1	I N D E X					
2	July 25, 1991 Examiner Hearing CASE NO. 10351					
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6	STEVENS OPERATING CORPORATION WITNESSES:  JACK AHLEN					
7	Direct Examination by Mr. Carr	4				
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9		17				
10 11	REPORTER'S CERTIFICATE  * * *	17				
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1	HEARING EXAMINER: Let's go back on the record. Call				
2	next case, number 10351, which is the application of Stevens				
3	Operating Corporation for an unorthodox oil well location in				
4	Chaves County, New Mexico. At this time I'll call for				
5	appearances.				
6	MR. CARR: May it please the Examiner, my name is				
7	William F. Carr, with the law firm Campbell & Black, P.A.,				
8	of Santa Fe. I represent Stevens Operating Corporation, and				
9	I have one witness.				
10	HEARING EXAMINER: Are there any other witnesses?				
11	(Witness sworn.)				
12	HEARING EXAMINER: Mr. Carr?				
13	JACK AHLEN				
14	the witness herein, having been first duly sworn, was				
15	examined and testified as follows:				
16	DIRECT EXAMINATION				
17	BY MR. CARR:				
18	Q. Will you state your full name for the record,				
19	please?				
20	A. Jack Ahlen.				
21	Q. Where do you reside?				
22	A. New Mexico.				
23	Q. By whom are you employed and in what capacity?				
24	A. I'm employed by Stevens Operating Corporation as				
25	a consulting geologist.				

unorthodox location back toward a standard location, and

1 | presentation in this hearing?

- A. Yes, I have.
- Q. Would you refer to what has been marked as Stevens Exhibit Number 1, identify for that Mr. Stogner and then review for him?
- A. Exhibit 1 is a land map prepared by xeroxing the Midland Map Company's map of a portion of Township 13 South, Range 29 East. Centered in that illustration is Section 28, the location where we propose to drill the well. Shows the lease ownership, as well as the royalty ownership in that vicinity. The proposed location is shown with a little number three in the upper right-hand corner of that well. It's also labeled "Proposed Location."

We also show for comparison the standard location in that section as well as the discovery well for the McClellan Number 1. The lease ownership has been brought up-to-date from that which was on the original map.

- Q. Now, the spacing unit for the proposed well is the southeast quarter of Section 28?
- A. Yes, it is. I did not mark that on this particular exhibit, but it would be the southeast quarter of 28.
- Q. Is the royalty and leasehold ownership identical in the southeast of 28 and in 27?
  - A. Yes. If you will note, it is federal lease

A. This is a structure map drawn on the top of the Devonian formation. It is controlled by 3D seismic control, and the 3D seismic control that we have in this area is indicated by the dark shading over the central portion of that map. The 3D seismic control that we have is parallel lines of seismic control 220 feet apart; shot points are 110 feet apart. So we feel as though we have a good handle on the actual structural configuration in the area.

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The proposed location is approximately -- should be approximately 50 feet high to our discovery well. The proposed location is also high to a standard location, and we feel that by drilling at the proposed location we will recover at least 30,000 and perhaps 60,000 barrels more of oil than if we drilled in a standard location.

1 This is simply the result of maximizing your Q. 2 structural position? Yes, it is. 3 Α. Q. Are you ready to go to Exhibit Number 3? 5 I am. A . 1 6 Q. Would you identify that for the Examiner, please? 7 Exhibit Number 3 is a copy of the bottom hole Α. 8 logs in the McClellan Number 1, the discovery well in the 9 pool. The administrative information is located on the left 10 side of that illustration. We show a copy of the 11 compensated neutron litho-density gamma ray log as well as 12 the cased hole neutron gamma ray log. And we had to 13 composite those two logs because the open hole logs were not capable of reading any information at the bottom of the 14 15 hole. And so I composited it for use so that we can pick 16 the top of the Devonian as well as see the configuration of 17 the porosity. 18 Is Exhibit Number 4, Mr. Ahlen, an affidavit and 19 attached letter and return receipt confirming that notice of 20 this hearing has been provided to McClellan Oil Corporation? 21 Yes, sir. Α. 22 Could you identify what has been marked as Q. 23 Stevens Exhibit Number 5? 24 Exhibit Number 5 is a letter from McClellan Oil Α.

Corporation dated July 22nd, 1991, in which they concur in

our unorthodox location and request that you approve it. 1 2 And it is signed by Mr. Mark McClellan, vice president of McClellan Oil Corporation. 3 Mr. Ahlen, in your opinion, would approval of 0. this unorthodox location result in the production of 5 reserves that otherwise will not be recovered? 6 Yes, it would. Α. In your opinion, would granting the application 8 ο. 9 therefore be in the interest of conservation, the prevention 10 of waste and protection of correlative rights? 11 Yes, sir. Α. 12 Were Exhibits 1 through 5 either prepared by you Q. 13 or compiled under your direction? 14 Yes. Α. 15 MR. CARR: At this time, Mr. Stogner, we would move the 16 admission of Stevens Exhibits 1 through 5. 17 HEARING EXAMINER: Exhibits 1 through 5 will be 18 admitted into evidence. 19 That concludes my direct examination of Mr. MR. CARR: 20 Ahlen. 21 HEARING EXAMINER: Mr. Ahlen, were you present when the 22 special pool rules and discovery allowable on the discovery well for this pool was created and sought in May of 1991? 23 24 THE WITNESS: Yes, sir, I was. I was a witness. 25 HEARING EXAMINER: And it's my understanding that --

I'm correct that one well will adequately drain 160 acres in the pool?

THE WITNESS: Yes, sir, that was part of my testimony.

HEARING EXAMINER: And your discovery well is in the northeast quarter of Section 28.

THE WITNESS: Yes, sir.

HEARING EXAMINER: And looking at Exhibit Number 2, which is your structure map, Top Devonian, you show within the southeast quarter of Section 28 a little dome or a rise or the top being at 6,000 feet, and there's a beam-shaped structure; is that correct?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Now, in looking at this, you show a standard location marked for the southeast quarter, and it's still within those boundaries of that 6,000 foot interval.

THE WITNESS: Yes, sir.

HEARING EXAMINER: How can this proposed well differ from the production of a well at a standard location?

THE WITNESS: This map does not depict a mesa in the southeast quarter. There is additional structural considerations within that section. And if I had a one-foot contour interval, you could see that it built up to the maximum anticlinal peak at our proposed location. The contour interval on this particular map is 50 feet, and our seismologist says there is a significant difference between

the proposed location and a standard location, perhaps on 1 2 the order of 25 feet. That is not shown on this map. HEARING EXAMINER: Were you able to verify the accuracy of this 3D seismic control with what you found in the actual 4 well bore of your Federal Number 1 well? 5 THE WITNESS: I have viewed the 3D seismic information 6 7 in this area, but I am not a seismologist, and I don't consider myself an expert witness in seismology, but the 8 maps provided by the consultant who did the work certainly 10 indicated that this was a much higher location. 11 HEARING EXAMINER: On that you show your discovery 12 well, and right above it there's a minus 6,019 feet. What 13 does that indicate? 14 THE WITNESS: That's the datum of the top of the 15 Devonian in that well. HEARING EXAMINER: Shouldn't that be within this beamed 16 structure? 17 18 THE WITNESS: No, sir. It's below 6,000. Everything 19 within that minus 6,000-foot contour is structurally higher 20 than the 6,019. The values within that contour would be 21 5,999, 5,998, etcetera. HEARING EXAMINER: Now, it looks like there's -- what 22 23 would you say -- roughly 300 feet between that well and then

what you show as the 6,000-foot structure. So that would --

that's a significant raise or rise there, isn't it, between

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1 6,019 and 6,000 feet for that short interval? 2 THE WITNESS: Yes. We expect that we'll intersect the top of the Devonian at probably minus 6,000 -- I mean. 3 to 75. But as you well know, seismic data is subjective. 5 HEARING EXAMINER: Now, on Exhibit Number 1 you show a number one well in the southwest of the southeast quarter. 6 7 Did that well penetrate this interval? 8 THE WITNESS: No, sir. That is a shallow well. 9 only went to about 1,500 feet. I put some whiteout over 10 that so that I could show the standard location, but it is a shallow Queen test. 11 12 MR. STOVALL: To make sure we're talking about the same 13 well, Mr. Ahlen --14 THE WITNESS: The southwest of the southeast quarter of 15 28 is a shallow well that went to the Queen only. 16 MR. STOVALL: Just above to the right of where it says 17 "U.S."? 18 THE WITNESS: Yes, sir, with a 1B on it. 19 HEARING EXAMINER: Very little control out here, it 20 appears; is that correct? THE WITNESS: Yes, sir. If you'll look on the 21 22 structure map, in those four sections, there are only four 23 wells deep enough to really get a handle -- excuse me, three 24 wells deep enough to get a handle on the Devonian structure, 25 one in the southeast southeast of 27, the discovery well in

Section 28, and then there's a well in Section 22, but it didn't get to the Devonian, it only went to the Mississippian.

HEARING EXAMINER: Bring me up on what kind of reservoir this is. What's its energy mechanism and such?

THE WITNESS: Water drive reservoir. The Devonian dolomite -- the dolomite is a medium to coarse crystalline, buggy and sucrosic-type of porosity. The maximum porosity, as indicated on the electric log, which you have an illustration of there, is 13 percent. We feel that the average porosity in the reservoir that we have penetrated is about ten percent. The well is an exceptional producer.

HEARING EXAMINER: What would the distance be between these two well bores, roughly, as opposed to putting pen and pencil to it?

THE WITNESS: My trigonometry is long gone.

HEARING EXAMINER: That's why I asked the question.

THE WITNESS: I'd say it's about a thousand feet.

HEARING EXAMINER: Would that thousand-foot difference between these wells, which you said yourself and the record shows, that your discovery well is quite prolific, if this well, hopefully, encounters the same type of production, how will that affect the reservoir as a whole? Will this be in the best interest of conservation of this particular zone and interval, having two wells this close together?

1	THE WITNESS: Yes, sir. The well in the northeast				
2	quarter will never drain the attic oil that our number three				
3	location will drain.				
4	MR. STOVALL: Would your number three well drain the				
5	reservoir?				
6	THE WITNESS: It could possibly. We didn't drill the				
7	number three well first.				
8	HEARING EXAMINER: I'm sorry, Mr. Ahlen. What did you				
9	say?				
10	MR. STOVALL: He said he didn't drill the number three				
11	well first.				
12	HEARING EXAMINER: Are there any other questions of Mr.				
13	Ahlen?				
14	MR. STOVALL: No, I think I'll stop right here.				
15	HEARING EXAMINER: Thank you, Mr. Stovall.				
16	Mr. Carr?				
17	MR. CARR: Nothing further.				
18	HEARING EXAMINER: Would you like a closing statement,				
19	Mr. Carr?				
20	MR. CARR: I think I'll reserve that until later in the				
21	day.				
22	HEARING EXAMINER: Thank you, Mr. Carr. Mr. Ahlen, you				
23	may be excused.				
24	Nothing further in case number 10351. It will be				
25	taken under advisement.				

1	(The	foregoing	hearing	was	adjourned	at	the
2	approximate hour	of 10:28	a.m.)				
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1	STATE OF NEW MEXICO )				
2	:				
3	COUNTY OF SANTA FE )				
4	I, FREDA DONICA, RPR, a Certified Court Reporter, DO				
5	HEREBY CERTIFY that I stenographically reported these				
6	proceedings before the Oil Conservation Division; and that				
7	the foregoing is a true, complete and accurate transcript of				
8	the proceedings of said hearing as appears from my				
9	stenographic notes so taken and transcribed under my				
10	personal supervision.				
11	I FURTHER CERTIFY that I am not related to nor employed				
12	by any of the parties hereto, and have no interest in the				
13	outcome hereof.				
14	DATED at Santa Fe, New Mexico, this 16th day of				
15	September, 1991.				
16	Freda Donica				
17	Certified Court Reporter CCR No. 417				
18	CON NO. 417				
19	Udo hercey where that the foregoing is				
20	to conglished and of the proceedings in the Examiner hearing of Case No. <u>1035/</u> •				
21	heard by me on July 25 194/				
22	Conservation Division				
23	A. COUSELACTION DIAISION				
24					