STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 1 OIL CONSERVATION COMMISSION STATE LAND OFFICE BUILDING 2 SANTA FE, NEW MEXICO 3 8 June 1988 4 EXAMINER HEARING 5 6 IN THE MATTER OF: 7 8 Application of Yates Petroleum Corp-CASE oration for an unorthodox gas well 9395 9 location, Lea County, New Mexico. 10 11 BEFORE: David R. Catanach, Examiner 12 13 APPEARANCES 14 For the Division: Robert G. Stovall 15 Attorney at Law Legal Counsel to the Division 16 State Land Office Bldg. Santa Fe, New Mexico 17 For the Applicant: 18 19 20 21 22 23 24 25

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MR. CATANACH: Call next Case Number 9395. MR. STOVALL: Application of Yates Petroleum Corporation for an unorthodox gas well location, Lea County, New Mexico. MR. CATANACH: At the re-quest of the applicant this case will be continued to the Examiner Hearing scheduled for June 22nd, 1988. (Hearing concluded.) 

3 1 2 CERTIFICATE 3 4 I, SALLY W. BOYD, C. S. R. DO HEREBY 5 CERTIFY that the foregoing Transcript of Hearing before the 6 Oil Conservation Division (Commission) was reported by me; 7 that the said transcript is a full, true and correct record 8 of the hearing, prepared by me to the best of my ability. 9 10 11 Sally W. Bagd CSR\_ 12 13 14 I do have yet in that the foregoing is a complete multiple proceedings in multiple proceedings in 15 the Examinant Lossing of a heard by me on June 16 2003 No. 7397 Unp 17 19 FP 18 Oil Conservation Division Examiner 19 20 21 22 23 24 25

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STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 1 OIL CONSERVATION COMMISSION STATE LAND OFFICE BUILDING 2 SANTA FE, NEW MEXICO 3 22 June 1988 4 EXAMINER HEARING 5 6 7 IN THE MATTER OF: 8 Application of Yates Petroleum Corp-CASE 9 oration for an unorthodox gas well 9395 location, Lea County, New Mexico. 10 11 12 BEFORE: Michael E. Stogner, Examiner 13 14 APPEARANCES 15 16 For the Division: Robert G. Stovall 17 Attorney at Law Legal Counsel to the Division 18 State Land Office Bldg. Santa Fe, New Mexico 19 For the Applicant: Chad Dickerson 20 Attorney at Law DICKERSON, FISK & VANDIVER 21 Seventh and Mahone/Suite E Artesia, New Mexico 88210 22 23 24 25

INDEX NORBERT T. REMPE Direct Examination by Mr. Dickerson Cross Examination by Mr. Stogner EXHIBITS Yates Exhibit A, Map Yates Exhibit B, Geology SHARON R. HAMILTON Direct Examination by Mr. Richardson Cross Examination by Mr. Stogner Redirect Examination by Mr. Richardson 8 

3 1 MR. STOGNER: Call next Case 2 Number 9395, which is the application of Yates Petroleum 3 Corporation for an unorthodox gas well location, Lea 4 County, New Mexico. 5 Call for appearances? 6 MR. DICKERSON: Mr. Examiner, 7 I'm Chad Dickerson of Artesia, New Mexico, on behalf of 8 the applicant. 9 I have one witness. 10 MR. STOGNER: Are there any 11 other appearances in this matter? 12 Please raise your right hand. 13 14 (Witness sworn.) 15 16 Mr. Dickerson? 17 18 NORBERT T. REMPE, 19 being called as a witness and being duly sworn upon his 20 oath, testified as follows, to-wit: 21 22 DIRECT EXAMINATION 23 BY MR. DICKERSON: 24 Q Mr. Rempe, will you state name, your 25 occupation, by whom you're employed, please?

4 1 I'm Norbert T. Rempe and I am employed А 2 as a petroleum geologist by Yates Petroleum Corporation in 3 Artesia, New Mexico. 4 And, Mr. Rempe, you have testified on Q 5 numerous occasions in the recent past before this Division 6 as a petroleum geologist, have you not? 7 А Yes, I have. 8 Are you familiar and have you made a 0 9 study of the available geological data within the Lazy Tree 10 State Unit Area and the unorthodox well location which is 11 the subject of this hearing? 12 Yes, I have. А 13 MR. DICKERSON: Tender Mr. 14 Rempe as an expert petroleum geologist. 15 MR. STOGNER: Mr. Rempe is so 16 qualified. 17 Rempe, will you summarize for Mr. Q Mr. 18 Stogner the background that gave rise to the necessity for 19 unorthodox gas well location? 20 А Yes. This State unit was originally 21 formed to test the Permo Penn, primarily the Bough section 22 and the initial test well was slated for a total depth of 23 about 10,500 feet. 24 Drilling revealed that the hoped for 25 structural porosity and permeability were not present.

5 1 Management therefore decided to deepen the test well beyond 2 its originally scheduled total depth to test the lower 3 Pennsylvanian, especially the Atoka and Morrow section, as 4 well as the uppermost Mississippian Austin cycle. 5 Final total depth is 12,100 feet. 6 Testing proved a sandstone in the Upper 7 Morrow section at about 11,480 feet to be gas bearing, so 8 5-1/2-inch casing was run and the well was completed in the 9 pay zone. 10 It has not been connected to a pipeline 11 yet. 12 What is the spacing unit designated for Q 13 that Morrow completion? 14 А The spacing unit would be a 320-acre 15 unit and that would be the east half of Section 12 of 16 Township 12 South, Range 32 East. 17 Q So, as I understand it, Mr. Rempe, the 18 well was drilled to a deeper horizon than was anticipated 19 as its targeted depth as the initial test well in the Lone 20 Tree Unit? 21 А That is correct. 22 Q The original well location and principal 23 objective under that unit was to have been on 40-acre 24 spacing? 25 That is correct, too. А

6 1 Q And the well location was orthodox for 2 40-acre spacing but unorthodox --3 А Yes, indeed. 4 -- on the 320-acre unit. Q 5 Yeah. А 6 MR. DICKERSON: Mr. Examiner, 7 I'd ask that you take administrative notice of your case in 8 this office, Case Number 9244 and Order No. 8535, which 9 involve the approval of this Lone Tree State Unit. 10 MR. STOGNER: Administrative 11 notice will be taken of that case and order number. 12 Q Mr. Rempe, will you identify what we 13 have submitted as Yates Exhibit Number A and summarize that 14 map for the Examiner? 15 А Exhibit A is a land plat of the Lazy 16 Tree State Unit and it is the same exhibit as submitted 17 previously when the unit was formed except that we added 18 the location of this gas well, which is in the northeast 19 quarter of Section 12, as denoted in red. 20 Okay, identify what you've submitted as Q 21 Exhibit Number B. 22 We're submitting as Exhibit B a geologi-А 23 cal exhibit which was done after the well was drilled, so 24 information was used in order to produce this exhibit that 25 was derived from drilling the well, as well as from several

7 ۱ seismic lines. It shows on the left a structure map of the 2 top of the Morrow Clastics and again the Lazy Tree State 3 Unit No. 1 is clearly labeled and identified, and on the 4 right it shows a map of the Morrow Clastics. It's an 5 Isochron map that shows the thickness of the Morrow Clastic 6 interval and it shows that we are on the up-dip edge of a 7 thick Morrow Clastic wedge. 8 Rempe, in your opinion will the Q Mr. 9 approval of Yates application in Case 9395 be in the 10 interest of conservation, the prevention of waste, and the 11 protection of correlative rights? 12 А Yes, it will. 13 MR. DICKERSON: Mr. Examiner, 14 I have no further questions of Mr. Rempe. 15 For your benefit I would point 16 out that the Exhibit B to the unit agreement, which will 17 appear in your case file in the unit Case 9244, sets out, 18 if you are interested, the ownership of each of the various 19 tracts. 20 To summarize that ownership, 21 far as the offsetting acreage within this unit boundas 22 ary to the unorthodox location, it is all owned or control-23 led by Yates Petroleum Corporation, both the ownership of 24 underlying working interest in the tracts and as operator 25 of that State approved unit.

8 1 MR. STOGNER: I will make note 2 of such. 3 4 CROSS EXAMINATION 5 BY MR. STOGNER: 6 Mr. Rempe, now this was advertised today Q 7 unorthodox gas well location for anything down to for an 8 the bottom of the Mississippian. Was the Mississippian 9 checked on this particular well? 10 А Yes. 11 And it was found dry? Q 12 А It was tight, yes. 13 Q Were you anticipating a gas or oil in 14 the Mississippian? 15 Either. Α 16 Either, okay. Since that's dry, then I Q 17 take it that we can narrow the perimeters down on your 18 order, if such is issued, to -- to the Morrow formation. 19 Have you had a chance to take a look at 20 the -- the Atoka log or the log through the Atoka zone? 21 А Yes, 22 And are you anticipating coming up and Q 23 completing in a higher zone? 24 А It is possible. 25 Okay. Whenever you made the original Q

9 1 application to drill and a subsequent C-102, what formation 2 were you seeking at that time? 3 It was the Permo Penn, especially the А 4 Bough section down to the Ranger Lake, which is about the 5 middle of the upper -- of the Permo Penn, of the Upper 6 Penn. 7 And you were anticipating an oil well. Q 8 А That's correct. 9 A 40-acre oil well. Q 10 А Yes. 11 So this would have been, like you said, Q 12 standard for that but unorthodox for this. 13 А Correct. 14 And according to your geological testi-0 15 mony in Exhibit B, this would be probably the best location 16 for this well in the Morrow? 17 А It appears so. 18 Q Okay. So you're seeking for a geologi-19 cal exception, also. 20 That's correct. А 21 MR. STOGNER: I have nothing 22 further in Case Number 9395. 23 Does anybody else have any 24 further questions of this witness? 25 He may be excused.

Mr. Dickerson, do you have anything further in this case? MR. DICKERSON: No, sir. MR. STOGNER: Does anybody else have anything further in Case Number 9395? It will be taken under ad-visement. (Hearing concluded.) 

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. Saely W. Boyd CSR I do hereby care that the foregoing is a compression of the proceedings in the Examiner hearing of Case No. 9395, 19 88 . heard by meron 22 Manuto, Examiner Oll Conservation Bivision 8/4/88