ENERGY, MINERALS AND NATURAL OIL CONSERVATION	
OIL CONSERVATION	DIVISION RAPAT
IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF	) ) )
CONSIDERING: APPLICATION OF YATES PETROLEUM CORPORATION	) CASE NO. 11,282 ) )

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## REPORTER'S TRANSCRIPT OF PROCEEDINGS

#### EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

May 18th, 1995

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on Thursday, May 18th, 1995, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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APPEARANCES

APPLICANT'S WITNESSES:

<u>ROBERT BULLOCK</u> (Landman) Examination by Mr. Carr Examination by Examiner Stogner

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REPORTER'S CERTIFICATE

\* \* \*

# EXHIBITS

Applicant's	Identified	Admitted
Exhibit 1 Exhibit 2 Exhibit 3	6 6 11	12 12 12
Exhibit 4 Exhibit 5 Exhibit 6	17 18 19	21 21 21
Exhibit 7	20	21
	* * *	

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## FOR THE DIVISION:

RAND L. CARROLL Attorney at Law Legal Counsel to the Division 2040 South Pacheco Santa Fe, New Mexico 87505

FOR THE APPLICANT:

CAMPBELL, CARR & BERGE, P.A. Suite 1 - 110 N. Guadalupe P.O. Box 2208 Santa Fe, New Mexico 87504-2208 By: WILLIAM F. CARR

\* \* \*

WHEREUPON, the following proceedings were had at 1 2 9:10 a.m.: EXAMINER STOGNER: At this time I'll call Case 3 4 Number 11,282. MR. CARROLL: Application of Yates Petroleum 5 6 Corporation for a unit agreement, Lea County, New Mexico. EXAMINER STOGNER: At this time I'll call for 7 8 appearances. MR. CARR: May it please the Examiner, my name is 9 William F. Carr with the Santa Fe law firm Campbell, Carr 10 11 and Berge. We represent Yates Petroleum Corporation in this 12 13 matter, and I have two witnesses. EXAMINER STOGNER: Any other appearances in this 14 15 matter? Will the witnesses please stand to be sworn at 16 17 this time? (Thereupon, the witnesses were sworn.) 18 EXAMINER STOGNER: Mr. Carr? 19 20 ROBERT BULLOCK, the witness herein, after having been first duly sworn upon 21 22 his oath, was examined and testified as follows: 23 EXAMINATION 24 BY MR. CARR: Will you state your name for the record, please? 25 Q.

1 Α. My name is Robert Bullock. 2 Q. Where do you reside? I reside in Hope, New Mexico. 3 Α. Mr. Bullock, by whom are you employed? 4 Q. By Yates Petroleum Corporation. 5 Α. And what is your current position with Yates? 6 Q. I'm a landman. 7 Α. Have you previously testified before this 8 Q. Division and had your credentials as a landman accepted and 9 made a matter of record? 10 Yes, sir. 11 Α. Are you familiar with the Application filed in 12 Q. this case on behalf of Yates? 13 Yes, I am. 14 Α. And are you familiar with the proposed San Simon 15 Q. 16 unit? Yes, sir. 17 Α. 18 MR. CARR: Are the witness's qualifications 19 acceptable? EXAMINER STOGNER: They are. 20 (By Mr. Carr) Mr. Bullock, would you briefly 21 Q. summarize for Mr. Stogner what Yates seeks with this 22 Application? 23 Yates seeks approval for a voluntary unit, being 24 A. our Sam Simon unit, comprises approximately 9105 acres of 25

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state and federal lands located in Lea County, New Mexico. 1 Have you prepared certain exhibits for 2 Q. presentation in this hearing? 3 Α. Yes, sir. 4 Could you refer to what has been marked for 5 Q. identification as Yates Petroleum Corporation Exhibit 6 Number 1, identify this exhibit and review it for Mr. 7 Stogner? 8 Exhibit Number 1 is the exploratory unit 9 Α. agreement for the development and operation of our San 10 Simon unit. 11 It is an agreement that has been accepted by both 12 the State Land Office and the BLM Office as being 13 satisfactory for their -- the content. 14 And this is actually the state form, is it not? 15 Q. It is the state form, that's correct. 16 Α. And have you reviewed it with the BLM? 17 Q. 18 Α. Yes, sir. And they have recommended that no amendments be 19 Q. made; is that right? 20 That is correct. 21 Α. Let's go to Yates Exhibit Number 2. Would you 22 Q. 23 identify that, please? Exhibit Number 2 is the outline of the unit 24 Α. 25 agreement.

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On the bottom of that outline -- that's the 1 color-coded map -- we've indicated the yellow acreage as 2 state lands, the orange acreage would be the BLM lands, and 3 there are no fee lands within this unit. 4 How many state acres are in the proposed San 5 Q. 6 Simon unit? 7 The state acreage are a total of 4953.44 acres. Α. 8 Q. And federal acres? Leased federal acres are 3592.63, and unleased 9 Α. federal acres are 559.45 acres. 10 EXAMINER STOGNER: Excuse me, Mr. Carr. 11 MR. CARR: Yes, sir. 12 EXAMINER STOGNER: Exhibit Number -- You're 13 referring to Exhibit Number 2; is that right? 14 MR. CARR: Yes, and it is also Exhibit A to the 15 16 unit agreement itself. EXAMINER STOGNER: Okay, that's where I'm getting 17 a little bit confused there, because I've got both maps in 18 front of me. 19 MR. CARR: Yes, and the Exhibit Number 2 is 20 21 correct. The acreage shown on the Exhibit A to the unit 22 23 agreement is correct as of the time this was prepared. It 24 has been reviewed -- or it was believed correct. It has been reviewed since this time and corrections have been 25

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made. 1 THE WITNESS: That's correct. 2 MR. CARR: There is a -- So if you look at 3 Exhibit A to the unit agreement, it's incorrect as to the 4 5 designation of state and federal leases in the tract and 6 should be superseded by what we have marked as Exhibit 2 7 for this hearing today. 8 EXAMINER STOGNER: Okay, because one of your questions, to designate between the orange and the 9 10 yellow --MR. CARR: Yes, sir. 11 EXAMINER STOGNER: And he -- if -- I believe I 12 heard you right. You said that the orange -- and you were 13 referring to Exhibit Number 2? --14 MR. CARR: Yes. 15 EXAMINER STOGNER: -- designated the -- or 16 represented the US acreage; is that correct? 17 THE WITNESS: That's correct. 18 19 EXAMINER STOGNER: But I see some US acreage represented in yellow, quite a few of them, actually, like 20 up there in Section 5, the entire east half, and then down 21 in Section 29 there's two portions that show yellow there, 22 23 or federal. 24 That's where I'm getting confused. THE WITNESS: These -- Yeah, we have some other 25

maps that I could give you that are updated. 1 This first map that we came out with, the State Land Office asked us 2 to amend that, and we did, and I can provide you an amended 3 color-coded map right now. 4 5 EXAMINER STOGNER: Mr. Carr, do you see what I'm 6 referring to? 7 MR. CARR: I do, Mr. Stogner, and it appears that 8 Exhibit Number 2, the yellow acreage, is all Yates Petroleum Corporation leases. 9 THE WITNESS: That's correct. 10 (By Mr. Carr) And that the orange, in fact, is 11 Q. 12 operated by other interest owners; is that right, Mr. 13 Bullock? That is correct, that's the way it was originally 14 Α. 15 The State Land Office asked us to amend that. set up. Is the Exhibit A to the unit agreement -- Does 16 Q. that correctly depict the distinction between State and 17 federal tracts? 18 Yes, sir. 19 Α. And so what we have here is an Exhibit 2 that is 20 Q. different from Exhibit A to the unit agreement, and Exhibit 21 2 indicates the Yates leases within the proposed unit 22 23 boundary? 24 Α. Yes, that's correct. MR. CARR: Does that clarify that, Mr. Stogner? 25

EXAMINER STOGNER: Yes, that does clarify it. 1 2 Thank you. (By Mr. Carr) Let's look at what has been marked 3 Q. Exhibit Number 2, Mr. Bullock. On this we have indicated 4 5 in yellow the Yates acreage. What percentage of the unit acreage is under 6 lease to Yates Petroleum Corporation? 7 Approximately 86 percent. 8 Α. Of the other interest owners shown on Exhibit 9 Q. Number 2, how many of those have not committed their 10 interests to the San Simon unit agreement? 11 Dalen Resources has not committed their interest. 12 Α. They have approximately 8.35 percent of the unit. 13 Texaco USA has not committed their acreage. 14 They 15 have .4 of one percent. 16 Enron Oil and Gas has not committed their acreage as of this date. They have 1.75 percent. 17 And Amerada Hess has not indicated they would 18 19 commit their acreage. They have also 1.75 percent. For a total of approximately 12 percent. 20 So 88 percent of the interest within the proposed 21 Q. 22 San Simon unit has been voluntarily committed to the unit 23 agreement? Α. That is correct. 24 25 Will the voluntary commitment of 88 percent of Q.

the working interest afford Yates effective control of the 1 unit operation? 2 Yes, sir. Α. 3 Has the proposed unit area been designated by the 4 Q. Bureau of Land Management as an area logically suited for 5 development under a unit plan? 6 Yes, it has. 7 Α. And is Exhibit Number 3 a copy of the letter from 8 Q. the Bureau of Land Management making that designation? 9 Yes, it is. Α. 10 Has this proposed unit been submitted to the 11 Q. Commissioner of Public Lands? 12 Yes, it has been submitted to him. Α. 13 They are still looking this -- the agreements 14 over. As of this date, they have not given preliminary 15 16 approval. Have you discussed this matter with the 17 Q. representatives of the Commissioner of Public Lands? 18 Yes, sir, we have, and he has indicated that they 19 Α. think they will give approval for it. 20 And with whom have you been talking with at the 21 Q. State Land Office? 22 His name is Maraz, Tom Maraz, I believe. 23 Α. 24 Will you provide a copy of the Commissioner's Q. 25 preliminary approval to the Oil Commission -- or Division

-- as soon as it is received? 1 2 Yes, sir. A. Does Yates seek to be designated operator of this 3 Q. unit? 4 Yes, they do. 5 Α. Does this unit agreement provide for the filing 6 Q. 7 of periodic plans of development? Yes, sir. 8 Α. And will these plans of development be filed with 9 Q. 10 the Oil Conservation Division and filed with other 11 agencies? 12 Α. Yes, they will. Does Yates propose to also call a geological 13 Q. witness to review the technical aspects of this case? 14 15 Yes. Α. Were Exhibits 1 through 3 either prepared by you 16 Q. or compiled at your direction? 17 18 Α. Yes, sir. MR. CARR: At this time Mr. Stogner, we move the 19 20 admission of Yates Petroleum Corporation Exhibits 1 through 21 3. EXAMINER STOGNER: Exhibits 1 through 3 will be 22 23 admitted into evidence. 24 MR. CARR: That concludes my direct examination 25 of Mr. Bullock.

1	EXAMINATION
2	BY EXAMINER STOGNER:
3	Q. Mr. Bullock, in referring to Exhibit Number 2,
4	and the Exhibit A attached to the unit agreement, there is
5	some unleased federal acreage. What percentage does that
6	account for in the unit area?
7	A. That accounts for
8	Q. Approximately?
9	A approximately 6 percent.
10	Q. Has the BLM indicated Or do you know what the
11	BLM's intent on that acreage is at this time?
12	A. They have requested us to have that acreage be
13	made available for bid, which we have done.
14	Q. Do you know whether that might be available or
15	I assume it's at the next
16	A. We're hoping it will be on the July federal sale.
17	Q. Okay. Now, should some other party besides Yates
18	pick up that acreage, will they be approached to join the
19	unit voluntarily?
20	A. Yes, sir.
21	Q. Do you know if that will be included, or will
22	there will be any special representation for that acreage
23	when the BLM calls that up, that it's in
24	A. Usually that's the way that it's handled. They
25	ask that the person that purchased it commit it to that
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1	unit.
2	Q. And that's not an unusual request?
3	A. No, no, it's a typical request.
4	Q. And all the state acreage in here is committed;
5	is that correct?
6	A. That's correct. There's no unleased state
7	acreage.
8	Q. Do you have a preliminary approval by the land
9	office on this unit?
10	A. No, we do not.
11	Q. Is that forthcoming?
12	A. Yes, sir, I believe it is.
13	Q. Have you visited with them in their offices?
14	A. They didn't request us to come up. We offered to
15	come up and show our technical information, and we've
16	handled it by mail up to this point. I don't anticipate us
17	having to come up and show it to them.
18	Q. Okay, when you receive a preliminary copy of that
19	approval, would you please submit it for
20	A. Okay, yes
21	Q the record in our case?
22	A sure will.
23	EXAMINER STOGNER: Usually they will go ahead and
24	cc us. But just in case something happens, if you will
25	designate it so as being a matter in Case 11,282.
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I have no other questions of this witness. 1 Are there any other questions of Mr. Bullock? 2 MR. CARR: That concludes our examination of Mr. 3 Bullock. 4 EXAMINER STOGNER: Mr. Bullock, you may be 5 6 excused. Mr. Carr? 7 MR. CARR: At this time we would call John McRae. 8 9 JOHN MCRAE, the witness herein, after having been first duly sworn upon 10 his oath, was examined and testified as follows: 11 12 EXAMINATION 13 BY MR. CARR: Would you state your name for the record, please? 14 Q. John McRae. 15 Α. Where do you reside? 16 Q. Artesia, New Mexico. 17 Α. And by whom are you employed? 18 Q. Yates Petroleum Corporation. 19 Α. And what is your current position with Yates? 20 Q. Geologist. 21 Α. Have you previously testified before this 22 Q. Division? 23 Yes, I have. 24 Α. 25 At the time of that testimony, were your Q.

credentials as a petroleum geologist accepted and made a 1 2 matter of record? Yes, they were. 3 A. Are you familiar with the Application filed on 4 Q. 5 behalf of Yates in this case? 6 Α. Yes. And have you made a geological study of the area 7 Q. surrounding the proposed San Simon unit? 8 Yes, I have. 9 Α. MR. CARR: Are the witness's qualifications 10 acceptable? 11 12 EXAMINER STOGNER: They are. (By Mr. Carr) Mr. McRae, initially could you 13 Q. identify the formations that are being unitized in the San 14 Simon unit? 15 We would like all formations unitized. The 16 Α. primary objective is the basal Brushy Canyon sands in the 17 Delaware Mountain Group, with secondary objectives deeper. 18 EXAMINER STOGNER: I'm sorry, what? 19 THE WITNESS: The main objective is the Brushy 20 21 Canyon, and secondary objectives deeper. EXAMINER STOGNER: Oh, deeper. 22 THE WITNESS: The Bone Spring through the Morrow. 23 24 EXAMINER STOGNER: Okay. I'm sorry, I 25 misunderstood you.

THE WITNESS: Okay. 1 (By Mr. Carr) Are we in any particular pool in 2 Q. the Bone Spring formation? 3 No. 4 Α. And how deep will the well initially -- the 5 Q. initial test well be drilled? 6 The proposed depth is 14,500 feet. 7 Α. Q. And that will be deep enough to test all 8 formations down through the Morrow? 9 Through the Morrow, yes. 10 Α. Let's go to what has been marked for 11 Q. 12 identification as Yates Petroleum Corporation Exhibit Number 4. 13 Could you identify this exhibit and review it for 14 Mr. Stogner? 15 This is an isopach of the Falcon Sand Package, 16 Α. which is a sand package in the basal Brushy section of the 17 Delaware Mountain Group. These were deposited as 18 turbidites, fans. 19 I have shown on this isopach the limits of sand 20 greater than 16-percent porosity on the density curves. 21 I also have shown on this map the permeability 22 23 barrier, which is in realty an economic cutoff. That cutoff is based on 25 feet of greater than 16-percent 24 density porosity. 25

There's also a trace on this exhibit for a 1 Q. subsequent cross-section; is that correct? 2 That's correct, A-A'. Α. 3 Before we get to that, let's move to the 4 Q. structure map, which is Yates Exhibit Number 5. 5 6 Could you review the information on this exhibit 7 for Mr. Stogner? 8 Α. This is a structure map, mapped on the top of the Bone Springs formation. It shows two north-south 9 structural ridges. The one on the left side of the map is 10 the Antelope Ridge field. Subsurface well control 11 12 indicates a second north-south structural ridge underlying the proposed San Simon unit. 13 And this structure map was developed using well-14 Q. control information? 15 16 Α. That's correct. Why is structure important in terms of developing 17 Q. the Bone Spring in this area? 18 Well, we'll be developing the Brushy Canyon. 19 Α. Delaware production in this portion of Lea County has shown 20 that structure enhances the potential of the Delaware. 21 In particular, for separate reservoirs there is generally an 22 oil leg and a water leg, and the very best production is 23 found on structural highs, where these reservoirs are 24 25 draped over the high.

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Where will the initial test well be located in Q. 1 this unit? 2 In the southeast quarter of Section 18, 23 South, Α. 3 35 East. 4 And that has a number 5 on it, on this exhibit? 5 Q. Yes, both maps and cross-section. Α. 6 Let's go to the cross-section. Can you review 7 Q. 8 that for Mr. Stogner? Α. This is a southwest-to-northeast structural 9 cross-section. 10 I have highlighted in yellow the Falcon Sand 11 Package. I have named it the Falcon Sand, based on Well 12 Number 1 where it is productive, and the Pogo Producing 13 Number 1 Falcon Federal. It is productive in the lower 14 portion of that sand package but demonstrates that oil is 15 present in that system. 16 Well Number 2, we move structurally updip. 17 Ι also have shown on this cross-section the 16-percent 18 19 porosity cutoff. Well Number 3 is structurally higher again and 20 has 83 feet of greater than 16-percent porosity. 21 Well Number 4 is structurally flat, approximately 22 23 flat to Well Number 3, and this is the only well that I have a mud log, and we have mud-log shows in this Falcon 24 Sand Package. 25

Well Number 5 is the proposed location, which we 1 feel will be structurally high to all of the wells on the 2 cross-section. 3 And Number 6, Well Number 6, is off the structure 4 5 and structurally low. Q. Basically, what conclusions can you reach from 6 your geologic study of the subject formations in this area? 7 8 Α. The Falcon Sand is productive in Well Number 1. It is below the cutoff. And well history has shown that 9 it's uneconomic. We need much better porosity. 10 The cross-section clearly demonstrates that as 11 you move north into the proposed San Simon unit, the sand 12 quality increases. There are mud-log shows, and we're on a 13 structural high. 14 How soon does Yates propose to drill the initial 15 Q. test well in the unit? 16 We will spud the well prior to July 1st, 1995. 17 Α. Mr. McRae, in your opinion will approval of the 18 Q. Application and the development of this area under the 19 proposed unit plan be in the best interest of conservation, 20 the prevention of waste and the protection of correlative 21 rights? 22 23 Α. Yes, it will. Is Exhibit Number 7 a written summary of your 24 Q. geological presentation? 25

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Α. That's correct. 1 Were Exhibits 4 through 7 prepared by you? 2 Q. 3 Yes. Α. MR. CARR: At this time, Mr. Stogner, we move the 4 admission of Yates Petroleum Exhibits 4 through 7. 5 6 EXAMINER STOGNER: Exhibits 4 through 7 will be 7 admitted into evidence. 8 MR. CARR: And that concludes my direct examination of this witness. 9 EXAMINATION 10 BY EXAMINER STOGNER: 11 Mr. McRae, is it somewhat unusual to have --12 Q. What? A former producing well and several dryhole tests 13 included within the unit? 14 The producing well is outside the unit, because 15 Α. it's uneconomic. 16 17 Oh, I'm sorry, that was the Number 1 well? Q. 18 Α. Yes. Okay, and then you had 2, 3 and 4 wells, which 19 Q. were dry; is that correct? 20 That's correct, when they were drilled. 21 Α. Based on the mud-log show in Well Number 4, which 22 23 was drilled and abandoned in 1981, before the Delaware play really became prevalent, I feel that well is capable of 24 25 production.

Well Number 3 is structurally flat with it and 1 has good porosity, and we also feel that one is also 2 probably capable of production. 3 Well Number 2, which is in the unit, is right on 4 the edge. It has 23 feet of porosity, and I feel that's 5 right on the economic limit, as I've shown by the green 6 permeability barrier. The green permeability barrier or 7 economic limit on the isopach is actually the 25-foot 8 contour. 9 Now, your exhibit shows five other old wells in Q. 10 the unit, primarily over on the eastern side. Did those 11 12 wells not penetrate the zone of interest? Yes, sir, in the legend, the normal well symbol 13 Α. is a dryhole with a TD of less than 6000 feet. 14 The wells that are circled are greater than 6000 feet, so only the 15 wells that are circled are wells that have penetrated the 16 proposed -- or the primary objective, this Falcon Sand 17 18 Package. The Well Number 3 and Well Number 2 are old 19 Morrow wells that produce from the Bone Spring and have 20 been plugged out. So all the deep tests in the unit, 21 proposed unit, are currently plugged. 22 23 Q. It just appears to me in the normal course of action that Wells 2, 3 and 4 were stepout wells, which --24 Your proposed Number 5 is somewhat going into no-man's 25 STEVEN T. BRENNER, CCR

land, other than what your geological interpretation is. 1 The Wells 2, 3 and 4 were stepout Morrow tests in 2 Α. the development of the Antelope Ridge field, and they were 3 primarily going after Morrow and Atoka gas production. 4 Our --5 What -- I'm sorry, go ahead. 6 Q. Our proposed location is primarily targeting the 7 Α. 8 Delaware, which was not a primary objective when Antelope Ridge was developed. 9 There is currently Delaware production in 10 Antelope Ridge, and there is activity in Section 10 of 23-11 12 34, to develop that. Most of the wells on this map are still producing 13 from either the Morrow or the Atoka formations, and the 14 Delaware potential in Antelope Ridge is still behind pipe. 15 What's your proposal for the Well Number 5, your 16 Q. proposed well? Will it go down and test the Morrow also? 17 That is our objective at this point. 18 Α. And then test the Atoka and make your way back up 19 Q. to the primary zone of the Brushy Canyon? 20 Α. Correct. 21 What's Yates's proposed startup date on this 22 Q. 23 well? 24 Α. It will be prior to July 1st. Does your unit agreement, that you know of, does 25 Q.

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it provide for a second well, if this one is found to be 1 successful? 2 I'm not sure. That's handled by our land 3 Α. 4 department. EXAMINER STOGNER: Okay, I'll ask that 5 6 question --MR. BULLOCK: Yes, sir, within six months. A 7 8 subsequent follow-up well within six months. EXAMINER STOGNER: At any pre-determined 9 location, or left up to the discretion? 10 MR. BULLOCK: That's left up to our discretion. 11 EXAMINER STOGNER: Okay. I don't have anything 12 further of either Mr. Bullock or Mr. McRae. 13 MR. CARR: And we have nothing further in this 14 15 case, Mr. Stogner. EXAMINER STOGNER: Does anybody else have 16 anything further in Case Number 11,282? 17 Then this case will be taken under advisement at 18 this time. 19 (Thereupon, these proceedings were concluded at 20 9:33 a.m.) 21 I do hereby certify that the foregoing is 22 to the proceedings in e as a clear buaring of Case No. 11282 23 mand by me on 18 May 1955 24 , Examiner Oil Conservation Division 25

STATE OF NEW MEXICO ) ) ss. COUNTY OF SANTA FE )

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL May 23rd, 1995.

Secure

STEVEN T. BRENNER CCR No. 7

My commission expires: October 14, 1998