STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 12 July 1989

EXAMINER HEARING

IN THE MATTER OF:

In the matter of cases called on this date and continued or dismissed with-out testimony presented.

TRANSCRIPT OF HEARING

APPEARANCES

BEFORE: Michael E. Stogner, Examiner

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For the Division:

1 2 3 4 5	STATE OF NE ENERGY, MINERALS AND NATUR OIL CONSERVATION STATE LAND OFFIT SANTA FE, NE 26 July EXAMINER FOR	RAL RESOURCES DEPARTMENT ON DIVISION CCE BUILDING CW MEXICO	
7 8 9	Application of Bettis, Boyle & Stovall CASE for an unorthodox gas well location, 9692 Eddy County, New Mexico.		
10 11 12	BEFORE: David R. Catanach, Exa	nminer	
13 14 15 16	TRANSCRIPT OF HEARING		
17	APPEARANCES		
18 19 20		Robert G. Stovall Attorney at Law Legal Counsel to the Division State Land Office Building Santa Fe, New Mexico	
21 22 23 24	A C	Villiam F. Carr Attorney at Law CAMPBELL and BLACK, P. A. P. O. Box 2208 Santa Fe, New Mexico 87501	
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3 1 MR. CATANACH: Call next Case 2 9692. 3 MR. Application of STOVALL: 4 Bettis, Boyle and Stovall for an unorthodox gas well loca-5 tion, Eddy County, New Mexico. 6 MR. CATANACH: Are there ap-7 pearances in this case? 8 May it please the MR. CARR: 9 Examiner, my name is William F. Carr with the law firm 10 Campbell & Black, P. A., of Santa Fe. We represent Bettis, 11 Boyle and Stovall and we have one witness. 12 MR. CATANACH: Any other ap-13 pearances? 14 Will the witness please stand 15 and be sworn in? 16 17 (Witness sworn.) 18 19 THOMAS R. SMITH, 20 being called as a witness and being duly sworn upon his 21 oath, testified as follows, to-wit: 22 23 DIRECT EXAMINATION 24 BY MR. CARR: 25 Will you state your full name for the Q

4 1 record, please? 2 Thomas R. Smith. Α 3 By whom are you employed? Q Bettis, Boyle and Stovall. Α 5 Bettis, Boyle and Stovall in any way Q 6 whatsoever related to the attorney for the Oil Conservation 7 Division? 8 Α Not that I'm aware of. 9 Q What position do you hold with Bettis, 10 Boyle and Stovall? 11 Exploration geologist. Α 12 Q Have you previously testified before the 13 Oil Conservation Division and had your credentials as an 14 exploration geologist accepted and made a matter of record? 15 Α Yes, I have. 16 Are you familiar with the application Q 17 filed in this case on behalf of Bettis, Boyle and Stovall? 18 Yes. Α 19 Are you familiar with the subject area? Q 20 Yes, sir. Α 21 MR. Smith's CARR: Are Mr.

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    record, please?
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                       Thomas R. Smith.
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                       By whom are you employed?
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                       Yes.
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                       Are you familiar with the subject area?
             Q
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             Α
                       Yes, sir.
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                                 MR.
                                      CARR:
                                               Are
                                                    Mr.
                                                         Smith's
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    qualifications acceptable?
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                                 MR. CATANACH:
                                                 They are.
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                       Would you briefly state what Bettis,
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    Boyle and Stovall seeks with this application?
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1 Α We are seeking an unorthodox location 2 the drilling of the 1-A Lotos Well, to be located in 3 Section 15 of Township 24 South, Range 31 East, Eddy County, New Mexico. 5 Q And what is the primary objective in 6 this well? 7 Α The primary objective is the Morrow and 8 Devonian. 9 Would you refer to what has been marked Q 10 for identification as Bettis, Boyle and Stovall Exhibit 11 Number One, identify this exhibit and then review it for 12 Mr. Catanach? 13 Α This exhibit is a land plat showing the 14 proposed unit, as well as the proposed location for the 1-A 15 Lotos, and all of the surrounding leasehold. 16 The yellow leasehold is operated by Bet-17 tis, Boyle and Stovall and the green colored leasehold is 18 operated by Bass Enterprises and is within the Poker Lake 19 Unit. 20 Q This location is unorthodox because it 21 is too close to the northern end line of the spacing unit, 22 is that correct? 23 That is correct. Α 24 Are you moving toward any other operator 25

or owner of an undrilled lease?

1 Α No, sir, in fact we are not and we're 2 moving away from them. 3 You're moving only toward yourself? Α That is correct. 5 And there is therefore no interest owner 6 to whom notice needed to be given pursuant to Oil Conserva-7 tion Division rules. 8 We did notify Bass and we did receive a Α 9 waiver from Bass. 10 What is the status of the royalty owner-11 ship in Sections 10 and 15? 12 Α These are all Federal leases. 13 Q Would you refer to what has been marked 14 as Bettis, Boyle and Stovall Exhibit Number Two and 15 identify that for the Examiner, please? 16 Α This is the -- this exhibit 17 letter from Bass Enterprises stating that they have 18 no -- no problem with our proposed unorthodox location. 19 Q Now, would you identify Exhibit Number 20 Three? 21 Α Exhibit Number Three is the application 22 to drill which has been filed by Bettis, Boyle and Stovall 23 for the well in question, along with the acreage dedication 24 plat which shows the exact footages of our proposed loca-25

tion.

Q What are the reasons you're seeking an unorthodox location for this well?

A They are purely geological.

Q Would you refer to what has been marked as Bettis, Boyle and Stovall Exhibit Number Four, which is a composite exhibit, and refer to this exhibit and if you would start with the isopach map in the upper lefthand corner, review that, and then just work through the exhibit with the examiner and review the geological considerations involved in this prospect?

A Yes. This exhibit is a geological montage showing the geology of the various objectives of this proposed well.

In the upper right, excuse me, in the upper left is the Lotos Sand isopach and it is a gross sand isopach. It shows the configuration of the Lotos Sand, which produces in the Bettis, Boyle and Stovall No. 1 Lotos Well in Section 9. The dedicated unit to that well is shown and it's outlined on all of the maps. That is the only pay in that particular well. There is 11 feet of pay associated with that particular sand.

Q Is that the only producer in this sand in the immediate area?

In the immediate area, it is, yes, sir.

In the middle we are looking at a Middle

Morrow structure map which represents the deepest horizon
for mapping or projecting structure for the Devonian and it
is our primary interpretation for deep seated Devonian
structure in the area.

On the far upper right is the Poker Lake

On the far upper right is the Poker Lake Sand isopach, again a gross sand isopach, which shows the channel morphology that we're dealing with here and all of the associated producers within that sand body.

Q By moving to this location, in effect you're maximizing your structural position for a west half proration unit in 15, is that correct?

A That is correct.

Q If you move farther south what effect would this have on your ability to effectively drain that proration unit?

A We do not feel like we would fully drain the full proration unit as proposed.

Q So in this Morrow situation structure is an important factor.

A We feel like it's very important.

Q Now on the structure map in the middle of the top of this exhibit there is a trace for a cross section. Would you now go to the lower part of the exhibit and review that cross section for the examiner?

A Yes. That is cross section A-A' which

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involves four wells and goes through the proposed location.

The well on the far north of the cross section is the Santa Fe Energy No. 1-33 Sterling Silver Federal, which shows extensive Poker Lake Sand development and is producing from this particular sand body and it shows that it's very well developed in this well. It also shows that it only has a very small remnant of the Lotos Sand.

From there, we go from there down to the El Paso Sundance Well in Section 4, which again shows a well developed Poker Lake Sand following the channel right on down to the south and again a very thick Lotos Sand, which is the key in developing our sand morphology for the Lotos Sand and then we go into the Lotos Well, which is the offset, which is the well that we are offsetting with the 1-A Lotos, and it shows the pay section in the Lotos Sand and very little Poker Lake Sand, having missed the sand on the west side in this particular well, and then it goes on down to the PanAm No. 36 Poker Lake Well in Section 28 and again it shows the development and production of the Poker Lake Sand, as well as 8 feet of development, 9 feet of development in the Lotos Sand.

So that, basically, shows all of the Morrow stratigraphy that we're looking at in the area.

Q In your opinion, Mr. Smith, will

1 approval of the proposed unorthodox location enable Bettis, 2 Boyle and Stovall to most efficiently and effectively pro-3 duce the Morrow reserves under the west half of Section 15? Yes, it will. 5 In your opinion will granting this ap-6 plication be in the best interest of conservation, the 7 prevention of waste and the protection of correlative 8 rights? Yes. Α 10 Q Were Exhibits -- would you identify for 11 Catanach what is -- has been marked as Bettis, Boyle 12 and Stovall Exhibit Number Five? 13 Α This is a geologic discussion of the 14 things that I've briefly touched on with this montage. 15 Q Is this basically a summary of the geo-16 logical testimony you've previously --17 Α Yes, it is. 18 0 -- presented? 19 Were Exhibits One through Five prepared 20 by you or compiled under your direction and supervision? 21 Yes, they were. Α 22 MR. CARR: At this time, Mr. 23 Catanach, move the admission of Bettis, Boyle and we 24 Stovall Exhibits One through Five. 25 MR. CATANACH: Exhibits One

1 through Five will be admitted as evidence. 2

CARR: That concludes my

direct examination of Mr. Smith.

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CROSS EXAMINATION

MR.

BY MR. CATANACH;

Smith, is the geologic considera-Q Mr. tions that necessitate this location, are they primarily in the Devonian or in the Morrow?

It's primarily Morrow but we would also, if in fact we do have the structural attitude that we believe that we will have, we also have a very good chance at Devonian.

Is there any Devonian production in this Q area?

Α I've shown on this Middle Morrow structure map the only three Devonian penetrations in the area and they are shown with this little dark arrow. There are only three, the nearest of which is the PanAm Well down in Section 28. The other two are up in the township to the north, so you can see there's very limited Devonian control.

> And are those producing? Q

Α No, there is no Devonian production in the area --

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12 1 They -- they were just --Q 2 -- of this map. Α 3 They just penetrated the Devonian. That's correct. Α 5 Did they test it? Q 6 Α The well in Section 28 did test it and 7 our key well for a show in the Devonian and this is 8 why we would consider, or are considering going to the Devonian in this well. 10 So you anticipate the major stand would 11 be the Poker Lake Sand in the proposed well, or both, I 12 guess. 13 Both, actually, with the Lotos Sand, Α 14 with the production that we have in our well in Section 9, 15 really being our major objective in this well. 16 In terms of the sand, the sand penetra-17 ted, what would a move south do to -- to (unclear) that? 18 Does a move to a standard location, say, 19 1980 from the north --20 Moving south would not affect A Right. 21 the sand as we see it now. We would just be compromising 22 our structural position. We feel like that we -- in order 23 to drain the full 320 we need to optimize our structural 24 position, and it's very critical for Devonian. 25 Q You said that structure is very impor-

1 tant in these Morrow producers? 2 It is in terms of secondary porosity Α 3 development. We have documented in the Lotos Well that fracturing is very important in terms of developing perme-5 ability, so there seems to be a correlation between the 6 higher structural position that you can achieve, the better 7 reservoirs you will develop in terms of secondary perme-8 ability development. When was that well in Section 9 drilled? 10 Α It was drilled in -- it was completed in 11 December of 1988. 12 What does that produce? Q 13 Α It produces 5-million feet a day and has 14 been since -- since we put it on line in December. 15 Q Does Bettis have any plans to drill a 16 well in Section 10? 17 Definitely, if in fact we can confirm 18 our Poker Lake picture as well as our Devonian picture. 19 Right now we would not drill in 10 for 20 our Lotos Sand objective. 21 MR. CATANACH: That's all the 22 questions I have. The witness may be excused. 23 MR. CARR: I have nothing fur-24 ther, Mr. Catanach.

MR.

CATANACH:

There being

CERTIFICATE

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.

Solly W. Boyd CSR

a complete record of the proceedings in the Examiner hearing of Case No. 7692 heard by me on when the 19 fg.

Oil Conservation Division