

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

4 March, 1987

EXAMINER HEARING

IN THE MATTER OF:

Application of Diamond Shamrock Ex-	CASE
ploration Company for an amendment	9087
to Division Order No. R-8331, Lea	
County, New Mexico.	

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Commission:	Jeff Taylor Legal Counsel for the Division Oil Conservation Division State Land Office Bldg. Santa Fe, New Mexico 87501
For Diamond Shamrock:	Paul A. Cooter Attorney at Law HINKLE LAW FIRM P. O. Box 1357 Santa Fe, New Mexico 87504

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I N D E X

STATEMENT BY MR. COOTER	3
EDUARDO GONZALES	
Direct Examination by Mr. Cooter	5
Cross Examination by Mr. Stogner	11
Questions by Mr. Kautz	13
Recross Examination by Mr. Stogner	14

E X H I B I T S

DS Exhibit One, Affidavit	4
DS Exhibit Two, Waiver	4
DS Exhibit Three, Structure Map	6
DS Exhibit Four, Cross Section D-D'	7

1
2 MR. STOGNER: Call next Case
3 Number 9087.

4 MR. TAYLOR: The application of
5 Diamond Shamrock Exploration Company for an amendment to
6 Division Order No. R-8331, Lea County, New Mexico.

7 MR. STOGNER: Call for appear-
8 ances.

9 MR. COOTER: Paul Cooter, with
10 the Rodey Law Firm in Santa Fe, appearing on behalf of the
11 applicant, Diamond Shamrock.

12 MR. STOGNER: Are there any
13 other appearances in this matter?

14 In that case, since the witness
15 is standing, we'll have him sworn in.

16
17 (Witness sworn.)
18

19 MR. COOTER: May it please the
20 Examiner, if I may take just a moment, by Commission Order
21 R-8331 Diamond Shamrock was granted approval for an unortho-
22 dox gas well located 660 feet from the south and east lines
23 of Section 34, Township 22 South, Range 34 East, to test the
24 Atoka formation in the Antelope Ridge-Atoka Gas Pool in Lea
25 County.

1 The south half of Section 34
2 was dedicated to that well. That well is now drilling and
3 the projected depth is to be reached just any day.

4 The present application seeks
5 approval to continue the drilling of that well deeper so as
6 to test the Morrow formation.

7 First I would ask the Examiner
8 to take administrative notice of the testimony and exhibits
9 in Case 9005, which resulted in the issuance of that Order
10 R-8331.

11 MR. STOGNER: Case Number 9005,
12 I'll take administrative notice of that. I'll put that on
13 the record.

14 MR. COOTER: The exhibits in
15 that case showed the offset operators to be BTA to the east
16 in Section 35 and Diamond Shamrock to be the operator of the
17 well to the south in Section 3. The reason Amoco is listed,
18 Diamond Shamrock being the operator, Amoco has an interest
19 in that well and so they were listed, also.

20 I would like to offer as
21 Exhibit One my affidavit of the mailing of the application
22 in this case to both of those operators, and also as Exhibit
23 Two, the written waiver of any objections from BTA.

24 And I would like to offer -- or
25 I have marked a copy of BTA's letter that -- but I have the

1 original in --

2 MR. STOGNER: A copy should suf-
3 fice in this matter, Mr. Cooter.

4 MR. COOTER: With that
5 preliminary explanation we do have one witness who has now
6 been sworn and that is Edward Gonzales.

7
8 EDUARDO GONZALES,
9 being called as a witness and being duly sworn upon his
10 oath, testified as follows, to-wit:

11

12 DIRECT EXAMINATION

13 BY MR. COOTER:

14 Q Mr. Gonzales, for the record would you
15 please state your name, by whom you are employed, and your
16 position?

17 A My name is Eduardo Gonzales. I'm em-
18 ployed by Diamond Shamrock Exploration Company in the Mid-
19 land District Office in the capacity of Senior Geologist.

20 Q Mr. Gonzales, did you testify in Case
21 Number 9005 previously heard by this Division?

22 A Yes, I did.

23 Q And at that time did you make your educa-
24 tion and your professional experience a matter of record?

25 A Yes, I did.

1 MR. COOTER: Mr. Examiner, to
2 shorten it, I would -- since administrative notice has been
3 taken and that's all a matter of record, I won't go through
4 it again.

5 MR. STOGNER: That would be
6 fine. I find Mr. Gonzales so qualified.

7 Is that Gonzales with two "z's"
8 or one "z"?

9 MR. GONZALES: One "z".

10 MR. STOGNER: Thank you.

11 Q The present well that is drilling was to
12 test the Wolfcamp, the Strawn, and the Atoka formations.

13 A That is correct.

14 Q And what is the depth of that well at the
15 present time?

16 A The well is currently drilling at
17 approximately 12,140 feet, in the top of the -- very top of
18 the Atoka formation.

19 Q Now Diamond Shamrock desires to drill
20 that well deeper to test the Morrow formation.

21 A That's correct.

22 Q What would be the projected depth?

23 A The projected depth would be 13,600 feet.

24 Q Let me direct your attention, if I may,
25 to Exhibit Three, a structure map. Please identify that and

1 relate what appears.

2 A This is a structure map on the top of the
3 Middle Morrow formation. This map is on a 100 foot contour
4 interval. It shows our proposed actual drilling location
5 and surrounding wells.

6 The wells colored in brown are Atoka pro-
7 ducers and the well colored in blue is the sole Morrow pro-
8 ducer in this immediate area, and our location is in the
9 red.

10 This map indicates that our proposed lo-
11 cation is expected to be structurally high to the Morrow
12 well indicated in blue.

13 The one Morrow well is producing from a
14 standard interval of sand. By being up-dip to that well, we
15 hope to gain structure and some reservoir advantage and we
16 do not feel that, being as how there are no other Morrow
17 producers in the immediate area, this location would
18 adversely affect any other wells by going down to the Mor-
19 row.

20 Q Let me next direct your attention to Ex-
21 hibit Four and ask you to identify and explain that to the
22 examiner.

23 A Exhibit Four is a cross section of three
24 wells in this immediate area. The wells on this cross sec-
25 tion are, first on the lefthand side, the Diamond Shamrock

1 Federal No. 1 in Section 3, which is southwest of our
2 present location.

3 Moving to the right is our present
4 drilling location. To the right of that and east of us is
5 the BTA Maddox Federal No. 1 in Section 35, and then on the
6 extreme right is the BTA Maddox 1-B, also in Section 35, and
7 the sole Morrow producer in this immediate area.

8 The cross section indicates the Morrow,
9 the top of the Morrow formation, the top of the Middle
10 Morrow, and the top of the Lower Morrow.

11 Going from left to right we see that,
12 going to the sole Morrow producer, we are going down dip.
13 The -- within the Morrow interval we see on the BTA well to
14 the right the overall perfed interval, indicated by the red
15 dots in the middle of the well log itself.

16 To the right of that particular well log
17 are some red zones indicating the actual producing zones of
18 that Morrow well.

19 This cross section indicates a similarity
20 of the Morrow section in this immediate area. No other
21 wells produce Morrow from the same interval. It is hoped
22 that the Diamond Shamrock location now drilling will be
23 encountering the same similar section but will also
24 encounter that productive interval indicated on the BTA
25 well to the right.

1 Q Let me go back to Exhibit Three, which
2 was your structure map. The BTA well in the south half of
3 Section 35, was that drilled to test the Morrow?

4 A Yes. It was designed to test the Morrow
5 and found no Morrow production of economic worth, and that
6 well has completed in the Atoka zone.

7 Q And then the Diamond Shamrock well to the
8 south in the north half of Section 3, was that drilled to
9 the Morrow?

10 A That is correct.

11 Q And the Morrow was not productive in that
12 well, either.

13 A That is correct.

14 Q Were Exhibits Three and four prepared by
15 you, Mr. Gonzales, or under your direction and supervision?

16 A Yes, they were.

17 Q Do you have an estimate of the costs of
18 drilling deeper in the existing well to test the Morrow for-
19 mation?

20 A Yes, I do.

21 Q What would that be?

22 A The incremental cost would be approxi-
23 mately 120,000 additional dollars.

24 Q Did your company make a determination of
25 what it would cost to drill a Morrow well from the surface?

1 A Yes, they did.

2 Q What were those costs?

3 A That they're approximately \$1.5-million
4 for a new well.

5 Q If the Morrow formation were found to be
6 productive at this location, would the well drain, in your
7 opinion, the south half production unit?

8 A Yes. Referring back to the structure
9 map, the location indicated in the southeast quarter would
10 adequately drain the south half of Section 34. By being in
11 this location it is believed that the Morrow sands tend to
12 locate in the lows, structural lows, and moving anywhere
13 else further west in Section 34 may -- may actually put us
14 out of the productive Morrow interval.

15 Q Mr. Gonzales, would the granting of this
16 application by the Commission be in the best interest of
17 conservation?

18 A Yes, it would. At this time, it would.

19 Q In your opinion would the granting of the
20 application permitting the drilling of the well to test the
21 Morrow minimize the risks involved?

22 A Yes, it would.

23 Q Prevent waste, and by "waste" I mean both
24 economic and physical?

25 A Most definitely.

1 A Most definitely.

2 Q And would it -- would correlative rights
3 of the offsetting operators and mineral owners still be
4 protected?

5 A Yes.

6 MR. COOTER: Mr. Examiner, we
7 offer Exhibits Three and Four and that completes our direct
8 examination.

9 MR. STOGNER: Exhibits Three
10 and Four will be taken into evidence and I'll also take
11 administrative notice and accept Exhibits Number One and
12 Two, I'm sorry, the notification procedure -- which are the
13 notifications to Amoco and BTA.

14 For the record, to make sure I
15 got it straight, Amoco is the leaseholder of Section 2?

16 MR. COOTER: No, they -- they
17 participate with Diamond Shamrock in Section 3, the well to
18 the south.

19 MR. STOGNER: And who operates
20 Section 2?

21 A That's also BTA.

22

23 CROSS EXAMINATION

24 BY MR. STOGNER:

25 Q Mr. Gonzales, prior to making application

1 for the amendment, what was the proposed TD of your well at
2 that time?

3 A At that time it was 12,500 feet.

4 Q And what's the projected TD at this time.

5 A At this time it would be 13,600 feet.

6 Q Which would bring you to the base of the
7 Morrow, is that correct?

8 A Yes, sir.

9 Q When you told me it was currently
10 drilling at 12,140 feet, was that as of today?

11 A As of this morning, yes.

12 Q What's their penetration rate then about
13 this time in the Atoka?

14 A It's been an average of 10 minutes to the
15 foot.

16 Q What size of hole are you drilling at
17 this time?

18 A We've got a 6-1/8th-inch bit right now.

19 Q So if the Morrow was productive in this
20 particular area, would -- I assume that Diamond Shamrock
21 would then produce the Morrow and then deplete it and then
22 move up to the Atoka or are you all proposing to put in a
23 dual string?

24 A The plan is if -- if the Atoka is not
25 productive and it is an oil pressure reservoir, then to go

1 down to the Morrow; however, if the Atoka is productive and
2 therefore high pressured, we would not at this time go to
3 the Morrow.

4 If this was productive in the Atoka, or
5 when it is, do you propose at a later date after the Atoka
6 has been depleted to move on down to the Morrow?

7 A That would be a possibility.

8 Q Are you proposing that something to that
9 effect be in the order making sure that the provisions fol-
10 low henceforth --

11 A Yes, sir.

12 Q -- setting them some sort of a limita-
13 tion?

14 A Yes, sir.

15 MR. STOGNER: Okay, I have no
16 further questions of this witness.

17 Are there any other questions
18 of Mr. Gonzales?

19 Mr. Kautz?

20

21 QUESTIONS BY MR. KAUTZ:

22 Q Are you aware of a -- both a type log and
23 type cross section in this area for the Strawn, Atoka, and
24 Morrow tops?

25 A Yes.

1 Q Do these -- do your Morrow tops coincide
2 with the type cross section tops?

3 A Okay, perhaps I'm -- what particular type
4 cross section are you referring to?

5 Q One that was established by the New Mex-
6 ico Oil Conservation Division?

7 A Okay, I am not familiar with that parti-
8 cular one for this area, no.

9 MR. STOGNER: Mr. Kautz, have
10 you had an opportunity to take a look at Exhibit Number
11 Four?

12 MR. KAUTZ: No, I haven't.

13 MR. STOGNER: While we've got
14 you here, why don't you take a look at it and see if -- give
15 us your opinion?

16 For the record in this case Mr.
17 Kautz is the geologist, district geologist in our Hobbs Dis-
18 trict Office.

19
20 RE CROSS EXAMINATION

21 BY MR. STOGNER:

22 Q Before any perforations are made and once
23 the well log is run on this well, if you would get with Mr.
24 Kautz in our Hobbs District office and make sure that the
25 top of the Morrow correlates with the OCD designated top for

1 this area.

2 A Yes, sir, certainly will.

3 MR. STOGNER: Are there any
4 other questions of Mr. Gonzales?

5 If not, he may be excused.

6 Is there anything further in
7 this case?

8 MR. COOTER: Nothing further,
9 sir.

10 MR. STOGNER: Seeing that
11 there's somewhat of an urgency in this particular case, as
12 an examiner I'm not permitted to -- to make a verbal ap-
13 proval of this application, since my determination is just a
14 recommendation to the examiner, I mean to the Division
15 Director; however, for the record I will make a positive
16 recommendation for this application to be approved.

17 MR. COOTER: Thank you, sir.

18 MR. STOGNER: If there is no-
19 thing further in Case Number 9087, it will be taken under
20 advisement.

21

22 (Hearing concluded.)

23

24

25

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true, and correct record of this portion of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9087, heard by me on 4 May 1987.

Michael H. Hays Examiner
Oil Conservation Division

