STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

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

APPLICATION OF BURLINGTON RESOURCES OIL AND GAS COMPANY FOR AN UNORTHODOX COAL GAS WELL LOCATION, SAN JUAN COUNTY, NEW MEXICO CASE NO. 12,553

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REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

December 7th, 2000

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, December 7th, 2000, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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December 7th, 2000 Examiner Hearing CASE NO. 12,553 PAGE EXHIBITS 3 3 APPEARANCES **APPLICANT'S WITNESSES:** ALAN ALEXANDER (Landman) Direct Examination by Mr. Kellahin 5 Examination by Examiner Catanach 18 <u>STEVE THIBODEAUX</u> (Geologist) Direct Examination by Mr. Kellahin 26 Examination by Examiner Catanach 30 LEONARD J. BIEMER, Jr. (Engineer) Direct Examination by Mr. Kellahin 31 Examination by Examiner Catanach 37 **REPORTER'S CERTIFICATE** 39 * * *

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APPEARANCES

FOR THE DIVISION:

LYN S. HEBERT Attorney at Law Legal Counsel to the Division 2040 South Pacheco Santa Fe, New Mexico 87505

FOR THE APPLICANT:

KELLAHIN & KELLAHIN 117 N. Guadalupe P.O. Box 2265 Santa Fe, New Mexico 87504-2265 By: W. THOMAS KELLAHIN

FOR YATES PETROLEUM CORPORATION:

CAMPBELL, CARR, BERGE and SHERIDAN, P.A. Suite 1 - 110 N. Guadalupe P.O. Box 2208 Santa Fe, New Mexico 87504-2208 By: MICHAEL H. FELDEWERT

* * *

WHEREUPON, the following proceedings were had at 1 2 10:40 a.m.: EXAMINER CATANACH: At this time I'll call Case 3 12,553, which is the Application of Burlington Resources 4 Oil and Gas Company for an unorthodox coal gas well 5 location, San Juan County, New Mexico. 6 7 Call for appearances in this case. MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of 8 the Santa Fe law firm of Kellahin and Kellahin, appearing 9 10 on behalf of the Applicant. I have three witnesses to be 11 sworn. EXAMINER CATANACH: Call for additional 12 13 appearances. MR. FELDEWERT: Mr. Examiner, Michael Feldewert 14 15 with the law firm of Campbell, Carr, Berge and Sheridan, representing Yates Petroleum Corporation who, as I 16 17 understand it, has recently acquired an interest in 18 offsetting property that may be affected by Burlington's 19 Application. They are anxious to speak with Burlington 20 about this matter, and I understand that Burlington is 21 attempting to contact them at this point. EXAMINER CATANACH: 22 Okay. Will the witnesses 23 please stand to be sworn in? 24 (Thereupon, the witnesses were sworn.) MR. KELLAHIN: 25 Mr. Examiner, our first witness is

 his oath, was examined and testified as follows: DIRECT EXAMINATION BY MR. KELLAHIN: Q. Mr. Alexander, for the record, sir, would you please state your name and occupation? A. Yes, my name is Alan Alexander. I'm currently employed with Burlington Resources Oil and Gas Company i Farmington, New Mexico, as a senior land advisor. Q. On prior occasions, Mr. Alexander, have you testified before the Division as a petroleum landman? A. Yes, I have. Q. The primary responsibility for this particular Application, insofar as the land matters are concerned, with a of another landman for Burlington, is that not true A. Yes, sir, Mr. James Strickler did the contract work to put this well together, and he started on that we some year ago to date. Q. Mr. Strickler is not available to testify this morning, is he? A. That's correct, and I work with the various test 		
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23 where this well is and where the affected parties are. I	21	Q. (By Mr. Kellahin) Let's turn to the first issue,
	22	Mr. Alexander, and that is to orient the Examiner as to
24 you'll take a moment and turn behind Exhibit Tab Number 2	23	where this well is and where the affected parties are. If
	24	you'll take a moment and turn behind Exhibit Tab Number 2,
25 let's have you identify and describe this display.	25	let's have you identify and describe this display.

This is a display that we put together to help us 1 Α. locate the offsetting parties. You'll notice that it's a 2 nine-section plat. It's for the Farmington A Number 100 3 well. It's located 660 feet from the south line and 705 4 feet from the east line of Section 1 of 29 North, 13 West. 5 The offsetting owners involve both leased working 6 interest owners, where there is no current well and no 7 operator, and there are a few Fruitland Coal wells in the 8 area, so it's a combination of notice to those parties. 9 You will see that in the specific blocks there is 10 11 a circle with a number in them, and that circle and number relates to the exhibits that are behind the nine-section 12 plat, explaining whether it is a working interest owner or 13 owners that are involved in that particular area or if it 14 is an operator that is involved. 15 Q. Are you familiar with the Basin-Fruitland Coal 16 17 Gas Pool rules, Mr. Alexander? Α. Yes, sir, I am. 18 0. This well would be at a standard footage location 19 pursuant to those rules, would it not? 20 Α. It would be. 21 And it is an exception to the rules because it is 22 Q. what we characterize as being off-pattern? 23 That is correct. Α. 24 What does that mean? 25 Q.

1 Α. The Fruitland Coal Pool Rules currently provide that a well should be located in the northeast or the 2 southwest quarter of a section, and we were unable to 3 locate it in either one of those quarter sections. And our Δ best location to locate this well is actually in the 5 southeast quarter of this Section 1. 6 7 This Application, then, is based upon topographic Q. or surface-use limitations for all of Section 1? 8 Α. Yes, sir, that's correct. 9 Before we go to that topic, let's complete the Q. 10 issue of notification. You've given us the plat. 11 Subsequent to the plat, there are several pages listing the 12 working interest owners and the operators. If you will 13 turn to the second page of that listing, there is a heading 14 saying "Working Interest Owners and Addresses", starting 15 with the circled number 5 -- do you find that? We're still 16 behind Exhibit Tab Number 2. 17 Yes, sir. 18 Α. We've moved past the nine-section plat, we have 19 Q. 20 skipped the first page of tabulation and we're looking at 21 the second page of tabulation. 22 Α. Correct. 23 Q. All right. In addition to sending notifications out to the various interest owners of spacing units that 24 25 did not have coal gas wells, did Burlington contact the

1	operators of the offsetting wells that they believe to be
2	the operators at the time the Application was filed?
3	A. Yes, we did.
4	Q. Before we complete that, let's look for a moment
5	behind Exhibit Tab Number 5, there's another display. Do
6	you see that nine-section display behind Exhibit Tab Number
7	5?
8	A. Yes, sir.
9	Q. All right, what does this illustrate?
10	A. This illustrates the location of the existing
11	coal wells in the immediate area of our proposed Farmington
12	A Number 100 well. You will see that there are five
13	existing coal wells in this area.
14	Q. Okay. Your notice list says Circle 6 is a coal
15	gas well operated by Maralex?
16	A. Yes, sir.
17	Q. And the Maralex well is where?
18	A. If you'll look back on the plat
19	Q. In Exhibit Tab 5?
20	A behind Tab Number 2, would be the better place
21	to look at it, because I have circled there. You will see
22	up in Section 6, you will see the circle with the number 6
23	in it, the south half of Section 6. That's where Maralex
24	is located.
25	Q. All right. Have you contacted Or has

1 Burlington contacted Maralex to find out if they have any objection to granting this Application? 2 3 Α. Yes, sir, we have a waiver from both Maralex and 4 from Texakoma Oil and Gas Corporation, who's in the circled 5 tab number 8 on the nine-section plat. 6 0. All right, and the waivers of objection are included in the exhibit book? 7 That's correct. Α. 8 Let's turn to circle 7. That's associated with a 9 Q. well operated by J.N. Exploration and Production Company. 10 Where is that well? 11 12 Α. That well, if you look at the plat again, behind Exhibit Tab Number 2, you'll see there are two wells that 13 14 are impacted by that. One is an east-half dedication of Section 12, and the other one is a west-half dedication of 15 Section 7. 16 17 ο. Have you obtained a waiver of objection to this 18 Application from J.N. Exploration? 19 Α. No, sir, we have not. We've just been informed 20 that those wells were sold to Yates Petroleum Corporation. 21 Q. And have you initiated an effort to contact the 22 appropriate personnel at Yates to advise them of this 23 Application and to determine whether or not they have any 24 objection? 25 Α. Yes, we are currently doing that.

MR. KELLAHIN: Mr. Examiner, at the conclusion of 1 the hearing we will ask that you continue this case to 2 December 21st, so that we may determine whether Yates has 3 any objection. And if they do, we will come forward on the 4 21st and they can make their presentation. 5 It's our hope 6 that we can persuade them to give us a waiver of objection 7 and we can conclude the case on that date. Q. (By Mr. Kellahin) All right, let's proceed, Mr. 8 Alexander. Other than the notifications to J.N. 9 Exploration and now Yates, are you satisfied that you have 10 notified all the appropriate interest owners and that there 11 12 is, in fact, no objection or potential objection to the granting of this Application, with the exception of Yates 13 Petroleum? 14 That is correct. 15 Α. 16 0. Let's turn to the topic of the availability of the surface for use of this wellbore anywhere in Section 1. 17 18 Is there a series of displays that will illustrate that? 19 Α. Yes, sir, there is, behind Exhibit Tab Number 3, 20 we have presented those displays. Let's start with Exhibit Tab 3. Identify and Q. 21 22 describe the first display. The first display is simply a San Juan Basin 23 Α. 24 location map, and you will see that the proposed Farmington A Number 100 Fruitland Coal well is located just on the 25

outskirts of the city limits of Farmington, New Mexico. 1 2 ο. Are you familiar with the fact that it is 3 commonly believed in the Basin Fruitland Coal Gas Pool that there is an area called the overpressured area, and that a 4 5 substantial portion of the rest of the pool is in an 6 underpressured area? 7 Α. Yes, sir. 8 0. Where does this well lie in relation to the overpressured area? 9 Α. It lies approximately 15 miles to the south and 10 11 west of the overpressured area. Q. All right, so this well would be located in the 12 underpressured area of the pool? 13 14 Α. That is correct. 15 Q. When you go out on the surface and look at the 16 availability of Section 1 for a well location, do you have 17 an aerial photograph that helps illustrate the availability 18 of the property? 19 Α. Yes, sir, we were able to obtain a 1997 ortho 20 photograph that fairly well describes the setting that we're looking at, and it's the second exhibit behind 21 Exhibit Tab Number 3. 22 23 ο. Let's look at that and first of all have you identify for us what the blue line is. What's that 24 outline? 25

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1	A. The blue line is the Section 1 outline.
2	Q. And what is the red-dashed grid?
3	A. We broke that section up into quarter-quarter
4	parcels and described them by using the red dotted line.
5	Q. All right, so we're looking at essentially
6	40-acre tracts?
7	A. Yes, sir.
8	Q. You have some green dots and then a red dot?
9	A. Yes, sir, there are two green dots depicted.
10	They're both in the southeast quarter of Section 1. They
11	are both existing Basin-Dakota wells. We actually,
12	Burlington, or its predecessor El Paso, actually drilled
13	these wells when they were drilled. We have since sold
14	those to Energen Corporation and have no further interest
15	in the Dakota or in those wellbores.
16	Q. Are the well sites available, then, for the
17	Farmington AE-1 or A-1 for utilizing as a pad for the
18	proposed Coal well?
19	A. The Farmington A-1E well, which is over in the
20	southwest quarter of the southeast quarter, there is not
21	enough room. Both of these Farmington A-1 Dakota wells are
22	located in the El Paso Natural Gas Company's pipeyard, and
23	the area around the Farmington A-1E well, there is not
24	sufficient room to put an additional well in there.
25	We were able to work with El Paso Natural Gas

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1	Company to put our proposed location over by the Farmington
2	A Number 1 Dakota well, which is in the southeast quarter
3	of the southeast quarter, and you will see that represented
4	by the red dot.
5	Q. In order to have this well at an on-pattern
6	location, you would have to find some location in the
7	southwest quarter, in this grid system, in the southwest
8	quarter, at which to position your well?
9	A. That is correct.
10	Q. Is there a place for the well over there?
11	A. No, sir, there is not. There are no existing
12	wells in the southwest quarter, and that's because it is in
13	the city limits of Farmington. And you will see, there is
14	kind of a dark area in there that appears to be grassland,
15	that is north and west of the main highway running through
16	Farmington. And you might think that we could have a
17	location in that area, but we took some additional
18	photographs to bring this photograph up to date. There's
19	significant work going on in that area.
20	Q. Principally, what's happened in the last four
21	years that would update this aerial photograph to the
22	current status of use?
23	A. All of that land is being cleared currently for a
24	shopping mart. Farmington has succeeded in bringing in
25	Home Depot to Farmington, and this land is all being

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1	cleared for a complex of retail shops in that area.
2	Q. When I look in the southeast of the southwest,
3	there is a white dot with a blue circle around it. What
4	does that represent?
5	A. That represents the actual bottomhole location of
6	the Farmington A Number 1E Dakota well. That well was
7	directionally drilled from a location in the southeast
8	quarter to a bottomhole location in the southwest quarter.
9	That dot represents the bottomhole location of that well.
10	Q. Let's take a moment and look at the subsequent
11	photographs. You don't have to discuss these in detail,
12	but let's take a moment and identify where you were
13	standing when you took the first photograph.
14	A. Well, if you'll stay on the first aerial
15	photograph for just a moment, we took the subsequent
16	photographs to come immediately south from the Farmington A
17	Number 1E well, across the river, and there's a bluff on
18	the other side. We drove over to that area and we took all
19	the remaining photographs from that area.
20	So we will be looking north towards the
21	Farmington A-1E well, in that general direction, when we
22	discuss these remaining photographs, except for the
23	photographs that we actually took down in El Paso's
24	pipeyard.
25	Q. And you took these photographs?

1	A. Yes, sir, I did.
2	Q. Okay. The first photograph is from the point
3	you're standing on the bluff looking north. Help us orient
4	ourselves as to what you want us to see.
5	A. We're actually looking northwest at this point.
6	This is No, I'm sorry, we are actually looking basically
7	north from this point, and this is the El Paso Natural Gas
8	Company's pipeyard. It's a broad view of that yard. And
9	it basically includes a view which is slightly north and
10	east of where the Farmington A 100 proposed location is.
11	Q. There's a structure with a red roof. Do you see
12	that?
13	A. Yes, sir.
14	Q. And then there's a green tank?
15	A. Yes, sir.
16	Q. All right, if you look just to the south and west
17	of the red-roofed building, there's another structure. Do
18	you see that little white roof?
19	A. Yes, sir.
20	Q. All right, as you move closer to the
21	photographer, there's a small white-sided building?
22	A. Correct.
23	Q. All right. Where in this area is the location of
24	your proposed coal gas well?
25	A. It would be just basically south of that white

1	building. You'll see a brown tank sitting there, right in
2	the treeline
3	Q. Yes, sir.
4	A and if you would come just a little bit You
5	can't see it, but if you would come just a little bit
6	further south, that's where our location would be.
7	Q. All right, let's turn to the next photograph.
8	Describe for us what you want us to conclude from this
9	display.
10	A. In this photograph we are looking north and west,
11	and we are looking at the area that was the dark-colored
12	grassy area in the original aerial photograph. I just
13	wanted to show that this land has now all been cleared and
14	they are beginning construction of the shopping area in
15	this area here.
16	Q. All right, the next photograph?
17	A. The next photograph, I zoomed in a little bit to
18	the El Paso pipeyard, and all of the trees blocked our view
19	a little bit. If you'll come basically directly south or
20	towards us as we're looking at this picture, from that
21	closer metal building, that's where the Farmington A-1E
22	well is located. That's that existing Dakota well that was
23	directionally drilled. That's the area where there is not
24	enough room for us to put a Fruitland Coal location by that
25	well.

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1	Q. All right, sir, the next photograph?
2	A. The next photograph shows the actual staked
3	location of the Farmington A Number 100 Fruitland Coal
4	well. And it's located, as you will see, those tank
5	batteries, that brown tank battery, it's located in close
6	proximity to the Farmington A Number 1 Dakota well.
7	Q. Okay, and then the final photograph, Mr.
8	Alexander?
9	A. The final photograph actually is a photograph of
10	the Farmington A-1E directional Dakota well, and we shot it
1 1	just behind the big metal building that El Paso has there.
12	Q. All right. Then to conclude your presentation,
13	Mr. Alexander, Exhibit Tab 1 contains the Application and
14	copies of the green cards showing notification of this
15	Application and hearing to the various parties?
16	A. That is correct.
17	MR. KELLAHIN: Mr. Examiner, that concludes my
18	examination of Mr. Alexander.
19	We move the introduction of the exhibits he
20	sponsored, which are Exhibits 1 through 3.
21	EXAMINER CATANACH: Exhibits 1 through 3 will be
22	admitted as evidence.
23	EXAMINATION
24	BY EXAMINER CATANACH:
25	Q. Mr. Alexander, looking at the areal photograph

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1	that you have, within that southwest quarter there is a
2	sort of white-colored line that goes from northwest to
3	southeast. Is that the highway there?
4	A. The line that goes from northwest to southeast?
5	Q. Just north of that white square that you have
6	there, on that aerial photograph.
7	A. There is a white building right above the block
8	that says Farmington A-1E
9	Q. Right.
10	A well. That is a furniture outlet. And then
11	the road that runs right immediately in front of that one
12	and it almost runs, not quite east to west but almost,
13	that is an access road that was there for El Paso Natural
14	Gas Company's pipeline that went through there.
15	Now, the main highway that runs through
16	Farmington makes an arc, and it starts down in the
17	southwest of the picture, and it arcs slowly north and a
18	little bit east and runs to the top of the picture. That's
19	the main highway in Farmington.
20	Q. Okay, I've got it. Now, the area that you were
21	talking about where they are clearing the land is located
22	in the southeast of the southwest?
23	A. It's located in all three of those quarter
24	sections. It's in the northeast of the southwest, the
25	southeast of the southwest and the southwest of the

southwest. All of that grassy area that you see in the
photograph is now being cleared out.
Q. That entire area is being cleared out, the entire
area?
A. Yes, sir.
Q. Is that going to be a fairly large complex?
A. Yes, it will be. There are several stores that
are scheduled to go in that area.
Q. Okay. Within the northwest of that quarter
section, are those houses in that area?
A. Yes, sir, that's all residential area in there.
Q. Okay, and in the quarter section just south of
there, the southwest of the southwest, it looks like there
is some housing and then it looks like there's What is
that on the south end of that quarter section?
A. That is a complex in there that there is a
restaurant It's kind of covered up by the Farmington
A-1E
Q. Right.
A logo. Is that the one you're
Q. Right.
A interested in? There is a restaurant in there
with a big parking lot, and then there's also a big car
dealership that's setting in there, that's covered up by
that sign.

1	Q. Okay. Now, you also testified that this well
2	cannot be drilled in the northeast quarter; is that
3	correct?
4	A. The northeast of the southwest?
5	Q. No, sir, the northeast quarter
6	A. Northeast quarter
7	Q of this section?
8	A. We don't There's a couple of things that
9	impact that area up there. It is also located in the city
10	limits of Farmington.
11	There is a substantial housing development up
12	there. In fact, if you would look at the aerial photograph
13	immediately behind If you'll look at the photograph
14	immediately behind the aerial photograph, that goes north,
15	and that would go up into the northeast quarter. And there
16	is housing that has been built all over the place up in
17	that area up there.
18	And we had our guys go out to look. We thought
19	we might talk with Energen or the operator of those
20	Energen doesn't own those two wells, but the operator of
21	those Dakota wells that were existing up there, maybe
22	complete in those wellbores. But since they're Dakota
23	wells and they don't own any Fruitland Coal rights, they
24	did not want us recompleting in their wellbores and trying
25	to operate both the Fruitland and the Dakota wells up

1	there. And our people said that we could not find a
2	location up in the northeast quarter.
3	The other problem with that is that if we locate
4	a well in the northeast quarter, that's the only other
5	and if we formed a drillblock that would run the east half
6	of the section, a couple of things happen.
7	We would reduce our ownership by 50 percent of
8	the well, one thing.
9	The other thing would be that we would never be
10	able to drill another Fruitland Coal well in there because
11	we can't locate a well anywhere in the west half of that
12	section. So we would actually be limiting the development
13	to Section 1 to one Fruitland Coal well.
14	It looks like the better plan would be to us
15	anyway, is to locate one well in the southeast quarter to
16	develop the south half, and then the people that own the
17	Fruitland Coal right, if they can find a location up in the
18	northeast quarter, they could develop a well on the north-
19	half spacing unit up there.
20	Q. So does Burlington not have any interest in the
21	north half?
22	A. No, sir, we do not.
23	Q. I see. So it is possible that a well may be
24	drilled in the northeast quarter at some point in time?
25	A. It's very difficult, but it's a possibility. If

you could locate it up from one of those existing Dakota 1 wells, you might be able to get it in there. 2 And have you guys -- I take it -- Have you ο. 3 examined the possibility of directionally drilling this 4 5 well? Yes, sir, we have to a great degree, and we'll 6 Α. bring that up in some subsequent testimony. I can tell you 7 8 the conclusion of that is, we cannot do it. But we have investigated that. 9 There's not a whole lot of Coal 10 Q. Okay. development around this section at this point in time; is 11 that correct? 12 That's correct. And being in the City of 13 Α. Farmington is one of the main reasons that we don't have 14 15 any development in here. It's very difficult to find a 16 location in this section to try to develop. Q. Looking behind Tab Number 5, Mr. Alexander, is 17 this whole area within the city limits of Farmington 18 19 generally? 20 Α. No, sir, the easternmost boundary -- although there are houses outside it, the easternmost boundary of 21 the City of Farmington generally runs along the eastern 22 23 boundary of Section 1. Where we have the Farmington A 100 well located, 2.4 most of the -- which is in the southeast quarter of the 25

1	southeast quarter, that quarter section is actually just
2	outside the city limits of Farmington.
3	But the rest of Section 1 is in the city limits
4	of Farmington.
5	Q. Speculate, if you will, Mr. Alexander, on whether
6	or not there's going to be development in the coal in the
7	sections to the west, 35, 2, 11 and 36.
8	A. I don't believe there will be, because that's
9	heavily populated with houses in there, and that's in the
10	city limits of Farmington also. I don't believe you can
11	get a location in there.
12	Q. So your drilling off-pattern essentially is not
13	going to have an effect on the sections to the west, in
14	your opinion?
15	A. No, sir, I don't believe so.
16	Q. And since the development has already occurred in
17	the sections to the south and east, it really won't have an
18	effect on them?
19	A. We believe it will not.
20	Q. Have you spoken at all to Yates Petroleum
21	Corporation?
22	A. We just found last night as we were leaving that
23	Yates apparently bought that from J.N.
24	We have One of our technical persons back in
25	Farmington made those initial contacts for us to confirm
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1	it. They have confirmed that Yates did just buy it, and
2	she got me a phone number to talk with Chip Moran, or Chuck
3	Moran?
4	MR. KELLAHIN: Chuck Moran.
5	THE WITNESS: Chuck Moran. And we will be doing
6	that Monday or Tuesday, to see if we can alleviate any
7	concern that they have on those wells.
8	Q. (By Examiner Catanach) Okay. Now, in Section 7,
9	does Maralex operate Is that an east-half dedication on
10	that Maralex well?
11	A. The dedications Let me give you the
12	dedications for all of those up there.
13	The north half of Section 6 is a dedication for
14	that well up in the northeast-northeast.
15	Then we have a south-half dedication for the well
16	that's in the northeast of the southwest of 6.
17	And if we drop down to Section 7, that's on an
18	east-half and a west-half basis for those dedications.
19	And in Section 12, that's an east-half dedication
20	for that well. We went over to the Aztec office to get
21	those dedications from their records.
22	EXAMINER CATANACH: Okay, I have nothing further,
23	Mr. Kellahin.
24	MR. KELLAHIN: Mr. Examiner, our next witness is
25	Mr. Steve Thibodeaux.

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1	STEVE THIBODEAUX,
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. KELLAHIN:
6	Q. Mr. Thibodeaux, for the record, sir, would you
7	please state your name and occupation?
8	A. Steve Thibodeaux. I'm a senior geologist on the
9	Coal team for the San Juan Division, Burlington Resources.
10	Q. Mr. Thibodeaux, on prior occasions have you
11	qualified as a petroleum geologist before the Division in
12	hearings?
13	A. Yes, I have.
14	Q. On this occasion, you're the geologist involved
15	as part of Burlington's team to locate and drill coal gas
16	wells in the Basin-Fruitland Coal Gas Pool?
17	A. Yes, I am.
18	Q. And the conclusions and opinions you're about to
19	express are yours?
20	A. Yes, sir.
21	Q. And the displays that we're about to look at were
22	also prepared by you?
23	A. Yes, sir.
24	MR. KELLAHIN: We tender Mr. Thibodeaux as an
25	expert petroleum geologist.

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1 EXAMINER CATANACH: He is so qualified. Before we look at your cross-(By Mr. Kellahin) 2 ο. sections, Mr. Thibodeaux, if we're attempting to locate a 3 4 coal gas well in Section 1, at any place in Section 1, are we going to be in a position in the reservoir that would be 5 similar, regardless of where we put the well in the 6 7 section? 8 Α. Yes, sir, I believe the primary targeted reservoir in that area is fairly homogeneous throughout the 9 10 entire section. Does it compromise your preference as to a well 11 ο. location to have the topography dictate that the only place 12 to put this well is at the location Mr. Alexander 13 described? 14 15 Α. No, sir, it doesn't. 16 Q. Where are we in the Coal Gas Pool, in terms of 17 our relationship to the overpressured area? 18 Α. We're approximately 15 miles to the southwest of 19 the overpressured or commonly known fairway production from the Fruitland Coal. 20 21 Q. Let's look at your cross-sections and have you give us a further illustration of what you think will occur 22 23 in the coal gas reservoir. Now, as we move to the western 24 portion here, the coal is getting substantially shallower 25 than we would find it other places in the Basin, true?

1	A. Yes, sir, we're approximately 1300 to 1400 feet
2	deep here, as opposed to primary production in the Basin
3	which generally occurs around 3500 feet.
4	Q. All right, so we're in that 1300-foot range?
5	A. Yes, sir.
6	Q. Identify and describe your cross-sections. Let's
7	start with A-A'. What are you illustrating for us here?
8	A. A-A' is a cross-section that runs from the
9	northwest to the southeast. It is a cross-section run
10	along structural and stratigraphic strike, and the coal
11	zones that I've illustrated are the zones that are commonly
12	produced from and targeted in the offset coal wells to the
13	east of us.
14	Q. The well in Section 1, the Farmington A-1E,
15	that's a Dakota well?
16	A. Yes, sir.
17	Q. But you have utilized that log to analyze the
18	existence of the coal?
19	A. Yes, sir, we're extremely limited in the
20	availability of wireline logs, and we found whatever we
21	could.
22	Q. As we go into Section 2, farther west, with the
23	first two, the Golden Bear 1 and 2
24	A. Yes, sir.
25	Q what kind of wells are these?

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1 Α. I'm not entirely sure. We just recently 2 digitized all of the wells that we could locate in the southern half of the area, and these wells were targeted 3 for our Fruitland Coal team so that we could begin a large-4 scale stratigraphic and structural study of the Fruitland 5 6 Coal. 7 Q. Exhibit 5 would indicate that these are other 8 than coal gas wells? 9 Α. Yes, sir, they are not coal wells. 10 Q. All right. That was my question. 11 Α. Okay. 12 Q. The Golden Bears are not coal gas wells? 13 Α. No, sir, they're not. 14 Q. What we're seeing is that we have fairly uniform thicknesses and occurrences of the primary targets of coal 15 16 from the northwest to the southeast. 17 And it appears that in a general way the coal is Q. reasonably consistent as you move from east to west through 18 the south half of Section 1? 19 20 Α. Yes, sir, that's correct. 21 Let's look at the next cross-section. 0. It's the B-B'. We're going in a slightly different orientation. 22 What does this show you? 23 B-B' is a southwest-northeast orientation. 24 Α. 25 Again, we're targeting on the basal coal sequence, which is

the primary producer in the area. And again, it shows that 1 2 occurrence of all the major targeted coal zones are present with very little differences that are significant, from the 3 southwest to the northeast. 4 5 Ο. In summary, then, Mr. Thibodeaux, you're not being required to drill an inferior location in the 6 7 reservoir because of the topographic problems on the surface? 8 No, sir, we believe that the primary producing 9 Α. 10 intervals in this reservoir are fairly consistent and 11 homogeneous throughout the entire section. 12 MR. KELLAHIN: That concludes my examination of 13 Mr. Thibodeaux. We move the introduction of his Exhibit 4. EXAMINER CATANACH: Exhibit 4 will be admitted as 14 evidence. 15 16 EXAMINATION 17 BY EXAMINER CATANACH: What's the thickness of the coals that are 18 Ο. 19 usually present in this area, Mr. Thibodeaux? 20 Α. We generally average about 28 feet of thickness 21 for the basal section coals in this area, Mr. Examiner. 22 Q. How does that compare to the deeper areas of the Basin? 23 It's highly variable, depending on which coal 24 Α. 25 zone that we're targeting. This is what I would

1	characterize as very good thickness for the basal, at this
2	area. We can range anywhere down to less than 10 feet
3	about 10 or 15 miles south of us, to greater than 40 feet
4	about 20 miles to the northwest.
5	Q. So this is a good area to drill?
6	A. Yes, sir, it is.
7	EXAMINER CATANACH: I have nothing further of
8	this witness.
9	MR. KELLAHIN: Mr. Examiner, Leonard Biemer is
10	our last witness. He's a petroleum engineer.
11	LEONARD J. BIEMER, Jr.,
12	the witness herein, after having been first duly sworn upon
13	his oath, was examined and testified as follows:
14	DIRECT EXAMINATION
15	BY MR. KELLAHIN:
16	Q. Mr. Biemer, for the record, sir, would you please
17	state your name and occupation?
18	A. My name is Leonard J. Biemer, Jr. I'm a senior
19	staff reservoir engineer with the Fruitland Coal Team,
20	Burlington Resources, in Farmington, New Mexico.
21	Q. On prior occasions, Mr. Biemer, have you
22	qualified as an expert witness in petroleum engineering
23	before the Division?
24	A. Yes, sir, I have.
25	Q. And as part of the Burlington team for the Coal

1 Gas Pool, have you examined the engineering aspects of this particular Application? 2 In addition, did I ask you to examine and form an 3 0. opinion about the feasibility of directionally drilling 4 this well at its proposed surface location so that its 5 6 producing interval would be at a standard subsurface 7 location? 8 Α. Yes, sir, you did. 9 MR. KELLAHIN: We tender Mr. Biemer as an expert 10 witness. 11 EXAMINER CATANACH: He is so qualified. 12 Q. (By Mr. Kellahin) Mr. Biemer, let's turn to that 13 last topic, and to set the stage for it, let's look behind Exhibit Tab 5. Mr. Alexander has already identified this 14 15 display, but this represents the status of the development 16 of the coal gas in the nine sections adjoining Section 1? 17 Yes, sir. Α. There is data associated with each well. What is 18 Q. 19 that data? 20 Yes, sir, what you're seeing in the first line is Α. 21 the well name; in the second you're seeing the operator; 22 third, you're seeing the year that it was completed; fourth is the cumulative production; and fifth is the current 23 24 rate. 25 Q. Do you share Mr. Thibodeaux's conclusion that it

1 is appropriate to locate a well in Section 1 to access and 2 produce the coal gas?

3 Α. Yes, sir. 4 Ο. Let's turn to the next display behind Exhibit Tab 5 5 and have you describe for us what we're looking at here. 6 Α. Again, we're looking at existing Dakota and PC 7 wells. The Dakota wells are indicated in the red squares, and the one PC is in the green circle. Again, we're 8 9 looking at well names, the operator, which formation it's 10 producing from, the current cumulative production and the current rate. 11 12 0. The Energen well, which Mr. Alexander described as having been a well drilled by Burlington, is a Dakota 13 14 well that was directionally drilled to a certain bottomhole 15 location? 16 Α. Yes, sir, that well was drilled back in 1981. It 17 was a deviated hole, and it was at 6250 feet deep, and it 18 went laterally out around 1100 feet. 19 ο. Have you examined the feasibility of drilling 20 this coal gas well? 21 Α. Yes, sir, I have. 22 So that it can be directionally drilled to a Q. location in the coal gas reservoir? 23 2.4 Α. Yes, sir. Is that feasible? 25 Q.

1	A. No, sir.
2	Q. Describe for us why not.
3	A. There's a big difference. First of all, the coal
4	well, our total depth is only 1380 feet deep. The top of
5	the Coal is at 1042 feet. If you set your surface pipe at
6	200 feet and you start kicking off at 50 feet below that,
7	you're going to have to build up to an angle of 82 degrees
8	to hit that. You're basically drilling a horizontal well
9	at a very shallow depth. The problem that we run into
10	there is that we have no weight on our bit to drill that
11	hole.
12	Q. Do you have an illustration behind Exhibit Tab
13	Number 6 that demonstrates this?
14	A. Yes, sir, behind Exhibit Number 6 you'll see
15	again a copy of Section and where the staked location is.
16	In the blue you'll see what a legal bottomhole for the
17	Fruitland Coal would be. Down below that, again, you'll
18	see that our surface casing would be set at 200 feet. The
19	top of our coal which we'd have to hit is at 1042 feet, and
20	our total depth would then be around 1300.
21	We'd have to deviate this hole right at 2000 feet
22	in a horizonal direction.
23	Q. Let's turn to the next display and have you
24	identify and describe this.
25	A. This is a comparison of the deviated hole for the

1	Farmington A-1E.
2	Q. That's the Dakota well?
3	A. That is the Dakota well. And where it was
4	drilled, you can see that that hole had a maximum deviation
5	around 17.5 percent and went to a depth of 6250 feet.
6	Q. Compare that to your deviation.
7	A. What we'd have to do in order to drill a deviated
8	hole for the Farmington A 100 in the Fruitland Coal, again,
9	you'd set your surface at 200 feet, and you'd start kicking
10	off You'd be kicking off at 12 degrees per hundred feet,
11	and you had to do that for 600 feet until you've built your
12	angle at 82 degrees.
13	What you're seeing in the two dark vertical lines
14	would be a legal bottomhole vertical location in the
15	southwest corner.
16	Q. Apart from discussing this with Burlington
17	personnel about its feasibility, have you discussed this
18	with any consultants or outside companies concerning the
19	feasibility of engaging in this type of drilling?
20	A. Yes, sir, we got ahold of Baker-Hughes, and
21	actually John Hosford in our drilling department talked to
22	them. We gave them the parameters of what we were trying
23	to do. And you can see from the fax page and I'll read
24	it it says, "John, I don't think this is possible".
25	There's "No weight in the vertical hole."

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1	Following that fax transmittal is some diagrams
2	and the information that we gave them that they entered
3	into their program.
4	Q. All right, it shows, if the Examiner chooses to
5	study it, the specific details of how the Baker-Hughes
6	expert came to the conclusion that this was not feasible?
7	A. It was not feasible.
8	Q. Apart from the feasibility of engaging in such a
9	drilling prospect, let's compare what would happen
10	economically. If you'll turn behind Exhibit Tab Number 7,
11	describe for us what you have concluded and how you have
12	reached that conclusion.
13	A. What I have, Mr. Examiner, is an economic summary
14	for the Farmington A 100. There's two columns. The first
15	is "As Proposed", drilling in the location that we
16	currently have it staked. The second column would be a
17	"Deviated Hole".
18	Our cost here would be around \$300,000, and our
19	rate of return around 67 percent, and it would pay out in a
20	little over three years, and our P/I would be 1.7. The
21	reserves it would recover is around 1.5 BCF.
22	Now, when you compare that to the deviated hole,
23	our cost goes up to over right at \$750,000, our rate of
24	return drops to 1 percent, payout runs into a little over
25	18 years, our P/I goes negative, and our reserves are cut

in half. The reason the reserves are cut in half is the
high likelihood of us not being able to get that hole down,
and it's due to a mechanical risk, the hole caving in on
us.
Q. Has Burlington ever been successful in drilling
such a shallow coal gas well directionally?
A. Not at this depth.
MR. KELLAHIN: That concludes my examination of
Mr. Biemer. We move the introduction of his Exhibits 5, 6
and 7.
EXAMINER CATANACH: Exhibits 5, 6 and 7 will be
admitted as evidence.
EXAMINATION
BY EXAMINER CATANACH:
Q. This is kind of off the subject, Mr. Biemer, but
from the information that you've looked at on this proposed
well, in your opinion, will that well adequately drain the
south half of the section as proposed?
A. That is something that is currently being studied
by the State, as to whether 160s or 320s will drain, and
that's currently being looked a through the State.
EXAMINER CATANACH: Okay. I don't have any more
questions of this witness, Mr. Kellahin.
MR. KELLAHIN: That concludes our presentation,
Mr. Examiner.

EXAMINER CATANACH: Mr. Feldewert, I didn't ask 1 Did you have any questions or anything, statements in 2 you. this case? 3 MR. FELDEWERT: Not at this time, Mr. Examiner. 4 As I understand it, they are continuing this until the 5 21st. 6 7 EXAMINER CATANACH: Okay. And that's sufficient for Yates at this point? 8 MR. FELDEWERT: 9 Yes. EXAMINER CATANACH: Okay. All right, then. 10 We 11 will continue the case to December 21st, at which time I 12 quess we'll either take it under advisement or we'll have 13 some more testimony. MR. KELLAHIN: Yes, sir. I hope next week Mr. 14 15 Carr and I and Mr. Feldewert can resolve this, and we'll 16 advise you as soon as we can. 17 EXAMINER CATANACH: Okay, thank you. 18 (Thereupon, these proceedings were concluded at 19 11:26 a.m.) 20 * * * and the second 21 573 22 Si € Zacro 23 Off Conservation Division 24 25

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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 Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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

WITNESS MY HAND AND SEAL December 10th, 2000.

STEVEN T. BRENNER CCR No. 7

My commission expires: October 14, 2002

STEVEN T. BRENNER, CCR (505) 989-9317 39