

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO

8 October 1986

CASE 8983

EXAMINER HEARING

CASE 8998

CASE 8999

IN THE MATTER OF:

CASE 8983

The cases called on this docket for  
CASE 8983 which no testimony was presented.

CASE 8984

CASE 8985

CASE  
8983, etc.  
8998, 8999  
8984, 9000,  
9001, 9003

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:

Jeff Taylor  
Legal Counsel for the Division  
Oil Conservation Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87501

For the Applicant:

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO

5 November 1986

EXAMINER HEARING

IN THE MATTER OF:

Application of V. H. Westbrook for           CASE  
Hardship Gas Well Classification,           8999  
Chaves County, New Mexico.

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:           Jeff Taylor  
                              Legal Counsel for the Division  
                              Oil Conservation Division  
                              State Land Office Bldg.  
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For the Applicant:         W. Thomas Kellahin  
                              Attorney at Law  
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## I N D E X

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4

V. H. WESTBROOK

5

Direct Examination by Mr. Kellahin

4

6

Cross Examination by Mr. Stogner

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## E X H I B I T S

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Applicant Exhibit One, Plat

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Applicant Exhibit Two, Well Diagram

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14

Applicant Exhibit Three, Application

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Applicant Exhibit Four, Letter

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Applicant Exhibit Five, Graph

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Applicant Exhibit Six, Graph

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Applicant Exhibit Seven, Graph

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Applicant Exhibit Eight, Graph

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Applicant Exhibit Nine, BHP Reports

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Applicant Exhibit Ten, BHP Reports

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Applicant Exhibit Eleven, Plat

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23

Applicant Exhibit Twelve, Letter

21

24

Applicant Exhibit Thirteen, Graph

21

25

Applicant Exhibit Fourteen, Chronology

22

1  
2 MR. STOGNER: Call next Case  
3 Number 8999.

4 MR. TAYLOR: Application for  
5 Hardship Gas Well Classification, Chavez County, New Mexico.

6 MR. STOGNER: Call for appear-  
7 ances at this time.

8 MR. KELLAHIN: Mr. Examiner,  
9 I'm Tom Kellahin of Santa Fe, New Mexico, appearing on be-  
10 half of Mr. Westbrook and I have one witness.

11 MR. STOGNER: There being no  
12 other witnesses will the witness please stand and be sworn?

13  
14 (Witness sworn.)

15  
16 V. H. WESTBROOK,  
17 being called as a witness and being duly sworn upon his  
18 oath, testified as follows, to-wit:

19  
20 DIRECT EXAMINATION

21 BY MR. KELLAHIN:

22 Q For the record will you please state your  
23 name and occupation?

24 A V. H. Westbrook, independent oilman.

25 Q Do you drill and operate wells for your-

1 self and for others?

2 A Yes, sir.

3 Q Is the subject well in this case a well  
4 that you caused to be drilled and in fact you operate your-  
5 self?

6 A Yes, sir. It was re-entered rather than  
7 drilled from the ground down.

8 Q We'll go into the detail about the well  
9 in a minute, Mr. Westbrook.

10 As an independent oil and gas operator  
11 have you previously testified before the Division?

12 A Yes, I have.

13 Q And is the information contained within  
14 Exhibits One through Fourteen for today's hearing informa-  
15 tion that you have compiled and tabulated yourself or have  
16 reviewed and authenticated as to its accuracy?

17 A Yes, sir, it is.

18 MR. KELLAHIN: We tender Mr.  
19 Westbrook as a qualified practical oil and gas operator.

20 MR. STOGNER: Mr. Westbrook is  
21 so qualified.

22 Q Mr. Westbrook, let's explain to the Exa-  
23 miner first of all, by using Exhibit Number One, approxi-  
24 mately where your well is located and what type of well it  
25 is you have.

1           A           The Kinahan Federal Well No. 1 is a gas  
2 well located in Section 20, Township 15 South, Range 30  
3 East, Unit Letter O, 1980 from the east line and 660 from  
4 the south line, Chaves County, New Mexico.

5           Q           This gas well, Mr. Westbrook is in what  
6 field or pool?

7           A           It's in the West Cedar Point-Wolfcamp Gas  
8 Pool.

9           Q           In the West Cedar Point are there any  
10 other gas wells?

11          A           This is the only well producing from the  
12 Wolfcamp.

13                   Now there are some other deeper horizons  
14 been produced, the Morrow, for example.

15          Q           But within this pool yours is the only  
16 gas well that's currently producing?

17          A           Yes, sir.

18          Q           When we look at Exhibit Number One, what  
19 is the acreage dedicated to your well?

20          A           The south 320 in Section 20.

21          Q           Who is the current purchaser of the gas  
22 produced by that well?

23          A           Cabot.

24          Q           With regards to the application, Mr.  
25 Westbrook, what is the minimum producing rate that you're

1 requesting Mr. Stogner approve for you?

2 A We're requesting 350 Mcf a day.

3 Q This is not a prorated gas pool, is it,  
4 sir?

5 A No, sir, it isn't.

6 Q Let's go into the details for which you  
7 believe the Division is justified in granting this well a  
8 hardship case.

9 Have you made an application for an emer-  
10 gency hardship classification with the District Supervisor,  
11 Mr. Sexton?

12 A Yes, sir, I have.

13 Q And have you received a letter granting  
14 you an emergency hardship classification for this well?

15 A Yes, sir, I have.

16 Q What do you recall to be the effective  
17 date of that emergency approval?

18 A I believe it was August the 8th.

19 Q Mr. Sexton granted you a ninety-day emer-  
20 gency period starting with August 8th of 1986?

21 A Yes, sir.

22 Q All right. Has Mr. Sexton and his per-  
23 sonnel reviewed with you your application for hardship clas-  
24 sification?

25 A Yes, he has.

1                   Q               Have is personnel been to the well site  
2 and assisted you in establishing the minimum effective rate  
3 for production on this well?

4                   A               Yes, sir. Mr. Sexton came up to the well  
5 himself and I think he may have sent one of his people back  
6 to witness the rate.

7                   Q               Has Mr. Sexton concurred in your request  
8 that this well justified the hardship classification?

9                   A               Yes, sir, he has.

10                  Q               Let's go through, then, the details of  
11 the well itself. Let me direct your attention to Exhibit  
12 Number Two.

13                  A               This well was a re-entry. The well was  
14 originally drilled by Texaco to the Devonian and depleted  
15 and the pipe was cut off and I had to re-enter the well and  
16 tie back onto the pipe at approximately 8035 feet.

17                               I had in the neighborhood, when the well  
18 was initially completed, around 400,000 in it.

19                  Q               Your re-entry to completion is about  
20 400,000?

21                  A               Yes, sir. We were on it a long time. It  
22 probably would have been cheaper to drill the well than the  
23 re-entry.

24                  Q               Your current production has allowed you  
25 to recover what portion of your original investment?



1           A           I would expect maybe 25 percent.

2           Q           About \$100,000?

3           A           Yes, sir.

4           Q           So your well has not yet paid out?

5           A           No, sir.

6           Q           All right, let's go through the details  
7 of the schematic and have you explain to Mr. Stogner how the  
8 well is being produced.

9           A           Well, Mr. Examiner, the well has been  
10 produced through perforations in the 5-1/2 from 8,060 to  
11 8,070. Now our initial production was coming from a leak in  
12 the casing bolt. In fact that is how we found the gas.

13                   We had attempted to complete in the Mor-  
14 row and it was all water, very little gas. We had set a  
15 bridge plug and come back up the hole and perforated the  
16 Strawn.

17           Q           You're going to have to help me now. I  
18 see you plugged back to 10,200 feet at the bottom of the  
19 schematic.

20           A           We plugged back, set a cast iron at 9910.

21           Q           All right, 9910. Then below that foot-  
22 age depth I see perforations in what formation?

23           A           In the Morrow from the 10,116 to 10,175,  
24 and 10,200.

25           Q           Did you obtain any commercial production?

1           A           No, we did not.

2           Q           All right, so you've isolated out the  
3 Morrow at 9910 with the cement bridge plug.

4           A           Yes, sir.

5           Q           All right, then you go back up the --

6           A           With a cast iron bridge plug.

7           Q           I'm sorry, cast iron bridge plug.

8           A           So then we attempted to -- well, we did  
9 perforate and treat the Strawn at 9838 to 48.

10          Q           That will be the Strawn. All right, did  
11 you get any commercial production out of the Strawn?

12          A           No, sir, it swabbed completely dry, no  
13 fluid, no gas, either water or oil.

14          Q           Did you get any fluids out of the Morrow?

15          A           The water, a small amount of condensate.  
16 I'd say one percent at the most.

17          Q           You set your bridge plug, then, separ-  
18 ating the Strawn and the Morrow and you couldn't get any-  
19 thing out of the Strawn?

20          A           True.

21          Q           All right, there was no water production,  
22 either?

23          A           No water production at all.

24          Q           Were you satisfied, Mr. Westbrook, that  
25 the water in the Morrow had been effectively isolated out of

1 the wellbore?

2 A Yes, sir, I was.

3 Q Do you believe that to be true?

4 A Yes, sir.

5 Q All right, let's go back up the hole now  
6 and what happens next?

7 A Well, we had come to the point we was  
8 going to have to give up on the well and we had a packer in  
9 the hole and we started seeing pressure on the back side;  
10 the casing/tubing had no pressure at all, so we finally  
11 identified it that initially we had trouble with our casing  
12 patch when we tied back on to the 5-1/2 and we (unclear) we  
13 squeezed it with 75 sacks of cement and apparently we had  
14 good circulation on the backside but we probably didn't get  
15 any below it, so we identified the gas as coming from out of  
16 the Wolfcamp, approximately 30 feet below the casing patch,  
17 and ran a temperature survey to determine this and then we  
18 went ahead and perforated that area where the temperature  
19 survey indicated the gas was migrating from.

20 Q And that constitutes your perforations,  
21 then, Mr. Westbrook?

22 A Yes, sir, we knew our casing patch was  
23 leaking but we had no idea whether it was a very small hole  
24 or what, and we thought it might increase the gas flow be  
25 perforating --

1                   Q               All right, sir, let's turn then to see  
2 what's happened to the production.

3                               Exhibit Number Three is simply the appli-  
4 cation.

5                               Let's separate out Exhibit Number Four,  
6 which is your letter to the Commission of August 6th, and  
7 look at the very next exhibit, which is your summary of pro-  
8 duction.

9                               These are attachments to Exhibit Number  
10 Four, here, Mr. Westbrook, which is your summary of produc-  
11 tion. Are you with me?

12                   A               Yes, sir.

13                   Q               All right.

14                   A               The well was first put on line in June,  
15 (unclear) -- of 12,635 Mcf and 363.9 barrels of oil.

16                               The days below indicate the days that we  
17 were produced for the month of July; the 27 days of July  
18 continued on, no break in the production or the take of the  
19 gas from June until the 27th or 28th of July, and that was  
20 when the well was shut in for a short period of time, three  
21 or four days, best I recall.

22                               And right on down, each time, as you can  
23 see, the days we produced and how many -- how much our gas  
24 rate decreased, the average. It was getting down to where  
25 it looked like it was going to dry up. We ran -- in Septem-

1 ber, I think we have it in here, we ran a bottom hole pres-  
2 sure.

3 Q September of which year?

4 A Of '85.

5 Q Okay.

6 A And to see how much our bottom hole pres-  
7 sure decreased and it, the bottom hole pressure at that  
8 point in time had dropped from around 2900 pounds down to  
9 2100 pounds, which we thought must have a limited reservoir  
10 here to decline that rapidly.

11 But this whole time we were having evi-  
12 dence of mud that we were flowing out of the well.

13 Anyway, in September we saw a decline  
14 from June until September of something like 900 pounds in  
15 our bottom hole pressure.

16 The well was continued to be produced but  
17 it was being shut in maybe seven days, maybe ten days, each  
18 month -- this shows how many days we actually produced --  
19 and was progressively becoming weaker.

20 In March we were shut-in from  
21 approximately the middle of March until the early part of  
22 June.

23 Q Now you're looking at March through June  
24 of '86?

25 A '86, yes.

1 Q All right.

2 A And when we opened the well up the well  
3 was dead at that point in time and so we went in and started  
4 swabbing and the well was giving up very little condensate,  
5 very little water, and some mud. We swabbed quite a bit of  
6 mud out of the tubing.

7 Q All right, up to about this point when  
8 the well was shut-in in March of '86, prior to that time had  
9 you experienced any measureable quantities of water produc-  
10 tion out of the well?

11 A No, sir, no. No. I'd question whether  
12 it made a half a barrel a day, if that much. We had a tank  
13 and I don't ever recall transporting any water for it.

14 Q In June and July when you were able to  
15 restore production again after the shut-in period and swab-  
16 bing the well, you now have a significant water problem with  
17 the well.

18 A Yes, sir.

19 Q You're reporting water volumes of 253  
20 barrels on four days of production in June.

21 A Yes, sir.

22 Q Okay, let's go back to this period now  
23 from March to June in which you have provided a written sum-  
24 mary to Mr. Sexton on the August 6 letter, and have you de-  
25 scribe for Mr. Stogner here what you have done trying to get

1 the well to produce again after this lengthy shut-in period.

2 A Well, after we found the well would not  
3 produce and felt like it was mud which blocked us, we put  
4 some acid in the well, 1000 gallons of it, and we hoped to  
5 clear up the mud right in the wellbore area, and then we  
6 started swabbing it back. So when we did, well, that's when  
7 we -- the water -- we swabbed on it approximately fourteen  
8 days and was unable to lower the fluid level to about 5000  
9 feet, and overnight it would build back up with a couple  
10 thousand feet but this in itself was -- was encouraging, be-  
11 cause we realized we had more bottom hole pressure now than  
12 we did prior to that with the 2100 back in September --  
13 wouldn't have held up.

14 Q All right, sir, tell me so I can write  
15 down, what's the pressure now in March and June of '86?

16 A Well, we haven't -- we didn't -- did not  
17 run a bottom hole bomb in the well but going by the hydro-  
18 static weight of the fluid in the hole we had to have some-  
19 thing close to original bottom hole pressure, so we felt  
20 that the mud had blocked us -- our permeability off where we  
21 was unable to get the flow, and --

22 Q This information satisfies you that you  
23 are not in fact dealing with a limited reservoir that's sim-  
24 ply depleting itself, but there is something in the reser-  
25 voir that's causing the perforations to be blocked or the

1 flow of gas into those perforations to be restricted?

2 A Yes, sir.

3 Q All right, let's go back to the schematic  
4 now --

5 A Well, we --

6 Q -- and have you tell me whether or not,  
7 based on all the things that you know and have done about  
8 this well, whether there's anything that you could do now to  
9 this well to solve this fluid problem?

10 A Well, just the simple economics of it, I  
11 couldn't continue swabbing. I had seen an appreciable  
12 amount of gas at this point in time, but our chlorides was  
13 running pretty low on this water, around 30,000, and we felt  
14 like it might be drilling fluid that had been introduced  
15 when the well was drilled and picked up interstitial water,  
16 or something like this, and run the chlorides up, so unable  
17 to continue swabbing, I moved a 456 pumpjack in there and  
18 run a rod pump and a seat nipple and everything in the well,  
19 and a tubing anchor, and started pumping the well just to  
20 see if it would go ahead and clear the water up and get the  
21 gas to come back around.

22 And it gradually came back. We initially  
23 were pumping close to 200 barrels of water a day and a lit-  
24 tle condensate and we come on down until the average, I  
25 think, was around 100 barrels when I wrote the -- the re-



1 quest to Mr. Sexton at that point in time.

2 Now we've encountered numerous problems  
3 with this mud; cutting our pump out. We have changed this  
4 pump out, well, since we -- we shut the well down to try to  
5 get the flow rate. When Mr. Sexton come up we shut in we  
6 shut in for 21-1/2 hours. We've had to change the pump  
7 twice since then to keep the well going.

8 Q Is there anything that you think you  
9 could do within the economics that this well allows you to,  
10 to change out the tubing size, try to isolate off the per-  
11 forations in some different manner, can you think of any-  
12 thing that you could do?

13 A No, sir, there's nothing I know of that  
14 can -- can be done other than the possibility of maybe  
15 trying to squeeze the well, and I feel that not only the  
16 cost of it, which would be from 100 to maybe 150,000, we  
17 would stand a real good chance of maybe losing the well com-  
18 pletely.

19 Q If the well is lost to you, Mr. West-  
20 brook, do you have an estimate for Mr. Stogner of the waste  
21 that would occur in terms of the volume of gas and the bar-  
22 rels of condensate that are otherwise recoverable that you  
23 can't get out?

24 A Yes, sir, it's just an estimate. We did  
25 not produce the well long enough before the water broke in

1 to plot any reservoir -- any reserves on it, but we feel  
2 like that based on the history of other wells in that area  
3 that we would probably be looking at somewhere around 367-  
4 million and 44,000 barrels of condensate, and that again is  
5 just an estimate.

6 Q Let's go through some of the details now  
7 that you have placed in your exhibit package.

8 For example, let's turn to the attachment  
9 to Exhibit Four, which is your itemized list of costs expen-  
10 ded in June and July of '86. Would you summarize those for  
11 us?

12 A Yes, sir. This is the expense of the  
13 pumpjack, put an electric motor, control panels, rigging up  
14 different flow line connections, tubing anchor, sub-rods, a  
15 pump and accessories to -- to move the water. The electri-  
16 fying the lease and the swabbing we done back before we set  
17 the pumpjack.

18 The repairs, we've had to go into the  
19 stackpack on several different occasions. We've had a lot  
20 of problems with the mud sticking our valve either open or  
21 closed on the water dump or the oil dump on it.

22 Q This is a total expenditure in addition  
23 to the \$400,000 for the re-entry of the well?

24 A Yes, sir. This is since -- the expense  
25 since we -- the well died on us initially.

1           Q           All right, sir, the next attachment is an  
2 affidavit by you that you have notified the purchaser,  
3 Cabot, and the offset operators to the well --

4           A           Yes, sir.

5           Q           -- of this application?

6           A           Yes, sir, I did, registered mail.

7           Q           All right, sir. The next is a copy of  
8 that letter to Dalport, Texaco, and McClellan? Are they the  
9 offset operators?

10          A           Yes, sir.

11          Q           All right, let's go to Exhibit Five now  
12 and have you describe this exhibit.

13          A           This is the -- is the month -- a chart  
14 showing the production each month from the initial start of  
15 June of '85 on up till, I guess that's July of '86, showing  
16 the Mcf that were sold each month.

17          Q           You have put in a chart form the informa-  
18 tion that was tabulated earlier on the monthly production?

19          A           Yes, sir.

20          Q           What conclusion do you draw from this ex-  
21 hibit?

22          A           Well, my conclusion is that the mud was  
23 -- each time that the well was shut in for any period of  
24 time, that the mud was building up in the wellbore and slow-  
25 ly shutting the flow off.

1           Q           All right, sir, let's go to Exhibit Num-  
2 ber Six and have you identify that exhibit for us.

3           A           This is the oil production from the  
4 original period of June '85 through July -- or to -- yeah,  
5 through June, I suppose, of -- or July '86. It shows each  
6 month flow of the oil, condensate that we were recovering.

7           Q           All right, sir, let's turn now to Exhibit  
8 Number Seven.

9           A           This is water produced from June '86  
10 through July of '86 -- I mean June of '85 till July of '86.

11                   As you can see, we were producing very  
12 little water up until June and then July we really come on  
13 around 100 barrels a day.

14           Q           All right, Exhibit Number Eight. What is  
15 this exhibit?

16           A           Well, this is producing days that we were  
17 allowed to -- the well was on the line, from June of '85 to  
18 July of '86.

19           Q           Is there any correlation between the in-  
20 terrruption in continuous production in the well --

21           A           Yes.

22           Q           -- producing days in relationship between  
23 that and your gas production?

24           A           Yes, sir, without exception each time  
25 that the well is shut in, it has gotten weaker and produces

1 less.

2 Q Okay. All right, Exhibit Number Nine is  
3 the first of the bottom hole pressure survey reports? Would  
4 you identify this exhibit for us? This is the one for Sep-  
5 tember of '85?

6 A Okay, that was the second bottom hole  
7 pressure test that we ran, which showed a bottom hole pres-  
8 sure at that time at 2108 pounds. This is what I was refer-  
9 ring to earlier.

10 Q All right. At a depth of 7960 you have a  
11 pressure of 2108 psi.

12 A Yes, sir.

13 Q And if we compare that, then, to Exhibit  
14 Number Ten, which is the April '85 bottom hole pressure  
15 taken months earlier, then that is a pressure of 2937.

16 A Yes, sir, about 800 pounds or 30-some-  
17 thing percent, I believe, of decline.

18 Q Now, in September when this test was ran,  
19 you can see the well had been shut-in for 250 hours, or  
20 something. This was several days after we'd been shut-in by  
21 the gas company.

22 There again when I first saw this it -- I  
23 thought, you know, well, we've got a limited reservoir here  
24 and we're fixing to go out of business with it, but that's  
25 not the case. It's just that the mud had sealed off where

1 we just actually wasn't getting any gas pressure or anything  
2 into the wellbore.

3 Q Have you satisfied yourself that there is  
4 a certain minimum flow rate for the well that will minimize  
5 the impact of the mud and fluids migrating into the well-  
6 bore?

7 A Yes, sir. The only way I know to produce  
8 the well is the way we're producing it now, is we're pumping  
9 the water off and flowing it out the -- out the annulus, and  
10 we tried to make it all come up the tubing, but this gas  
11 likes that pump and kills the well out pretty quick, so  
12 that's the only way I know to produce the well.

13 Q The Exhibit Number Eleven is what, sir?

14 A That's the plat of the well and my dedi-  
15 cated acres.

16 Q Okay, Exhibit Number Twelve, would you  
17 identify that exhibit?

18 A This is the letter that was sent to Cabot  
19 on August the 7th stating that we were applying for hardship  
20 gas well classification.

21 Q Okay. All right, let's look at Exhibit  
22 Number Thirteen and have you identify that exhibit for us.

23 A Exhibit Number Thirteen is a daily plot  
24 of our oil, water, and gas production from the Kinahan No.  
25 1. It also, at the lower part of the bottom of the page, if

1 you will, it shows where the fluid levels -- we have shot  
2 fluid levels pretty religiously trying to tell whether that  
3 pump was really getting what it was supposed to and were we  
4 getting the wellbore pumped down, which we never have been  
5 able to do, but it shows the water production is the cir-  
6 cles, the oil production, or distillate, the squares, and  
7 the gas the plus, and as you can see, each time we've had  
8 any problems, well, our gas had declined, and also our water  
9 and condensate.

10 Q All right, sir, let's turn to Exhibit  
11 Fourteen and ask you how you obtained and satisfied yourself  
12 and the District Office as to what the minimum sustainable  
13 producing rate for this well ought to be.

14 A Well, this Exhibit Fourteen is actually,  
15 Mr. Counselor, probably the last month and seven or eight  
16 days, or maybe not quite that much, of production. We have  
17 a contract pumper who looks after this well and he radios in  
18 every day and gives us the production, both gas, oil, and  
19 water, and the reason for this is that we have experienced  
20 difficulties with the pump.

21 As you can see, it's varied anywhere from  
22 195 Mcf a day to 400. The reason we asked for 350 is we  
23 felt like if we could keep the pump changed out and keep the  
24 water to a minimum level in the well that we would be able  
25 to probably produce in the neighborhood that would be what

1 the production would be, probably 350.

2 Q Let's look at the October 17th/18th  
3 period here, and have you describe what is occurring here in  
4 order to satisfy yourself that the well in fact will cease  
5 producing when you cut it back below a certain rate.

6 A Okay, the 17th was when Mr. Sexton went  
7 up with us to -- to the well.

8 We shot the fluid level at that point in  
9 time on the well and we shut the well in; or I should say we  
10 shut the pump, pumping unit off.

11 We had some problems there with our  
12 stackpack that morning and it was producing at the rate of  
13 212,000. Actually the oil dump stuck and a lot of gas was  
14 venting to the tank battery. The average on it had been  
15 around 330/340.

16 We shut the well in for 21 hours and at  
17 that point in time the volume had declined down to 159,000.  
18 Our fluid level had -- was up to 3044.

19 We started back up, then, on the 18th and  
20 as you notice, we had been running between 30 and 40 bar-  
21 rels; now we were down to somewhere in the 25 to 30 range on  
22 the oil production.

23 Water production is off, also.

24 Q All right, let's see if we can draw a  
25 comparison here, Mr. Westbrook.



1                   Prior to October 17th and subsequent to  
2 that date have you attempted to operate the pump in the same  
3 way before and after that date?

4                   A           Yes, sir, we have. We tried to operate  
5 similar. We had to change the -- we changed the pump out on  
6 the October the 24th after we had shut down on the 17th.

7                   We, right after we got back pumping we  
8 pumped a pretty big slug of mud out of the well. We caught  
9 it in a stackpack and I suppose it cut that pump out at that  
10 point in time.

11                   We changed it out on the 24th. It never  
12 pumped dry after that; at least we didn't -- you can see on  
13 the 25th, 26th, 27th, down here, we've got a real high fluid  
14 level of water in the hole but we're not removing it. We  
15 have the capability of moving a couple hundred barrels of  
16 water a day and we're only moving thirty or forty.

17                   So we changed the pump out again on the  
18 3rd of November, '86.

19                   Q           Even after the well is shut in for a  
20 short 21 or 22 hour period it would appear that subsequent  
21 production has come back at a rate that is less than the  
22 producing rates were prior to that shut-in period.

23                   A           Yes, sir, they have. I'm sorry I didn't  
24 bring -- I think maybe we can see it on this -- this  
25 diagram.

1 Q Exhibit Number Thirteen?

2 A Number Thirteen, the -- the distillate  
3 was holding along there pretty well, in the neighborhood of  
4 40 barrels a day. The gas, if we drew a curve across there,  
5 would be around a 340 Mcf daily.

6 Then once we started -- well, since --  
7 since we shut the well in, you can see the deep line was  
8 just on the gas from up at the top on the chart.

9 Q Do you have a contract for the sale of  
10 this gas?

11 A Yes, sir, I do.

12 Q And --

13 A With Cabot.

14 Q -- has Cabot advised you that they don't  
15 have any market for this gas if you get a hardship classi-  
16 fication?

17 A No, sir, the only thing, they wrote me a  
18 letter to the effect that if the well was -- should be re-  
19 classified as an oil well, that they could not say whether  
20 they'd be able to take the gas or not.

21 Q Did they -- did they tell you if this  
22 well is classified as a hardship well that they cannot take  
23 the gas?

24 A No, they did not.

25 Q All right, so as best you know, you still

1 have a market for the gas if it's classified as a hardship  
2 well?

3 A Yes, sir, they're taking it.

4 Q And this is the only well in this pool?

5 A Yes, sir.

6 MR. KELLAHIN: That concludes  
7 my examination of Mr. Westbrook, Mr. Stogner.

8 We move at this time the intro-  
9 duction of his Exhibits One through Fourteen.

10 MR. STOGNER: Exhibits One  
11 through Fourteen will be admitted into evidence.

12  
13 CROSS EXAMINATION

14 BY MR. STOGNER:

15 Q Mr. Westbrook, since July 1st, 1986,  
16 that's the date when you put the pump on, what has been the  
17 longest period that this well has been shut-in or the pump  
18 turned off?

19 A We've been experiencing electrical prob-  
20 lems and we're not knowing for sure, Mr. Examiner, how long  
21 it might have been.

22 I would say probably the longest was --  
23 was when we shut the well in for 21-1/2 hours, that -- that  
24 I can be certain of.

25 Q And that was the time, October 17th.

1           A           Yes, sir.

2           Q           Now I notice here on Exhibit Number Four-  
3   teen that you have produced more times than none, or more  
4   times at a rate under 350 Mcf a day more than you have over  
5   a rate of 350 Mcf a day.

6           A           Yes, sir, that's true. Like I say, we've  
7   been having some problems with the pump, downhole pump, and  
8   as you can see, the fluid levels are hanging up there from  
9   45 to 42, 5160, 4113, 3028. We think if we could get the  
10  well pumping back like it was initially, Mr. Examiner, that  
11  that will be in the neighborhood of 350, would be the pro-  
12  duction.

13          Q           What could the economic limit for this  
14  well be?

15          A           It depends how -- on a lot of things, of  
16  course. If we to change the pump out fairly regular from it  
17  being shut down, it would run up pretty high.

18                      Our electrical cost is 660 or something  
19  like that, about Twenty Bucks a day. We're also trucking  
20  what water we produce, Mr. Examiner. It's \$1.00 a barrel to  
21  truck the water. It's getting close to economic level.

22                                 MR. KELLAHIN: At what rate?

23          A           At -- at -- let's say this 200,000, or  
24  whatever some of the lower days are.

25          Q           I see one in particular, October 2nd,

1 which was 195 Mcf a day.

2 A Yes, sir. We -- what this -- we have a  
3 7-day chart, Mr. Examiner, on our gas meter, and he reads  
4 the particular day.

5 Up above that, if you'll note, he says  
6 "Oil dump stuck open". When it -- this mud carries both  
7 with it, water and oil, and I suppose some even in the gas,  
8 but we did experience some problems with our control valves  
9 and this particular day is a day that we was venting some to  
10 the tank battery, I'm sure.

11 Q Now you state in Exhibit Number One that  
12 you feel that if this well was shut-in for an extended per-  
13 iod of time you would be unable to swab it back.

14 Do you have any idea at what point, say,  
15 this well would log off? What I mean by log off would be  
16 that the production would stop?

17 A Well, when we were shut-in after we put  
18 the acid in there, Mr. Examiner, we swabbed on this well  
19 several days all day long, and we were unable -- we didn't  
20 swab around the clock but we were unable to bring it back by  
21 swabbing. So that was the reason, of course, for us setting  
22 the pumping unit.

23 I really -- I don't -- I'd hazard to say  
24 at what point, but I feel like if that mud keeps coming in  
25 there and we don't keep it pumped off, that it's going ot

1 finally seal that wellbore off where we will be out of busi-  
2 ness and would have to prematurely plug the well.

3 Q But you don't know at what rate you are  
4 approaching that.

5 A No, sir, I have no idea of what rate we  
6 -- the way we're producing it, we're unable to choke the  
7 flow because we gas-lock the pump.

8 Q What do you mean by gas-lock the pump?

9 A Well, if we get too much pressure on that  
10 back side, see, what we're doing now is just riding the  
11 line, a (unclear) line of approximately 310 to 320 pounds,  
12 but we're pumping against that pressure with our pumpjack to  
13 remove the -- what liquids we're getting. So when you pinch  
14 the gas flow down on the back side and it starts kicking up  
15 the tubing and you get it in the pump, well, you gas lock it  
16 where your valves just don't function properly and you just  
17 quit pumping anything.

18 We've had this happen once. We tried to  
19 do that, just thought if we could come that way, well, maybe  
20 we could get an idea of what kind of rate we can get. But  
21 we weren't able to do it.

22 Q And what kind of rate did you have when  
23 that happened?

24 A It was at approximately 340, 350. This  
25 was right after we started pumping.

1           Q           But it's not doing that now at some of  
2 the lower rates.

3           A           Yes, sir, it's at a lower rate now, true,  
4 which you have an extremely high fluid level still in the  
5 wellbore, and I feel like if we're able to lower that, well,  
6 the gas will increase once we get the hydrostatic pressure  
7 off from the wellbore.

8           Q           Has Cabot notified you that they needed  
9 to shut your well back?

10          A           No, sir, they have not.

11          Q           Have they limited the gas production off  
12 this well?

13          A           No, sir.

14          Q           So there's nothing preventing them from  
15 taking up the 500 Mcf if you could produce it?

16          A           This -- I suppose it would depend on the  
17 market conditions, Mr. Examiner, they apparently, if their  
18 market is good, will take all that can be produced.

19          Q           Let's go to that October 2nd figure of  
20 195 Mcf. Was the best it could do that day?

21          A           Yes, sir. That's the one at the top of  
22 the page, right above October the 2nd, it says -- I can't  
23 read -- something, "Oil dump stuck open."

24          Q           Well, maybe that's a bad example. Let's  
25 --

1           A           And normally -- and it doesn't always --  
2 it doesn't always make the same amount of difference accor-  
3 ding to how much gas is vented through that particular dump,  
4 Mr. Examiner. Sometimes it gets it through open, it puts a  
5 pretty good volume to the tank.

6           Q           Well, let's look at October 31st --

7           A           Yes, sir.

8           Q           -- where you had 171 Mcf a day. What was  
9 -- was that the best it could do that day?

10          A           Yes, sir. We were -- we had changed that  
11 pump out on October the 24th and we were encountering prob-  
12 lems there with our pump. As you can see, the condensate is  
13 way down that particular date, too, and like I say, we went  
14 ahead and changed the pump out -- I forget which day the  
15 31st was but we waited over the weekend to change it out.

16          Q           You talk about the fluid level being  
17 high. What would it take to get that fluid level back down  
18 to normal?

19          A           Well, I think, if the mud finally goes  
20 ahead and cleans up, and this is a possibility, I think, Mr.  
21 Examiner, that one of these days, and I have no idea when,  
22 that this mud situation will stop, and of course, we -- the  
23 first ten days, the first pump we run in there, it lasted  
24 ten days, it cut it out that quickly, and we're getting lon-  
25 ger runs, so I feel like it -- the mud is decreasing to a



1 certain extent.

2 Q I'm not really sure I know why we're  
3 seeking this hardship if Cabot is not -- hasn't threatened  
4 to shut you in.

5 A Well, they shut me in, though, Mr. Exam-  
6 iner, back in -- well, Exhibit -- I guess that's part of Ex-  
7 hibit Four, summary of production. We showed days produced.

8 Q Uh-huh.

9 A Says shut-in for the last part of March,  
10 April, May, the biggest part of June, so what I was trying  
11 to do at this point in time is now that I've got the well  
12 producing and got it going right where we think we can keep  
13 it without losing the well, I would -- the reason for the  
14 hardship request is where I won't be shut in and lose the  
15 well.

16 Q Mr. Westbrook, do you operate any other  
17 wells in this pool?

18 A No, sir, this is the only well in that  
19 particular pool.

20 Q Now is this the only producing well out  
21 of this pool?

22 A In the -- in that particular pool, yes,  
23 sir.

24 Q Do you have any idea, Mr. Westbrook, what  
25 would happen if Cabot come back in and had to restrict your

1 flow, so instead of 350, say they restricted it over a few  
2 days at, say, around 200 Mcf or lower?

3 A Well, I really feel what would happen, I  
4 would have to choke the gas on the casing side where we're  
5 flowing from, Mr. Examiner. I think this would create the  
6 gas coming around and up the tubing through the rod pump and  
7 would lock the pump and gas lock it, and I think that then  
8 I'd be down just as soon as the fluid level got high enough  
9 it would shut the well in, until I changed the pump out and  
10 got rid of that particular condition.

11 MR. STOGNER: Okay, I have no  
12 further questions of Mr. Westbrook.

13 Is there anything further of  
14 this witness?

15 MR. KELLAHIN: No, sir.

16 MR. STOGNER: Does anybody else  
17 have anything further in Case Number 8990?

18 Mr. Westbrook, you may step  
19 down.

20 This case will be taken under  
21 advisement.

22

23 (Hearing concluded.)

24

25

## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO  
HEREBY CERTIFY 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.

Sally W. Boyd CSR

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. \_\_\_\_\_,  
heard by me on \_\_\_\_\_ 19\_\_\_\_.

\_\_\_\_\_, Examiner  
Oil Conservation Division