

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., TO AMEND ORDER NUMBER R-12,201)
TO EXTEND FOR ONE YEAR THE PRODUCTION)
TEST AUTHORIZED THEREIN TO DETERMINE)
THE ECONOMIC VIABILITY OF SIMULTANEOUSLY)
PRODUCING FOUR GAS WELLS ON A STANDARD)
320-ACRE SPACING UNIT IN THE BASIN-)
FRUITLAND COAL GAS POOL, SAN JUAN)
COUNTY, NEW MEXICO)

CASE NO. 13,558

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

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

September 22nd, 2005

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, September 22nd, 2005, 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.

* * *

STEVEN T. BRENNER, CCR
(505) 989-9317

2005 SEP 27 PM 12 47

59/5/01 CCAM

I N D E X

September 22nd, 2005
Examiner Hearing
CASE NO. 13,558

	PAGE
EXHIBITS	3
APPEARANCES	3
APPLICANT'S WITNESS:	
<u>ALAN P. EMMENDORFER</u> (Geologist)	
Direct Examination by Mr. Carr	4
Examination by Examiner Jones	24
REPORTER'S CERTIFICATE	36

* * *

E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	10	23
Exhibit 2	11	23
Exhibit 3	14	23
Exhibit 4	15	23
Exhibit 5	16	23
Exhibit 6	18	23
Exhibit 7	22	23

* * *

A P P E A R A N C E S

FOR THE DIVISION:

GAIL MacQUESTEN
 Deputy General Counsel
 Energy, Minerals and Natural Resources Department
 1220 South St. Francis Drive
 Santa Fe, New Mexico 87505

FOR THE APPLICANT:

HOLLAND & HART, L.L.P., and CAMPBELL & CARR
 110 N. Guadalupe, Suite 1
 P.O. Box 2208
 Santa Fe, New Mexico 87504-2208
 By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 8:28 a.m.:

3 EXAMINER JONES: At this time let's call Case
4 13,558, Application of Coleman Oil and Gas, Inc., to amend
5 Order Number R-12,201 to extend for one year the production
6 test authorized therein to determine the economic viability
7 of simultaneously producing four gas wells on a standard
8 320-acre spacing unit in the Basin-Fruitland Coal Gas Pool,
9 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. We represent Coleman Oil and Gas, and I have
14 one witness.

15 EXAMINER JONES: Will the witness please stand to
16 be sworn?

17 (Thereupon, the witness was sworn.)

18 ALAN P. EMMENDORFER,
19 the witness herein, after having been first duly sworn upon
20 his oath, was examined and testified as follows:

21 DIRECT EXAMINATION

22 BY MR. CARR:

23 Q. Would you state your name for the record, please?

24 A. Alan P. Emmendorfer.

25 Q. Mr. Emmendorfer, where do you reside?

1 A. Arvada, Colorado.

2 Q. And by whom are you employed?

3 A. Coleman Oil and Gas.

4 Q. And what is your position with Coleman Oil and
5 Gas?

6 A. Geologist.

7 Q. Have you previously testified before the New
8 Mexico Oil Conservation Division?

9 A. Yes, I have.

10 Q. At the time of that hearing, were your
11 credentials as an expert in petroleum geology accepted and
12 made a matter of record?

13 A. Yes, they were.

14 Q. And in fact, you are the witness who testified in
15 the original hearing concerning this production test; is
16 that right?

17 A. That's correct.

18 Q. Are you familiar with the Application filed in
19 this case?

20 A. Yes, I am.

21 Q. Are you also familiar with the status of the
22 lands in the portion of the Basin-Fruitland Coal Gas Pool
23 that's the subject of this hearing?

24 A. Yes.

25 Q. Have you made a technical study of the area

1 that's the subject of this Application?

2 A. Yes, I have.

3 Q. And are you prepared to share the results of that
4 work with Mr. Jones?

5 A. Yes.

6 MR. CARR: We tender Mr. Emmendorfer as an expert
7 in petroleum geology.

8 EXAMINER JONES: Mr. Emmendorfer is qualified as
9 an expert in petroleum geology.

10 Q. (By Mr. Carr) Mr. Emmendorfer, initially would
11 you explain to the Commission -- or the Division -- what it
12 is that Coleman is seeking with this Application?

13 A. What we're seeking is a one-year extension of the
14 production test that was approved by the Division Order
15 R-12,201, approximately one year ago. At that time we were
16 granted an exception of the Rule 7.D of the special pool
17 rules for the Basin-Fruitland Coal Pool, Gas Pool, and
18 authorized the simultaneous dedication of the west half of
19 Section 18, 26 North, Range 11 West, San Juan County, New
20 Mexico, to produce four existing coal gas wells at that
21 time.

22 We were also to conduct this one-year test of
23 these wells by segregating in the individual wellbores and
24 separately producing coal gas stringers to determine the
25 economic viability and the feasibility of the producing

1 intervals in these existing coal gas wells, without
2 completing or commingling them in one wellbore.

3 Q. What wells were involved in this Application and
4 are involved in this particular test?

5 A. Okay, the four wells are the Ricky Well Number 1,
6 the 1R, the Ricky Well Number 2 and the Ricky Well Number
7 2R. They are all four located in the west half of Section
8 18, 26 North, 12 West --

9 Q. And pursuant to --

10 A. -- excuse me, 11 West.

11 Q. And pursuant to Order 12,201, all four of these
12 wells are producing from various intervals within the Basin
13 Fruitland Coal Gas Pool?

14 A. That is correct.

15 Q. Can you explain to Mr. Jones the current status
16 of the test?

17 A. We have been producing all four wells for
18 approximately one year. The test was due to expire on
19 August 31st, 2005. We asked for and got an extension to
20 continue the test until the outcome of this hearing, and
21 they're currently producing at this time.

22 Q. And basically what we're doing here is, you have,
23 and have had, four wellbores on the west half of this
24 section?

25 A. That's correct.

1 Q. And what you've been proposing to do is complete
2 the Basal Coal in two of those and the Upper Fruitland Coal
3 in two others?

4 A. Well, they've been completed. We're producing
5 them, yes.

6 Q. But you do not have more than two wells in any
7 interval?

8 A. That's correct.

9 Q. You may have four wells, but instead of
10 commingling the production in two wellbores, you're using
11 four wellbores and two are in the Basal Coal and two are in
12 the Upper Coal?

13 A. That's right.

14 Q. What really was the purpose of this production
15 test.

16 A. Excuse me?

17 Q. What was the purpose of this production test?

18 A. The purpose was to see if these upper stringers
19 -- how productive they actually were. Coleman's
20 traditional mode of operation in this particular area is to
21 complete only the Basal Coal. Some of the operators also
22 produced in the same wellbore the thin stringers above, and
23 we saw a unique opportunity to produce both zones in
24 separate wellbores to test the ultimate recoveries and
25 commercial abilities of these separate zones. We're hoping

1 that this data will help us in our other wells in the area.

2 Q. And so by looking in two wells at just the upper
3 zones, for example, you could look at potential for
4 communication in that horizon, and you were able to do this
5 with existing wellbores and gather the data without having
6 to commingle and do other things and incur those expenses?

7 A. That's correct.

8 Q. Can you explain just generally to Mr. Jones what
9 you've done since the -- by way of background what you've
10 done since the entry of Order 12,201?

11 A. Yes, pursuant to the Order 12,201, we produced --
12 we turned on the Ricky 1 and the Ricky 2 wells, which were
13 the original wells. They're producing from the upper
14 stringers of the Fruitland Coal. And at the same time
15 we're producing from the 1R and the 2R, which are twinned
16 locations on the same drilling pads. And what we've been
17 doing is monitoring the production data and taking at least
18 a -- quarterly, a bottomhole fluid measurement to determine
19 a static bottomhole pressure, to determine if we can see
20 any interference horizontally within the Fruitland Coal
21 package.

22 We've been trying to coordinate these bottomhole
23 pressure measurements with shut-ins, periods of the gas
24 gatherers, such as when the Chaco plant has been shut in
25 for maintenance, we get at least 48-hour shut-in time.

1 We'll then take static bottom- -- or take fluid
2 measurements to determine these static bottomhole
3 pressures, in an attempt to see what data we can get from
4 these wells and what interpretations we have.

5 Q. What's the current status of the data or
6 information you've been able to develop as of this date?

7 A. Well, we've got pretty good data. But as I will
8 show later, the decline curves, we feel we've only got one
9 year of production, and as you'll see, there's -- we kind
10 of see some trends, but we just don't see -- we thought a
11 one-year production period would be enough to establish
12 good decline curves, and it just doesn't seem to be at this
13 time, so we're asking for additional time.

14 Q. What is the character of the land that we're
15 dealing with?

16 A. The west half of Section 18 is comprised of two
17 separate Navajo-allotted leases of the -- Coleman Oil and
18 Gas is the 100-percent working interest owner of both
19 leases, and all overrides are common between both leases.

20 Q. Okay. Let's go to what's been marked Coleman
21 Exhibit Number 1. Would you identify this and review the
22 information on the exhibit for Mr. Jones?

23 A. Exhibit Number 1, Mr. Examiner, is an area map of
24 -- with the Ricky wells. It's comprised of portions of
25 Township 26 North, 11 and 12 West, and a small portion of

1 Township 27 North, 11 and 12 West, of San Juan County, New
2 Mexico.

3 Each of these squares are government sections.
4 We have identified all the Fruitland Coal wells that are
5 currently or have produced in the past. These are
6 designated with a gas-well symbol with a triangle around
7 them. The well name is a little black number that's just
8 above the gas-well symbol. In blue is the name of the
9 operator and also the name of the well. Also Coleman's
10 interest in the area is highlighted in yellow, showing the
11 particular wells that Coleman operates in the Basin
12 Fruitland Coal in this portion of the Basin.

13 Q. If we look at Section 18 and the red line around
14 the subject spacing unit, the 1 and 1R well symbols are
15 virtually on top of each other.

16 A. That's correct.

17 Q. How close are these wells drilled to each other?

18 A. Approximately 50 feet apart. We drilled them on
19 the same location. The surface is owned by NAPI, and it
20 was definitely conducive to drilling the wells on the
21 existing locations, plus for the gas tie-ins and all. But
22 they're essentially about 50 feet apart.

23 Q. Okay, let's go to Exhibit Number 2. What is
24 this?

25 A. Exhibit Number 2 is a type log for the Ricky

1 area, and as a matter of fact I'm using the Ricky Number 1
2 well that was drilled in 1984. It's an induction electric
3 log of the well. It was drilled to a total depth of
4 approximately 1380 feet.

5 Stratigraphy is very typical of the San Juan
6 Basin. Upper portion of the log shows the Kirtland Shale,
7 then the Fruitland formation, and then it TD'd down in the
8 Pictured Cliff sandstone. The Pictured Cliff is not
9 productive in this portion of the Basin.

10 I'd like to point to -- your attention to the
11 Fruitland formation. If we go from the bottom of the
12 Fruitland up we have the Basal Coal zone, which in this
13 area is about 12 to 14 foot thick. And then there are a
14 few Coal stringers that are present approximately 50 to 100
15 feet above the Basal Coal, and then one very thin Coal
16 stringer at the very top, which typically identifies the
17 boundary of the Fruitland and Kirtland formation. It is
18 carbonaceous shale/coal.

19 Q. Could you just provide a brief history of the
20 Fruitland Coal development on this spacing unit?

21 A. Originally in 1984, Simmons Engineering drilled
22 two wells, the Ricky 1 and the Ricky Number 2. At that
23 time they were pooled on 160-acre spacing each in the
24 Gallegos Sand Gas Pool and were completed with two sets of
25 perforations and a small frac job within these perforations

1 in two of the upper Coal zones. Even at that time there
2 wasn't any provision for Coal wells, and they were
3 completed as Gallegos Sand wells.

4 Beginning of the formation of the Basin-Fruitland
5 gas field, a lot of the smaller Fruitland Sand pools were
6 found -- were found that some of the Fruitland wells were
7 actually producing from coals and not sands, and these two
8 wells were incorporated into the Basin-Fruitland Sand
9 Pool --

10 Q. The Coal Pool.

11 A. Excuse me, the Basin Fruitland Coal Pool, on 160-
12 acre spacing. I don't know if they were the only two coal
13 wells that were spaced on 160-acre spacing or not, but
14 these two were grandfathered in because they were already
15 existing wells spaced on 160 acres, and they just left them
16 as 160 acres.

17 Q. You acquired the wells in what year?

18 A. We bought the wells in 2002 with the idea of
19 drilling replacement wells to produce the Basal Coal zone
20 and ultimately plug the original wells.

21 These -- I should mention that the original Ricky
22 1 and Ricky 2 were slimhole completions, 2-7/8-inch casing,
23 because if we wanted to perf and complete below the
24 existing perforations it was economically and mechanically
25 very difficult or not feasible to do. Hence, we were

1 planning to plug the wells after we got the other wells in
2 the productive state.

3 In anticipation of -- while we were permitting
4 the replacement wells, we knew we were going to put
5 compression on the replacement wells, and so we went ahead
6 and purchased compression equipment and started compression
7 on the existing wells. And as you will see in a little
8 while, we noticed a pretty significant increase in
9 production at that time. And so when we drilled the other
10 wells, we thought this might be a unique opportunity to get
11 some data.

12 Q. Let's go to Coleman Exhibit Number 3. This is
13 the same base plat that was Coleman Exhibit Number 1; is
14 that correct?

15 A. That's correct.

16 Q. And what have you done to this?

17 A. Okay, the Exhibit Number 3 is a base map of the
18 Ricky well area, and noting all the different coal
19 completions for the producing wells. If you would refer
20 back, Mr. Examiner, to Exhibit Number 2, what I've done is
21 identified which zones of the Fruitland Coal interval is
22 producing in each individual well. And the legend in red,
23 the original -- or the replacement wells for the Ricky 1R
24 and the Ricky 2R are producing only from the Basal Coal
25 zone, and we've identified those as -- with a red "B". And

1 if you'll notice, all the other Coleman wells are only --
2 have been completed and producing out of the Basal Coal
3 zone.

4 Some of the other operators produce both upper
5 and lower Coals in one wellbore, either multiple frac jobs
6 or one frac job in all the Coals, and those are with a "C"
7 for a combination of upper and lower Coals.

8 The wells were only producing in the upper Coals
9 only, such as the Ricky 1 and the Ricky 2, they are
10 designated as a "U". And if you will note Section 7, just
11 directly above the Ricky wells, there's two wells that are
12 producing only out of the upper Coals.

13 And of course, nothing being simple, there's
14 always an exception, and that's the well in Section 36 of
15 27 North, 12 West, where it's actually downhole commingled
16 with an Upper Coal zone and a Fruitland -- I mean, excuse
17 me, in the Pictured Cliffs sand. So I've denoted that with
18 a "U" with an asterisk. It's Upper Coal, but it's also
19 commingled with the Pictured Cliff. Nothing simple.

20 Q. All right, let's go now to your north-south
21 cross-section, Coleman Exhibit Number 4.

22 A. Exhibit Number 4 is a simple north-south cross-
23 section utilizing all four of the Ricky wells in Section 18
24 of 26 North, 11 West. What I've got is a side-by-side
25 correlation of the wells to the north of the Ricky Number 1

1 and its replacement well, the Ricky 1R, northwest of
2 Section 18. And in the southwest of Section 18 is the
3 Ricky 2 and the Ricky 2R.

4 What I'd like to point out -- we can take either
5 the 1 and the 1R or the 2 and the 2-R, because they're
6 essentially similar -- is that these wells are twinned
7 wells approximately 50 feet apart. However, the
8 replacement well is producing -- completed and producing
9 only out of the Basal Coal zone, whereas the original wells
10 are completed and producing out of a -- two thin coal
11 stringers approximately 50 to 100 feet above the Basal Coal
12 section.

13 Let's go now to Exhibit Number 5, and let's look
14 at the production data.

15 A. Exhibit Number 5 is production data for all four
16 of the Ricky wells. The legal-size pages are printouts
17 from GO-TECH of the production in tabular form of all four
18 of the wells. And then I've also included graphed
19 production to be able to do decline-curve analysis. I've
20 combined on each graph -- the Ricky 1 and the Ricky 1R on
21 one graph and the Ricky 2 and the Ricky 2R on the other
22 graph.

23 In both wells you can -- in both graphs you can
24 notice that the original wells, which were drilled back in
25 1984, had a fairly good decline curve history, and they

1 were producing about 10 to 20 MCF per day when Coleman
2 purchased the wells, and you can then see a good jump in
3 production to 40 to 60 MCF a day. This reflects the time
4 when we put compression on the wells, waiting for our
5 permits to be approved for the drilling of the replacement
6 wells.

7 Likewise, when we -- to get our C-104s signed for
8 the replacement wells, we had to shut in the original
9 wells. And so you can see in red the replacement well
10 productions and a time when no production occurred out of
11 the original wells.

12 Then a little over a year ago when we got the
13 Order 12,201 to do a production test with the original
14 Ricky 1 or Ricky 2 wells, we have a production again
15 occurring in those wells.

16 Point out in the Ricky 1 and the Ricky 1R how the
17 replacement well, the Ricky 1R, seems to have a nice
18 decline being established in it, whereas the Ricky 1 is
19 still declining slowly. It appears at this time, from this
20 data, that the Basal Coal in the 1R is producing and not
21 being affected at the same time by the original one
22 completion.

23 If we were to look at the other graph, the Ricky
24 2 and the Ricky 2R, and if I point to the Ricky 2, in the
25 last three months or so increase in production, that's due

1 to soaping of the well. So we all of a sudden ruined our
2 decline-curve analysis in there. But notice that again the
3 2R seems to have a nice orderly decline to it, and it seems
4 to be independent of what the Number 2 is doing at this
5 time.

6 Q. So in the exhibits you also have all backup
7 information in a tabular form?

8 A. That's correct.

9 Q. Let's go to Exhibit Number 6, the bottomhole
10 pressure data. Would you review that for Mr. Jones?

11 A. Sure. Exhibit Number 6 is the bottomhole
12 pressure data for all four of the wells in question. We
13 calculated a static bottomhole pressure. Again, we tried
14 to do it on a quarterly basis or any other time that the
15 wells were shut in for a minimum of 48 hours because of
16 pipeline maintenance. It's a calculated bottomhole
17 pressure based off of fluid-level measurements.

18 On each of the -- Each of the curves are very
19 similar in the presentation of the data. We have the date
20 of when the fluid level was made and calculated a static
21 bottomhole pressure, and that number is number of pounds of
22 bottomhole pressure.

23 This data is also then displayed in two forms --
24 one is a bar graph and the other is a linear graph --
25 showing the difference of the bottomhole pressure

1 measurements through time.

2 If we wanted to compare the original wells, such
3 as the Ricky 2 with the Ricky 2R, we can see that the
4 original -- or the replacement well has a little bit lower
5 static bottomhole pressure than the original well, and like
6 the 2R seems to have an orderly decline in its bottomhole
7 pressure, whereas the original Ricky Number 2 well,
8 although it's declining, it seems to be a little bit more
9 erratic.

10 Likewise on the Ricky 1 and the Ricky 2R. The
11 replacement well has a lower bottomhole pressure calculated
12 than the original well, and again the data is similar but
13 not exactly the same.

14 Q. What does the information you've acquired to date
15 tell you about this reservoir?

16 A. Well, we think that the data indicates that there
17 really isn't vertical communication from the Basal Coal
18 zone with the Upper Coal interstringers in the west half of
19 Section 18. The data -- the production data seems to
20 indicate this, that they're declining, or inclining,
21 separately from each other, even though the wells are only
22 50 feet apart in a horizontal distance. Vertically, they
23 don't seem to be in communication.

24 Bottomhole pressures seem to indicate that
25 although they may have a similar decline in bottomhole

1 pressures, the actual calculated bottomhole pressures are
2 different pressures. And we don't see -- we don't think we
3 see communication between the zones in a vertical manner.

4 So we think that in essence we're producing the
5 Fruitland Coal interval out of four wells, but really the
6 same thing is producing in two wells.

7 Q. Should a one-year extension of the test provide
8 sufficient information to establish whether or not you can
9 effectively and efficiently produce in this manner?

10 A. Well, we hope so. We originally thought one year
11 would work. We think we see it, but from the decline
12 curves it just doesn't seem to have enough data. We're
13 hoping that an additional year would establish enough of a
14 trend to be able to establish the fact that they're not in
15 communication.

16 Q. Order 12,201 established certain parameters or
17 imposed certain limitations or conditions on the test, one
18 of them being that you would immediately terminate the test
19 if bottomhole pressure data showed communication between
20 the Upper Coal and the Basal Coal interval. Do you
21 recommend that these requirements continue in place for the
22 remainder of the test?

23 A. Yes.

24 Q. And if the test is extended for another year and
25 subject to this condition, in your opinion is there any way

1 that this test could impair the correlative rights of any
2 other operator in the Basin-Fruitland Coal Gas Pool?

3 A. No, I don't see that.

4 Q. Just summarize your conclusions for the Examiner.

5 A. On conclusion, Mr. Examiner, we have four wells
6 currently producing out of the Fruitland Coal in a 320-
7 spacing unit, but in essence we feel that there's only two
8 wells that are actually draining the reservoir.

9 Yet at the same time we feel that there's a
10 unique opportunity for both Coleman Oil and Gas and offset
11 operators to determine what the ultimate producibility and
12 estimated ultimate recovery are from these thin coal
13 stringers. We don't see vertical interference between
14 them, and we think that we can continue to produce in an
15 orderly manner and effectively and efficiently drain the
16 reservoir.

17 Q. If we look at Coleman's production in the area,
18 Coleman produces the Basal Fruitland Coal as a rule; is
19 that not correct?

20 A. That's correct, we made a decision early one that
21 we -- we thought that for the most part, these thin
22 stringers weren't very commercial, and to effectively
23 stimulate and produce the Basal Coal zone we would have to
24 do a two-stage frac if we wanted to try to complete the
25 upper zones, and we chose at that time not to do that.

1 This gives us an opportunity to study that.

2 We've got quite a few offsetting wells that have
3 some coal stringers in there that we could eventually
4 recomplete and/or commingle in the wellbores at a later
5 date. We still have a couple infill locations to drill in
6 there too, so that we would have a chance then to produce
7 all of the coal stringers at the same time.

8 Q. And the actual configuration or location of these
9 wells, plus -- combined with the response that you saw when
10 you put the upper zones on, compression really does provide
11 a unique opportunity to evaluate how these other stringers
12 produce with no chance of the data being confused by a
13 combination of those zones in the same wellbore with other
14 deeper horizons?

15 A. That's correct, I agree with that.

16 Q. Is Coleman Exhibit Number 7 an affidavit
17 confirming that notice of today's hearing has been provided
18 in accordance with the Rules of the Division?

19 A. Yes, it is.

20 Q. And attached to that affidavit are notice letters
21 and a legal advertisement?

22 A. Correct.

23 Q. Notice has been provided to the operators of all
24 offsetting wells?

25 A. Yes.

1 Q. To offsetting working interest owners on any
2 undrilled lease?

3 A. Yes.

4 Q. To the offsetting unleased mineral interest
5 owners, to the extent there are any?

6 A. Yes.

7 Q. And also to all operators within a mile of this
8 proposed test; is that correct?

9 A. That's correct.

10 Q. Will approval of this Application and the
11 continuance of this test be in the best interests of
12 conservation, the prevention of waste and the protection of
13 correlative rights?

14 A. Yes.

15 Q. Were Coleman Exhibits 1 through 7 either prepared
16 by you, or have you reviewed them and can you testify as to
17 their accuracy?

18 A. Yes, I can.

19 MR. CARR: At this time, Mr. Jones, we'd move the
20 admission into evidence of Coleman Exhibits 1 through 7.

21 EXAMINER JONES: Exhibits 1 through 7 will be
22 admitted to evidence.

23 MR. CARR: That concludes my direct examination
24 of Mr. Emmendorfer.

25 EXAMINER JONES: Thank you, Mr. Carr.

EXAMINATION

1
2 BY EXAMINER JONES:

3 Q. So preliminarily, what is your reserve number for
4 the Upper Coal?

5 A. That's a good question, mainly because the well
6 is still inclining. We don't have a firm number, but with
7 what's been produced in the past and what it looks like so
8 far, it could be 175 to 200 million, in that range,
9 something like that. As I said, without additional decline
10 data we don't have a real good handle on that yet, but it
11 seems to be producing very well.

12 Q. So that would be for how many feet of coal?

13 A. About four to eight feet, somewhere in that.

14 Q. That's counting both of those Upper Coal?
15 intervals?

16 A. Yes.

17 Q. So would that pay out a frac job?

18 A. With these prices, yes, I think it would.

19 Q. What size frac job do you put on those?

20 A. Well, we haven't completed these particular wells
21 or any of the Upper Coal zones. The original wells had
22 about a 25,000-pound frac. We typically on the Basal Coals
23 have been putting about a 100,000-pound frac. And
24 honestly, I'm not sure what we would do -- I know some of
25 the other operators have done two-stage frac jobs with both

1 -- about 100,000 per frac job.

2 Q. With both, both 100,000?

3 A. Yes, uh-huh.

4 Q. You're not pumping these wells?

5 A. The replacement wells are on pump. The other
6 wells make minimal water. I mean very minimal, like maybe
7 a barrel or two a month --

8 Q. Your soap --

9 A. Excuse me?

10 Q. Your soap helped you on those?

11 A. That one, yes, we -- the 1 was not soaped, but
12 the Number 2 was soaped. But with that slimhole, there
13 just is not very much water in these two wells in those
14 Upper Coals, so we don't need to pump them.

15 Q. What about your -- so you've got -- how many feet
16 in the Upper Coal did you say?

17 A. If we look at the Ricky Number 2, the upper
18 perforation looks like about, oh, three foot of coal, and
19 the lower set of perforations look like about two feet of
20 coal.

21 Q. Okay, and the Basal Coal is 12 feet, you said?

22 A. Let's see here. It's really about 14 feet in
23 this particular well with -- I -- Excuse me. About 14 feet
24 based off of the bulk density.

25 Q. Okay, what's your gas content in those coal

1 streams?

2 A. We do not have any gas desorption data for any of
3 the wells in this area. We've never taken any.

4 Q. Do you have --

5 A. Excuse me?

6 Q. Do you have -- What kind of coal is it? Is it
7 bituminous coal?

8 A. Sub-bituminous.

9 Q. Sub-bituminous?

10 A. Uh-huh.

11 Q. Saturated or undersaturated?

12 A. I believe it's saturated. This is in the area of
13 the WAW-Fruitland Sand-Pictured Cliff area, and most all of
14 the Coals are productive right away after you've frac'd
15 them and put them on pump, you get, you know, 5 to 10 MCF a
16 day and 100 to 150 barrels of water, and the water starts
17 declining and the gas comes up, so I would think that
18 they're pretty close to saturation.

19 Q. How long does it take for the water to decline?
20 In other words, where is your peak? How long does it take
21 for your peak gas production?

22 A. Well, based off of the Ricky 1R and the 2R,
23 within about six months or so we're at peak production,
24 because there's a lot of developments happen in this area.

25 Q. So it's basically -- a lot of the water has been

1 drained?

2 A. I think so, yes.

3 Q. So you're drilling into a coal that's already
4 been dewatered?

5 A. To some extent, yes.

6 Q. And so that -- you have a faith in your decline-
7 curve analysis of coal in this area?

8 A. Yes.

9 Q. Where in the San Juan Basin is this anyway? Is
10 this --

11 A. If you know where the Chaco plant is --

12 Q. Okay.

13 A. -- the Chaco plant --

14 Q. South of Farmington, right?

15 A. Yes, it's south. The very western part of the
16 map stops in like Section 15, and Chaco plant is one mile
17 west of there in Section 16 of 26 and 12.

18 Q. Okay.

19 A. But -- And most of Township 26 and 12 is the WAW-
20 Fruitland Sand-Pictured Cliff area. And then the
21 northeastern corner is the Gallegos South -- Fruitland
22 South -- Gallegos South-Fruitland Sand PC.

23 Q. Okay, okay. It seems like you would have some
24 kind of idea of your gas content in your coals, and you
25 could do a volumetric on the coals and match it to your

1 decline curve.

2 A. Well, we have an idea that it's about 120
3 standard cubic feet per ton, but we don't have any hard
4 data on that. That's based off of log analysis and
5 publications, stuff like that, they all seem to indicate
6 that, but there's nothing close by that would indicate or
7 give any hard data that we're aware of.

8 Q. Okay. The -- What about the surrounding rocks in
9 this coal, the sands, coal -- the Fruitland Sand, is it --
10 I saw some wells that were producing out of the coal, they
11 call it Fruitland Sand, Fruitland PC Sand.

12 A. Uh-huh.

13 Q. They're both sands. So where is the Fruitland
14 Sand in these wells?

15 A. In these particular wells there are no true
16 reservoir sands. That's a general term that was -- when
17 the pool was created, that some wells were drilled, just
18 like Dugan and McHugh in the early 1980s drilled a lot of
19 wells in this area that actually TD'd just above the Basal
20 Coal, and they would -- they were, oh, five, 10-foot
21 stringers of sands that they would produce at low rates,
22 and then some wells were drilled to the Pictured Cliffs.

23 And because of the low rates of these Fruitland
24 Sands, a lot of times they were commingled downhole in the
25 wellbores, and that's why the Fruitland Sand-PC Pool was

1 formed. The Fruitland Sands are not blanket sands, they're
2 channel sands in the deltaic system of the Fruitland
3 formation, and so they come and go. But when they were
4 found drilling the Pictured Cliff, they could be completed
5 and commingled as one reservoir.

6 Q. Okay. So in this area there's not developed
7 sands in these Ricky wells?

8 A. No, it's not like a Pictured Cliffs sand that's
9 well developed, there are no true --

10 Q. Or a Fruitland Sand?

11 A. No, there's no Fruitland Sands --

12 Q. Okay.

13 A. -- that I see in these wells.

14 Q. What about fractures from the Fruitland? Any
15 production from the Fruitland at all --

16 A. Well, the Fruitland Coal --

17 Q. Sands, sands.

18 A. In the area or in the Ricky wells?

19 Q. In the Ricky wells.

20 A. I think they're strictly coming out of the coal
21 seams.

22 Q. So the reserves are strictly coal reserves?

23 A. "Strictly" is a tough word, because if you've
24 ever looked at the cuttings as they come up, you might see
25 a one- or two-foot sand above -- right above a coal or

1 right below the coal. But predominantly these are coal
2 wells.

3 Q. Okay. Okay, why did you ask for only one year of
4 tests, and why did you not go for a permanent exception in
5 this case? I don't understand.

6 A. Well, because of the fact that there's actually
7 four wells in one 320-acre spacing unit --

8 Q. But you're producing from different --

9 A. That's correct --

10 Q. -- coal seams?

11 A. -- but what we feel is, we needed to verify that
12 there wasn't communication. I think some of the offset
13 operators would be concerned that maybe we're putting two
14 straws in the same location --

15 Q. I see.

16 A. -- and sucking more gas out and possibly ruin our
17 correlative rights, so we needed to make sure that that
18 wasn't the case.

19 Q. Your pressures are pretty low, though, your --

20 A. Yes.

21 Q. So it doesn't look like the pressure wave would
22 go out very far in this instance.

23 Now, what is your -- do you have any -- You did a
24 lot of pressure data, but did you do any pressure-transient
25 data?

1 A. No. No, we have not.

2 Q. So you don't know the permeability, you don't
3 know the extent of -- that it would show you -- it might
4 show you a little more data?

5 A. That's correct. In this area you have to
6 stimulate the frac job, the coals, to make them
7 commercially productive, so I don't know how much useful
8 data that would provide relative to the cost.

9 Q. It makes it more complicated, but it is --

10 A. And the wells are -- while they're commercial
11 they're not, you know, tremendously commercial. And so
12 we're trying to get the best data for the lowest price.

13 Q. I see. Well, okay. You noticed all the offset
14 people. I noticed in the trans- -- or in the order before,
15 that last time two people showed up, two offset people over
16 on the other side of Section 18 showed up, or at least
17 registered --

18 MR. CARR: They appeared.

19 EXAMINER JONES: -- made an appearance in the
20 case.

21 THE WITNESS: Two?

22 EXAMINER JONES: There was --

23 MR. CARR: Redwolf was in, is the one I recall.

24 EXAMINER JONES: And the --

25 THE WITNESS: Redwolf told us that they didn't

1 have any objection.

2 EXAMINER JONES: Okay, thanks for saying that.
3 That's kind of what I was getting at.

4 Q. (By Examiner Jones) Yeah, your decline curve
5 looks almost like a decline from a regular reservoir to me,
6 and I guess I'm not used to these low-yielding coals, but
7 if you don't have gas-content data, that's about all you
8 have, I guess --

9 A. Uh-huh.

10 Q. -- is decline-curve analysis. You want us to
11 amend the previous one, and you only want to go for one
12 more year?

13 A. Well, I'd like to make it permanent if we could.

14 Q. Let me put it to you this way. If this is turned
15 down -- it looks like maybe most of the reserves are gone,
16 so would you justify a frac job in the new wells for the
17 Upper Coals, or would those reserves be lost?

18 A. They would probably be lost. We would have to --
19 we actually have to do some -- we'd have to plug the
20 existing wells and then perf and frac and pull the tubing
21 and stuff, and we're looking at at least fifty- -- well,
22 that was a year ago. Now with prices, probably close to
23 \$70,000, \$75,000 per well to complete --

24 Q. To frac them?

25 A. -- to frac them and complete them.

1 Q. But if you do show that these Upper Coals are
2 pretty good, you can -- can you use this data to
3 extrapolate to other wells that you own other places?

4 A. I -- very -- I think that would be very --

5 Q. And you would be frac'ing and complete in those
6 coals, right?

7 A. Yes, we -- as production would decline on the
8 Basal Coal zones, we would probably initiate a program to
9 complete the Upper Coals in the other wells --

10 Q. Okay.

11 A. -- at that time.

12 Q. And other operators in the area might watch what
13 you're doing?

14 A. I think so, because some of the operators produce
15 at all, and some of them have only completed here, so I
16 would imagine that they would be interested in that also.

17 Q. Okay. I noticed in -- the Application looks okay
18 on the -- but some of that location on the prehearing
19 statement got me over into Rosy Unit, and I don't know if
20 the -- is this okay, Gail, because -- Is this location, the
21 wet one --

22 MS. MacQUESTEN: Does it match the application?

23 EXAMINER JONES: Yeah, I don't think it does. I
24 don't think it's a real big deal, but Gail might think
25 otherwise. Let's see, here's the affidavit. That's --

1 This is location.

2 THE WITNESS: You're right, it does say 31 North,
3 5 West.

4 Q. (By Examiner Jones) And it's on Section 8
5 instead of Section 18 or something?

6 A. Yeah.

7 Q. I pulled it up and I was right in the middle of
8 the Rosy unit, so -- there was something wrong here.

9 MR. CARR: We'll just have to ask that the case
10 be continued and readvertised.

11 EXAMINER JONES: But just for two weeks or --

12 MR. CARR: Well, to be readvertised it has to
13 four --

14 EXAMINER JONES: Four.

15 MR. CARR: -- and we'd request that we be allowed
16 to continue when we get the readvertisement.

17 EXAMINER JONES: Gail, do you have any questions?

18 MS. MacQUESTEN: No questions.

19 EXAMINER JONES: Okay, I don't think we have any
20 more questions. The case is heard, so we'll just process
21 it.

22 MR. CARR: And I will file a corrected ad.

23 THE WITNESS: Okay. Is the ad --

24 MR. CARR: No, but the notice --

25 EXAMINER JONES: Just the notice in the docket.

1 MR. CARR: The publication needs to be corrected.

2 EXAMINER JONES: Thanks for --

3 THE WITNESS: Thank you.

4 EXAMINER JONES: And with that, we'll take Case
5 13,558 under advisement. And -- I'm sorry, I'm sorry,
6 we're going to continue this case until October the 20th.

7 (Thereupon, these proceedings were concluded at
8 9:13 a.m.)

9 * * *

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

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

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
 COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL September 22nd, 2005.



STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 16th, 2006