#### STATE OF NEW MEXICO

## ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11,269

H

APPLICATION OF AMERADA HESS CORPORATION

# ORIGINAL

# REPORTER'S TRANSCRIPT OF PROCEEDINGS

## **EXAMINER HEARING**

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

April 20th, 1995

Santa Fe, New Mexico

This matter came on for hearing before the Oil
Conservation Division on Thursday, April 20th, 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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# INDEX

April 20th, 1995 Examiner Hearing CASE NO. 11,269

EXHIBITS	PAGE 3
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>JEFF NIEMEYER</u> Direct Examination by Mr. Carr  Examination by Examiner Stogner	4 10
JAMES McCARTHY  Direct Examination by Mr. Carr  Examination by Examiner Stogner	14 18
BOB WEST  Direct Examination by Mr. Carr  Examination by Examiner Stogner	21 29
JEFF NIEMEYER (Recalled) Examination by Examiner Stogner	30
REPORTER'S CERTIFICATE	37

\* \* \*

# EXHIBITS

		Identified	Admitted
Exhibit	1	7	10
Exhibit	2	9	10
Exhibit	3	9	10
Exhibit	4	15	18
Exhibit	5	23	29
Exhibit	6	24	29
Exhibit	7	24	29
Exhibit	8	25	29
Exhibit	9	25	29

\* \* \*

#### APPEARANCES

## FOR THE DIVISION:

RAND L. CARROLL Attorney at Law Legal Counsel to the Division State Land Office Building Santa Fe, New Mexico 87504

#### 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

\* \* \*

1	WHEREUPON, the following proceedings were had at
2	11:35 a.m.:
3	EXAMINER STOGNER: Call next case, Number 11,269.
4	MR. CARROLL: Application of Amerada Hess
5	Corporation for pool creation, the promulgation of special
6	pool rules, assignment of an appropriate oil allowable, and
7	for an unorthodox oil well location, Lea County, New
8	Mexico.
9	EXAMINER STOGNER: Call for appearances.
10	MR. CARR: May it please the Examiner, my name is
11	William F. Carr with the Santa Fe law firm Campbell, Carr
12	and Berge. We represent Amerada Hess Corporation, and I
13	have three witnesses.
14	EXAMINER STOGNER: Any other appearances?
15	Will the witnesses please stand to be sworn at
16	this time?
17	(Thereupon, the witnesses were sworn.)
18	MR. CARR: At this time we call Mr. Jeff
19	Niemeyer.
20	JEFF NIEMEYER,
21	the witness herein, after having been first duly sworn upon
22	his oath, was examined and testified as follows:
23	DIRECT EXAMINATION
24	BY MR. CARR:
25	Q. Will you state your name for the record, please?

Α. My name is Jeff Niemeyer. 1 2 And where do you reside? Q. Α. Houston, Texas. 3 Q. By whom are you employed? 4 5 Α. Amerada Hess Corporation. And in what capacity? 6 Q. As a senior landman. 7 Α. Mr. Niemeyer, have you previously testified 8 Q. 9 before this Division? No, I have not. 10 Α. Could you summarize your educational background 11 for Mr. Stogner? 12 13 Α. I graduated from the University of Oklahoma in 1979 with a degree in petroleum land management. 14 15 Since graduation, can you review your work 16 experience for the Examiner? Α. Since graduation I've continuously worked for 17 several oil companies as a petroleum landman. 18 When did you go to work for Amerada Hess 19 0. Corporation? 20 21 Α. Approximately in March of 1990. 22 0. Does the geographic area of your responsibility 23 include the portion of southeastern New Mexico involved in this case? 24 25 Α. Yes.

Are you familiar with the Application filed in 1 Q. this matter on behalf of Amerada Hess? 2 Α. Yes. 3 And are you familiar with the status of the lands Q. 4 in the North Bell Lake Federal unit area? 5 A. Yes. 6 7 MR. CARR: We tender Mr. Niemeyer as an expert witness in petroleum land matters. 8 9 EXAMINER STOGNER: Mr. Niemeyer is so qualified. (By Mr. Carr) Could you briefly state what 10 Q. Amerada Hess seeks with this Application? 11 We're seeking the creation of a new pool in the 12 Α. Ellenburger formation, covering Section 5 of Township 23 13 South, 34 East; also creation of special field rules for 14 the pool, including 640-acre spacing and proration units 15 16 and special well-location requirements. 17 0. We also are in this case dealing with the North Bell Federal Well Number 2. That well was originally 18 drilled at an unorthodox location, was it not? 19 20 Α. Yes. And we're seeking, pursuant to these pool rules, 21 to dedicate all of Section 5 to this well, forming a 22 640.2-acre spacing unit? 23 24 A. Yes. 25 What are the current rules governing the Q.

development of the Ellenburger formation in this area?

- A. Currently it's statewide rules, providing for 320-acre spacing, 1980-foot setbacks from the end line, and 660 feet from the side line.
- Q. And what we're talking about here are the gas rules; is that right?
  - A. That is correct.
- Q. The North Bell Federal Well Number 2 is in fact a gas well?
  - A. Yes, it is.

- Q. Let's go to what has been marked for identification as Amerada Hess Exhibit Number 1. Could you identify that first and then review the information on this exhibit for Mr. Stogner?
- A. Yes, this is a land plat that I prepared that shows the ownership, the operating rights in the north Bell Lake area, and a one-mile buffer zone. We have an orientation plat in the bottom left-hand corner.

It shows the unit outlined -- the proposed unit outlined in green, the green dotted line around Section 5.

The Number 2 location of the well is also located at the bottom with the footage of 1500 feet from the west line, 1100 feet from the south line.

The red boundary is the nine-section North Bell Lake Federal unit that is currently in effect.

0. When was this unit actually formed? 1 It was formed on August 28th, 1953. 2 Α. And what was the order number in that case? 3 Q. 4 you know? 5 A. It was R-354. 6 Q. And who is the operator of that unit? 7 The current operator is Conoco, the sub-operator Α. is Kaiser-Francis. 8 This unit was originally much larger than what we 9 Q. show on this exhibit; is that correct? 10 That is correct. This unit originally covered 11 Α. 37,000 acres, and it has since contracted to this nine-12 section participating area. 13 14 On this plat we see two wells in the unit, the Bell Lake Unit Number 2, which is really the subject of 15 this case. 16 Also in Section 6, there's a Bell Lake Unit 17 Number 1. To what formation is that well drilled? 18 The Bell Lake Unit Number 1 is a Devonian well 19 20 operated by Conoco. 21 0. Now, the north -- or the Bell Lake Unit Number 2 well, you indicated, is at an unorthodox location? 22 23 Α. Yes. 24 That location has previously been approved by the Division, has it not? 25

1	A. Yes.
2	Q. And is a copy of that approval marked as Amerada
3	Hess Corporation Exhibit Number 2?
4	A. Yes, it is.
5	Q. Mr. Niemeyer, what is Amerada Hess's interest in
6	this unit?
7	A. Amerada Hess owns 92.75 percent of the working
8	interest in this unit, in this well, in the Bell Lake Unit
9	Number 2.
10	Q. And you have a farmout arrangement with Conoco?
11	A. Yes, we have farmout arrangements with Conoco and
12	with Kaiser-Francis.
13	Q. And pursuant to that farmout agreement, do you
14	earn acreage as you develop the unit area?
15	A. Yes, there is a provision in there which allows
16	us to earn on a proration-unit basis.
17	Q. Let's move to what has been marked Amerada Hess
18	Exhibit Number 3.
19	Is this an affidavit confirming that notice of
20	this hearing has been provided in accordance with OCD
21	rules?
22	A. Yes.
23	Q. To whom has notice been given?
24	A. We have provided notice to Conoco and to Kaiser-
25	Francis.

1	Q. Are there any other operators of Ellenburger
2	wells within the pool or within a mile of the proposed pool
3	boundary?
4	A. No.
5	Q. Will Amerada Hess be calling engineering and
6	geological witnesses to review the technical portion of the
7	case?
8	A. Yes, we will.
9	Q. Were Exhibits 1 through 3 prepared by you or
10	compiled under your direction?
11	A. Yes.
12	MR. CARR: Mr. Stogner, at this time we move the
13	admission into evidence of Amerada Hess Exhibits 1 through
14	3.
15	EXAMINER STOGNER: Exhibits 1 through 3 will be
16	admitted into evidence at this time.
17	MR. CARR: And that concludes my examination of
18	Mr. Niemeyer.
19	EXAMINATION
20	BY EXAMINER STOGNER:
21	Q. Mr. Niemeyer, as far as the I understood you
22	to say that the original unit was approved by Order R-354?
23	MR. CARR: 355, I believe, Mr. Stogner.
24	Q. (By Examiner Stogner) Oh, 355.
25	We're talking about a pretty old unit, aren't we?

- A. Yeah, it's very old.
- Q. Okay.

- A. Early Fifties.
- Q. What production interval is keeping this unit together at this time?
- A. There's -- The Bell Lake Unit Number 1 is currently producing from the Devonian. That's the Conoco well in Section 6.

Also, there's a nine-section participating area three miles to the south. This is an unusual federal unit that has Atoka-Morrow production, that Kaiser-Francis is operating to the south.

Originally it covered about 58 sections, and since then it's -- in the late Fifties it contracted down to two nine-section participating areas.

- Q. And the one-mile perimeter you have in various different colors. That just shows the different leases. Those aren't part of the unit; is that correct?
- A. I colored the different operating rights different. It's kind of hard to read, but you can see the different companies that own operating rights for each lease.
- Q. And then the wellbore that's shown on that map is the well in which the -- essentially the pool is to be formed around; is that right?

1	A. That is correct.
2	Q. And Exhibit Number 2 would just show that this
3	well previously had a nonstandard location approval on it?
4	A. Yes, sir.
5	Q. I'm sure you'll get into it later, Mr. Carr, but
6	everything up till now shows that to be a gas well, but
7	MR. CARR: Yes, sir.
8	EXAMINER STOGNER: we're forming an oil pool?
9	MR. CARR: No, we're trying to form a gas pool,
10	sir.
11	EXAMINER STOGNER: For some reason I've got it as
12	an oil pool. And I'm trying, now, to figure out why I did
13	that.
14	Well, that just means some of these questions can
15	be
16	MR. CARR: dismissed, I think.
17	EXAMINER CATANACH: yeah, dismissed and taken
18	away, as far as the allowable. Unless you want to prorate
19	a gas pool?
20	MR. CARR: No, sir.
21	It appears to me, Mr. Stogner, that assignment of
22	appropriate poolwide depth bracket allowable is
23	unnecessary.
24	EXAMINER STOGNER: Where did I get that? Was
25	that included in the Application?

1	MR. CARR: No, sir. I hope not, sir.
2	EXAMINER STOGNER: I was just covering the bases.
3	I'm sure this came in late on Tuesday evening,
4	and I worked on Tuesday night to get it out, so that I
5	could get it out on Wednesday. And I wasn't able to
6	contact you to verify it, so I just acted on what I felt
7	was right at the time. But I don't think that's going
8	to
9	MR. CARR: I don't think that causes a problem in
10	this regard, Mr. Stogner, and I don't think it needs to be,
11	certainly, re-advertised.
12	EXAMINER STOGNER: Since there's a pool creation,
13	assignment of appropriate oil allowable, which that can
14	be stricken.
15	MR. CARR: Uh-huh.
16	EXAMINER STOGNER: Unorthodox oil-well location.
17	Well, that's
18	MR. CARR: And that was previously approved.
19	EXAMINER STOGNER: Yeah. I'll tell you what.
20	Let's No problem, let's continue on
21	MR. CARR: Okay.
22	EXAMINER STOGNER: and if we need to re-
23	advertise it, we might.
24	MR. CARR: Okay.
25	EXAMINER STOGNER: If not, we can determine that

1 later as we go on through. 2 Thank you, sir. 3 THE WITNESS: Thank you. 4 MR. CARR: Mr. Stogner, at this time I would call Jim McCarthy. 5 6 JAMES McCARTHY, 7 the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows: 8 9 DIRECT EXAMINATION BY MR. CARR: 10 Q. Will you state your name for the record, please? 11 12 Α. My name is James McCarthy. 13 Where do you reside? Q. 14 Α. Houston, Texas. Mr. McCarthy, by whom are you employed and in 15 Q. 16 what capacity? 17 A. I'm an exploration geologist for Amerada Hess Corporation. 18 19 Q. Have you previously testified before this Division? 20 A. I have not. 21 22 Q. Could you summarize your educational background 23 for Mr. Stogner? 24 Α. In 1980 I received a BS degree from Texas A&M 25 University. In October of 1980, was employed with Amerada

Hess and have continued my employment there up to this point.

- Q. Are you familiar with the Application filed in this case on behalf of Amerada Hess?
  - A. Yes, I am.

- Q. Have you made a geological study of the Ellenburger formation in the area surrounding the North Bell Lake Federal Unit?
- A. Yes, I have.

MR. CARR: We tender Mr. McCarthy as an expert witness in petroleum geology.

EXAMINER STOGNER: Mr. McCarthy is so qualified.

- Q. (By Mr. Carr) Mr. McCarthy, let's go to what has been marked for identification as Amerada Hess Exhibit

  Number 4, and I'd ask you to identify that and review it for Mr. Stogner.
- A. Exhibit number 4 is a montage. It on the left has a structure map of the Ellenburger, derived from seismic data, as well as the two wells inside the Bell Lake Unit there.

The structure on the Ellenburger, at the top of the Ellenburger, is -- the reservoir there, denoted in red, is limited by the north-south fault to the west and the north-northwest-trending fault to the -- on the right side of your map there, and then structurally defined with a

structural relief to the south.

The Bell Lake Unit Number 2 well was drilled to a total depth of 17,710 feet. The Ellenburger was encountered at a subsea of 13,675, which you can see there, and subsequently we perforated the intervals that are listed -- 17,260 to -70, 17,280 to -90 -- and obtained a rate of 3 to 4 million a day, actually a stabilized rate of 3.14 million a day on a 23/64 choke and a flowing tubing pressure of 1200 pounds.

- Q. You haven't treated the well; this is a stabilized, untreated producing rate?
- A. This is an untreated -- We have not acidized or treated the well in any form.
- Q. And the location, actually, of the seismic lines that were shot to help you define the structure are shown by the blue lines on the structure map?
  - A. That is correct.
- Q. Okay. The log of this well, has it been filed with the Oil Conservation Division?
  - A. Yes, it has.
- Q. And an engineering witness will be called to review the amount of acreage that should be drained by any well located within the pool as you have defined it?
- A. That is correct.
  - Q. Let's go to the right-hand portion of Exhibit

Number 4. Could you identify that and explain what that's 1 2 intended to show? Α. This is a regional overview of the area. 3 4 The brown shading there to your right in Lea County really denotes the west flank of the Central Basin 5 Platform. 6 7 The star there is the Bell Lake North Prospect of 8 Bell Lake North Unit where a well is located. And what we want to exhibit here is the -- I think it's more important 9 10 to point out there's very little Ellenburger production here in Lea County. 11 Fifteen miles away, directly to the north-12 13 northeast, is the Langley field. There's four wells that produced out of the Ellenburger at 24.3 BCF, of those four 14 15 wells on spacings of 320. If you move along trend -- and this is off the 16 Platform; it is separate from the Platform, this 17 18 Ellenburger production -- down in -- just across the New 19 Mexico border into Texas, is the Crittendon field where there was one well that produced out of the Ellenburger. 20 That well produced 23.8 BCF. 21 22 The field immediately to the east of it is the 23 Cheyenne field. Two wells in the Ellenburger there are 24 10.6 BCF.

And a very prolific field, the Evetts field,

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located 33 miles from our Bell Lake unit, had five wells 1 producing 81.6 BCF. These wells were all spaced on 640s. 2 And the engineering witness will also be drawing 3 comparison between what we have found in the Ellenburger in 4 5 the subject well, and the performance of wells in other pools; is that correct? 6 7 Α. That is correct. 8 Q. What geologic conclusions do you reach from your study of the Ellenburger in this area? 9 I would conclude that we are on trend with the Α. 10 Crittendon Evetts fields and that the Ellenburger is 11 similar to that, that we've found in the Bell Lake Unit 2. 12 Was Exhibit 4 prepared by you? 13 Q. 14 Α. Yes, it was. MR. CARR: At this time, Mr. Stogner, we move the 15 admission of Amerada Hess Exhibit Number 4. 16 17 EXAMINER STOGNER: Amerada Hess Exhibit Number 4 will be admitted into evidence. 18 MR. CARR: And that concludes my examination of 19 20 Mr. McCarthy. 21 EXAMINATION BY EXAMINER STOGNER: 22 Mr. McCarthy, is the Langley Ellenburger -- is it 23 that much different than the -- What did you call it? 24 25 Crittendon?

A. Crittendon. It is a little bit different in that 1 2 the dips are somewhat higher and closer to the Central Basin Platform there. 3 Which is shown in the brown, is that right? Q. 5 Α. Right. And how about that Cheyenne Ellenburger as it 6 7 relates to the Evetts and the Crittendon? Does that have 8 the same characteristics as the Langley? 9 A. No, sir, that field has the same characteristics 10 as our Bell Lake Unit Prospect. 11 0. Even though it's closer to the Platform? Α. Well, yes, sir. You drop off rather rapidly, off 12 the Platform, as you move into that area. 13 14 Now, is there any other Ellenburger production between the Texas state line and the Bell Lake North 15 Prospect? 16 Yes, sir, there's prolific Ellenburger production 17 Α. 18 up on the Central Basin Platform, yes, sir. 19 ο. And what's the name of that pool? 20 Α. Well, there's a number of fields in that one, on the Central Basin. 21 22 0. How come you didn't include those in here? 23 Α. We're only trying to -- I'm trying to draw the correlation from the Bell Lake unit down to the Crittendon 24

Ellenburger -- or the Crittendon, Evetts and Cheyenne

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1 fields.

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As you continue down further, down into the Winkler County and Ward County, Texas, you have the trend continuing.

- Q. Okay. When I look over on the left side of the exhibit, am I to assume this structure is sort of a block-faulted area?
- A. It is a faulted trend that trends from -- in -- basically separated the Central Basin Platform, but trends in the same direction, in a more northerly direction, up to the Bell Lake North Prospect.
- Q. Now, it appears like -- What? About a third of Section 5 is on the upthrown portion of that fault that you have going from the north to the south through almost the middle of Section 5. Is that nonproductive?
- A. The west -- the majority of the -- Section 5, we have -- the -- You're relating to the green -- the outlined green Section 5 there?
- 19 Q. Yes.
- 20 A. We're assuming that there's 416 productive acres 21 in that section.
  - Q. And that's denoted with pink coloring?
- A. Yes, sir.
  - Q. How many acres?
- 25 A. 416.

1	Q. Do you feel there's any production up on the up
2	portions of those faults in the Ellenburger, the gray area?
3	A. The gray area Excuse me just a second here. I
4	don't have that colored exhibit in front of me.
5	Okay, as I've stated earlier, we're limiting the
6	reservoir at this point, bounded by the north-south-
7	trending fault on your west there, and then the north-
8	northwest-trending fault that trends through Section 5 and
9	32, and the red area is an illustration of what we feel is
10	productive at this point, or potentially productive at this
11	point.
12	EXAMINER STOGNER: Mr. Carr, I don't have any
13	other questions of this witness at this time. Maybe
14	Perhaps later.
15	MR. CARR: All right. At this time we would call
16	Bob West.
17	BOB WEST,
18	the witness herein, after having been first duly sworn upon
19	his oath, was examined and testified as follows:
20	DIRECT EXAMINATION
21	BY MR. CARR:
22	Q. Will you state your name for the record, please?
23	A. Bob West.
24	Q. And where do you reside?
25	A. In Kingwood, Texas.

1 0. And by whom are you employed? Α. Employed by Amerada Hess Corporation. 2 In what capacity? 3 Q. Α. As a reservoir engineer. Mr. West, have you previously testified before 5 0. this Division? 6 7 Α. No, I have not. Could you summarize your educational background 8 Q. for Mr. Stogner? 9 10 In December of 1981 I graduated from Oklahoma 11 State University with a BS degree in petroleum engineering 12 technology. And since graduation, for whom have you worked? 13 14 I've worked for Amerada Hess Corporation since 15 January of 1982. Are you familiar with the Application filed in 16 this case? 17 18 Α. Yes, I am. 19 And are you familiar with the development of the 20 Ellenburger formation in the Permian Basin, in particular, in the area of the Amerada Hess North Bell Lake Federal 21 22 Well Number 2? 23 A. Yes. 24 MR. CARR: We tender Mr. West as an expert witness in petroleum engineering. 25

EXAMINER STOGNER: Mr. West is so qualified.

- Q. (By Mr. Carr) Have you prepared exhibits for presentation here today?
  - A. Yes, I have.

- Q. Let's go to what's been marked for identification as Amerada Hess Exhibit Number 5. Could you identify that for Mr. Stogner and then review it, please?
- A. Yes, Exhibit Number 5 Is a Bell Lake Ellenburger analogy. It's well information we took out of Petroleum Information Services. It's what our company uses to find statistical information on producing wells and intervals in the area.

As Mr. McCarthy has outlined, we feel like these four fields -- the Cheyenne, Crittendon, Evetts and Langley -- are on trend to the Bell Lake area.

We tabulated for those wells the cumulative production in million cubic feet gas, thousand barrels of condensate, thousand barrels of water.

Also, this information contains flowing information contained in Petroleum Information, the IPF in MCF per day, unless otherwise noted AOF. Some of the numbers were available, some of them weren't. I pulled what I could.

Q. This, in fact, shows that the potentials in these wells are similar to what was encountered in the subject

24 well? 1 Α. Yes, it does. 2 3 Okay. Let's go to Exhibit Number 6. Can you 4 identify and review that? 5 Α. Exhibit Number 6 is some test information we have on this well. 6 7 After it was completed and perforated we conducted a flow test and the gathering information. 8 a plot. I got surface pressure, p.s.i.g., versus flow rate 9 in mscf per day. 10 All right, let's go to Exhibit 7. What is 11 Q. Exhibit 7? 12 Exhibit Number 7, again, is -- Okay, well, this 13 Α. is the North Bell Lake Federal Number 2 deliverability 14 15 Exhibit. 16 We modeled our flowing surface pressure, remodeled to bottomhole pressure conditions, and 17 18 constructed a deliverability profile. This exhibit shows a pipeline deliverability of 19 20 approximately 5.8 million per day and an absolute open flow potential of 39 million per day. 21 This information is consistent with the wells 22

Q. Okay. Now, Mr. West, let's go to Exhibit Number

that we've identified as being on trend in the other

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fields.

1	8. What is this?
2	A. Exhibit Number 8 is some statistics for these
3	previous wells that have been discussed in these other
4	fields.
5	We project ultimate recovery for these wells and
6	took a statistical average and came up with approximately
7	12 BCF recoverable reserves.
8	Trying to show that on trend this well, this Bell
9	Lake Well Number 2, is on trend and should it could
10	possibly recover 12 BCF of reserves.
11	Q. Let's go now to the volumetrics that you have
12	prepared on the North Bell Lake Federal Number 2, Exhibit
13	Number 9.
14	I'd like you to first review your assumptions and
15	then work through the remainder of the exhibit.
16	A. Okay, the assumptions we have listed at the top
17	of the exhibit.
18	The porosity, net pay and water saturation
19	numbers came from log data that was obtained.
20	Gas gravity, .5758, came from a gas analysis
21	obtained March 10th, 1995.
22	A static survey was conducted in March. We found
23	the pressure at that time, after approximately a 10-day
24	shut-in period, was 7379 p.s.i.a.

Formation temperatures running 240 degrees

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Fahrenheit.

And I calculated some gas formation volume factors, both at initial conditions and at final abandonment conditions.

Taking these assumptions into a gas material balance equation for gas reservoirs, found in Craft and Hawkins, page 43, he gives the equation to determine average recovery.

From the previous exhibits we ascertained that the recovery should be approximately 12 BCF. We put this into this Craft and Hawkins equation and backed out an approximate gas-in-place number of 15.774 BCF.

Taking that number into a volumetric solution, again found in Craft and Hawkins, we calculated an area of drainage of approximately 650 acres.

- Q. So based on the information you have from the one well, it appears that wells in the Ellenburger in this area could drain up to 650 acres?
  - A. Yes.
- Q. Is it reasonable to expect that other wells in this pool may be able to drain that much acreage as well?
  - A. Yes.
- Q. In your opinion, is the North Bell Lake Federal
  Number 2 located in a new Ellenburger pool or a new
  Ellenburger formation in Lea County, New Mexico?

Α. 1 Yes. 2 Q. And is it your recommendation that temporary 3 rules for the pool be adopted which provide for 640-acre spacing units? 4 5 A. Yes, it is. 6 0. What should be the boundaries for this new pool? 7 A. At this time we're suggesting all of Section Number 5. 8 9 Q. Now, Mr. West, what additional plans for 10 development of this pool does Amerada Hess now have? We are obligated to drill another well within 180 11 A. days from completion of this well. 12 13 0. And then after that, do you still have the option to go forward with continuous development on a 180-day 14 cycle? 15 16 Yes, that's correct. Α. 17 0. And at this point in time, are you planning to drill one additional well? 18 19 At this point in time we're planning to drill one 20 additional well, that's correct. 21 0. And if that well is comparable to this one, then is it reasonable to anticipate additional wells being 22 23 drilled pursuant to the farmout with Conoco? Yes, it is. 24 A. 25 Q. How soon do you think you would have the kind of

data you need on this particular pool to come back and seek 1 the establishment of spacing rules on a permanent basis? 2 I think 18 months would be reasonable. 3 Α. 0. And during that period of time, you would have 4 achieved what? Additional drilling? 5 We would have achieved information from 6 Α. 7 additional drilling, including possible core analysis. 8 We would have obtained additional pressure information from this Federal Number 2 well to corroborate 9 10 the estimate of recoverable reserves. In other words, it 11 would give us another point to consider for material 12 balance purposes, the P-over-Z plot. 13 Q. What do you propose to be the well-location requirements in these special pool rules? 14 We're proposing 1650-feet setbacks from the outer 15 16 boundary of a 640-acre spacing unit and 330-feet setback 17 from any governmental quarter-quarter section lines. Now, the North Bell Lake Federal Number 2 well 0. 18 would remain unorthodox even under these proposed rules? 19 Yes, it would. 20 Α. Mr. West, were Exhibits 5 through 9 prepared by 21 you? 22 23 A. Yes, they were. 24 MR. CARR: At this time, Mr. Stogner, we move the admission of Amerada Hess Exhibits 5 through 9. 25

EXAMINER STOGNER: Exhibits 5 through 9 will be 1 admitted into evidence. 2 MR. CARR: And that concludes my direct 3 examination of Mr. West. 4 5 EXAMINATION BY EXAMINER STOGNER: 6 Mr. West, your assumptions shown on Exhibit 7 8 Number 9 and the figures shown, is this an unstimulated rate or flow pattern --9 10 Α. The ---- or is this unstimulated? 11 12 Α. The assumptions here -- We have not stimulated 13 the well yet, no, sir. 14 Oh, okay. So this is all an unstimulated flow 15 pattern or flow -- showing what an unstimulated flow is 16 expected to do in this well? The other wells, the wells we're comparing to 17 A. 18 where we got the recovery number of 12 BCF, those wells have been stimulated. 19 20 So once this well has been stimulated, it should 21 behave, if it's an average Ellenburger well, for that 22 trend, like those wells I have... 23 Now, you show the Number 6 well over there to the west in the Devonian formation. Are you showing that for 24 25 reference, or will that well be re-entered and recompleted

1 to the Ellenburger? 2 That well is strictly on the map for reference, 3 sir. Okay. Where's your next development? What's Q. 4 Amerada Hess's next well? Where will that be located? 5 The preliminary numbers I'm getting from our 6 7 geologist, it would be located in Section 31, I believe. Why up there? Or -- You said your geologist. 8 Q. Perhaps I need to ask your geologist that question. 9 MR. McCARTHY: Sir, currently we are evaluating 10 on doing a 3-D seismic survey out here, and I don't think 11 Amerada Hess is ready to commit exactly where yet. But at 12 this point 31 would be the place we'd be looking at, at 13 this point. However, we would like to shoot a 3-D out here 14 15 and evaluate that. 16 EXAMINER STOGNER: I'd like to ask the landman this question, and you said something, and I quess I missed 17 18 it. Why don't you come on back up front? 19 (To Mr. West) You can be excused at this point. 20 JEFF NIEMEYER (Recalled), 21 the witness herein, after been previously duly sworn upon 22 his oath, was examined and testified as follows: **EXAMINATION** 23 24 BY EXAMINER STOGNER: Perhaps I missed something. This is in the 25 Q.

federal unit, and all this nine-section area is unitized at 1 this point? 2 3 Α. Yes, it's a participating area. Even in the Ellenburger? 4 Q. Yes, all formations. 5 A. 6 Q. All formations? 7 Α. Uh-huh. And it's a very unusual federal unit. It originally covered approximately 58 sections. 8 Uh-huh. 9 Q. 10 Α. When it contracted in the late Fifties, it 11 contracted to two nine-section participating areas. This one that is shown on my map is the northern 12 nine-section participating area. It's currently operated 13 14 by Conoco with that Devonian well in Section 6. The southern nine-section participating area is 15 16 approximately three miles directly south of here, and that 17 is operated by the suboperator, Kaiser-Francis, and that has production out of the Atoka and Morrow. 18 19 With this being unitized, why can't you just 20 develop it on 640 instead of ask for special pool rules? mean, is there any land situation where you need 640-acre 21 spacing? 22 23 Α. Our farmout agreement provides for us to earn on

Okay, now explain that portion to me then.

24

25

a proration-unit basis.

Q.

We will earn -- As the well is completed 1 Α. Okay. as a producing well, we will earn the proration unit 2 established by the State for that well. 3 ٥. And how would that Number 5 -- How would Section 5 5 be developed, as opposed to 320-acre spacing, which --What? You have the west half dedicated to it now? 6 7 Α. Yes, sir. 8 0. Okay, now what -- How would that affect Section 5, with the interest, as opposed to keeping it developed --9 10 or keeping spacing on 320 and just developing at 640, since 11 you pretty much control the acreage? 12 I don't understand what you mean by "earning 13 interest". We'll earn from Conoco and Kaiser-Francis their 14 15 acreage in the established proration unit, which would be a 640-acre unit, if this Application is approved. 16 EXAMINER STOGNER: This seems more land-oriented 17 than technical, Mr. Carr. That's what's throwing me. 18 Okay, who prepared Exhibit Number 9? 19 MR. WEST: I did, sir. I did. 20 EXAMINER STOGNER: Okay. Based on reasonable 21 22 assumptions for the Ellenburger formation, is it 23 theoretically possible that the North Bell Lake Federal Number 2 could drain an area of at least 640 acres? 24 How long has this well been completed and has it 25

1	been producing?
2	MR. WEST: No, sir, the well was the testing
3	that we did was done last month. I think it was the end of
4	March.
5	It has not been connected to the pipeline yet.
6	Construction of the pipeline started today, as a matter of
7	fact.
8	EXAMINER STOGNER: Okay. As far as the test
9	analysis, that's on your previous exhibits; is that
10	correct?
11	MR. WEST: Yes. Test analysis, that was through
12	a test separator on location.
13	EXAMINER STOGNER: And that's your Exhibit
14	Number
15	MR. WEST: Exhibit Number 6 was the test rate
16	pressure.
17	Exhibit Number 7
18	EXAMINER STOGNER: Just a minute.
19	MR. WEST: Sorry.
20	EXAMINER STOGNER: Okay.
21	MR. WEST: Exhibit Number 6 was the test rate
22	pressure.
23	Exhibit Number 7 was deliverability calculation
24	we did using those test numbers.
25	We realize that it's going to take some time to

establish what this well will really do. 1 EXAMINER STOGNER: And you're hoping that in 18 2 months you'll be able to provide that? 3 MR. WEST: Yes, sir. (By Examiner Stogner) Now, in looking at Exhibit 5 Q. 6 Number 1, in Section 5, are those four different leases in 7 the quarter sections? (By Mr. Niemeyer) Yes. Α. But they're all operated by Amerada Hess? 9 Q. 10 Α. Conoco is the named operator for the federal unit. We have been assigned temporary operating rights to 11 12 drill and complete this well. 13 Once the well is completed, we'll turn the well 14 back over to Conoco for -- as the named operator of the 15 federal unit. 16 EXAMINER STOGNER: Okay, I have no other questions at this time, Mr. Carr. 17 18 MR. CARR: Thank you, Mr. Stogner. 19 nothing further in this case. 20 EXAMINER STOGNER: Mr. Carr, since this is a gas well and a gas pool, and it is unprorated --21 22 MR. CARR: Yes. 23 EXAMINER STOGNER: -- then if the well was turned 24 on under the auspices of 320 acres at this time until it 25 can be re-advertised --

1	MR. CARR: Yes.
2	EXAMINER STOGNER: at a later date
3	MR. CARR: That would not be a problem.
4	EXAMINER STOGNER: Okay, I think that will
5	probably be the better part
6	MR. CARR: I think that would avoid any confusion
7	later on, and I think that would be appropriate.
8	EXAMINER STOGNER: Okay. I apologize for that.
9	It was late in the evening and I was trying to get them
10	out, and I
11	MR. CARR: Well, I probably made you stay late in
12	the evening.
13	EXAMINER STOGNER: No, no, there was many other
14	advertisements that needed to be done.
15	But I think a readvertisement of this and that
16	would be What? The next May ?
17	MR. CARR: 18th.
18	EXAMINER STOGNER: May 18th hearing?
19	MR. CARR: Yes, sir.
20	EXAMINER STOGNER: As far as Amerada Hess having
21	to come in, that won't be necessary.
22	MR. CARR: All right.
23	EXAMINER STOGNER: With that, is there anything
24	else in Case Number 11,269?
25	MR. CARR: Nothing further.

EXAMINER STOGNER: If not, that concludes today's testimony in that case, and we'll leave the record open and recall -- readvertise and recall this case for the May 18th hearing. (Thereupon, these proceedings were concluded at 12:15 p.m.) I do hereby certify that the foregoing is proceedings in Case No. 1/269 the cha 19/5 heard b , Examiner Oil Conservation Division 

#### CERTIFICATE OF REPORTER

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 3rd, 1995.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 1998