Mexico is 3000 feet away. And they say, Well, maybe in the
21 future there could be a problem if there were extra perms
22 3000 feet away, in the same interval, in violation of the
23 rules, that's now being produced.

24 I would suggest to you, it would take quite a
25 well, and a new set of perforations in 50 feet of the

1 existing perfs to impact Mr. Gallegos 3000 feet away, now
2 or ever, and to get there you have to assume a violation of
3 the rules. And I think that's, again, close to fabricating
4 a situation here that is not before you.

5 You have a unique situation, you have wells in
6 close proximity, and they gave us a chance to get data, and
7 that's what we did. There's no correlative-rights issue
8 for them. There is no waste issue for them whatsoever.
9 This is not going to impact one MCF of gas they recover,
10 either in Redwolf 1600 feet away or Pro New Mexico 3000
11 feet away.

12 But if you grant what they seek, there is a
13 correlative-rights issue, there is a waste issue.
14 Correlative rights is the opportunity to produce without
15 waste your fair share of the reserves under your property.
16 We're 840 feet away from the boundary of our acreage, and
17 our --

18 MR. EMMENDORFER: Six hundred.

19 MR. CARR: And -- no, we're -- I'm going to get
20 this right.

21 MR. EMMENDORFER: Okay.

22 MR. CARR: We are 830 feet -- I'm just an
23 attorney, but I get them right once in a while.

24 We're 830 feet from them, and what we're being
25 told to do is to get back to where we are, incur \$150,000

1 of wasted money, to take a risk where we might not be able
2 to get back to the same position to access reserves under
3 our property, and I will tell you, that's waste. And that
4 impairs our correlative rights.

5 And when you have a unique situation, we have a
6 right to come before you and present it to you. And you
7 look at the rules, and the rules allow for exceptions. And
8 when you consider exceptions, you look at correlative
9 rights and waste, and that's what you base your decision
10 on. They have raised no issue, and we have a potential
11 issue on both of the fundamental bases upon which your
12 jurisdiction rests.

13 All we want is on the east half of this section,
14 in the northwest quarter, one wellbore that is accessing
15 the upper coal and one wellbore that's accessing the lower,
16 the basal coal. And the same thing in the southwest, one
17 in the upper coal, one in the basal coal.

18 And when Mr. Gallegos finishes his wells, if he
19 does, in 18, what he did in 8, he will have in his
20 northeast quarter one well in the upper, one well in the
21 basal. In the southeast, one well in the upper, one well
22 in the basal.

23 And so the question we have is why? Where is the
24 real reason to deny this Application? And when you look
25 for that and compare it to your statutory duty, you will

1 find, Mr. Jones, it does not exist.

2 EXAMINER JONES: Okay, thank you both. And thank
3 you, the witnesses today.

4 And with that we'll take Case 13,894 under
5 advisement.

6 (Thereupon, these proceedings were concluded at
7 3:34 p.m.)

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. _____
heard by me on _____

_____, Examiner
Oil Conservation Division

