# 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. 12,868

APPLICATION OF APACHE CORPORATION FOR APPROVAL OF A NONSTANDARD GAS PRORATION AND SPACING UNIT, UNORTHODOX GAS WELL LOCATIONS, SIMULTANEOUS DEDICATION, DOWNHOLE COMMINGLING AND ASSIGNMENT OF A SPECIAL GAS ALLOWABLE, LEA COUNTY, NEW MEXICO

ORIGINAL

# REPORTER'S TRANSCRIPT OF PROCEEDINGS

# **EXAMINER HEARING**

BEFORE: DAVID R. CATANACH, Hearing Examiner

12 JUL 19 AM 8: 23

June 27th, 2002

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH,
Hearing Examiner, on Thursday, June 27th, 2002, at the New Mexico Energy, Minerals and Natural Resources Department,
1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7
for the State of New Mexico.

\* \* \*

# I N D E X

June 27th, 2002 Examiner Hearing CASE NO. 12,868

	PAGE
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>KEEVIN BARNES</u> (Engineer)	
Direct Examination by Mr. Kellahin	7
Examination by Mr. Carr	17
Examination by Examiner Catanach	18
MARK McCLELLAND (Engineer)	
Direct Examination by Mr. Kellahin	26
Examination by Examiner Catanach	27
Examination by Mr. Jones	27
REPORTER'S CERTIFICATE	30

# EXHIBITS

Applicant	t's	Identified	Admitted
	Exhibit 1	8	17
	Exhibit 2	10	17
	Exhibit 3	11	17
	Exhibit 4	13	17
	Exhibit 5	14	17
	Exhibit 6	16	17
	Exhibit 3  Exhibit 4  Exhibit 5	11 13 14	1

\* \* \*

#### APPEARANCES

#### FOR THE DIVISION:

DAVID K. BROOKS
Attorney at Law
Energy, Minerals and Natural Resources Department
Assistant General Counsel
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

#### FOR THE APPLICANT:

KELLAHIN & KELLAHIN
117 N. Guadalupe
P.O. Box 2265
Santa Fe, New Mexico 87504-2265
By: W. THOMAS KELLAHIN

#### FOR JOHN H. HENDRIX CORPORATION:

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

# ALSO PRESENT:

WILL JONES
Engineer
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, NM 87501

\* \* \*

WHEREUPON, the following proceedings were had at 1 8:19 a.m.: 2 EXAMINER CATANACH: At this time we'll call Case 3 12,868, the Application of Apache Corporation for approval 4 of a nonstandard gas proration and spacing unit, unorthodox 5 gas well locations, simultaneous dedication, downhole 6 commingling and assignment of a special gas allowable, Lea 7 County, New Mexico. 8 Call for appearances in this case. 9 MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of 10 the Santa Fe law firm of Kellahin and Kellahin, appearing 11 12 on behalf of the Applicant, and I have one witness to be 13 sworn. MR. CARR: May it please the Examiner, my name is 14 15 William F. Carr with the Santa Fe office of Holland and Hart, L.L.P. We represent John H. Hendrix Corporation. 16 17 have no witness. EXAMINER CATANACH: Any additional appearances? 18 All right, there being none, will the witness 19 please stand to be sworn in? 20 (Thereupon, the witness was sworn.) 21 22 MR. KELLAHIN: Mr. Catanach, we have one witness 23 to present this morning. Mr. Barnes is a petroleum engineer. Here's what we're seeking to accomplish. 24 In the southwest quarter of Section 11, that 25

quarter section is subdivided into four 40-acre tracts.

The adjoining four tracts to the Apache 40 -- their 40-acre tract is the southwest -- southeast of the southwest.

The balance of the 40 are controlled by Mr.

Hendrix. Mr. Hendrix has gas wells on each of those three tracts. They are currently producing from the Blinebry formation.

On the Apache tract they have an existing well.

That existing well is the Number 5, and it is downhole commingled with the Tubb and the Blinebry.

What Apache is seeking to do is to drill an infill gas well, which is the Number 6 well. And in doing so, we're seeking your approval to use what would be a special gas allowable for those two wells that would not exceed the allowable on a 40-acre-spaced unit, and that will put us on a comparable basis with the Hendrix producing wells.

So to accomplish that, you need to be aware that these wells may start off as oil wells, and the gas-oil ratio changes, they become gas wells. They tend to flip back and forth. So in the event they are gas wells, it may be easy enough just to classify this as a gas 40-acre spacing unit. Standard units would be 160 acres. We need a nonstandard proration unit. But if they're classified as gas wells, our allowable would be the same under either

classification. And what we have chosen is the most conservative casinghead gas allowable under the calculation.

And when Apache and I filed this Application, we used a gas-oil ratio in the Tubb of 6000 to 1. Mr. Carr brought to my attention that we had used the wrong one, it should be 4000 to 1. And so if you re-do the calculation, the one advertised is too high. So the ceiling for our allowable for gas would be 428,000 a day, and we intend to abide by that. I believe that's consistent with what Mr. Hendrix would like us to do.

In addition, we will allocate the production between the Tubb and the Blinebry in the same fashion that you've already approved the allocation of production from the original well, the Number 5 well. We're simply adding a second well.

The ownership between the Blinebry and the Tubb is the same, so the only consequence of the allocation is just to divide the production between the two pools in accordance with Division Rules. It doesn't affect distribution to owners.

We have not yet filed the commingling request, but we will do that subsequently.

So with that introduction, Mr. Catanach, I believe I've explained to you why we have all these

different pieces involved in the Application. 1 It does show our request for an unorthodox gas well location. That's 2 again under the presumption that the new well may, in fact, 3 either initially be a gas well or turn from an oil well to 4 a gas well, and if so, it's unorthodox as a gas well. 5 6 KEEVIN BARNES, the witness herein, after having been first duly sworn upon 7 his oath, was examined and testified as follows: 8 DIRECT EXAMINATION 9 BY MR. KELLAHIN: 10 Mr. Barnes, for the record, sir, would you please 11 Q. 12 state your name and occupation? 13 Α. Keevin Barnes, petroleum engineer for Apache 14 Corporation. On prior occasions, Mr. Barnes, have you 15 0. 16 testified before the Division? 17 Α. I have. Pursuant to your employment with Apache, have you 18 ο. made a study of the engineering facts concerning your 19 additional well that's the topic of this Application? 20 Yes, I have. 21 Α. MR. KELLAHIN: We tender Mr. Barnes as an expert 22 witness. 23 EXAMINER CATANACH: Any objection? 24 No objection. 25 MR. CARR:

EXAMINER CATANACH: Mr. Barnes is so qualified.

- Q. (By Mr. Kellahin) Mr. Barnes, let's turn to Exhibit Number 1. Would you identify for us what we're seeing with this exhibit?
- A. This exhibit just kind of orientates us to where we're at. We're on 22 South, 37 East, looking at Section 11. If we focus in on the southwest quarter of the 160 acres, you can see highlighted the 40-acre tract that Apache operates with the Commingled Thomas Long Number 5.
- Q. The Number 5 well is in that tract, and it's got its name associated with the well symbol?
- A. Yes. Yes, it does.

- Q. You have also shown well symbols for other wells in the section. Does this represent the location of all existing wells?
- A. Yes, it does. All these other existing wells are completed in different zones, be it the San Andres or the Abo, and so on.
- Q. Let's look in the southwest quarter of 11, and identify for me the three wells that Hendrix operates that are currently classified in the Blinebry Pool.
  - A. They operate the Thomas Long A Number 1.
  - Q. Go slow enough so we can find it.
- A. Okay.
  - Q. That's the Number 1.

And that would be just to the north of our 40-1 Α. acre location. 2 Okay, the next one? 3 -- is the Thomas Long A Number 2, which is to the 4 west of that. 5 6 Q. Okay. And the Thomas Long A Number 3 to the south of 7 Α. the 2. 8 Okay. Mr. Hendrix' wells are currently producing 9 Q. from what formation? 10 From the Blinebry only. 11 A. 12 Q. Are they currently classified as oil wells or gas 13 wells? Currently I believe they are classified as oil 14 Α. 15 wells. Is there some question about how these 16 Okay. wells get classified and reclassified, based upon gas-oil 17 ratio? 18 It is. When the gas-oil ratio goes over 50,000 19 Α. to 1, they become reclassified as gas wells. 20 What's the current status of your Number 5 well? 21 Q. The current status is classified as an oil well. 22 Α. Let's turn to the second part of Exhibit 1. 23 Q. are you showing us here? 24

25

Α.

This shows the location of our proposed well,

Thomas Long Number 6, in relationship to our current location, the Number 5. We are proposing it to be 2091 feet from the west line and 900 feet from the south line, which would make it about 370 feet from our current location.

- Q. The intended formations to be produced out of that wellbore are what, sir?
  - A. Would be the Blinebry and Tubb formations.
- Q. Do you have a wellbore schematic that we can look at to show us the configuration of the existing Number 5 well?
  - A. I do, it's our Exhibit Number 2.

- Q. Let's look at that and have you explain to us how the well is currently configured and how it's being produced.
- A. This is the wellbore schematic of the Thomas Long
  Number 5. You can see in the pink we've got the Blinebry
  perfs, and in the yellow highlighted there are the Tubb
  perfs. It's downhole commingled currently. Up at about
  3600 feet you can see a history of some casing leak, and at
  the bottom of the hole there's some junk in the hole where,
  when a recompletion was attempted to add some lower
  Blinebry, the packer was pushed down and is now covering
  part of the bottom perfs, the Tubb.
  - Q. The well is currently being produced?

A. Yes, it is.

1

2

3

4

5

6

7

8

9

10

11

15

18

19

20

21

22

- Q. And it's currently being produced with approval to commingle Blinebry and Tubb production?
  - A. Yes, it is.
  - Q. What's the current rate on that well?
- A. It's currently making one barrel of oil a day, one barrel of water and about 164 MCF a day.
  - Q. Is that still economic to produce at that rate?
  - A. It is.
- Q. Have you made an engineering estimate of what you think is the remaining recoverable reserves for this well?
- 12 A. We have.
- Q. Let's turn to a display that will show that. Is that Exhibit Number 3?
  - A. Yes, it is.
- Q. Before you look at the conclusions, tell us what we're seeing.
  - A. This is a rate-cum plot of just the Tubb formation. It shows the pre-workover decline and post-workover decline. The current completion should capture remaining reserves, about 234 million cubic feet, leaving uncaptured reserves of about 930 million cubic feet and an estimated EUR of about 6.7 BCF.
- Q. So you have 900,000 MCF left to recover out of the Tubb?

A. Yes, sir.

- Q. Is it possible to do further work on the existing wellbore in order to exercise the opportunity to produce the uncaptured reserves?
- A. We think the condition of the wellbore that it's currently in, with its history of casing leaks, the junk in the hole, that it would not be possible. The bottom perfs on the Blinebry are fairly close to the top perfs of the Tubb, and we think that your frac might propagate into one another.
- Q. What's your plan, then, for the spacing unit? What would you like to do?
- A. We would like to drill the Thomas Long Number 6, 370 feet to the east of the Thomas Long Number 5, as a downhole commingled Blinebry and Tubb completion, as is the Thomas Long Number 5.
- Q. How would you handle the allowable for the 40-acre spacing unit?
- A. We would not like to exceed what is currently allowable for 40 acres, which I believe is the 428 MCF a day.
  - Q. And that would be shared between the two wells?
  - A. Yes, it would.
- Q. Let's turn to a discussion of the Tubb. Do you
  have a map of the Tubb wells that shows the production from

those wells?

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

21

22

23

24

- A. I do.
- Q. Let's look at that. It's Exhibit Number 4.
- A. This is just a production map of Tubb completions in Section 11 and immediate offsets. You can see our Thomas Long Number 5 highlighted in yellow.
- Q. What information is shown in association with each well name?
- A. The numbers at the bottom represent -- the first number is the cumulative gas production to date. The second number is the current gas rate, MCF per day.
- Q. If you do the calculation for allowables on the various spacing units, have you made a calculation as to what the allowable would be if it was just the Tubb?
- A. If it was just the Tubb, I believe the allowable would be 86 MCF per day.
- Q. And if you use the Blinebry, you've also made that calculation?
- A. Correct, it makes it 264 MCF a day, would be the allowable.
  - Q. So what are the current rates of the Hendrix wells that are producing out of the Blinebry?
    - A. They are -- Oh, out of the Blinebry?
    - Q. Yeah, do you have a map that will show that?
    - A. Yes, we do.

1 Let's turn to that, Exhibit Number 5. What are 0. 2 we looking at here? This is the same type of production map, with 3 just the Blinebry wells in Section 11 and immediate 4 5 offsets. You can see the Thomas Long Number 5, Apache's 6 operated well, currently cum'd 8.1 BCF and is currently 7 producing at 96 MCF per day. And the Hendrix wells offset to ours, the Thomas 8 Long A Number 1, 2 and 3, are currently producing, from the 9 Number 1, 259 MCF a day; 105 MCF a day for Number 2; and 10 336 MCF a day for the Number 3. 11 Will you gain any unfair advantage over Hendrix 12 by the approval of this Application? 13 No, we would not, we would be staying within the 14 Α. 15 allowable for a 40-acre location. 16 Let's look at the different things that you're 17 asking the Division to approve for you. A standard spacing unit would consist of how many acres? 18 19 Α. I believe 160. 20 Yeah. And so to make the allowable calculation 21 and make it apportioned to a 40-acre spacing unit, what did you do? 22 23 You divide by the four to get it to a 40-acre Α. 24 standard location. 25 And you're seeking approval to simultaneously Q.

1	dedicate	the two wells to the 40?		
2	А.	Yes.		
3	Q.	And in the event the The status of the Number		
4	5 well is	what? Is it an oil well or a gas well?		
5	Α.	It's currently classified as an oil well.		
6	Q.	Okay. If the new well comes in at a gas-oil		
7	ratio higher than 50,000 to 1, it would be a gas well?			
8	А.	Yes, it would.		
9	Q.	And if it is a gas well, its location would be		
10	closer tha	an 660 feet to the side boundary?		
11	А.	Yes, it would.		
12	Q.	So you would need that to be approved?		
13	А.	Yes, sir.		
14	Q.	Do you also propose to downhole production in the		
15	wellbore?			
16	А.	Yes, we do.		
17	Q.	And how are you going to do that?		
18	Α.	By completing the Blinebry and the Tubb in the		
19	same			
20	Q.	What regulatory approvals would you seek?		
21	Α.	We would need to submit a downhole commingling.		
22	Q.	Is the existing wellbore in the spacing unit		
23	commingled	1?		
24	Α.	Yes, it is.		
25	Q.	And the allocation used for that well would be		

the same allocation for the new well? 1 The allocation is 59 percent for the Blinebry and 2 41 percent for the Tubb. 3 Okay. Identify for us what is your last exhibit. 4 It's Exhibit Number 6. 5 6 This is just a certificate of mailing, compliance. 7 Did you notify all the interest owners in the 8 0. southwest quarter of Section 11 of your Application? 9 Yes, we did. 10 Α. Mr. Hendrix was the only company that entered an 11 appearance in this case? 12 He is. 13 Α. You've had discussions with the Hendrix personnel 14 Q. on how to make the calculation and how you propose to go 15 forward with your project? 16 17 A. Yes, we have, we've made everything clear to each other. 18 Have you resolved any differences you've had with 19 Mr. Hendrix over how the calculation was to be done? 20 21 A. Yes, we have. MR. KELLAHIN: We move the introduction of 22 23 Exhibits 1 through 6. EXAMINER CATANACH: Any objection? 24 25 MR. CARR: No objection.

EXAMINER CATANACH: Exhibits 1 through 6 will be 1 admitted as evidence. 2 Mr. Carr? 3 **EXAMINATION** 4 BY MR. CARR: 5 Mr. Barnes, if we look at your Exhibit Number 5, 6 Q. if I understood your testimony, you were comparing the 7 current producing rates from the Apache well with the three 8 offsetting Hendrix wells; is that correct? 9 Yes, sir. Α. 10 And you weren't suggesting that the Hendrix wells 11 Q. 12 were enjoying any sort of an unfair advantage on the 13 Apache --14 Α. No, sir. And this is a comparison of just producing wells, 15 current rates? 16 17 Α. Yes. You haven't made a comparison of cumulative 18 Q. production --19 Well, that is the first number there, is the cum, 20 which would be about the 400 million cubic feet per each 21 location. 22 And your well has produced what to date in terms 23 Q. of cum production? 24 8.1 BCF. 25 Α.

1		MR. CARR: Okay, thank you. That's all.
2		EXAMINATION
3	BY EXAMIN	ER CATANACH:
4	Q.	Okay, Mr. Barnes, the Number 5 well is currently
5	downhole	commingled in the Blinebry and Tubb?
6	А.	Yes, sir.
7	Q.	And that is currently classified as an oil well
8	in both p	ools?
9	А.	Yes.
10	Q.	Okay. And as I understand it, that well is
11	making 16	3 MCF per day?
12	Α.	Yes, sir.
13	Q.	And one barrel of oil?
14	Α.	Yes.
15	Q.	Okay. And that's been downhole commingled for
16	several y	ears now; is that correct?
17	Α.	Yes, I believe it was approved in 1996. Yes, in
18	September	of 1996.
19	Q.	And is that production from that well still
20	allocated	in accordance with the terms of that DHC order?
21	А.	Yes, it is.
22	Q.	Where you have 59 percent of the gas allocated to
23	the Bline	bry and 41 percent allocated to the Tubb?
24	А.	Correct.
25	Q.	Okay. Now, at this point, you don't know if the

Number 6 well is going to be an oil well or a gas well; is that correct?

- A. Correct. Typically, they'll probably come on as an oil well and fairly soon afterwards switch over to a gas well when the GOR increases to above 50,000.
  - Q. How come that didn't happen in the Number 5 well?
- A. It was completed back in 1954, was the initial completion. It wasn't commingled until 1996.
  - Q. Was that a gas well at some point, do you know?
  - A. I'm not sure I know the answer to that.

EXAMINER CATANACH: Okay. I'm not certain, but some of the rules regarding some of these prorated pools don't prohibit simultaneous dedication of oil wells and gas wells to the same acreage. I don't know if we've checked that, Mr. Kellahin?

MR. KELLAHIN: I checked, and I can't find any preclusion of that. I just didn't want to have Mr. Barnes have to re-file something once these oil wells went to gas wells or flipped back and forth, and we just call it whatever you want to call it and set a cap on its gas production and let it be what it wants to be.

- Q. (By Examiner Catanach) Okay, explain to me how you calculated what the allowable should be for this 40-acre tract in the Blinebry.
  - A. Yeah, under -- It's classified as an oil, which

is what we were seeking. There's a depth allowable as the most shallow zone for the Blinebry, and the allowable for that is 107 barrels of oil per day.

- Q. 107?
- A. Yes.

4

5

- 6 Q. Okay.
- A. With a limiting GOR of 4000 to 1, and multiplying you get your 428 MCF per day as an allowable for 40 acres.
  - Q. Now, that is a for a 40-acre Blinebry --
- 10 A. Yes.
- 11 | Q. -- oil well?
- 12 A. Yes, it is.
- Q. Okay, so that gives you the casinghead gas allowable for the Blinebry?
- 15 A. Right.
- Q. So you have approximately 332 MCF per day
  available to the Number 6 well for production from the
  Blinebry; is that about right?
- 19 A. I believe that's right, yes.
- Q. So what you want to do is just take the 428 and just divide it between the two wells, and as long as the two wells don't exceed 428 in the Blinebry -- Is that right?
- A. As long as the two wells -- the casinghead does not exceed 428, correct.

How about the Tubb? What did we do in the 1 0. Okay. 2 Tubb? My understanding was, we were just depth-3 Α. restricted to the Blinebry. It was the 428, subtracting 4 the current rates out of the Blinebry and the Tubb, excuse 5 me, so that would give us the 264. It would be the 332, 6 7 minus the current rate in the Tubb, which is 67. I'm sorry, you lost me. 8 0. 9 Okay, the allowable for a Blinebry oil pool on a Α. 40-acre would be the 428. 10 11 Q. Right. 12 Α. We would subtract out the total casinghead from 13 the Thomas Long Number 5, which would include Blinebry and 14 Tubb gas --15 Q. Okay. 16 -- and at current rate that would leave us 17 remaining 264 MCF a day to produce out of the Number 6. So as long as the two wells didn't exceed the 428 18 0. between the two wells and between the four zones, that's 19 what you want to stay under? 20 Correct. 21 Α. Okay. Now, as far as the remaining reserves, I 22 Q. 23 guess you explain why it's necessary to drill the Number 6

well is because you feel like the Number 5 has some

reserves that cannot be produced -- or there's some

24

reserves underneath that spacing unit that can't be produced by the Number 5?

A. Correct. After the workover, the rate was never brought back to its -- It was making about 300 MCF a day. Shell attempted to add some lower Blinebry perfs, killed the well and effectively killed the Tubb section, never got it back. When Apache acquired it, we put in some plunger lift and were able to bring back some of the rate to about the current 97 MCF per day. So we're expecting that to recover 234 million cubic feet remaining for the current location.

But as you see from the original completion, there's 930 MCF -- million cubic feet, that is uncapturable with the current Thomas Long Number 5.

- Q. Okay. And how much of that do you assume will be recovered by the Number 6?
- A. Well, the remaining reserves, total, are 1.16 BC.

  The current completion, Thomas Long Number 5, will recover

  234 million cubic feet of that, leaving the Thomas Long

  Number 6 930 million cubic feet.
- Q. And what about the Blinebry? Why is it necessary to commingle the 6 in the Blinebry? Is there going to be additional recovery from that zone?
  - A. From the Blinebry? No.
  - Q. So the benefit of just commingling is what, in

that well?

- A. Well, we hope to capture some reserves from the Blinebry, but...
  - Q. But you don't have any figures on that?
- A. No, I do not. We were just presenting this as a Tubb completion, but we hope to commingle in the Blinebry.
- Q. Well, the Number 6 well, would that be a standard oil well location in these pools, do you know?
  - A. I believe it would, yes.
- Q. So at this point you want to just go ahead and classify that 40-acres --

MR. KELLAHIN: I guess so. I don't know how else to do it. Our information is that the Hendrix wells are currently classified as gas wells, but their gas-oil ratios are dropping, so then they become oil wells as well.

So it's uncertain. Maybe the easiest thing administratively is to classify it as a gas spacing unit and set a cap on the production.

We did the calculation lots of ways to see the effect of different things, and if you use the prorated gas portion for the Blinebry you can get a higher allowable by allocating the gas. But we simply chose the most conservative number out of the upper zones, and that's what we've agreed to do with Mr. Hendrix.

So I don't care what you call the critter, it

- just -- I guess you'll decide. I just didn't want to have to come back later and do more paperwork on a well that starts as an oil well and becomes a gas well.
  - Q. (By Examiner Catanach) Does it make a difference where the well is perf'd as to what it's classified as, or...
- 7 A. No, it doesn't.
  - Q. Now, on Exhibit Number 2, is this the current configuration of the Number 5 well?
- 10 A. Yes, it is.

4

5

6

8

- 11 Q. So there is still a packer in the hole?
- 12 A. Yes, there is.
- Q. And is the Tubb being produced up the tubing; is that correct?
- 15 A. Yes.
- 16 Q. Is there communication between those zones?
- A. Not that I'm aware of. I'm sorry, there is, I apologize.
- Q. There is, which would make it -- That's why it was downhole commingled?
- A. Right. The Blinebry perfs were perf'd through the tubing.
- 23 Q. Oh, I see.
- 24 A. That's how.
- Q. And you say the production never came back on the

1 Tubb after the workover. When was that workover done? Was it --2 3 A. In 1995. 4 0. In 1995. 5 Shell performed that workover, and there was no Α. 6 production from the well for probably about two years. 7 acquired it, put in a plunger lift and got some of the rate back, but not its full potential. 8 9 Okay. So the downhole commingling permit was Q. issued after the workover and took into account --10 11 Α. At the time, yes. -- took into account the reduction --12 Q. 13 Α. Yes. -- of production? Okay. 14 Q. The location that you guys chose for the Number 15 6, did that take into account -- How was that decided, let 16 me ask you, where to drill the Number 6? 17 I'm not sure. We chose 370 feet from the east, 18 Α. to the east, and made it a standard location at 2091 from 19 the east line and 900 feet from the south line. 20 21 It's a pretty highly condensed area, and it's 22 about the only location we could get to drill the well. EXAMINER CATANACH: Mr. Kellahin, do you have 23 24 another witness that may be able to elaborate on this? 25 Yes, sir, Mr. Mark McClelland MR. KELLAHIN:

knows this area very well, and he may know the surface 1 2 limitations for the additional well. If he might be sworn, I'll ask him a couple of questions. 3 EXAMINER CATANACH: Okay. 4 5 (Thereupon, Mr. McClelland was sworn.) 6 MARK McCLELLAND, 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. KELLAHIN: 10 Mr. McClelland, on prior occasions have you 11 Q. testified before the Division? 12 Yes, I have. 13 Α. And what's your current employment with Apache? 14 Currently I'm a reservoir engineer for Apache. 15 Α. work the Permian Basin for them. 16 17 Q. On prior occasions have you testified before the 18 Division? 19 Α. Yes, I have. 20 Where do you reside, sir? Q. I reside in Houston. 21 Α. 22 Is Mr. Barnes one of the engineers that you Q. 23 supervise? 24 Yes, he is. Α. 25 Have you made a study of Section 11 so that you Q.

1 could answer Mr. Catanach's question about why the Number 6 well was placed where it is in the 40-acre spacing unit? 2 3 Α. Yes, I have. Please respond. 4 Basically, we're in an area that has quite a few 5 Α. It also has a major highway cutting through 6 wellbores. 7 this lease. The location, basically, is the only one we could get down on this lease that's drillable and at the 8 same time the well would be classified as an oil, would be 9 a standard oil-well classification. We tried to maintain 10 the 330 from the lease line. 11 12 EXAMINATION 13 BY EXAMINER CATANACH: Okay, so really there wasn't any geologic factors 14 Q. involved in picking the location? 15 No, that is correct, the zones are continuous out 16 Α. 17 here. EXAMINER CATANACH: Okay, I think that's all I 18 have of this witness. 19 Did you --20 MR. JONES: I have a quick question. 21 22 EXAMINATION BY MR. JONES: 23 Mr. McClelland, on the pressure-cum graph, that 24 EUR is just for the Tubb; is that correct? 25

That is correct, that's only for the Tubb. Α. 1 Okay. Where did you get those pressure points 2 0. at? 3 Well, New Mexico requires annual shut-in 4 pressures on gas wells, and those are commercial data. 5 That's where -- Those are shut-in pressures. 6 Two of those pressures are actually bottomhole-7 measured pressures, the two pressures that look high on the 8 plot are actually downhole bottomhole-measured pressures. 9 I just commingled -- I combined all the data together. But 10 11 yeah, great data. 12 Q. Okay. Did you put a value on that data then? Sure, absolutely. 13 Α. MR. JONES: Okay, that's all. 14 EXAMINER CATANACH: The Division is considering 15 eliminating that pressure-test data, so you may want to --16 If you think it's valuable, you may want to comment to 17 18 upper management in the Division. 19 THE WITNESS: Okay. EXAMINER CATANACH: I think that's all we have of 20 21 this witness. 22 Anything further in this case? 23 MR. KELLAHIN: That concludes our presentation. EXAMINER CATANACH: Mr. Carr? 24 25 MR. CARR: Nothing.

```
1
                  EXAMINER CATANACH: Okay, there being nothing
 2
      further in this case, Case 12,868 will be taken under
 3
      advisement.
 4
                  (Thereupon, these proceedings were concluded at
      8:53 a.m.)
 5
                                      * * *
 6
 7
 8
 9
10
                                     I de hereby certify that the forestime
11
                                     « complete record of the procedure.
                                     the Examiner hearing of Cose No.
12
13
14
                                      Oil Conservation Division
15
16
17
18
19
20
21
22
23
24
25
```

# 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 June 28th, 2002.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 2002