

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

IN THE MATTER OF THE HEARING CALLED BY)	
THE OIL CONSERVATION DIVISION FOR THE)	
PURPOSE OF CONSIDERING:)	CASE NO. 12,543
)	
APPLICATION OF EOG RESOURCES, INC., FOR)	
AMENDMENT OF DIVISION ORDER NO. R-11,433)	
FOR APPROVAL OF AN UNORTHODOX WELL)	
LOCATION, EDDY COUNTY, NEW MEXICO)	
)	

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MARK ASHLEY, Hearing Examiner

November 16th, 2000

Santa Fe, New Mexico

OIL CONSERVATION DIVISION
NOV 30 11:19:58

This matter came on for hearing before the New Mexico Oil Conservation Division, MARK ASHLEY, Hearing Examiner, on Thursday, November 16th, 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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November 16th, 2000
Examiner Hearing
CASE NO. 12,543

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* * *

A P P E A R A N C E S

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* * *

1 WHEREUPON, the following proceedings were had at
2 4:09 p.m.:

3 EXAMINER ASHLEY: The Division now calls Case
4 Number 12,543, Application of EOG Resources, Inc., for
5 amendment of Division Order Number R-11,433 for approval of
6 an unorthodox well location, Eddy County, New Mexico.

7 Call for appearances.

8 MR. CARR: May it please the Examiner, my name is
9 William F. Carr with the Santa Fe law firm Campbell, Carr,
10 Berge and Sheridan. We represent EOG Resources, Inc., and
11 I have two witnesses.

12 EXAMINER ASHLEY: Any additional appearances?

13 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe.
14 I represent Mewbourne Oil Company. I have no witnesses,
15 and I do not object to EOG's Application.

16 EXAMINER ASHLEY: Will the witnesses please rise
17 to be sworn in?

18 (Thereupon, the witnesses were sworn.)

19 EXAMINER ASHLEY: Mr. Carr?

20 PATRICK J. TOWER,

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

23 DIRECT EXAMINATION

24 BY MR. CARR:

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

1 A. Patrick J. Tower.

2 Q. Where do you reside?

3 A. Midland, Texas.

4 Q. By whom are you employed?

5 A. EOG Resources, Inc.

6 Q. What is your position with EOG Resources?

7 A. Project landman.

8 Q. Have you previously testified before this
9 Division?

10 A. Yes, I have.

11 Q. At the time of that testimony, were your
12 credentials as an expert in petroleum land matters accepted
13 and made a matter of record?

14 A. Yes.

15 Q. Are you familiar with the Application filed in
16 this case?

17 A. Yes, I am.

18 Q. Are you familiar with the status of the subject
19 lands?

20 A. Yes, I am.

21 MR. CARR: Are Mr. Tower's qualifications
22 acceptable?

23 EXAMINER ASHLEY: They are.

24 Q. (By Mr. Carr) Initially, Mr. Tower, could you
25 review the history of EOG's efforts to develop the acreage

1 which is the subject of this Application?

2 A. Yes, EOG, by Order Number R-11,433, was granted
3 its application for compulsory pooling, covering certain
4 spacing units on the north half of Section 7, Township 17
5 South, Range 29 East, in Eddy County, New Mexico. These
6 spacing units were dedicated to EOG's Warp Speed 7 Federal
7 Com Number 1 well, which was at that point to be drilled at
8 a standard location 1980 from the north and 800 feet from
9 the west of said Section 7.

10 Q. Could you identify EOG Exhibit Number 1?

11 A. Exhibit Number 1 is a copy of the aforementioned
12 order granting those rights and approval of that
13 Application.

14 Q. Mr. Tower, has EOG been able to reach voluntary
15 agreement with all interest owners in the north half of
16 Section 7?

17 A. Yes.

18 Q. And so the compulsory pooling portion of that
19 original order is no longer in effect pursuant to the terms
20 of that order; is that correct?

21 A. That is correct.

22 Q. Would you briefly state what EOG seeks with its
23 Application here today?

24 A. What EOG seeks today is an amendment of the
25 previous order to approve an unorthodox gas well location

1 to be located 2280 feet from the north line and 1930 feet
2 from the west line of this same Section 7.

3 Q. Now, Mr. Tower, since the original location was
4 approved by an R order, you had to come back to the
5 Division to seek amendment of that order to move the well
6 location; is that right?

7 A. That's correct, my understanding.

8 Q. What are the primary objectives in the well?

9 A. Primary objectives -- and again, all this was
10 testified in the first case and remains true today -- is
11 the Morrow formation, is the primary. The secondary zones
12 that we'd be looking for would be the Atoka and the Strawn.

13 Q. And the Morrow formation is the South Empire
14 Morrow Gas Pool; is that right?

15 A. That is correct.

16 Q. Let's go to Exhibit Number 2. Would you identify
17 and review that?

18 A. Exhibit Number 2 is a land plat. It shows in red
19 the spacing unit, the north half of Section 7. It also
20 shows the proposed new unorthodox location, the red dot,
21 and also shows any offset operators of wells.

22 Q. Let's go to Exhibit Number 3. Can you review
23 Exhibit Number 3?

24 A. Yeah, Exhibit Number 3?

25 Q. Uh-huh.

1 A. Exhibit Number 3 is a depiction of a plat from
2 the archeological report generated for the Bureau of Land
3 Management concerning EOG's location. In yellow is an
4 outline of the section. Again, the red outline is the
5 spacing unit for the Warp Speed well, and the red dot being
6 the location of the proposed unorthodox location.

7 As you can see, there's two black squares, with
8 one surrounding the red dot. Those represent the well pads
9 that the arch site was conducted upon, or the arch review.
10 The archeological site falls in the northern little square
11 above the pad where the well is located, and you can see
12 kind of like an oval moon shape is the representation.

13 The second page of this Exhibit 3 is a more
14 detailed picture of those well pads and the pictorial of
15 the archeological site.

16 Q. Okay, summarize for Mr. Ashley how this location
17 was selected.

18 A. Using 3-D seismic data.

19 Q. And what happened was, you had an original
20 location approved by the earlier R order, correct?

21 A. That is correct.

22 Q. And then it was the seismic information that you
23 used to redefine your interpretation of the reservoir?

24 A. Yes, the seismic -- geophysical data was further
25 refined, and -- because the seismic data pointed to the

1 necessity from a technical view, and we will have a witness
2 go over that in more detail.

3 Q. And so you moved the well to the east?

4 A. Moved the well to the east.

5 Q. And then what happened?

6 A. And then the location that would be to the east,
7 we were then moved by the Bureau of Land Management because
8 of the archeological sites and pushed to the south.

9 Q. Now, what are the well location requirements for
10 this well?

11 A. Under the current 104, requires us to be 660 feet
12 from the outer boundary of a quarter section.

13 Q. And how much too close to that line is this
14 proposed well?

15 A. Currently we are 330 feet too close to the south
16 line, or the center of the section line, the south line of
17 our spacing unit, and we are 258 feet from the center of
18 this Section 7.

19 But as testified in our previous hearing, this is
20 an undersized spacing unit, and therefore you have a
21 shorter section towards the center. But we are 258 feet to
22 the center.

23 Q. On what operators is the proposed location
24 encroaching?

25 A. It encroaches on Mewbourne Oil Company, is the

1 party being affected, and they are --

2 Q. And that is the only party?

3 A. That is the only party, and they are the operator
4 of the south half of this Section 7.

5 Q. Is Exhibit Number 4 an affidavit confirming that
6 notice of today's hearing and Application has been provided
7 to Mewbourne Oil Company?

8 A. Yes.

9 Q. And what is Exhibit Number 5?

10 A. Exhibit Number 5 is a letter agreement between
11 EOG Resources and Mewbourne Oil Company. It is a waiver by
12 Mewbourne of EOG's unorthodox location.

13 Q. Will EOG call a technical witness to review the
14 seismic information upon which the location is based?

15 A. Yes, we will.

16 Q. Were Exhibits 1 through 5 either prepared by you
17 or compiled under your direction?

18 A. Yes, they were.

19 MR. CARR: Mr. Ashley, at this time we move the
20 admission into evidence of EOG Resources, Inc., Exhibits 1
21 through 5.

22 EXAMINER ASHLEY: Exhibits 1 through 5 will be
23 admitted as evidence.

24 MR. CARR: And that concludes my direct
25 examination of Mr. Tower.

EXAMINATION

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BY EXAMINER ASHLEY:

Q. Mr. Tower, could you summarize Mewbourne's conditions for waiver?

A. Yes, I can. They have agreed to the waiver at the current location in return for EOG granting a like waiver, should they decide to place a well in the south half, and also in return for the well data from EOG's well, which EOG has agreed to.

And I will point out that in the south half -- the technical witness can give you more detail; it was in our previous hearing -- just for reference, there are two wells that penetrated the Morrow in the south half.

One is currently being operated -- it's a relatively new well -- in the southwest quarter by Mewbourne.

There is also in the southeast quarter -- I think it was originally a Phillips 11 B well, which penetrated the Morrow -- is now plugged back into the Grayburg.

So there's already been a couple Morrow tests in the south half to date.

Q. Mewbourne's well is the Empire Federal Number 1?

A. Yes, sir.

Q. And that's currently producing?

A. Yes. It's a relatively new well. I think the

1 previous testimony will give more of the details. It's not
2 a high-rate well. I think it was 500 MCF a day, somewhere
3 in that ballpark.

4 Q. Is this Warp Speed the first well on this unit?

5 A. Yes, it is.

6 Q. So you're moving it to a nonstandard location for
7 a couple of reasons, because of refined seismic and because
8 of archeological reasons?

9 A. That is correct.

10 Q. On the second page of Exhibit Number 3 --

11 A. Yes.

12 Q. -- there's a triangle in that upper square. Is
13 that the original location? Are we inside the original
14 wellpad location?

15 A. To be honest, I'm not -- They call it a datum,
16 there's a little --

17 Q. Okay.

18 A. -- I'm not sure. This is from the -- I don't
19 know -- I believe that they centered these well pads on our
20 location, so I believe that if you took the center of that
21 location, which -- That could be it. I don't know it
22 that's what they're calling a datum point. But it would
23 generally be located in the center of these wellpads.

24 Q. And what is this -- their site buffer line?

25 A. Apparently they have an area that they want to

1 push you back from this -- you know, from the arch site, to
2 keep your pad, the edge of your pad away from, to protect
3 it. So it's just their area to allow for proper protection
4 of this particular arch site.

5 EXAMINER ASHLEY: Okay, thank you. I have
6 nothing further.

7 D.J. SIEBENS, JR.,
8 the witness herein, after having been first duly sworn upon
9 his oath, was examined and testified as follows:

10 DIRECT EXAMINATION

11 BY MR. CARR:

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

13 A. D.J. Siebens, Jr.

14 Q. Mr. Siebens, where do you reside?

15 A. Midland, Texas.

16 Q. Do you want to spell your last name for us?

17 A. S-i-e-b-e-n-s.

18 Q. By whom are you employed?

19 A. EOG Resources.

20 Q. And what is your position with EOG Resources?

21 A. I am a project geophysicist.

22 Q. Have you previously testified before this
23 Division?

24 A. No, I have not.

25 Q. Would you summarize for Mr. Ashley your

1 educational background and review your work experience?

2 A. I'm a graduate of the New Mexico Institute of
3 Mining and Technology in Socorro. From there I went to
4 work for Atlantic Richfield in Dallas, Texas. I was laid
5 off from Atlantic Richfield in 1986 and went to work for an
6 engineering consulting firm in Santa Barbara, California,
7 working on Diablo Canyon nuclear plant site evaluation,
8 doing the same kinds of work that I do, except for in the
9 offshore of California.

10 In 1987 I went back to work for Atlantic
11 Richfield in Bakersfield, working offshore and then
12 onshore, and then subsequently in 1991 transferred to
13 Midland, Texas, where I started working in the Permian
14 Basin. I've been there until March of this past year,
15 where I left ARCO prior to the BP takeover and have been
16 working with EOG.

17 Q. When did you graduate from the School of Mines?

18 A. December of 1984.

19 Q. Are you familiar with the Application filed in
20 this case?

21 A. Yes, I am.

22 Q. And are you familiar with the subject area?

23 A. Yes, sir.

24 Q. Have you made a geophysical study of the area
25 which is the subject of the Application?

1 A. Yes.

2 Q. And are you prepared to share the results of your
3 work with Mr. Ashley?

4 A. I am.

5 MR. CARR: We tender Mr. Siebens as an expert
6 geophysicist.

7 EXAMINER ASHLEY: Mr. Siebens is so qualified.

8 Q. (By Mr. Carr) Mr. Siebens, let's go to what has
9 been marked for identification as EOG Resources Exhibit 6.
10 I'd ask you to identify it and then explain what this
11 exhibit shows.

12 A. This exhibit is the isochron between the Atoka
13 and the Barnett, the time thickness. The area shown is
14 Section 7, specifically, in the area of question. The
15 lighter colors, if you will, the greens, are thin relative
16 to the deeper colors, the light blues and dark blues slash
17 purple is thick.

18 Q. We have identified several well locations on this
19 exhibit. The uppermost locations is the Exxon 7-1. Is
20 that the correct name for that well?

21 A. No, it is not. That was the location that was
22 previously approved by the Commission. That naming
23 convention was one that the company had established and
24 still resides in our computing system.

25 Q. Okay. And we've got -- what is it? A trace for

1 a subsequent seismic line shown on this exhibit?

2 A. That is correct, the yellow line locates where
3 the next exhibit for seismic is positioned.

4 Q. If we go from what is labeled the Exxon 7-1 well
5 and we go to the right, we've got Location 2. What is
6 that?

7 A. Location 2 is the location that EOG originally
8 wanted to move the Exxon 7 to.

9 Q. And then south of that?

10 A. Then south of that is the Warp Speed Fed Com 1,
11 the open circle, which is the location that we have before
12 you now, as moved by the different regulatory boards.

13 Q. If I look at that location inside the circle with
14 the X, the area is shaded blue, correct?

15 A. Correct.

16 Q. If I look up in the north half of the section,
17 there are a couple of squares or rectangles in the north
18 half of the section. What are those designed to show?

19 A. Those squares are the absolute numbers, if you
20 will, from the seismic time-thickness. And when
21 interpreting the seismic, it is just that; it is an
22 interpretation, as well as this map itself needs to be
23 interpreted. So those are showing the absolute.

24 But we need to generalize those, and so as we're
25 in the northern part of that quarter section, if you will,

1 is light blue with smattering of green, which would be
2 thinner than around the location with the X in it, the Warp
3 Speed Fed Com 1, which is purple with smattering of blue.

4 Q. If we go from the circle that is marked Exxon 7-1
5 and we move toward the current location, is it fair to say
6 you're moving into an area where there's substantially
7 darker blue than in the area originally proposed?

8 A. That is correct.

9 Q. And what does that darker blue show? A thicker
10 formation?

11 A. That is correct. The darker blue, yes, it shows
12 thick. We have seen in this area, and I have seen in
13 working the area -- the area being plus or minus 30 miles
14 from here -- that seismic thicks correspond to geologic
15 thicks. And given the geologic model that sands ought to
16 be deposited in those thicks, those paleo-lows, that's what
17 draws us to this area.

18 Q. On the exhibit you've indicated standard location
19 windows.

20 A. Correct.

21 Q. If we look in those, there areas that are blue,
22 correct?

23 A. That is correct.

24 Q. Is there any location, based on this seismic
25 interpretation, where you would recommend drilling a well

1 for Morrow production?

2 A. No, there is not.

3 Q. In your opinion, is the proposed location the
4 best possible location to effectively produce the Morrow
5 reserves that are located under the north half of this
6 section?

7 A. Yes.

8 Q. Let's go now to what has been marked as EOG
9 Exhibit Number 7. Would you identify and review that,
10 please?

11 A. Exhibit Number 7 is the seismic traverse, as
12 shown on the previous exhibit by the yellow line. The
13 white vertical bars that you see from top to bottom on the
14 seismic are the turning points on that traverse shown on
15 the previous map. Identified on the seismic line are the
16 Exxon 7, the original location that EOG was interested in,
17 the current proposal, Warp Speed Fed Com 1, as well as the
18 Green "B" 11 of Mewbourne's.

19 Along the Green "B" 11 you see the geologic tops
20 as they exist in that borehole and relative to the seismic,
21 and we have interpreted on the seismic the Atoka, the
22 Morrow clastics, the Barnett and the Chester as the
23 interpreted horizons. Also on the side, we show the
24 interval to which the isochron, the previous map,
25 represents.

1 Q. And what does this show us, when you compare the
2 original with the proposed location?

3 A. Fundamentally, what we're seeing is that when
4 looking at the Atoka reflection, as annotated, or the
5 Morrow clastics reflection, if you will, those surfaces
6 seismically are relatively flat, and when you compare that
7 to the Barnett reflection lower in the section, you see
8 relative to the Exxon 7, to our proposed location, a
9 distinct drop in that Barnett reflection. That distinct
10 drop is what corresponds to the purple on the previous
11 display, and that is that thick.

12 The seismic in this case is not trying to
13 indicate specifically sand or any kind of a reservoir, but
14 rather the presence of a geologic thick, which fits our
15 model for deposition.

16 Q. What conclusions have you reached from your study
17 of this area?

18 A. Conclusions reached have been that there are no
19 standard locations in the north half of Section 7 and that
20 this location, as proposed, not only increases our chance,
21 although still risky, to encounter reservoir and
22 hydrocarbon but, if successful, would maximize our ability
23 to produce.

24 Q. In your opinion, will granting this Application
25 and the drilling of the proposed well be in the best

1 interest of conservation, the prevention of waste and the
2 protection of correlative rights?

3 A. Yes, I do.

4 Q. Were Exhibits 6 and 7 prepared by you?

5 A. Yes.

6 MR. CARR: Mr. Ashley, at this time we move the
7 admission into evidence of EOG Exhibits 6 and 7?

8 EXAMINER ASHLEY: Exhibits 6 and 7 will be
9 admitted as evidence.

10 MR. CARR: And that concludes my direct
11 examination of Mr. Siebens.

12 EXAMINATION

13 BY EXAMINER ASHLEY:

14 Q. Mr. Siebens, what about -- I'm looking at Exhibit
15 6. What about a location in the standard location window
16 that you have pictured to the right, down in the southwest
17 corner of that window? Is that not a good location if you
18 were to go standard?

19 A. Referring back to the idea that one must
20 generalize and interpret, if you will, this picture, if I
21 may, if you start up near the northwest corner of Section
22 7, near the letter A in the cross-section, one could
23 interpret through the blue a thick, if you will, staying
24 kind of between the green, coming down past the Exxon 7,
25 and then coming east-west across, through our location,

1 turning south, coming around the south and west side of the
2 Green "B" 11 and continuing out the southeastern quarter,
3 if you will, of that section.

4 So yes, in absoluteness, that is the color
5 consistent with the location. But from interpretation I
6 tried to stay in the core, if you will, of this
7 interpretive model of the paleo-lows being the places for
8 the expected predominance of sand deposition that would
9 also be outside of the realm of a desirable location.

10 EXAMINER ASHLEY: Okay. Thank you, I have
11 nothing further.

12 MR. CARR: Mr. Ashley, that concludes our
13 presentation in this case.

14 EXAMINER ASHLEY: There being nothing further in
15 this case, Case 12,543 will be taken under advisement.

16 (Thereupon, these proceedings were concluded at
17 4:33 p.m.)

18 * * *

19
20 I do hereby certify that the foregoing is
21 a complete record of the proceedings
22 the Examiner hearing of Case 12543
23 heard by me on 7-16-00
24 Mark Ashley, Examiner
25 Oil Conservation Division

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 November 26th, 2000.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002