

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO

6 January 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of Bettis Brothers, Inc.      CASE  
for an unorthodox gas well location,      9285  
Eddy 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:

For the Applicant:

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MR. STOGNER: And I'll call next Case 9285, which is the application of Bettis Brothers, Incorporated, for an unorthodox gas well location, Eddy County, New Mexico.

The applicant has requested this case be continued to the Examiner's hearing scheduled for January 20th, 1988.

The docket has a typo on it and it reads 1987. That, of course, should be 1988. Please take note.

(Hearing concluded.)

## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY  
CERTIFY that 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 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. 9285,  
heard by me on 6 January 19 88.

Marlene H. Rogers, Examiner  
Oil Conservation Division

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO

20 January 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of Bettis Brothers, Inc. CASE  
for an unorthodox gas well location, 9285  
Eddy County, New Mexico.

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:

For the Applicant:

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MR. CATANACH: Call next Case  
Number 9285, application of Bettis Brothers, Inc., for an  
unorthodox gas well location, Eddy County, New Mexico.

Applicant has requested that  
this case be continued to the Examiner Hearing scheduled for  
February 3, 1988.

Case Number 9285 will be so  
continued.

(Hearing concluded.)

## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY  
CERTIFY that 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 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 and correct transcript of the  
hearing of the Examiner hearing of Jan 20 1985  
heard by me on Jan 20 1985

David R. Catarack, Examiner  
Oil Conservation Division

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO

3 February 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of Bettis Brothers, Inc. CASE  
for an unorthodox gas well location, 9285  
Eddy 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:

For the Applicant:

Scott Hall  
Attorney at Law  
CAMPBELL & BLACK P.A.  
P. O. Box 2208  
Santa Fe, New Mexico 87501

## I N D E X

## THOMAS SMITH

Direct Examination by Mr. Hall 3

Cross Examination by Mr. Stogner 15

## E X H I B I T S

Bettis Exhibit One, Structure Map 7

Bettis Exhibit Two, Isopach 7

Bettis Exhibit Three, Map 8

Bettis Exhibit Four, Isopach 8

Bettis Exhibit Five, Isopach 8

Bettis Exhibit Six, Application 9

Bettis Exhibit Seven, Topo Map 10

Bettis Exhibit Eight, Cross Section A-A' 11

Bettis Exhibit Nine, Cross Section B-B' 12

Bettis Exhibit Ten, Notice 13

Bettis Exhibit Eleven, Waivers 14



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MR. STOGNER: I'll call next Case Number 9285, which is the application of Bettis Brothers, Incorporated, for an unorthodox gas well location in Eddy County, New Mexico.

Call for appearances.

MR. HALL: Mr. Examiner, Scott Hall from Campbell & Black, P. A., on behalf of the applicant, Bettis Brothers, Inc.

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

There appearing none, will the witness please stand and be sworn?

(Witness sworn.)

Mr. Hall?

THOMAS SMITH,  
being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. HALL:

Q For the record, please state your name

1 and place of residence?

2 A Thomas Smith, Midland, Texas.

3 Q Mr. Smith, who do you work for and in  
4 what capacity?

5 A I work for Bettis, Boyle and Stovall and  
6 Bettis Brothers as Exploration Geologist.

7 Q Have you previously testified before the  
8 Division?

9 A No, I have not.

10 Q Why don't you give the Examiner a brief  
11 summary of your educational background and work experience?

12 A I received my Bachelor of Science degree  
13 from West Texas State University in 1971. Upon graduation I  
14 went to work in the oil and gas industry for Natural Gas  
15 Pipeline as an exploration geologist for seven years, and  
16 then went to Coquina Oil Corporation as Exploration Manager  
17 for a period of five years; from there on to Kerr McGee Oil  
18 Corporation as Exploration Geologist for a period of one  
19 year; from there to Rendova Oil Corporation for a period of  
20 one year; and from there to Bettis Brothers, where I'm em-  
21 ployed as Exploration Geologist for the last three years.

22 Q Does your area of responsibility include  
23 the Permian Basin, eastern New Mexico?

24 A Most all of my experience has been in the  
25 Permian Basin with primary emphasis on southeast New Mexico.

1           Q           And are you familiar with the subject ap-  
2 plication and well and acreage?

3           A           Yes, I am.

4                       MR. HALL:   Mr. Examiner, are  
5 the witness' qualifications acceptable?

6                       MR. STOGNER: Mr. Smith, what  
7 did your BS degree at West Texas?

8           A           When?

9                       MR. STOGNER: What, in what?

10          A           In geology.

11                      MR. STOGNER: In geology.

12          A           Yes.

13                      MR. STOGNER: Mr. Smith's qual-  
14 ifications are so accepted, Mr. Hall.

15                      MR. HALL:   Okay.

16          Q           First of all, let's clear up one thing,  
17 Mr. Smith. The application was made in the name of Bettis  
18 Brothers, Inc.. Who will be the actual operator of the  
19 well?

20          A           The operator of the well will be Bettis,  
21 Boyle and Stovall out of Graham. Texas.

22          Q           All right, could you explain the rela-  
23 tionship between those two companies?

24          A           Bettis, Boyle and Stovall is basically a  
25 parent company for Bettis Brothers. There is some separate

1 -- separation there. It's a family-structured corporate  
2 set-up but they are closely knit and Bettis Brothers does a  
3 lot of the footwork for Bettis, Boyle and Stovall with re-  
4 gard to some of their New Mexico paperwork and geology.

5 Q As operators are they indeed within the  
6 same entity, same --

7 A Yes, they are in this case.

8 Q All right. Why don't you explain what it  
9 is that Bettis seeks in this case?

10 A We are seeking an unorthodox location for  
11 the drilling of a 14,200 foot Atoka-Morrow well to be  
12 located in the north half of Section 8, Township 25 South,  
13 Range 29 East, Eddy County, with that unorthodox location  
14 being 660 from the north line and 860 from the east line.

15 Q Are you familiar with the applicable  
16 rules for this area?

17 A Yes, I am.

18 Q And what are those rules?

19 A They call for 320-acre spacing with  
20 orthodox locations being no closer than 1980 from the  
21 nearest end boundary and no closer than 660 from the nearest  
22 side boundary.

23 Q Okay, what is the name of the closest  
24 pool?

25 A The closest pool is the Rustler Bluff

1 Atoka Pool.

2 Q All right. Mr. Smith, have you prepared  
3 certain exhibits in connection with this case?

4 A Yes, I have.

5 Q All right, let's look at Exhibit One, if  
6 you could identify that and explain what it's intended to  
7 reflect.

8 A Exhibit One is simply a structure map on  
9 top of the Atoka shale. It basically reflects that struc-  
10 ture is of real -- of no real significance in this case;  
11 that all you really have involved here is regional southeast  
12 dip.

13 Q All right, does it show the proration  
14 unit for the proposed location?

15 A Yes, it does.

16 Q All right, let's look at Exhibit Two,  
17 what does that show?

18 A Exhibit Two is a geological Isopach of  
19 the Atoka A-3 sand. That is a thickness map which shows the  
20 configuration of the reservoir that we will be exploring for  
21 in the north half of Section 8 as it relates to the producer  
22 in Section 5, the Enron No. 1 Bell Federal, and it shows  
23 that the north half of Section 8 is by far geologically the  
24 ideal location to be drilling for that particular objec-  
25 tive.

1           Q           All right.   Let's look at Exhibit Three.  
2   What does that show?

3           A           Exhibit Three is again an Isopach map of  
4   the Atoka A-5 sand, which again is a thickness map showing  
5   the configuration of that particular reservoir, which pro-  
6   duces in the Rustler Field in Section 5, and shows that our  
7   proposed unorthodox location is indeed critical geologically  
8   for this particular objective.

9           Q           All right, let's look at Exhibit Four and  
10   why don't you explain that exhibit, please?

11          A           Exhibit Four is again an Isopach map of  
12   the Morrow chert porosity, which produces in two wells in  
13   the area. It produces from 8-feet of reservoir thickness  
14   in the Bettis, Boyle and Stoval No. 1 Pickett Draw in Sec-  
15   tion 9 and from 4 feet in the Mobil No. 1 Corral Draw Well  
16   in Section 14.

17                   As you can see, again there is a dramatic  
18   loss of porosity to the west and again the northeast quarter  
19   of Section 8 is again critical in a geologic sense.

20          Q           All right. Refer to Exhibit Five and ex-  
21   plain what that shows.

22          A           Exhibit Five is again an Isopach, or  
23   thickness map, of the Morrow B sand, which again is produc-  
24   ing in the well in Section 9 and did produce in the well in  
25   Section 14 and it shows that there is a definite channel

1 configuration to this sand that crosses the proposed loca-  
2 tion in an east/west fashion, and again shows that the  
3 northeast quarter of Section 8 is our preferred geologic lo-  
4 cation.

5 Q All right. Of all the formations that  
6 are depicted on Exhibits Two through Five, what is the most  
7 prolific producer in the area?

8 A At this time the Atoka zones, the A-3 and  
9 A-5, are the most prolific --

10 Q All right.

11 A -- in our evaluation.

12 Q Let's turn to Exhibit Six, now. Would  
13 you identify that, please?

14 A Yes. This is our application for permit  
15 to drill and our acreage dedication and well location plat  
16 as it pertains to the -- to the well.

17 Q And have these already been filed with  
18 the BLM and OCD?

19 A Yes, they have.

20 Q Okay. Let's go back to your geologic ex-  
21 hibits again. How important is structure or thickness in  
22 determining your location here?

23 A Structure is of no importance. Thickness  
24 of -- or Isopach values are -- are critical. It's all stra-  
25 tigraphic involvement here with this particular -- with

1 these particular zones.

2 Q With respect to the thickness, can you  
3 explain how you arrived at your particular location in this  
4 case?

5 A The way we arrived at this particular lo-  
6 cation is that geologically the majority of the reservoirs,  
7 as we view them, there is a definite favoring of the north-  
8 east quarter of Section 8. We had intended to drill at a  
9 normal, standard location, 1980 from the east line and 660  
10 from the north line and found that we were right on top of  
11 the Llano Natural Gas Pipeline, and in light of our geology  
12 and in being on top of the pipeline, our most logical geolo-  
13 gic move was to the east to assure that we did maintain and  
14 did not compromise any of our geologic knowledge in this  
15 area.

16 Q All right, is it more likely that you'll  
17 recover greater hydrocarbon reserves at your nonstandard lo-  
18 cation than you would at the standard location required un-  
19 der the rules?

20 A Yes, this would assure us that we would  
21 do that, I think.

22 Q All right, let's look at Exhibit Seven.  
23 Would you identify that, please?

24 A This is a topographic map as issued by  
25 the U. S. Geological Survey, which shows that we indeed are



1 exactly on top of the Llano Natural Gas Pipeline, which is  
2 on this particular map with our standard location.

3 As you can see, when we move off to the  
4 east towards our unorthodox location, we were trying to stay  
5 within acceptable tolerance limits as provided by the Com-  
6 mission and stay at least 990 from the end boundary, and  
7 when we went to that particular location, 990, it put us  
8 right on a very severe ledge or cliff and that is why we had  
9 to step outside the tolerance limitations as set up by the  
10 Commission and go to a hearing and establish and apply for  
11 an unorthodox location where we have it proposed, which is  
12 down in a flat area where there is relatively no terrain  
13 problem.

14 Q All right, let's refer to Exhibit Eight,  
15 the cross section. Would you explain what that's intended  
16 to reflect?

17 A Exhibit Eight shows how the Atoka A-3 and  
18 A-5 reservoirs are developed throughout the area. The A-5  
19 reservoir was producing in the well in Section 5, Enron No.  
20 1 Gulf Federal, but has now been plugged back to the A-3.

21 It is now currently producing something  
22 on the order of 3-million cubic feet of gas a day.

23 These two zones are both present in the  
24 Bettis, Boyle and Stovall No. 1 Pickett Draw Federal. They  
25 are behind pipe. This well is a Morrow completion but both

1 of these zones are present and considered productive in that  
2 particular well.

3 The zones for the most part are not all  
4 that well developed, if at all, in the other wells in the  
5 area.

6 Q Okay, let's look at Exhibit Nine. Would  
7 you explain that, please?

8 A Exhibit Nine addresses itself to the Mor-  
9 row geology as it pertains to the Morrow chert porosity in  
10 the Morrow B Sands, both of which are producing in the Bet-  
11 tis, Boyle and Stovall No. 1 Pickett Draw Federal in Section  
12 9 and both of which did produce in the Mobil NO. 1 Corral  
13 Draw Unit in Section 14.

14 As you can see, there is no chert poro-  
15 sity to the west in the Gulf No. 1 Rustler Bluff. The Mor-  
16 row B sands, however, are present but were found nonproduc-  
17 tive in that particular well.

18 Q is there anything further you'd wish to  
19 add with respect to the nature of the sands shown on Exhi-  
20 bits Eight, and Nine?

21 A Nothing other than they are very high  
22 risk, stratigraphically controlled reservoirs that really  
23 require a lot of thought as far as location selection.

24 Q All right. Mr. Smith, in your opinion,  
25 do you believe that production from the proposed well should

1 be restricted or penalized due to its location?

2 A No, I do not.

3 Q What is the minimum producing rate that  
4 you believe would allow the well to be produced  
5 economically?

6 A According to our internal economics, we  
7 have to have at least an initial production rate of 2-1/2-  
8 million cubic feet of gas a day.

9 Q If the well is restricted below that,  
10 would your plans for going forward with the well change at  
11 all?

12 A They could be deterred.

13 Q All right. What effect would penalizing  
14 the well's production have on the correlative rights of your  
15 company in the acreage?

16 A There could be some drainage from offset  
17 wells if we are penalized, in my estimation.

18 Q All right. Let's look at Exhibit Ten.  
19 Has notice been given to the offsetting interest owners as  
20 required by the OCD rules?

21 A Yes, it has.

22 Q And does Exhibit Ten reflect the fact  
23 that you've directed your counsel to send out notice to  
24 those interest owners?

25 A Yes, we did.

1           Q           All right. Let's look at Exhibit Eleven.  
2 Could you identify that, please?

3           A           These are the waiver letters as signed by  
4 all of the offset operators, waiving any objections to the  
5 unorthodox locations.

6           Q           Is there a breakout of the offsetting in-  
7 terest owners attached to Exhibit Eleven?

8           A           Yes.

9           Q           And is that the next to the last page of  
10 the exhibit?

11          A           Yes, on the next to the last page of the  
12 exhibit it shows all of the offset operators as shown of re-  
13 cord, and all of these have waived -- have signed waivers  
14 releasing us from any -- from opposing our unorthodox loca-  
15 tion, with the exception of Exxon, and Exxon in some kind of  
16 an internal struggle has taken the stance that they will  
17 neither sign nor oppose the location.

18          Q           Now is Exxon indeed an offsetting inter-  
19 est owner or are they in the subject acreage?

20          A           They are, well, they are -- they are ac-  
21 tually on the subject acreage. It is a farmout from Exxon  
22 that we are drilling.

23          Q           All right.

24          A           And they do have some offset acreage,  
25 also.

1           Q           All right. Mr. Smith, in your opinion  
2 will the granting of the Bettis application be in the  
3 interest of conservation, the prevention of waste, and  
4 protection of correlative rights?

5           A           Yes.

6           Q           Were Exhibit One by Eleven prepared by  
7 you or at your direction?

8           A           Yes, they were.

9                       MR. HALL: We'd move the  
10 admission of Exhibits One through Eleven and that concludes  
11 our direct.

12                      MR. STOGNER: Exhibits One  
13 through Eleven will be admitted into evidence at this time.

14  
15                               CROSS EXAMINATION

16 BY MR. STOGNER:

17           Q           Got to ask about that plugged and aban-  
18 doned well there in Section 8, up there in the northeast  
19 northeast. I assume that's probably a shallow oil well?

20           A           Yes, it is. It was a Delaware Ramsey  
21 test.

22           Q           Let's see, now part of the application  
23 today included the Delaware. Did this particular well show  
24 any Delaware production or anything?

25           A           From that particular zone in the Delaware

1 it did not.

2 Q Okay.

3 MR. STOGNER: Well, I have no  
4 questions of Mr. Smith.

5 Do you have anything further,  
6 Mr. Hall?

7 MR. HALL: No, sir.

8 MR. STOGNER: Mr. Smith may be  
9 excused.

10 Does anybody else have anything  
11 further in Case Number 9285?

12 If not, this case will be taken  
13 under advisement.

14  
15 (Hearing concluded.)

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## C E R T I F I C A T E

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the Examiner hearing of Case No. 9285,  
heard by me on 3 February 1988.  
Michael E. Hughes, Examiner  
Oil Conservation Division