

1 STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
2 OIL CONSERVATION DIVISION

3

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

6

Case No. 14578

7

APPLICATION OF OBX RESOURCES LLC  
8 FOR APPROVAL OF A NON-STANDARD OIL SPACING  
AND PRORATION UNIT AND COMPULSORY POOLING,  
9 LEA COUNTY, NEW MEXICO.

10

REPORTER'S TRANSCRIPT OF PROCEEDINGS

11

EXAMINER HEARING OGX RESOURCES

12

13 BEFORE: TERRY WARNELL, Technical Examiner  
DAVID K. BROOKS, Legal Examiner

14

15

December 16, 2010  
Santa Fe, New Mexico

16

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18 This matter came on for hearing before the New  
Mexico Oil Conservation Division, TERRY WARNELL, Technical  
19 Examiner, and DAVID K. BROOKS, Legal Examiner, on Thursday,  
December 16, 2010, at the New Mexico Energy, Minerals and  
20 Natural Resources Department, 1220 South St. Francis Drive,  
Room 102, Santa Fe, New Mexico.

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23 REPORTED BY: Irene Delgado NM CCR 253  
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A P P E A R A N C E S

FOR THE APPLICANT:

JAMES GARRETT BRUCE  
P.O. Box 1056  
Santa Fe, NM 87504-1056  
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REPORTER'S CERTIFICATE

1 EXAMINER WARNELL: Go in order. Looks like the Jim  
2 and Ocean show here this morning. So let's go ahead and  
3 we'll call Case 14578, application of OGX Resources LLC for  
4 approval of non-standard oil spacing and proration unit and  
5 compulsory pooling, Lea County, New Mexico.

6 Call for appearances.

7 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe  
8 representing the applicant. I have three witnesses -- I mean  
9 -- excuse me -- two witnesses.

10 EXAMINER WARNELL: Two witnesses. Would the  
11 witnesses please stand and state your name and be sworn.

12 MR. HARDY: William Hardy.

13 MR. LANG: Garland Lang.

14 (Witnesses duly sworn.)

15 EXAMINER WARNELL: Thank you. Mr. Bruce?

16 GARLAND LANG

17 (Having been sworn, testified as follows:)

18 DIRECT EXAMINATION

19 BY MR. BRUCE:

20 Q. Will you please state your name and city of  
21 residence for the record?

22 A. Garland Lang, Midland, Texas.

23 Q. And who do you work for?

24 A. OGX Resources.

25 Q. And what is your job with OGX?

1 A. Land manager.>

2 Q. Have you previously testified before the division?

3 A. I have.

4 Q. And were your credentials as an expert, were they  
5 all acceptable as a matter of record?

6 A. Yes, sir.

7 Q. Are you familiar with the land matters involved in  
8 this application?

9 A. I am.

10 Q. And does your area of responsibility include this  
11 portion of southeast New Mexico?

12 A. It does.

13 MR. BRUCE: Mr. Examiner, I tender Mr. Lang as an  
14 expert petroleum engineer -- I mean -- excuse me -- petroleum  
15 land manager.

16 THE WITNESS: I kind of like that.

17 MR. BRUCE: Was I upgrading you?

18 THE WITNESS: Double deal.

19 EXAMINER WARNELL: Mr. Lang is so recognized.

20 Q. (By Mr. Bruce) Mr. Lang, could you identify  
21 Exhibit 1 for the Examiner and describe the well you are  
22 referring to?

23 A. This is the plat showing -- it's in Township 24  
24 South, 32 east of Lea County. Section 18 is the section  
25 we're interested in. And the yellow, the west half/west half

1 is our proposed proration unit for horizontal well being  
2 Golden Eye 18 that we are drilling.

3 Q. Where is the surface location?

4 A. The surface location is 330 from the south and 660  
5 feet from the west line.

6 Q. And what is the bottomhole or terminus location?

7 A. The bottomhole is 330 from the north and 660 from  
8 the west.

9 Q. And what is the primary target of this well?

10 A. It's the Delaware Brushy Canyon format.

11 Q. Now, when you're -- insofar as -- you are seeking to  
12 force pool certain interests; correct?

13 A. Yes.

14 Q. Insofar as the surface location, just that 40 acres,  
15 are you seeking to force pool the vertical portion of the  
16 well?

17 A. We are.

18 Q. And as to what depths?

19 A. Down to the top of the Brushy Canyon.

20 Q. So you are seeking to force pool the lot that's  
21 actually Lot 4 from the surface to the top of the Brushy  
22 Canyon?;

23 A. Correct.

24 Q. And then force pool the Brushy Canyon as to the  
25 non-standard unit?;

1 A. Correct.

2 Q. And although it's the west half/west half, it's the  
3 legal description is Lots 1 through 4; is that correct?

4 A. Yes, sir.

5 Q. Who do you seek to force pool in this case?

6 A. ConocoPhillips Company.

7 Q. And have you proposed the well to ConocoPhillips?

8 A. We have.

9 Q. Is that reflected in Exhibit 2?

10 A. Yes, it is.

11 Q. Has ConocoPhillips indicated whether or not it will  
12 join in the well?

13 A. They said they are not interested in joining in the  
14 well.

15 Q. Okay. Now, in going through Exhibit 2, there is  
16 also a -- a letter to EOG Resources Inc. What is the purpose  
17 of that letter?

18 A. Well, in a title opinion we had prepared, the  
19 attorney had a question whether or not EOG or ConocoPhillips  
20 owned that interest, and so as a matter of precaution, I sent  
21 a letter to EOG.

22 Q. Okay. And you are just seeking to force pool  
23 whoever owns that?

24 A. That's true.

25 Q. Although the attorney thought that ConocoPhillips

1 owned it?

2 A. Yes.

3 EXAMINER WARNELL: But we're not sure?

4 MR. BRUCE: We're not sure.

5 Q. In your opinion, besides this letter -- obviously  
6 there is no response to this letter in your package -- you  
7 have had other contacts with ConocoPhillips?

8 A. We have. We just haven't been able to reach an  
9 agreement with them.

10 Q. In your opinion, has OGX made a good-faith effort to  
11 obtain the voluntary joinder of the interest owner in the  
12 well?

13 A. We have.

14 Q. What is Exhibit 3?

15 A. That's the AFE for drilling of the Golden Eye 18 Fed  
16 Com Number 1.

17 Q. What are the proposed well costs?

18 A. Dry hole is \$1,690,880, and completed -- total  
19 completed well cost is \$3,268,875.

20 Q. And are those costs equivalent to the costs of other  
21 horizontal wells drilled to this depth in this area of New  
22 Mexico?

23 A. It is.

24 Q. And what borehead rigs do you request?

25 A. 600 a month for operating and 6,000 for drilling.

1 Q. And are those amounts fair and reasonable and  
2 equivalent to the amounts charged by other operators in this  
3 area?

4 A. They are.

5 MR. BRUCE: And, Mr. Examiner, Exhibit 4 is simply  
6 my affidavit of notice.

7 EXAMINER WARNELL: I don't think I've got it -- oh,  
8 there it is.

9 MR. BRUCE: Yeah, I think I put them 4 and 5.

10 EXAMINER WARNELL: Got it.

11 MR. BRUCE: Notice to the interest owners -- the  
12 green card has not yet been returned from ConocoPhillips,  
13 although the letter from the Postal Services' online services  
14 indicate that it was hand-delivered about three weeks ago --  
15 I mean -- excuse me -- delivered by certified mail three  
16 weeks ago. When I get the green card, I will supplement the  
17 record.

18 EXAMINER WARNELL: Okay.

19 Q. (By Mr. Bruce) And as part of this application, Mr.  
20 Lang, we are required to notify offset operators. Has that  
21 been done?

22 A. Yes, it has.

23 Q. And does Exhibit 5, my affidavit of notice,  
24 correctly identify all offset operators or working interest  
25 owners to your proposed non-standard well unit?

1 A. It does.

2 Q. And have all of them received actual notice of this  
3 application?

4 A. They have.

5 EXAMINER WARNELL: That's Exhibit A there?

6 MR. BRUCE: That would be --

7 EXAMINER WARNELL: Third page?

8 MR. BRUCE: Yes.

9 Q. In your opinion, is granting of this application in  
10 the interest of conservation and the prevention of waste?

11 A. It is.

12 Q. And were Exhibits 1 through 5 prepared by you and  
13 compiled from company business records?

14 A. Yes.

15 MR. BRUCE: Mr. Examiner, I move the admission of  
16 Exhibits 1 through 5.

17 EXAMINER WARNELL: Exhibits 1 through 5 admitted.

18 (Exhibits 1 through 5 offered and received.)

19 MR. BRUCE: I have no further questions of the  
20 witness.

21 EXAMINER WARNELL: Mr. Brooks?

22 MR. BROOKS: Yeah.

23 EXAMINATION

24 BY EXAMINER BROOKS:

25 Q. This ConocoPhillips or EOG interest, is this the

1 only interested that's being force pooled?

2 A. Yes, sir.

3 Q. Is that an undivided interest in the entire unit?

4 A. No. It's a 20 percent leasehold interest in Lots 3  
5 and 4.

6 EXAMINER BROOKS: Okay. Normally I would request  
7 that we have technical evidence in these non-standard unit  
8 force pooling cases, however --

9 MR. BRUCE: Well, we do.

10 EXAMINER BROOKS: You do. Okay. I was going to  
11 say, I think ConocoPhillips could probably take care of  
12 themselves if they had to. Okay. That's all I have.

13 EXAMINATION

14 BY EXAMINER WARNELL:

15 Q. So this is a horizontal going south to north?

16 A. Going south to north.

17 Q. I was thinking it was going from north to south for  
18 some reason, but I guess there's no -- that's not always the  
19 case. And is this a closed-loop system?

20 A. Yes, it is.

21 EXAMINER WARNELL: I have no further questions.  
22 Your next witness?

23 MR. BRUCE: Call Mr. Hardy to the stand.

24

25

1 WILLIAM HARDY

2 (Having been sworn, testified as follows:)

3 DIRECT EXAMINATION

4 BY MR. BRUCE

5 Q. Would you please state your name and city of  
6 residence?

7 A. My name is William Hardy, and I live in Midland,  
8 Texas.

9 Q. Who do you work for and in what capacity?

10 A. I work for OGX-Resources as exploration manager.

11 Q. And by trade, are you a geologist?

12 A. I am.

13 Q. Have you previously testified before the division as  
14 a geologist?

15 A. I have.

16 Q. And were your credentials as an expert accepted as a  
17 matter of record?

18 A. They were.

19 Q. Are you familiar with the land matters involved in  
20 in this application?

21 A. I am.

22 Q. Or -- excuse me -- geology?

23 A. I could be a land manager, too.

24 MR. BRUCE: Mr. Examiner, I tender Mr. Hardy as an  
25 expert petroleum geologist.

1 EXAMINER WARNELL: Mr. Hardy is so recognized.

2 Q. (By Mr. Bruce) Mr. Hardy, could you identify  
3 Exhibit 6 for the Examiner?

4 A. Exhibit 6 is a written report just describing the  
5 prospect itself from a geological standpoint, and I'm just  
6 including this mainly as a review if you are going back over  
7 the maps. That does include some production perhaps at the  
8 back that I will want to refer to a little bit later on.

9 Q. Okay. And what is Exhibit 7?

10 A. If I could, I would like to open up Exhibit 7 and 8  
11 at the same time because I -- I think I will find myself  
12 referring back and forth.

13 MR. BRUCE: As an aside, Mr. Examiner, I always  
14 accuse Mr. Hardy of not using enough color in his maps.

15 THE WITNESS: This year they are seasonably  
16 appropriate with Christmas colors.

17 A. The Exhibit 7 a compilation of two different maps.  
18 The one on the left is a structure map, and it's color coded  
19 with the red color staying high and bluer coloring staying  
20 low. The interval is 20 feet.

21 Also shown on that map are the Delaware producers  
22 with the green circles, and the cumulative production from  
23 each of those wells is shown in MBO with the green numbers  
24 and in MMCF with the red numbers.

25 Virtually all of the wells that you see on this map

1 have produced from the Delaware formation, and virtually all  
2 of them have been completed in the lower Brushy Canyon Unit  
3 that we want to go horizontal in.

4 The next map over is an isopach on the main pay for  
5 the Sand Dunes/Ingle Wells field, which is what you see most  
6 of the wells here producing out of. And this is a -- this is  
7 a net porosity isopach that was constructed using the 14  
8 percent porosity cutoff on the density curve. And to give  
9 you a better idea of what precise -- what precise interval it  
10 is that I have a map of, if you look on the far right you see  
11 the type log, and in the lower part of that type log you see  
12 the Brushy A Zone at the top -- that's the mapped horizon on  
13 the structure map -- and then if you look a little further  
14 down at about 84 hundred feet, you are in a subdivision of  
15 that Brushy A Zone that we call the BC4, and that's what the  
16 net porosity isopach is on. And that is the main pay for the  
17 Sand Dunes/Ingle wells field. It's not the only pay, but  
18 it's the one that virtually every well is completed in, among  
19 other zones.

20 EXAMINER WARNELL: Even though you are not showing  
21 perforations in the top two zones there, they more than  
22 likely are perforated and producing?

23 THE WITNESS: They were accessed through the frac  
24 job. Typically an operator can -- can do a limited entry  
25 perforation stimulation job and access all the pays within

1 about 150 feet of his perforation. It can be a little  
2 confusing, but those porosity zones above that that you  
3 pointed out are definitely contributing to that -- to that  
4 production in the type log.

5 EXAMINER WARNELL: But all the production is coming  
6 out of this 84 hundred?

7 THE WITNESS: Yes.

8 EXAMINER WARNELL: Okay.

9 A. Now, the cross-section, which comprises the Exhibit  
10 Number 8, is shown on both maps, BB prime. It's kind of a  
11 north/south cutting cross-section, and it runs through an  
12 area that has been recently developed horizontally by Yates  
13 Petroleum and Devon Energy, and it passes through the  
14 proposed location in Section 18. And then moving farther  
15 north it passes through a horizontal Basal Brushy well that  
16 OGX drilled earlier this year.

17 And if you look at the -- at the cross-section  
18 itself, I felt it was important to show you what the entire  
19 Delaware section looks like because that's how the state of  
20 New Mexico classifies production is through -- only through  
21 the Delaware formation, even though there are subdivisions  
22 within the Delaware.

23 So if you look at the top of the cross-section, you  
24 start with the Salt Section. That's at about 45 hundred  
25 feet. At the very bottom you have the Bone Spring formation.

1 That's at about -- about 85- to 86 hundred feet. So the  
2 Delaware Mountain Group comprises everything from the base of  
3 the Salt to the top of the Bone Spring formation. It's about  
4 4,000 feet thick here.

5 But it is broken up into -- into subunits. The  
6 upper one is the Bell Canyon, and it's shown in the green.  
7 The middle one with the brown colors is the Cherry Canyon,  
8 and then the lower -- the lower unit is the Brushy Canyon,  
9 and that's where most of the production in this part of the  
10 world comes from is the Brushy Canyon, and it starts with the  
11 red color and blends into the blue colors below. And then  
12 towards the bottom of the cross-section, if you look at the  
13 yellow, highlighted sand interval, that's the BC4, which is  
14 the main target of the horizontal wells that have been  
15 drilled to date.

16 If you look back at your structure map in Exhibit 7,  
17 you can see that there is a relationship between structure  
18 and production in this area. The sand dunes field is a -- is  
19 sitting on top of a large structural nose, and where these  
20 sands drape across the nose is where they become productive.  
21 And even the little outlying satellite areas of production  
22 also have a structural nose associated with them, so that  
23 seems to be an important aspect of the production here.

24 Towards the south end of the sand dunes field where  
25 most of the horizontal activity has occurred, there -- there

1 aren't that many structures. There is just an over -- you  
2 are moving up-dip, in a sense, and the sand trends are  
3 climbing up-dip as you go there. But the sands, if you look  
4 on the isopach map, are considerably thinner than they are in  
5 the heart of the field. The isopach map shows the heart of  
6 the field have thicknesses, net porosity thicknesses of  
7 almost 70 feet; whereas, you move off to the east in the area  
8 where we are drilling horizontally, the typical sand, net  
9 sand thickness is going to be 15 to 20 feet, and that simply  
10 is not enough thickness to provide commercial production in a  
11 vertical well.

12 Yates was the first to drill horizontally in this  
13 area, and they did it in Section 23 at the south end of our  
14 cross-section, and they drilled two wells, and the production  
15 from those wells are shown on the back page of the write-up,  
16 and that would be Exhibit 6. And those wells are quite good.  
17 Typically the wells out here are going to cumulatively  
18 produce over 100 MBO in their first year with a first month  
19 average daily production of 400 to 600 barrels of oil a day.

20 So not only are we extracting oil from a part of the  
21 reservoir that you cannot drill vertically and still make  
22 commercial results, the results that we are getting are --  
23 are much better than any vertical well in the heart of the  
24 field. So we are draining a bigger area with a smaller  
25 footprint as well, and this area is being exploited even as

1 we speak with many more horizontal wells.

2 I can't keep up with all the wells that are being  
3 drilled in this area, so the map is not showing all of them,  
4 but it does seem to be a very successful play. And as you  
5 can see by our location in 18, we are structurally and  
6 stratigraphically in a very similar position to the other  
7 producers in this trend.

8 Q. Would you anticipate each quarter/quarter section in  
9 the non-standard well unit to contribute to production?

10 A. Yes, I would. Map indicates that they all would.

11 Q. Finally, Mr. Hardy, could you identify Exhibit 9 for  
12 the Examiner and discuss how the well will be drilled and  
13 completed?

14 A. Exhibit 9 is the planning report for drilling the  
15 horizontal well, and the precise details of the planning  
16 report are subject to change as we drill the well and we  
17 encounter formation tops that may not be exactly as we  
18 predicted, so we adjust that based on -- based on what we see  
19 as we drill the vertical portion of the well.

20 Basically we drill the vertical portion to a depth  
21 of approximately 8,000 feet, and -- and at that point we run  
22 open-hole logs and log the upper portion of the Delaware  
23 Mountain group. And then we run in with directional tools  
24 with a measured well drilling gamma ray, and we drill -- we  
25 cut the curve, it's about -- the curve is achieved over a

1 distance of about 500 feet, and then we land the end of the  
2 curve at approximately 8350 DVD, and that could vary  
3 depending on what we see as we drill the well. And then we  
4 continue the lateral the length of the entire section along  
5 the west half/west half of Section 18.

6 Q. And how -- how is the well fractured?

7 A. Typically with Basal Brushy Canyon, we use about ten  
8 stages of frac jobs, and they are evenly spaced along the  
9 length of the lateral, and the amount of sand is -- is, you  
10 know, depending upon how the frac job can go, can vary, but  
11 typically it's upwards of a million pounds of sand that are  
12 pumped in the well.

13 Q. Mr. Hardy, in your opinion, is the granting of this  
14 application in the interest of conversation and the  
15 prevention of waste?

16 A. It is.

17 Q. And were Exhibits 6, 7, 8 and 9 prepared by you or  
18 compiled by you from OGX's business records?

19 A. They were.

20 MR. BRUCE: Mr. Examiner, I move the admission of  
21 Exhibits 6 through 9.

22 EXAMINER WARNELL: Exhibits 6 through 9 are  
23 admitted.

24 (Exhibits 6 through 9 offered and received.)

25 MR. BRUCE: I have no further questions.

1 EXAMINER WARNELL: Mr. Brooks?

2 EXAMINER BROOKS: No questions.

3 EXAMINATION

4 BY EXAMINER WARNELL:

5 Q. Mr. Hardy, when you present this, I kind of wonder,  
6 why wouldn't ConocoPhillips be interested in this for up to  
7 600 barrels a day?

8 A. That's a good question. I think this is not one of  
9 their core areas, and they don't have geologists assigned to  
10 it, and they are probably not aware of what's going on in  
11 this part of the world.

12 Q. So you have an APD from BLM, and is this 39742 -- or  
13 the API -- I'm sorry -- Number 30025.

14 A. I don't have that in front of me.

15 MR. LANG: Yup. I've got that.

16 MR. BRUCE: Just a minute, Mr. Examiner. When I  
17 looked it up, I could not find the API number.

18 MR. LANG: The API on this well is 3002539742.

19 Q. And the spud date was December 5?

20 A. We are currently drilling in the salt section.

21 Q. Optimistic, aren't we? Okay. I have no further  
22 questions. With that, we'll take case 14578 under  
23 advisement. Thank you.

24

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## REPORTER'S CERTIFICATE

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I, IRENE DELGADO, New Mexico CCR 253, DO HEREBY CERTIFY that on December 16, 2010, proceedings in the above-captioned case were taken before me and that I did report in stenographic shorthand the proceedings set forth herein, and the foregoing pages are a true and correct transcription to the best of my ability.

I FURTHER CERTIFY that I am neither employed by nor related to nor contracted with any of the parties or attorneys in this case and that I have no interest whatsoever in the final disposition of this case any any court.

WITNESS MY HAND this 16th day of December 2010.

---

Irene Delgado NM CCR 253  
License Expires: 12-31-10