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APPEARANCES

FOR APPLICANT COG OPERATING, LLC:

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1

2

(1:32 p.m.)

3

EXAMINER JONES: Call Case Numbers 16029

4

and 16030, application of COG Operating, LLC for a

5

nonstandard spacing and proration unit and compulsory

6

pooling in Lea County, New Mexico.

7

Call for appearances.

8

MR. FELDEWERT: May it please the Examiner,

9

Michael Feldewert, with the Santa Fe office of Holland &

10

Hart, appearing on behalf of the Applicant. I have two

11

witnesses here today that remain to be sworn.

12

EXAMINER JONES: Any other appearances?

13

Will the witnesses stand, and the court

14

reporter swear the witnesses?

15

(Mr. Wallace and Mr. Snidow sworn.)

16

MR. FELDEWERT: Call our first witness.

17

EXAMINER JONES: Yes, sir.

18

DAVID M. WALLACE,

19

after having been first duly sworn under oath, was

20

questioned and testified as follows:

21

DIRECT EXAMINATION

22

BY MR. FELDEWERT:

23

Q. Would you please state your name, identify by

24

whom you're employed and in what capacity?

25

A. My name is David Michael Wallace. I'm a staff

1 landman for COG Operating, LLC, and I work the southeast
2 Lea County area.

3 Q. And, Mr. Wallace, you have previously testified
4 before this Division on a number of occasions, right?

5 A. I have.

6 Q. And your credentials as an expert in petroleum
7 land matters have been accepted and made a matter of
8 public record?

9 A. Yes.

10 Q. Are you familiar with the applications filed in
11 these consolidated cases?

12 A. Yes.

13 Q. And are you familiar with the status of the
14 lands in the subject area?

15 A. Yes.

16 MR. FELDEWERT: I would retender
17 Mr. Wallace as expert witness in petroleum land matters.

18 EXAMINER JONES: So qualified.

19 Q. (BY MR. FELDEWERT) Mr. Wallace, we have two
20 spacing units at issue under these two cases, right?

21 A. That is correct.

22 Q. And a number of wells dedicated to them?

23 A. Yes.

24 Q. Would you turn to what's been marked as COG
25 Exhibit Number 1? Would you first explain what is shown

1 on this exhibit and then identify what the company seeks
2 under each application? Okay?

3 A. Okay. This is our project area map showing the
4 two spacing units that we're seeking to pool. The east
5 half of the west half of Sections 4 and 9, 25 South, 35
6 East are associated with Case 16029, and we seek to pool
7 the Wolfbone Pool.

8 The west half-west half of both of those
9 sections is for Case Number 16030, in which we also seek
10 to pool the Wolfbone Pool.

11 Q. And with respect to that east half-west half
12 spacing unit in Sections 4 and 9, how many wells will be
13 initially dedicated to that spacing unit?

14 A. Three wells.

15 Q. And with respect to the remaining spacing unit,
16 the west half of the west half of these sections, how
17 many wells will be initially dedicated to the spacing
18 unit?

19 A. Six wells.

20 Q. And those are, therefore, reflected on this
21 particular exhibit?

22 A. That is correct.

23 Q. So Case 16029, if I'm understanding it, will
24 involve the well pad that we see that's farthest to the
25 east?

1 A. That is correct.

2 Q. And does it identify the wells that are
3 involved?

4 A. That is correct.

5 Q. And what are those?

6 A. That's the 602H, the 701H, and the 601H.

7 Q. And then the remaining two well pads, those are
8 involved in the west half-west half spacing unit?

9 A. That is correct.

10 Q. And it identifies the six wells associated with
11 that?

12 A. Yes.

13 Q. Okay. Does the company intend to
14 simultaneously drill all these wells?

15 A. Yes.

16 Q. And then simultaneously complete them?

17 A. Yes.

18 Q. Now, with that in mind, if I turn to what's
19 been marked as COG Number 2, does this provide the draft
20 C-102s for the wells that are at issue for the east --
21 east half of the west half spacing unit?

22 A. That is correct.

23 Q. And these three-well C-102s are set forth in
24 this exhibit?

25 A. That is correct.

1 Q. You said this was a Wolfbone Pool?

2 A. Yes.

3 Q. Does that require -- does that follow the
4 Division setback requirements?

5 A. Yes, it does.

6 Q. Will all three of these wells meet the setback
7 requirements for that pool?

8 A. No. The 602H is a nonstandard location.

9 Q. The 601 and the 701 --

10 A. Standard setbacks.

11 Q. And the 602 will be nonstandard?

12 A. That is correct.

13 Q. If I then turn to what's been marked as Exhibit
14 2A, is that the administrative order issued by the
15 Division approving the nonstandard location for the 602H
16 well?

17 A. Yes, it is.

18 Q. And does this exhibit somewhere -- there it
19 is -- provide the Examiner with the pool and the pool
20 code that's involved?

21 A. Yes, it does.

22 Q. About halfway down or three-quarters of the way
23 down?

24 A. Yes.

25 MR. FELDEWERT: So it would be Exhibit 2A.

1 And you'll see that's the Wolfbone Pool that Paul has
2 placed these in.

3 Q. (BY MR. FELDEWERT) Okay. If I then turn to
4 Exhibit Number 3, does that contain the C-102s for the
5 six wells that are going to be dedicated to the west
6 half-west half spacing unit?

7 A. Yes, it does. Yes, it is.

8 Q. And will all of these wells comply with the
9 Division setback requirements?

10 A. They're all standard except for the 702H.

11 Q. 702H?

12 A. Yes.

13 Q. And if I turn to Exhibit 3A, does Exhibit 3A
14 contain the administrative order approving the
15 nonstandard location for the 702H well?

16 A. Yes.

17 Q. Okay. Now, what's the nature of the acreage
18 that's involved here?

19 A. It consists of federal and fee leases.

20 Q. All right. And you mentioned that the
21 company's going to simultaneously drill and then
22 simultaneously complete these wells. How is that going
23 to be done?

24 A. We will have -- we'll have nine wells we're
25 going to drill on three well pads and three different

1 rigs. We're going to drill those wells on each well pad
2 back-to-back until we're finished, and then we'll move
3 in and complete all of the wells and then bring them all
4 on production at the same time.

5 Q. Okay. So you're going to have -- are all the
6 rigs going to start at the same time?

7 A. Approximately.

8 Q. But there are going to be some differences?

9 A. Yeah. There are three different rig lines, so
10 there is some variation.

11 Q. Okay. And how many frac crews are going to
12 be --

13 A. Two frac crews.

14 Q. You mentioned that you're going to drill all
15 the wells before you even start completion?

16 A. Correct.

17 Q. All right. Now, what are the benefits of this
18 type of drilling?

19 A. We're going to take advantage of the economic
20 efficiencies of drilling these wells back-to-back and
21 doing them on well pads, as well as completing them all
22 at the same time or simultaneously.

23 Q. Do you understand from your reservoir engineers
24 that there are some efficiencies associated with
25 simultaneously completing these wells?

1 A. Yes. That's what I'm saying.

2 Q. Under these plans -- with this drilling plan,
3 will the company be able to drill and complete a well in
4 each spacing unit within the normal 120-day period
5 provided in the standard pooling agreement?

6 A. No.

7 Q. What period of time does the company need to
8 drill and complete a well in each spacing unit?

9 A. We request one year.

10 Q. Okay. Now, why is that?

11 A. It's going to take approximately 35 to 45 days
12 to drill each well on each well pad.

13 Q. Okay. Let's stop you right there. You've got
14 nine wells you've got to drill, right?

15 A. Right.

16 Q. You're going to drill them all before you start
17 any completion?

18 A. Yes.

19 Q. Once you get through that big drilling process,
20 then is there a period of time between when you start --
21 from when you finish drilling before you can start
22 completion?

23 A. Approximately 45 days of prep work.

24 Q. Get them all set up?

25 A. Yes, that's correct.

1 Q. And then you will -- you mentioned you're going
2 to complete all nine wells before you start flow?

3 A. Yes.

4 Q. So no flow is going to occur until they're all
5 completed?

6 A. (Indicating.)

7 Q. All right. And that's going to take about a
8 year?

9 A. Yes. Completions will take approximately 100
10 days, with that 45-day gap, and then the drilling of the
11 wells, I'd say approximately a year. That's --
12 hopefully no problems happen in that time frame.

13 Q. All right. So that year gives you time to get
14 all that done with some contingencies in case stuff
15 happens, right?

16 A. Right.

17 Q. Okay. For, essentially, that year period of
18 time, is there going to be nonstop activity?

19 A. Yes.

20 Q. All right. If I then turn to what's been
21 marked as COG Exhibit Number 4, does this particular
22 exhibit identify the company's interest and the interest
23 of the uncommitted owners in both the east half-west
24 half spacing unit and then the west half-west half
25 spacing unit?

1 A. That's correct.

2 Q. And as I flip through this four-page exhibit, I
3 don't see any real differences in the ownership
4 percentages between the west half of the west half and
5 the east half of the east half. What's the difference?
6 Are there any differences?

7 A. The ownership is common over the two spacing
8 units. The only difference is in Tract 1 of both of the
9 spacing units, there is a slight acreage discrepancy
10 because of the lots.

11 Q. Is that why you did this in two exhibits?

12 A. Yes.

13 Q. One for the one spacing unit and one for the
14 other?

15 A. That's correct.

16 Q. If I look at -- we'll just look at the second
17 page of this exhibit. You note the working interests by
18 tract, and then you do a unit recapitulation at the
19 bottom, correct?

20 A. Correct.

21 Q. And what -- and let's just focus on the
22 working -- what working interest owners remain to be
23 pooled?

24 A. We are seeking to pool EOG Y, A and M
25 Resources, Inc. and V-F Petroleum, Inc.

1 Q. Okay. And those are all -- their percentages
2 set forth here?

3 A. Yes.

4 Q. Now, there two companies listed on here that
5 you show as having zero percent interest. Why is that?

6 A. We seek to pool Energen because -- out of an
7 abundance of caution because they took leases from a
8 nonparticipating royalty owner. And then PBK Royalty &
9 Investment didn't know if we had the contractual right
10 to pool them because they have an override. But they
11 signed a ratification of com, so we are not seeking to
12 pool them anymore. That was as of yesterday.

13 Q. You just got that yesterday?

14 A. Yes.

15 Q. Okay. So PBK Royalty & Investment can be
16 removed from the pooling agreement?

17 A. That's correct.

18 Q. Energen is on here because they took some kind
19 of lease from these nonparticipating royalty interest
20 owners?

21 A. That's correct.

22 Q. Now, with respect to those nonparticipating
23 royalty interest owners, we have contractual right to
24 pool them? We don't have worry about them?

25 A. Yes, we do. We have the lease from the --

1 Q. All right. Then with respect to the working
2 interest owners that are involved here that remain to be
3 pooled, if I turn to Exhibit Number 5, does this contain
4 copies of the well-proposal letter for each well that's
5 involved in the east half-west half acreage?

6 A. Yes.

7 Q. Did each of these well-proposal letters include
8 an AFE?

9 A. Yes.

10 Q. Then if I go to Exhibit Number 6, does this
11 contain copies of the well-proposal letters that went
12 out for each of the wells that are involved in the west
13 half-west half acreage?

14 A. Yes.

15 Q. And did the company include an AFE with each of
16 these well proposals?

17 A. Yes.

18 Q. And are the costs reflected on all of these
19 AFEs consistent with what the company or other operators
20 have incurred for drilling similar horizontal wells?

21 A. Yes.

22 Q. Now, if I just take Exhibit 6, for example, and
23 I look at the first page, which is one of the
24 well-proposal letters, about halfway down, does it
25 identify the administrative and the overhead rates that

1 **the company seeks in this pooling order?**

2 A. Yes. There's 7,500 for drilling and 750 for
3 producing.

4 **Q. And these are two-mile wells?**

5 A. Yes.

6 **Q. And are these overhead rates consistent with**
7 **what operators are charging for similar two-mile wells?**

8 A. Yes.

9 **Q. With respect to the two parties, working**
10 **interest owners that you seek to pool here today, what**
11 **additional efforts were taken with respect to the EOG**
12 **entities?**

13 A. We are conducting an acreage trade with them to
14 get them out of this acreage. That's actually being
15 finalized. We don't have the executed documents yet.

16 **Q. So at this point, they still remain as a pooled**
17 **party?**

18 A. Yes.

19 **Q. Now, the other working interest owner that's**
20 **involved that remains is V-F Petroleum; is that right?**

21 A. Yes, that's correct.

22 **Q. What's the status of them?**

23 A. They are in the process of signing an operating
24 agreement. We actually have letter agreements with them
25 already for one-mile laterals. We're extending those

1 out to two-mile laterals. They've also signed all the
2 AFEs.

3 Q. Now, in preparation for this hearing, did the
4 company identify the lease mineral interests in the
5 40-acre tracts surrounding both nonstandard spacing and
6 proration unit?

7 A. Yes, we did.

8 Q. And did the company include with the notice of
9 this hearing these lease offsetting mineral interest
10 owners?

11 A. Yes.

12 Q. If I turn to what's been marked as EOG --
13 Concho Exhibit Number 7 -- COG Exhibit Number 7, is this
14 an affidavit prepared by my office with the attached
15 letters providing notice of the hearing to the parties
16 that are involved with Case Number 16029?

17 A. Yes, it is.

18 Q. And if I go to Exhibit Number -- COG Exhibit
19 Number 8, is this an affidavit prepared by my office
20 with attached letters providing notice of the hearing
21 for purposes of Case 16030?

22 A. That is correct.

23 Q. All right. Were Exhibits 1 through 6 prepared
24 by you or compiled under your direction and supervision?

25 A. Yes.

1 MR. FELDEWERT: Mr. Examiner, I would move
2 the admission into evidence COG Exhibits 1 through 8,
3 which include the two notice affidavits.

4 EXAMINER JONES: Exhibits 1 through 8 are
5 admitted.

6 (COG Operating, LLC Exhibit Numbers 1
7 through 8 are offered and admitted into
8 evidence.)

9 MR. FELDEWERT: And that concludes my
10 examination of this witness.

11 CROSS-EXAMINATION

12 BY EXAMINER BROOKS:

13 Q. I take it everybody got actual notice --

14 A. Yes.

15 MR. FELDEWERT: Yes, sir.

16 Q. (BY EXAMINER BROOKS) -- the parties named that
17 you're trying to pool?

18 A. Yes.

19 Q. You said one year to complete. Now, the way --
20 as you probably know, the way our orders are drafted,
21 normally we give you one year from the date of the order
22 to begin the well and then 60 days from the date -- from
23 the date of commencement of drilling to complete.

24 Now --

25 MR. FELDEWERT: I think it's 120 days,

1 isn't it?

2 EXAMINER BROOKS: Well, okay. 120 days.
3 Yeah, you're right. That would be tight if it was 60
4 days.

5 Q. (BY EXAMINER BROOKS) Does the one year you're
6 talking about, does that run from the date of
7 commencement of drilling of the first well? Is that
8 what you want us to allow?

9 A. That is correct.

10 Q. And we would still allow one year from the date
11 of the order to commence the first well?

12 A. That is correct.

13 Q. Okay. That's what I thought you were asking
14 for, but I wanted to clarify that.

15 I think that's all the questions -- oh,
16 these are all -- you said these were all --

17 A. Yes, that's correct.

18 Q. Are they to different depths?

19 A. Some of them are slightly different. Yes.

20 Q. Slightly different. But they're not basically
21 different zones?

22 A. No. It's all within the Wolfbone Pool. I
23 mean --

24 Q. I'm not familiar -- I'm not at all familiar
25 with the geology of the Wolfbone Pool. I'm not familiar

1 with the geology of any pool, but I've heard so much
2 testimony about some of it that I can pretend to
3 somewhat understand it.

4 MR. FELDEWERT: We do have a geologist
5 that's going to come up here.

6 EXAMINER BROOKS: Okay. We'll let him
7 explain it if it needs to be explained.

8 Okay. Thank you.

9 CROSS-EXAMINATION

10 BY EXAMINER JONES:

11 Q. So Concho doesn't have the acreage where the
12 wells are going to be spud?

13 A. At this point we do not. That's the EOG lease
14 that we're trading into.

15 Q. Oh, okay.

16 A. So fairly soon we'll own it all. Yes.

17 Q. So you'll hold all the leases, and you'll
18 possibly have all the working interests then?

19 A. Almost.

20 Q. Almost.

21 A. We still have V-F in there that has -- we have
22 a trade with. They will have some working interest.

23 Q. Okay. With a business investment this big, you
24 might be carrying -- you would think you would be
25 carrying everybody, but I guess --

1 A. Well, they wanted to participate in our
2 project.

3 Q. That sounds like it might be a good project
4 then.

5 So it's all -- we've got federal and fee,
6 and then federal again as you go up. No state lands, it
7 looks like.

8 And did we say four tracts or three tracts?

9 A. There are three tracts.

10 Q. Three tracts. Okay.

11 And some NSLs and -- there are -- two wells
12 out of the nine are NSLs, and the rest standard
13 locations?

14 A. That's correct.

15 Q. And NSLs are already obtained?

16 A. That's correct.

17 Q. I don't have any more questions. Thanks very
18 much, Mr. Wallace.

19 A. Thank you.

20 MR. FELDEWERT: We'll call our next
21 witness.

22 EXAMINER JONES: Yes.

23 DEAN C. SNIDOW,

24 after having been previously sworn under oath, was
25 questioned and testified as follows:

1

2

DIRECT EXAMINATION

3

BY MR. FELDEWERT:

4

Q. Please state your name, identify by whom you're employed and in what capacity.

5

6

A. Dean Snidow, senior geologist for COG

7

Operating, LLC.

8

Q. And how long have you been a geologist with the company?

9

10

A. Approximately four years.

11

Q. And have your responsibilities included the Permian Basin of New Mexico?

12

13

A. Yes, sir.

14

Q. And, Mr. Snidow, you have previously testified before this Division as an expert in petroleum geology, correct?

16

17

A. I have.

18

Q. Are you familiar with the applications filed in these two cases?

19

20

A. I am.

21

Q. And have you conducted a geologic study of the lands that are the subject of this hearing?

22

23

A. I have.

24

MR. FELDEWERT: I would retender Mr. Snidow as an expert witness in petroleum geology.

25

1 EXAMINER JONES: So qualified.

2 Q. (BY MR. FELDEWERT) Now, what's the target for
3 all nine of these proposed wells?

4 A. The target will be the Wolfbone Pool.

5 Q. And how is that Wolfbone Pool defined by the
6 Division?

7 A. It's defined as the top of the 3rd Bone Spring
8 Carbonate to the top of the Wolfcamp B.

9 Q. Okay.

10 MR. FELDEWERT: And I think, Mr. Examiner,
11 that has been reflected in Order R-14373.

12 EXAMINER JONES: 14373. Thank you.

13 MR. FELDEWERT: Yes, sir.

14 Q. (BY MR. FELDEWERT) Now, have you prepared a
15 structure map and a cross section of this pool for the
16 Examiners?

17 A. I have.

18 Q. If I turn to what's been marked as COG Exhibit
19 Number 9, is this a structure map you have created?

20 A. It is.

21 Q. Why don't you explain to us what's -- actually,
22 this follows a similar map that was explained earlier,
23 right?

24 A. Yes, sir.

25 Q. Okay. And you've overlain the structure?

1 A. Yes, sir.

2 **Q. Okay. How have you done that? What's shown**
3 **here with respect to the structure?**

4 A. This structure map is on top of the Wolfcamp
5 Formation, which is a regional marker within the
6 Wolfbone Pool. The contour interval is 50 feet. The
7 proposed Fez Federal com wells are indicated in the
8 dashed pink lines. Existing Wolfbone production in the
9 area is highlighted by the solid pink lines.

10 **Q. And you're following the same orientation of**
11 **the other wells in the Wolfbone?**

12 A. Yes, sir.

13 **Q. Do you observe any faulting or other geologic**
14 **impediments to horizontal wells in this area?**

15 A. No, sir. No faulting, no pinch-outs, no other
16 geologic impediments to horizontal drilling.

17 **Q. Have you been prepared a cross section?**

18 A. I have.

19 **Q. If I turn to what's been marked as COG Exhibit**
20 **Number 10, does this identify the wells that were**
21 **utilized for this cross section?**

22 A. It does.

23 **Q. Why did you choose these particular wells?**

24 A. These wells were chosen because they are the
25 best examples of the geology of the project area.

1 Q. Okay. Did they also have sufficient logs in
2 these wellbores to map this entire Wolfbone Pool?

3 A. Yes, sir.

4 Q. Okay. Then if I turn to what's been marked as
5 COG Exhibit Number 11, is this the stratigraphic cross
6 section that corresponds with the wells shown on the
7 previous exhibit?

8 A. Yes, sir.

9 Q. And have you identified for the Examiners the
10 formation tops with the formation markers that help us
11 define this pool?

12 A. Yes.

13 Q. And how are they depicted on here?

14 A. On this two-well stratigraphic cross section,
15 they're indicated as the top of the 3rd Bone Spring
16 Carbonate, which is at the top of the logs, the TBSG
17 carb. Moving down the purple line is the top of the 3rd
18 Bone Spring Sand. The red line is the top of the
19 Wolfcamp, which is the formation which this cross
20 section has been stratigraphically hung, as indicated by
21 the datum comment. And on the log on the left, you can
22 see below the Wolfcamp, there is another formation
23 marker, the Wolfcamp B. So the top of the 3rd Bone
24 Spring Carb to the top of the Wolfcamp B is the
25 Wolfbone.

1 Q. And then Wolfcamp B is right below what's
2 marked on here as the deep Wolfbone target?

3 A. Yes, sir.

4 Q. So to answer Mr. -- I think it was Mr. Jones'
5 questions, maybe it was Mr. Brooks. Are there two
6 different zones that you're targeting within the
7 Wolfbone Pool with these nine wells?

8 A. Yes, sir. We will be targeting the shallow
9 Wolfbone target with the 600 series wells and the deep
10 Wolfbone target with the 700 series wells.

11 Q. Okay. And what do you observe about the
12 continuity of these two targeted intervals as you -- in
13 your study area?

14 A. That these two target intervals will be
15 continuous across our project area.

16 Q. Okay. In your opinion, is the Wolfbone Pool
17 across the nonstandard -- proposed nonstandard unit
18 suitable for development of horizontal wells?

19 A. Yes, sir.

20 Q. And do you expect each quarter-quarter section
21 within those proposed nonstandard units to contribute
22 more or less equally to the production from the
23 wellbore?

24 A. Yes, sir.

25 Q. And in your opinion, is the granting of this

1 application in the best interest of conservation, the
2 prevention of waste and the protection of correlative
3 rights?

4 A. Yes, sir.

5 Q. Were COG Exhibits 9 through 11 prepared by you
6 or compiled under your direction and supervision?

7 A. They were.

8 MR. FELDEWERT: Mr. Examiner, I'd move the
9 admission into evidence COG Exhibits 9 through 11.

10 EXAMINER JONES: Exhibits 9 through 11 are
11 admitted.

12 (COG Operating, LLC Exhibit Numbers 9
13 through 11 are offered and admitted into
14 evidence.)

15 MR. FELDEWERT: And that concludes my
16 examination of this witness.

17 CROSS-EXAMINATION

18 BY EXAMINER BROOKS:

19 Q. Can you explain to me what's different about
20 the Wolfbone area from the other areas where the Bone
21 Spring adjoins -- is immediately above the Wolfcamp that
22 creates the need for this separate designation we have,
23 in very general terms, I'm sure, or I wouldn't
24 understand it.

25 A. Well, I believe that's more of a land and

1 regulatory question, although the Wolfbone Pool -- the
2 3rd Bone Spring is a member of the Wolfbone Pool, as the
3 Upper Wolfcamp would be a member of the Wolfbone Pool as
4 well.

5 Q. Well, the man who decided this needed to be
6 done was a geologist, so I thought, presumably, it was a
7 geologic thing. But I will defer to your expertise in
8 the matter, and I don't need to understand it.

9 EXAMINER BROOKS: Mr. Jones.

10 CROSS-EXAMINATION

11 BY EXAMINER JONES:

12 Q. Well, is it one big package that you're trying
13 to get the oil out of?

14 A. Yes, sir.

15 Q. So the resistivity sure tanks off to the right.
16 That is resistivity, isn't it? The right-hand --

17 A. The right track, the green track, the green
18 curve is deep resistivity.

19 Q. Deep resistivity?

20 A. Yes, sir.

21 Q. It's quite a bit different in the -- the deep
22 Wolfbone target versus the shallow Wolfbone target. Is
23 there a reason -- does that reflect --

24 A. Yes.

25 Q. -- on different lithology or --

1 A. Yes. The shallow Wolfbone target being in the
2 lower portion of the 3rd Bone Spring Sand has the
3 resistivity signature common in the Bone Spring Sand.
4 The deeper Wolfbone target has the highest resistivity,
5 which is more characteristic of the Upper Wolfcamp.

6 **Q. So it's got more clays in it or something?**

7 A. More shale, more organic rich.

8 **Q. More organic rich?**

9 A. Yes, sir.

10 **Q. So is there an unconformity you can point out**
11 **to us on here somewhere? Did it really happen, or is**
12 **that just a figment of our imagination?**

13 A. The top of the Wolfcamp would be a suitable
14 location for a --

15 **Q. Okay. So the top is right there in red. You**
16 **hung this on the top, I take it?**

17 A. Correct.

18 **Q. And I asked someone earlier today. If you had**
19 **your druthers on what logs to run through here, what**
20 **would you run?**

21 A. On a pilot hole?

22 **Q. Yes.**

23 A. These logs would be suitable, the gamma ray --
24 I believe the gamma ray and neutron density is more or
25 less sufficient.

1 Q. And on your wells that you're going to drill,
2 are they going to have -- what will be downhole on the
3 bottom-hole assembly? Will you have a gamma ray?
4 You'll have a bit and stabilized and -- collar, and then
5 you'll have your gamma ray?

6 A. Yes, sir.

7 Q. And then you'll have no other downhole logging?

8 A. Correct.

9 Q. And so your sample time, your bottoms-up time,
10 how long would that on these things?

11 A. I would say approximately an hour.

12 Q. Okay. So you're sitting there watching this.
13 And how far are they drilling in an hour?

14 A. Depends on the formation's specific lithology.
15 Anywhere from 50 to 100 feet, but I would have to
16 default to the drilling engineers to be more specific.

17 Q. Okay. So you're sitting there -- you're the
18 one who is going to be telling them if they need to move
19 it?

20 A. Yes, sir. We will make sure they stay within
21 those targeted formations.

22 Q. Okay. So are you at all worried about the
23 subsequent wells? I mean, the first well you're
24 drilling into the standard stress regime. But your
25 subsequent wells, are you worried about them getting

1 them drilled or not?

2 A. No, sir.

3 Q. What about getting casing to the bottom --

4 A. No, sir.

5 Q. -- and getting the cement job done and all
6 that?

7 A. No, sir.

8 Q. So if you were going to talk about risk on this
9 project, would you talk about geologic risk? Would that
10 be any kind of factor to you-all here?

11 A. I don't believe geologic risk would be a
12 factor.

13 Q. So it would be primarily commercial --
14 commercial risk, whether -- the geology's going to be
15 there. The trap is there, but then it's just a strat
16 trap, I take it. You're not going to be worried about
17 it that much?

18 A. No, sir. Our formation targets are consistent.
19 We will produce effectively from those targeted
20 formations.

21 Q. Okay. Now, if you were looking at this from
22 a -- what we popularly seem to call a wine-rack view,
23 side view, what would the three wells in Cases 16029 and
24 16030 -- what would they look like? Would they have --
25 two of those wells, would they be a little bit in the

1 upper, the shallow, and then one in the lower?

2 A. There will be a staggered spacing pattern for
3 this project. Yes.

4 Q. Okay. And so we're looking at what, 200
5 feet -- 100 feet difference here? It looks like there's
6 about 200 feet separation between --

7 A. Between the shallow and the deep targets -- we
8 would expect to have 200 to 300 feet vertical separation
9 between the shallow and deep targets and staggered.

10 Q. What about lateral distance between wells?

11 A. 5- to 600 feet.

12 Q. Okay. So it's a decent distance.

13 Now, what about this other one that you're
14 going to -- you're going to bet the farm on and go for
15 the six wells? Is that -- what would be your wine rack
16 on that one?

17 A. Similar pattern.

18 Q. So how many in the top, and how many in the
19 upper, and how many in the lower?

20 A. In that similar spacing unit --

21 MR. FELDEWERT: Are you talking about the
22 west half-west half?

23 EXAMINER JONES: West half-west half, yeah.

24 Q. (BY EXAMINER JONES) So you're going to have two
25 pads, basically, right? So --

1 A. In the west half-west half?

2 Q. In the west half-west half.

3 You're going to have three rigs, which I
4 assume one rig for each pad. You're going to drill --
5 each rig is going to drill three wells, and they're
6 going to be drilling almost simultaneously, the three
7 rigs?

8 A. Yes, sir.

9 Q. Oh, wow.

10 Are you going to have three different
11 geologists watching -- one watching each one of these
12 drilling rigs, or are you going to have watch all of
13 them?

14 A. I'll have to check the drill schedule, but I
15 believe that is the plan.

16 Q. Okay. Well, it is still troubling that this
17 Wolfbone is not defined as -- it's not gone through a
18 nomenclature hearing or anything, but Paul Kautz doesn't
19 seem to be worried about it conflicting laterally with
20 the Bone Spring and Wolfcamp pools. So I assume you
21 guys are not worried about it either?

22 A. I don't know the answer to that question.

23 Q. Yeah. I should have asked the land guy about
24 that. But that would -- that would impact, you know --
25 and we didn't ask him whether the ownership was common

1 all the way through.

2 EXAMINER BROOKS: He testified about that.

3 EXAMINER JONES: He did?

4 EXAMINER BROOKS: It's very slightly
5 different, is the answer, as I understand it.

6 EXAMINER JONES: No, vertical.

7 EXAMINER BROOKS: Oh, the vertical. Yeah.
8 I believe he testified on that, but I don't specifically
9 remember.

10 EXAMINER JONES: Mr. Wallace is so smooth.
11 He just -- (laughter).

12 EXAMINER BROOKS: I think I would remember
13 any depth severances, but we can ask him if necessary.

14 Are there any depth severances?

15 MR. WALLACE: I'm sorry. I didn't hear
16 what you were asking. There are no depth severances.

17 EXAMINER BROOKS: That's what I thought you
18 said, but I didn't remember.

19 EXAMINER JONES: Mr. Wallace, do you know
20 if there are any depth severances from the top of the
21 Bone Spring to the base of the Wolfcamp?

22 MR. WALLACE: No depth severances. It's
23 uniform across the spacing units.

24 EXAMINER JONES: Okay. I appreciate you
25 coming and good luck with your project.

1 MR. FELDEWERT: I have just a couple of
2 follow-up questions.

3 REDIRECT EXAMINATION

4 BY MR. FELDEWERT:

5 Q. Mr. Snidow, if I look at this project, you have
6 some Wolfbone pools shown to the north and the
7 northwest, right -- or Wolfbone wells?

8 A. Wells. Yes, sir.

9 Q. But there are no Wolfbone wells to the south or
10 the east or the southeast of this location, right?

11 A. Correct.

12 Q. So you're actually -- from a geologic
13 perspective, you're stepping out into a different area
14 within the Wolfbone that has not been developed, right?

15 A. Correct.

16 Q. So there is some risk associated with that in
17 your --

18 A. Some risk.

19 Q. -- stepping out into those new areas?

20 Okay. In fact, did you have a lot of well
21 control of this entire zone in the area to even do a
22 cross section?

23 A. No, sir.

24 Q. So you were struggling to find even logs that
25 would give you a map of this whole zone?

1 A. Right. Yes, sir.

2 Q. But in your opinion, you think you can make an
3 economic well in these areas?

4 A. Yes.

5 Q. All right. That's all the questions I have.

6 EXAMINER JONES: Thank you very much.

7 That is all on these two cases, and we'll
8 take 16030 and 16029 under advisement.

9 (Case Numbers 16029 and 16030 conclude,
10 2:07 p.m.)

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1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

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4 CERTIFICATE OF COURT REPORTER

5 I, MARY C. HANKINS, Certified Court
6 Reporter, New Mexico Certified Court Reporter No. 20,
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16 I FURTHER CERTIFY that I am neither
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20 DATED THIS 9th day of April 2018.

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