

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. 12,493

APPLICATION OF MARBOB ENERGY CORPORATION)
FOR CONTRACTION OF THE LUSK-MORROW GAS)
POOL, EDDY AND LEA COUNTIES, NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

September 21st, 2000

Santa Fe, New Mexico

OIL CONSERVATION DIV.
00 OCT -4 PM 7:55

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner on Thursday, September 21st, 2000, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

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September 21st, 2000
Examiner Hearing
CASE NO. 12,493

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A P P E A R A N C E S

FOR THE DIVISION:

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FOR THE APPLICANT:

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 P.O. Box 2208
 Santa Fe, New Mexico 87504-2208
 By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 9:31 a.m.:

3 EXAMINER STOGNER: This hearing will come to
4 order. Call next case, Number 12,493, which is the
5 Application of Marbob Energy Corporation for contraction of
6 the Lusk-Morrow Gas Pool, Eddy and Chaves [sic] Counties,
7 New Mexico.

8 At this time I'll call for appearances.

9 MR. CARR: Mr. Examiner, my name is William F.
10 Carr with the Santa Fe law firm Campbell, Carr, Berge and
11 Sheridan. We represent Marbob Energy Corporation in this
12 matter, and I have two witnesses.

13 EXAMINER STOGNER: Okay. No other appearances,
14 the witnesses are standing to be sworn.

15 (Thereupon, the witnesses were sworn.)

16 MR. CARR: May it please the Examiner, there is
17 an error in the legal ad for the case. It references
18 Section 25 in Township 19 South, Range 31 East, instead of
19 Section 24. That's my error. We submitted it with that
20 typographical error in it.

21 The notice letters that were sent out in this
22 case, the waivers that have been obtained and the
23 Application that went to all affected parties, contained a
24 correct description, and so the only place the error
25 appears is in the legal ad that we submitted, and we would

1 request that at the end of the hearing the case be
2 readvertised and continued to correct that error in the
3 legal ad. We will submit a revised ad.

4 EXAMINER STOGNER: Thank you, Mr. Carr. At the
5 end of the hearing, if you'll remind me of that --

6 MR. CARR: Yes, sir.

7 EXAMINER STOGNER: -- we'll figure out the dates
8 in which the next --

9 MR. CARR: I believe, Mr. Stogner, it would be
10 advertised next week for the October 19th hearing.

11 EXAMINER STOGNER: Okay, we'll take care of it in
12 the case today.

13 MR. CARR: At this time we call Raye Miller.

14 RAYE P. MILLER,
15 the witness herein, after having been first duly sworn upon
16 his oath, was examined and testified as follows:

17 DIRECT EXAMINATION

18 BY MR. CARR:

19 Q. Would you state your full name for the record,
20 please?

21 A. Raye, middle initial P., the "Raye" is spelled
22 with an "e" on it, Miller.

23 Q. Where do you reside?

24 A. Artesia, New Mexico.

25 Q. By whom are you employed?

1 A. Marbob Energy Corporation.

2 Q. And what is your position with Marbob Energy
3 Corporation?

4 A. I have several duties with the company.

5 Q. Have you previously testified before this
6 Division, Mr. Miller, and had your credentials as a
7 practical oilman accepted and made a matter of record?

8 A. Yes.

9 Q. Are you familiar with the Application filed in
10 this case on behalf of Marbob Energy Corporation?

11 A. Yes, sir.

12 Q. Are you familiar with the status of the lands in
13 the area which is the subject of the Application?

14 A. Yes, sir.

15 MR. CARR: Are Mr. Miller's qualifications
16 acceptable?

17 EXAMINER STOGNER: Mr. Raye "e" with a "P" Miller
18 is so qualified.

19 Q. (By Mr. Carr) Mr. Raye "e", would you briefly
20 summarize for the Examiner what it is that Marbob Energy
21 Corporation seeks with this Application?

22 A. We're looking to just contract the boundaries of
23 the Lusk-Morrow Gas Pool by actually deleting Section 24 of
24 19-31 in Eddy County and Section 21 of 19-32 in Lea County
25 from the pool.

1 Q. Mr. Miller, could you explain to the Examiner why
2 Marbob seeks the contraction of the boundaries of this
3 pool?

4 A. These sections appear to be in portions of the
5 pool that are beyond the current productive limits of the
6 Morrow reservoir, and those sections have not been
7 developed in the 40 years since the pool was created. We
8 believe the deletion of these sections covered by this
9 Application could avoid the potential creation of
10 nonstandard spacing and proration units drilled in the
11 future if there were wells drilled on these tracts in the
12 future.

13 Q. Mr. Miller, when was the Lusk-Morrow Gas Pool
14 created?

15 A. The pool was created in November 21st, 1962, by
16 Order R-2373. It has been extended from time to time to
17 include the sections in this hearing, or the boundaries as
18 they are present, and we'll look at that in Exhibit 1,
19 which we'll get to later.

20 Q. Could you just briefly summarize the rules which
21 govern the development of the Morrow formation and the
22 Lusk-Morrow Gas Pool?

23 A. Right. The pool has special pool-rule
24 regulations that were originally adopted by Order 2373 and
25 then have been amended by 2373-A and -B. The pool is

1 currently on -- or was originally on 640-acre spacing and
2 proration units. It was to have wells originally no closer
3 than 330 feet to the outer boundary of the internal
4 quarter-quarter section, which would have been the
5 southwest of the northeast, the northeast of the southwest,
6 northeast of the southeast and the southeast of the
7 northwest of each section.

8 By Order Number R-6197, dated November 28th,
9 1979, Case 6730, the Lusk-Morrow Gas Pool was limited to
10 the pool boundaries with no buffer zone.

11 Then in Order R-2373-D, which is a recent case,
12 or recent order of September 13th, 2000, Case Number
13 12,444, it amended the pool rules that provided for infill
14 development of the pool with no more than one well in a
15 single quarter section, and then also changed the well
16 locations to no closer than 660 feet to the outer boundary
17 of the quarter section. And that amendment has largely
18 brought the pool into line with the statewide rules for
19 deep gas development in southeast New Mexico and were
20 amended by Division Order R-11,231, dated August 12th of
21 1999.

22 Q. So in that last order we brought the pool rules
23 into line with the current statewide rules?

24 A. Yes, except for the fact that it is still a 640-
25 acre proration unit.

1 Q. And in this case, we're now trying to adjust the
2 boundaries of the pool to conform to what has actually been
3 developed during the 40-year life of the reservoir?

4 A. On the 640-acre prorations or other nonstandard
5 proration units that were permitted during the development
6 of the pool.

7 Q. Let's go to Exhibit Number 1. Could you identify
8 this and review it for the Examiner?

9 A. Exhibit Number 1 actually shows the current
10 boundaries of the pool, which are actually the -- my red-
11 pink coloration, that's kind of my Santa Fe colors. And
12 the blue crosshatch are the two sections that are currently
13 in the pool that we're proposing to delete out. It winds
14 up, these are the actual current boundaries identified
15 under the Division's rules currently.

16 Also, I should note one item, because in your
17 review, if you go in and look at all of the wells
18 identified as being Lusk-Morrow Pool wells, there is a well
19 in the north half of Section 33. It is called the Federal
20 HH 33 Number 1. Its location is 1680 from the north line,
21 1980 from the east line, in Section 33 of 19-32.

22 You'll notice, the Division's pool does not
23 include Section 33. This well does show up as having been
24 drilled to the Morrow, it shows to have produced from the
25 Morrow, shows to have a proration unit of the north half of

1 320-acre spacing, does not have an indicated order, as if
2 it was a nonstandard proration unit.

3 Fortunately -- or unfortunately, I guess -- the
4 well was actually recompleted in 1991 to the Atoka and has
5 been plugged out of the Morrow, and it just appears to have
6 been an oversight that the pool was never expanded, and
7 possibly the operator at the time didn't realize that he
8 might have been drilling in a pool that required 640 acres.

9 Q. The Morrow completion, though, is shown in the
10 Division records as being a Lusk-Morrow Gas Pool well?

11 A. Yes, it was. But like I say, it appears to have
12 numerous idiosyncracies and was never actually included in
13 the formal boundaries defined by the Division.

14 Q. Other Morrow wells in the area, if we go to the
15 south -- Are there Morrow wells south of the pool?

16 A. No.

17 Q. Other than the well in 33?

18 A. Not in the near vicinity, no.

19 Q. Okay.

20 A. There are Morrow wells to the east, Morrow wells
21 to the north and Morrow wells to the northwest.

22 Q. And the two sections we're proposing to eliminate
23 from the pool in Sections 24 and 21, there are no -- Morrow
24 development has not been on those tracts?

25 A. That's correct.

1 Q. Let's go out of order and go to what has been
2 marked as Marbob Exhibit Number 3, the notice affidavit.
3 This is the affidavit that confirms the parties to whom
4 notice of the Application was provided. Can you identify
5 for the Examiner who we actually provided notice to?

6 A. We actually sent notice to all of the operators
7 of the current Morrow -- Lusk-Morrow wells, as well as
8 operators who may be operating former Lusk-Morrow wells,
9 and yet at this point those wells have been recompleted
10 into a different horizon, but that wellbore formerly
11 produced.

12 And then there are one or two others that just
13 are potential, operators in this area have leasehold
14 position.

15 We tried to be very broad in our coverage of
16 notice.

17 Q. Are there unleased lands within the pool?

18 A. We're not aware of any unleased lands. The
19 review of the lands indicates that all of the lands inside
20 this pool are owned either by the State Land Office or the
21 Bureau of Land Management, the mineral ownership thereof,
22 and as a result, as an abundance of caution, both of those
23 parties have been notified in case there was an unleased
24 tract for their minerals or a tract that the lease had
25 expired.

1 Q. Mr. Miller, has Marbob sought support for this
2 Application from the other operators in the pool?

3 A. Yes, we made a request in our notice to them that
4 they actually review our Application and, if they had no
5 objection, to send back affirmative responses in support of
6 this Application.

7 We have received many applications -- or many
8 responses from the parties, and the only ones who we did
9 not receive positive responses from were Bellwether
10 Exploration out of Houston, Heyco out of Roswell, and 3Tec
11 Energy Corporation.

12 3Tec indicated they had sent it, I just have not
13 formally received it.

14 Bellwether says theirs was in the mail to us.

15 And Heyco, Vernon Dyer was looking for his. He
16 didn't have an objection, but he didn't know if he could
17 find it when I talked to him on Tuesday, but he didn't
18 indicate they had any objection to it.

19 And the other folks that we noticed have all sent
20 positive support back for it.

21 Q. Is Exhibit Number 2 copies of the letters that
22 have been returned in response to your notice letter
23 indicating the support of the affected operators in this
24 particular pool?

25 A. Right, those are actually the responses that were

1 received either by Mr. Carr's office or by our office in
2 support.

3 Q. Will Marbob also call a geological witness to
4 review the technical portions of the case?

5 A. Yes.

6 Q. Were Exhibits 1 through 3 either prepared by you
7 or compiled at your direction?

8 A. Yes.

9 MR. CARR: At this time, Mr. Stogner, we would
10 move the admission into evidence of Marbob Exhibits 1
11 through 3.

12 EXAMINER STOGNER: Exhibits 1 through 3 will be
13 admitted into evidence at this time.

14 MR. CARR: And that concludes my direct
15 examination of Mr. Miller.

16 EXAMINER STOGNER: I don't have any questions of
17 this witness at this time. I may after the next witness,
18 but at this time I will take administrative notice of the
19 previous orders, or the case files on the previous orders,
20 Order R-2373 and all of its subparts through D, as in
21 "dog", and R-6197.

22 But I'm going to hold any questions of Mr. Miller
23 until the next...

24 MR. CARR: Mr. Stogner, at this time we would
25 call Martin Joyce.

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MARTIN K. JOYCE,

the witness herein, after having been first duly sworn upon
his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARR:

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

A. Yes, Martin K. Joyce.

Q. Where do you reside?

A. I live in Roswell, New Mexico.

Q. By whom are you employed?

A. Marbob Energy Corporation.

Q. And what is your position with Marbob?

A. I am a staff geologist and computer technician
for the firm.

Q. Have you previously testified before this
Division and had your credentials as an expert in petroleum
geology accepted and made a matter of record?

A. Yes, I have.

Q. Are you familiar with the Application filed in
this case on behalf of Marbob Energy Corporation?

A. Yes, I am.

Q. Are you familiar with the Lusk-Morrow Gas Pool?

A. Yes, I'm responsible for the development of the
subject acreage.

1 Q. Have you made a geological study of the Morrow
2 formation in the area which is the subject of this
3 Application?

4 A. Yes, I have.

5 Q. Are you prepared to share the results of your
6 work with Mr. Stogner?

7 A. I am.

8 MR. CARR: Are the witness's qualifications
9 acceptable?

10 EXAMINER STOGNER: Mr. Joyce is so qualified.

11 Q. (By Mr. Carr) Mr. Joyce, what is the primary
12 producing -- or what are the primary producing formations
13 in this area?

14 A. In this area you have basically production from
15 ground level to deep in the ground. Yates, Queen,
16 Delaware, Bone Springs, Wolfcamp, Strawn, Atoka and Morrow
17 all produce economically within the study area.

18 Q. When you look at developing the Lusk-Morrow Gas
19 Pool, typically has production from other zones been
20 necessary to economically justify these wells?

21 A. Yes, we would not go into this area and drill
22 solely a Morrow well. We look for the shallow pays also.

23 Q. And when we look at just the Morrow, are we
24 looking at multiple pay zones?

25 A. Numerous pay zones.

1 Q. Could you just provide us with a general
2 description of the Morrow formation in the Lusk-Morrow Gas
3 Pool?

4 A. It's fairly typical Morrow in this area. It's a
5 siliciclastic section, which is just a stacked sand and
6 shale sequence. The producing intervals are divided into
7 three zones. We use the A, B and C sands; other people,
8 upper, middle and lower packages. All these intervals are
9 present within the Lusk-Morrow Gas Pool, however there is
10 no single predominant producing interval.

11 The A and B sands are generally more laterally
12 extensive, while the C sands tend to be more lenticular and
13 channel-like.

14 Even though the three intervals can be correlated
15 across the pool, individual sands generally cannot be.
16 Reservoir quality and sand thicknesses can vary
17 considerably in short lateral distances.

18 Q. Let's go to what has been marked Marbob Exhibit
19 Number 4. Would you identify and review that?

20 A. My display 1 is a location and production, a
21 wellspot map. As defined by the New Mexico OCD, the Lusk-
22 Morrow Pool is outlined and color-filled in light green. A
23 one-mile buffer zone and my study area are outlined in the
24 dark blue. The two sections we seek to exclude are marked
25 with the red X's. Also you'll see the outline of the Lusk

1 deep unit as a light gray boundary across Section 19 and
2 20, predominantly.

3 This map has been filtered. All the well spots
4 you see are Morrow penetrations only. The wells with the
5 red circles are actively producing Morrow wells. Blue-
6 circled wells are inactive Morrow wells, and anything
7 without a circle is a Morrow dry hole.

8 Cumulative productions and the dates of
9 productions are posted in each wellspot.

10 On this map there are 62 total Morrow
11 penetrations. Of those 62 penetrations, there are 13 dry
12 holes, and 18 of the wells have made greater than a BCF of
13 gas. The two largest wells in the area, the Lusk 5 in the
14 southeast of Section 19, has produced 9.6 BCF of gas. The
15 second-largest well is not within the Lusk-Morrow Pool.
16 It's located in Section 4 and has produced 5.4 BCF of gas.

17 Also on this map you'll see my lines of cross-
18 section, which we'll get into next.

19 Q. Let's go to Exhibit Number 5, the cross-section
20 A-A'. Again, identify and review the information on this
21 Exhibit for Mr. Stogner.

22 A. This is more or less a regional stratigraphic
23 section that we've flattened on the base of the Morrow B,
24 or the top of the Morrow C. On the cross-section, of
25 course, we have the well names, locations, the current

1 status of the wells, cumulative productions and dates.

2 Indicated perforations are also on the sections. All the
3 perforations were taken from OCD records. As I've
4 previously mentioned, we divide the Morrow into A, B and C
5 intervals.

6 Most notable on this section, as you see the
7 correlations, they're done by sand packages, not
8 individuals. And as you'll note, there are numerous
9 potential pay sands in each of the three packages.

10 The well illustrated in this section is Morrow
11 basinward thickening from the northwest to the southeast.
12 The section thickens from approximately 250 feet to 450
13 feet, going to the southeast. While the Morrow gross
14 interval thickens, the net sand thicknesses don't reflect
15 similar changes.

16 As previously mentioned, completions are usually
17 in multiple zones, with the B and C sands being somewhat
18 more prospective than the A sands.

19 Q. All right, let's go to cross-section B-B',
20 Exhibit Number 6.

21 A. Another regional section, B-B'. This is a west
22 southwest to generally northeast stratigraphic section.
23 Again, this was hung on the same marker as the last
24 section, the base of the Morrow B shale. It's got
25 basically the same information shown on this section, well

1 names, the well status, perforations, cums and cumulative
2 dates posted on each well.

3 This section is a little different from the last.
4 It's roughly a strike section, striking basically parallel
5 to the depositional axis of the basin. You see a
6 relatively constant gross Morrow thickness interval here,
7 averaging around 400 feet.

8 The thickness variations on the Morrow in this
9 area are usually structurally controlled, with thinner
10 sections normally found on structural highs. A good
11 example of this would be the Lusk -- the third well from
12 the left is the Lusk Number 5 well, a 9.6-BCF well, is one
13 of the thinnest sections, thinnest Morrow sections, in the
14 area, but still has good pays.

15 Again, there are multiple potential pay sands and
16 multiple perforated intervals throughout this cross-
17 section. Also note, the presence of numerous thick sands
18 doesn't necessarily guarantee making a well on reservoir
19 quality, where good reservoir quality is a must.

20 Q. All right, let's go to Exhibit 7. First, explain
21 what this exhibit shows, and then review the information.

22 A. Lots of lines, my apologies. Displayed in black,
23 we have a structure contour map overlaid on a gross Morrow
24 sand isopach. The structure contour map was constructed at
25 the base of the Morrow B, the same horizon we used to hang

1 the cross-sections on, and it's on 100-foot contour
2 intervals. The gross sand isopach is color-filled with
3 yellows in the thicks and greens in the thins. The isopach
4 interval -- excuse me, the contour interval on the isopach
5 is ten foot.

6 Our sands were identified off a gamma-ray,
7 classifying a sand as anything with less than or equal to
8 50 API gamma-ray units. You have to rank the quality of
9 this interpretive map as good, and not better than good,
10 based on a mix of log vintages. We're looking at logs from
11 the 1950s right up through the 1990s.

12 Structurally, the predominant feature on this map
13 is an asymmetrical nose plunging south southeast at 150 to
14 300 feet per mile. That's a feature that you can see
15 starting in the northwest of 19-32, trending to the south
16 southeast there. Also, you'll notice the Lusk Deep Unit is
17 located right on top of it.

18 The apex of this nose is actually a closed high
19 that lies in the southeast of Section 18 and the northeast
20 of Section 19 in 19-32.

21 East of the nose you see basically regional east-
22 to-southeast dips of approximately 150 to 400 feet per
23 mile.

24 Also, there's a large -- well, interpreted as a
25 large north-south-trending basement fault that lies

1 approximately three-quarter mile west of the minus-9500-
2 foot contour, locally called the Greenwood fault.

3 The gross sand map, most notably on it is
4 generally the sands thin down the nose of the structure.
5 Basically, you have possibly no sands in Section 1 of 19-
6 30/31, to somewhere around 50 feet down the axis of the
7 nose, but generally thin across the top of the structure.

8 Another thing that we see, and again
9 interpretive, we see three north -- or I see three north-
10 south-trending sand thicks, one starting in Section 5 of
11 19-31, trending to the south, another in Section 3,
12 trending north to south, and another in Section 1, trending
13 north to south. Another generalization you could make off
14 this map is the sand thicks are generally off of or
15 flanking the structure.

16 Q. If we look at Section 21 and look at the isopach,
17 that is, in fact, in an area where the sands are thin; is
18 that right?

19 A. Section 21, based on one well, there's possibly a
20 sand thick in the southeast part of that section.

21 Q. If we look at the structure map, what does that
22 tell you about the acreage in 21?

23 A. You're seeing basically a flat section there.
24 There's approximately 200 feet of easterly dip, nothing
25 notable in Section 21 at all.

1 Q. Is it potentially wet in that area?

2 A. It could be wet.

3 Q. And then we look at Section 24, and we're moving
4 off the western edge of the reservoir; is that correct?

5 A. That's right.

6 Q. Could you summarize the conclusions you've
7 reached from your review of the Lusk-Morrow Gas Pool?

8 A. My geological conclusions are that this is a
9 typical Morrow sequence with multiple potential pay sands.
10 While the A, B and C sand packages can be confidently
11 correlated, individual sands cannot be. Reservoir
12 qualities of the individual sands are extremely variable
13 laterally throughout the pool.

14 My economic conclusions on this area are that,
15 one, it is an attractive area to drill in.

16 Number two, there are underdeveloped as well as
17 undeveloped tracts in this area. Let me come again at you
18 with that: There are underdeveloped as well as undeveloped
19 tracts within these lands.

20 My third is that if these two sections were
21 deleted from the Lusk-Morrow Pool, Marbob Energy doesn't
22 believe this would have an adverse effect on pool
23 development or interest owners in the area.

24 And my fourth would be that the deletion of the
25 two sections from the pool would most likely hasten

1 development within them.

2 Q. In your opinion, will approval of this
3 Application be in the best interest of conservation, the
4 prevention of waste and the protection of correlative
5 rights?

6 A. Yes, I do.

7 Q. Were Exhibits 4 through 7 prepared by you?

8 A. Yes, they were.

9 MR. CARR: At this time, Mr. Stogner, we move the
10 admission into evidence of Marbob Exhibits 4 through 7.

11 EXAMINER STOGNER: Exhibits 4 through 7 will be
12 admitted into evidence at this time.

13 MR. CARR: And that concludes my direct
14 examination of Mr. Joyce.

15 EXAMINATION

16 BY EXAMINER STOGNER:

17 Q. Mr. Joyce, were you a party to the two previous
18 cases, that order R-2373 C and D were --

19 A. Yes, sir.

20 Q. And that primarily was focused on Section 19,
21 wasn't it?

22 A. Yes, sir.

23 Q. When I look at Exhibit Number 7, now, I want to
24 kind of focus in on the four-section area of 9, 10, 15 and
25 16, over there in the eastern part of this pool and how

1 that production is related to the main body of the
2 production around Section 19 and the surrounding areas.

3 Is this still within the same pool, or do we see
4 this separated in any way, or what is the commonality
5 between these two?

6 A. Well, to a geologist the commonality is that it's
7 in the Morrow formation. The classification in the same
8 pool comes from the OCD or the local OCD offices. How
9 those decisions are made or, you know, how the officers
10 decide to put what wells where is strictly their decision.

11 I can see those wells in those locations, they
12 could have as easily been assigned to the pool to the north
13 of it as the pool to the west.

14 RAYE P. MILLER (Recalled),
15 the witness herein, having been previously duly sworn upon
16 his oath, was examined and testified as follows:

17 EXAMINATION

18 BY EXAMINER STOGNER:

19 Q. Mr. Miller, when you refer to Exhibit Number 4
20 and that particular four-section area, 9, 10, 15 and 16,
21 you show that there's three producing wells; is that
22 correct? On your exhibit? Are you looking at -- Yes, Mr.
23 Miller, are you looking at Exhibit Number 4?

24 A. Is this 4?

25 Q. I'm just asking who the operator is.

1 A. Right. Section 9, I believe, is Petco, Petroleum
2 Development Corporation out of Albuquerque. Let me double-
3 check. Section 10, the Sun McKay Federal Number 2 is
4 Petco. Section 9, the Dorothy McKay Number 1 is Petco.
5 Section 15, the Shearn Fed Com Number 1 is actually
6 P-and-A'd. And in 16 the State DR is operated by Gruy
7 Petroleum Management Company.

8 Q. Okay.

9 A. You know, the history on how those tracts all got
10 added into the pool, I believe the original 2373 was
11 Section 18, 19, 20 and 29. And then the next sections
12 added to the pool were 27 and 28. That was in 1963, R-
13 2449. Then Section 30 in R-3218, in 1967. And then 32 in
14 R-4032, in 1970. And I've left off, back over to the west,
15 Section 24 and 25 of 19-31, were added in 1965, and Section
16 13 in 19-31 was added in 1980.

17 Now, 15, 16 and 21 was an extension of the pool
18 by Order R-4339 in 1972. And Section 9 was added later, in
19 1976, and then Section 10 was added in 1978.

20 So that's kind of a history of how the pool kind
21 of took shape by the different orders to get to the
22 boundaries that we're at today.

23 Q. Now, the particular pool rules in this area, Mr.
24 Miller, they're frozen just to this green area, are the
25 pool boundaries in which you've shown on your Exhibit

1 Number 1; is that correct?

2 A. That's correct.

3 Q. Okay. Essentially what has matched up over time,
4 until we got to the current Rule 104 that were approved
5 back in August of 1999 -- and that's for the general deep
6 gas in New Mexico and these Lusk-Morrow Pools -- they're
7 identical with one exception, and that's 640-acre spacing,
8 that's frozen into this pool?

9 A. That's right.

10 Q. That's right, okay. And you see within Sections
11 24 and 21, by deleting these from the 640-acre, that it
12 would stimulate some exploration, or what do you see for
13 these two sections?

14 A. Well, let me give you a little background, and if
15 I give you too much just cut me off.

16 Obviously our first well was the Lusk 14 in
17 Section 19, which actually was drilled as a third Morrow
18 well in the same section, and it was successful in our
19 completion in a lower Morrow sand, and it's still producing
20 at about 1.8 million a day out of that lower sand, with
21 about a cum of .8 of a BCF ultimate. There also appear in
22 that well to be additional productive sands in the B and A
23 package above that are still behind the pipe.

24 We have now offset that well with what we call
25 our Lusk Number 16, which is up here in Section 18, and

1 it's in the southwest-southwest quarter, and that well was
2 just recently completed.

3 It had some problems. When we actually ran pipe
4 and cemented the well, we experienced -- and we're
5 speculating, but we think a shale ledge or something may
6 have fallen into the hole during our cementing process, and
7 we actually pressured up on the surface while we were
8 cementing and may have fractured some cement into some of
9 those lower Morrow sections. But anyway, we were
10 unsuccessful at a couple of lower Morrow sections that we
11 felt would be productive in that well, but we believe that
12 we have cemented the formations, or fracture-cemented the
13 formations.

14 That well has been completed in the B sand and is
15 currently flowing over a million feet a day out of the B
16 sand.

17 We have also drilled what we call the Crazy Horse
18 Number 3 in the northeast of the northwest of Section 18,
19 again as a targeted Morrow well, and that well encountered
20 several Morrow sands. I went out on a DST in the B, and it
21 flowed over 2 million feet out of the B sand on a DST, and
22 that well was completed the day before yesterday in the
23 lower Morrow sand and was cleaning up on a rate of over 2
24 million a day out of the very lower C sand section.

25 Now, those two wells become two new Morrow

1 completions in a section that previously has had Morrow
2 production, but those Morrow wells have been plugged and
3 abandoned out of the Morrow zone. And in our work here,
4 we're partially inside what is called the Lusk Deep Unit,
5 as well as outside.

6 The 640-acre proration actually puts us in a
7 situation where a portion -- In other words, the south half
8 of 18, as well as the southeast of the northwest, is inside
9 the unit boundaries, the remaining acreage is outside the
10 unit boundaries. And as a result, our 640 proration, those
11 two wells will actually be allocated by percentages of
12 acreage contribution to the federal lease outside the unit,
13 and the remainder to the unit participating area.

14 Now, we're working currently on additional
15 locations, and in fact we are currently drilling a location
16 in Section 20, in the southwest-southwest quarter. It's
17 called the Lusk Deep Unit Number 17, and that location is
18 actually drilling currently, and it will be on a 640-acre
19 spacing unit.

20 We are looking at drilling a Morrow location in
21 Section 30. Section 30 is what I call an example of this
22 area. Most of these leases are extremely old leases.
23 There are multiple owners, there are multiple segregation
24 and different horizons. And in fact, right now I've had
25 our attorney working; the abstracts and title opinions are

1 costing us a fortune of actually identifying who owns all
2 of the rights in Section 30 that should then be proposed
3 under that well.

4 Likewise, we're also looking at some locations in
5 Section 17. Now, 17 is a little bit different than 30 in
6 the fact that in the west half of 17 Marbob, I believe,
7 owns 100 percent of the rights from about 4500 on down. In
8 the east half, I believe Marbob owns 100 percent of the
9 rights from 4500 foot on down, except as to the southeast-
10 southeast. That southeast-southeast of 17 is actually
11 owned by Ray Westall and BP, which was formerly ARCO
12 Permian.

13 In the development of these tracts where you
14 have, you know, old leases and multiple owners and all, the
15 more acreage that's involved, the harder it is to get
16 commonality. And so that's part of our reason for looking
17 at the fact that if these tracts could be excluded, then
18 largely we have taken those tracts and just put them back
19 to statewide rules, rather than imposing on whoever would
20 propose the well the obligation to actually get to the 640-
21 acre spacing.

22 Is that more or less or --

23 Q. No, that's sufficient.

24 A. But we see a lot of potential development down
25 here. Now, I will tell you that part of our work, at least

1 our initial enthusiasm, also centered around the well in
2 Section 18 that is in the northeast of the southwest.
3 That's called the Lusk Number 13. It was originally -- It
4 was drilled to the Morrow, originally completed as an
5 Atoka.

6 I didn't believe the Morrow would be productive,
7 and we recompleted the well recently -- well, it's been
8 several months ago now, but we recompleted it into a Bone
9 Springs interval, and that Bone Springs interval is
10 currently producing about 90 barrels of oil a day and 150
11 MCF. And as a result, part of our rationale for drilling
12 the Morrow wells in Section 18 was to do some additional
13 testing of that horizon.

14 Now, unfortunately, neither of the Morrow wells,
15 although they were productive in the Morrow, they do not
16 appear to be productive in the horizon of the Bone Spring
17 that was productive in the Number 13 well. So it's a very
18 complex area but, at the same time, very romantic because
19 of the multiple pay facet potential.

20 Q. Okay, how about ownership, Marbob's ownership in
21 both these sections that I alluded to, 21 and 24?

22 A. Okay, in 21 we have no ownership at this point.
23 We have ownership in Section 24, in the fact that the east
24 half of the northeast and the southeast quarter is actually
25 contained in the Lusk Deep Unit. The acreage outside -- or

1 the remainder of Section 24 is actually owned by -- well,
 2 it's operated by Lynx Petroleum, and Marbob does have an
 3 ownership in that block of Lynx' acreage on the outside.
 4 Section 21, we don't.

5 Q. Now, your notice in Exhibit Number 3, that
 6 included all working interest in the Lusk?

7 A. No, it included the operators. Largely, the
 8 notice -- Well, no, it did not include all the working
 9 interests, because I know like Lynx has some small local
 10 folks that are in the Hobbs area that are partners with
 11 them in that. But they stood in support of the
 12 Application.

13 EXAMINER STOGNER: Anything further in this
 14 matter?

15 MR. CARR: Nothing further, Mr. Stogner.

16 EXAMINER STOGNER: You may be excused, both of
 17 you.

18 If there's nothing further in Case 12,493 --

19 MR. CARR: It needs to be continued to October
 20 the 19th.

21 EXAMINER STOGNER: -- then this matter will be
 22 continued and readvertised to the October 19th hearing.

23 (Thereupon, these proceedings were concluded at
 24 10:15 a.m.)

25 I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Examiner hearing of Case No. 12493,
 held by me on 21 Sept. 2000.

