1 STATE OF NEW MEXICO 2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 3 OIL CONSERVATION DIVISION 4 IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION 5 DIVISION FOR THE PURPOSE OF 6 CONSIDERING: **CASE NO. 10707** 7 APPLICATION OF AMOCO PRODUCTION COMPANY 8 9 REPORTER'S TRANSCRIPT OF PROCEEDINGS **EXAMINER HEARING** 10 11 BEFORE: Michael E. Stogner, Hearing Examiner 12 June 3, 1993 13 Santa Fe, New Mexico 14 15 This matter came on for hearing before the 16 Oil Conservation Division on June 3, 1993, at the Oil 17 18 Conservation Division Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New 19 Mexico, before Lisa Danner-Suggs, Certified Court 20 Reporter No. 257, for the State of New Mexico. 21 22 23 24 25 OIL CONSERVATION DIVISION

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EXAMINER STOGNER: I'll call next case, number 10707, which is a reopened case for the application of Amoco Production Company for a carbon dioxide injection pilot project and an exception to Rule 4 of order number R-8768-A, that being the special pool rules for the Basin-Fruitland Gas Pool in San Juan County, New Mexico. At this time, I'll call for appearances.

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge and Sheridan. I represent Amoco Production Company. And I have one witness.

EXAMINER STOGNER: Are there any other appearances in this matter? Will the witness please stand to be sworn. (witness sworn)

MR. CARR: May it please the Examiner, the purpose of reopening this case is to reorient the project area. And I will call Bill Hawkins, who was the engineering witness in the original hearing which was held on April the 8th, to explain to you the reason we are requesting this change in the project area.

J.W. "BILL" HAWKINS,

the witness herein, after having first been duly sworn upon his oath, was examined and testified as follows:

25

EXAMINATION 1 2 BY MR. CARR: Could you state your name for the record, 3 Q. 4 please? James William Hawkins. 5 Α. Where do you reside? 6 0. 7 Denver, Colorado. Α. Mr. Hawkins, you were the engineering 8 Q. witness that testified on April the 8th when this case 9 was originally called? 10 11 Α. Yes. At that time your credentials as a petroleum 12 0. engineer were accepted and made a matter of record? 13 Α. Yes. 14 15 Q. Are you the engineer responsible for this project? 16 17 Α. Yes. 18 Q. Are you familiar with the application? 19 Α. Yes. 20 Are you familiar with the reason we have Q. 21 requested that the case be reopened? 22 Α. Yes. 23 MR. CARR: Are the witness's qualifications acceptable? 24 25 **EXAMINER STOGNER:** They are.

Q. (BY MR. CARR) Mr. Hawkins, could you briefly explain to Mr. Stogner why we have come back to the Division to request a reopening of this case?

A. Yes. When we first made the application for this CO2 injection project, we mistakenly identified the spacing units in section 23 of township 30 north range 9 west to be east-half/west-half spacing units.

And we therefore, when we selected the site for our CO2 injection project we identified the project area to be the same as what we thought the spacing unit was which was the west half of section 23.

Subsequent to the hearing, it's come to our attention that the spacing units in this section actually are north-half/south-half spacing units. And in order to keep our project area consistent with the spacing unit, we have asked that the project area be redefined as the north half of section 23.

- Q. And Mr. Hawkins, the pilot project is actually going to be conducted in the northwest quarter of section 23; is it not?
 - A. That's correct.
- Q. By changing the project area to conform to the spacing units, that is changing it from a west half to a north half, will that change have any impact whatsoever on the testimony that was presented in

support of the application on April the 8th?

A. No, it will not.

- Q. Let's go to what has been marked as Amoco Exhibit 1A. And I'd ask you to identify this and review it for Mr. Stogner.
- A. Exhibit 1A is a land plat. It's a nine section area centered around section 23. And we've shown on this the operators or working interest owners that are involved or at least within a mile radius of this section. And all of these parties were notified of our original case. It also shows the orientation of the spacing units in each of these sections. And it also shows the proposed injection location of the proposed injection well in the northwest quarter of section 23.
- Q. And this is, in effect, the original exhibit that was offered on April the 8th with the one change being the orientation of the spacing?
- A. That's correct. This is an identical exhibit which is the one exception that the spacing units in section 23 are now shown as a north-half/south-half.
- Q. Now would you identify for Mr. Stogner what has been marked as Amoco Exhibit 2A?
 - A. Yes. Exhibit 2A is an affidavit

notification to these parties that were listed on Exhibit 1A. And there's also -- there's shown on Exhibit A, the second page of that exhibit. And in addition to that, there is a copy of the actual notice for this rehearing, or reopening of the hearing, I suppose is more proper. And in addition to that, there are copies of the certified green return receipt cards for each of those parties.

- Q. So each of the interest owners -- although they were the same interest owners that were notified before, each of them has been advised that we are now changing the project area from the west half to a north half?
 - A. Yes.

- Q. The third exhibit in the material that we've presented today is what was offered at the original hearing as Amoco Exhibit Number 4. Could you refer to this and then just briefly summarize for Mr. Stogner, since he was not the Examiner on the 8th of April, summarize for him what Amoco is attempting to do with this project?
- A. Yes. Exhibit 4 shows all of the wells that are located within roughly half a mile of our proposed CO2 injection project. You can see the proposed injection well is designated by a triangle in the

northwest quarter. It's the Florance S 7A Well. We propose to have a monitor producing well located some 850 feet away from that. That is shown with a black dot with a circle around it. It's the Florance D 2. It's also located in the northwest quarter of that same section 23.

The other information on this exhibit shows the current Fruitland Coal producers, shown by a black dot. And I can identify those for you. In section 23, they are, in the northeast, the Florance S 4, and in the southwest, the Florance U 3. If we move to the -- to section 14, to the north, in the southwest quarter of section 14 is the Florance R 4. And if we move to the west in section 22, in the northeast quarter of that section is the Florance K 3 Well.

Each of those wells will be monitored for any occurrence of increased CO2 that might occur as a result of our injection project. Our plans are to inject a gas that's currently composed of about 80 percent CO2, 20 percent methane into the Florance S 7A Well. That gas is sourced from the Williams Field Service Membrane Unit. It's located in the northeast quarter of section 27. It will be compressed at that site up to 2,000 pounds and transported by pipeline to the Florance 7A site. We will be monitoring for

production and pressure response in the offset monitor well Florance D 2. And we will, as I said, look for any potential occurrence of CO2 and any offset producers.

- Q. Now, Mr. Hawkins, this is the first C02 pilot project or enhanced gas recovery; is it not?
 - A. That's correct.

- Q. What sort of increase in recoveries are you hoping to see?
- A. Well, under conventional pressure depletion, recoveries generally are in the range of 50 to 60 percent, depending on what your abandonment pressure might be and the original pressure conditions in the resevoir.

Through our laboratory work, we've seen recoveries by CO2 injection of up to 80 to 90 percent recovery. And I think that could probably be increased depending on the amount of time and CO2 you inject through the samples. So we are hoping that we can implement something in the field that will approach the type of success we've seen in the laboratory.

- Q. The injection and the initial monitoring that you anticipate doing will be between the Florance S 7A and the Florance D 2; is that correct?
 - A. That's correct.

1	Q. So basically, although you've got other								
2	monitor wells indicated on Exhibit 4, the pilot project								
3	really focuses in the northwest quarter of this								
4	section?								
5	A. That's correct.								
6	Q. Will reorienting the project area from a								
7	west half to a north half have any effect on the actual								
8	operation of the pilot project?								
9	A. No, it will not.								
10	Q. It will just honor the existing spacing								
11	units in section 23?								
12	A. That's correct.								
13	Q. Were Exhibits 1A and 2A either prepared by								
14	you or compiled under your supervision?								
15	A. Yes.								
16	MR. CARR: At this time, Mr. Stogner, we								
17	would move the admission of Amoco Exhibits 1A and 2A.								
18	EXAMINER STOGNER: Exhibits 1A and 2A will								
19	be admitted into evidence.								
20	MR. CARR: That concludes my examination of								
21	Mr. Hawkins. He is available to answer any questions								
22	that you may have about this pilot project. That								
23	concludes my direct examination of this witness.								
24	EXAMINER STOGNER: I trust, Mr. Carr, that								
25	when this application was originally heard on April								

8th, all the technical presentation was done at that time?

MR. CARR: Yes, sir it was.

EXAMINER STOGNER: I really have no questions at this point. I will provide Mr. Catanach a verbal and maybe written response on today's proceedings which I have heard. And more than likely, he will be the one assigned to make the recommendation to Mr. Lemay.

MR. CARR: Mr. Stogner, there's one other matter. As we are both aware, the Farmington newspaper failed to run the entire legal advertisement for today's hearing. It therefore has to be again advertised and it cannot be advertised for hearing until the July 1 hearing.

So in view of that, we would request that the case be on the record made on the 8th of April and now today on June the 3rd, that the case be continued to July the 1st. And then on those two records it be taken under advisement at that time.

EXAMINER STOGNER: And so it shall, Mr.

Carr. With that, this case will be continued and readvertised for July 1st, 1993 solely for the purpose of the readvertisement. And I have no questions of Mr. Hawkins. You may be excused.

CUMBRE COURT REPORTING
P.O. BOX 9262
SANTA FE, NEW MEXICO 87504-9262
(505) 984-2244

1	MR. CARR: We have nothing further.
2	EXAMINER STOGNER: That concludes the matter
3	in case 10707. And with that, hearing adjourned.
4	(The foregoing hearing was
5	adjourned at the hour of 11:00 a.m.)
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17	I do hereby certify that the foregoing is a complete record of the proceedings in
18	the Examiner hearing of Case 1963
19	heard by me on 3 fine 1993. Examiner
20	Oil Conservation Division
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CERTIFICATE OF REPORTER 1 2 3 STATE OF NEW MEXICO) 4) ss. COUNTY OF SANTA FE 5 I, Lisa Danner-Suggs, Certified Court 6 7 Reporter and Notary Public, HEREBY CERTIFY that I 8 caused my notes to be transcribed under my personal supervision, and that the foregoing transcript is a 9 true and accurate record of the proceedings of said 10 hearing. 11 I FURTHER CERTIFY that I am not a relative 12 13 or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in 14 15 the final disposition of this matter. WITNESS MY HAND AND SEAL, June 14, 1993. 16 17 18 19 20 CCR No. 257 21 22 23 24 25