

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

IN THE MATTER OF THE HEARING CALLED BY)
THE OIL CONSERVATION COMMISSION FOR THE)
PURPOSE OF CONSIDERING:)

APPLICATION OF BASS ENTERPRISES)
PRODUCTION COMPANY FOR AN ORDER)
AUTHORIZING THE DRILLING OF A WELL)
IN THE POTASH AREA, EDDY COUNTY,)
NEW MEXICO)

CASE NOS. 2006, 367

APPLICATION OF DEVON ENERGY PRODUCTION)
COMPANY L.P. FOR AN ORDER AUTHORIZING)
THE DRILLING OF A WELL IN THE POTASH)
AREA, EDDY COUNTY, NEW MEXICO)

13, 368

APPLICATION OF DEVON ENERGY PRODUCTION)
COMPANY, L.P., FOR APPROVAL OF AN)
UNORTHODOX WELL LOCATION AND)
AUTHORIZATION TO DRILL A WELL IN THE)
POTASH AREA, EDDY COUNTY, NEW MEXICO)

13, 372

(Consolidated)

REPORTER'S TRANSCRIPT OF PROCEEDINGS
COMMISSION HEARING

BEFORE: MARK E. FESMIRE, CHAIRMAN
JAMI BAILEY, COMMISSIONER
WILLIAM C. OLSON, COMMISSIONER

ORIGINAL

June 5th, 2006
Santa Fe, New Mexico

These matters came on for hearing before the Oil Conservation Commission, MARK E. FESMIRE, Chairman, on Monday, June 5th, 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

June 5th, 2006
 Commission Hearing
 CASE NOS. 13,367, 13,368 and 13,372 (Consolidated)

	PAGE
EXHIBITS	4
APPEARANCES	5
OPENING STATEMENTS:	
By Mr. Carr	8
By Mr. High	13
By Mr. Bruce	19
BASS WITNESSES:	
<u>J. WAYNE BAILEY</u> (Landman)	
Direct Examination by Mr. Carr	21
Voir Dire Examination by Mr. High	46
Cross-Examination by Mr. High	48
Examination by Commissioner Bailey	75
<u>WILLIAM R. DANNELS</u> (Drilling Engineer)	
Direct Examination by Mr. Carr	77
Cross-Examination by Mr. High	83
Examination by Mr. Bruce	95
Further Examination by Mr. High	97
Examination by Commissioner Bailey	98
Redirect Examination by Mr. Carr	99
Recross-Examination by Mr. High	104
<u>STACY MILLS</u> (Mineral Owner)	
Direct Examination by Mr. Carr	106

(Continued...)

DEVON WITNESSES:

KENNETH H. GRAY (Landman)

Direct Examination by Mr. Carr	110
Cross-Examination by Mr. High	128
Examination by Mr. Bruce	140
Examination by Commissioner Bailey	141
Examination by Chairman Fesmire	143

JAMES BLOUNT (Operations Engineer)

Direct Examination by Mr. Carr	144
Cross-Examination by Mr. High	149
Examination by Mr. Bruce	159
Examination by Commissioner Bailey	160
Examination by Chairman Fesmire	161
Redirect Examination by Mr. Carr	163
Further Examination by Commissioner Bailey	164

SMITH WITNESS:

KENNETH MARK SMITH (Mineral Owner)

Direct Examination by Mr. Bruce	166
Examination by Chairman Fesmire	170

MOSAIC WITNESS:

DANIEL J. MOREHOUSE (Mining Engineer)

Direct Examination by Mr. High	172
Cross-Examination by Mr. Carr	202
Examination by Mr. Bruce	221
Redirect Examination by Mr. High	226
Examination by Commissioner Bailey	227

CLOSING STATEMENTS:

By Mr. Carr	231
By Mr. Bruce	234
By Mr. High	235

REPORTER'S CERTIFICATE	240
------------------------	-----

* * *

E X H I B I T S

Bass	Identified	Admitted
Exhibit 1	24	48
Exhibit 2	28	48
Exhibit 3	28	48
Exhibit 4	35	48
Exhibit 5	35	48
Exhibit 6	37	48
Exhibit 7	43	48
Exhibit 8	43	48
Exhibit 9	44	48
Exhibit 10	80	83

* * *

Devon	Identified	Admitted
Exhibit 1	113	128
Exhibit 2	114	128
Exhibit 3	115	128
Exhibit 4	116	128
Exhibit 5	120	128
Exhibit 6	122	128
Exhibit 7	127	128
Exhibit 8	146	149
Exhibit 9	147	149

* * *

Mosaic	Identified	Admitted
Exhibit 1 (confidential)	182	226
Exhibit 2 (confidential)	185	226
Exhibit 3	180	226

* * *

Smith	Identified	Admitted
Exhibit 1	220	-

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A P P E A R A N C E S

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* * *

1 WHEREUPON, the following proceedings were had at
2 8:24 a.m.:

3 CHAIRMAN FESMIRE: Let's go on the record. Let
4 the record reflect it's 8:25 a.m. on Monday, June 5th,
5 2006. This is a specially set meeting of the New Mexico
6 Oil Conservation Commission. The record will reflect that
7 Commissioners Olson, Bailey and Fesmire are all present and
8 that we do have a quorum.

9 Administratively, we are going to take up the
10 potash cases first, the potash cases being Case Number
11 13,368, Number 13,367, and Number 13,372.

12 After the Commission hears the evidence in those
13 cases, we intend to take up an Application for re-hearing
14 on Case Number 13,589.

15 And then Case Number 13,586, which is the
16 Application of the Oil Conservation Division for repeal of
17 existing Rule 709, 710, 711, and replacement of those
18 Rules.

19 So at this time we'll call Cause Number 13,367,
20 13,368, and 13,372, which have been consolidated.

21 We'll take the entries of appearance now.

22 MR. CARR: May it please the Commission, my name
23 is William F. Carr with the Santa Fe office of Holland and
24 Hart, L.L.P. Appearing with me today is Ocean Munds-Dry of
25 our office. We represent Bass Enterprises Production

1 Company in Case 13,367. We also represent Devon Energy
2 Production Company, L.P., in Cases, 13,368 and 13,372.

3 I have three witnesses for Bass and two witnesses
4 for Devon.

5 CHAIRMAN FESMIRE: Mr. High?

6 MR. HIGH: Yes, Charlie High and C.B. Burns of
7 Kemp Smith, L.L.P., appearing for Mosaic Potash Carlsbad
8 IMC. And with us is Mr. Dan Morehouse; he will be our only
9 witness today. We'll have three exhibits, I believe.

10 And if I may, we -- in the interest of a full
11 record in this case, we submitted exhibits that contain our
12 LMR. We failed to mark them "confidential" because we
13 PDF'd them to you, but we would ask that the two exhibits
14 that we submitted to you -- the third being the BLM map,
15 which is certainly not confidential -- but the two other
16 exhibits that we submitted as exhibits in this hearing
17 contain and show our LMR, we would ask that those be marked
18 "confidential". We do want them in this record because we
19 want a full and complete record, clearly showing the amount
20 of potash that would be wasted in this case, so we took the
21 unusual step of disclosing the LMRs for the purpose of a
22 full record, but we ask they be kept confidential.

23 CHAIRMAN FESMIRE: Okay. Mr. High, you realize
24 that that might be difficult because the proceedings of
25 these --

1 MR. HIGH: I understand, but I had to say that
2 for the record.

3 CHAIRMAN FESMIRE: Okay. Are there any other
4 appearances in this case?

5 MR. BRUCE: Mr. Chairman, Jim Bruce of Santa Fe.
6 I'm representing Kenneth Smith, who is a landowner in the
7 two Devon Energy Cases, and I will be calling Mr. Smith as
8 a witness.

9 CHAIRMAN FESMIRE: Okay. Are there any other
10 appearances?

11 Okay, with that, Mr. Carr, did you have an
12 opening statement?

13 MR. CARR: Yes, sir, I do.

14 CHAIRMAN FESMIRE: Okay.

15 MR. CARR: May it please the Commission, in these
16 consolidated cases you are being asked to approve three
17 well locations in the oil/potash area in southeast New
18 Mexico. We're asking you to do that pursuant to the
19 provisions of Order R-111-P.

20 As you may know, this order was adopted in 1998
21 because, as the Commission found, operations under the old
22 potash order had become virtually unworkable because of a
23 lack of tolerance on the parts of both the oil and gas
24 industry and the potash industry.

25 So a work group was named comprised of

1 representatives of both industries, and a compromise was
2 developed. And it was a carefully drafted compromise.

3 It states that the objectives are to prevent
4 waste, to protect correlative rights and to assure the
5 maximum conservation of oil and gas and potash resources in
6 New Mexico, and it calls upon you to balance the interests
7 of two industries that often find themselves competing with
8 one another to develop particular properties.

9 In balancing these interests, you are directed to
10 protect potash from drilling that would result in undue
11 waste of potash deposits. But you are also required, and I
12 quote, to assure that, quote, no mining shall be conducted
13 in the potash area that would constitute a hazard to oil or
14 gas production or that would unreasonably interfere with
15 the orderly development and production from any oil and gas
16 pool. So you have to balance these industries and their
17 interests.

18 And Order R-111-P came forward with some very
19 specific rules, and under these rules potash companies
20 periodically designate their LMR, their life-of-mine
21 reserve areas. And they provide this information to the
22 BLM and to the State Land Office, and this information is
23 reviewed by those agencies, and then the LMR is
24 established.

25 If, on the other hand, an oil and gas operator

1 proposes to drill in the area, they file an APD with you,
2 and then that APD -- you take that, confer with the Land
3 Office or BLM and determine whether or not the well is in
4 the LMR area.

5 The three wells we're talking about today are in
6 the LMR area of Mosaic Potash. And the Rules contain very
7 particular provisions concerning how wells may be drilled
8 in the LMR. And they provide, and I quote, Any application
9 to drill in the LMR area, including buffer zones -- buffer
10 zones in the LMR are treated the same under this order --
11 may be approved only by mutual agreement of lessors and
12 lessees of both potash and oil and gas interests.

13 So here today we have cases where we have wells
14 in the LMR. But we also have cases where we have
15 agreements between the lessors and lessees of the potash
16 and the oil and gas rights, and we ask permission to go
17 forward under the provision of Order R-111-P that I just
18 discussed with you.

19 Order R-111-P does not lock out any industry. It
20 by itself doesn't prevent either industry from developing
21 its reserves. It doesn't replace a potash lease or an oil
22 and gas lease. If you are to benefit or receive the
23 benefits of Order R-111-P, you have to have a right to
24 develop the reserves. You must own an interest.

25 And in this case the evidence is going to show

1 you that Bass owns the oil and gas lease under the 40 acres
2 on which it is proposing to drill, 40 fee acres. It will
3 show you that Devon owns the oil and gas lease under the 40
4 acres on which it proposes to drill wells.

5 And these are within the potash area, within
6 Mosaic's LMR. These are fee lands. And in these tracts,
7 Mosaic does not own any potash rights. They have no lease
8 and no right to develop any of the potash reserves.

9 We're here today with the mineral owners, the
10 owners of the potash rights, and these owners are going to
11 testify and tell you that they have reached a mutual
12 agreement with Bass and Devon, that they desire to have
13 their oil and gas minerals developed first and in
14 preference to the development, if any, of the potash
15 reserves underlying these fee tracts.

16 Our land evidence is going to establish that Bass
17 and Devon followed the provisions of Order R-111-P. They
18 reached mutual agreement with the owners of the potash
19 rights, they filed APDs, two of the three were approved by
20 the OCD, and they notified the potash lessees as required
21 of their plans to drill.

22 Mosaic objected to those applications. The Bass
23 objection is because -- and they cited to the Division as
24 the reason for their objection that any application to
25 drill in an LMR, including a buffer zone, may only be

1 approved by mutual agreement of the lessor and lessee of
2 both the potash and oil and gas interest. In that case, we
3 have that agreement.

4 We weren't contacted by the OCD, the OCD simply
5 acted and rescinded our APD.

6 As to the objections raised to the Devon
7 Applications, we were told that we were planning to drill
8 in an area with measured ore, like all these wells are,
9 many of the wells out there are. They noted that looking
10 at their five-year mining plan, in 2007 they expected to be
11 within a quarter of a mile of the area where Devon proposed
12 to drill. In fact, they testified they could be within
13 1000 feet of the wellbore, and they presented evidence to
14 that fact.

15 The evidence today is going to show that they're
16 not going to be within a quarter of a mile in 2007. They
17 anticipate maybe being a mile and a quarter away in 2010.
18 But the evidence is going to show, Mosaic has no potash
19 rights, and yet they're coming in here and asking you to
20 deny the owners of both the potash and the oil and gas the
21 right to develop the minerals they own, that they desire to
22 develop, and that they are proposing to develop consistent
23 with the provisions of Order R-111-P.

24 There have been several cases like this before.
25 They've gone to the Division. And in those cases the

1 Division has decided that the APD should be approved
2 because there was an agreement between the owners of the
3 oil and gas and the potash. And we're going to ask you to
4 reach that same conclusion here today. I believe this is
5 the first case, though, that would be appealed to the
6 Commission.

7 We're also going to call two engineering
8 witnesses, simply to show that wells as proposed will be
9 drilled, cased and cemented in accordance with provisions
10 of subpart D of Order R-111-P.

11 The landowners, as I have indicated, will then
12 testify. They will confirm with you that they prefer to
13 have their oil and gas developed first.

14 At the close of the case at the Division level,
15 the APDs were either approved or reinstated for each of
16 these three wells, and we believe at the end of this case
17 the evidence will show that both Bass and Devon are
18 entitled to drill these wells where they have complied with
19 the provisions of the Rules of the Oil Conservation
20 Division.

21 CHAIRMAN FESMIRE: Mr. High, would you like to
22 give your statement or reserve it till your case?

23 MR. HIGH: No, I'll go ahead and do it now, Mr.
24 Chairman.

25 The opposition of Mosaic Potash to these APDs is

1 quite simple. We are not opposed to the owners of the fee
2 lands developing their oil and gas right. What we are
3 opposed to is the manner in which Devon and Bass are
4 proposing to develop those mineral interests.

5 The manner in which they are proposing to develop
6 these three APDs, as our evidence will show, will waste in
7 excess of \$90 million in commercial potash.

8 Under the New Mexico Oil and Gas Act, R-111-P, as
9 well as the New Mexico State Constitution, this Commission
10 has an obligation, indeed, a duty to protect potash. And
11 we think that the Commission can do that by denying these
12 APDs and requiring that these oil and gas rights be
13 developed in a manner in which potash will not be wasted,
14 but that these fee owners can, in fact, develop their oil
15 and gas rights.

16 With respect to the two wells that Devon is
17 proposing in Section 7, it is undisputed that those surface
18 locations are right in the middle of ore that meets the BLM
19 standard for potash enclave. I don't think there will be
20 any dispute that all three of these surface locations are
21 in commercial-grade potash. The only unique factor is,
22 they're on fee land, 40-acre spots.

23 The Section 24 wells -- there's two of them,
24 Apache Number 6 and Apache 7A -- one is proposed to be a
25 Delaware well and one is proposed to be a deep gas well.

1 We don't think that any fee owner has the right
2 to develop their land, their oil interest, in a manner that
3 adversely affects the mineral rights of adjoining
4 landowners. If you drill a deep gas well on a 40-acre
5 spacing, as Devon is proposing here, that will waste potash
6 beyond the 40-acre spacing, because an underground mine
7 like Mosaic that operates anywhere from 1000 to 1800 feet
8 underground with people cannot afford, for safety reasons,
9 to mine up to a deep gas well, particularly to the Devonian
10 where you're dealing with H₂S as well as a methane hazard.

11 So if this deep gas well is allowed in Section
12 24, it is going to create the waste of potash beyond the
13 40-acre spot -- 40-acre spacing unit.

14 Our position is that a fee landowner does not
15 have the right to develop their land in a manner that
16 adversely affects adjoining landowners. And if this
17 Commission approves that, our position is, it's a violation
18 of the New Mexico Oil and Gas Act, R-111-P, as well as it
19 will be an unconstitutional taking of our mineral interest
20 and our potash leases without just compensation.

21 If this well is allowed -- and our evidence is
22 going to show that the amount of potash that will be wasted
23 in wasted in Section 24 will be in the neighborhood of \$80
24 million, someone needs to compensate us for that, whether
25 it's Devon, the landowners, or the OCC, because that well

1 will waste that amount of potash on our leases, because we
2 hold the leases in the adjoining sections.

3 We also submit that those APDs, contrary to what
4 Mr. Carr said, are not in compliance with R-111-P. I am
5 aware -- in fact, I tried the other case that Mr. Carr
6 referred to, the Snyder Ranch case, where this Commission
7 held that you cannot have an LMR on fee land. I don't
8 agree with that, but I accept it.

9 But R-111-P also says you cannot drill a well
10 within one quarter mile of an LMR without that LMR owner's
11 consent. Both of these wells in Section 24 are within a
12 quarter mile of Mosaic's lease in the adjoining sections.
13 So they cannot drill these wells consistent with R-111-P
14 without Mosaic's consent, and we do not consent.

15 We have no objection to the -- as I said before,
16 to these fee landowners developing the wells that they are
17 proposing. There's no reason in the world that the fee
18 land in Section 24 cannot be developed with directional
19 wells from the west boundary of WIPP. There's already
20 wells there.

21 That is, in fact, what the BLM has required. All
22 development in Section 24 has been from directional wells
23 on the west boundary of WIPP. Why should this Commission
24 do anything different than what the BLM has required?
25 Because it's in violation of R-111-P, we submit, the New

1 Mexico Oil and Gas Act, as well as the New Mexico State
2 Constitution.

3 So those two wells in Section 24, we submit,
4 should be denied as proposed and required to be relocated
5 to the west boundary of WIPP and directionally drilled, for
6 which we have no objection. That way the oil and gas can
7 be developed as it should be, and you can prevent the waste
8 of potash totaling some \$80 million.

9 With respect to Section 7, this well is critical
10 to us. Section 7 is also on fee land, a 40-acre spot. The
11 entire Section 7 is already being developed for deep gas.
12 James Ranch 14 is on the north boundary. It's just across
13 the north boundary of Section 7. It's a directional well,
14 and the prorated unit is the north half of Section 7. So
15 the fee landowner in Section 7 is already participating in
16 the development of the gas in his 40-acre spot. What we're
17 proposing is an infill well.

18 The south half of Section 7 is also being
19 developed, again with a directional well, James Ranch 15,
20 which is located to the south and to the east, but it also
21 is a directional well.

22 So the two wells developing deep gas in Section 7
23 are already directional wells.

24 This 40-acre spot proposed by Bass can also be
25 developed with a directional well. If they want to infill

1 with it, we have no objection. Just go up to James Ranch
2 14, which is already a deep gas well, and drill another
3 directional well. We've got no problem with that. But
4 don't come right out in measured ore and waste in the
5 neighborhood, just in the area -- waste in the neighborhood
6 of \$12 million worth of potash.

7 But the biggest concern that we have -- and our
8 evidence will show it -- this well, this 40-acre spot,
9 happens to be so strategically located that its damages to
10 us far exceeds \$12 million. Because our evidence will
11 show, and we'll have it on a BLM map, this Section 7 well
12 is located right in the middle of access to the east side
13 -- the ore on the east side of WIPP.

14 If this well is allowed, all of Mosaic's access
15 to the ore to the east and north of WIPP is cut off. We no
16 longer have any access.

17 We've worked hard with the BLM for years, and
18 they have created a corridor, they have protected a
19 corridor on the east side of WIPP for us to access all of
20 that ore on the east and north side of WIPP.

21 If this well is allowed, all of that -- it just
22 goes right out the window. This Commission ought not
23 destroy what we and the BLM have worked for years to do,
24 and that's protect a corridor so that the ore up on the
25 other side of WIPP can be mined. That's exactly what this

1 Section 7 well will do, and there's no reason why it can't
2 be developed with a directional well. There's already two
3 directional wells developing Section 7. This well ought to
4 be no different.

5 So we're not opposed to the development of this
6 oil and gas, just the manner in which it is being proposed
7 is simply a strategic effort to take advantage of the fee
8 land issue under R-111-P, and we find that both obnoxious
9 and contrary to R-111-P, because it will waste a tremendous
10 amount of potash, and that's the nature of our opposition.

11 So we ask the Commission to deny these APDs and
12 ask Devon and Bass to re-file APDs to develop in a manner
13 consistent with R-111-P and the New Mexico Oil and Gas Act.

14 Thank you, sir.

15 CHAIRMAN FESMIRE: Mr. Bruce?

16 MR. BRUCE: Mr. Chairman, of course you'll hear a
17 lot of talk about Order Number R-111-P today. Now if
18 you're talking about state and federal land, that would
19 be -- in that instance the Land Office and the BLM have the
20 chance to review data and deal with the inclusion of their
21 lands in an LMR.

22 But Mr. Smith has never consented to inclusion of
23 his lands in an LMR, nor has he leased his land for potash
24 development. He and his family have leased his minerals to
25 Devon Energy Production Company for oil and gas

1 development, and they approve of Devon's proposal to drill
2 on his land.

3 Mr. Smith -- and although he will testify he has
4 no ill will whatsoever toward the potash companies; he
5 considers them a good neighbor. But he requests the
6 Division to approve his application -- excuse me, to
7 approve the Applications. To do otherwise is granting the
8 potash company a unilateral right over his mineral
9 development on his property.

10 Thank you.

11 CHAIRMAN FESMIRE: Are all three wells on Mr.
12 Smith's fee land?

13 MR. BRUCE: Two.

14 CHAIRMAN FESMIRE: Two of them, thanks.

15 Mr. Carr, would you --

16 MR. CARR: May it please the Commission, at this
17 time we would call J. Wayne Bailey as witness for Bass.

18 CHAIRMAN FESMIRE: Okay.

19 MR. CARR: We have additional copies,
20 incidentally, of the exhibits if anyone needs them.

21 CHAIRMAN FESMIRE: Okay. Mr. Bailey, are all
22 your witnesses -- I mean, Mr. Carr, are all your witnesses
23 present?

24 MR. CARR: I believe so, yes.

25 CHAIRMAN FESMIRE: Why don't all the witnesses

1 who intend to give testimony today please stand to be
2 sworn?

3 (Thereupon, the witnesses were sworn.)

4 CHAIRMAN FESMIRE: Mr. Bailey, you've been sworn?
5 For the record, would you --

6 MR. BAILEY: Yes.

7 CHAIRMAN FESMIRE: Okay.

8 MR. CARR: Also before we begin, I would like to
9 point out to the Commission that Case 13,372 as styled
10 seeks approval of an unorthodox well location. That was
11 dismissed before the Examiner, and it's not part of this
12 hearing.

13 CHAIRMAN FESMIRE: The unorthodox -- ?

14 MR. CARR: Yes, the well is proposed to the
15 Devonian, and it is at a standard location.

16 CHAIRMAN FESMIRE: Okay.

17 J. WAYNE BAILEY,
18 the witness herein, after having been first duly sworn upon
19 his oath, was examined and testified as follows:

20 DIRECT EXAMINATION

21 BY MR. CARR:

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

24 A. It's Jerry Wayne Bailey.

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

1 A. Fort Worth, Texas.

2 Q. By whom are you employed?

3 A. Bass Enterprises.

4 Q. And what is your current position with Bass
5 Enterprises?

6 A. I'm division land manager, west Texas/New Mexico
7 division.

8 Q. Have you previously testified before the New
9 Mexico Oil Conservation Commission?

10 A. Yes.

11 Q. Has the Commission changed since your prior
12 testimony?

13 A. No.

14 Q. Could you briefly summarize for the Commission
15 your educational background?

16 A. I have a business degree from the University of
17 Alabama, and I joined Bass Enterprises in 1980, and I've
18 been active in the land department there, and in 1996 I
19 started working southeast New Mexico area.

20 Q. At all times since you went to work for Bass,
21 have you been employed as a landman?

22 A. Yes.

23 Q. Are you familiar with the Application filed in
24 this case?

25 A. Yes.

1 Q. In fact, are you the land person responsible for
2 putting the prospect together for the well in Section 7?

3 A. That's correct.

4 Q. Was it your responsibility to contact the
5 affected owners in this acreage?

6 A. Yes.

7 Q. Were you also involved in obtaining the necessary
8 regulatory permits for the drilling of this well?

9 A. Yes.

10 Q. And are you familiar with the status of the lands
11 involved in this matter?

12 A. Yes.

13 MR. CARR: We tender Mr. Bailey as an expert in
14 petroleum land matters.

15 CHAIRMAN FESMIRE: Is there any objection --

16 MR. HIGH: No objection.

17 CHAIRMAN FESMIRE: -- to Mr. Bailey's
18 qualifications?

19 Commissioners?

20 COMMISSIONER BAILEY: No.

21 COMMISSIONER OLSON: (Shakes head)

22 CHAIRMAN FESMIRE: Mr. Bailey is so accepted.

23 Q. (By Mr. Carr) Mr. Bailey, would you briefly
24 state what Bass seeks in this case?

25 A. We seek the authorization to drill the James

1 Ranch Unit Number 93 well according to Division Rule
2 R-111-P.

3 Q. Let's go to what has been marked as Bass Exhibit
4 Number 1. Would you identify this, please?

5 A. The Exhibit 1 is a map that shows several
6 different items.

7 Q. Did you present this very same exhibit at the
8 Examiner Hearing?

9 A. Yes.

10 Q. And it has not been revised since that time?

11 A. No.

12 Q. Let's review for the Commission what this exhibit
13 is designed to show.

14 A. Okay, in yellow are the Bass leases. They're
15 located in the James Ranch Federal Unit. And the green
16 area, the green-outlined area, is identified as open, which
17 means it's unleased for potash. The blue-outlined area is
18 where IMC Potash has potash leases. IMC potash is now
19 Mosaic. And the brown area is where Western Ag Mineral
20 owns potash leases, and Western Ag is now Mosaic.

21 In Township 23 South, 31 East, in Section 7, the
22 red-striped 40-acre tract is fee land that's owned by Stacy
23 Mills and his family.

24 The north half of Section 7 is the 320-acre
25 proration unit for an existing gas well, the James Ranch

1 14.

2 And the map also shows where there's measured
3 potash reserves and barren -- or areas that are barren for
4 minor potash mineralization areas. And the potash
5 information is taken from the published Bureau of Land
6 Management map that reflects leases and barren areas.

7 Q. Bass is the owner of all the working interest
8 under Section 7; is that correct?

9 A. Correct.

10 Q. And Section 7 is indicated to be within measured
11 potash ore; is that right?

12 A. Yes.

13 Q. Have you drilled in other areas where there has
14 been -- in other areas designated as measured potash ore?

15 A. Yes.

16 Q. How did you go about determining what acreage was
17 actually open acreage or unleased?

18 A. We had federal records that show us what federal
19 lands are leased for potash. We have state records for
20 state land and we have county records for the fee land, and
21 we reviewed all those records. And we also contacted all
22 the mineral owners under the fee tract to make sure there
23 were no unrecorded potash leases, and we were told that
24 there were not.

25 Q. To the best of your knowledge, and based on your

1 research, is the area outlined in green still unleased for
2 potash in this area?

3 A. Yes.

4 Q. How close is IMC now mining to this tract? Do
5 you know?

6 A. According to the maps that we've been furnished
7 in the past --

8 MR. HIGH: Excuse me, your Honor, I want to
9 object to his testifying about Mosaic's location of mining.
10 It's not shown on this exhibit. He has no knowledge, that
11 I'm aware of, where Mosaic is mining and not mining.

12 CHAIRMAN FESMIRE: Mr. Carr?

13 Q. (By Mr. Carr) Mr. Bailey, I'll ask another
14 question. Have you discussed the Mosaic mining activity
15 with Mr. Morehouse of IMC?

16 A. Yes.

17 Q. Has he indicated to you how close to this tract
18 they are actually mining?

19 MR. HIGH: Your Honor, I'm going to object as
20 hearsay. Mr. Morehouse will be a witness and we can ask
21 him those exact questions.

22 CHAIRMAN FESMIRE: Mr. Morehouse is a party
23 opponent, he can rebut it if necessary.

24 Continue, Mr. Bailey.

25 THE WITNESS: According to what we've been told,

1 the closest active potash mining is about a mile and a half
2 to the west of the proposed James Ranch 93 location. It
3 would be over in the western part of Section 12 of 23
4 South, 30 East.

5 Q. (By Mr. Carr) What is the current development
6 status of Section 7, in terms of oil and gas development?

7 A. There's a producing Morrow well, the James Ranch
8 Number 14, that was drilled by Belco Oil and Gas in the
9 early 1980s. There's a producing Morrow well in the south
10 half of Section 17, the James Ranch 15, that was also
11 drilled by Belco. Belco became Enron, and Enron sold all
12 its wells in this area to Bass in 1998. So Bass operates
13 all the wells that are on the yellow on the map.

14 Q. And the well you're proposing to drill to the
15 Morrow in the north half of Section 7 will be the second
16 well producing from the Morrow in the north half of that
17 section; is that correct?

18 A. Correct.

19 Q. And you will communitize that acreage with the
20 remaining tracts, remaining 280 acres, in the north half of
21 the section?

22 A. Correct, all zones, Morrow, Atoka, possibly the
23 Wolfcamp, would be communitized on that 320 acres.

24 Q. Mr. Bailey, would you identify what has been
25 marked Bass Exhibit Number 2?

1 A. I have it.

2 Q. What is that?

3 A. Exhibit 2 are oil and gas leases that are owned
4 by Bass from the mineral owners under the 40-acre tract,
5 being the northeast quarter of the northeast quarter of
6 Section 7.

7 Q. And how many mineral owners -- from how many
8 mineral owners have you obtained a lease?

9 A. There are five or six.

10 Q. These actually indicate that they were leased, I
11 believe, to a Mr. -- were they leased directly to Bass, or
12 to Belco?

13 A. Directly to Belco, and then Bass took over as
14 lessee under those leases, and the leases together comprise
15 all of the mineral ownership under the 40 acres.

16 Q. I'd like you now to go to what has been marked
17 for identification as Bass Exhibit Number 3. Would you
18 just identify what this exhibit contains?

19 A. Exhibit 3 is the actual application for permit
20 that was directed to the New Mexico Oil Conservation
21 Division, a Bryan Arrant in the Artesia Office.

22 Q. Attached to this is there also some
23 correspondence concerning this application?

24 A. Yes.

25 Q. And are these documents from the files of Bass?

1 A. Yes.

2 Q. And does Bass keep these records in the ordinary
3 course of its business?

4 A. Yes.

5 Q. Let's go to what has been -- what is the first
6 page of this exhibit, and I would ask you simply to
7 identify this for the Commission, explain what it is.

8 A. It's a letter dated August 12th, 2004, to the
9 OCD, application for permit to drill the well, and it was
10 made according to Division Rules, specifically Rule
11 R-111-P.

12 Q. Does this letter also reference the fact that a
13 copy of the letter was being provided to IMC Potash
14 Carlsbad?

15 A. Yes.

16 Q. And is that the predecessor to Mosaic?

17 A. Correct.

18 Q. What is the second document in this exhibit?

19 A. A letter dated August 16th, also to Mosaic, to
20 Dan Morehouse.

21 Q. We don't have that in this exhibit. Let's go --

22 A. Okay.

23 Q. The second document that I have is an APD.

24 A. Okay.

25 Q. For the Number 93 well. Do you have that?

1 A. Yes.

2 Q. Will you just identify what that is and then
3 explain when it was filed?

4 A. It was filed with the OCD August 12th, and it's
5 the permit to drill the well to the Morrow formation in Los
6 Medanos-Morrow Pool.

7 Q. And what is the proposed location for that well?

8 A. It's 660 feet from the north line and 660 feet
9 from the east line of Section 7.

10 Q. And attached to this is various information that
11 was also provided at the time the application was filed; is
12 that correct?

13 A. Correct.

14 Q. Will Bass also be calling an engineering witness
15 to review how the well is proposed to be completed, in
16 regards to the requirements of Order R-111-P?

17 A. That's correct.

18 Q. Why does Bass propose to drill at this particular
19 location?

20 A. Well, we've filed for permits in various places
21 in this area, and with the exception of this 40-acre tract,
22 all the areas is BLM lands, and we've been denied permits
23 to drill at several locations.

24 Also to drill a -- it's necessary to drill a
25 vertical well on this 40-acre tract, to intersect all the

1 potential productive zones. There's Delaware, Bone Spring,
2 Wolfcamp, Atoka, Morrow, and a directional well would be
3 sufficient to reach the deeper zones under this tract but
4 not the shallower ones.

5 So based upon our knowledge of regulatory issues
6 with the BLM and denied permits from the past, we knew we
7 could not directionally drill this well and reach all the
8 productive formations underneath that. We've been denied
9 permits in the west half of Section 8. If you'll refer
10 back to Exhibit 1, we've been denied permits in the
11 northwest quarter of Section 17, the north half of Section
12 18, and in the south part of Section 6.

13 CHAIRMAN FESMIRE: Why were these permits denied?

14 THE WITNESS: Because of potash. And it is true
15 that permits were granted for the James Ranch 14 and the
16 James Ranch 15, but it was in the early 1980s, and at that
17 time the BLM was more liberal about granting drilling
18 permits in the potash enclave in measured ore. But
19 recently we've been denied every -- in many areas on this
20 map, we've been denied drilling permits. We've even been
21 denied drilling permits when Mosaic agreed, and the BLM
22 still denied the permits. And if we're denied a permit at
23 the BLM local office, our only recourse is Interior Board
24 of Land Appeals.

25 Q. (By Mr. Carr) And have you pursued that remedy?

1 A. Yes.

2 Q. And what success have you had?

3 A. None. Now, they've -- on this map, in the west
4 half of Section 6, for example, those well locations that
5 are shown there, the 2, 3, 4, are examples of wells that
6 were proposed in a barren area where Mosaic agreed and had
7 no objection, but they're on federal land and the permits
8 were denied.

9 Q. If this Division would tell you to go ahead and
10 drill directionally from a federal tract, do you believe
11 you could get permission to drill that well?

12 A. No.

13 Q. This well is located in the center of a 40-acre
14 tract; is that correct?

15 A. Correct.

16 Q. That means it is 660 feet from offsetting potash
17 leases; is that correct?

18 A. Yes.

19 Q. The 40-acre tract is offset by potash leases
20 east, west and south?

21 A. Yes.

22 Q. What rules govern the development of the Morrow
23 formation in this area?

24 A. The Division Rules and the Los Medanos Pool that
25 require the well to be at least 660 feet from the outer

1 boundary of a quarter section.

2 Q. And so this well is proposed at standard
3 location?

4 A. Correct.

5 Q. To your knowledge, does Mosaic own any potash or
6 other mineral rights under the 40-acre tract?

7 A. No, they own no potash rights.

8 Q. I'd like to ask you to review for the Commission
9 the history of the Oil Conservation Division's approval
10 process as it relates to this well. With whom did Bass
11 file an application for permit to drill?

12 A. Well, according to R-111-P we filed it with the
13 local OCD office and sent notice to the potash lessees
14 within one mile of the proposed location.

15 Q. And on what date was that notice provided?

16 A. August 12th.

17 Q. August 12th -- ?

18 A. The August 12th was the OCD permit, and August
19 16th it was provided to Mosaic.

20 Q. And is a --

21 CHAIRMAN FESMIRE: Of 2004?

22 MR. CARR: Of two thousand --

23 THE WITNESS: Yes.

24 Q. (By Mr. Carr) And is a copy of a letter from
25 Bass to IMC included in Exhibit Number 3?

1 A. Yes.

2 Q. How long --

3 MR. HIGH: Excuse me, I don't believe we have
4 that.

5 MR. CARR: It's the very last page.

6 MR. HIGH: Okay, fine. Thank you.

7 Q. (By Mr. Carr) You're familiar with Order
8 R-111-P?

9 A. Yes.

10 Q. When did that order -- How long does a potash
11 company have to object to the -- an APD?

12 A. Well, we were told by the OCD, Bryan Arrant, that
13 the potash company had 20 days to respond.

14 Q. Now, the certified letter was sent on August the
15 16th?

16 A. Correct.

17 Q. When did you receive a response from the OCD to
18 the Application?

19 A. They approved the permit on September 15th.

20 Q. Did you talk with Mr. Arrant at that time?

21 A. Yes.

22 Q. And why did you contact him?

23 A. Well, I called Bryan Arrant to enquire about the
24 status of the permit and to see -- or to ask if he had
25 received any notification from the potash company, because

1 Bass had received no response from Mosaic Potash.

2 And Mr. Arrant advised me that they would approve
3 the application if Bass would confirm in writing that
4 Mosaic had not responded. So I wrote a letter that day to
5 Mr. Arrant -- it said simply that we had received no
6 response from Mosaic -- and Mr. Arrant immediately issued
7 the permit to drill the well.

8 Q. And is a copy of the approved APD marked as Bass
9 Exhibit Number 4?

10 A. Yes.

11 Q. How long after the application was filed was it
12 actually approved?

13 A. Twenty-seven days.

14 Q. Had an objection to the Bass application been
15 filed at the time the APD was approved?

16 A. No.

17 Q. What response did Bass receive from IMC Mosaic to
18 this proposed location?

19 A. We received no notice from IMC, no response from
20 IMC or Mosaic.

21 Q. Would you identify what has been marked as Bass
22 Exhibit Number 5?

23 A. It's a letter from IMC to the NMOCD, objecting to
24 the permit and according to R-111-P.

25 Q. And the date on this letter?

1 A. September 17th.

2 Q. Two days after the APD was approved?

3 A. Yes.

4 Q. What reason was given in this letter for the
5 objection to the proposed well location?

6 A. There was a citation of R-111-P that any
7 application to drill in an LMR, including buffer zones,
8 must be approved only by mutual agreement of both potash
9 and oil and gas interests.

10 Q. Does it also provide that the APDs will be
11 approved if no protest is received within 20 days?

12 A. Yes.

13 Q. Was a copy of this letter sent to Bass?

14 A. It was sent to Bass from the OCD.

15 Q. Do you know who is the owner of the minerals
16 under the 40-acre tract on which you proposed to drill the
17 Bass well?

18 A. Yes, the same mineral owners from whom Bass
19 acquired oil and gas leases.

20 Q. Have you reviewed your plans for the proposed
21 well with these owners, the mineral owners, in the --

22 A. Yes.

23 Q. -- in the 40-acre tract that's the subject of
24 this hearing?

25 A. Yes.

1 Q. Have you been able to reach an agreement with
2 these owners concerning the development of these lands?

3 A. Yes, and the ones that we have questioned and
4 contacted all agreed that they own the potash rights, the
5 potash rights are unleased, and they propose that Bass
6 drill the well prior to mining potash, or superior to --
7 mining potash under the 40-acre tract.

8 Q. Is a representative of these owners here today to
9 testify in support of Bass's Application?

10 A. Yes, Mr. Stacy Mills will testify.

11 Q. Can you identify for me what has been marked as
12 Bass Exhibit Number 6?

13 A. Yes, this is a -- the letter from the OCD to
14 rescind the application for permit to drill.

15 Q. And what reason was given for rescinding the
16 Application?

17 A. Rule R-111-P, as stated in IMC's letter, that an
18 application to drill in the LMR, including buffer zones,
19 may be approved only by mutual agreement of lessor and
20 lessee of potash and oil and gas interests.

21 Q. Before rescinding this permit, was Bass contacted
22 by the Oil Conservation Division to determine whether or
23 not IMC or there was another entity that owned the potash
24 lease on this acreage?

25 A. No.

1 Q. Did the OCD contact you to determine whether or
2 not you had reached agreement with the potash owner for the
3 development of these lands?

4 A. No.

5 Q. Have you had experience in putting together
6 blocks of land for drilling, for the drilling of
7 directional and horizontal wells?

8 A. Yes.

9 Q. Does your experience include obtaining permits
10 for these wells?

11 A. Yes.

12 Q. Internally at Bass, are you given directions
13 concerning the kinds of development prospects you are to
14 put together?

15 A. Yes.

16 Q. Are directional wells one of the matters which
17 you are directed to try and develop?

18 A. Yes, they are.

19 Q. What instructions -- what are the rules that
20 govern your activity for Bass in developing prospects for
21 directional wells?

22 A. Well, we try to avoid directional wells unless
23 it's absolutely necessary, because the directional wells
24 are more costly, they're more complicated and technically
25 more difficult to drill, to complete and to produce. An

1 oil well is much more difficult to produce because of the
2 downhole equipment and pumping equipment if it's a
3 directional well.

4 And also that in -- many times a directional well
5 will not test all the formations that are prospective at a
6 specific location because of what I said before. We have
7 -- in this location we have all zones that are typical in
8 southeast New Mexico, they're all prospective here, from
9 the Delaware down to the Morrow.

10 Q. In Mosaic's prehearing statement, and also in Mr.
11 High's opening statement, Mosaic has suggested that these
12 wells, your well, could be drilled from an alternative
13 location. In your opinion, could this well be drilled from
14 another location, as suggested by Mosaic?

15 A. No. In addition to the physical difficulties
16 that I just mentioned, the BLM would not approve it. It's
17 been my experience in this area --

18 MR. HIGH: Excuse me, I'm going to object to him
19 testifying on what the federal government agency will or
20 will not do.

21 CHAIRMAN FESMIRE: I'll sustain that objection.

22 THE WITNESS: -- in the past --

23 Q. (By Mr. Carr) Mr. Bailey, would you just explain
24 to the Commission the success you have had as Bass getting
25 an APD approved by the BLM?

1 A. Yes, we've had no success in this area, and we
2 have applied for permits in virtually every spot in Section
3 8, 7, 18, 6, on this map.

4 Q. In your experience as a landman, have you had
5 experience drilling from any federal tract to access fee or
6 state minerals?

7 A. Yes.

8 Q. And when you do that, when you drill from a
9 federal tract anywhere to access fee minerals, from whom do
10 you have to get approval?

11 A. You would have to get approval from the mineral
12 owner that's affected by any portion of the well, and we
13 would have to get an approved agreement from the surface
14 owner, where the surface location is staked.

15 Q. Do you also have to obtain approval of an APD
16 from the federal government?

17 A. For a directional well in this area that would
18 bottom under this 40-acre tract, yes, a permit from the BLM
19 would be necessary.

20 Q. If you drilled a directional well from some other
21 tract to the 40 acres that are the subject of this hearing,
22 who would receive the royalty for the reserves produced by
23 that well?

24 A. For what formation?

25 Q. Any formation. Delaware.

1 Q. From the oil formations that are spaced on 40
2 acres, the owners of the 40 acres would receive the royalty
3 as -- below that, in the 320-acre gas formations, all
4 royalty owners under the 320-acre proration unit would
5 receive royalty which is the BLM under 280 acres and the
6 fee owners under the 40 acres, prorated.

7 Q. If a well was drilled directionally to the north
8 half of Section 7 from a point where it did not intersect
9 the Delaware under the fee tract that you propose to drill
10 on today, would the owners in that fee tract receive any
11 benefit or any production proceeds from the Delaware?

12 A. None.

13 Q. If that acreage was being drained in the Delaware
14 by a directional well, would there be any way to produce
15 their reserves, other than drilling a well on this tract?

16 A. No, it would have to be a vertical well.

17 Q. If you were to drill from a -- a directional well
18 from a federal tract, would you be required to get a
19 commercial lease from the BLM for that well?

20 A. Yes.

21 Q. Have you in the past had to deal with situations
22 where you go out and drill a well and then have to obtain a
23 commercial lease for the surface location?

24 A. No, the permits are obtained before the well is
25 drilled.

1 Q. Are you aware if there's any no-surface-occupancy
2 provision in this area?

3 A. No.

4 Q. Now summarize why it is you're proposing a
5 vertical well.

6 A. Well, in order to protect correlative rights
7 under the 40-acre tract, the vertical well is the only way
8 to test all the potentially productive formations under the
9 40-acre tract. And also based on our experience with
10 permitting in the past from the BLM, the BLM would not
11 grant a permit anywhere surrounding this 40-acre tract.

12 MR. HIGH: Objection, move to strike.

13 CHAIRMAN FESMIRE: Reason?

14 MR. HIGH: He's testifying again what the BLM
15 will or will not do.

16 CHAIRMAN FESMIRE: I'll sustain that.

17 MR. CARR: I believe Mr. Bailey said based on his
18 experience they couldn't get one approved.

19 Q. (By Mr. Carr) Mr. Bailey, have you in your
20 experience been able in this area to get the BLM to approve
21 a location?

22 A. No.

23 Q. Could waste result from having to drill a
24 directional well?

25 A. Yes.

1 Q. And how so?

2 A. There would be no production from the shallow
3 zones under the 40-acre tract, and there's no way to
4 predict if any hydrocarbons could be produced from that
5 tract.

6 Q. I'd like to go back and discuss with you your
7 efforts to contact and reach agreement with the other
8 mineral owners in this acreage. You testified that you
9 have an agreement from 100 percent of the interest owners
10 in this 40-acre tract; is that correct?

11 A. Correct.

12 Q. Mr. Mills and his family own 50 percent of those
13 minerals; is that not correct?

14 A. Fifty-three.

15 Q. And then there are other interests that are
16 administered by Sunwest Bank?

17 A. Correct.

18 Q. Have you reached an agreement with Sunwest Bank
19 for the development of the property with an oil and gas
20 well before potash reserves --

21 A. Yes, we have.

22 Q. -- are developed?

23 And do you have as Bass Exhibits 7 and 8
24 affidavits confirming that you have reached that agreement?

25 A. That's correct.

1 Q. Would you identify Bass Exhibit Number 9?

2 A. It's an affidavit from Larry Eudy, trust officer
3 of Wells Fargo Bank --

4 Q. No, let's look for Exhibit Number 9. You've got
5 the old exhibit number on there, Mr. Bailey.

6 A. Affidavit from Dottie McLaughlin?

7 Q. No.

8 A. Okay.

9 Q. We're using the same exhibits from the Examiner
10 Hearing, and those were the prior numbers.

11 A. Okay.

12 MR. HIGH: Is that the order, Bill?

13 MR. CARR: Yes, sir.

14 THE WITNESS: Exhibit 9 is Order of the Division
15 that came after a hearing before Examiner Stogner, granting
16 the permit to drill the James Ranch 93.

17 Q. (By Mr. Carr) Now it took some time to get a
18 decision from the OCD; is that right?

19 A. Correct.

20 Q. Do you know why it took so long to get the order?

21 A. Well, one reason was that Examiner Stogner
22 requested Bass and Mosaic to meet to discuss an alternative
23 drilling location.

24 Q. And did such a meeting occur?

25 A. Yes, myself and another representative of Bass

1 traveled to Carlsbad and met with Mr. Morehouse and another
2 Mosaic representative, and they informed us that they were
3 not interested in pursuing an alternative location.

4 Q. Were there any discussions concerning any
5 alternative location?

6 A. None.

7 Q. Will Bass also call a drilling engineer to
8 testify concerning how this proposed well will be drilled,
9 cemented and cased?

10 A. Yes, our drilling testimony will show that the
11 plan of the well is to be drilled and completed according
12 to R-111-P.

13 Q. Mr. Bailey, in your opinion will approval of the
14 Application and the drilling of the well as proposed by
15 Bass be in the best interests of conservation, the
16 prevention of waste and the protection of correlative
17 rights?

18 A. Yes.

19 Q. Were Bass Exhibits 1 through 9 either prepared by
20 you or compiled under your direction and supervision?

21 A. Yes.

22 MR. CARR: May it please the Commission, we move
23 the admission into evidence of Bass Exhibits 1 through 9.

24 CHAIRMAN FESMIRE: Any objection, Mr. High?

25 MR. HIGH: No objection except with respect to

1 Exhibit Number 1, with the understanding that the Mosaic
2 leases shown there are complete only with respect to
3 Section 7 and not other sections indicated on the map.

4 CHAIRMAN FESMIRE: Mr. Carr, will you accept
5 that, or would you like to lay a foundation for the rest of
6 the map?

7 MR. CARR: Well, what we have represented here as
8 the open acreage is our best understanding of that.

9 MR. HIGH: Then I would object to the document as
10 being incorrect and would like to take the witness on voir
11 dire.

12 CHAIRMAN FESMIRE: Mr. Carr?

13 MR. CARR: Go ahead.

14 CHAIRMAN FESMIRE: Mr. Bailey, he gets to talk to
15 you.

16 MR. HIGH: May I take the witness?

17 CHAIRMAN FESMIRE: You may, sir.

18 VOIR DIRE EXAMINATION

19 BY MR. HIGH:

20 Q. Mr. Bailey, did you prepare Bass Exhibit Number
21 1?

22 A. Yes.

23 Q. Is this to be used primarily for your testimony
24 regarding Section 7?

25 A. Yes.

1 Q. Okay, you're not testifying about anything north
2 of Section 7, are you?

3 A. Only to show what my knowledge is about the area
4 and where the potash leases are.

5 Q. Did you look at Mosaic's potash leases, for
6 example, in Sections -- Section 23?

7 A. I obtained that information from the BLM, federal
8 records, showing where the potash leases are, and they
9 could very well have leases up there to the north --

10 Q. Is it --

11 A. -- I could not --

12 Q. -- your testimony, Mr. Bailey, that there's no
13 mosaic potash leased in Section 23?

14 A. I don't know.

15 Q. Okay.

16 A. I cut this -- I made the north brown line because
17 it was outside our area of interest.

18 Q. So would it be a fair statement to say, then,
19 that your testimony about Mosaic's potash leases, that
20 you're sure about --

21 A. Uh-huh.

22 Q. -- is down around Section 7?

23 A. No, I'm sure of everything that's on the map.
24 They do have leases, if it's colored, leased by Western Ag
25 or IMC, then they definitely have leases there, or they

1 definitely do not.

2 Q. Is it your testimony that what you've shown here
3 in blue is the only leases -- potash leases, Mosaic has in
4 the whole potash basin?

5 A. That was not my intent, no.

6 Q. Okay, so you -- what you've shown as being Mosaic
7 leases in blue are not all of Mosaic's leases, is it?

8 A. No.

9 MR. HIGH: Okay. With that understanding, Mr.
10 Chairman, I don't have any objection to it, as long as we
11 all know it does not show all of Mosaic's leases.

12 CHAIRMAN FESMIRE: Okay, Mr. High, if your
13 witness would have rebuttal testimony concerning this
14 exhibit, we will certainly accept it, but we will admit
15 Exhibits 1 through 9 as presented.

16 MR. CARR: Pass the witness.

17 CHAIRMAN FESMIRE: Mr. High?

18 MR. HIGH: Yes, Mr. Chairman, thank you.

19 CROSS-EXAMINATION

20 BY MR. HIGH:

21 Q. Mr. Bailey, when did you say you started with
22 Bass?

23 A. 1980.

24 Q. Okay. So you've been with them now, what, 26
25 years or so?

1 A. Correct.

2 Q. All doing land work?

3 A. Yes, in different states, different regions of
4 the country, yes.

5 Q. What percent of your time has been spent in the
6 potash basin? And you understand what I mean by potash
7 basin, don't you?

8 A. Yes.

9 Q. Okay.

10 A. Since 1996, approximately.

11 Q. And what happened in 1996 that brought you to the
12 potash basin?

13 A. Just my area of supervision changed from Gulf
14 Coast area to the west Texas/New Mexico area.

15 Q. All right. When did Bass obtain from whoever the
16 prior owner was, the leases in Section 7? The lease on the
17 -- the one we're talking about?

18 A. 19- -- Well, Belco obtained the leases in 1981,
19 and that's when the two gas wells were drilled. Bass
20 obtained the leases through a joint operating agreement
21 with Belco; we obtained a partial interest in those leases;
22 it was in the early 1980s. And then we bought 100 percent
23 of the leases from Belco -- we bought Belco's remaining
24 interest in 1998.

25 Q. So that was a couple years after you started

1 doing some work in the potash basin?

2 A. Correct.

3 Q. Do you know whether or not there was any
4 litigation over James Ranch 14 or 15?

5 A. Not that I've seen in the records.

6 Q. You weren't working in the potash area then, were
7 you?

8 A. Well, those two wells were drilled in 1981.

9 Q. So the answer --

10 A. That's correct.

11 Q. -- to my question is no, isn't it?

12 A. No.

13 Q. All right. Do you know why they were
14 directionally drilled?

15 A. I assumed it was to avoid potash.

16 Q. And as we sit here today, there are no wells
17 producing in Section 7, are they, that have not been
18 directionally drilled?

19 A. That's correct.

20 Q. And would you assume from that fact that whoever
21 the approval agencies have been, have made some effort to
22 protect the potash in Section 7?

23 MR. CARR: I don't think that this witness can
24 assume what the agency has considered. It's same objection
25 Mr. High was raising.

1 CHAIRMAN FESMIRE: I'll sustain the objection.

2 Q. (By Mr. High) Have you -- Well, let's talk about
3 your experience with actual drilling. You're a landman?

4 A. Yes.

5 Q. What do you do with respect to the actual
6 drilling of the well? Do you have any experience at all,
7 Mr. Bailey?

8 A. I'm experienced in the wellbore plans as it
9 relates to permitting to obtain permits from any landowner
10 that the wellbore might pass through --

11 Q. Do you do --

12 A. -- permit the leases. I do not have direct
13 supervision for drilling wells.

14 Q. Do you do any well design?

15 A. No.

16 Q. Do you as part of your job keep up with
17 directional drilling technology?

18 A. No.

19 Q. Do you as part of your job keep up with the
20 economics of directional drilling?

21 A. No, not closely.

22 Q. Do you know if Bass has drilled any directional
23 wells in the potash basin?

24 A. Yes.

25 Q. And the answer to that is, they have drilled some

1 directional wells, haven't they?

2 A. Yes.

3 Q. And do you know how many?

4 A. No.

5 Q. Do you know whether or not any of those
6 directional wells have been Delaware wells?

7 A. They have not.

8 Q. Do you know whether or not there are any
9 directional wells in the potash basin that are, in fact,
10 Delaware wells?

11 A. Not that I know of.

12 Q. If you look at --

13 A. There are Delaware horizontal wells, but not
14 Delaware directional wells.

15 Q. All right, and you do have enough experience to
16 draw a difference between a horizontal well and a
17 directional well?

18 A. Yes.

19 Q. And what's your understanding of that difference?

20 A. A horizontal well goes vertically straight down
21 from the surface location to the target zone, and then it
22 turns approximately 90 degrees and drills through the
23 productive formation.

24 A directional well goes from the surface in an
25 "S" curve or some other angle to a target bottomhole

1 location.

2 Q. Okay. Do you -- Are you holding yourself out as
3 an expert on directional drilling?

4 A. No.

5 Q. Now you testified that you've had some APDs
6 denied in and around Section 7. I want to talk about
7 those.

8 A. Okay.

9 Q. First of all, how many are we talking about?

10 A. I have to approximate because I did not bring
11 that.

12 Q. That's good enough. Just give me your best
13 guess.

14 A. Fifteen.

15 Q. And can you --

16 A. Uh --

17 Q. I'm sorry?

18 A. What sections would you like for me to --

19 Q. All of them. In and around Section 7, whatever
20 you think in and around is. I want to know --

21 A. Okay, in Section 8, 17, 18, 6, 5, and then
22 Section 1 there's 20.

23 Q. There's what?

24 A. Twenty.

25 Q. Twenty what? Twenty APDs?

1 A. Denied --

2 Q. In Section 1 --

3 A. -- permits.

4 Q. Oh, okay.

5 A. Well, there's five in Section 1, and 15 in
6 Sections 8 --

7 Q. Well, wait a minute --

8 A. -- 17 and 18.

9 Q. All right. Now of all those APDs that you say
10 were denied, were they denied by the BLM?

11 A. Yes.

12 Q. Any denied by the OCD?

13 A. No.

14 Q. And that's because there's no state lands
15 involved, right?

16 A. There are no state lands except for Section 36
17 and Section 2 --

18 Q. But the ones --

19 A. -- and we have no --

20 Q. -- just mentioned to me are all federal lands?

21 A. Correct.

22 Q. Okay. So when we're talking about an APD being
23 denied, we're talking about the BLM?

24 A. Correct.

25 Q. And you mentioned some appeals to the IBLA. Have

1 you been involved in any of those?

2 A. Yes.

3 Q. Which ones were you involved in?

4 A. There's five in Section 1 that were appealed to
5 the IBLA.

6 Q. And that's where the -- did the IBLA approve --
7 or uphold the BLM denial of those APDs?

8 A. They have not ruled. And the IBLA appeal was
9 filed in 2001 --

10 CHAIRMAN FESMIRE: Mr. High --

11 THE WITNESS: -- approximately.

12 CHAIRMAN FESMIRE: -- can I interrupt you here
13 just a second? When you talk about Section 1, you're
14 talking about 1 in 23-31?

15 THE WITNESS: Correct.

16 MR. MOREHOUSE: 23-30.

17 Q. (By Mr. High) 23-30, I believe.

18 A. Oh, I'm sorry. Section -- Yeah, 23 South, 30
19 East.

20 CHAIRMAN FESMIRE: Okay, just to the north --

21 THE WITNESS: Section 1.

22 CHAIRMAN FESMIRE: Just to the northwest of where
23 we're talking about?

24 THE WITNESS: Yes.

25 CHAIRMAN FESMIRE: Okay.

1 THE WITNESS: Where those -- in the west half of
2 that Section 1, where the circles are the wells that I'm
3 referring to.

4 CHAIRMAN FESMIRE: Okay.

5 Q. (By Mr. High) Now of all the APDs that you say
6 BLM denied, were all of them in what the BLM described as
7 being measured ore?

8 A. No, some of them were in barren areas, and they
9 were denied due to the proximity of a potash mine or the
10 proximity of an LMR or proximity to another landmark that
11 the BLM used to make its denial decision.

12 Q. All right, do you know how many of those -- the
13 APDs you're talking about denied, that were in what the BLM
14 considered to be measured ore?

15 A. All of the ones in 8 Section -- and I'm in 23
16 South, 31 East, in Section 8, Section 17, Section 18, all
17 those are -- my understanding, are in measured ore.

18 Q. Okay.

19 A. In Section 6 is -- shows to be in measured ore.
20 The ones in Section 1, according to this map are not.

21 Q. They were in a barren area?

22 A. Yeah, according to this map, yes. The letter
23 from the BLM on the denial just is a plain vanilla, it
24 doesn't go into detail. It just says permit denied.

25 Q. All right, and those are on appeal, the IBLA is

1 still pending?

2 A. Just the five in Section 1.

3 Q. And so you may ultimately prevail on those,
4 depending on what the IBLA does, correct?

5 A. We don't know.

6 Q. Now of all those APDs that were denied by the
7 BLM, how many of them were for directional wells?

8 A. None.

9 Q. They were all for vertical holes, right straight
10 through -- at least the ones you've told us about --
11 through measured ore?

12 A. Correct.

13 Q. Okay.

14 A. According to this map, that's correct.

15 Q. With respect to Section 7, you testified that the
16 BLM had denied APDs for other locations, okay? Is that
17 what you said?

18 A. I don't believe I said -- or --

19 Q. All right.

20 A. You can go back and read to me what I -- I -- to
21 my knowledge, we have not applied for another well in
22 Section 7 in the past.

23 Q. Other than the well -- the APDs that we're here
24 on today, have you applied -- filed any APD anywhere, with
25 the OCD, BLM or anybody, to develop the oil and gas

1 interest in this 40-acre tract we're here today in Section
2 7?

3 A. Just this one, that's correct.

4 Q. Okay. So you have not had an APD denied for any
5 alternative locations to develop the oil and gas in this
6 40-acre tract that we're here on today, have you?

7 A. Correct.

8 Q. So you don't know if that would be approved or
9 not?

10 A. The only way to get an approval or a denial is to
11 make an application.

12 Q. And you haven't made one, have you?

13 A. We have not -- Well, in what area?

14 Q. For this -- Have you made any application
15 anywhere to develop the oil and gas interests under this
16 40-acre tract in Section 7, other than by a vertical hole
17 directly through the measured ore?

18 A. Correct.

19 Q. You haven't done that, have you?

20 A. That's correct, we've only applied for permits in
21 and around the sections that I've told you. Those are the
22 permits that we've issued.

23 Q. It would be a fair statement to say, would it
24 not, that you have not filed an APD with the BLM for a
25 directional hole, using the surface location for James

1 Ranch 14 and a bottomhole location under this 40-acre tract
2 in Section 7? You haven't done that, have you?

3 A. For the reasons I stated in my testimony, that's
4 correct.

5 Q. Now, you mentioned that you have made some effort
6 to locate fee owners of land; did I understand that
7 correctly?

8 A. Well, they were contacted in 1981 to obtain the
9 oil and gas leases.

10 Q. But have you done any -- I don't -- You weren't
11 there in 1981. I want to know what you've done, what's Mr.
12 Bailey --

13 A. Either myself or people under my employ have
14 contacted the mineral owners under the 40-acre tract.

15 Q. I'm not talking about this one, I'm talking about
16 -- Did I understand you correctly that you or people under
17 your supervision have made some effort to contact fee
18 owners in the potash basin?

19 A. Yes.

20 Q. And the reason for that is because of what?

21 A. Well, for the reason that I gave in our -- in my
22 testimony --

23 Q. That you are --

24 A. -- is to see if there were potash leases, just --

25 Q. You are aware of the issues that this Commission

1 has dealt with, with respect to fee land, have you?

2 A. Yes.

3 Q. You're aware of the Snyder Ranch case, aren't
4 you?

5 A. Yes.

6 Q. You knew that, at least according to the OCD's
7 decision in the Snyder Ranch case, that you can't have an
8 LMR on fee land, right?

9 A. That's what it says.

10 Q. And that's part of why you've been seeking out
11 these fee land issues?

12 A. I have not wholesale contacted fee owners in Eddy
13 County, New Mexico, or in the potash enclave. The only
14 reason -- The only fee owners that I've contacted are the
15 ones under this 40-acre tract, and the only reason was to
16 make sure that there were no potash leases that were
17 unrecorded.

18 Q. Looking at Bass Exhibit Number 1, can you tell us
19 where Mosaic's LMR is from that particular document?

20 A. No.

21 Q. Do you know where Mosaic's LMR is with respect to
22 this 40-acre tract that you want to drill on in Section 7?

23 A. The only thing I know are maps that have been
24 generated by Mosaic, and I received one at the Examiner's
25 Hearing, and that's the last one that I've seen that

1 identifies an LMR outline.

2 Q. Okay. And that LMR outline butts up against this
3 40-acre plot, does not?

4 A. I'd have to look back at it to see what the
5 proximity is. I can't tell you it butts up against it or
6 includes it. I would have to go look back at the map to
7 discuss it.

8 Q. Well, on the 40-acre tract your well is proposed
9 to be what offset from the boundary? 660?

10 A. I'd have to look at the LMR outline.

11 Q. Well, look at your documents. You've already
12 testified about them on the well design. I believe it's
13 Exhibit Number 3.

14 A. Well, but does it include a distance from the
15 LMR?

16 Q. No, from the boundaries of the 40 acres?

17 A. Oh, yeah, 660 feet.

18 Q. Okay. So it's located 660 from each -- it would
19 be 660 from the east and 660 from the north line, would it
20 not?

21 A. Correct.

22 Q. So if Mosaic's LMR did, in fact -- if the
23 evidence does show -- and we're going to present evidence
24 on that, but let's suppose for a minute that Mosaic's LMR
25 goes right up to the edge of the 40 acres. Would you agree

1 with me, then, that your proposed site is within 660 feet
2 of Mosaic's LMR?

3 A. I don't know, I -- Well, you're asking me a "what
4 if?" And if you would like to give me the map or the LMR
5 that shows where it is and I can measure it off, then --
6 Hypothetically, what you're saying is true --

7 Q. Well, I --

8 A. -- but I would have to look for --

9 Q. -- Mr. Bailey, I don't want to put words in your
10 mouth. All I want you to do is to assume something. Can
11 you do that?

12 A. Sure.

13 Q. Assume Mosaic's LMR -- and Mr. Morehouse is going
14 to testify, and you're welcome to listen to it. Assume for
15 a minute -- and I'm not saying assume it's true, just
16 assume that Mosaic's LMR does, in fact, butt up against
17 this 40-acre plot. If that proves to be a fact, would you
18 agree with me that your well, your proposed well, is within
19 660 feet of that LMR?

20 A. Based on that assumption, yes.

21 Q. Now you testified about R-111-P and what it says
22 and some things it doesn't say, correct? I take it you're
23 familiar with it, right?

24 A. Yes.

25 Q. Were you involved in the development of R-111-P?

1 A. No.

2 Q. Do you know if Bass itself was?

3 A. I don't know.

4 Q. You don't know the history of R-111-P?

5 A. I know the history of it to a certain degree, but
6 what people were involved, or when was R-111-P signed into
7 order --

8 Q. You don't even know that?

9 A. Do you?

10 Q. Yes.

11 (Laughter)

12 A. And -- ? Educate us.

13 Q. So does Bass, but -- It may come as a surprise,
14 but Bass --

15 CHAIRMAN FESMIRE: Mr. Bailey, your function is
16 to answer the questions.

17 (Laughter)

18 THE WITNESS: Okay.

19 Q. (By Mr. High) Do you consider yourself to be
20 fairly knowledgeable about R-111-P?

21 A. In some respects. R-111-P is a document with
22 many aspects and...

23 Q. And different -- many interpretations, I suppose,
24 right?

25 A. Which interpretations have been interpreted in

1 the past by the Division.

2 Q. Would it surprise you to know that R-111-P says
3 that there will be no drilling of an oil and gas well
4 within one quarter or one half mile of an LMR without the
5 leaseholder's consent?

6 A. It says what it says.

7 Q. Do you know whether or not it says that? You
8 either know or you don't.

9 A. Would you like for me to get the exact wording?

10 Q. No, I just want to know if you know or not.

11 MR. CARR: May it please --

12 THE WITNESS: Yes, I do.

13 MR. CARR: -- the Commission --

14 MR. HIGH: Okay.

15 MR. CARR: -- I am not certain that that is what
16 R-111-P states. I believe it creates buffer zones based on
17 depths of wells, but that's not exactly what it states, and
18 I think it's unfair to ask Mr. Bailey to opine on what the
19 actual language of the order is. It is what it is.

20 CHAIRMAN FESMIRE: Mr. Carr, if he doesn't know
21 the answer he can so state, and you can bring out your
22 points on --

23 Q. (By Mr. High) And I'll move on. If you don't
24 know, just say I don't know.

25 A. I cannot recite the specific sentence or two.

1 Q. Okay. If R-111-P does, in fact, say you can't
2 drill within a quarter or a half mile of an LMR without
3 that leaseholder's consent -- and the point I'm getting at
4 here, you testified that Mosaic didn't respond to your
5 letter. All right? When you sent out for objection or no
6 objection, you said they didn't respond?

7 A. Correct.

8 Q. R-111-P says you can't -- at least our
9 interpretation; you don't have to adopt it, okay. Just so
10 you'll understand, our interpretation of R-111-P, and we
11 think we know what it says, is that you can't drill within
12 a quarter mile or a half mile of an LMR without Mosaic's
13 consent. It doesn't have to respond to anything. But I
14 take it you don't have feeling one way or the other whether
15 that's correct or not, right?

16 A. Well, there's no potash lessee under -- or Mosaic
17 does not have a potash lease under the 40-acre tract.

18 Q. And we don't dispute that, but we do have a
19 potash lease that butts up against it?

20 A. When we applied for the permit, we asked the
21 Division if Mosaic should respond. They said they had 20
22 days. There was no response. The permit was granted.
23 Then Mosaic responded, the permit was rescinded. Then the
24 permit was re-granted by the Examiner, based on R-111-P.

25 Q. Is it your position, Mr. Bailey, that as the

1 owner of the oil and gas rights on this 40-acre plot, that
2 you have the right to develop that oil and gas interest
3 without any regard whatsoever to its impact on potash?

4 A. No, the regard is included in the R-111-P and in
5 the secretarial -- the federal secretarial orders.

6 Q. My question is, do you believe you have the right
7 to develop it without regard to the potash that may be
8 impacted?

9 A. (Shakes head)

10 Q. So did you take into account the potash that may
11 be impacted?

12 A. We took into account the rules that the OCD
13 adopted based on the technical evidence and the testimony
14 when R-111-P was adopted. It says what it says for a
15 reason.

16 Q. Do you have any belief one way or the other that
17 the drilling of this deep gas well on this 40-acre plot,
18 660 feet from each side, will have any impact whatsoever on
19 the adjoining mineral interest owners?

20 A. The potash mineral interest owners or the oil and
21 gas?

22 Q. Any of them.

23 A. That the drilling of our well will have --

24 Q. Yes.

25 A. -- an impact?

1 Q. Yes.

2 A. Yes, it will have an impact.

3 Q. In fact, isn't it true that the reason you have
4 setback requirements is to account for impact beyond the
5 particular location of a well?

6 A. Correct.

7 Q. So do you think that the drilling of this well on
8 a 40-acre plot, where the setback is only 660 feet -- that
9 deals with oil and gas, doesn't it?

10 A. Correct.

11 Q. Do you think that the drilling of this well on
12 that 40-acre plot will have an impact on the potassium
13 mineral resources beyond the 40-acre tract?

14 A. I know that in my experience and what I've seen
15 in other parts of New Mexico, there are potash mines that
16 come very close to existing oil and gas wells.

17 Q. Do you know --

18 A. That's all I know, I cannot give you a
19 technical --

20 Q. You can't identify a single well either, can you?

21 A. I can if you give me enough time.

22 Q. Can you identify a single deep gas well that
23 Mosaic Potash has ever mined up to?

24 A. No.

25 Q. Do you think there might be a reason for that?

1 A. I don't -- You're asking me something that I
2 don't know the answer to.

3 Q. Just say I don't know, and we'll go on.

4 A. Okay.

5 Q. If the evidence shows that the drilling of this
6 deep gas well -- it is a deep gas well, isn't it?

7 A. Yes.

8 Q. And it's to what, the Devonian?

9 A. Morrow.

10 Q. To the Morrow. Is there any H₂S -- I don't think
11 there's any H₂S in this area, is there?

12 A. No.

13 CHAIRMAN FESMIRE: In the -- ?

14 THE WITNESS: -- Morrow.

15 Q. (By Mr. High) If the evidence shows that the
16 drilling of this deep gas well will, in fact, impact the
17 potash mineral resources outside the 40-acre tract, is Bass
18 Enterprises prepared to compensate Mosaic for that wasted
19 potash?

20 A. I don't know. We've never been asked that
21 question.

22 Q. Have you discussed with the mineral interest
23 owners of the 40-acre tract whether or not they are
24 prepared to compensate Mosaic for any impact outside their
25 mineral interest?

1 A. We have not discussed that.

2 Q. Do you think it's unreasonable for adjoining
3 mineral interest owners to feel like they ought to be
4 compensated if a particular mineral interest owner develops
5 their interest in such a way that it does, in fact, impact
6 them?

7 A. I don't know. It depends on the situation, and I
8 don't know what -- You're asking a general question, so I
9 don't know.

10 Q. Now, you made the statement, if I understood
11 correctly, that this particular well -- I don't know if you
12 said couldn't or can't or won't, but why can't it -- this
13 mineral -- the oil and gas mineral interest on this
14 particular 40-acre tract, why can't it be developed
15 directionally?

16 A. Because a directional well would not test all the
17 potentially productive formations under the 40-acre tract.

18 Q. And you've already told us you're not an expert
19 on directional drilling, are you?

20 A. Correct.

21 Q. Would it surprise you to know there are some
22 directional Delaware wells in the potash basin? Would that
23 surprise you?

24 A. Yes.

25 Q. If what you're saying is true -- and I believe

1 one of the points you made is, on a directional well you
2 can't test every formation. Is that a big deal to Bass?

3 A. Yes.

4 Q. If that were true, Mr. Bailey, would you agree
5 with me that there would never, ever, be a directional
6 well?

7 A. I don't know.

8 Q. Will a directional well allow you to test every
9 formation all the way to the bottomhole location?

10 A. No.

11 Q. Well, if what you're saying, then -- if you feel
12 like you have to test every formation, wouldn't that
13 completely rule out all directional drilling?

14 A. It would rule out directional drilling for the
15 shallower zones, not for the deeper zones, as I said in my
16 testimony.

17 Q. Now currently, the mineral interest owner on this
18 40-acre tract, they are participating, are they not, in the
19 320-acre prorated north half of Section 7?

20 A. Correct.

21 Q. So they're already getting compensation from the
22 gas being developed, based upon their prorated share of the
23 40 acres?

24 A. They're getting their production based on a
25 portion of what could be developed --

1 Q. So --

2 A. -- yes.

3 Q. So this lease is actually being held by
4 production, isn't it?

5 A. Yes, but it's not being fully developed.

6 Q. And since the prorated unit is the north 320
7 acres, you could, in fact, drill an infill well anywhere on
8 that 320 acres, couldn't you?

9 A. No.

10 Q. And why couldn't you?

11 A. Because the spacing rules call for the second
12 well -- the second gas well in a 320, to be in the other
13 quarter section, 660 feet from the outer boundaries of that
14 quarter section. So we could not drill in the northwest
15 quarter of Section 7, and we could not drill --

16 Q. That's the bottomhole location?

17 A. Correct.

18 Q. Okay. So if you wanted to use the James Ranch 14
19 surface location as a drilling island, you could drill a
20 vertical -- I'm sorry, a directional well, from the pad of
21 James Ranch 14 to a bottomhole location in the location
22 that you say you have to, and there's no problem, at least
23 with gas production, is there?

24 A. I don't know, that's a long way to drill a
25 directional well, so you'd have to --

1 Q. Well, you show some pretty long directional
2 wells, even on Bass Exhibit Number 1, don't you?

3 A. Which one?

4 Q. Well, look at the James Ranch 15. That's a
5 pretty long directional well, isn't it?

6 A. Yes.

7 Q. That's a Morrow well too, isn't it?

8 A. Yes.

9 Q. And James Ranch 14, that's a Morrow well too,
10 isn't it?

11 A. Yes.

12 Q. And look up, the one that drilled under WIPP. Is
13 that Bass?

14 A. It's owned by Bass now. It was a --

15 Q. Do you remember who drilled that?

16 A. -- Enron --

17 Q. No, Enron --

18 A. -- or Belco, okay, same company --

19 Q. That's a pretty long directional well, isn't it?

20 A. Yes, and I've never said that a directional well
21 to the deeper gas zones is impractical if the distance is
22 reasonable. But a directional well cannot exploit the
23 shallower zones under this 40-acre tract.

24 Q. The mineral interest owners in the prorated gas
25 unit in the north half, the 320-acre north half of Section

1 7, did you say that included the BLM?

2 A. The BLM owns everything in Section 7 except for
3 the 40 acres.

4 Q. So most of the royalties from any additional
5 drilling would go to the BLM?

6 A. No. Well, it depends on what formation we're
7 considering. If it's --

8 Q. Well, who does it go to?

9 A. If it's spaced on 320 acres, then most of the
10 royalty would go to the BLM. If it's not spaced on 320
11 acres, then the royalty goes to the owner of the 40 acres.

12 Q. But the well you're proposing is to the Morrow
13 formation, is it not?

14 A. And all other zones above that.

15 Q. If it hits gas in the Morrow formation, most of
16 the royalty will go to the BLM, does it?

17 A. Yes.

18 Q. Okay. And they're the same people that you say
19 deny the APDs in this area?

20 A. Yes.

21 Q. But again, none of those APDs were to further
22 develop this 320-acre gas unit in Section 7, were they?

23 A. That's correct.

24 Q. Okay. So you haven't proposed to the BLM any
25 infill drilling in Section 7, have you?

1 A. No.

2 Q. As the mineral interest owner, the largest
3 mineral interest owner in Section 7, don't you think that
4 they might like to further develop it?

5 MR. CARR: Objection.

6 CHAIRMAN FESMIRE: Sustained.

7 Q. (By Mr. High) Have you asked them that question?

8 A. We've asked them about the surrounding sections,
9 and they denied our permits.

10 Q. But none of that involved development in Section
11 7, did it?

12 A. No.

13 Q. In fact, if those wells had been allowed, would
14 you agree with me they might, in fact, have drained Section
15 7?

16 A. No.

17 MR. HIGH: Okay. I believe that's all we have.

18 CHAIRMAN FESMIRE: Mr. Bruce?

19 MR. BRUCE: I have no questions of Mr. Bailey,
20 Mr. Chairman.

21 CHAIRMAN FESMIRE: Mr. Carr, do you have a
22 redirect?

23 MR. CARR: No, sir, I do not.

24 CHAIRMAN FESMIRE: Okay, is that all you have of
25 this witness?

1 MR. CARR: Yes.

2 CHAIRMAN FESMIRE: Oh, Commissioner Bailey, I'm
3 sorry.

4 (Laughter)

5 EXAMINATION

6 BY COMMISSIONER BAILEY:

7 Q. Well 14 was directionally drilled?

8 A. Yes.

9 Q. It penetrated the Delaware?

10 A. It did, but it didn't penetrate the Delaware at
11 the same place it penetrated the Morrow. If you look at
12 the map where -- Are you referencing the James Ranch 14 or
13 the 15?

14 Q. Both, we asked --

15 A. Okay.

16 Q. -- about both.

17 A. The gas well symbol is where it reached the
18 Morrow. It reached the Delaware somewhere in between the
19 surface location and the Morrow gas -- between the black
20 dot and the gas symbol is the -- it intersects the Delaware
21 somewhere. I don't know -- I don't know exactly where.
22 Along that wellbore path.

23 Q. Will anybody be presenting well logs, so we can
24 look to see what the Delaware looks like in either Section
25 -- in either Well 14 or 15?

1 A. We don't have that as part of the drilling and
2 completion testimony, no.

3 Q. Of all the wells in the section to the north,
4 Section 6 --

5 A. Uh-huh.

6 Q. -- did all of those wells penetrate the Delaware?

7 A. Yes, they're all -- All the oil wells that you
8 see on this map, whether they're in -- on the yellow or to
9 the east of the yellow, are Delaware-formation producers.

10 Q. Will you be giving us any well logs so we can
11 evaluate the Delaware section?

12 A. Sure, it's in between two Delaware fields, and so
13 it's a potentially productive formation between those two
14 fields. But we can easily send you the logs.

15 Q. For 14 and 15 I think it would be rather
16 interesting.

17 A. Sure.

18 COMMISSIONER BAILEY: That's all I have.

19 CHAIRMAN FESMIRE: Commissioner Olson?

20 COMMISSIONER OLSON: I don't have any questions.

21 CHAIRMAN FESMIRE: And I don't have any
22 questions. Mr. Bailey, you're -- for the record, let's
23 reflect, you're not related to Commissioner Bailey, are
24 you?

25 THE WITNESS: Not that I know of, but I would be

1 pleased.

2 (Laughter)

3 CHAIRMAN FESMIRE: Let the record reflect that
4 Mr. Bailey is very glib and is not related to the
5 Commissioner.

6 (Laughter)

7 MR. HIGH: He never misses an opportunity.

8 MR. CARR: Objection.

9 (Laughter)

10 MR. CARR: He's simply answering your question.

11 CHAIRMAN FESMIRE: Mr. Carr, you had a next --
12 another witness?

13 MR. CARR: Yes, sir. May it please the
14 Commission, at this time we call William Dannels.

15 CHAIRMAN FESMIRE: Mr. Dannels? Mr. Dannels, for
16 the record you've been previously sworn; is that correct?

17 MR. DANNELS: That's correct.

18 WILLIAM R. DANNELS,
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. William Ray Dannels.

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

1 A. I live in Midland, Texas.

2 Q. Would you spell your last name for the reporter,
3 please?

4 A. D-a-n-n-e-l-s.

5 Q. By whom are you employed?

6 A. Bass Enterprises Production Company.

7 Q. And what is your current position with Bass
8 Enterprises Production Company?

9 A. I'm currently the west Texas division drilling
10 superintendent.

11 Q. Have you previously testified before the New
12 Mexico Oil Conservation Commission?

13 A. No, sir.

14 Q. Would you summarize your educational background?

15 A. I have a BS in natural gas engineering out of the
16 Texas A&I University, now called Texas A&M, at Kingsville.
17 I graduated in 1973.

18 Q. And since graduation, for whom have you worked?

19 A. Worked for -- I went to work for Texaco right
20 after school in 1973 in New Iberia, Louisiana. I was in
21 all their engineering disciplines, reservoir, drilling and
22 production.

23 Q. What does a drilling engineer do?

24 A. Supervises the direct drilling of the well
25 construction.

1 Q. You have drilling experience in the R-111 area,
2 the potash area?

3 A. Yes.

4 Q. Have you designed drilling programs for wells
5 that Bass has drilled in this area?

6 A. Yes.

7 Q. Have you had experience with directional
8 drilling?

9 A. Yes.

10 Q. Are you familiar with the Application filed in
11 this case on behalf of Bass?

12 A. Yes.

13 Q. And are you familiar with Bass's plans for the
14 drilling of the James Ranch Unit Well Number 93?

15 A. Yes.

16 MR. CARR: We tender Mr. Dannels as an expert
17 witness in drilling engineering.

18 CHAIRMAN FESMIRE: Any objection, Mr. High?

19 MR. HIGH: No objection.

20 CHAIRMAN FESMIRE: Mr. Bruce?

21 MR. BRUCE: No objection.

22 CHAIRMAN FESMIRE: From the Commission?

23 Mr. Bailey will -- "Mr. Bailey". Mr. Williams
24 will be so accepted.

25 COMMISSIONER BAILEY: Dannels.

1 THE WITNESS: Dannels.

2 CHAIRMAN FESMIRE: Dannels, I'm sorry. Excuse
3 me.

4 Q. (By Mr. Carr) Mr. Dannels, are you familiar with
5 the cementing and casing provisions in subpart D of Order
6 Number R-111-P?

7 A. Yes.

8 Q. Could you identify what has been marked Bass
9 Exhibit Number 10?

10 A. I believe that's the proposed well construction
11 for James Ranch 93.

12 Q. Would you review for the Commission how the well
13 will be drilled, cased and cemented?

14 A. We'll be drilling a 17-1/2-inch hole to 600 feet,
15 which is through the Rustler -- or not through, into the
16 top of the Rustler, and through all the freshwater zones.
17 We'll be running 13-3/8 surface pipe and cementing it to
18 surface.

19 Then we'll be drilling through the salt section
20 into the Lamar lime, just above the Delaware. At 4040 feet
21 be setting 9-5/8 protection string, and then drilling 8-3/4
22 hole, set 7-inch at 12,000 feet, and then drilling a 6-1/8-
23 inch hole to 14,800, proposed TD depth.

24 Q. Does the proposed program comply with the casing
25 and cementing provisions of Order Number R-111-P?

1 A. That is correct.

2 Q. Will Bass provide notice to Mosaic so they can
3 witness work on the well to assure themselves it is being
4 drilled and completed in accordance with the provisions of
5 Order Number R-111-P?

6 A. That is correct, we will.

7 Q. Mr. Dannels, you have experience with directional
8 drilling, do you not?

9 A. That is correct.

10 Q. What are the problems posed by trying to drill a
11 directional well to the north half of Section 7?

12 A. That depends on what your objectives are. If
13 you're trying to keep the shallow Delaware objectives,
14 which is just below the salt, it's difficult to do much
15 directional drilling in the salt section at all, simply
16 because it's so soft and it washes out, so therefore you
17 can't hardly do any directional work there. You have to
18 wait until you get into the more competent Delaware section
19 for your kickoff points.

20 And to drill a couple thousand feet, once you're
21 into those competent sections, is not a problem. But you
22 do jeopardize the shallow formations.

23 Q. When you say jeopardize, do you mean --

24 A. From a reservoir standpoint, it would be
25 jeopardizing the production.

1 Q. Are you familiar with the James Ranch Unit Well
2 Number 14?

3 A. Yes.

4 Q. Is it possible to -- in your opinion, to
5 directionally drill from that surface location to access
6 the Delaware formation under the northeast northeast of
7 Section 7?

8 A. It would be basically impossible.

9 Q. If you drilled from that location to the Morrow,
10 you would intersect the Delaware at some point on that
11 wellbore, would you not?

12 A. That's correct.

13 Q. Where would the Delaware be? Under whose
14 property?

15 A. It would be -- That's difficult to say, because
16 it's right on the line. I forget how many feet, I think
17 it's only like -- isn't it only 150 feet from the property
18 line or section line there? So most of it would be on the
19 south side.

20 Q. You wouldn't be able, would you, to access the
21 Delaware under the northeast northeast from the James Ranch
22 14 location?

23 A. That's correct, you wouldn't.

24 Q. A well that intersected the Delaware could drain,
25 potentially, reserves from that acreage, could it not?

1 A. The Delaware is not a very continuous zone.
2 That's the reason it's drilled on 40-acre spacing. If it
3 was a better developed zone, then yes, but it's not.

4 Q. Do you know of any way to produce the Delaware
5 for the mineral owners of the Delaware under the northeast
6 northeast of Section 7, other than by drilling a vertical
7 well in that acreage?

8 A. No.

9 Q. Was Exhibit 10 prepared by you?

10 A. Yes.

11 MR. CARR: I move the admission of Bass Exhibit
12 Number 10.

13 CHAIRMAN FESMIRE: Any objection?

14 MR. HIGH: I have no objection.

15 CHAIRMAN FESMIRE: Bass 10 is admitted.

16 MR. CARR: That concludes my direct examination
17 of Mr. Dannels.

18 CHAIRMAN FESMIRE: Mr. High?

19 MR. HIGH: Yes, thank you, Mr. Chair.

20 CROSS-EXAMINATION

21 BY MR. HIGH:

22 Q. Mr. Dannels, you said you've had experience in
23 the potash basin. How much experience?

24 A. Since I was transferred to the west Texas
25 division in -- August the 1st of 1993.

1 Q. Since you have been in the potash -- Is that just
2 one of your several areas?

3 A. Yes, that's just one of several areas, but that's
4 our most active.

5 Q. About --

6 A. But that is our most active.

7 Q. And about what percent of time would you say you
8 spend drilling wells in the potash basin?

9 A. I would say that it's 85 or 90 percent of our
10 business.

11 Q. All right, and how many wells would you estimate
12 that you've drilled in the potash area?

13 A. Hoo! Hundreds, I'd say. I don't know exactly,
14 you know, how many. I'd have to go back and count them --

15 Q. No, that's fine --

16 A. -- but it's hundreds.

17 Q. -- that's fine, I'm just asking for you best
18 recollection.

19 Now did you actually drill those wells?

20 A. I supervised them, yes.

21 Q. And what does that mean? Are you first line or
22 second line or --

23 A. No, I'm the -- In most cases I am in the office,
24 and I -- all the drilling procedures, all the drilling cost
25 estimates go through me --

1 Q. All right, so you --

2 A. -- to specifically approve them.

3 Q. All right, so you see all the well design?

4 A. That's correct.

5 Q. Do you do any well design?

6 A. Yes, I do. Not as much as I used to, because I
7 have some people working under me now.

8 Q. Okay. So you're, at least to some extent,
9 involved in the actual well design?

10 A. That's correct.

11 Q. And out of these hundreds of wells that you've
12 drilled in the potash basin, how many of those have been
13 directionalized?

14 A. Two.

15 Q. And what sections were they in?

16 A. I can't tell you.

17 Q. Can you give us some indication of the general
18 location in the potash area?

19 A. They're in the Big Eddy Unit, they're not in the
20 James Ranch Unit.

21 Q. Okay. And is that in the potash area, the Big
22 Eddy Unit?

23 A. Some of it is.

24 Q. How deep are those directional wells?

25 A. They're Morrow wells.

1 Q. Have you drilled any directional wells, other
2 than those two to the Morrow?

3 A. Only for sidetracking around fish or to
4 straighten up -- straighten up wells that got deviated.
5 Basically straight holes.

6 Q. Have you attempted any directional wells to any
7 formation other than the Morrow?

8 A. Not yet. We've proposed some, but not yet.

9 Q. Do you know if there's any rules regarding
10 kickoff points on directional wells in the potash basin?

11 A. I only know of one.

12 Q. What's that rule?

13 A. 6000 feet underneath the WIPP site.

14 Q. Okay, but you're not drilling in the WIPP site?

15 A. No, but you asked me about --

16 Q. Okay.

17 A. -- rules in the potash.

18 Q. Well, you made an interesting comment about it's
19 hard to kick off in the salt.

20 A. It is. It's hard --

21 Q. Do you know if you're even allowed to kick off in
22 the salt in the potash basin on a directional well, or do
23 you have to completely penetrate the salt before you kick
24 off, or do you know?

25 A. I wouldn't know. Wouldn't recommend it, though.

1 Q. So you're not familiar with the rules of
2 directional drilling to shallow locations in the potash
3 basin?

4 A. I guess not, no.

5 Q. Have you drilled any horizontal wells in the
6 potash basin?

7 A. We have drilled two.

8 Q. And can you give us a general idea where those
9 are?

10 A. Those are the Big Eddy wells I was talking about.

11 Q. They're -- You drilled horizontal wells to the
12 Morrow?

13 A. We are, yes, we have.

14 Q. Were they deviated -- were they directional wells
15 and then horizontal, or vertical and then horizontal?

16 A. They were vertical and then horizontal. We did
17 have to make a correction for deviation up high, but -- in
18 the surface, in the salt section, but other than that they
19 were considered straight holes.

20 Q. Were they permitted as vertical holes?

21 A. They were permitted as vertical holes.

22 Q. And during the drilling process they were
23 inadvertently deviated?

24 A. That's correct.

25 Q. And that had to be corrected?

1 A. That's correct.

2 Q. Okay, and that's for both of them?

3 A. No, only one.

4 Q. What about the other one? Was it --

5 A. The other one was a re-enter into an old
6 wellbore.

7 Q. Was it permitted as a vertical well?

8 A. The original permit -- it was an old wellbore
9 that was drilled in the 1970s, 1978, I believe, and we re-
10 entered the wellbore to sidetrack and drill a horizontal
11 well.

12 Q. Do you know how deep you were when you went
13 horizontal?

14 A. We were about 12,500.

15 Q. So when you told me you had drilled two
16 directional wells to the Morrow, those were really vertical
17 wells and then horizontal?

18 A. That's correct.

19 Q. Have you ever, then, drilled a directional well
20 in the potash basin that was designed to be a directional
21 well?

22 A. No.

23 Q. During the drilling process, I take it things can
24 go wrong, right?

25 A. Yes.

1 Q. In the Big Eddy Unit, is any H₂S over there?

2 A. Not in the Morrow, no.

3 Q. Is there shallow H₂S in the Big Eddy Unit?

4 A. No, sir, it's beyond the threshold.

5 Q. Has there been any problem you're aware of in the
6 Big Eddy Unit with casing deterioration because of H₂S.

7 A. I don't have any knowledge of that.

8 Q. In your experience as a drilling engineer,
9 mistakes happen, don't they?

10 A. Yes.

11 Q. Have you ever encountered -- You told us about
12 one, I guess, with the unintentional deviation. Have you
13 ever had a casing leak?

14 A. In old wellbores, yes, sir.

15 Q. How do you find out if it's leaking?

16 A. I'm not in the production department, but I do
17 know they run a test once a year.

18 Q. And if you -- what is the -- Or do you know what
19 the bottomhole pressure is in a Morrow well?

20 A. Yes, it would be 8.3 pressure gradient, 8.3-
21 pound-per-gallon pressure gradient.

22 Q. And what would that be in terms of p.s.i.?

23 A. Oh, it will be less than -- about 4500 pounds
24 shut-in tubing pressure, maximum.

25 Q. Do you know what the Delaware bottomhole pressure

1 is?

2 A. Yes, sir.

3 Q. What is that?

4 A. It won't flow with a freshwater gradient, so it's
5 probably about an 8-pound-per-gallon.

6 Q. Would it surprise you that most -- in fact, did
7 you indicate -- Did you fill out any forms on any of these
8 wells?

9 A. "Forms" meaning what?

10 Q. Any of the permitting forms for these wells?

11 A. I can't --

12 Q. Or was that Mr. Bailey's job?

13 A. No, I do the forms, I fill out the forms, but I
14 don't know that it was myself or whether it was under my
15 direction --

16 Q. Well, we've tried --

17 A. -- but I can look.

18 Q. -- we've tried a lot of these Delaware well
19 cases --

20 A. Uh-huh.

21 Q. -- and the testimony in general is around 3000
22 p.s.i. at the Delaware. Do you disagree with that?

23 A. That's about right, I guess.

24 Q. Well, I thought you said it was eight.

25 A. Eight point -- pounds per gallon, times

1 whatever --

2 Q. All right.

3 A. -- hydrostatic head you have --

4 Q. All right.

5 A. -- times the depth.

6 Q. So 3000 p.s.i. at the Delaware is not

7 unreasonable to you?

8 A. No.

9 Q. And in your testimony it's only another 1500 in
10 the Morrow?

11 A. Yes, in the Big Eddy.

12 Q. Is it higher elsewhere?

13 A. Not substantially, no.

14 Q. Have you ever had a blowout?

15 A. No, not technically.

16 Q. Do you know of any blowouts in the potash area?

17 A. No, not that I've been directly associated with.

18 Q. Well, are you just generally aware of any?

19 A. No.

20 Q. Are you aware of a recent blowout in Carlsbad

21 where they had to evacuate part of a neighborhood

22 because --

23 A. Oh, yeah, I've heard about that one.

24 Q. And that was a deep gas well, wasn't it?

25 A. Yes, I think so. That's what I was told.

1 Q. So things go wrong sometimes? Unintentionally,
2 but they go wrong, right?

3 A. Unintentionally, right.

4 Q. Do you know what happens to the gas that might
5 escape from a leak in one of these casings?

6 A. Do I know what it might -- what's the effect of
7 it or what -- Yes, it'll go out into the formation.

8 Q. If you put a match to it, would it burn?

9 A. If you could get it to surface and mix it with
10 oxygen.

11 Q. Now you said, I believe, that you can't
12 directionally drill to the Delaware under this 40-acre
13 plot?

14 A. That's correct.

15 Q. Why not?

16 A. Because the Delaware section is just below the
17 salt and anhydrite section that we're protecting by -- with
18 the R-111.

19 Q. The bottom of the salt is at what depth, did you
20 say?

21 A. The top of the Morrow is basically the base of
22 the salt.

23 Q. Well, according to your Exhibit Number 10 it
24 looks to me like the base of the salt, you show 658 feet?

25 A. That's the top of the salt.

1 Q. That's the top of the salt? Look at Exhibit
2 Number 10 and tell -- and point out to me what you believe
3 to be the bottom of the salt.

4 A. Just above the top of the Morrow.

5 Q. Top of the -- Oh, okay. So that would be what,
6 about 4000 feet?

7 A. That's correct.

8 Q. Is that your testimony?

9 What does the T/Lamar stand for?

10 A. Top.

11 Q. That's top of --

12 A. Top of the Lamar lime.

13 Q. And the 4060 feet is the top of the Delaware?

14 A. That's correct.

15 Q. But the proposed -- Well, where's the bottom of
16 the Delaware? Just above 7885?

17 A. That's correct, at the --

18 Q. So the --

19 A. -- the top of the --

20 Q. -- Delaware would be --

21 A. -- Bone Spring lime is the base of the Delaware.

22 Q. And so the Delaware would be from 4060 feet down
23 to something around 7800 feet?

24 A. That's correct.

25 Q. So you could test it anywhere in that area?

1 A. There is productive zones throughout the Delaware
2 mountain group, yes, sir.

3 Q. Then why couldn't you use the James Ranch 14
4 surface location and drill a horizontal well in the
5 Delaware under this 40 acres?

6 A. Because you couldn't get there.

7 Q. What do you mean, you couldn't get there?

8 A. You can't set -- you can't do any directional
9 work in the salt section. I would not recommend it. It
10 would be too costly to do that.

11 Q. You can't go down 4000, 4100 feet -- I'm sorry,
12 4030 feet, and then go horizontal?

13 A. Yes, but you would be under several different
14 properties.

15 Q. But you've got a bottomhole location under the 40
16 acres?

17 A. Yes, but you also contacted all that other --
18 most of the -- That's correct, you would have to case that
19 off.

20 Q. You would only produce from the --

21 A. -- from the tip of the casing --

22 Q. -- bottomhole location under the 40 acres,
23 correct?

24 A. You could do that, it's quite expensive to do
25 that.

1 Q. Well, there's always one or two or three
2 different ways to do something, one may cost a little bit
3 more than the other one, right?

4 A. Yes.

5 Q. But just because it costs a little bit more
6 doesn't mean you can't do it, does it?

7 A. No.

8 Q. So would you agree with me that at least
9 technologically -- let's just talk about technology, since
10 you're the drilling guy -- technologically, you could use
11 the pad of James Ranch 14 and drill a horizontal well and
12 produce the oil and gas at the Delaware bottomhole location
13 under this 40-acre slot, could you not?

14 A. There are people that's doing that, yes. But it
15 would take multiple wells.

16 MR. HIGH: I'm sorry, we have nothing else.

17 CHAIRMAN FESMIRE: Mr. Bruce?

18 EXAMINATION

19 BY MR. BRUCE:

20 Q. One question, Mr. Dannels, just to follow up on
21 your last comment about the directional -- or horizontal
22 drilling in the Delaware. Looking at, say, the bottom-most
23 Delaware zone, the Brushy Canyon, aren't there generally a
24 number of productive intervals --

25 A. That's correct.

1 Q. -- in the Brushy Canyon?

2 A. That's correct, it would take a number of wells
3 to test all the productive zones from the Delaware,
4 possibly the Bone Spring, the Wolfcamp, all those zones in
5 between.

6 Q. And if you were just looking at the Delaware,
7 you'd have to drill one well, say, to test the bottom-most
8 productive zone in the Brushy Canyon, but you'd have to
9 have another well for an upper zone, and like I said, there
10 could be eight or ten production zones --

11 MR. HIGH: I'm going to object to leading. If
12 Mr. Bruce wants to testify, let's put him under oath. But
13 let him ask questions of the witness, not tell him what to
14 say.

15 CHAIRMAN FESMIRE: But I don't believe this is
16 his witness, Mr. High.

17 Continue, Mr. Bruce.

18 Q. (By Mr. Bruce) And that wouldn't even take into
19 account the lower zones that you've talked about, the
20 deeper zones, the Bone Spring and the Wolfcamp?

21 A. Right.

22 MR. BRUCE: Thank you.

23 MR. HIGH: May I have follow-up questions?

24 CHAIRMAN FESMIRE: On that subject?

25 MR. HIGH: On that subject.

1 CHAIRMAN FESMIRE: Okay.

2 FURTHER EXAMINATION

3 BY MR. HIGH:

4 Q. Mr. Dannels, does every well test every
5 formation?

6 A. No, but there -- sometimes there's geologic
7 reasons for that.

8 Q. If every well had to be drilled where you could
9 test every formation, would you agree with me that there
10 would never be a directional well anywhere?

11 A. There are wells that can't be accessed for
12 certain surface problems, for different reasons. They
13 don't have to be reservoir problems.

14 Q. But would you agree with me that if the criteria
15 for drilling a well was the ability to test every
16 formation, that you would never have a directional well?

17 A. Yes.

18 MR. HIGH: Okay, I have nothing else.

19 CHAIRMAN FESMIRE: Commissioner Bailey?

20 MR. CARR: No, I have -- if I may.

21 CHAIRMAN FESMIRE: Do you want to do it after the
22 Commissioners' questions?

23 MR. CARR: Whenever you want me to do it.

24 (Laughter)

25 CHAIRMAN FESMIRE: I didn't forget you.

1 Commissioner Bailey?

2 EXAMINATION

3 BY COMMISSIONER BAILEY:

4 Q. Wells 14 and 15 were directionally drilled in
5 1981?

6 A. That's correct.

7 Q. And they are successful wells, they have produced
8 continuously from the Morrow since then?

9 A. I can't say continuously, but yes, they're --
10 they're producers.

11 Q. 1981 must have been some of the very earliest of
12 the directionally drilled wells in this area; is that
13 right?

14 A. I only got here in 1993, so I don't know, but I
15 would suspect that you're probably correct, in this area.

16 Q. And has technology improved and changed and
17 developed with each new well, new techniques and more
18 knowledge about directional drilling?

19 A. Yes, ma'am, that's correct.

20 Q. So the technology of 1981 is probably primitive
21 compared to 2006 and -7?

22 A. That's correct.

23 Q. So we would expect, if the directional drilling
24 was done according to current technology, the wells would
25 be just as successful if not more successful than wells

1 drilled in 1981?

2 A. Except for those problems that unintentionally
3 occur, that's correct.

4 Q. Okay. If a well is drilled horizontally to the
5 Delaware under this 40-acre tract, would it then be
6 possible to make a 90-degree and tap into the Morrow under
7 this quarter?

8 A. Could you repeat that? I'm sorry.

9 Q. Okay. Mr. High's question was, couldn't you
10 horizontally drill to the Delaware under this 40-acre
11 tract? If you drilled to the Delaware under this 40 to
12 access the Morrow, would it be possible to do that within
13 that distance?

14 A. No, ma'am, you couldn't access it from the 14
15 surface, no.

16 COMMISSIONER BAILEY: That's all I have.

17 CHAIRMAN FESMIRE: Commissioner Olson?

18 COMMISSIONER OLSON: I have no questions.

19 CHAIRMAN FESMIRE: I have no questions.

20 Mr. Carr, do you have a short redirect?

21 MR. CARR: Yes.

22 REDIRECT EXAMINATION

23 BY MR. CARR:

24 Q. Mr. Dannels, you talked about two horizontal
25 wells being drilled in the potash area. When were those

1 wells drilled?

2 A. We drilled one last year and we've got one
3 drilling now.

4 Q. And were those wells to test horizontal drilling
5 to see if you could use this technique in the potash area?

6 A. Yes, and so far we've been unsuccessful.

7 Q. The first well was a failure?

8 A. That's correct.

9 Q. What about the second well?

10 A. The second well, we're out approximately 2000
11 feet out of a 2500-foot well, proposed. We've got a fish
12 in the hole that we're sidetracking around now. Hopefully
13 we'll get around it, but we've spent almost 8 million bucks
14 already, too.

15 Q. Based on this effort, do you have an opinion as
16 to whether or not horizontal drilling in the Morrow looks
17 like a technically appropriate way to try and access these
18 reserves?

19 A. I think we can eventually drill it, but the
20 production part is still -- it has not been tested, and
21 what I'm talking about there is the producing of the zone
22 without putting it under an underbalanced condition. The
23 shales tend to slough and to flow, which occurred down
24 south of Poker Lake in the Wolfcamp. So we still have that
25 to test. It still may not -- Even though we can drill it

1 successfully, we still may not be able to successfully
2 complete it and make a producer.

3 Q. You're familiar with the characteristics of the
4 Delaware formation, are you not?

5 A. Yes.

6 Q. Are there multiple producing horizons in that
7 formation?

8 A. Yes.

9 Q. Could you -- I believe you testified you could
10 drill a horizontal well to the Delaware?

11 A. We could. Again, you'd just have to case it off
12 and only produce the section that was under the 40 acres.

13 Q. Could you produce all the Delaware horizons with
14 one horizontal wellbore?

15 A. No.

16 Q. How many basic zones do you know are there in the
17 Delaware?

18 A. There's about four.

19 Q. Is the Brushy Canyon present?

20 A. Yes, you have a middle -- You have a Brushy
21 Canyon, and then you have a middle Brushy Canyon, you have
22 a lower Brushy Canyon, and there's several zones in each
23 one of those.

24 Q. And what about Bushy Canyon? Is it present in
25 this area?

1 A. Which one? Brushy?

2 Q. Bushy Canyon?

3 A. No.

4 Q. Cherry Canyon?

5 A. Cherry Canyon is productive in other places, but
6 I don't think it's productive here.

7 Q. How much vertical separation is there between
8 these horizons in the Delaware?

9 A. You know, from the top of the Ramsey to the --
10 like what's shown here, from the top of the Ramsey to the
11 base, it's like 4000 feet, so...

12 Q. To access all of those, you would have to drill
13 maybe four horizontal wellbores?

14 A. You'd have to pick out a particular zone and
15 drill for that particular zone.

16 Q. What would that do to the costs of accessing
17 these Delaware reserves?

18 A. Well, that would multiply it -- if you had four
19 zones, that would multiply the cost by four.

20 Q. Could this type of drilling program make it
21 economically impossible to produce those reserves?

22 A. Yes.

23 Q. Okay. Would drilling a horizontal well, in any
24 event, increase the costs of drilling?

25 A. Yes.

1 Q. And this would be done to accommodate the potash
2 industry in this area?

3 A. That's correct.

4 Q. Has Mosaic suggested that they should pay you for
5 these extra costs incurred in developing these reserves?

6 A. I would think that that would be something that
7 we would ask them to do.

8 Q. If the cost just simply will not justify drilling
9 this way to the Delaware, would those reserves be left in
10 the ground?

11 A. Yes.

12 Q. Is there any way, to your knowledge, to use
13 today's -- the best technology, drilling technology today,
14 to efficiently and effectively produce the Delaware in this
15 area but with a vertical well?

16 A. That's the only way efficiently to drain the 40
17 acres.

18 Q. If you drill a vertical well, you access every
19 horizon cut by that wellbore; isn't that correct?

20 A. That's correct.

21 Q. If you drill a directional well, you also access
22 every horizon cut by that wellbore; isn't that right?

23 A. Right, but the surface -- if we should drill over
24 there next to 14, we've already seen those horizons.

25 Q. And if you drill from 14 --

1 A. The shallow horizons, we've already seen the
2 shallow horizons.

3 Q. -- is it your opinion that you would be able to
4 produce any of the minerals that are owned by Mr. Mills in
5 the northeast northeast quarter of that section?

6 A. No.

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

8 MR. HIGH: I do have some follow-up to that, if I
9 may.

10 CHAIRMAN FESMIRE: Confining it strictly --

11 MR. HIGH: And I'll be very brief.

12 CHAIRMAN FESMIRE: -- strictly to the issues
13 that --

14 MR. HIGH: Strictly to what Mr. Carr just raised.

15 CHAIRMAN FESMIRE: Okay, Mr. High.

16 RE CROSS-EXAMINATION

17 BY MR. HIGH:

18 Q. Mr. Dannels, let's be realistic for a minute.
19 How many other mineral interest owners are there, other
20 than this 40-acre plot in Section 7? If you know.

21 A. I don't know, but what I was told, there was only
22 the Mills and the --

23 Q. -- BLM?

24 A. -- and the BLM.

25 Q. Okay. Is there any reason you couldn't use the

1 pad of James Ranch 14, go down below the salt, and go
2 horizontal or directional, whatever you want to do,
3 intersect the Delaware as many times as you want to, or the
4 Bone Springs or anything else, to hit the northeast quarter
5 section and then go to the Morrow and unitize all of it?
6 Is there any reason you can't do that?

7 A. It would take lots of -- multiple wells to do
8 that.

9 Q. You could do that with one well, couldn't you?

10 A. No, sir.

11 MR. HIGH: That's all I have.

12 CHAIRMAN FESMIRE: At this time, why don't we
13 take a 10-minute break, come back at 20 till 11:00.

14 Mr. Dannels, thank you very much.

15 (Thereupon, a recess was taken at 10:32 a.m.)

16 (The following proceedings had at 10:43 a.m.)

17 CHAIRMAN FESMIRE: Let's go back on the record.

18 It is 22 till 11:00 -- or 18 till 11:00. This is a
19 continuation of three consolidated cases, Number 13,367,
20 13,368 and 13,372.

21 I believe, Mr. Carr, you were ready to call your
22 next witness?

23 MR. CARR: May it please the Commission, at this
24 time we'd call Stacy Mills.

25 CHAIRMAN FESMIRE: Mr. Mills? Mr. Mills, you've

1 been previously sworn?

2 MR. MILLS: Yes.

3 STACY MILLS,

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

6 DIRECT EXAMINATION

7 BY MR. CARR:

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

9 A. Stacy Mills.

10 Q. Where do you reside?

11 A. Southeast of Carlsbad.

12 Q. Do you own minerals under the 40-acre fee tract
13 on which Bass is proposing to drill the subject well?

14 A. Yes, sir.

15 Q. Do you own this in conjunction with other members
16 of your family?

17 A. Yes.

18 Q. Do you own any other minerals in the north half
19 of Section 7?

20 A. No, sir.

21 Q. So what you're here to testify today about is
22 your interest in that 40-acre parcel --

23 A. Yes, sir.

24 Q. -- is that right?

25 How did you acquire this interest, Mr. Mills?

1 A. My grandfather purchased this land in the early
2 1970s, and it's remained in the ownership of our family.

3 Q. And is it now held in a family partnership?

4 A. Yes, sir.

5 Q. And are you authorized to speak for your family?

6 A. Yes, sir.

7 Q. Has your interest in the oil and gas mineral
8 rights under this land been leased for oil and gas
9 development?

10 A. It was originally leased by Belco in 1981, I
11 think, and at some time after that Bass Enterprises
12 acquired the lease.

13 Q. And since that time have any wells been drilled
14 from this 40-acre tract?

15 A. No, sir.

16 Q. You do share in a portion of the minerals from
17 the north half, from the existing Morrow well, do you not?

18 A. The James Ranch 14, yes, sir.

19 Q. Has Mosaic ever attempted to lease your potash
20 interest under this 40-acre tract?

21 A. Never.

22 Q. Are you aware of Bass's plans to drill its
23 proposed vertical well on this acreage?

24 A. Yes.

25 Q. And have you been in discussions with them

1 concerning this development?

2 A. For a couple of years.

3 Q. Have you reached an agreement with Bass?

4 A. Yes.

5 Q. And what is that agreement?

6 A. Look forward to them getting approved and drill
7 the well.

8 Q. And why are you interested in having the well
9 drilled?

10 A. Well, they tell me that they're -- you know,
11 they're certain of the prospects of production from several
12 zones, and -- most surely interested in the royalty checks.

13 Q. Is it your desire as the owner of the potash
14 rights and lessor of the oil and gas rights under this
15 tract to have the oil and gas minerals developed first, in
16 preference to the potash reserves under the acreage?

17 A. Yes, it is.

18 Q. And you support Bass in this hearing today?

19 A. I do.

20 MR. CARR: That's all I have of Mr. Mills.

21 CHAIRMAN FESMIRE: Mr. High?

22 MR. HIGH: We have no questions, Mr. --

23 CHAIRMAN FESMIRE: Mr. Bruce?

24 MR. BRUCE: No questions.

25 CHAIRMAN FESMIRE: Commissioner Bailey?

1 COMMISSIONER BAILEY: No questions.

2 COMMISSIONER OLSON: No questions.

3 CHAIRMAN FESMIRE: Okay, and I too have no
4 questions.

5 Thank you very much, Mr. Mills.

6 Mr. Carr, does that --

7 MR. CARR: That concludes the Bass portion of the
8 presentation, and I think we'll move to the Devon portion,
9 if that's all right with --

10 MR. HIGH: That's fine with us.

11 MR. CARR: And at this time I would call Mr. Ken
12 Gray.

13 CHAIRMAN FESMIRE: Mr. Gray?

14 MR. CARR: Mr. Chairman, our Exhibit Number 2 was
15 filed in black and white. I have color copies of it here.
16 It's easier to testify. It's exactly the same, except this
17 copy has the colors on it, and if there is no objection I'd
18 like to work from that. It will facilitate the testimony.

19 MR. HIGH: We have no objection.

20 CHAIRMAN FESMIRE: No objection from Mr. High.

21 Mr. Bruce, I'm assuming you'll have no objection?

22 MR. BRUCE: Zero.

23 CHAIRMAN FESMIRE: Mr. Gray, for the court
24 reporter is it G-r-e-y or G-r-a-y?

25 MR. GRAY: It's G-r-a-y.

1 KENNETH H. GRAY,
2 the witness herein, after having been first duly sworn upon
3 his oath, was examined and testified as follows:

4 DIRECT EXAMINATION

5 BY MR. CARR:

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

8 A. Yes, my name is Ken Gray.

9 Q. Where do you reside?

10 A. I reside in Oklahoma City, Oklahoma.

11 Q. By whom are you employed?

12 A. Devon Energy Production Company, L.P.

13 Q. Have you previously testified before this
14 Commission?

15 A. Yes, I have.

16 Q. Would you review for the Commission your
17 educational background?

18 A. Yes, I graduated from the University of Oklahoma
19 in 1972 with a language arts degree, graduated again in
20 1973 with a master's in language arts.

21 Went to work in the oil and gas business in 1977,
22 worked for Sun Oil Company from 1982 to 1992, and have
23 since been with Devon, since 1992.

24 Q. And while employed by the oil and gas industry,
25 have you worked as a petroleum landman?

1 A. Yes, I have.

2 Q. Are you familiar with the Applications filed in
3 each of the consolidated cases for Devon?

4 A. Yes, I am.

5 Q. You are the person at Devon who is charged with
6 the responsibility for putting these prospects together
7 from a land perspective?

8 A. Yes, I am.

9 Q. In that regard, you were in charge of talking
10 with other interest owners in the subject spacing units?

11 A. That's correct.

12 Q. And you also were involved with the efforts to
13 obtain permits for these wells?

14 A. Correct.

15 Q. Are you familiar with both Applications?

16 A. Yes, I am.

17 Q. And the status of the lands in the area that's
18 involved in this case?

19 A. Yes, I am.

20 MR. CARR: We tender Mr. Gray as an expert in
21 petroleum land matters.

22 CHAIRMAN FESMIRE: Is there any --

23 MR. HIGH: No objection.

24 CHAIRMAN FESMIRE: Okay. Mr. Gray is so
25 accepted.

1 Q. (By Mr. Carr) Mr. Gray, would you briefly state
2 what it is that Devon seeks in these cases?

3 A. Basically we're seeking authorization from the
4 OCD to drill two wells, one Delaware well approximately
5 7900 feet and one Devonian well at about 15,500 feet, both
6 of which are located in the potash area as defined by
7 Division Order R-111-P.

8 Q. Now in Case 13,368 we're talking about the Apache
9 24 Fee Well Number 6?

10 A. Correct.

11 Q. Is that well the Delaware well?

12 A. Yes, it is.

13 Q. And in what pool will that be completed?

14 A. That's the southeast Quahada, I guess, Ridge-
15 Delaware Pool.

16 Q. And in Case 13,372 we're seeking permission to
17 drill the Apache 24 Fee Well Number 7A. What formation is
18 that projected to?

19 A. That's projected to the Devonian formation.

20 Q. If we drill a Delaware well, what acreage will be
21 dedicated to the well?

22 A. Forty acres.

23 Q. And is that the 40 fee acres that are the subject
24 of this case?

25 A. That's correct.

1 Q. If the well is successful in the Devonian, what
2 acreage would be dedicated?

3 A. The 320-acre spacing unit being the north half of
4 Section 24.

5 Q. Does Devon own all the working interest in the
6 north half of Section 24?

7 A. No, we do not. We own currently 87 1/2 percent.

8 Q. Let's go to what has been marked Exhibit Number
9 1. Would you identify this, please?

10 A. Exhibit Number 1 is an area map centered around
11 the 40 acres in question, and that 40 acres is kind of
12 small on this map, but it's the southwest quarter of the
13 northwest quarter of Section 24, 22 South, 30 East. Along
14 with that 40 acres is the remainder of Devon's acreage
15 position in Sections 12, 13, 24 and 25, all of which are
16 federal leases.

17 Q. Now what is the source of this map?

18 A. Of the -- ?

19 Q. Of the base plat.

20 A. Of the potash?

21 Q. Yes.

22 A. This is the BLM's version of the distribution of
23 the potash reserves in the area. In the outline in green,
24 just to the east of our acreage position, is the WIPP site,
25 and we have mining areas to the southwest and also to the

1 west northwest.

2 Q. Is the purpose of this exhibit just to provide
3 some general orientation as to the location of this tract
4 in regard to the WIPP site?

5 A. Yes.

6 Q. Now the wells that you're proposing to drill on
7 this 40-acre tract, they are in what is classified as
8 measured ore; is that right?

9 A. That's correct.

10 Q. Let's go to Exhibit Number 2. This is the one
11 I've just replaced with the color copy. Could you identify
12 that and explain to the Commission what it shows?

13 A. Well, it's just a closer version of our acreage
14 position. Again, the two wells in question are located in
15 the southwest of the northwest of Section 24, and they're
16 spotted there on the map. There's kind of a pink color.

17 Devon's acreage, again, is in yellow. The WIPP
18 site is to the east. The James Ranch Unit outline is the
19 dotted green line. The cross-hatched green acreage is
20 acreage that we believe to be leased for potash by Mosaic.
21 And the red cross-hatched acreage are lands that we believe
22 are not leased for potash.

23 We've also listed a number of wells on here.
24 This well -- the well positioning and the well count is not
25 currently accurate on here. This is the plat we used in

1 December of 2004. We have since drilled a number of
2 additional wells on this acreage.

3 Q. Is the tract which is the subject of today's
4 hearing within the LMR area?

5 A. It's either in the LMR or the quarter- or half-
6 mile buffer zone. I don't -- You know, where the LMR is, I
7 can't tell you right here.

8 Q. Have you had conversations with Mosaic concerning
9 where they are mining in regard to this acreage?

10 A. Yes, we have.

11 Q. And when were those conversations?

12 A. When? Maybe a couple years ago.

13 Q. Do you have any knowledge as to specifically
14 where there is active mining at this time?

15 A. I believe their closest active mine is about a
16 mile and a half to two miles to the south southwest of our
17 location.

18 Q. Could you identify what has been marked as Devon
19 Exhibit Number 3?

20 A. Exhibit Number 3 is four oil and gas leases that
21 were acquired in -- what is this? -- October of 2003 from
22 the four mineral owners whose combined ownership represents
23 100 percent of the minerals under the southwest of the
24 northwest of Section 24.

25 Q. And is Devon also the lessee of 100 percent of

1 the working interest under the north half of Section 24?

2 A. No, we own 87 1/2 percent of the working interest
3 in the north half, but 100 percent of 40-acre.

4 Q. Now Devon has filed applications for permits to
5 drill two wells in the southwest of the northwest of this
6 section; is that right?

7 A. Yes.

8 Q. I'd like to look at each of those with you, Mr.
9 Gray, and direct your attention to what has been marked
10 Devon Exhibit Number 4. What is this?

11 A. Exhibit Number 4 is our original application for
12 permit to drill that we submitted electronically, I guess
13 in December of 2003, for a 7900-foot Delaware test to be
14 located 1980 from the north line and 660 from the west line
15 of Section 24, as a vertical Delaware well.

16 Q. And what rules govern the development of the
17 Delaware in this area?

18 A. Yeah, the Quahada Ridge-Delaware Pool.

19 Q. And what is the spacing for this pool?

20 A. It would be 40-acre spacing.

21 Q. And what setbacks are prescribed by these rules?

22 A. Not closer than 330 feet to the spacing unit
23 boundary.

24 Q. Does Mosaic own any minerals under the 40 acres
25 fee tract upon which you're proposing to drill these wells?

1 A. No.

2 Q. Let's look at Exhibit Number 4, the materials for
3 the Well Number 6, the Delaware well.

4 A. Uh-huh.

5 Q. The first page is the AFE -- I mean the APD; is
6 that correct?

7 A. That's right.

8 Q. And behind that you have an acreage dedication
9 plat?

10 A. Yes.

11 Q. And then about the fourth page back is a letter
12 to Devon from Mr. Arrant with the OCD. Do you see that?

13 A. Yes, I do.

14 Q. Would you explain what the purpose of this --
15 Could you explain what the OCD was bringing to Devon's
16 attention with this letter?

17 A. Well, the purpose of this letter was the Artesia
18 OCD's requirement that we notify Mosaic of our intention to
19 -- of this application for permit to drill, and that we
20 needed to give them notice of that, and they would have 20
21 days within which to object.

22 Q. And what is the next document in this exhibit?

23 A. The next document is a letter dated January 23rd,
24 2004, from Devon to Mosaic, giving them notice of our
25 application for permit to drill.

1 Q. And behind that are there copies of the certified
2 receipts for that letter?

3 A. Yes, sir.

4 Q. Okay. Would you go to the next document, a
5 letter dated January 30th, and explain what that is?

6 A. That's, again, a letter dated January 30th from
7 Devon to the OCD Artesia office, indicating that notice had
8 been given to -- at the time, IMC, of our application for
9 permit to drill.

10 Q. How long did the potash company have to object to
11 this proposed location?

12 A. We were told by OCD Artesia that they would have
13 20 days.

14 Q. And did the OCD approve the APD?

15 A. Yes, they did.

16 Q. And what was the day the application was actually
17 approved? That's shown on the second page of this exhibit.

18 A. February 19th, 2004.

19 Q. How long after the application filed was it
20 actually approved by the OCD?

21 A. Well, we applied in December of '03, and it was
22 approved -- it looks like 60 -- more or less 60 days later.

23 Q. When --

24 A. Or -- Yeah, 60 days.

25 Q. When the application was actually approved, had

1 an objection been filed to this application?

2 A. When it was approved?

3 Q. Yes.

4 A. No.

5 Q. What response did Devon receive to this
6 application from IMC?

7 A. We have a letter, which is the next piece of the
8 exhibit -- it's dated April 12th, 2004 -- a letter from Dan
9 Morehouse, the superintendent at Mosaic, objecting to our
10 permit to drill for the Apache 24 Number 6.

11 Q. And what is the reason given in that letter for
12 the objection?

13 A. The first reason was that it's in measured ore,
14 it's in their LMR, and lastly it's in their five-year mine
15 plan, and they expected at least as of April 12th, 2004, to
16 be mining within a quarter mile of this location in 2007.

17 Q. Did you respond to this letter?

18 A. Yes, I did, the next page is a letter dated April
19 20th to Dan Morehouse at IMC, where we object -- we advised
20 them that the lands in question weren't part of any LMR
21 designation or any such other designation by BLM, any five-
22 year mine plan, and that we intended to proceed in
23 accordance with any permits as issued by the OCD.

24 Q. And what is the last letter in this packet of
25 material?

1 A. Last letter is a letter from Bryan Arrant with
2 the Artesia OCD, dated September 20th, 2004, rescinding the
3 previously approved permit, based on IMC's objection.

4 Q. So the history of this application is, it was
5 filed in December of 2003, correct?

6 A. Yes.

7 Q. Notice was provided in January of 2004?

8 A. Right.

9 Q. It was approved by the OCD in February of 2004?

10 A. Correct.

11 Q. An objection was received in April of 2004, and
12 when was the permit actually rescinded?

13 A. September 20th, 2004.

14 Q. Let's go now to the exhibits concerning the
15 Apache Well Number 7A which are marked as Exhibit Number 5.
16 Would you identify this material, please?

17 A. Well, again, this is the Form C-101, application
18 for permit to drill the Apache 24 Fee 7A, located 1460 from
19 the north line, 1150 from the west line of Section 24,
20 proposed depth 15,500 feet, to test the Devonian formation.

21 Q. And is this well proposed at a standard location?

22 A. Yes, it is.

23 Q. Would this be the first well to be drilled on
24 this 320-acre spacing unit?

25 A. I believe it is, yes.

1 CHAIRMAN FESMIRE: Mr. Carr, may I ask a quick
2 question?

3 MR. CARR: Yes, sir.

4 CHAIRMAN FESMIRE: Mr. Gray, are you all so sure
5 of the shallow location that your intent is to drill two
6 wells instead of drill the deep well, test it, and have the
7 shallow zone as a bailout zone? I guess I'm curious. Why
8 two wells so close together?

9 THE WITNESS: Well, the Delaware in the deep well
10 would be at an unorthodox location. I don't know that we
11 could produce it at that location anyway --

12 CHAIRMAN FESMIRE: Okay.

13 THE WITNESS: -- without an exception.

14 CHAIRMAN FESMIRE: Continue, Mr. Carr, I'm sorry.

15 Q. (By Mr. Carr) Now Mr. Gray, we're looking at
16 Devon Exhibit Number 5 --

17 A. Uh-huh.

18 Q. -- forms concerning the Well Number 7A. You've
19 testified that this is at the standard location and the
20 first well on the acreage. Why did Devon propose the well
21 at this location?

22 A. Well, to access this private land, which is, by
23 the way, surrounded by federal land, we had to get a right
24 of way from the BLM to cross federal lands to get to the
25 40-acre location. During that process, the BLM's

1 archaeologist discovered what they deemed to be significant
2 arch. sites pretty much everywhere on that 40-acre
3 location, and that they would not approve the right of way
4 to access the 40 acres unless we would agree to drill our
5 Devonian well at the location that is shown on this APD.

6 Q. Does Mosaic own any minerals under the 40-acre
7 tract on which you're proposing to drill?

8 A. No, sir.

9 Q. Does Mosaic own any potash rights under the north
10 half, the 320-acre unit for that?

11 A. Not to my knowledge.

12 Q. When was the APD for this well actually filed?

13 A. It was actually filed electronically on September
14 the 16th, 2004.

15 Q. And what response did you receive from -- did
16 Devon receive from Mosaic to this application?

17 A. To this particular well, we did not receive a
18 response.

19 Q. Would you identify what is marked as Exhibit 6?

20 A. Exhibit 6 is a letter from Dan Morehouse at IMC
21 dated August 30th, 2004, where they object to the drilling
22 of the Apache 24 Number 7, which originally was proposed
23 and permitted as a Delaware well.

24 Q. And what were the reasons given for this
25 objection?

1 A. Again, they cited IMC's five-year mine plan,
2 proximity to their LMR, and that they again expect to be
3 mining within approximately a quarter mile of this location
4 in 2007.

5 Q. Did the Oil Conservation Division approve your
6 APD to drill the 7A well?

7 A. No.

8 Q. And were you advised by the OCD of the reason
9 that the application was denied?

10 A. I really don't remember. I suspect they probably
11 -- if they were going to object to the Delaware well, they
12 certainly would object to the Devonian well.

13 MR. CARR: In fact, no objection was ever filed
14 -- May it please the Commission, this is a point I don't
15 think we have any disagreement on. This letter references
16 the Apache Number 7 well. We're actually talking about the
17 7A, and I believe Mr. High agrees with me that this
18 objection letter is the objection letter that applied to
19 the 7A and that we have no dispute as to that point.

20 MR. HIGH: I don't have any problem.

21 Q. (By Mr. Carr) So in any event, what is marked as
22 Exhibit 6 is what has been treated as the objection to this
23 location?

24 A. For all practical purposes, yes.

25 Q. Do you have experience putting together prospects

1 for directional drilling or drilling of horizontal wells?

2 A. Yes.

3 Q. Is your experience limited just to the land
4 portion of the effort to drill these wells?

5 A. Yes, it is.

6 Q. Do you have any policies within Devon and its
7 land department concerning the development and proposal of
8 horizontal and directional wells?

9 A. I don't know that it's considered policy, but we
10 try to avoid drilling horizontal wells unless there's just
11 absolutely no way to do it -- horizontal or directional,
12 unless there's no other way to get around it.

13 Q. And what are the reasons for that?

14 A. Well, they're more costly. Directional wells,
15 more often than not, can't access all of the prospective
16 formations that you would normally have a right to test and
17 access and penetrate in a vertical wellbore.

18 Q. Now you've been present for the hearing, have you
19 not?

20 A. Yes, I have.

21 Q. And you understand that Mosaic is proposing that
22 the Applications be denied and that these wells be drilled
23 from alternative locations?

24 A. That's correct.

25 Q. Were you present for Mr. Bailey's testimony?

1 A. Yes, I was.

2 Q. Do you have an opinion or concur in his testimony
3 as to the problems experienced with a directional drilling
4 program?

5 A. Yes, I do.

6 Q. And do you concur?

7 A. Yes, I do.

8 Q. In your opinion, do you think it would be
9 possible to directionally drill the Delaware reserves under
10 this 40-acre tract with a directional well, or do you know?

11 MR. HIGH: Mr. Chairman, this witness was not
12 tendered as an expert in directional drilling. You know, I
13 don't really object to his opinion, but I just want to
14 clearly understand --

15 MR. CARR: Correct.

16 MR. HIGH: -- and I'm going to ask him the
17 question, he's not an expert, so I don't know what
18 relevance his opinion has on directional drilling.

19 CHAIRMAN FESMIRE: Well, I think that's evident
20 from the testimony so far, that he is not an expert on
21 directional drilling but has an opinion on the rest of the
22 questions.

23 Q. (By Mr. Carr) Let's just go ahead. Mr. Gray, do
24 you have experience drilling from a federal tract to fee
25 minerals?

1 A. I don't recall any, no.

2 Q. Do you know what permits would be required if you
3 were trying to do that?

4 A. Well, any action on federal lands would require
5 BLM approval, a permit, yes, and of course the associated
6 permits from the State and the OCD on the fee tract.

7 Q. In your opinion, would approval of the Devon
8 Application and the drilling of these wells be in the best
9 interest of conservation, the prevention of waste and the
10 protection of correlative rights?

11 A. Yes, sir.

12 Q. You are the person who has contacted the mineral
13 owners concerning the development of these properties; is
14 that correct?

15 A. That's correct.

16 Q. And who owns the oil and gas rights under the
17 property?

18 A. Our witness that will be here in just a few
19 minutes, Mr. Kenny Smith, and his family, own 75 percent of
20 the minerals under the 40-acre tract.

21 Q. And have they leased to Devon?

22 A. Yes, they have.

23 Q. What about the potash rights? Do you know who
24 owns those rights under the acreage?

25 A. Mr. Smith and his family own 75 percent of the

1 potash rights.

2 Q. Have you reached an agreement with these owners
3 for the development of the acreage with the wells that are
4 the subject of today's hearing?

5 A. Yes, we have.

6 Q. Would you identify what has been marked Exhibit
7 Number 7?

8 A. Exhibit Number 7 is Order Number R-12,403,
9 dated -- or I guess it's dated August the 8th, 2005, which
10 is Mr. Stogner's order approving the permit to drill the
11 Apache 24-6 and the Apache 24-7A.

12 Q. This case was presented to an Examiner on what
13 date, do you know?

14 A. Yes, it was presented to Mr. Stogner on December
15 2nd, 2004.

16 Q. And were you prepared to drill these wells at
17 that time?

18 A. Yes, we were.

19 Q. Does Devon request that the Commission expedite
20 the handling of these Applications to the extent possible?

21 A. Yes, we do.

22 Q. Will Devon call a petroleum -- or a drilling
23 engineer, to testify concerning how the well will be
24 drilled and cased?

25 A. Yes, we will.

1 Q. May it please the Commission -- or were Devon
2 Exhibits 1 through 7 prepared by you or compiled under your
3 direction?

4 A. Yes, they were.

5 MR. CARR: May it please the Commission, at this
6 time we would move the admission into evidence of Devon
7 Exhibits 1 through 7.

8 MR. HIGH: No objection.

9 CHAIRMAN FESMIRE: No objection?

10 MR. BRUCE: No, sir.

11 MR. CARR: Pass the witness.

12 CHAIRMAN FESMIRE: We'll admit the exhibits.

13 Mr. High?

14 MR. HIGH: Thank you, your Honor -- Mr. Chairman.

15 CROSS-EXAMINATION

16 BY MR. HIGH:

17 Q. Mr. Gray, how long have you worked in the potash
18 basin?

19 A. Since 1993.

20 Q. I'm intrigued by your comment, at least what I
21 understood, that you had never processed an APD on federal
22 lands?

23 A. That I've never processed an APD -- I think
24 you're talking about the question where we were drilling
25 from federal lands to fee lands. I think that was the

1 question. A directional well located on federal with a
2 bottomhole on fee, I think that's what we were talking
3 about.

4 Q. All right, then I may have misunderstood and so
5 let me get it cleared up. If you'd been working in the
6 potash area since 1993, you'd be involved, I take it, in a
7 number of APDs?

8 A. Yes, I have.

9 Q. What would you guess to be the number?

10 A. Hundreds.

11 Q. Hundreds. And how many of those would have been
12 on federal land, as opposed to fee or state?

13 A. Vast majority on federal.

14 Q. So you know how to process an APD for the BLM?

15 A. I personally don't file the permits, no.

16 Q. You're not involved in that process?

17 A. No.

18 Q. Okay. Have you filed any APDs for any well
19 location in Section 24?

20 A. Yes.

21 Q. Is that for these two wells we're talking about
22 here today?

23 A. No, we've filed other --

24 Q. No, I'm talking about you. Did you file the APDs
25 for the two wells we're on today, Apache 6 and 7A?

1 A. I personally did not file the APDs. We have an
2 operations group that files all of our permits.

3 Q. Is that under your supervision?

4 A. No.

5 Q. That's somebody else's job?

6 A. That's correct.

7 Q. What do you do in connection with the APDs,
8 anything?

9 A. Nothing really, no.

10 Q. You just put the deals together and then somebody
11 else handles them?

12 A. Well, unless there's an unorthodox location to be
13 acquired, I get involved then. But typically I don't have
14 much to do with it.

15 Q. So you didn't correspond with the OCD and Mosaic
16 that's reflected in the exhibits we were just talking
17 about? That was somebody else at Devon?

18 A. The only exception is the letter that I did
19 respond to on the -- Dan's objection to the 24-6.
20 Otherwise, all the correspondence was done through our
21 operations group, who's in charge of --

22 Q. Okay.

23 A. -- permitting wells.

24 Q. Let me direct your attention to your Devon
25 Exhibit Number 2.

1 A. Okay.

2 Q. You told us that is not up to date.

3 A. With regard to the location of the wells, that's
4 correct.

5 Q. And that's -- there's more wells in Section 24
6 now than what's shown in your Exhibit 2, aren't they?

7 A. There are several horizontal Delaware wells
8 throughout Section 24 and 13, and I believe there's
9 probably a horizontal well in the north half of 25, but I
10 can't --

11 Q. All right, now --

12 A. -- remember exactly.

13 Q. -- now with the exception of this 40-acre tract
14 that we're talking about here, all the lands in 13, 14, 23
15 and 24 are federal lands, are they not?

16 A. Yes.

17 Q. Now let's start with Section 24.

18 A. Okay.

19 Q. All of the wells shown on the right-hand side of
20 Section 24, that would be the west line of the WIPP site,
21 would it not?

22 A. That's correct.

23 Q. Were you involved in the drilling of any of those
24 wells?

25 A. We've permitted and drilled a few of those, yes.

1 Q. All right. And this shows -- I believe Exhibit 2
2 shows, right now, five; am I correct?

3 A. In Section 24?

4 Q. Correct.

5 A. Yes.

6 Q. And there's probably a couple more now in
7 Section --

8 A. There's some additional horizontal wells, yes --

9 Q. Okay.

10 A. -- whose surface location is in that same --
11 along the same line.

12 Q. And those are all filed with the BLM; am I
13 correct?

14 A. Correct.

15 Q. And they've all been approved, provided they are
16 located right next to the WIPP boundary?

17 A. Correct.

18 Q. Have you filed for any APDs out into Section 24?

19 A. I honestly can't remember if we've filed any.
20 We've talked to the BLM a lot about what we can or can't
21 do. Whether we've actually filed permits out there, I
22 don't remember. I'm sure our engineering witness could
23 remember better than I.

24 Q. Would it be a fair statement to say that BLM will
25 not allow you to drill out into Section --

1 A. I think that would be more than a fair statement,
2 yes.

3 Q. They want you to drill along the boundary, and
4 have they called that anything in particular?

5 A. It's been referred to as a drilling island, but
6 I've never seen a formal document that states that.

7 Q. All right. But the BLM calls it a drilling
8 island --

9 A. Yeah --

10 Q. -- don't they?

11 A. -- they do.

12 Q. And from that drilling island, they've allowed
13 multiple wells --

14 A. Correct.

15 Q. -- to be kicked off and drilled either
16 directionally or horizontally out to just about anywhere
17 you want in 24, right?

18 A. That's correct.

19 Q. And in fact, is Apache Number 9 a Devon well?

20 A. If it's on that lease, it's ours.

21 Q. Okay. Well, let's look at the one that -- I
22 can't -- It doesn't come through on my copy, but I know
23 from other stuff that it's Apache Number 9.

24 A. Okay.

25 Q. See that real long red line across almost all of

1 Section 24? That's a Devon well, isn't it?

2 A. That's correct.

3 Q. Do you know what formation that's drilled to?

4 A. It's in one of the Delaware formations. I
5 couldn't cite it specifically.

6 Q. All right, would you agree me that that
7 horizontal well is almost a mile drilled horizontally?

8 A. Almost.

9 Q. Is it producing?

10 A. As far as I know.

11 Q. So would it be a fair statement to say that
12 Devon, when it did its -- I don't know what you guys call
13 it, but your analysis of the cost versus production -- Do
14 you have a --

15 A. Economics, yeah.

16 Q. What do you call it?

17 A. Well, we run economics --

18 Q. Okay.

19 A. -- based on the project.

20 Q. I take it when you ran the economics on Apache
21 Number 9 -- You would do that before you drill a well,
22 right?

23 A. Yes.

24 Q. That the economics, even with the cost of
25 horizontal drilling of almost a mile, Devon concluded that

1 it was economic to do that and hit the Delaware formation?

2 A. That's correct.

3 Q. Now, are there any other horizontal wells shown
4 on your Exhibit 2 that you're aware of? There's four dots
5 on here.

6 A. There are -- Like I said, this plat is outdated.
7 We've since December, 2004, drilled a number of horizontal
8 Delaware wells from the east side of that acreage block.

9 Q. All right. Do you know the maximum offset of
10 those horizontal wells?

11 A. This --

12 Q. Yes, the horizontal portions of them.

13 A. Not specifically, no, but there's some similar to
14 that one that's on there, and there's some that aren't
15 quite as long. Our engineering witness could tell you all
16 the details about how long they are.

17 Q. Well, if you can -- and again, I'm going to refer
18 to that yellow line across there, and our document will
19 show it, I think, a little bit better, but I'm going to
20 represent to you that's Apache Number 9.

21 A. Okay.

22 Q. Do you know what it is?

23 A. No, I don't.

24 Q. Okay. Well, you don't have to agree with me, but
25 I'm going to refer to it as Apache Number 9.

1 A. Okay.

2 Q. If Devon could start on the west boundary of the
3 WIPP site and hit the Delaware formation in Section 24,
4 right below where you now want to drill Apache 6 --

5 A. Uh-huh.

6 Q. -- would you agree with me that you could get
7 over here next to the WIPP site and hit the Delaware for
8 this Apache Number 6 you want to drill vertically?

9 A. Absolutely we can.

10 Q. And you could do the same thing, could you not,
11 for the Apache 7A, the deep gas well you want to drill?

12 A. We can drill a directional -- it's possible to
13 drill a directional -- We've already proven we can drill a
14 horizontal Delaware well, as you said, almost a mile. And
15 it's within reason and it's physically possible to drill
16 from Lea County to hit the Devonian well at that location,
17 if you have enough money.

18 Q. Well, if you -- if you -- Where's the bottomhole
19 location for Apache 7A? Do you remember?

20 A. It's way up in the very northeast corner of that
21 40 acres. The footage is --

22 Q. That would be back toward the WIPP site, wouldn't
23 it?

24 A. Yeah.

25 Q. How far back further toward the WIPP site?

1 A. Than a standard location?

2 Q. Well, what's your proposed bottomhole location
3 for 7A?

4 Why don't you -- Look at your documents there and
5 see if you can tell me.

6 A. 1460 from the north --

7 Q. Okay.

8 A. -- line of Section 24 --

9 Q. Okay.

10 A. -- and 1150 from the west line. I think it's on
11 that map.

12 Q. Okay, maybe. I can't read it --

13 A. Maybe --

14 Q. -- it's too small for me.

15 A. -- it might be faded.

16 Q. That must be what that little jumble of letters
17 and things are there.

18 A. Yeah.

19 Q. So you could, then, hit that bottomhole location
20 with a directional well or a horizontal well from the west
21 side of WIPP, could you not?

22 A. We could, yes.

23 Q. Did you ever file an APD with the BLM seeking to
24 do that? "That" being, drill the Apache 7A as a
25 directional to the Devonian and the Apache 6 to the

1 Delaware?

2 A. No.

3 Q. Now looking at the proposed surface locations of
4 these wells, you said the hached lines on your Exhibit
5 Number 2 represent Mosaic potash leases, correct?

6 A. The blue -- bluish-green ones, yes.

7 Q. All right. Now where did you get that
8 information?

9 A. Federal Abstract Company.

10 Q. Okay. We have an exhibit, you may have -- if
11 you're sitting in the room, we heard -- you heard me
12 earlier ask, I believe, Mr. Bailey or somebody. He didn't
13 show Mosaic's leases up there. You were able to find them,
14 weren't you?

15 A. Yeah.

16 Q. Okay. So you don't dispute the fact that Mosaic
17 holds the potassium lease in Section 3 which adjoins this
18 40-acre tract, do you?

19 A. Section 3 or 23?

20 Q. I'm sorry, 23.

21 A. Yeah, 23.

22 Q. All right.

23 A. That's not in dispute.

24 Q. Okay. And your proposed Apache Number 6 would be
25 located how many feet away from the boundary of Mosaic's

1 potassium lease?

2 A. 660 feet.

3 Q. All right. And your proposed Apache 7A, the deep
4 gas well, would be located how many feet away from the
5 boundary of Mosaic's potash lease?

6 A. 1150 feet.

7 Q. Would you agree with me that both of those
8 proposed locations are less than a quarter mile?

9 A. I would agree with that.

10 Q. Now if the Apache Number 7A were, in fact,
11 directionally drilled from the west line of WIPP to the
12 same bottomhole location, the proration unit would be the
13 same, would it not?

14 A. Yes, sir.

15 Q. And all the mineral interest holders would be the
16 same, wouldn't they?

17 A. Yes, sir.

18 Q. Would you agree with me, in this particular case
19 there's only two groups of mineral interest holders,
20 whoever has it in the 40 acres, and the BLM?

21 A. Yes, sir.

22 MR. HIGH: Okay. I believe that's all the
23 questions I have. Thank you, Mr. Gray.

24 THE WITNESS: You're welcome.

25 CHAIRMAN FESMIRE: Mr. Bruce?

1 MR. BRUCE: Just a few questions.

2 EXAMINATION

3 BY MR. BRUCE:

4 Q. Mr. Gray, your Exhibit 3, the leasehold --

5 A. Uh-huh.

6 Q. -- data, I just want to clarify. These leases
7 cover a hundred percent of the oil and gas rights in the
8 southwest quarter, northwest quarter of Section 24?

9 A. That's correct.

10 Q. And three-fourths of that is owned by Mr. Smith
11 and his family?

12 A. That's correct.

13 Q. Okay. Who is T. Verne Dwyer?

14 A. T. Verne Dwyer is a contract landman in Midland
15 that acquired those leases on our behalf.

16 Q. He acquired them specifically on Devon's behalf?

17 A. Yes.

18 Q. He didn't acquire them for himself and then sell
19 them to Devon?

20 A. No.

21 Q. And have they been assigned of record to Devon?

22 A. Yes, they have.

23 MR. BRUCE: That's all I have, Mr. Examiner -- or
24 Mr. Chairman.

25 CHAIRMAN FESMIRE: Commissioner Bailey?

EXAMINATION

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BY COMMISSIONER BAILEY:

Q. I got a little confused. You said one of these wells was an unorthodox location, and I thought you said the Number 6. Was I wrong?

A. Well, the question was, from Mr. Fesmire, Why would we want to drill two wells in the same 40 acres that potentially could produce from the Delaware? And my response was, The location for the 7A, which is the deep well, is an unorthodox location for Delaware. If you ever came back up to want to produce at the Delaware, you'd have to get an exception and approvals from our friends at Bass and some other people.

So you might not be able to produce the Delaware at the surface location for the 7A, I think, is what I said. Otherwise, that -- the 24-6 is at a legal location.

Q. Why don't I have a map showing all of the recent horizontal wells drilled within 24?

A. That's a legitimate question. We just haven't updated it since the -- Actually, this map that we have was outdated in December, 2004. We had drilled a couple of other horizontal wells by the time we got to this hearing in December, 2004.

Q. So how many more should be on this map for Section 24?

1 A. I'd have to guess. It's another -- Our
2 engineering witness can tell you for sure, but I'm guessing
3 another four or five more.

4 Q. And they're all horizontal Delawares?

5 A. Yes.

6 Q. Do they all produce from the same zone of the
7 Delaware, or are they in different zones?

8 A. It's my understanding that there's one interval
9 in the Delaware mountain group that they produce from.

10 Q. And their bottomholes are located where?

11 A. Oh, they vary. But for instance, there's
12 probably a couple of more that are equally as long on a
13 lateral -- the horizontal lateral as this one that's shown
14 on your map. And we would typically drill them all the way
15 over to the 660 feet, or maybe even closer than that, maybe
16 330 feet from the west edge of our acreage block.

17 Q. So in unit letter D in Section 24, 22 South, 31
18 East, there's probably a bottomhole Delaware?

19 A. In unit letter D?

20 Q. Uh-huh.

21 A. I don't think so, no, because we don't --

22 Q. Northwest of the northwest.

23 A. We don't own that lease, no, so that we would not
24 have drilled a well -- or we have not drilled a well that
25 would include that 40 acres. We may have one that goes

1 through unit letters A, B and C, and likely do, but not
2 into D.

3 Q. How about the south half of the north half?

4 A. Of 24?

5 Q. Uh-huh.

6 A. We do, yes.

7 Q. And goes to within --

8 A. Looks real similar to the one that you see there
9 on your map, yes.

10 COMMISSIONER BAILEY: Okay, that's all I have.
11 Thank you.

12 THE WITNESS: You're welcome.

13 CHAIRMAN FESMIRE: Commissioner Olson?

14 COMMISSIONER OLSON: I have no questions.

15 EXAMINATION

16 BY CHAIRMAN FESMIRE:

17 Q. Mr. Gray, I'm a little bit confused now. This
18 horizontal well that you're showing on -- you know, going
19 through this south half of Section 24, you say there are
20 four or five more in that section, right?

21 A. Well, maybe not in that section but maybe on this
22 acreage block, yes.

23 Q. Okay. And are those drain holes, or are those
24 directionally cased -- Is the intent to get to some
25 bottomhole location, or are they horizontal drain holes?

1 A. They're horizontal drain holes.

2 CHAIRMAN FESMIRE: I have no further questions.

3 MR. HIGH: We have nothing else.

4 CHAIRMAN FESMIRE: Is that all you've got of this
5 witness, Mr. Carr?

6 MR. CARR: He may be excused, I have no further
7 questions.

8 CHAIRMAN FESMIRE: Thank you, Mr. Gray.

9 THE WITNESS: You're welcome.

10 MR. CARR: May it please the Commission, at this
11 time I would call Jim Blount.

12 CHAIRMAN FESMIRE: Blount?

13 MR. CARR: Yes.

14 CHAIRMAN FESMIRE: Mr. Blount, you have been
15 previously sworn?

16 MR. BLOUNT: Yes.

17 JAMES BLOUNT,

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

20 DIRECT EXAMINATION

21 BY MR. CARR:

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

23 A. James Blount.

24 Q. Where do you reside?

25 A. In Edmond, Oklahoma.

1 Q. By whom are you employed?

2 A. By Devon Energy.

3 Q. And what is your position with Devon?

4 A. I'm an operations engineer.

5 Q. Could you review your educational background for
6 the Commission?

7 A. I have a bachelor of science degree from Texas
8 A&M University in petroleum engineering.

9 Q. And since graduation, for whom have you worked?

10 A. I've worked for various companies in Midland,
11 I've worked for Mitchell Energy, I've worked for Santa Fe
12 Energy, I've worked for Southwest Royalties, Concho
13 Resources, and now Devon Energy.

14 Q. In your work experience, have you been involved
15 with the drilling of directional wells?

16 A. Yes, I have.

17 Q. And have you been involved with the drilling of
18 wells in the potash area?

19 A. Yes.

20 Q. Are you familiar with the Applications filed in
21 these consolidated cases --

22 A. Yes.

23 Q. -- for Devon?

24 And are you familiar with the status of the lands
25 in the area, or are you just limited in terms of your

1 technical knowledge as to the drilling of the wells?

2 A. In the lands, as in what respect?

3 Q. I mean, do you have any -- do you have any
4 information or experience or knowledge about the leases in
5 the area, things of that nature?

6 A. I'm familiar with them vaguely.

7 Q. Are you here to testify about engineering
8 concerns?

9 A. Yes.

10 MR. CARR: We tender Mr. Blount as an expert in
11 drilling engineering.

12 MR. HIGH: No objection.

13 CHAIRMAN FESMIRE: Mr. Blount will be so
14 accepted.

15 Q. (By Mr. Carr) Are you familiar with the
16 cementing and casing provisions of Oil Conservation
17 Division Order Number R-111-P?

18 A. Yes, I am.

19 Q. Would you refer to what has been marked Exhibit
20 8, which is a schematic for the Apache 24 Fee Well Number 6
21 and review that for the Commission, please?

22 A. Okay, this shows a wellbore diagram of what we're
23 proposing to drill on this -- in unit letter E. The well
24 will be drilled down to 600 feet, and set 13-3/8 at that
25 point, cementing it to the surface, and we'll continue

1 drilling down to 3800 feet, which would be through the salt
2 section, and set 8-5/8 and cement it also to the surface,
3 and then drill to our proposed TD of 7805, set 5-1/2-inch
4 casing at that point and cement that to the surface via a
5 two-stage cementing job.

6 Q. Let's now go to Exhibit Number 9, the schematic
7 for the Apache 24 Com Number 7A well.

8 A. Okay. That's also a wellbore diagram for the 7A.
9 We'll be drilling to 700 feet -- I'm sorry, 600 feet,
10 setting 13-3/8 and cementing that to the surface, then
11 we'll drill to 3800 feet, which is through the base --
12 through the salt, and set 10-3/4-inch pipe at that point
13 and cement it to the surface. We'll drill through the
14 Wolfcamp, or into the Wolfcamp, at 12,050, set 7-5/8 at
15 that point and cement it to the surface, and then we'll set
16 a -- or drill to the top of the Devonian at 15,300, set
17 5-1/2 at that point and cement it, and then we'll open-hole
18 drill 200 additional feet into the top of the Devonian.

19 Q. Do these well programs comply with the cementing
20 and casing requirements of Order Number R-111-P?

21 A. Yes, they do.

22 Q. Will Devon provide notice to Mosaic so they can
23 witness the work on these wells to assure themselves that
24 they're being drilled and completed in accordance with the
25 provisions of the potash order?

1 A. Yes.

2 Q. Mr. Blount, do you know of a way to directionally
3 drill a well to access all the Devonian -- I'm sorry, all
4 the Delaware zones under the 40-acre tract on which you're
5 proposing to drill a vertical well?

6 A. The only way you could do it is with a very
7 deviated S-curve. You'd have to drill all the way over to
8 unit letter E from the far east side of the section, and
9 then drop an S at that point and go straight down. It
10 would create tremendous drilling problems.

11 Q. Would it also create operational problems?

12 A. Yes, absolutely.

13 Q. Now Devon has drilled horizontal wells in the
14 Delaware; is that not correct?

15 A. Yes, we have.

16 Q. When you drilled those wells, how many of the
17 Delaware zones have you been able to access with those?

18 A. Only one.

19 Q. And the other zones are not producing?

20 A. That's correct.

21 Q. Now Mr. Gray testified that you could
22 directionally drill and you could horizontally drill to
23 access these reserves?

24 A. It physically could be done, it economically
25 could not be done.

1 Q. Would you -- Do you believe that Devon
2 economically could justify directional horizontally
3 drilling to recover the Delaware reserves --

4 A. No.

5 Q. -- under the 40-acre tract?

6 A. No, there's no way we'll drill this well by any
7 means other than --

8 Q. Do you know of any way other than with a vertical
9 wellbore on this acreage for Mr. Smith to be able to
10 recover the Delaware reserves under his acreage?

11 A. It won't be done by Devon.

12 Q. Were Exhibits 8 and 9 prepared by you?

13 A. Yes, they were.

14 MR. CARR: I move the admission of Devon Exhibits
15 8 and 9.

16 MR. HIGH: No objection.

17 MR. BRUCE: No objection.

18 CHAIRMAN FESMIRE: Okay, Devon Exhibits 8 and 9
19 are admitted.

20 MR. CARR: That concludes my direct of Mr.
21 Blount.

22 CHAIRMAN FESMIRE: Mr. High?

23 CROSS-EXAMINATION

24 BY MR. HIGH:

25 Q. Mr. Blount, how long have you had some

1 responsibility in the potash area?

2 A. For 17 years.

3 Q. And I take that wasn't all with Devon, right?

4 A. That's correct, it was various companies. It was
5 with various companies, although most of them are actually
6 owned by Devon now.

7 (Laughter)

8 Q. I won't go there.

9 And what's your actual job? Do you design the
10 well? I mean, what do you really do for a living?

11 A. I design the well design, and then I implement
12 the actual completion of the well and monitor the
13 production of the wells. My actual job is not to actually
14 drill in my current capacity, although I have done that in
15 the past with other companies.

16 Q. More well design?

17 A. Yes, sir.

18 Q. Okay. And how long have you done that for Devon?

19 A. I've been with Devon for five years.

20 Q. All right. Have you been involved in any of the
21 other wells that Devon has drilled in either Sections 13,
22 24 or 25 shown on Devon Exhibit Number 2?

23 A. Yes, I have, all of them.

24 Q. So all -- And this exhibit, we know, is not
25 complete, but just what's on Devon Exhibit Number 2, in

1 Section 13 it shows four wells. You were involved in
2 those?

3 A. Yes, sir.

4 Q. In Section 24 it shows five wells. You were
5 involved in all those?

6 A. Of the five shown, and then there's also three
7 additional.

8 Q. All right, and in Section 25 there's -- it looks
9 like just nine wells. Are you involved in those too?

10 A. Actually there's more than that now, but yes,
11 sir, I've been involved in all -- I was even involved in
12 the original two that were drilled by Mitchell Energy.

13 Q. Okay. So you've been involved in a lot of wells
14 in this particular area that we're talking about?

15 A. That's correct.

16 Q. Now how many more wells has Devon drilled in
17 Section 24 that are not actually shown on Devon Exhibit
18 Number 2?

19 A. There are three additional.

20 Q. All right. And are those Delaware wells?

21 A. Yes, they are.

22 Q. All right. How many of the wells -- Let's take
23 the five shown on Devon Exhibit Number 2. There's five of
24 these and three more. That's eight. How many of those
25 wells are Delaware wells?

1 A. In Section 24?

2 Q. Yes, sir.

3 A. There's -- All wells in Section 24 are Delaware
4 except for one.

5 Q. Okay, and what is it?

6 A. That's the 24-1, it's a Morrow well.

7 Q. Okay, and it's not shown on Devon Exhibit Number
8 2, is it?

9 A. I don't have that exhibit, so --

10 Q. Okay.

11 A. -- should I get a copy of that?

12 Q. So -- and all of Devon's wells are located along
13 the west edge of the WIPP site, are they not?

14 A. That's correct.

15 Q. And do you know what BLM calls that?

16 A. The drilling island.

17 Q. Okay. Were you involved in the well design for
18 all of those Delaware wells along the west side of WIPP in
19 Section 24?

20 A. Yes, I was.

21 Q. So you designed the horizontal stuff?

22 A. Yes.

23 Q. What's the greatest offset of any of the
24 horizontal wells that you were involved in?

25 A. It would have been the 24 Number 9, and it goes

1 all the way from 330 from the east line to 330 from the
2 west line.

3 Q. All right, so -- and that's the little red line
4 -- You now have in front of you Devon Exhibit Number 2?

5 A. That's correct.

6 Q. That little red line across there, is that Apache
7 Number 9?

8 A. Yes, it is.

9 Q. Okay. And so that's a horizontal well that goes
10 for almost one mile, isn't it?

11 A. That's correct.

12 Q. And you designed that?

13 A. Yes.

14 Q. And Devon drilled it?

15 A. That's correct.

16 Q. And I take it, it's producing?

17 A. Yes.

18 Q. And how many of the other wells are also
19 horizontal?

20 A. There are three others in Section 24, two others
21 in Section 13 and one other in Section 25.

22 Q. Okay. And what kind of offset do they have?

23 A. They basically go as far as the acreage goes, so
24 the one in Section 25 starts at 330 from the east line,
25 goes to 330 from the west line, in the units letters A, B,

1 C and D.

2 Q. I'm sorry, you're in what section now?

3 A. Section 25.

4 Q. All right, let's stick with 24.

5 A. Okay, in Section 24 the well in the very south
6 half is the 24 Number 8. It covers units letters P, O, N
7 and M, and it goes to 330 from the west line.

8 The well in the south half of the north half of
9 24 starts at 330 from the east line and goes to -- let's
10 see, that would be 1650 from the west line.

11 And the one in the far north of Section 24 --
12 that's the 24-11 -- goes from 330 from the east line to
13 1650 from the west.

14 So they basically go within 330 feet of where our
15 federal acreage was.

16 Q. And translating that into a distance, we know
17 that Apache Number 9 is almost a mile?

18 A. That's correct.

19 Q. Those would be approximately how far?

20 A. Three-quarter mile.

21 Q. Okay. So we've got four horizontal wells in
22 Section 24?

23 A. Correct.

24 Q. Anywhere from three-quarters of a mile to a mile
25 offset?

1 A. Correct.

2 Q. Now where's the Morrow well you referred to?

3 A. The Morrow well is actually located on this map.
4 It's about 1300 feet from the south line and 330 from the
5 east. It's the --

6 Q. What section is it?

7 A. It's in Section 24.

8 Q. Okay.

9 A. It's on this map, it's just very light.

10 Q. Do you know what the offset on that one is?

11 A. It's straight, it's a vertical well.

12 Q. Vertical hole. So Devon has been able to
13 successfully and economically directionally drill Delaware
14 wells from this drilling island along the west side of WIPP
15 in Section 24?

16 A. Correct.

17 Q. But did I understand you to say that you can't do
18 it with respect to this Delaware well on this 40 acres?

19 A. That's correct.

20 Q. And what is it that distinguishes this little 40-
21 acre patch from all these other wells that you've
22 successfully done?

23 A. All the other horizontals have multiple pay
24 intervals open every 600 feet in the wellbore, so we're
25 equally making producing wells from four proration units,

1 as opposed to one proration unit.

2 Q. And why can't you do that here?

3 A. Because it would only be one proration unit. I
4 already have a horizontal well that accesses any Delaware
5 that's east of this 40-acre tract.

6 Q. Well, why can't it be unitized?

7 A. I don't know the answer to that.

8 Q. Have you asked?

9 A. The well is already drilled.

10 Q. What well is already drilled?

11 A. The 24-10, it's already accessed up to the east
12 side of this acreage.

13 Q. Oh, you're talking about a well that's not shown
14 on this exhibit.

15 A. That's correct.

16 Q. Okay, we've got another exhibit that shows this.
17 Could that be extended into this 40 acres?

18 A. No.

19 Q. Why?

20 A. Because you'd be dealing with a situation where
21 you couldn't effectively stimulate it. Without a fracture
22 stimulation in the Delaware you're not going to make any
23 oil at all in the Delaware. And you'd have to go in there
24 with slimhole tools, or you'd have to drill a -- you know,
25 we have 4-1/2-inch casing set through the -- all the way

1 out to 1650 from the west line of Section 24, so you would
2 have to drill basically a 3-inch hole, and there's just no
3 way you could effectively stimulate open hole through...

4 Q. What if you -- What if you did a horizontal well
5 from the north part of Section 24?

6 A. Where were you referring to?

7 Q. Well, let's go up to -- These don't have numbers
8 on them, at least legible, but go up to the well in the top
9 right-hand corner of Section 24.

10 A. Okay.

11 Q. Why can't you drill directionally from there --

12 A. We have.

13 Q. -- to this Delaware on the 40 acres?

14 A. We've drilled every location -- we've drilled
15 every proration unit out here, except for this fee acreage,
16 via horizontal wells.

17 Q. So the reason you can't do the horizontal well to
18 this 40 acres is because of other wells you've already
19 drilled?

20 A. That's correct.

21 Q. So the limitations that we're talking about here,
22 or that you're talking about, are those that have been
23 created by Devon?

24 A. You could say that, due to the fact that we had
25 an APD in hand that was never decided on. We held off

1 drilling the south half of the north half for two years,
2 waiting on this hearing, and we couldn't wait any longer.

3 Q. At any time has Devon ever prepared and filed an
4 APD for a horizontal or directional well to develop oil on
5 this 40-acre plot?

6 A. Could you repeat the question?

7 Q. Has Devon to your knowledge ever filed an APD for
8 a directional horizontal well, for either its proposed
9 Apache 6 or 7A?

10 A. No, sir.

11 Q. When were these other horizontal wells drilled by
12 Devon?

13 A. The first one was drilled in October of 2004, and
14 we took about six months before we drilled the second one.
15 The second well drilled was the 25-14, which is in the very
16 north half of 25. Then we drilled the well up in Section
17 13, and that was probably mid-2005.

18 The latest two wells that are in the north half
19 of Section 24 were -- one of them was drilled in December
20 of last year and one of them was drilled in January of last
21 year -- of this year.

22 Q. So all of the wells that you say now prevent you
23 from drilling a horizontal well to this 40-acre plot were
24 drilled after this APD was filed and denied?

25 A. No, it was filed and approved the first time.

1 The only reason we didn't get it drilled the first time was
2 because we couldn't get access by the BLM.

3 Q. Then you should have known -- If you had the APD
4 in the process, which I take it you did when you
5 horizontally drilled these other wells, right? When you
6 drilled these other wells, you should have known, shouldn't
7 you, that that would preclude you from then horizontally
8 drilling this particular well?

9 A. We felt like we were going to -- we already had
10 won the case the first time. We're in a *de novo* case now.

11 Q. You felt like that, by golly, you're going to get
12 a vertical well --

13 A. If we didn't, we weren't going to drill it.
14 That's correct, if we didn't we weren't going to drill it.
15 The commingling authority for that would have been
16 something that I don't think would have been worth
17 pursuing.

18 MR. HIGH: I don't think we have anything else,
19 Mr. Chair. Thank you.

20 CHAIRMAN FESMIRE: Mr. Bruce?

21 MR. BRUCE: Maybe just one thing.

22 EXAMINATION

23 BY MR. BRUCE:

24 Q. Mr. Blount, I think it's the 24-9 well, which is
25 in the north half of the south half of Section 24?

1 A. Yes, sir.

2 Q. The terminus is in what, the northwest quarter,
3 southwest quarter of that section?

4 A. It's in the -- yeah, northwest of the southwest.

5 Q. Can that wellbore be used to test the Bone Spring
6 or the Wolfcamp?

7 A. No, sir.

8 Q. Could it be used to test an upper Delaware zone?

9 A. No, sir.

10 MR. BRUCE: Thank you.

11 CHAIRMAN FESMIRE: Commissioner Bailey?

12 EXAMINATION

13 BY COMMISSIONER BAILEY:

14 Q. Is it physically impossible -- Let me back up.
15 These horizontal Delaware wells had been
16 completed as open hole?

17 A. No, ma'am, only the first one, the 24-9 was
18 completed as open hole, all the others have been cased.
19 And the reason was that we didn't get near as good a well
20 with the open hole completion as we got with cased hole.
21 We couldn't control where the frac was going.

22 Q. So it is physically impossible to extend any of
23 these horizontal wellbores to --

24 A. The only way you could do it is with slimhole
25 tools, and you wouldn't be able to do any kind of

1 stimulation where you could control where the stimulation
2 would actually occur.

3 Q. Unitization is a method that has been set up for
4 accessing lands that -- through horizontal or directionally
5 drilled?

6 A. Uh-huh.

7 Q. Why hasn't Devon attempted to unitize?

8 A. I can't speak to that. I have no idea.

9 COMMISSIONER BAILEY: That's all I have.

10 CHAIRMAN FESMIRE: Commissioner Olson?

11 COMMISSIONER OLSON: I have no questions.

12 EXAMINATION

13 BY CHAIRMAN FESMIRE:

14 Q. Mr. Blount, I think your answer to Commissioner
15 Bailey's question may have answered mine, but you drill
16 down to the Devonian along this drilling alley, you take a
17 hard left, right, or a 90-degree turn.

18 A. Are we talking Delaware?

19 Q. Delaware, I'm sorry. Take a hard turn. You go
20 out 660 -- nearly a mile, less the 660s on each end --

21 A. Uh-huh.

22 Q. -- and you perforate -- Where do you perforate
23 the horizontal pipe?

24 A. We perforate roughly every 600 feet.

25 Q. Every 600 feet. What kind of perforations? I

1 mean, how big, how many?

2 A. They're group-perforated within a 2-foot
3 interval. We'll typically shoot at four shots per foot.

4 Q. And that's for the frac design?

5 A. That's correct.

6 Q. Okay. Now you've got one of those in basically
7 the south half of the north half that's only three-quarters
8 as long, right?

9 A. That's correct.

10 Q. Okay, and it doesn't extend onto the Smith tract?

11 A. Correct.

12 Q. Okay, and it's the same thing: 4-1/2, group-
13 perforated every 300 feet?

14 A. Six hundred.

15 Q. Every 600 feet?

16 A. Uh-huh.

17 Q. Okay. So the only way to get out of there is to
18 run a slimhole mud motor out that end, and you wouldn't be
19 able to control the frac, you wouldn't be able -- the
20 casing; is that correct?

21 A. That's correct.

22 Q. Okay. You said, or somebody said, that Smith
23 owns 75 percent of the interests in that tract. Who owns
24 the other 25 percent?

25 A. I don't know.

1 Q. Okay. But Devon has that lease too?

2 A. Yes.

3 CHAIRMAN FESMIRE: I have no further questions.

4 Mr. Carr, did you have a follow-up?

5 EXAMINATION

6 BY MR. CARR:

7 Q. Yeah, Mr. Blount, in response to a question from
8 Mr. Bruce you indicated that a horizontal well in the
9 Delaware couldn't be used to access Bone Springs, Wolfcamp
10 or upper Delaware production, correct?

11 A. Correct.

12 Q. To access the production in those other horizons,
13 what would be required?

14 A. You would have to drill directional wells from
15 the far east side to -- you know, slant it to whatever
16 formation you were trying to get to.

17 Q. You would need one well per horizon?

18 A. Well, I mean, you could drill and S-curve, but it
19 wouldn't be economically feasible.

20 Q. Now if you unitized an area, you still need
21 wells, do you not, to produce the reserves?

22 A. Yes, sir.

23 Q. And if you unitized for horizontal drilling,
24 you're going to need one well per horizon; isn't that
25 right?

1 A. That's correct.

2 Q. If you're going to access all the formations
3 under a unit, whether it be a spacing unit or an areawide
4 unit, doesn't a vertical well give you effective access to
5 the horizons, access that isn't available with a
6 directional or horizontal well?

7 A. Correct.

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

9 CHAIRMAN FESMIRE: Commissioner Bailey, did you
10 have a question?

11 FURTHER EXAMINATION

12 BY COMMISSIONER BAILEY:

13 Q. Unitization oftentimes can be one formation or
14 multiple formations. Have you been much involved with
15 unitizations?

16 A. None.

17 Q. Okay, so you don't know that unitization can
18 cover just one formation --

19 A. I'm certainly familiar with unitization. I
20 haven't been involved with putting any together.

21 COMMISSIONER BAILEY: Okay, thanks.

22 CHAIRMAN FESMIRE: Any further questions of this
23 witness?

24 MR. HIGH: We have none, thank you.

25 MR. CARR: No, no further questions.

1 CHAIRMAN FESMIRE: Thank you very much, Mr.
2 Blount.

3 Mr. Carr --

4 MR. CARR: That concludes our case.

5 CHAIRMAN FESMIRE: Okay.

6 MR. BRUCE: Mr. Chairman, I do have the landowner
7 witness who I think will be quite brief. You know, maybe
8 take care of him before lunch if it's at the Commission's
9 pleasure.

10 CHAIRMAN FESMIRE: Mr. High, you have --

11 MR. HIGH: I have no problem.

12 CHAIRMAN FESMIRE: -- you have two witnesses
13 listed.

14 MR. HIGH: One witness.

15 CHAIRMAN FESMIRE: One witness listed. And given
16 that the things have run a little longer than estimated,
17 how long do you think your witness will take?

18 MR. HIGH: Twenty minutes, 30 minutes, max.

19 CHAIRMAN FESMIRE: Maximum?

20 MR. HIGH: I'll try to be brief. We've covered a
21 lot of this stuff already, that -- so we don't have to re-
22 plow old ground. So I'll try to be as quick as I can.

23 COMMISSIONER BAILEY: I'll eat my energy bar.

24 CHAIRMAN FESMIRE: Mr. Bruce, why don't we tail
25 in with your witness, and we'll go ahead with Mr. High's

1 witness.

2 MR. HIGH: I don't mind taking him out of order
3 if he wants to.

4 CHAIRMAN FESMIRE: Would you rather do it that
5 way?

6 MR. BRUCE: Yeah, it does flow along with Devon's
7 testimony.

8 CHAIRMAN FESMIRE: Okay.

9 MR. BRUCE: It will be quite brief.

10 CHAIRMAN FESMIRE: I assume it's Mr. Smith again?

11 MR. BRUCE: Mr. Smith.

12 CHAIRMAN FESMIRE: Mr. Smith, you've been
13 previously sworn, have you not?

14 MR. SMITH: Yes, sir.

15 CHAIRMAN FESMIRE: Thank you.

16 KENNETH MARK SMITH,

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

19 DIRECT EXAMINATION

20 BY MR. BRUCE:

21 Q. Mr. Smith, would you please state your full name
22 for the record?

23 A. Mark Smith.

24 Q. And where do you live?

25 A. I live almost halfway between Hobbs and Carlsbad.

1 Q. Now, the two Devon cases involve a quarter
2 quarter section of land, the southwest quarter, northwest
3 quarter of Section 24 of 22 South, 30 East, and all my
4 questions are going to be with respect to that land. Are
5 you the surface owner of that tract of land?

6 A. Yes, I am.

7 Q. You own 100 percent of the surface?

8 A. No -- Well, I do of the 40.

9 Q. Of that 40. Now with respect to the mineral
10 rights, what fraction of the minerals do you own?

11 A. Well, that belonged to a fourth interest when we
12 bought the ranch in '58. They held a fourth interest in
13 it.

14 Q. Okay, so your sellers retained a fourth interest;
15 is that what you're telling me?

16 A. My dad and my brother and I retained a fourth.
17 I've got a sister, and she has inherited -- and I don't
18 know what the fraction is --

19 Q. Okay.

20 A. -- but we own three-fourths of it.

21 Q. Okay, you and your family members own three-
22 fourths of it --

23 A. Right.

24 Q. -- is that what you're telling me?

25 Mr. Gray testified about some leases, and one of

1 them was from -- of course from you and your wife, one is
2 from William C. Smith, and who is that?

3 A. That's my brother.

4 Q. And then one is from Laura Nell Glenn as trustee,
5 and who is that?

6 A. That's my sister.

7 Q. Okay. And so those three leases cover the three-
8 fourths family mineral interest?

9 A. Yes, right.

10 Q. And then the other lease that Mr. Gray testified
11 about is a non-family member?

12 A. Right.

13 Q. Okay. And are you authorized today to speak on
14 behalf of your brother and sister, as well as yourself?

15 A. Yes, I am.

16 Q. Have any oil wells ever been drilled on this 40-
17 acre tract?

18 A. No, they haven't.

19 Q. Has this 40 acres ever been leased for potash
20 mining?

21 A. No, it hasn't.

22 Q. And again, how long have you and your family been
23 out on this property, owned this property?

24 A. In the fall of '58 is when I moved down there,
25 and I raised my family there, I lived there 39 years.

1 Q. Okay. Now you've leased this land to Devon
2 Energy. Have the potash companies since then approached
3 you about leasing the land for potash mining?

4 A. I don't believe so.

5 Q. Now you've reached agreement for -- with Devon
6 for development of the oil and gas under this acreage, and
7 do you wish to see Devon drill wells on your acreage?

8 A. Yes, I do.

9 Q. And is it your understanding that Devon is ready
10 to drill when and if it gets approval for these wells?

11 A. (Nods)

12 Q. And when I say you own the mineral rights, you --
13 as well as the oil and gas mineral rights, you also, you
14 and your family, own potash mineral rights also?

15 A. That's right.

16 Q. Is it your desire as the owner of the potash
17 rights and the oil and gas rights to have the oil and gas
18 developed on this tract?

19 A. I'd like to have the oil and gas and the potash
20 too.

21 (Laughter)

22 Q. And you're not here today to be critical of the
23 potash company, are you, Mr. Smith?

24 A. No, we've been neighbors with them for 39 years.

25 Q. Okay. And Mr. Smith, if you don't know the

1 answer to this -- you've heard -- you've sat through the
2 testimony today and you've heard talk about LMRs or life-
3 of-mine reserve areas. Do you know anything about those?

4 A. No, I don't.

5 MR. BRUCE: Thank you, that's all I have, Mr.
6 Examiner.

7 CHAIRMAN FESMIRE: Mr. High?

8 MR. HIGH: We have no questions, thank you.

9 CHAIRMAN FESMIRE: Mr. Carr?

10 MR. CARR: No questions.

11 CHAIRMAN FESMIRE: Commissioner Bailey?

12 COMMISSIONER BAILEY: No.

13 CHAIRMAN FESMIRE: Commissioner Olson?

14 COMMISSIONER OLSON: (Shakes head)

15 EXAMINATION

16 BY CHAIRMAN FESMIRE:

17 Q. Before you leave, you said you'd like to see both
18 of them developed. If you had to have only one developed,
19 which would you rather have developed? The oil and gas or
20 the potash reserves?

21 A. I don't have any idea what the potash is worth,
22 and I don't have any idea what the oil and gas -- it might
23 be a dry hole.

24 Q. But your preference would be the most lucrative?

25 A. Well, sure.

1 CHAIRMAN FESMIRE: Okay. I have no further
2 questions.

3 MR. BRUCE: That's it.

4 CHAIRMAN FESMIRE: Thank you very much, Mr.
5 Smith.

6 Mr. High, would you like to begin your --

7 MR. HIGH: If I could take three minutes to go to
8 the men's room.

9 (Laughter)

10 MR. CARR: No, I object.

11 (Laughter)

12 CHAIRMAN FESMIRE: Overruling that objection --

13 MR. HIGH: I will hurry, but I sure need to go.

14 CHAIRMAN FESMIRE: Okay.

15 (Thereupon, a recess was taken at 11:58 a.m.)

16 (The following proceedings had at 12:05 p.m.)

17 CHAIRMAN FESMIRE: Let's go back on the record.
18 Again, this is the continuation of the consolidated cases
19 13,368, 13,367 and 13,372. Mr. Charlie High, the attorney
20 for Mosaic, was about to present his first witness.

21 MR. HIGH: We would call Mr. Dan Morehouse.

22 CHAIRMAN FESMIRE: Mr. Morehouse, you've been
23 previously sworn; is that correct?

24 MR. MOREHOUSE: Yes, sir.

25 MR. HIGH: Before I start, Mr. Chair, if I may

1 I'd like to follow Mr. Carr's example and substitute
2 exhibits. I have larger colored exhibits, the same ones we
3 e-mailed to you, but they'll be a lot easier to see and
4 deal with, if I may substitute these for the ones that we
5 filed with the Commission.

6 CHAIRMAN FESMIRE: Mr. Carr, Mr. Bruce, do you
7 have any objection?

8 MR. CARR: And how many exhibits do you have, Mr.
9 High?

10 MR. HIGH: Three.

11 CHAIRMAN FESMIRE: Thank you.

12 DANIEL J. MOREHOUSE,
13 the witness herein, after having been first duly sworn upon
14 his oath, was examined and testified as follows:

15 DIRECT EXAMINATION

16 BY MR. HIGH:

17 Q. Mr. Morehouse, would you state your name, please,
18 sir?

19 A. My name is Daniel Jerome Morehouse.

20 Q. And would you spell your last name for the court
21 reporter?

22 A. M-o-r-e-h-o-u-s-e.

23 Q. And where are you employed, Mr. Morehouse?

24 A. Presently with Mosaic Potash Carlsbad, Inc.

25 Q. And what's your position there?

1 A. I'm superintendent of mine engineering.

2 Q. And what are your duties as superintendent of
3 mine engineering?

4 A. Most relationships with the BLM and the State
5 Land Office, mine design, grade -- to some extent, grade
6 control where engineering could have some effect on it. In
7 fact, all kinds of mining issues.

8 Q. All right. Tell us, if you will, your
9 educational background, please, sir.

10 A. I received a bachelor's in mining engineering
11 from Colorado School of Mines in 1978 and a master's in
12 industrial engineering from NMSU about 1984, if I remember
13 right.

14 Q. And how long have you worked in the mining
15 industry?

16 A. Since 1978 -- well, since 1975 in mining in
17 general.

18 Q. And have you had experience underground as well
19 as on the surface?

20 A. Yes, sir.

21 Q. Have you ever testified before either the OCD
22 Hearing Examiner or the OCC itself?

23 A. Yes, I have.

24 Q. And have you testified as an expert mining
25 engineer?

1 A. Yes.

2 MR. HIGH: We would offer Mr. Morehouse as an
3 expert mining engineer.

4 MR. CARR: No objection.

5 MR. BRUCE: No objection.

6 CHAIRMAN FESMIRE: Seeing no objection, Mr.
7 Morehouse is so accepted.

8 Q. (By Mr. High) Mr. Morehouse, explain to the
9 Commission, if you will, Mosaic's mining operations.

10 A. Mosaic began as a -- basically -- and IMC was the
11 previous name -- back in 1938, sunk some shafts based on
12 information of potash that was discovered during oil
13 drilling in the area. They have mined there continuously
14 since 1939. We have approximately 3800 miles of drift
15 open, a drift being a room approximately the size of this,
16 32 feet wide, eight foot tall, and 3500 miles that way.

17 We produce about 8 million tons a year of ore,
18 from which they get approximately 1.2 to 1.4 million tons
19 of product. We have 500 -- over 500 people employed, about
20 250 of which are underground.

21 Q. Describe, if you will, the underground operation.
22 What does the underground of a mine look like? How deep it
23 is and how do people get around in the ground?

24 A. We -- Our mine currently has access to seven
25 vertical shafts, different locations around the mine, that

1 intersect with the underground openings. We have openings
2 on four horizons, anywhere from -- the shallowest place of
3 the shallowest horizon is about 650 feet deep, to the
4 deepest being about 1400 feet deep currently, but headed on
5 to the southeast it will continue to get deeper.

6 Manpower is allowed to go underground down these
7 shafts. It's an electrical hoist that, like an elevator,
8 lets them down, get off on the station, get on -- usually
9 on diesel man-trips, is what they're called, a means of
10 locomotion underground, where they'll drive out to the
11 panels anywhere from three to eight miles away from
12 whatever shaft they went down, to get to where they're
13 going to do some mining.

14 Q. Is the mining operation underground regulated by
15 any governmental agency with respect to safety?

16 A. Yes, we're extremely regulated by MSHA, Mine
17 Safety Health Administration --

18 Q. And are they --

19 A. -- part of the Department of Labor.

20 Q. -- are they required to do any certain number of
21 safety inspections every year?

22 A. They make an inspection, on-site inspection, at
23 least once a quarter. It's usually between one and a half
24 and three weeks long, where they bring in two inspectors.
25 They separate and go different ways for -- we get -- Once a

1 quarter we're inspected thoroughly.

2 Q. And are there regulations that Mosaic complies
3 with dealing with the presence of methane gas in an
4 underground mine?

5 A. Yes, MSHA has a classification for our type of
6 mine. We're considered Category 4 gassy mine, and what
7 that means is that we have experienced methane coming into
8 our mine in the past, but it has never come in in a
9 quantity -- a concentration that's capable of sustaining
10 combustion. Typically, the connate gases that are near our
11 horizon are primarily nitrogen with some methane present in
12 it. It may have 10 percent methane in it. I'm not certain
13 of the quantities, but everything else is nitrogen. You
14 introduce it into a mine, you mix it with normal air. In
15 order to get combustion on methane, you have to get up to
16 5-percent methane with -- I think it's 18-percent oxygen;
17 I'm not sure of the oxygen. But we've never been able to
18 achieve that combination with the airs that do flow from
19 our local existing gases.

20 Q. So given those underground conditions in the
21 potash basin, is the Mosaic underground operation
22 classified as a gassy or a non-gassy mine?

23 A. We're considered Category 4 gassy, but that -- in
24 our terms, that means it's a non-gassy mine in that we
25 don't have to comply with Schedule 33 requirements.

1 Q. If methane in explosive quantities were
2 discovered in the underground workings of Mosaic's potash
3 mine, what could be the consequence?

4 A. Well, depending upon the mode of discovery, if it
5 was an ignition and some kind of explosion, it could be
6 devastating immediately. If it's just discovered that we
7 have that kind of a flow, MSHA is required to be notified.
8 We would be inspected, and they would most likely determine,
9 if it really was a flow and this really was happening, that
10 we would be a gassy mine and have to start complying with
11 their full gassy mine regulations.

12 Q. And when you say complying with the full gassy
13 mine regulations, what does that mean in terms of
14 equipment, electrical, diesel-powered equipment, those
15 sorts of things?

16 A. Everything that's out by the last open
17 breakthrough, in the words they use, which means anything
18 that's exposed to an exposure of -- a flow of this
19 flammable gases has to be intrinsically safe, which means
20 that if a -- like a piece of electrical equipment has to be
21 sealed such that you can't expect to keep gas out of it,
22 but if there's an explosion occurs inside that piece of
23 equipment, it'll contain that explosion and will not ignite
24 the exterior atmosphere. It's an extremely expensive --

25 Q. Let's contrast Mosaic's underground operation

1 with Sego Mine or some other underground coal mine. Just
2 tell us briefly the difference between those two
3 operations.

4 A. Gee, world of differences. They're required to
5 maintain their belt lines in a separate air split.
6 Currently we keep our belt lines on the return. We
7 wouldn't be allowed to do that anymore, we'd have to re-
8 design our ventilation system. All the equipment that
9 drives to the face would have to be, like I said,
10 intrinsically safe, all the power equipment, transformers,
11 switch gear, BCBs, would have to be made intrinsically
12 safe.

13 Q. What is it about a coal mine that creates that
14 explosion hazard?

15 A. It is -- Methane and coal dust are the two
16 explosives that are available to the coal mine.

17 Q. And in the potash basin, the presence of methane
18 is not in explosive mixtures?

19 A. That's correct.

20 Q. Is that risk changed if you have an oil and gas
21 well close to the mine?

22 A. If you -- Just having a well close by changes the
23 risk only in that currently -- or over the eons, there
24 developed a seal to keep the petroleum products below the
25 salt. That's why the traps are there and why the oil and

1 gas is available. And these penetrations do alter the
2 situation, the current condition. And having a gas well
3 there may not introduce gas to us, but then it may. So the
4 risk of it is increased. Now -- Did I answer the question?

5 Q. Is there a difference in risk between a deep gas
6 well and a Delaware well?

7 A. Yes.

8 Q. Which one presents the greatest risk?

9 A. Deep gas is more terrifying to us.

10 Q. Let's direct your attention to Section 24. First
11 let me ask you to look at Mosaic Exhibit Number 1, which is
12 the map -- the BLM map --

13 A. Actually, I've got exhibit numbers written on
14 there, so...

15 Q. Oh, do you? Where?

16 A. Well, I don't on that one. But the other two
17 have 1 and 2 written on them, down there in the --

18 Q. Oh, I see, okay. Well then, let's call the one
19 where in the key box -- what do you call it, under Mosaic,
20 I see one says Exhibit 1, Mine Plan and LMR?

21 A. Yes.

22 Q. All right, let's call that Exhibit 1.

23 And there's another one, to the right of Mosaic,
24 Existing and Proposed Well Locations, Exhibit Number 2.
25 Let's call that Number 2.

1 And then we'll call the last one, which is the
2 BLM Map, Exhibit Number 3.

3 All right, let's start, then, with Exhibit Number
4 3. What is that?

5 A. That's --

6 CHAIRMAN FESMIRE: Mr. High, does the court
7 reporter have a copy of these exhibits, labeled correctly?

8 MR. HIGH: Yes, sir, he does now. My apologies.

9 THE WITNESS: This is a -- just a reprint of the
10 exist- -- of the BLM's measured ore, enclave map, we call
11 it over the years. It's probably somewhat behind. They
12 have a work map they work from down there, that we don't
13 get access to all the time, but it's --

14 Q. (By Mr. High) But this is public information?

15 A. Yes, this is what's publicly available.

16 Q. All right. If we look at this -- I'm sorry, did
17 you say this is a reproduction of what BLM has available to
18 the public?

19 A. Yes.

20 Q. Okay. If we look at Section 24 on here, the
21 section involved in this particular case, can you point out
22 where that is on this particular exhibit?

23 A. If you see the WIPP site area, the 16 sections
24 involved with WIPP, it's immediately west of there. It's
25 the second one from the top.

1 Q. Just to the left of the green thing sticking up
2 inside of WIPP?

3 A. Yeah.

4 Q. Okay. And according to the BLM, the entire
5 Section 24 is measured ore?

6 A. That's correct.

7 Q. Now can you also point out to us on this
8 particular exhibit Section 7 that's involved in this case?

9 A. If you go to the southwest corner of WIPP, not
10 the first section south of there but the second one, is
11 Section 7.

12 Q. So if we go to the southwest corner of WIPP, that
13 says Section 31, the one immediately below it is Section 6?

14 A. That's correct.

15 Q. And then the one below that, Section 7?

16 A. That's correct.

17 Q. And that's the section that's involved in this
18 case?

19 A. That's right.

20 Q. And what's the green line?

21 A. That's the outline of Mosaic's held leases,
22 potash leases.

23 Q. So is Section 7 within Mosaic Potash's lease,
24 with the exception of that little area in the northeast
25 corner?

1 A. Yeah, 600 acres of the 640 is ours.

2 Q. Okay. And is -- Section 24, Mosaic does not have
3 a lease on, right?

4 A. That's correct.

5 Q. But the adjoining section it does?

6 A. That's correct.

7 Q. Okay. Now tell us what Exhibit Number 2 is,
8 please, sir. I'm sorry, Exhibit Number 1.

9 A. Exhibit Number 1, our mining plan and LMR. It
10 was just to get kind of an updated view of what our mine
11 plan looks like now. As been noted, it's different than
12 our 2004 one.

13 Q. When was the LMR shown on Exhibit Number 1 filed
14 with the State?

15 A. It's filed every year, and most recently in
16 January of this year, 2006.

17 Q. That's in January, 2006?

18 A. That's correct.

19 Q. Okay. And so this LMR is on file in the State
20 Land Office?

21 A. Yes.

22 Q. All right, and did you prepare Exhibit Number 2
23 -- I'm sorry, Exhibit Number 1?

24 A. Yes, I did.

25 Q. And explain to us what that shows, please, sir,

1 other than the LMR.

2 A. There's some mine working shown to the southwest
3 on this thing, outlined in red. There's -- the langbeinite
4 level mine plan is what you see as shaded-in areas with
5 dates written --

6 Q. Stop there for a minute. Explain to us
7 langbeinite and the other ores that Mosaic mines.

8 A. Okay, we -- like I was saying before, we mine
9 from four -- we have mined from four different horizons,
10 currently we mine from three. The fourth ore zone, we call
11 850 level, is the langbeinite level. It is what you see
12 outlined in red, the open workings are outlined in red.
13 And the future mining for the langbeinite level are these
14 shaded areas to the -- on the south end of this thing, and
15 there's a little bit up on the northwest side.

16 Q. When you say shaded, is that the orange-looking
17 and the brown --

18 A. Yes.

19 Q. -- colors?

20 A. Yes.

21 Q. That's the mine plan for langbeinite?

22 A. That's correct.

23 Q. Okay.

24 A. And there's just a little bit of black outline
25 shown on the west edge of the map. That's just a little

1 bit shown in of the 700 level, another horizon we've mined
2 on. And the open wire-frame-type boxes at the very top of
3 the page are the 700-level sylvite mine plan numbers
4 currently.

5 Q. All right. And this is the mine plan that was
6 filed in January of 2006?

7 A. That's correct.

8 Q. And it shows that Mosaic will be mining in
9 Section 23 -- 22, 23, 26 and 24?

10 A. Yeah.

11 Q. How do we know the dates of that mine plan? When
12 are you going to be where?

13 A. In some ways mining is a little bit like oil and
14 gas in that you don't always know what you're going to get
15 when you get there. And we're mining west on the sylvite
16 level, coming into -- What is that? Section 27. That was
17 our mine plan two years ago. It kind of petered out.
18 We've turned it, and currently we're mining up into Section
19 22.

20 Q. So you're currently in Section 22, which is the
21 top section at the left -- top left of the document?

22 A. That's correct.

23 Q. Okay.

24 A. And a year from now the mine plan may -- You're
25 asking when we're going to get --

1 Q. Right.

2 A. We make our best guess at normal mining rates and
3 where we think we're going to be going and put it on a map,
4 and then when we get out there and we get stopped for one
5 reason or another, we come up with another plan.

6 Q. Do you have an estimate of when you would be
7 mining in Sections 23 and 24?

8 A. Yes, it's on here.

9 Q. Where would it be?

10 A. It's those little black boxes that can't hardly
11 be read.

12 Q. The little black boxes that you can't read?

13 A. Yes, sir.

14 Q. If we could enlarge that, we could tell -- What
15 is that? The date or the year, or what is that?

16 A. Yeah, it'll say something like Area 4 and the
17 year, 2008. And unfortunately...

18 Q. You can't tell from this exhibit, though, what
19 that number is, right?

20 A. No, I can't.

21 Q. It would have to be enlarged more to see it?

22 A. Yes.

23 Q. All right. And what is Exhibit Number 2?

24 A. Exhibit Number 2 is the -- our knowledge -- and
25 I've got to admit, it's not always current or accurate --

1 on the drilling in the area.

2 Q. Did you prepare this document?

3 A. I did.

4 Q. From what data?

5 A. From all kinds of different data. I try to keep
6 track of drilling from -- I get information from the OCD
7 websites, I get information from the oil companies when
8 they do write me saying they'd like to drill a well there
9 and that we know it's not protested, we end up putting a
10 well in, just anyplace somebody tells me about a well being
11 there, I'll get it on the map.

12 Q. Okay. And this shows the wells in Section 24?

13 A. Yes.

14 Q. And then Section 7 would be down at the bottom
15 right of this exhibit?

16 A. That's correct.

17 Q. Okay.

18 A. Variously the red dots are oil wells, the green
19 star shapes are gas wells. The big, blue open things are
20 APDs that I know of that have come out, not knowing -- but
21 they've been a while back. The black are more currently
22 active APDs, as far as --

23 Q. All right. Well, let's talk now about --
24 specifically about the two wells in Section 24.

25 A. Okay.

1 Q. Is the proposed location of Apache Number 6 and
2 Apache 7A within what you believe to be Mosaic's LMR?

3 A. They're inside a line that would be drawn to
4 include all lands that have grades that meet the
5 requirements of LMR.

6 Q. All right, let's look at Exhibit Number 1. If I
7 go to the top of that document, in Section 24 there's a red
8 line that starts coming down it.

9 A. Yes.

10 Q. Is that the edge of the LMR that Mosaic has on
11 file with the State Land Office?

12 A. That's correct.

13 Q. The LMR is which direction from that red line?

14 A. It's everything west of that line.

15 Q. So if we wanted to color your LMR, we'd color
16 everything from the left side of that red line?

17 A. That's correct.

18 Q. So the location shown -- the little blue square
19 in Section 24, which by the legend shows it to be fee land,
20 and the location of these is at least drawn in what you say
21 is the LMR?

22 A. That's correct.

23 Q. So your LMR -- And let's assume for a minute that
24 the fee land itself is not in the LMR, let's put that
25 aside.

1 A. Okay.

2 Q. The land on all four sides of the 40-acre section
3 would be within the LMR that Mosaic has on file?

4 A. Yes, this is the LMR we have on file, that's
5 correct.

6 Q. Okay. And currently we have a lease, what, in
7 Section 23? And how about the south half of 24? Do we
8 have a lease there?

9 A. No, we don't have any lease in 24. We have all
10 of 23 and the south half of 12 -- or no, 14, just north of
11 23.

12 Q. Okay.

13 A. We have all of 26, most of 25. It's on the
14 Exhibit 3.

15 CHAIRMAN FESMIRE: Mr. High, may I interject a
16 question here while you're --

17 MR. HIGH: Yes, sir, you sure can.

18 CHAIRMAN FESMIRE: I think this is one of Mr.
19 Carr's major points, but Mr. Morehouse, in the oil business
20 if you start booking reserves where you don't have a lease,
21 folks look at you a little askance.

22 THE WITNESS: Uh-huh.

23 CHAIRMAN FESMIRE: How can the potash industry
24 declare that the life-of-mine reserves extend under lands
25 where they don't have a lease?

1 THE WITNESS: Life-of-mine reserves is defined as
2 a height and a grade, and that's the way we've drawn them,
3 and then OCD is so far the only people that do use the LMR
4 line, use it and restrain us to on-lease. The BLM doesn't
5 use LMR but uses an indication of where we think ore is.
6 It's an indication of where ore exists. It is not booked
7 as reserves in our 10K reports as our financial base for
8 having reserves, but it is reserve-quality materials.

9 CHAIRMAN FESMIRE: Okay, so the LMR, the life-of-
10 mine reserves, there is no claim that those reserves
11 actually belong to you; it's just a potential --

12 THE WITNESS: The only --

13 CHAIRMAN FESMIRE: -- mining area?

14 THE WITNESS: The only restriction to it
15 belonging to us was the OCD ruling in the Snyder Ranch
16 case. And we have made application for lease on Section
17 24, so it's -- even though it's not our lease, it's under
18 application.

19 CHAIRMAN FESMIRE: When you say you've made
20 application --

21 THE WITNESS: With the BLM.

22 CHAIRMAN FESMIRE: -- have you made application
23 to Mr. Smith and his family?

24 THE WITNESS: No. All federal parts of it. I
25 did have a short discussion with Mr. Smith about it, but

1 since we're in the midst of this, we decided -- both
2 decided it was best to just wait till this was all over and
3 then see where we're at.

4 MR. HIGH: We -- And just for further
5 clarification, we are required to file all core hole data
6 with the BLM and show them the outline of where we believe
7 ore is. Regardless of who leases -- whether it's leased or
8 not, we have to show that and share it with the BLM, to
9 what we think is ore. And then if we come up mining on an
10 area that's unleased, BLM can order us to go ahead and mine
11 it. So we don't -- under BLM regs, we cannot limit what we
12 show the BLM, just a lease plan.

13 But -- So this LMR doesn't mean we lease it; it
14 just shows what the data shows to be ore out there.

15 THE WITNESS: And on Exhibit 3, if you see
16 immediately west of Section 24, in Section 21, that's an
17 unleased area where we recently was mining and came up to
18 the edge there, and ore was continuing, and we did cross
19 unleased land there with BLM permission, and on into 22.

20 Q. (By Mr. High) With respect to the Section 23,
21 then, Mosaic's lease would include all of Section 23?

22 A. Yes.

23 Q. And this LMR would also include all of Section
24 23?

25 A. Yes.

1 Q. Which would mean if the proposed Apache Number 6
2 is 660 feet from the west line of Section 24, it would mean
3 that that well location would be 660 feet from the edge of
4 Mosaic's LMR?

5 A. That's correct.

6 Q. And if the Apache 7A were in the northeast corner
7 of the blue box in Section 24, it would be roughly 1100
8 feet, or whatever it is, from Mosaic's LMR?

9 A. Yes.

10 Q. What is your understanding, Mr. Morehouse, of the
11 right of an oil and gas operator to drill within a quarter
12 or a half mile of Mosaic's LMR?

13 A. My understanding of R-111-P is that no well will
14 be allowed within a half mile or quarter mile of an LMR,
15 depending on the steps, without the express consent of the
16 LMR owner.

17 Q. That if a proposed well is within an LMR or a
18 quarter mile or a half mile of an LMR, that well should not
19 be allowed under R-111-P without that leaseholder's
20 consent?

21 A. That's correct.

22 Q. Where, then, there's no need to object to it?

23 A. That's correct. R-111-P is written such that --
24 my understanding of it is that an objection -- no objection
25 means the OCD can move ahead with wells outside the buffer

1 zone without any further thought. But within that, we
2 still have to have some kind of agreement arrived.

3 Q. These two wells, Apache 6A [sic] and 7A, then,
4 according to your interpretation of R-111-P, would have
5 been within the area of the LMR where no objection was
6 required from Mosaic?

7 A. That's correct.

8 Q. Now, if these two wells are allowed, Mr.
9 Morehouse, have you done any calculation on the amount of
10 potash that they would waste?

11 A. Yeah, I've done some notebook-type calculations
12 on --

13 Q. Would you share with us -- We know from Exhibit
14 Number 3 that according to the BLM, the entire Section 24
15 is measured ore?

16 A. Yes.

17 Q. Explain to us, if you will, what impact the
18 drilling of these two wells would have on potash in that
19 particular area?

20 A. Well, the drilling of the oil well without the
21 drilling of the gas well would impact some, but I didn't do
22 any calculation on that. I based my calculations on the
23 gas well alone, because it umbrella'd anything that the oil
24 well would have.

25 Q. Why is that?

1 A. The deep gas well has a half-mile buffer to it,
2 and the shallow Delaware has only a quarter-mile, in our
3 opinion.

4 Q. And that comes from R-111-P?

5 A. It's included in the R-111-P, and it's kind of a
6 historical rule of thumb for maintaining distances.

7 Q. All right. And do you know whether or not those
8 same distances, those being a quarter mile and a half mile,
9 are also contained in the 1986 Secretarial Order that
10 governs the federal land in this area?

11 A. I believe they are.

12 Q. All right. Go ahead and explain to us, if you
13 will, the amount of potash that will be wasted if these
14 wells are allowed.

15 A. Well, drawing a half-mile-radius circle around
16 7A, on the 10th ore zone I got about -- just under five
17 foot of height, average, at something in excess of 11
18 percent sylvite. I took the lower end of my grade charts.

19 And including all lands, including the fee lands
20 to which we have no right to mine, but just all lands, it
21 came to approximately \$56 million worth of potash, or about
22 .6 years of mining for Mosaic.

23 Or another way of looking at it was about 300
24 man-years of labor.

25 Q. So that would give 300 years of work for one

1 person?

2 A. Yes.

3 Q. Now I want to go back and make sure everyone
4 understands how this calculation is determined. You took a
5 half-mile circle around the physical -- the surface
6 location of 7A?

7 A. Yeah, half-mile radius, one-mile diameter.

8 Q. And that half mile is what, a safety buffer?

9 A. Yes.

10 Q. And you then, what, calculated the ore inside
11 that half-mile core which could not be mined because of the
12 presence of that deep gas well?

13 A. I calculated the ore present and the expected
14 recoveries and extraction and the grade, and I came up with
15 a gross value.

16 Q. Okay, and that was \$56 million?

17 A. For the entire circle, yes.

18 Q. How much of that -- Well, let me back up first.
19 Was any of the ore that would be wasted in Section 23?

20 A. Yes.

21 Q. So the amount of ore -- When you do the
22 calculation for the half-mile buffer zone around Apache 7A,
23 that half-mile safety buffer zone also wastes ore in
24 Section 23 where Mosaic has a lease?

25 A. That's correct.

1 Q. How much of the \$56 million, if you know, is ore
2 that's wasted in Section 23, as opposed to on the 40-acre
3 area?

4 A. Well, the way I calculated it, I used Section 23
5 and 14 just north of there, because it wasted on both of
6 them. But on Mosaic's leases, it came out to \$23 million
7 on Mosaic lands.

8 Q. So it's \$23 million of the \$56 million would be
9 losses on leases held by Mosaic Potash?

10 A. Yes. The actual numbers would probably come a
11 little higher. I was being conservative.

12 Q. So is it your testimony, Mr. Morehouse, that if
13 the Apache 7A well is allowed on this 40-acre parcel in
14 Section 24, that the impact of that well will exceed beyond
15 the boundaries of the 40 acres?

16 A. The impact will exceed beyond the boundaries for
17 sure, yes.

18 Q. What would be wrong with -- if anything, with
19 Mosaic mining right up to the west edge of the 40 acres, if
20 that deep gas well were 1100 feet away?

21 A. It can be done. If you mine in a manner where
22 you normally want to just extract ore, you do disturb a lot
23 of land. Full extraction means you're going to have
24 subsidence, which causes some kind of motion of the ground
25 around you. If you get too close with too much extraction,

1 you can break the well casing on your own.

2 If the casing wasn't properly installed, if the
3 man that was putting the joint together at the collar got
4 something cross-threaded and didn't quite get it started
5 right, he could have a leak down there that would already
6 be -- A leak can permeate through the salt horizon
7 horizontally, and we don't have a good distance; we're
8 using a half mile. But somewhere out there, we could run
9 into this gas.

10 Q. Is it reasonable, in your opinion, Mr. Morehouse,
11 for a mine to mine up within 1100 feet of a deep gas well?

12 A. It is entirely too much risk involved for us to
13 assume that kind of risk and go do that.

14 Q. And if Devon insists on drilling this deep gas
15 well on this 40-acre plot, and the impact is beyond the 40-
16 acre boundaries, would you expect Devon or someone to
17 compensate Mosaic for the potash that would be lost as a
18 result of drilling that well?

19 A. I would expect we'd try to get some out of them,
20 some kind of compensation. It condemns a right we have, a
21 realty that we have.

22 Q. Would Mosaic have any objection if Devon wanted
23 to develop either the Delaware or the deep gas well on this
24 40-acre parcel with either a directional or a horizontal
25 well from the west boundary of the WIPP area in Section 24?

1 A. No, we would have no objection. And we have
2 discussed it with Devon in the past, that it would be
3 wonderful if we could do that.

4 Q. All right. Look at Exhibit Number 2, please,
5 sir.

6 A. Okay.

7 Q. According to this exhibit you show three
8 directional or horizontal wells in Section 24?

9 A. Yes.

10 Q. One is the Apache Number 9, I can't tell the
11 numbers on the others.

12 A. Yes, that's correct.

13 Q. Would that indicate to you, Mr. Morehouse, that
14 you can go a long way with directional or horizontal
15 drilling?

16 A. Yes, and it indicates to me the Delaware can be
17 developed horizontally.

18 Q. And avoid the waste of \$56 million in potash?

19 A. Yes.

20 Q. All right, let's go down and talk a little bit
21 about Section 7. And we've already -- Go back to Exhibit
22 Number 3, if you would, the BLM map.

23 A. Yes.

24 Q. The 40-acre spot in Section 7, do you see that?

25 A. Yes.

1 Q. Where is that located with respect to the
2 presence of measured ore going to the northeast of WIPP?

3 A. It's dead center of the --

4 Q. So if --

5 A. -- of the measured ore.

6 Q. -- if a deep gas well is allowed on this 40-acre
7 parcel in Section 7, there would have to be a safety buffer
8 zone there as well, correct?

9 A. Yes.

10 Q. What would that do to Mosaic's ability to access
11 the ores south of WIPP and to the east of WIPP?

12 A. Cuts it off.

13 Q. Has Mosaic or any of the other potash companies
14 had any dealings with BLM with respect to the future mining
15 of the ores to the north and east of WIPP?

16 A. Yes, back --

17 Q. Has there been any discussions about access?

18 A. Yes, we've had a lot of discussions about access.
19 Back in 1991 to 1994, approximately, we were trying to keep
20 this area open for mining in measured ore, and we were --
21 since WIPP had been withdrawn, we were trying to keep a
22 corridor open to go around the southeast corner of WIPP and
23 turn north to barren areas and to get back into mixed ores
24 there on the east side.

25 Q. And Mosaic, in fact, has the lease on -- it looks

1 like a piece of 2 and --

2 A. 2, 3 and 4.

3 Q. And is that for access to the east side of WIPP?

4 A. Yes.

5 Q. And if the well in Section 7 is allowed, all that
6 effort with respect to access, what happens to it?

7 A. It puts a big obstacle in the way. I don't see a
8 way around it.

9 Q. So if -- Have you done a calculation on the
10 amount of commercial grade potash that would be lost if the
11 well is allowed in Section 7?

12 A. Only -- I've only looked at it as to what would
13 be lost immediately due to its circle of influence, not
14 what's lost beyond it, up around the corner, I didn't --

15 Q. Okay, well --

16 A. -- get into that.

17 Q. -- let's just stick with the safety buffer zone
18 that would have to be left if the well in Section 7 is
19 allowed.

20 A. Okay.

21 Q. Do you know how much potash would be lost or
22 wasted if that --

23 A. Due to the previous two wells on either side that
24 leave a fairly small corridor through there currently,
25 there was an additional .66 million tons of 4-1/2-percent

1 lang. It's worth about \$11 million.

2 Q. So if the well in Section 7 is allowed, then
3 there will be about \$11 million in potash wasted?

4 A. Additional, over previous wasting, yes.

5 Q. Is that within Mosaic Potash's leases?

6 A. No, that was on and off, just everything outside
7 the two wells.

8 Q. Would Mosaic Potash have any objection if Devon
9 wanted to develop that 40-acre parcel using the pad of
10 James Ranch 14 --

11 A. No.

12 Q. -- and drill either a horizontal or a directional
13 well?

14 A. No, we'd love that too.

15 Q. Would that, then, keep open Mosaic's access to
16 the ores to the south and east of WIPP?

17 A. Yes.

18 Q. Mr. Morehouse, is there anything else that you
19 want to tell these Commissioners about your opposition to
20 why these wells should not be allowed?

21 A. It's hard to sit over here and come up with new
22 ideas.

23 Q. I'm just going to give you the opportunity, if
24 you want to add something that I haven't covered.

25 A. Not really. We fully feel that an LMR -- if,

1 say, Smith Ranch was a potash operation, they would have
2 their own LMR on their land.

3 Let's just talk about Intrepid and Mosaic. If we
4 butt up against each other, we'll both have LMRs, and
5 they'd go right to our property lines. And I guess it
6 could be considered a weapon where Mosaic would allow an
7 oil and gas operator to put a well down on our lands
8 immediately adjacent to Intrepid in order to condemn a
9 large portion of their reserves, but I don't think it would
10 be allowed. I mean, I don't think even you guys would
11 allow that.

12 And a fee owner is in a similar situation. He's
13 got an LMR that he can either protect or not, we've got our
14 LMR that we need to protect, and the buffer zones are
15 around those legitimate LMRs.

16 MR. HIGH: Thank you, sir. We pass the witness.

17 CHAIRMAN FESMIRE: Mr. Bruce?

18 MR. BRUCE: Just a second, Mr. Chairman.

19 CHAIRMAN FESMIRE: Would you like Mr. Carr to go
20 first?

21 MR. BRUCE: Yeah, why don't you let Mr. Carr go,
22 and that will probably reduce any questions that I'm going
23 to --

24 CHAIRMAN FESMIRE: Okay, Mr. Carr?

25 MR. BRUCE: -- ask.

CROSS-EXAMINATION

BY MR. CARR:

Q. Mr. Morehouse, how long have you been with IMC or Mosaic?

A. Hired on in 1978.

Q. Were you involved in any of the efforts or negotiations to develop Order R-111-P?

A. In a broader sense. I wasn't one of the committee members, but I was involved.

Q. Would you agree with me that it was a compromise effort to try and enable both industries to develop their resources in this particular area?

A. Absolutely.

Q. And you would agree with me that both Bass and Devon have a right to go out and develop the oil and gas that they have under these tracts?

A. With the only exception being, not develop any way they want to.

Q. But they do have a right to develop those. Would you say that Mr. Mills and Mr. Smith also have a right to develop the oil and gas?

A. That's correct.

Q. As to Mr. Mills and Mr. Smith, they also have a right to decide how the potash is going to be developed under that --

1 A. Yes, they do.

2 Q. -- isn't that fair to say?

3 I think we're in agreement on this, that both of
4 the 40-acre fee tracts that we're talking about here today
5 fall west of the LMR line and are in the LMR area. Would
6 you agree with me on that?

7 A. Both of the tracts?

8 Q. Both 40-acre tracts are --

9 A. In what I'd consider good ore --

10 Q. And --

11 A. -- quality ore.

12 Q. And they are based on your line of the LMR, in
13 the LMR area --

14 A. Yes.

15 Q. -- is that right?

16 A. That's correct.

17 Q. Mr. High was asking Devon witnesses if -- when
18 they develop oil and gas, do they consider the impact their
19 plans will have on the potash industry? So I want to ask
20 you the same question. When you're developing potash
21 reserves, do you consider what impact your activities would
22 have on the oil and gas industry?

23 A. Yes.

24 Q. And how do you do that?

25 A. Well, once a well is there we have to consider

1 what our mining will do to that well, and that's this half-
2 mile, half-mile stuff.

3 Q. I mean, is that half-mile radius to protect the
4 oil and gas operator? Is that what you're telling us?

5 A. It's really about a depth of ore plus 10 percent,
6 would be to protect that oil operator. And that depends on
7 the depth that we're mining at. So in a place where we're
8 1400 feet deep, it's about a quarter mile --

9 Q. The --

10 A. -- to protect the casing.

11 Q. The core that you leave around a well, is that
12 set by regulation, how much you have to leave around a
13 wellbore?

14 A. Not anywhere I'm aware of.

15 Q. That's a decision that you at Mosaic make?

16 A. Yes.

17 Q. Have you ever mined closer than a half mile to an
18 oil and gas well?

19 A. To an oil and gas well.

20 Q. To an oil and gas well.

21 A. We have mined closer than a half a mile to dry
22 and abandoned wells that were drilled back in the 1920s and
23 '30s that were no-shows.

24 Q. Do you know of other operators who've ever
25 drilled closer than a half mile to an oil or a gas well?

1 A. I don't know of anybody that's drilled any closer
2 than that to a gas well.

3 Q. Up in the Eddy potash area, didn't they actually
4 even --

5 A. They --

6 Q. -- hit a wellbore at one time --

7 A. Yeah, but they --

8 Q. -- they were that close?

9 A. -- not a gas well. I think they went over and
10 they did -- They were trying to mine within 250 feet, if I
11 remember right, of shallow Yates formation oil wells, yes.

12 Q. Now --

13 A. Back in the 1950s and 1960s, before MSHA and
14 gassy mines and all of the -- all of this regulation.

15 Q. Now you've commented on directional drilling and
16 that you think that would be a viable tool. Do you have
17 any expertise in directional drilling?

18 A. Absolutely none.

19 Q. Any expertise in horizontal drilling?

20 A. No, not a bit.

21 Q. Do you understand that to develop these resources
22 with a directional horizontal well would increase the cost
23 of developing the oil and gas resources?

24 A. In some cases I'd say that would be true. Like
25 in Section 24, I imagine the cost to have increased that

1 horizontal well at the time they were drilling it would
2 have been very minor, to get the -- to get that --

3 Q. If horizontal drilling and directional drilling
4 were used or required to develop these resources, to avoid
5 the potash mine, would you think it appropriate that Mosaic
6 compensate the oil and gas operator for the additional
7 costs that they incur?

8 A. I'm sure we would resist that.

9 Q. And when you say that you're sure you would look
10 and try and recover costs from the oil and gas industry --

11 A. I'm sure you would resist that.

12 Q. Thank you.

13 (Laughter)

14 MR. HIGH: Next stop.

15 (Laughter)

16 Q. (By Mr. Carr) Do you understand that with a
17 vertical well you're drilling straight down through all the
18 formations on a tract?

19 A. Yes.

20 Q. And do you understand that with horizontal and
21 directional wells that becomes more difficult?

22 A. I understand you can't hit all your pays. You'd
23 have to pick the most productive pays for the area.

24 Q. And if we did that, we might have to leave some
25 reserves in the ground?

1 A. Some that you decided to leave, at least on
2 federal lands in the same area, yes.

3 Q. Now one thing I think we can maybe again both
4 agree on, your industry is cost-sensitive?

5 A. Very.

6 Q. Do you understand that the oil and gas industry
7 is also cost-sensitive?

8 A. Some years.

9 (Laughter)

10 CHAIRMAN FESMIRE: Mr. Carr, is that --

11 (Laughter)

12 Q. (By Mr. Carr) Are you an expert on what it would
13 cost to horizontally drill four wells to produce a Delaware
14 zone, as opposed to producing with a vertical well?

15 A. I am not --

16 Q. You do --

17 A. -- qualified to --

18 Q. -- understand that the costs might impact the
19 desire or the interest or the ability of a company to --

20 A. I'm sure it would.

21 Q. Now I'm going to try and work on these exhibits,
22 but I've made terrible notes on them. I think if we would
23 go -- I guess let's start with -- I believe it's Exhibit
24 Number 1 that shows the mine workings in orange?

25 A. Yes.

1 Q. This is similar to a map that you presented at
2 the hearing in 2004; is that correct?

3 A. That's correct.

4 Q. And if we look at the area up in the northwest
5 portion of this exhibit in Sections 22 and 23, the blocks
6 that are outlined in red or orange, that's part of your
7 sylvite mine plan; is that right?

8 A. The ones that are like wire-frame boxes, yeah.

9 Q. And has mining occurred in those at this time?

10 A. No, nothing on this map, none of those on this
11 map.

12 Q. And in 2004, 18 months ago, you actually had
13 projected that mining would occur as close as a quarter of
14 a mile to the Devon tract --

15 A. Yes --

16 Q. -- isn't that right?

17 A. -- at that time our -- what we call our Area 2
18 development was heading east in Section -- Get this right.
19 In Section 28, it was going to -- it was straight across a
20 kind of a low-grade area that pretty much covered a lot of
21 Section 27 on this map, and it was widening back out in 26
22 and turning north, yes. There was a different plan going
23 on, on this.

24 Q. At this time are you pursuing active mining of
25 the sylvite in Sections 22 and 23?

1 A. We are actually mining in 22, we are in there
2 mining.

3 Q. And the exhibit doesn't have any dates as to when
4 you anticipate getting to these zones, and I'm --

5 A. Not good enough --

6 Q. -- I know from my --

7 A. -- that we can tell.

8 Q. And I know from my experience of 18 months ago,
9 these change.

10 A. Yes.

11 Q. But can you tell me when you estimate you might
12 be mining in the northeast of Section 23, or do you just
13 not know?

14 A. I don't recall the dates that we're going to be
15 on there. I'd just have to -- I believe it's probably
16 about four to five years away.

17 Q. If we go down to the area where you show the
18 orange, the -- on langbeinite mine workings and the dates
19 on those --

20 A. Yes.

21 Q. -- those don't exist at this time, do they?

22 A. That's correct. Well --

23 Q. How close --

24 A. -- some of it does, but --

25 Q. Well, how much of this as shown actually exists

1 today?

2 A. Well, if you look at the langbeinite, where it
3 shows the year 2006 -- and I guess it only shows in one
4 place, that's in Section 2 on the west edge, that's been
5 mined out already, that part of it. We were in there
6 mining and we figured out we'd finish out, and we did
7 finish out that time.

8 Q. How close at this time do you have any active
9 potash mines to the 40-acre tract in Section 24?

10 A. Section 24.

11 Q. Devon.

12 A. Approximately two miles --

13 Q. And so --

14 A. -- west southwest.

15 Q. And so we were thinking that you would be moving
16 in on a quarter of a mile 18 months ago. Now you're two
17 miles out?

18 A. Right.

19 Q. If this trend continues, will you ever get there?

20 A. It'll always get there, but the plan always
21 changes, yes.

22 Q. Now if I look at this exhibit, Exhibit 1, the red
23 line that goes up and down, that is the buffer zone?

24 A. No, it's the --

25 Q. I'm sorry, that's the --

1 A. -- LMR.

2 Q. -- LMR boundary?

3 A. Yes.

4 Q. Now beyond that we also have two buffer zones; is
5 that right?

6 A. That's correct.

7 Q. A quarter of a mile for shallower wells and a
8 half mile for deeper wells, so --

9 A. At least on State lands it's that way.

10 Q. Just on State lands?

11 A. When you go to federal lands, their rules are
12 different. They don't --

13 Q. And they're not enforcing those buffer zones?

14 A. I don't know exactly how they enforce it. They
15 enforce a measured ore which is lower than LMR.

16 Q. If I look at this map and I compare it to, I
17 think, your map, Exhibit Number 3, it appears to me -- and
18 correct me if I'm wrong -- that in the area offsetting the
19 Devon well, no new leases have been acquired in the last 18
20 months; is that --

21 A. No, not acquired, just applied for.

22 Q. And when you acquire those leases, that's the
23 first time you will have a right to actually develop
24 through those lands and develop the ore, correct?

25 A. We already have the right to go onto 23. That

1 will be the first time we'll be -- have the right to go on
2 24, yes.

3 Q. You actually, though, if the BLM tells you you
4 can, can go ahead onto the acreage without a lease; isn't
5 that right?

6 A. That's correct.

7 Q. But in that circumstance you do have an agreement
8 or authorization from the person who actually owns the
9 minerals; isn't that correct?

10 A. That's correct.

11 Q. And unless you could negotiate a lease with Mr.
12 Smith, you would never be able to acquire a right to mine
13 under the fee acreage that's --

14 A. That's correct.

15 Q. -- shown in Section 24?

16 A. Given his stated intention to do whatever is
17 lucrative, we could probably do something that would get to
18 it.

19 Q. But it isn't lucrative until it's mined?

20 A. Yeah, and it's going to be a while before --

21 Q. And it won't be --

22 A. -- it's mined.

23 Q. -- mined until you get there?

24 A. That's right.

25 Q. All right. If we go to Exhibit Number 2 --

1 A. Uh-huh.

2 Q. -- I can see the red LMR line. There is also
3 sort of a blue squiggly line that comes down from the
4 northeast of the plat and moves across it. What is that?

5 A. That is a depiction I got of the BLM measured
6 ore.

7 Q. And what is the BLM measured ore? How does that
8 relate to the LMR?

9 A. They look at all mining horizons, not just the
10 ones we're mining currently. Anything that's at or above
11 four foot of 4-percent mining, 10-percent sylvite, or any
12 combination, is included, and only when there's three or
13 more wells within a mile and a half of each other to make
14 that ore zone a legitimate --

15 Q. And when you say well, do you mean a --

16 A. Core hole, yeah.

17 Q. You prepared Exhibit Number 2?

18 A. Yes.

19 Q. And you have a number of well spots that are
20 shown with large blue circles.

21 A. Yes, those are APDs.

22 Q. The APDs in Section 1 were approved, or Mosaic
23 agreed to those, did they not?

24 A. I think we would. I don't remember, but --

25 Q. Are you aware that the BLM denied those?

1 A. I've been hearing that today, yes.

2 Q. Some of the well symbols are in black. Why is
3 that?

4 A. They were more recent. The blue meant APDs that
5 I knew about back when, and black kind of brings my
6 attention to those that I thought were more current.

7 Q. Are you aware that the black well spot just north
8 of Section 7 has been denied by the BLM?

9 A. That would be 67?

10 Q. I can't read it on this exhibit. It would be --

11 A. Okay, yeah --

12 Q. -- due north, the black circle --

13 A. -- yeah.

14 Q. -- above Number 7.

15 A. I didn't know it was denied, but I would expect
16 it to be, yes.

17 Q. And then the well over in the southwest southwest
18 of Section 6, also been denied?

19 A. Southwest southwest 6, okay. No, I didn't.

20 Q. And when you were calculating the value of the
21 reserves that would be lost at each of these wells --

22 A. Yes.

23 Q. -- how did you make that calculation? Did you
24 bring it with you?

25 A. Not really. Not over here, anyway. I might have

1 sketches, but -- I drew a half-mile circle around the gas
2 well that's James Ranch 14, and I drew a half-mile circle
3 around the well that's James Ranch 12, then I drew a half-
4 mile circle around the new proposed hole, 93, James Ranch
5 93, and what wasn't already condemned by the previous two
6 wells I included in the calculation on --

7 Q. And you only included acreage within the LMR?

8 A. Anything that was ore, not on lease. I didn't
9 look at where it was leased or not.

10 Q. Okay, if that half-mile radius extended beyond
11 the boundaries of the LMR, you didn't count any of that,
12 did you?

13 A. No. No, I did not include any tons for --

14 Q. So that gives -- that gives me the area that you
15 were looking at. Now how do we know what grade ore you
16 picked?

17 A. I've got drill holes in the location. If you
18 look at Exhibit Number 1, middle of Section 7, there was a
19 hole, I449 -- the 9 is cut off -- which is that green --
20 the green hole, and there's a -- it looks like a 144.
21 That's I449.

22 Q. And where is that?

23 A. Middle of Section 7 --

24 Q. Okay.

25 A. -- just to the right of --

1 Q. All right.

2 A. -- the number 7. That hole was six foot of 6.7-
3 percent sylvite, 5.7-percent lang., and I didn't take any
4 credit for the sylvite. Again, everything I did was trying
5 to be on the conservative side --

6 Q. And so you were able to take an actual number for
7 the thickness and for the ore --

8 A. Yes.

9 Q. Now, you've testified that that well sits right
10 in the middle of the access off to the --

11 A. Right now we have an opening between those -- 14
12 and 12, that we can get through, to head on to the east.

13 Q. If that well had been moved to the extreme
14 northwest corner of the 40-acre tract, would that have
15 given you more access?

16 A. If you draw a half-mile circle around it, these
17 40-acre plots don't make a whole lot of difference.

18 Q. And --

19 A. And we did have discussions, Ken Gray, he did
20 come over and we talked about moving around. And as he
21 indicated, we didn't come to an agreement. We did say the
22 further north and the further west, the better, but you
23 still weren't anywhere of value to us.

24 Q. Well, if you move to the extreme northwest corner
25 of that tract and we could get an agreement with you and

1 approval from the BLM, you still would have some access on
2 the south end of the LMR, would you not?

3 A. We would have to get closer than half a mile to
4 two gas wells to get through that.

5 Q. And -- How long have you had this half-mile
6 boundary? As long as you've been mining out there?

7 A. Yes, since I've been there.

8 Q. Is your technology improving to give you a better
9 handle on mine safety --

10 A. It really isn't our technology that worries us,
11 it's the oil and gas's technology. But no, we don't have a
12 -- Other than going to gassy mine equipment, that's the
13 only change of technology that allows us to mine an area
14 that we think gas may be present. And we are resisting
15 that. That's a couple hundred million dollars' investment,
16 in our mind.

17 Q. To access --

18 A. To go gassy mine.

19 Q. To access maybe \$50 or more million on the other
20 side of the well?

21 A. Yeah.

22 Q. Is that right?

23 A. A \$200-million investment to -- just to -- yeah,
24 to continue mining, once we decide we're going to --

25 Q. Did you say 200 or 2?

1 A. \$200 million. Or more than that, it was in
2 excess of that.

3 Q. If we go back to Exhibit Number 1 for a minute
4 and we look in Section 24, that 40-acre fee tract seems to
5 be only 300 or 400 feet to the west of the LMR line; is
6 that correct?

7 A. That's correct.

8 Q. And as you move toward the LMR line, is it fair
9 to assume that the quality of the potash declines as you
10 get toward that line?

11 A. That would be our expectation, yes.

12 Q. And in your calculations of the reserves that
13 would be lost there, did you take that into effect as well?

14 A. Yes, I averaged three holes around there -- Well,
15 let's see if I've got it here. And I picked a -- I
16 actually have a contour map drawn with all the wells and
17 the location, and it Kriegs it and makes a depiction, and I
18 took the center of the area visually and said, Okay, the
19 grade is what it is right there, and that's where I got the
20 11 percent --

21 Q. And did you exclude anything that fell on the
22 other side of the LMR line?

23 A. Yes, I excluded everything outside the LMR line.

24 Q. Now, the way you're interpreting R-111-P, isn't
25 it really locking Mr. Mills and Mr. Smith out of the

1 ability to produce their reserves?

2 A. I'd say no.

3 Q. They can't on their own produce the potash?

4 A. No.

5 Q. And you're not going to be there for some time?

6 A. And they can't on their own produce the oil,
7 right.

8 Q. And in the meantime, if they need a vertical well
9 to produce those reserves, you're objecting to those?

10 A. Yes.

11 Q. Even though you don't own anything under that 40-
12 acre tract; is that right?

13 A. That's correct.

14 Q. And so aren't you in essence telling them they
15 can't develop their minerals as -- in a prudent fashion?

16 A. Devon could have developed their Delaware, or a
17 portion of the Delaware, in the last year, but chose not
18 to --

19 Q. But you've heard that you couldn't develop --

20 A. -- so we're not the only one telling them they
21 can't do it, yeah.

22 Q. But Devon has proposed drilling a vertical well
23 to hit all of the zones in the Delaware and the deeper
24 zones as you go down --

25 A. Yeah.

1 Q. -- correct?

2 A. And what you're saying is that that is not
3 acceptable to you?

4 A. I think to drill -- to worry about the multiple
5 zones that typically aren't -- what do you call it in the
6 oil company -- business? -- completed in. They're not --
7 they're -- a lot of the zones you're talking about are
8 things they don't normally complete in, in this area. They
9 know what the pays are in this area. I think they can hit
10 the pays they're after.

11 Q. And is this something that you're an expert on?

12 A. I'm not an expert on it.

13 Q. Any more than I could tell you what zone you
14 ought to mine?

15 A. That's a fact.

16 MR. CARR: That's all I have, thank you.

17 CHAIRMAN FESMIRE: Mr. Bruce, are you ready?

18 MR. BRUCE: Yeah. Before I begin, let me hand
19 out a handcrafted exhibit, Mr. Chairman.

20 CHAIRMAN FESMIRE: I'm assuming this is a
21 rebuttal exhibit?

22 MR. BRUCE: Yeah, I want to ask some questions.
23 I've marked it, I don't know if it's going to be admitted,
24 but I just want to ask some questions. And what I've done,
25 Mr. Examiner, is taken Devon Exhibit Number 2 and drawn a

1 half-mile-radius circle around the deep gas well that Mr.
2 Morehouse was testifying about, and I just want to ask him
3 some questions on that.

4 EXAMINATION

5 BY MR. BRUCE:

6 Q. But before we do, Mr. Morehouse, just ignore the
7 wells for now, and go to the south half of Section 14 and
8 assume you are mining in the south half of Section 14. And
9 let's say you were heading northward, and your leasehold
10 ends at the half-section line; is that correct?

11 A. Currently, yes. Again, that's part of what we
12 applied for with Section 24.

13 Q. Okay. If you were mining northward through the
14 south half of Section 14, how close can you get to that
15 half-section line in your normal mining operations? And
16 I'm not talking about --

17 A. Fifty feet.

18 Q. Fifty feet. Okay, so you have the technology to
19 measure so that you know when you're 50 feet away from that
20 half- --

21 A. Yes.

22 Q. -- -section line?

23 And with respect to Mr. Smith's property -- well,
24 you said that -- With respect to the BLM and the LMR data,
25 you justified that, or you had the data to justify that to

1 the BLM?

2 A. Yes.

3 Q. Have you ever submitted any of that data to Mr.
4 Smith?

5 A. No.

6 Q. Have you ever requested that he agree to include
7 his land in an LMR?

8 A. No.

9 Q. And looking at Mr. Smith's property, there is
10 absolutely no place within his property that a Delaware
11 well could be located --

12 A. Other than --

13 Q. -- which would be --

14 A. Other than in the Delaware.

15 Q. Other -- there is no -- If there's a quarter-mile
16 buffer zone for the Delaware, there's no place in that 40
17 acres that could be outside of that buffer area?

18 A. Only by doing -- extending the horizontal well
19 they had down there, that's the only way I see they could
20 do that.

21 Q. It's just physically impossible with the
22 distances and the size of the acreage involved?

23 A. Physically impossible to do a vertical well on
24 that 40 acres.

25 Q. Okay. Do you at this time, Mosaic, have a potash

1 lease on the southwest quarter of Section 24?

2 A. No.

3 Q. No, okay.

4 A. I was wondering, what is that haching to the
5 right?

6 Q. Mr. Morehouse, if you look, the -- and this was
7 Mr. Gray's exhibit, the northwest-to-southeast was supposed
8 to be potash leases, and the northeast-to-southwest haching
9 is oil -- is --

10 A. Okay.

11 Q. -- is unleased --

12 A. Okay.

13 Q. -- for potash.

14 So answering Mr. High's questions -- and if you
15 could keep your Exhibit 1 in front of you at the same time,
16 Mr. Morehouse --

17 A. Okay. My lease maps don't show that being leased
18 now.

19 Q. Okay.

20 A. You might prove me wrong.

21 Q. I -- you know.

22 (Laughter)

23 Q. And you were talking about the -- Devon's
24 proposed 7A well as the deep gas well --

25 A. Uh-huh.

1 Q. -- when you were calculating lost reserves, and
2 you talked about a half-mile radius, and I think with
3 respect to that half-mile-radius circle, you gave Mr. High
4 an answer of reserves you could not access of \$56 million;
5 is that correct?

6 A. No, not to 7. \$56 million had to do with Section
7 24.

8 Q. Section --

9 A. It was \$11 million of immediate losses in Section
10 7.

11 Q. Okay, what about Section 24?

12 A. Twenty-four was \$56 million --

13 Q. Okay.

14 A. -- including fee lands.

15 Q. Okay. And at this point you don't have any
16 potash leases within Section 24?

17 A. No. And that \$56 million is everybody's money.
18 I'm talking what the BLM and what the landowner and
19 everybody -- it's the gross value of that --

20 Q. Okay.

21 A. -- mineral.

22 Q. Okay. Well, that makes my questioning easier.
23 At this point, then, there are no potash leases within
24 Section 24, and then that \$56 million total is assuming
25 it's leased and mined at some point?

1 A. Yes.

2 Q. And even looking at your Section -- excuse me,
3 your Exhibit 1, even if it was leased, at this point,
4 somewhere out in the distant future, if I recognize these
5 rectangles drawn on there, you wouldn't -- you don't even
6 have any plans to mine more than a small portion of Section
7 24?

8 A. This mine plan ended -- I don't know if it's a
9 ten-year plan -- certain of even that, but it ended at a
10 certain time period. It continued to the north and to the
11 east until we run out of reserves.

12 Q. It could?

13 A. It could.

14 Q. If you ever mine it?

15 A. (Nods)

16 Q. And again at this point, you have no right to
17 mine it?

18 A. That's correct.

19 MR. BRUCE: Thank you.

20 I have nothing further, Mr. Examiner -- Mr.
21 Chairman.

22 CHAIRMAN FESMIRE: Any more redirect? Mr. High?

23 MR. HIGH: Yes, please, just -- just very, very
24 few.

25 First I'd like -- I've just been reminded, I

1 forgot to move into evidence Mosaic's Exhibits 1, 2 and 3,
2 which I'd like to do at this point?

3 CHAIRMAN FESMIRE: Mr. Carr?

4 MR. CARR: No objection.

5 CHAIRMAN FESMIRE: Mosaic Exhibits Number 1, 2
6 and 3 will be admitted into evidence.

7 REDIRECT EXAMINATION

8 BY MR. HIGH:

9 Q. Mr. Morehouse, in doing the calculations on the
10 ore, measured ore, to be wasted if these wells are to be
11 allowed, did you use a computerized program?

12 A. No. Well, the Krieking, the -- I looked at a map
13 on which we do contour lines of where we expect the grade
14 to be, and I used those to come up with a less than
15 computerized guess of what that represented.

16 Q. Well, did you input the corehole data into a
17 computer program and then it printed out contours of
18 those --

19 A. Yes.

20 Q. -- ore grades?

21 A. Yes.

22 Q. Okay. And then from that, then, computer-drawn
23 contours of ore grades, you calculated the potash that
24 would be wasted?

25 A. That's correct.

1 Q. And I want to be clear on one point that Mr.
2 Bruce was talking about. When you say if Apache's Well 7A,
3 which is the deep gas well in Section 24, is allowed, you
4 said it would waste \$56 million in potash. That is potash,
5 is it not, that we know is now in the ground in Sections
6 24, 23 and 13?

7 A. And on the 10th ore zone alone. There's more on
8 the 8th.

9 Q. All right. And if that well is drilled, then
10 there's \$56 million worth of potash that is wasted, that
11 will never be mined, whether it's leased or not --

12 A. That's correct.

13 Q. -- because of that existence of that well; is
14 that correct?

15 A. That's correct.

16 MR. HIGH: Okay, I believe that's all we have.
17 Thank you, Mr. Chair.

18 CHAIRMAN FESMIRE: Commissioners, do you have any
19 other questions of this witness?

20 EXAMINATION

21 BY COMMISSIONER BAILEY:

22 Q. Exhibits 1, 2 and 3 all have lines on them
23 concerning potash reserves, LMRs, BLM lands -- lines. And
24 none of them match up. The lines of the potash enclave in
25 Exhibit 3 don't match the BLM measured ore in Exhibit 2 --

1 A. That's correct.

2 Q. -- and then the LMRs are --

3 A. No, the LMRs are identical.

4 Q. -- a totally different critter altogether.

5 A. The LMRs are identical.

6 Q. Yes, but they are totally different critters from
7 the --

8 A. -- from measured ore.

9 Q. -- BLM measured ore.

10 A. That's correct. And the difference between the
11 BLM's -- the blue map was printed back in, I think, about
12 1991, 1992, and what's on the outline of this thing is,
13 there's a -- they've got it done at the BLM office in
14 AutoCAD form that we have access to, and that's what I
15 pulled over here, was just that line. It's not a pretty
16 representation, it's just a line on a map, and that's
17 what's on here. They're more -- the working enclave map.

18 Q. Okay, can we assume that the area inside the LMR
19 is either richer or greater depth of potash than that
20 resource between the BLM measured ore and the LMR line?

21 A. You can assume that it's greater thickness or
22 grade, and --

23 Q. Intrepid and Mosaic are the only potash companies
24 left down there, aren't they?

25 A. That's correct.

1 Q. Is there a reason to keep the LMR confidential
2 anymore?

3 A. I might have to turn that back over to my lawyer.

4 MR. HIGH: Don't look at me, that's not my -- I
5 didn't get hired to answer that question. Quite frankly, I
6 don't know.

7 THE WITNESS: We have talked about this.
8 Personally, I don't see a reason for it being a big
9 problem, but corporate-wide they said, Well, that's our --
10 we need to hang onto our knowledge of this so that Intrepid
11 doesn't see what we're shooting for, and --

12 MR. HIGH: Well, there's also another issue too.
13 There's other potash leaseholds. Yates Petroleum and Pogo
14 Producing own potash leases. So there's a lot of other
15 people out there who own potash leases, that we may or may
16 not want to know where our line is drawn. So I mean,
17 there's some -- still some competitive reasons.

18 COMMISSIONER BAILEY: I'm just trying to make the
19 process easier and more enlightened for everybody --

20 THE WITNESS: Appreciate that.

21 MR. HIGH: And I will agree with you, it's not
22 near as important now as it was 10 years ago, for example,
23 simply because of the consolidation in the industry.

24 COMMISSIONER BAILEY: That's really all I have to
25 say.

1 CHAIRMAN FESMIRE: Commissioner Olson?

2 COMMISSIONER OLSON: No questions.

3 CHAIRMAN FESMIRE: And I have no questions.

4 Are there any further questions of this witness?

5 MR. CARR: No.

6 CHAIRMAN FESMIRE: Mr. Morehouse, I appreciate
7 it. I guess that's all we'll be needing you.

8 Mr. High, did you have any other witnesses?

9 MR. HIGH: We have no other witnesses. I would
10 like to make a request of the Commissioners.

11 CHAIRMAN FESMIRE: And that is, sir?

12 MR. HIGH: This case is of paramount importance
13 to us. It raises issues of very serious concern to us, and
14 I am going to ask the Commissioners for permission to
15 submit written briefs on the factual and legal issues
16 raised in this case, as opposed to closing statements,
17 which I know from long experience is the customary form of
18 doing things.

19 CHAIRMAN FESMIRE: Right.

20 MR. HIGH: This case, to me, is far more serious
21 than oral or closing statements, so we would ask the
22 Commission to indulge us in submitting a written brief.

23 CHAIRMAN FESMIRE: Are they necessarily
24 exclusive? Can we not call for --

25 MR. HIGH: No, I --

1 CHAIRMAN FESMIRE: Okay. Mr. Carr, would you --

2 MR. CARR: If they're not exclusive --

3 CHAIRMAN FESMIRE: -- have any objection?

4 MR. CARR: -- we won't object.

5 CHAIRMAN FESMIRE: Okay.

6 MR. CARR: If they are, we will.

7 CHAIRMAN FESMIRE: Well, I intend to offer
8 everybody a chance to make a closing statement today, and
9 written briefs and supplements of the record --

10 Supplements of the record?

11 MS. BADA: (Nods)

12 CHAIRMAN FESMIRE: -- by the time the Commission
13 meets on the 15th. Okay.

14 MR. HIGH: 15th of June?

15 CHAIRMAN FESMIRE: Of June.

16 Mr. Carr, did you have a closing statement?

17 MR. CARR: I did have a brief closing statement.

18 May it please the Commission, as you know, we're
19 here trying to get Oil Conservation Commission approval for
20 three wells that Bass and Devon are proposing to drill in
21 the potash area, and we have pursued these locations trying
22 to comply with your Order R-111-P.

23 As we discussed earlier, R-111-P is a carefully
24 drafted document to recognize the needs of both industries
25 to develop these resources. And if you look at R-111-P, I

1 think you can see that it is not only carefully drafted in
2 terms of the two industries, but there is another
3 underlying theme, and that is, rights and obligations fall
4 on people who own interests.

5 R-111-P isn't just a blanket shut-out for any
6 industry or any party in an area. You have to own an
7 interest. You have to be a lessee to designate an LMR, you
8 have to be a lessee to drill a well or to authorize the
9 drilling of a well in the potash area. And so before you
10 just launch into the potash order, you have to recognize
11 that there is an underlying ownership component.

12 You don't use the LMR to take someone's rights
13 without compensation, that's not the intent. What you have
14 is an order that addresses the rights of different people
15 who own different rights in the same property.

16 And this committee recommended and this
17 Commission adopted the provision that said, and I quote,
18 Any application to drill in the LMR area, including buffer
19 zones -- the one-half mile, or the one-quarter mile that
20 Mr. High talks about -- Any application to drill in the LMR
21 area, including a buffer zone, may be approved only by
22 mutual agreement of lessors and lessees of both potash and
23 oil and gas interests. That's what the Rule says. And we
24 stand before you with those agreements in hand.

25 It seems to me that if you fail to recognize the

1 role of owning a right, then what you're doing is turning
2 R-111-P into a tool that can be used to take the interest
3 of someone else. And we think that would violate your
4 duties, particularly to protect correlative rights, because
5 not only do Devon and Bass have correlative rights, but so
6 does Mr. Smith, and so does Mr. Mills. And we've been
7 talking to you about the kinds of technologies that must be
8 employed if their reserves are to ever be economically and
9 prudently developed. And I don't think that can just be
10 swept away because we're in an R-111 area.

11 The OCD, the Division, approved two of the
12 permits and then withdrew those. And they withdrew them
13 based on objections stated by Mosaic. And as to the Bass
14 objection -- the objection was, you can only drill when you
15 have an agreement between the oil and gas operator and the
16 potash operator. As to the Bass case, we have that.

17 The Mosaic objection to Devon's was based on a
18 2004 letter where they talked about their five-year plan,
19 how they would be mining within a quarter of a mile within
20 a year, maybe within 1100 feet of a wellbore. And now we
21 come only 18 months later and find they're not a quarter of
22 a mile, they're not a mile, they're not -- they're perhaps
23 more than two miles. And the time just stretches out into
24 the future before they will mine, if they ever do. And
25 then after that, perhaps, we can come back, if it's

1 economically feasible, and oil and gas wells today.

2 I would submit the data shows today that neither
3 of the objections raised were really appropriate, and none
4 of them are supported by the record.

5 I would also tell you that if you look at the
6 prehearing statement filed in this case on behalf of
7 Mosaic, they talk about the prohibitions that come from
8 drilling in a buffer zone, whether it's LMR or not. But
9 the provision we're relying on says that it applies in the
10 LMR or in the buffer zone. It applies to both.

11 The Noranda case, the first case where the
12 Division ruled as we're asking you today, was a case in the
13 buffer zone.

14 And then they come in and they opine about
15 directional drilling and how directional horizontal
16 drilling would be the answer, but the record is very clear
17 that these have limited viability, and in reservoir like
18 the Delaware with multiple zones, you simply cannot
19 economically access the minerals, and if you can't, they
20 will be less wasted.

21 We ask you to affirm the decision of the
22 Examiner. We ask you to allow us to exercise the rights
23 that we believe we're entitled to under Order R-111-P.

24 CHAIRMAN FESMIRE: Mr. Bruce?

25 MR. BRUCE: Well, Mr. Carr always says he'll be

1 brief. I'll be short.

2 I would just second Mr. Carr's comments and turn
3 it over to Mr. High.

4 CHAIRMAN FESMIRE: Mr. High?

5 MR. HIGH: Very briefly. I think one of the
6 central issues I'm hearing in this case is one that I think
7 can be framed very simply.

8 Devon believes that a fee simple landowner has
9 the right to develop its oil and gas interests on a 40-acre
10 parcel without regard to the impact that that development
11 has on adjoining mineral interest owners.

12 And that's just not true, that if you are going
13 to develop oil and gas interests on a 40-acre parcel, if
14 that development adversely impacts your neighbors on
15 adjoining -- the adjoining mineral interest owners here, as
16 this one does, you don't have the right to do that. You
17 may have the right to develop it, but not in the particular
18 manner you have chosen. You can develop it under another
19 alternative that does not adversely impact the adjoining
20 mineral interest owners.

21 And if this Commission doesn't have the duty to
22 do that, then what in effect it does, it allows the fee
23 landowner to transfer that damage to people that are not
24 causing it. The additional cost by drilling on this 40
25 acres, when it impacts the adjoining mineral interest

1 owners -- all that damage transfers to someone other than
2 those benefiting from the oil and gas, and that's simply
3 not right.

4 And Mr. Carr can talk about R-111-P all he wants
5 to. It doesn't say what he says it says.

6 I negotiated R-111-P, I wrote the industry
7 agreement, I was there. And I will tell you that the idea
8 of fee land never came up. No one ever had a clue about
9 how fee land would be handled under R-111-P. And when it
10 did come up, in the Snyder Ranch case, we argued about how
11 it was, we had one view of what it ought to do, and
12 somebody else had another one. And the OCC made a -- or
13 the OCD made a decision as to how it would be handled.

14 But that was never contemplated under R-111-P if
15 what you would do if you had fee simple land, as opposed to
16 State land or BLM land, which is -- what, 99-point-
17 whatever-percent of the land down there. So there was
18 never any consideration ever given to that.

19 But what R-111-P does say in unequivocal terms,
20 that before you can drill within the LMR or a quarter mile
21 or a half mile, you have to have that lessee's consent.

22 Mosaic Potash is right next to -- 660 feet from
23 Apache Number 6, and 1100 feet from Apache 7A. It is
24 within that quarter mile that R-111-P says you can't go
25 there without Mosaic's consent.

1 I don't care if you have the consent of the fee
2 landowner or not. They don't have a potash lease, they
3 don't have an LMR. R-111-P speaks in terms of real things
4 like potash leases, LMRs. That's what it speaks of. The
5 only LMR anywhere around Apache 6 and 7A is by Mosaic
6 Potash.

7 So R-111-P specifically says you can't drill
8 there without Mosaic's consent.

9 We believe these APDs should be denied for an
10 additional reason. It is clear as a bell to me,
11 notwithstanding -- and the testimony you heard today -- You
12 can drill a Delaware well horizontally and directionally.
13 It's done over and over again. And we look at our
14 exhibits, and we're looking at what -- I forget the final
15 count, five, six or seven horizontal Delaware wells in
16 Section 24, and we're hearing people say we can't do it? I
17 just -- That is not true. They don't want to do it.

18 And instead, they want to drill these wells
19 vertically and in the process waste \$56 million of potash,
20 part of which is owned by Mosaic, part of which is owned by
21 the BLM, part of which is owned by the landowners.

22 But this OCC has an obligation under the New
23 Mexico Oil and Gas Act to protect potash. I don't care
24 where it's located. If that potash is located on state
25 land or fee land, the OCC has a statutory obligation to

1 protect it and not let it be wasted.

2 The drilling of these wells will waste potash.
3 For that reason alone they ought to be denied, because to
4 me it is very, very clear that the oil and gas owners on
5 these two 40-acre parcels can, in fact, develop their oil
6 and gas interests in alternative ways. It may cost a
7 little bit more, but they still get to develop it.

8 But the potash leaseholder, Mosaic, ought not to
9 have to bear millions and millions in dollars of loss,
10 simply because Devon doesn't want to directionally or
11 horizontally drill.

12 Technologically, the evidence, I think is clear.
13 And if you've kept up with it -- and I'm sure that you have
14 -- with directional drilling now, you can drill down here
15 and you can knock a stake out of the ground on the other
16 side of a river. I mean, you can do wonders with
17 directional drilling. So for them to say that they can't
18 directionally drill this, I submit, is just -- it's just --
19 it's hogwash.

20 So we think because of the waste issue, if for
21 none other, it ought to be denied.

22 CHAIRMAN FESMIRE: Okay. Are there any further
23 comments on this case?

24 Okay. With that, we will continue Cause Number
25 13,367, 13,368 and 13,372 to our regular Commission meeting

1 Thursday, June 15th.

2 The attorneys are invited to provide written
3 briefs and supplements to the record to the Commission
4 secretary by Monday the 12th at 5:00 p.m., so that the
5 Commission has time to review them prior to the meeting on
6 the 15th.

7 MR. HIGH: I take it that June 15th meeting is
8 not one at which we would be talking about any --

9 CHAIRMAN FESMIRE: The only thing -- the only
10 thing I anticipate happening in this case in the June 15th
11 meeting is deliberation by the Commission.

12 MR. HIGH: Thank you.

13 CHAIRMAN FESMIRE: With that, those three cases
14 are continued to June 15th.

15 (Thereupon, these proceedings were concluded at
16 1:34 p.m.)

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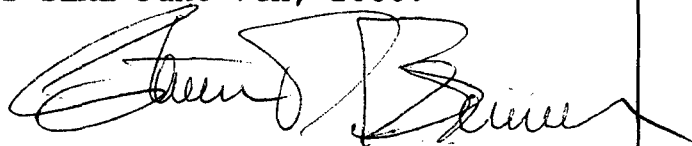
CERTIFICATE OF REPORTER

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 Commission 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 June 7th, 2006.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 16th, 2006