

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

17 June 1987

EXAMINER HEARING

IN THE MATTER OF:

Application of Maxus Energy Corpora- Case
tion for approval of an unorthodox 9150
gas well location, 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 Division:

Jeff Taylor
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For the Applicant:

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OIL CONSERVATION DIVISION

JUN 29 1987

RECEIVED

I N D E X

EDUARDO GONZALES

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MR. STOGNER: Call next Case
Number 9150.

MR. TAYLOR: The application of
Maxus Energy Corporation for approval of an unorthodox gas
well location, Lea County, New Mexico.

MR. STOGNER: For the record,
the unit letter shown in the advertisement is wrong; how-
ever, this is not a legal location so it will not have any
effect in the advertisement today.

Call for appearances.

MR. COOTER: Paul Cooter with
the Rodey Law Firm in Santa Fe, appearing on behalf of Maxus
Energy.

I have one witness, Ed Gon-
zales.

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

Will the witness -- he is
standing to be sworn.

(Witness sworn.)

1 EDUARDO GONZALES,
2 being called as a witness and being duly sworn upon his
3 oath, testified as follows, to-wit:

4

5 DIRECT EXAMINATION

6 BY MR. COOTER:

7 Q Would you state your name for the record,
8 please, sir?

9 A My name is Eduardo Gonzales.

10 Q And by whom are you employed, Mr. Gon-
11 zales?

12 A I'm employed by Maxus Energy Corporation,
13 formerly Diamond Shamrock, in Midland, Texas.

14 Q And what is your position with Maxus?

15 A My position is Senior Geologist.

16 Q Relate briefly for the record your educa-
17 tion and professional experience.

18 A I have a Master of Science degree in geo-
19 logy from Texas Tech University. I've been a geologist for
20 nine years, seven of those years in the oil and gas indus-
21 try.

22 I've been employed with Maxus Energy for
23 two years. I have been working the Permian Basin, West
24 Texas, southeast New Mexico, for six years of my profes-
25 sional experience, and my primary area of responsibility now

1 with Maxus is southeastern New Mexico.

2 Q Have you previously testified before this
3 Division and made your qualifications a matter of record?

4 A Yes, sir.

5 Q What does Maxus Energy seek by this ap-
6 plication?

7 A Maxus Energy seeks the approval of an un-
8 orthodox location in Section 34, 22 South, 34 East, located
9 660 feet from the south line, 1650 feet from the west line.

10 It is hoped that by getting approval of
11 this unorthodox location we will optimize the opportunity to
12 test all the prospective zones possible with one well.

13 Q Those zones are the Wolfcamp, Strawn,
14 Atoka, and Morrow formations?

15 A That is correct.

16 Q And the unit, proration unit, is the west
17 half of Section 34.

18 A That is correct.

19 Q The reason then sought for this unortho-
20 dox location is based on geologic data.

21 A That is correct.

22 Q Have you an estimated cost of drilling
23 and completing this well?

24 A Yes, sir.

25 Q What are those?

1 A The cost of a dry hole is \$1,125,000. The
2 cost of a producing well is \$1,462,000.

3 Q Who are the offsetting operators?

4 A The offsetting operators are Amoco, En-
5 ron, and Apache Petroleum.

6 Q You said Enron and in our application we
7 mentioned Bell North Petroleum.

8 A That is correct. Enron has undergone
9 several restructurings. They also refer to it as Bell North
10 or in some maps that is Belco.

11 Q All three offset operators were notified
12 of and furnished copies of the application?

13 A Yes, sir.

14 Q And all three operators have waived any
15 objections thereto.

16 A Yes.

17 MR. COOTER: Mr. Examiner, we
18 have the original letters; I have prepared Xeroxed copies
19 and filed those but they are Xeroxed copies of the originals
20 from each one of those named companies.

21 MR. STOGNER: Let the record
22 show that Mr. Cooter did offer the originals for my inspec-
23 tion and given me copies of those originals. I have made
24 note on these copies that they are indeed from the orig-
25 inals.

1 MR. COOTER: Thank you, sir.

2 MR. STOGNER: Please continue,
3 Mr. Cooter.

4 Q We have marked for identification pur-
5 poses, six exhibits, Mr. Gonzales.

6 Let's start with Exhibit Number One and
7 ask you identify that and then explain it.

8 A Exhibit Number One is a land plat showing
9 highlighted in yellow the Diamond -- or Maxus Energy ac-
10 reage, and it indicates the offset operators.

11 The plat indicates Maxus' interest to be
12 all of Section 34 and the north half of Section 3 to the
13 south.

14 Q Wells have been completed on the north
15 half of Section 3 to the south and to the east and the east
16 half of Section 34, have they not?

17 A That is correct.

18 Q All right, do you want to go to Exhibit
19 Two?

20 A Exhibit Two is a structure map on the
21 Atoka Shale marker, one of the important mapping horizons in
22 this area. The wells indicated in purple are Atoka pro-
23 ducers, undifferentiated.

24 The cross section A-A', which we'll be
25 referring to later, is indicated, as is the proposed loca-

tion for the Maxus Energy No. 3 Well.

2 The map indicates that we hope to -- sub-
3 surface mapping indicates that we have the possibility of
4 being structurally high to the No. 2 Well in the southeast
5 quarter of Section, thereby gaining structural advantage to
6 that well which is currently awaiting completion in both the
7 Atoka and Morrow formations. The key point there is to gain
8 that structural advantage from the No. 2 Well.

9 Q And let's go next to Exhibit Number
10 Three.

11 A The Atoka formation in this immediate
12 area is productive from two major algal accumulations, which
13 are the upper bank and the lower bank.

14 Exhibit Number Three is an Isopach map, a
15 thickness map on that upper algal accumulation, if you want
16 to refer to it as the upper bank.

17 The wells indicated in yellow are produc-
18 tive in that particular zone of the Atoka.

19 The area highlighted in the red indicates
20 where the greatest accumulation, the thickest accumulation
21 of this algal bank occurs and that is where geologically the
22 productive wells are more apt to be found, as indicated by
23 the No. 1 Well in the northeast quarter of Section 3. That
24 is productive in the upper bank.

25 To the south of there the well in the

1 southeast quarter of Section 3 is also productive, although
2 marginally. It is hoped that by drilling in this location
3 the No. 3 Well will be well within the thickness of the up-
4 per bank accumulation.

5 Q Anything else? Do you want to go to Ex-
6 hibit Four, then?

7 A Okay. Exhibit Four is an Isopach
8 interval thickness on the lower bank, the second zone within
9 the Atoka that is productive in this immediate area. Here
10 the lower bank producers are indicated in yellow -- I'm
11 sorry, in brown.

12 Again the area highlighted in red
13 indicates the area of thickest accumulation of the lower
14 bank. Subsurface mapping indicates further that a location
15 for the No. 3 as requested, would conceivably be testing the
16 thicker part of that same accumulation.

17 Q The next exhibit, Mr. Gonzales.

18 A The next exhibit is a structure map on
19 the Middle Morrow marker. Indicated in blue are two Morrow
20 producers in this immediate are. Once again it is hoped
21 that by drilling at the location requested that we will gain
22 structural advantage to the No. 2 Well in the southeast
23 quarter of Section 34.

24 Q All right, now may I direct your
25 attention to Exhibit Number Six? Would you explain that?

1 A This next exhibit is a southwest/north-
2 east trending cross section that was indicated in the pre-
3 vious exhibits. This is a structural cross section which
4 depicts the geologic environments of the Atoka formation and
5 the Middle Morrow formations in this area.

6 The Diamond Shamrock Federal No. 1 Well
7 is to the southwest and the Shamrock No. 2 Well is to the
8 northeast. Projecting in between these two wells is the lo-
9 cation of the sought unorthodox well.

10 At the top of the cross section, at the
11 very top we see the Atoka upper bank, which is productive in
12 the Federal Number Well to the southwest. Highlighted in
13 red are the producing -- perforated intervals and producing
14 zone.

15 Moving to the northeast to the No. 2
16 Well, we see that the upper bank is thinner and also is
17 tight.

18 Moving lower in that Atoka section is the
19 Atoka lower bank. It is present in the No. 1 Well but it's
20 thinner and tight. As we go to the northeast we find it to
21 be thicker there and has been perforated awaiting comple-
22 tion.

23 Moving further down into the section, in-
24 to the Middle Morrow interval, indicated in yellow is a
25 stratigraphic pinchout of what we've termed the middle sand

1 of that Middle Morrow interval.

2 The Federal No. 2 Well is perforated in
3 that same middle sand, as well as some of the smaller sands.
4 All these sands are present at a stratigraphic pinchout
5 which terminates to the southwest as you go up structure.

6 It is hoped that by drilling in this lo-
7 cation that we will be able to fully evaluate any one or
8 three of these zones.

9 Q The Federal No. 2 Well which appears on
10 the righthand side of this exhibit, that is the well that
11 was the subject of prior hearings before this Commission.

12 A That is correct.

13 Q And it has -- it's in a stage now of com-
14 pletion?

15 A That is correct.

16 Q And it appears to be productive from both
17 the Atoka and the Morrow formations.

18 A That's correct.

19 Q Were Exhibits Numbers One through Six
20 either prepared by you or under your direction and supervi-
21 sion?

22 A Yes, they were.

23 Q And all accurately portray or contain the
24 information which appears thereon?

25 A Yes.

1 MR. COOTER: We offer Exhibits
2 One through Six at this time, Mr. Stogner.

3 MR. STOGNER: Exhibits One
4 through Six will be admitted into evidence.

5 Q Mr. Gonzales, if the proposed west half
6 proration unit is found to be productive by your proposed
7 Federal No. 3 Well, would that proration unit be drained by
8 a well in this unorthodox location?

9 A Yes, it would.

10 Q Would the granting of this application be
11 in the best interests of conservation?

12 A Yes, sir, it would.

13 Q Would it minimize the risk involved?

14 A Yes, sir.

15 Q And prevent waste and by waste I mean
16 both economic and physical?

17 A Most definitely.

18 Q And still protect the correlative rights
19 of the offsetting owners and operators.

20 A That is correct.

21 MR. COOTER: That concludes our
22 direct presentation, Mr. Stogner.

23 MR. STOGNER: Thank you, Mr.
24 Cooter.

25

CROSS EXAMINATION

BY MR. STOGNER:

Q Mr. Gonzales, looking at Exhibit Number Five, which shows the Morrow producers, I show that your Federal No. 2 is of course waiting on completion. How about the well over there in the west half of Section 35, do you have any history on that or its production?

A Yes, sir. That well is a Morrow producer but is not producing in that Middle Morrow sand interval. It is producing in the Upper Morrow and in the upper part of the Middle Morrow. It is a different interval.

The sand that is productive in our No. 2 Well is present in that same well but it is structurally low and apparently is pretty wet. That well through 1-1-86 has produced 1.3 BCF of gas.

Q Do you know what its pool designation is in the Morrow?

A No, sir.

Q Now we advertised today that this -- we'd also consider the Wolfcamp and the Strawn formation production. Do you have any geological testimony to support the Wolfcamp and Strawn at this time?

A The Strawn and the Wolfcamp are secondary objectives. They are not considered to be strong targets;

1 however there in this area off the map itself there are mar-
2 ginal wells which are producing in those zones and, of
3 course, in the drilling of this well there's always a pos-
4 sibility of encountering an economic well.

5 Q And so inasmuch as you have evidence on
6 the Atoka and the Morrow formations, the Wolfcamp and Strawn
7 being secondary should be considered at this time.

8 A That is correct.

9 Q Okay.

10 A Might I -- that question that you asked
11 previously about the pool on this well?

12 Q Yes.

13 A That is the Antelope Ridge Morrow. I
14 didn't quite understand the question then.

15 Q Yeah, that's what I was getting at.

16 A Okay.

17 Q Okay. Is that the only Morrow pool that
18 you know that exists within a mile of this proposed well?

19 A That is correct.

20 MR. STOGNER: I have no further
21 questions of Mr. Gonzales.

22 Is there any other questions of
23 this witness?

24 If not, he may be excused.

25 Mr. Cooter, do you have any-

1 thing further?

2 MR. COOTER: Nothing further,
3 sir.

4 MR. STOGNER: In that case,
5 this case will be taken under advisement.

6 MR. COOTER: Thank you.

7

8 (Hearing concluded.)

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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 prepared by me to the best of my ability.

Sally W. Boyd - CSR

I do hereby certify that the foregoing is
a complete and correct transcript of the proceedings in
the Examiners hearing of Case No. 9150,
heard by me on June 17, 1987.
M. J. [Signature], Examiner
Oil Conservation Division