

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:)

CASE NO. 3,770

2006 SEP 28 AM 8 52

APPLICATION OF BENSON-MONTIN-GREEN)
DRILLING CORPORATION SEEKING APPROVAL OF)
A PILOT PROJECT, INCLUDING AN EXCEPTION)
TO RULES 4 AND 7 OF SPECIAL RULES AND)
REGULATIONS FOR THE BASIN-FRUITLAND COAL)
GAS POOL FOR THE PURPOSE OF ESTABLISHING)
A PILOT PROGRAM TO DETERMINE COMMERCIAL)
FEASIBILITY FOR FRUITLAND COAL GAS WELLS)
IN TOWNSHIP 25 NORTH, RANGE 2 WEST,)
NMPM, RIO ARRIBA COUNTY, NEW MEXICO)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

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

September 14th, 2006

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 14th, 2006, 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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I N D E X

September 14th, 2006
Examiner Hearing
CASE NO. 13,770

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A P P E A R A N C E S

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FOR THE APPLICANT:

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* * *

1 WHEREUPON, the following proceedings were had at
2 8:20 a.m.:

3 EXAMINER JONES: Let's call Case 13,770,
4 Application of Benson-Montin-Green Drilling Corporation
5 seeking approval of a pilot project, including an exception
6 to Rules 4 and 7 of special rules and regulations for the
7 Basin-Fruitland Coal Gas Pool for the purpose of
8 establishing a pilot program to determine commercial
9 feasibility for Fruitland Coal gas wells in Township 25
10 North, Range 2 West, NMPM, Rio Arriba County, New Mexico.

11 Call for appearances.

12 MR. ROBERTS: Mr. Examiner, my name is Tommy
13 Roberts, I'm an attorney in Farmington, New Mexico,
14 appearing on behalf of the Applicant. I have one witness
15 to be sworn.

16 EXAMINER JONES: Any other appearances?
17 Will the witness please stand to be sworn?

18 (Thereupon, the witness was sworn.)

19 GEORGE F. SHARPE,
20 the witness herein, after having been first duly sworn upon
21 his oath, was examined and testified as follows:

22 DIRECT EXAMINATION

23 BY MR. ROBERTS:

24 Q. Mr. Sharpe, would you please state your name and
25 your place of residence for the record?

1 A. My name is George Sharpe, I live in Farmington,
2 New Mexico.

3 Q. By whom are you employed?

4 A. I work for Merrion Oil and Gas Corporation.

5 Q. In what capacity?

6 A. I'm a petroleum engineer and work in the -- as
7 the manager of oil and gas investments.

8 Q. And how long have you been employed by Merrion
9 Oil and Gas in that capacity?

10 A. Sixteen years.

11 Q. And generally describe your responsibilities.

12 A. My responsibilities are to evaluate investment
13 opportunities, either acquisitions or drilling
14 opportunities, and to ascertain the viability of those and
15 try to aggressively pursue those.

16 Q. What is your relationship -- or what is the
17 relationship of Merrion Oil and Gas to the Applicant in
18 this case, Benson-Montin-Greer Drilling Corp.?

19 A. Merrion Oil and Gas is a partner in a joint
20 venture with Benson-Montin-Greer to develop the Fruitland
21 Coal in the Gavilan area.

22 Q. And are you authorized today by Benson-Montin-
23 Greer to represent it?

24 A. I am.

25 Q. Have you testified on any prior occasions before

1 the New Mexico Oil Conservation Division?

2 A. I have.

3 Q. And in what capacity?

4 A. As an expert witness.

5 Q. In the field of petroleum engineering?

6 A. In the field of petroleum engineering, yes.

7 Q. Are you familiar with the Application in this
8 case?

9 A. Yes, I am.

10 Q. Have you made an engineering study and geologic
11 study of the area that is the subject of this Application,
12 or have you caused those studies to be made?

13 A. Yes.

14 Q. And are you prepared to testify as to the results
15 of those studies?

16 A. Yes, I am.

17 MR. ROBERTS: Mr. Examiner, I would tender Mr.
18 Sharpe as an expert witness.

19 EXAMINER JONES: Mr. Sharpe is qualified as an
20 expert petroleum engineer.

21 Q. (By Mr. Roberts) Mr. Sharpe, briefly describe
22 the purpose of this Application.

23 A. If you'll look at Exhibit 1, it shows that we
24 plan to do a pilot project, a fivespot pilot, by drilling
25 an additional well on 80-acre density, in the center of

1 four wells on 160, to evaluate the commercial viability of
2 the Fruitland Coal in the Gavilan area.

3 Q. Referring to Exhibit 1, would you elaborate on
4 that five-well program and simply address your comments
5 toward the exceptions from the pool rules that you see?

6 A. The project outline is shown in red on there. We
7 have drilled one Fruitland Coal well, which is the red
8 triangle with the circle around it. That's the Price
9 Number 1 well.

10 We would like to drill four additional wells,
11 three of those wells at standard locations -- those are
12 labeled wells 2, 3 and 4 -- and then the fifth well at a
13 nonstandard location would need exceptions to allowing a
14 third well on a 320-acre spacing unit and would need an
15 exception to allow that well to be drilled closer than 660
16 feet to the spacing unit boundary.

17 Q. And what is the reason for the exception on the
18 location of the third well in the east half of this
19 section?

20 A. The reason that we need the well, or --

21 Q. Why do you need that location, that particular
22 location, which is a nonstandard location?

23 A. I will present evidence in later testimony that
24 shows that the dewatering time on 160-acre spacing, we
25 feel, is excessive; and to try to accelerate the evaluation

1 of the viability of the Coal in this area, 80-acre spacing
2 is warranted and necessary; and to try to within a
3 reasonable amount of time, determine whether a coal project
4 in this area would be economic.

5 Q. The geographic scope of the area depicted in
6 Exhibit Number 1 is one mile, the perimeter of the project
7 area, which is Section 34. What are you attempting to
8 demonstrate by showing that one-mile-perimeter geographic
9 area?

10 A. The main thing we're demonstrating is that there
11 are no other Fruitland Coal wells except for the Chubby
12 Hubby in the northwest quarter of Section 2. That well has
13 been drilled by -- through our joint venture and is one of
14 six well that we have drilled in the area to look at the
15 coal.

16 You can also see the other types of wells in the
17 area. Generally Mancos producers is the primary
18 production, some Pictured Cliff production. Also shows the
19 operators of those different wells surrounding the pilot
20 project.

21 Q. What's the status of the Chubby Hubby well?

22 A. The Chubby Hubby is currently shut in, waiting on
23 a pipeline connection, and really probably will remain shut
24 in, waiting on the outcome of this pilot test.

25 Q. I ask you to refer to what's been marked as

1 Exhibit Number 2, and would you identify that exhibit?

2 A. Exhibit Number 2 is land ownership plat, lease
3 ownership plat. It also on the second page of the exhibit
4 has a tabulation of the ownership in the east half and the
5 west half of Section 34, which are the two standup 320
6 spacing units for the Fruitland Coal in this area.

7 The yellow acreage shown on that map is
8 controlled by Benson-Montin-Greer in our joint venture.
9 The green acreage to the north and east is NM&O, owns the
10 Fruitland coal on that acreage. And the blue acreage to
11 the southwest is controlled by ConocoPhillips.

12 Also shown in hached marks is the federal
13 acreage, so there is federal acreage that's involved in our
14 pilot project area and fee acreage. We have the north half
15 of Section 34 is federal, the south half is fee.

16 Q. Is the north half of Section 34 covered by a
17 single federal oil and gas lease?

18 A. That is my understanding, that is correct.

19 Q. And the south half, I take it, is privately owned
20 minerals subject to leases, all leased?

21 A. Yes.

22 Q. And is the ownership of the south half uniform
23 throughout the southeast quarter of the southwest quarter?

24 A. It is not uniform. There is a very slight
25 difference, and that is shown in the second page which

1 shows the division of interests. And you can see that all
2 of the owners are common except that NM&O owns a very, very
3 small override in the west half but does not own an
4 override in the east half. NM&O owns a slightly different
5 working interest, also in the west half, in the east half.

6 But for the most part, the ownership in the west
7 half and east half is common.

8 Q. The tabulation of ownership attached to Exhibit
9 Number 2 would indicate that the ownership of the
10 overriding royalty interests and the royalty interests are
11 common when comparing ownership in the west half and the
12 east half; is that correct?

13 A. That is correct.

14 Q. Under the list of owners, Benson-Montin-Greer is
15 listed along with *et al.*'s. I'm assuming the *et al.*'s are
16 investors or partners in the joint venture. Can you
17 confirm that?

18 A. They are, Merrion being one of those *et al.*'s.

19 Q. And are those nonoperating working interest
20 owners in concurrence with this Application?

21 A. They are.

22 Q. If there were a disadvantage to any of the
23 interest owners as a result of the drilling of a third well
24 in the east half of Section 34 or the nonstandard location
25 of that well, what parties would -- whose interests would

1 be adversely impacted?

2 A. The west half could potentially be adversely
3 impacted by drainage from the third well that is too close
4 to the lease line --

5 Q. Okay, so --

6 A. -- or to the spacing --

7 Q. -- that would impact the Applicant, Merrion Oil
8 and Gas, and the members of the joint venture who are in
9 favor of this Application?

10 A. It would actually, yeah, be a negative impact to
11 us, because we actually own more in the west half than we
12 do in the east half.

13 Q. Let me ask you to refer to what's been marked as
14 Exhibit Number 3. Would you identify that exhibit and
15 describe its contents?

16 A. Exhibit Number 3 is a copy of a letter of support
17 from Jim Lovato, the senior technical advisor of the Bureau
18 of Land Management Farmington office, expressing their
19 support for the pilot project.

20 Q. Are there conditions of that support?

21 A. There are two conditions. They would like the
22 pilot project duration be limited to two years, to allow us
23 to determine the commercial feasibility and optimal well
24 spacing. If conditions warrant at that time, they would
25 support an extension if approved by the BLM and the OCD.

1 The second condition is that the results of the pilot test
2 be reported to both the BLM and the OCD within 60 days of
3 the completion of the pilot.

4 Q. Did you meet with Mr. Lovato and other BLM
5 employees prior to --

6 A. Yes, we did.

7 Q. And when did you meet with them and --

8 A. We met with them Monday of this week and went
9 over the technical aspects of our proposal. And again,
10 they understand and support the Application.

11 Q. Turn your attention to Exhibit Number 4. Would
12 you identify that exhibit?

13 A. Exhibit Number 4 is proof of notification that
14 was prepared by Benson-Montin-Greer. It lists the parties
15 that were notified and has the return receipts from that
16 notification.

17 Q. And these entities, I take it, were operators of
18 wells offsetting the project area?

19 A. Right, these were operators of -- not only owners
20 of the Fruitland Coal rights, but operators of any well
21 offsetting our acreage at any horizon level.

22 Q. Have you had any reaction communicated to you
23 from any of these notified parties with respect to the
24 Application?

25 A. NM&O, which is an offset owner as well as a

1 working interest owner in the project area, has indicated
2 their support for the project.

3 Q. In your opinion, have the notification rules of
4 the Oil Conservation Division been satisfied with respect
5 to this Application?

6 A. In my opinion they have.

7 Q. Let's look at Exhibit Number 5. Identify that
8 exhibit, please, and then --

9 A. Okay.

10 Q. -- proceed to describe what it contains.

11 A. Exhibit Number 5 shows the geology of the area,
12 and the first page of the exhibit shows the entire project
13 area and the Benson-Montin-Greer joint venture leasehold
14 across this area.

15 Depicted in the bubbles is Pictured Cliff
16 production, and it can be seen that there's Pictured Cliff
17 production surrounding the acreage, but the acreage itself
18 is in a kind of a hole in the production, in the northern
19 part of the acreage. There's a little bit of Pictured
20 Cliff production on the south.

21 The --

22 MR. ROBERTS: The project -- Let me interrupt you
23 there, just so that we're -- we can be sure that the
24 Examiner is oriented to the project area. Do you see that,
25 Mr. Examiner, the project area?

1 EXAMINER JONES: I'm trying to find it right now.

2 MR. ROBERTS: Project area is the green --

3 THE WITNESS: Project area is the green square,
4 Section 34.

5 EXAMINER JONES: Okay, here we go. Got it.

6 MR. ROBERTS: There's a lot of information there,
7 and --

8 EXAMINER JONES: Right above the Chubby Hubby.

9 MR. ROBERTS: Right.

10 THE WITNESS: Right above the Chubby Hubby. The
11 Price 1 is the well that has been drilled to -- on the
12 project area as one of our five wells that we'd like to
13 include in the pilot.

14 Also identified across this project area are the
15 other wells that have been drilled. From north to south
16 we've drilled the Page 1, Casaus 1, the Price 1 that's in
17 the project area, the Chubby Hubby, the Bunny Tracks, and
18 the Cookie Dough. And in addition the Twilight Zone is
19 identified as a Fruitland Coal recompletion, and it's
20 actually been recompleted into the -- is that Fruitland
21 Coal, or is that -- Okay, so the Twilight Zone has been
22 recompleted in the Fruitland Coal.

23 The nature of those wells as they are spread out
24 across this acreage -- and the reason they're spread out
25 across the acreage, they were drilled as part of a farmout

1 to earn acreage in the farmout and to fill in acreage that
2 Merrion already had.

3 We were testing both the Fruitland Coal and the
4 Pictured Cliff, and the Pictured Cliff has been marginal.
5 You can see the Cookie Dough is a Pictured Cliff completion
6 to the south making 20 MCF a day. There's been no
7 commercial in terms of being a payout of investment of the
8 Pictured Cliff. The hole that's there is a real hole in
9 Pictured Cliff production, I guess that's what we're
10 seeing.

11 So we now want to focus primarily on the Coal,
12 which was a target as well. But unfortunately, our wells
13 are spread out throughout the project area, not
14 concentrated as they need to be to have a pilot project and
15 dewater the coal. And so we are now again asking -- or
16 planning on trying to drill a concentrated group of wells
17 and asking for permission to drill one additional well in
18 that area to try to accelerate the evaluation.

19 Q. (By Mr. Roberts) What conclusions can you draw
20 with respect to the quality of the coal in this area?

21 A. The second page of the geologic exhibit is an
22 isopach map of the Fruitland Coal across the area. Again,
23 the pilot project can be shown in green -- is shown in
24 green in the center of the map. The coal is fairly thick,
25 as thick as 50 feet, and averages 40 feet across our

1 project area.

2 If you go to the final exhibit, it's a cross-
3 section through that area. In fact, the cross-section is
4 shown on the isopach map, you can see the wells that are
5 included in the cross-section. It's a north-south cross-
6 section through the project area.

7 And if you look at the -- if you'll look at the
8 Coal, you can -- a number of things jump out at you. If we
9 focus on the Price 1 and the Bunny Tracks 1, which are the
10 two center logs on that diagram, the coal pay that's less
11 than 1.75 grams per cubic centimeter is highlighted in
12 black on the density log. And it's -- it is fairly thick.
13 The basal coal is fairly continuous across the area, but
14 the upper coals come and go.

15 But none of the coals are what you would call
16 high-quality coals. The very basal coal, a little bit of
17 it gets below 1.5 grams per cubic centimeter, but most of
18 the coal is fairly shaly, ashy coal that's between 1.75 and
19 1.5. So it's marginal -- marginal coal. And one of the
20 reasons why the Coal has not been developed to this point
21 in the area is that it's a fairly marginal coal.

22 Q. Do you have any other comments regarding the data
23 that's depicted in Exhibit 5 or the conclusions that can be
24 drawn from that data?

25 A. If you look at the -- and we're going to talk in

1 the next exhibit about the gas content of the coal and the
2 gas -- the coal sample that we've analyzed, but those are
3 shown in the -- the results of that is also shown on the
4 coal isopach map.

5 The Casaus Number 1 in the north central portion
6 of the map, we did a gas absorption test. The coal gas had
7 38 percent -- or the coal had 38 percent ash. Again, it's
8 a very dirty coal with a dry, ash-free content of 138
9 standard cubic feet per ton at 500 p.s.i., which is again a
10 fairly low gas content compared to the 400 to 600 in the
11 sweet spot of the Basin.

12 There's another gas content shown down in the
13 very bottom right-hand corner of that exhibit. EOG did a
14 coal analysis, verified high ash contents greater than 30
15 percent, and verified gas contents of 112 to 156 standard
16 cubic feet per ton, which matches the gas content that we
17 got from our absorption tests on the Casaus 1.

18 Q. Let me have you refer to your Exhibit Number 6,
19 and please identify that exhibit.

20 A. Exhibit Number 6 is the results of the adsorption
21 test on the cuttings from the Price Number 1 -- or excuse
22 me, the Casaus Number 1 -- and they just have the detail of
23 the analysis, again showing the 38-percent gas content,
24 fairly low moisture content of 4 percent, and at our
25 reservoir pressure of around 500 pounds, at 504 p.s.i., the

1 gas content is 135.7 standard cubic feet per ton.

2 Q. What conclusion or conclusions do you draw from
3 this data with respect to the purpose of the Application?

4 A. The conclusions that I draw from the data is that
5 it's a marginal coal, it's dirty, and even the dry, ash-
6 free content of the coal, it's fairly low gas content. But
7 with a 40- to 50-foot-thick coal, the resources there that
8 makes it worth trying to evaluate, determine the commercial
9 viability.

10 Q. Now I refer to what you've marked as Exhibit
11 Number 7. Identify that exhibit, please.

12 A. Exhibit Number 7 is the production test on the
13 Price Number 1 when it was completed only in the Fruitland
14 Coal, and it was produced for approximately half the month
15 of October, 2005. It was actually making -- although no
16 gas is reported, it was making enough gas to run the
17 pumping unit, and so that's 5 to 7 MCF per day to run the
18 pumping unit. And it was producing approximately, when it
19 stabilized, 80 barrels of water a day.

20 And so the production tests on the Price 1
21 substantiated a couple things. It substantiated the fact
22 that we had reasonable permeability at 80 barrels of water
23 a day, we had water-saturated cleat system, but we also had
24 a gas-saturated coal because the coal immediately produced
25 some gas. And again, all indications are that this has a

1 chance of being commercial, if the coal is dewatered and
2 the gas is allowed to produce.

3 Q. And this well is currently shut in and has been
4 shut in since October, 2005?

5 A. That is my understanding, BMG operates. I think
6 it may have produced for some time. We actually commingled
7 the PC with the Coal and produced it for a short period of
8 time --

9 Q. Okay.

10 A. -- after this, but this was the portion of the
11 production that was only from the Coal.

12 Q. Okay, Mr. Sharpe, refer to Exhibit 8 and identify
13 that exhibit, please.

14 A. Exhibit 8 is the -- is a Fruitland Coal
15 prediction model, and it is really the -- kind of the guts
16 of our Application. It is an evaluation that I did in
17 February of this year to try to look at the commercial
18 viability of the Coal and try to look at the optimum well
19 spacing.

20 Without getting into the text, on pages 1 and 2
21 -- if you go to page 3 of that exhibit -- and there are
22 little handwritten numbers at the bottom -- the basis for
23 the analysis is a material balance model that is adjusted
24 to take the gas content of the coal and predict the
25 performance of the coal over time based on that gas content

1 analysis.

2 The methodology is to match the initial
3 production rate from your wells by varying the assumed --
4 First off, we don't assume the coal thickness; we know we
5 have approximately a 40-foot coal thickness. But we vary
6 cleat porosity, cleat initial water saturation and some
7 other variables that try to match your initial production
8 rates and match the 80 barrels of water a day and the trace
9 of gas. It then uses the material balance of the model to
10 predict the performance of the well over time as it
11 dewater.

12 And circled on page 3 is the initial gas in place
13 per well, and I believe this is for, in this case, 160-acre
14 spacing. There's 1.4 BCF of gas per 160 acres,
15 volumetrically, with 40 feet of coal. So again, there's a
16 resource there that definitely warrants further evaluation.

17 If you go to page 4 --

18 Q. And let me interrupt you --

19 A. Okay.

20 Q. -- just for clarity. Attachment 1 is a model
21 based on 160-acre spacing; is that correct?

22 A. Yes, attachment 1, page 3, is the data that was
23 input on 160-acre spacing. I actually made this run.

24 I then varied the well spacing on the next set of
25 curves. I looked at a 2500-acre spacing, a 160-acre

1 spacing and 80-acre spacing. So that's the only variable
2 that's being changed in this model on the ensuing graphs
3 that show the prediction of how the wells would perform
4 under the different spacings.

5 The first is 2500 acre spacing, which is really a
6 well by itself in the middle of nowhere. And you can see
7 that in any real time the well, even after it looks like
8 years, the well has not even dewatered to the point where
9 it's producing much more than 20 MCF a day 20 years from
10 now, that a well in the middle of nowhere, as we found out
11 from industry, just will never produce economical
12 quantities of gas, economic quantities.

13 Pages 5 and 6 show the production of 160-acre
14 spacing, and the gas rate on 160-acre spacing is predicted
15 to within two years, be it 100 MCF a day, dewatering occurs
16 between years 5 and 6, with a peak gas rate of 200 MCF a
17 day. So again matching the fact that this is a marginal
18 area with a peak gas rate of 200 MCF a day.

19 The cumulative gas curve that's shown on page 6
20 shows that on 160-acre spacing over time, projected to
21 recover a little over 800 million cubic feet of gas or .85
22 BCF of gas over the life of the project, per well.

23 On 80-acre spacing, pages 7 and 8, we're able to
24 get to 100 MCF a day within one year and dewater our well
25 within two to three years. And the real key, we think, is

1 trying to see that 100 MCF a day within a year and not
2 extend that out to a two-year period, or to be able to
3 start to see some production from our well in a quick
4 enough time frame that we can react and come back in and
5 start to look at developing this.

6 One of the questions I'm sure he would ask if I
7 didn't address it would be, What outcomes may come from
8 this?

9 One of the outcomes that could come is that we do
10 this pilot, we drill four more wells, put another \$2
11 million into this thing, and if it doesn't work, it never
12 does -- production rates don't come up, production is
13 marginal, it's uneconomic, we go away.

14 Another outcome is that it works as predicted and
15 works even better than predicted, and so we say, Okay, we
16 know it's economically viable but we can develop it on 160-
17 acre spacing, and so we would then proceed to shut our
18 pilot in and develop the area on 160 acres.

19 The other -- the third option is that it works,
20 but we feel based on the pilot that we really are going to
21 need 80-acre spacing to make it work on a larger scale, at
22 which time we would be looking at coming back for
23 potentially 80-acre spacing in this area, which would be,
24 we know, a much bigger deal.

25 We aren't necessarily moving toward that right

1 now. What we're trying to do is to evaluate this marginal
2 coal in a time frame that is reasonable and that allows us
3 to see which way we should go, either go away, develop on
4 160, or possibly look at coming back for 80-acre spacing in
5 this area.

6 Page 8 is the cumulative gas per well on 80
7 acres, and you're getting a little over half a B per well,
8 so you do actually have some incremental gas recovery with
9 two 80-acre wells over one 160-acre well. Two 80-acre
10 wells would cum just a little over 1 BCF, and a 160-acre
11 well would be .85.

12 This does not account for the discontinuity in
13 the upper coals wherein 80s could actually have a better
14 incremental recovery. But again, our goal isn't right now
15 to justify 80s by this. Our goal is to be able to evaluate
16 this very marginal coal in a reasonable time frame.

17 The balance of this is some economics. Pages 9
18 and 10 are some actual costs on the -- one of the wells
19 that was drilled in the area. It cost right at \$400,000.
20 Our current estimate is about \$500,000 to drill and
21 complete, with the increase in costs that we've seen, so
22 it's going to be about \$500,000 per well.

23 Attachment Number 3, which is page 11, is the
24 economics of a single well on 80-acre spacing that cums a
25 BCF and shows that that well would be economic. We

1 actually have a little -- the investment in that case is
2 \$630,000, which has some costs over and above the drilling
3 cost to account for water disposal and the potential need
4 for water disposal.

5 And then the final -- I don't know that they're
6 necessarily relevant, but the final is a -- if we developed
7 it fully on 80-acre spacing, what the economics would be.
8 And again, if we can show that it performs as predicted, it
9 would be an economically viable project, and we're trying
10 to get to the point that we can do that.

11 Q. Mr. Sharpe, in order to allow you to re-emphasize
12 probably what the main point of your assertions are with
13 this exhibit, why would development in accordance with the
14 existing pool rules, which allows two Fruitland Coal wells
15 per 320 not allow an analysis or an evaluation in a timely
16 manner?

17 A. If you look at page 5 of Exhibit 8, you can see
18 that we would -- after a year we would still be at 20 MCF a
19 day -- well, no, I'm sorry, not 20 MCF a day. Maybe about
20 50 MCF a day from our existing well. I don't think that
21 would provide us the comfort to move forward.

22 Even after a couple of years, getting to 100 MCF
23 a day, it would be difficult to know for sure and have
24 confidence in the remainder of the prediction, and the
25 bottom line is that the ultimate five years to get to a

1 peak water rate -- or, excuse me, a peak gas rate of 200
2 MCF a day, is too long of a period for such a marginal coal
3 to be able to -- to be able to economically look at this
4 whole project and package.

5 And so we feel that the shorter time frame of the
6 80-acre pilot will help us make our decisions in a time
7 frame that allows us to economically develop this.

8 Q. Do you have anything else to add with respect to
9 Exhibit 8?

10 A. I do not.

11 Q. Look at Exhibit 9, please identify that.

12 A. Exhibit 9 is an analogy -- or an analog in
13 another part of the Basin. It was actually an application
14 that Coleman Oil and Gas made back in the year, I believe,
15 2000, prior to the approval of 160-acre spacing, or the
16 infill density -- two wells on 320. They got approval to
17 drill an additional 160-acre well.

18 And it just illustrates the benefits of drilling
19 a cluster of wells, versus having your wells spread out.

20 MR. ROBERTS: Let me interrupt you just there,
21 and Mr. Examiner, for the record that was an application of
22 Coleman Oil and Gas in Case Number 12,485, and the order of
23 the Division was Number R-11,462.

24 EXAMINER JONES: Thank you.

25 Q. (By Mr. Roberts) Go ahead, Mr. Sharpe.

1 A. On this particular map I've got a kind of a
2 montage of the Fruitland Coal production in the San Juan
3 Basin. You can see the heart of the production up here,
4 you can see the Coleman pilot. Again, it was an edge pilot
5 at the time. You can see the location of the Gavilan, and
6 you can see that we're a long, long ways from commercial
7 production.

8 And on the diagram itself I've identified two
9 wells. One is the Juniper 32-16, which is one of the
10 central wells to the Coleman pilot at the time. And I've
11 also identified the Trading Post Number 1, which is a well
12 that's not surrounded by any other wells.

13 The next page shows the production from the
14 Trading Post Number 1, and again shows that over its six
15 years it has hardly dewatered at all. Its gas rate has
16 increased from -- and these are in MCFs per month on this
17 particular graph -- from 15 MCF per month, and over the
18 six-year period it's now making 1000 MCF per month, which
19 is a little over 30 MCF a day.

20 So again, one well in the middle of nowhere just
21 doesn't dewater and never really gets there.

22 The next page is the Juniper 16-32. It also
23 started at pretty low gas rates. In fact, they had no gas
24 reported for six months or so. But over a three-year
25 period it's now producing 6000 or 7000 MCF per month, which

1 is a commercial 200 MCF per day.

2 And so again it just -- it illustrates the need
3 for tighter spacing. This -- The productivity in this
4 area, with the 200 to 300 barrels of water per day, is
5 multiples of the productivity in the Gavilan area, it's two
6 or three times our 80 MC- -- 80 barrels of water a day -- I
7 said MCF a day -- 200 or 300 barrels of water a day is over
8 three times our 80 barrels of water a day that we're
9 getting from the Price.

10 And so again, for our dewatering period it's
11 going to take us longer to dewater at the lower rates
12 because of the tighter coal and the poor quality of the
13 coal.

14 Q. Mr. Sharpe, we've concluded our exhibit
15 testimony. I'm going to give you an opportunity to briefly
16 summarize the justifications that the Applicant has for the
17 request for the order in this case.

18 A. Benson-Montin-Greer has an acreage position in an
19 area with 30 to 50 feet of very marginal coal, high ash
20 content, low gas content, but yet enough gas at 1.4 BCF per
21 160-acre spacing unit to try to figure out whether or not
22 we can get it or not. And our Application is focused on
23 trying to perform that evaluation in a time frame that's
24 reasonable and allows us to proceed with whatever
25 development is appropriate.

1 If 80-acre spacing is going to be required,
2 there's going to be -- you know, that will probably be a
3 year process, possibly, or a long process, to try to come
4 back before the Commission to talk about that. And so
5 again, the whole time frame of this development needs to be
6 accelerated, and we need to evaluate this marginal coal
7 quickly.

8 In addition, with the discontinuity in the coals
9 that are there, you may need the tighter spacing to really
10 be able to effectively hit those coals and dewater it,
11 again, in a reasonable time.

12 Q. The Bureau of Land Management has indicated its
13 support for this pilot project, conditioned upon a two-year
14 project time. Is that a reasonable time frame for you to
15 evaluate --

16 A. We think it's --

17 Q. -- the results of these wells --

18 A. We think it's reasonable. We like the fact that
19 they're open to extending it if necessary. Just with
20 permitting the four additional wells, we've only started
21 the permitting process.

22 We have that process to go through, and then the
23 availability of rigs is a serious issue, and so it may be
24 six months, probably at the earliest, to a year at the
25 latest before we get the pilot in place. And that really

1 gives us one year from that point to evaluate the
2 productivity of the pilot, to determine how it's
3 performing, and that is a little tight.

4 We would like two years, but I think with the
5 provision that we can come back for an extension, if that's
6 -- if we can warrant it and justify it at the time, I think
7 that's something that I think is workable for us.

8 Q. Mr. Sharpe, in your opinion will the granting of
9 this Application be in the best interests of conservation
10 and result in the prevention of waste and the protection of
11 correlative rights?

12 A. I think that it would. I think without the
13 approval of this Application, I don't think this investment
14 would be made, and this gas would go unrecovered, both to
15 the federal government that owns the minerals on a portion
16 of it, and the fee owners that are in the area. So I think
17 that they would very much support trying to see their
18 resources developed.

19 Q. Were Exhibit Numbers 1 through 9 either prepared
20 by you or at your direction and under your supervision?

21 A. They were.

22 MR. ROBERTS: Mr. Examiner, I'd move the
23 admission into evidence of BMG Exhibit Numbers 1 through 9.

24 EXAMINER JONES: BMG Exhibits 1 through 9 will be
25 admitted to evidence.

1 MR. ROBERTS: And I have no other questions on
2 direct.

3 EXAMINER JONES: Okay, thank you, Mr. Roberts.
4 I'll try to hold the questions down here. I think you're
5 kind of speaking to the choir here, I --

6 THE WITNESS: Okay.

7 EXAMINER JONES: -- like your Application, at
8 least so far, but...

9 EXAMINATION

10 BY EXAMINER JONES:

11 Q. How deep are these wells?

12 A. They are 3000 feet.

13 Q. Okay, and the PC is real close below that.

14 A. The PC, you can look at the -- if you'll turn to
15 Exhibit 4 -- no, which was the geology exhibit?

16 Q. The cross-section has got it on there.

17 A. Right. There's a pretty good shale in many cases
18 below the Fruitland Coal before you get down to the PC.
19 You can see it on the Price 1, there's probably a 40- to
20 50-foot shale stringer between the PC perms and the coal
21 perms in the Price 1.

22 Q. Now on these others, you have deemed it necessary
23 to commingle, it looks like, so you didn't want to come in
24 -- you didn't want to also ask for a --

25 A. No.

1 Q. -- increased density PC and --

2 A. No, we anticipate going after the coal --

3 Q. So you --

4 A. -- in fact, we would plug the coal off, the PC
5 off, in the Price 1 and produce just the coal. This would
6 be a coal pilot. Our focus is the coal.

7 Q. Is there water sands -- Where's your water coming
8 from? Is it coming from the coal or is it coming from
9 around the coal?

10 A. Well no, we think it's coming from the coal. The
11 Ojo Alamo -- I don't know if it shows on this cross-section
12 or not, but it's over 100 feet -- I think that might be the
13 Ojo Alamo in the -- the bottom of the Ojo Alamo is that
14 purple line going across, and so it's 60 to 100 feet above
15 the coals, is the --

16 Q. So you have to make sure you get it cemented
17 off --

18 A. Right.

19 Q. -- pretty well.

20 A. Right.

21 Q. Speaking of that, though, the water that you're
22 -- you're saying that 80 barrels a day. Is that coming
23 from the coal or is that coming from sands around the coals
24 or what?

25 A. Well, we think it's coming from the coals. It's

1 similar to the coal tests that we had in our other six coal
2 tests, or other five coal tests in the area, and we don't
3 have any indication that we frac'd out of zone, and so we
4 believe that the water is coming from the coals.

5 Q. The simulator you used, is that -- you just used
6 a simulator and changed the spacing, is that --

7 A. Yes.

8 Q. -- how you --

9 A. Yes.

10 Q. -- generated --

11 A. Yes.

12 Q. -- these predictions?

13 This 80-acre spacing -- I guess you'd get your
14 results a lot quicker if you'd drill a 40-acre pilot or
15 something like that, wouldn't you?

16 A. Well, we would that. We could put them all in
17 the same section. We feel based on the simulation, though,
18 that 80-acre is a reasonable spacing, and that we will see
19 that within a year we'll be up to 100 MCF a day if it
20 performs as predicted, and I think that would give us the
21 encouragement to look at additional development.

22 Q. How did you come up with your permeability
23 numbers?

24 A. Those were tweaked. The 10 seems high to me,
25 actually, the 10 millidarcy that was used to match,

1 basically match -- if you'll look at the prediction case --
2 matching the 80 barrels of water a day --

3 Q. Okay --

4 A. -- so...

5 Q. -- but it's an overall system permeability, it's
6 not just --

7 A. It's an overall -- right, we did not -- we did
8 not do any pressure transient analysis. It's part of the
9 match to what the initial productivity of the well is.

10 Q. Do you plan on doing some pressure tests on this
11 well?

12 A. We don't have any current plans, but it probably
13 would be prudent as part of the pilot to do that.

14 Q. So the pilot, you're just going to monitor rates,
15 surface pressures -- Are you going to monitor where things
16 are coming from downhole? Are you going to do any kind of
17 production test on that well?

18 A. Well, again, we anticipate on the Price 1 that we
19 would shut off the Pictured Cliff --

20 Q. Okay.

21 A. -- and just have the Price 1 open in the
22 Fruitland Coal, and that the other four wells drilled as
23 part of the pilot would be Fruitland Coal wells alone.

24 Q. The mud log shows a big kick in the lower coal;
25 is that right?

1 A. The mud log shows good shows throughout the
2 coals.

3 EXAMINER JONES: Okay. Let's see here. The
4 notices -- Gail, are you satisfied with our notice?

5 MS. MacQUESTEN: I wanted to ask Mr. Roberts on
6 Exhibit 4, the proof of notification, were these entities
7 also notified at the hearing itself?

8 MR. ROBERTS: Yes.

9 MS. MacQUESTEN: In addition to the Application?

10 MR. ROBERTS: Yes.

11 Q. (By Examiner Jones) Okay. Okay, I think
12 that's -- As far as -- You're just going to keep the rates,
13 pressures, and you're going to make that available to
14 anybody, any other partners on this, or --

15 A. Yes, first off, all the rates will be public
16 information, they'll be reported --

17 Q. Monthly rates.

18 A. Monthly rates on the C-115.

19 Part of the BLM's request is that we report the
20 results, and so whatever analysis we do on the results I
21 think we would make available to --

22 Q. Do you have an objection to coming back in in a
23 couple years and showing your results?

24 A. No.

25 Q. You're pretty liberal with showing your

1 desorption isotherm. Must be a --

2 A. Well, you know, I don't know that we're -- I
3 guess if it proves to be economic, then there's a whole big
4 area down to the south that we're -- you know, it's not
5 just our little project area. There was miles and miles
6 between where we are and where the major coal production is
7 that would stand to benefit from this pilot test --

8 Q. Was there --

9 A. -- from the results of this pilot test.

10 Q. -- any comments during the last Fruitland Coal
11 spacing hearing about this area or the other low-
12 permeability -- low-productibility coal area?

13 A. I went to some of the early committee meetings
14 prior to the 160-acre approval, and at the time there was
15 discussion more on, you know, whether you needed 160 acres
16 up in the overpressured area or not and whether there
17 should be a line of demarcation to where 160 is approved
18 outside the overpressured area and 320s within, and I do
19 think -- and this is my personal opinion -- I do think that
20 there are going to be areas where 80-acre spacing is
21 warranted, and I think this may be one of them.

22 I don't think that 80-acre spacing should be
23 approved on a Basinwide basis, I don't -- I mean, the
24 material balance data and the -- We just looked at an
25 acquisition of a well up in La Plata County where they've

1 approved 80s, and these guys want to be paid for 80s, and I
2 can't come up volumetrically and make 80s work, not in this
3 specific area. I know there areas in La Plata County where
4 they probably do work, but I don't think -- I don't think
5 that we ought to have 80s across the Basin, but that again,
6 that's just me talking from what I've seen on a few
7 analyses.

8 Q. But is it true that the majority of the
9 discussion during the last Fruitland Coal spacing hearing
10 did not include just --

11 A. The discussion --

12 Q. -- the low-productivity area, and any
13 additional --

14 A. They --

15 Q. -- density in the low-pro- --

16 A. They did not, and that -- I don't know that it
17 was an oversight per se, but you know, I think the focus at
18 the time is one bite at a time, you know, let's --

19 Q. Okay.

20 A. -- let's get the 160s first and --

21 Q. Okay.

22 A. But I do think that there are going to be areas
23 in the Basin where if you're going to get recent decent
24 recoveries and economically drain it, 80s are going to be
25 warranted.

1 Q. Okay, and you can get rid of your water out here
2 somewhere?

3 A. Well, we would drill a disposal well, probably to
4 the Entrada --

5 Q. Okay --

6 A. which is --

7 Q. -- sounds good to me.

8 A. -- another part of the investment, so...

9 EXAMINER JONES: Okay, I have no more questions.
10 Thank you.

11 THE WITNESS: Okay.

12 EXAMINER JONES: Thank you, Mr. Sharp.
13 Mr. Roberts?

14 MR. ROBERTS: That concludes our case.

15 EXAMINER JONES: Thank you very much. With that,
16 we'll take Case 13,770 under advisement.

17 THE WITNESS: Thank you.

18 (Thereupon, these proceedings were concluded at
19 9:11 a.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

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 15th, 2006.



STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 16th, 2006