

Deposition Testimony of:  
**Bryan Clawson**

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00446:09 Q. Mr. Clawson, my name is Danny  
10 Goforth, and I represent Transocean, okay?

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00446:12 Q. Did you deal any with Transocean  
13 people?

14 A. No, sir.

15 Q. Did you in the time building up  
16 to the incident that occurred on the -- on  
17 April the 20th at -- on the Macondo well?

18 A. No, sir.

19 Q. Have you ever deal -- dealt with  
20 Transocean people?

21 A. No, sir, I sure haven't.

22 Q. They don't deal in your  
23 products; is that correct?

24 A. No, sir, we didn't.

25 Q. You got anything bad to say  
00447:01 about Transocean?

02 A. No, sir.

03 Q. Got anything good to say about  
04 Transocean?

05 A. Yes.

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00447:16 Q. I was reading in the Chief  
17 Counsel's report -- have you read that?

18 A. Yes, sir. Parts of it.

19 Q. I was reading in there that they  
20 were talking about how the integrity of --  
21 of the connections of a number of pieces of  
22 equipment, the casing and that sort of  
23 thing were confirmed by Weatherford but  
24 some that were made up onshore were not.

25 And so I wanted to ask you about those, for  
00448:01 example, the reamer shoe.

02 Are you familiar with the  
03 integrity of the connection of the reamer  
04 shoe?

05 A. No, sir.

06 Q. Yeah. I'm not either. And I'm  
07 not sure what the Chief Counsel was talking  
08 about when he talked about that. I think  
09 it was just the connection to the -- to  
10 the -- to the drill pipe and to the floats.

11 Have you -- has  
12 Weatherford, to your knowledge, ever had  
13 any problem with any of the connections for  
14 any of the cementing equipment that you  
15 sell, that -- that you're aware of?

16 A. No, sir.  
17 Q. The centralizer subs, have there  
18 been complaints about -- about the  
19 connection of the centralizer -- of the  
20 subs to the casing? Have you received any  
21 complaints about that, that you know of?  
22 A. No, sir, that I'm aware.  
23 Q. Same with float collars?  
24 A. Right.  
25 Q. Crossover joints, ever have any  
00449:01 problems there?  
02 A. The crossover joints --  
03 Q. They're not Weatherford's?  
04 A. -- they were not Weatherford's.  
05 Q. Does Weatherford maintain a  
06 daily log or inspection report that would  
07 verify that all the connections for the  
08 cementing equipment were made up to  
09 standard?  
10 A. This particular cementing  
11 equipment was -- was delivered to Tuboscope  
12 in Amelia and -- and instructions through  
13 BP. And, you know, the connections that  
14 are cut on the equipment is -- is cut by  
15 Hydril. So -- any -- any makeup of the  
16 equipment was by Tuboscope and directions  
17 of BP. Weatherford, to my knowledge,  
18 wouldn't have that information.  
19 Q. All right. Do you main -- does  
20 Weatherford maintain a daily log or  
21 inspection report, however?  
22 A. On inspections we do at our  
23 locations, we -- we retain that  
24 information. Yes, sir.  
25 Q. All right. But you did not make  
00450:01 these particular inspections?  
02 A. No, sir, we don't do -- no, sir.

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00451:05 Q. All right. Maybe I'll go about  
06 this a little different way. Let's kind of  
07 start from the bottom up.  
08 The shoe -- the reamer  
09 shoe, as I understand it, is at the bottom?  
10 A. Yes.  
11 Q. It's the last piece of equipment  
12 or casing that -- that there is. Above  
13 that is the float collar.  
14 Is the float collar  
15 considered or advertised by -- by  
16 Weatherford as a primary barrier to the  
17 flow of hydrocarbon?  
18 A. To my knowledge, no, sir.  
19 Q. To your knowledge. Well, you

20 would know.  
21                    You ever tell anybody that  
22 this is a barrier?  
23        A.     No, sir.  
24        Q.     Never do?  
25        A.     No, sir. Just to hold back the  
00452:01 cement.  
02        Q.     Is that the way you refer to it  
03 when you're talking to prospective  
04 customers, as this is a device that will  
05 hold back the cement?  
06        A.     Yes, sir.  
07        Q.     What about mud?  
08        A.     If it -- if it needs to hold  
09 back mud, yes, sir.  
10        Q.     What about other drilling  
11 fluids?  
12        A.     I don't have any knowledge of  
13 what other fluids it -- it could hold back.  
14 Those are the two that I'm familiar with.  
15        Q.     Hold back water?  
16        A.     Again, I'm -- I don't have any  
17 knowledge about whether it would hold back  
18 water or not.  
19        Q.     Have you looked at any of the  
20 Stress Engineering testing that they --  
21 that they did on the Weatherford float  
22 collars?  
23        A.     No, sir, I sure haven't.  
24        Q.     Have you been told about any  
25 other than by the lawyers?  
00453:01        A.     No, sir, not --  
02        Q.     Does it serve as -- as a barrier  
03 to hydrocarbons?  
04        A.     Again, I'm not familiar with  
05 that information, whether it would -- it is  
06 or it is not.  
07                MR. RUSSO:  
08                Danny, just -- just to be  
09 clear, we do have a witness coming who will  
10 be a Weatherford -- Weatherford designated  
11 witness on those issues, but I'm not --  
12 continue with the questions. But he's not  
13 the Weatherford designated witness on -- on  
14 those issues.  
15                MR. GOFORTH:  
16                All right.  
17        Q.     Do you tell people, prospective  
18 customers, that it will hold back  
19 hydrocarbons?  
20        A.     No, sir.  
21        Q.     So the only thing that you,  
22 Bryan Clawson, head salesman, whatever, the  
23 only thing that you tell people that this  
24 will do is it will hold back cement and mud

25 if it has to. Isn't that the way you put  
00454:01 it?  
02 A. Yes, sir.  
03 Q. Have you ever been asked if it  
04 would hold back hydrocarbons?  
05 A. To my knowledge, no, sir.  
06 Q. Do you know whether or not there  
07 have been incidents in which the float  
08 collar was asked to hold back  
09 hydrocarbons -- oil, for example? Liquid  
10 hydrocarbons?  
11 A. To my knowledge, no, sir.  
12 Q. Is it tested by Weatherford with  
13 regard to holding back hydrocarbons?  
14 A. I -- I don't have that  
15 information.  
16 Q. Let me ask you some questions  
17 about the Allamon diverter. It's my  
18 understanding that after the -- the final  
19 production casing is run and it's landed --  
20 well, rather than give you my -- ask you my  
21 understanding. Tell me, what happens in  
22 the well after the -- the casing is run.  
23 The production casing is -- has landed.  
24 What happens next?  
25 A. Again, the -- they have to drop  
00455:01 a ball to the --  
02 Q. All right.  
03 A. The ball may have been dropped a  
04 little earlier before they land the casing  
05 to close the diverter tool.  
06 Q. All right. You say it might  
07 have been dropped a little earlier. Why  
08 would it be dropped before the casing, the  
09 production casing is -- is landed?  
10 A. They may -- they may drop it  
11 like when they have 16 in the drill pipe  
12 left. That way once they land the casing,  
13 the ball would be on the Allamon seat to be  
14 able to convert it.  
15 Q. All right. And that Allamon  
16 seat is on the float collar?  
17 A. I'm sorry?  
18 Q. Is it on the -- it sits on top  
19 of the float collar, or are you talking  
20 about up at the --  
21 A. No, sir. The Allamon tool is  
22 way above the running tool.  
23 Q. Okay.  
24 A. It's on drill pipe.  
25 Q. All right. So you -- you drop  
00456:01 the ball, it sits at some point, whether at  
02 the time of landing. And so it sits on  
03 the -- on the diverter, some sort of cage  
04 that's -- that's there; is that correct?

05 A. Yes, sir.  
06 Q. And when you -- when you get to  
07 the bottom with the production casing, you  
08 close the diverter is my understanding; is  
09 that right?  
10 A. Yes, sir.  
11 Q. What's the purpose of the  
12 diverter?  
13 MR. RUSSO:  
14 Object to form.  
15 A. To reduce surge. I'm not an  
16 expert on that tool, but I -- I know it --  
17 Q. Do you -- do you make a similar  
18 tool?  
19 A. Yes, sir.  
20 Q. Do you sell it? You personally?  
21 A. I try to.  
22 Q. I guess in this instance Allamon  
23 tried harder?  
24 A. Yes, sir, I guess he did.  
25 Q. All right. Yours does the same  
00457:01 thing? It serves the same purpose?  
02 MR. RUSSO:  
03 Object to form.  
04 A. Yes, sir.  
05 Q. All right. What is the purpose,  
06 then, of -- of the diverter?  
07 A. To reduce surge.  
08 MR. RUSSO:  
09 Just object to form. You're  
10 talking about his or the -- Weatherford's?  
11 Q. Well, you say it serves the same  
12 purpose. So I'm talking, really, about  
13 either one.  
14 Did you say protect or  
15 reduce the surge?  
16 A. Reduce.  
17 Q. All right. Then the -- is the  
18 ball dropped at that point, once you close  
19 the diverter?  
20 A. I'm sorry? What's the question  
21 again?  
22 Q. This is the part where I'm  
23 confused about. It's my understanding that  
24 you close the -- the diverter immediately  
25 after the production casing is run, or  
00458:01 about then. Now, at what point does the  
02 Allamon ball, when is it dropped?  
03 A. Again, I wasn't on the -- I  
04 wasn't on the location and I'm not an  
05 expert on it. But they either drop it when  
06 they land the casing or a few stands before  
07 the landing casing.  
08 Q. All right. Is it -- when it is  
09 dropped, the diverter's closed, the ball's

10 dropped, is it expected to find its way to  
11 the top of the float collar?

12 A. I'm not sure what you mean by  
13 expected.

14 Q. Well, does it? Does this  
15 Allamon ball, does it get to the top of the  
16 float collar and rest there?

17 A. Eventually it will, yes, sir.

18 Q. Eventually.

19 It's my understanding that,  
20 according to the Chief Counsel, that the --  
21 that it took from 2:08 in the afternoon on  
22 the 19th until 2:18 to close the diverter  
23 and to drop the ball?

24 A. I don't -- I'm not familiar with  
25 the --

00459:01 Q. With the timing. I understand.  
02 But that took a total of about ten minutes.

03 And is it correct, or am I  
04 correct that from that point in time until  
05 it -- this ball comes to rest on top of the  
06 float collar happens eventually, some  
07 period of time?

08 A. Yes, sir.

09 Q. After this ball was dropped,  
10 what happens next? The diverter's closed,  
11 ball's dropped, what happens next in -- in  
12 a -- in a well?

13 A. I'm -- I'm not familiar what --  
14 on this particular job, I'm not familiar  
15 with what they had --

16 Q. Did they attempt to -- to  
17 establish circulation at that point?

18 A. Yes, sir.

19 Q. To convert?

20 A. It's possible that would be the  
21 next step.

22 Q. I mean -- excuse me. You know  
23 more about this than I do. Is that the  
24 next step?

25 A. Possibly, yes. That can be the  
00460:01 next step.

02 Q. It's my understanding that it  
03 took them nine times to establish  
04 circulation; is that right? Is that your  
05 understanding?

06 A. Yes, sir. From the information  
07 I read, yes, sir.

08 Q. It wasn't until about 4:20 that  
09 circulation was established, which --  
10 according to my calculation, from 2:18 to  
11 4:20 is a little over two hours. Is that  
12 ball dropped, is it -- is it resting on top  
13 of that float collar in two hours?

14 A. I couldn't tell you that.

15 Q. What time did Brian Morel call  
16 you to ask you how much pressure can be  
17 applied?

18 A. Again, the best I can recall, it  
19 was that afternoon, 3:00, something like  
20 that.

21 Q. And what time did you call him  
22 back to inform him that he could increase  
23 the pressure up to 6800 psi?

24 A. Well, we had -- we had a couple  
25 of conversations. I had to call Houma,  
00461:01 but -- and he had to hang up a couple of  
02 times and -- because he was getting calls  
03 from people. And so this was all taking  
04 place within at least about 30 minutes.

05 Q. Okay.

06 A. 20 minutes.

07 Q. Well, when you called him back,  
08 you told him that he could increase the  
09 pressure to 6800, but you also told him  
10 that at 1300 psi, the ball could pass  
11 through the bottom of the auto-fill tube  
12 without converting the floats, correct?

13 MR. LEMOINE:

14 Objection to form.

15 A. The 6800 was the bump pressure  
16 for the float collar.

17 Q. Right. Well, did you tell him  
18 that at that point in time -- when you  
19 called him back, Chief Counsel's report  
20 says that you told him that at 1300 psi the  
21 ball could pass through the bottom of the  
22 auto-fill tube; is that correct?

23 A. Yes, sir. I told him if the  
24 ball happened to be on the retainer inside  
25 the float collar, that it would take 12' to  
00462:01 1300 psi to blow that ball through that  
02 retainer.

03 Q. You were talking about the  
04 Allamon ball?

05 A. I'm talking about the Allamon  
06 ball, yes, sir.

07 Q. So the Allamon ball has had two  
08 hours to get from -- from top to bottom.  
09 So let's assume that it made it. So it's  
10 resting on the -- on the float collar --

11 A. I --

12 Q. -- and they're asking you what  
13 sort of pressure can you put on this and  
14 you said, well, you can put 6800 psi. You  
15 said, but -- but then you said, but at  
16 1300 psi you can blow it out of the bottom  
17 of that auto-fill tube?

18 MR. LEMOINE:

19 Objection to form.

20 Q. That's essentially what you told  
21 him, wasn't it?  
22 A. That the bump pressure was 6800.  
23 Q. Right?  
24 A. But the 12' to 1300, with the  
25 ball sitting on the retainer and it -- if  
00463:01 they needed to blow the ball through that  
02 retainer, it would take 12' to 1300 psi.  
03 Q. All right. Who was it within  
04 Weatherford's engineering department that  
05 told you the Allamon ball could pass  
06 through the end of the float equipment at  
07 1300?  
08 A. John Hebert.  
09 Q. All right. How did he determine  
10 that, do you know?  
11 A. No, sir, I don't.  
12 Q. When he was telling you that,  
13 did he -- did he reference some document or  
14 some test or something that -- that would  
15 show that?  
16 A. No, sir. I don't recall, no,  
17 sir.  
18 Q. Did he tell you to tell Morel  
19 that it would pass through the float  
20 equipment at 1300 psi?  
21 MR. RUSSO:  
22 Object to form.  
23 A. No, sir. He did not tell me to  
24 tell him -- Brian that.  
25 Q. Did he tell you on that phone  
00464:01 call that it would pass through at 1300  
02 psi?  
03 A. Yes, he did.  
04 Q. Do you know why he told you  
05 that?  
06 A. Because I asked him.  
07 Q. What did you ask him?  
08 A. I just asked him if the -- if  
09 the Allamon ball just happened to be  
10 sitting inside the retainer, you know, what  
11 was -- what was our options to do.  
12 Q. And -- and exactly what did he  
13 tell you when you told him that, when you  
14 asked him that?  
15 A. Again, he said that he -- he  
16 confirmed that -- believed that the -- it  
17 would take 12' to 1300 psi to be able to  
18 blow through that retainer, the Allamon  
19 ball through that retainer.  
20 Q. All right. So you got Morel  
21 over here on one side and he's trying to --  
22 to build up enough pressure to -- to  
23 convert his float collar. So we're  
24 assuming at that point that the auto-fill

25 tube is -- is still in the float collar,  
00465:01 right?  
02 A. Yes, sir.  
03 Q. We're assuming that it hadn't  
04 been converted. So that's -- the Allamon  
05 tube is sitting there in the float collar  
06 with the -- the -- the auto-fill ball is  
07 inside the auto-fill tube --  
08 A. Correct.  
09 Q. -- right?  
10 The Allamon ball has had a  
11 couple of hours to -- to get down to the --  
12 to rest on the -- on the retainer there at  
13 the float collar?  
14 A. We don't -- I don't know where  
15 that Allamon ball was.  
16 Q. Well, you know, that --  
17 A. It could -- it could have been  
18 on top of the -- whatever was blocking the  
19 collar, it could have been different  
20 places.  
21 Q. Yeah. In fact, I think  
22 yesterday you said something about it being  
23 irrelevant, that it would blow it through  
24 at 1300 psi, didn't you?  
25 A. Yes, sir.  
00466:01 Q. I want to know why you said  
02 that.  
03 A. Because when the -- after the --  
04 after looking at the information, that when  
05 they closed that Allamon tool, they  
06 automatically pressured up to -- they went  
07 right up to 2000. Because as soon as they  
08 dropped the ball, they went up to break the  
09 circulation and the pressure went up so the  
10 ball's still up -- way up in the -- in the  
11 string of pipe.  
12 Q. How do you know that?  
13 A. 'Cause as soon as the -- as soon  
14 as they closed the tool and that's the -- I  
15 don't know the -- all the -- were at  
16 18,000 feet, and the water depth around the  
17 running tool, where the running tool was  
18 being landed was around 5,000 feet. So the  
19 ball has to travel all the way from where  
20 the running tool -- after they close the  
21 tool, all the way down to the top of the  
22 collar.  
23 Q. And it's got two hours to do  
24 that?  
25 A. Yes, sir. But as soon as they  
00467:01 pressured up -- as soon as they closed the  
02 Allamon tool, now all your fluid has to go  
03 down from the drill pipe through the  
04 casing, and they started pressuring up

05 immediately at that point. So the, yes,  
06 the ball eventually could have gotten  
07 there, but at that point in time, the ball  
08 wasn't there.

09 Q. And so it's interesting to me  
10 that you're taking such a strong position  
11 on that, and I haven't heard you take a  
12 strong position in two days.

13 Have you tested that since  
14 then?

15 A. No, sir.

16 Q. Do you know anybody -- whether  
17 anybody has?

18 A. No, sir.

19 Q. You had never tested it before,  
20 right?

21 A. I'm sorry? Tested what? I'm  
22 sorry.

23 Q. Whether that Allamon ball is  
24 going to stay suspended up there somewhere  
25 when you're putting a lot of pressure down  
00468:01 on the -- on the float collar.

02 A. No, sir.

03 Q. Uh-huh. Do you believe that  
04 it -- if the -- if the pressure had been  
05 somewhere 5', 700, 900, 1,000, something  
06 like that, that that ball would have gotten  
07 down?

08 A. I'm sorry? What's the question  
09 again?

10 Q. That the ball would have dropped  
11 down to the retainer on the float collar,  
12 if it had been 500 to 700 in two hours? In  
13 other words, how fast is that ball dropped?

14 A. I don't know that.

15 Q. And do you know that that  
16 pressure holds it up there, or are you  
17 just -- is this something somebody told  
18 you?

19 A. The pressure holds it up where?

20 Q. The ball. You're saying that  
21 the pressure -- when they pressured up --  
22 it sounds like to me what you're saying is  
23 that when they pressured up, that the ball  
24 as a result of the pressure stayed up  
25 somewhere around the -- the diverter,  
00469:01 5,000 feet or so above. Or are you saying  
02 that it was slowly dropping but it didn't  
03 get there in two hours?

04 A. I can't say that for sure.

05 Q. You don't know either -- you  
06 don't know whether it was there or not, do  
07 you, Mr. Clawson?

08 A. No, sir. All I know is that  
09 when they -- the diverter tool was closed,

10 they immediately pressure -- started  
11 pressuring up.  
12 Q. And they pressured up nine  
13 times?  
14 A. Yes, sir.  
15 Q. And all the time this ball --  
16 what's it made out of?  
17 A. I'm not sure what the Allamon  
18 ball is made out of.  
19 Q. Does it float?  
20 A. No, sir.  
21 Q. So all this period of time where  
22 there -- while they're trying to open  
23 circulation nine times, this ball is  
24 closing down 5,000 feet. And you seemed a  
25 while ago to be pretty sure that it -- that  
00470:01 it didn't make it.  
02 Where was it?  
03 A. It was -- it was in -- it was  
04 from where the 5,000-foot to the  
05 18,000 feet.  
06 Q. Why is -- and I'm just curious.  
07 Why is that important to you?  
08 A. It's -- it's not really that  
09 important to me.  
10 Q. Why is that important to  
11 Weatherford?  
12 MR. RUSSO:  
13 Object to form.  
14 A. It's not that important to  
15 Weatherford. Because once the circulation  
16 was broke, we -- we ended up breaking  
17 circulation and launching plugs, bumping  
18 plugs, and -- and floats were holding so it  
19 wasn't a concern after that.  
20 Q. Okay. So why do you think --  
21 why is -- does it seem important to you  
22 that that ball, that Allamon ball didn't  
23 make it?  
24 A. It wasn't -- it's not really  
25 important if it didn't make it or not.  
00471:01 I -- it was just --  
02 Q. Well, the fact is they certainly  
03 were putting enough pressure in there to  
04 blow that Allamon ball. If it happened to  
05 be sitting on that retainer at the float  
06 collar, they were certainly putting more  
07 than 12' or 1300 psi pressure on it so it  
08 would have blown right through that -- that  
09 auto fill, correct?  
10 A. It could have, yes, sir.  
11 Possibly.  
12 Q. And what effect would that have?

00471:15           A.    I -- I'm not sure what effect  
16   that would have.

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00472:19           Q.    Well, you did testify yesterday  
20   that it was irrelevant 'cause the ball  
21   wasn't there, didn't you?  
22           A.    Yes, sir, I did say that.  
23           Q.    Okay. Now, what I want to know  
24   is, today, are you changing that testimony  
25   a little bit to say -- to admit that you  
00473:01   don't know whether the ball was there or  
02   not?  
03           A.    Yes. I do not know exactly  
04   where that ball was.  
05           Q.    Okay. All right. And you don't  
06   know what effect it would have had, had it  
07   been blown through?  
08           A.    Yes, sir.  
09           Q.    You're sure of that?  
10           A.    Yes, sir.

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00476:13           Q.    The -- the cement job began  
14   about 9:30, which is 7:30.  
15                    Where were the wiper plugs  
16   and darts at this point in time?  
17           A.    I'm not sure. I wasn't on the  
18   job.  
19           Q.    What is -- what is the normal  
20   sequence of events is what I'm asking you.  
21           A.    At what -- at what point?  
22           Q.    Yeah. At the -- at the point  
23   that the cement job begins -- begins.  
24                    They begin to pump?  
25           A.    They'll -- they'll launch the  
00477:01   bottom dart.  
02           Q.    Okay. And what is the purpose  
03   of the bottom dart?  
04           A.    To separate the mud and cement.  
05           Q.    Okay.  
06           A.    I'm sorry. The bottom dart?  
07           Q.    Yeah.  
08           A.    The bottom dart is to launch the  
09   bottom plug.  
10           Q.    Okay. Explain to me how that  
11   works.  
12           A.    It -- how much detail do you  
13   want on that?  
14           Q.    Well, I just -- I want an  
15   understanding of how that -- how that

16 function works.  
17 A. Could you get more specific on  
18 what the question would be there?  
19 Q. Well, let me see if I can.  
20 How -- how is the dart, the  
21 bottom dart set in motion?  
22 A. It's launched by a cementing  
23 head.  
24 Q. Where? Where is it, on the  
25 tool?  
00478:01 A. The cementing head on the rig  
02 floor.  
03 Q. Okay. Did the darts go through  
04 the Allamon surge tool?  
05 A. Yes, sir.

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00478:09 Q. Let me show you documents marked  
10 Bates -- Bates numbered WFT-MDL 00017571  
11 through 17574. Look at the page ending  
12 17573, please, sir.  
13 Look at the -- look at  
14 the -- the e-mail from Mike Bock to Jim  
15 Hollingsworth and Brent Emerson.  
16 In this first paragraph he  
17 says in -- in the last two sentences, he  
18 says, Engineering actually went and tested  
19 pumping our darts through Allamon's surge  
20 tool.  
21 This was on April the 9th.  
22 The O-ring seals was damaged/pulled out of  
23 groove when it was pumped through the  
24 expandible ball seat.  
25 Can you explain the purpose  
00479:01 of that testing and the equipment involved  
02 in the testing?  
03 A. We had -- we test all our darts  
04 going through the -- the Allamon seats.  
05 We -- we run a lot of darts through their  
06 tools. And this particular dart had -- had  
07 not been run through there. So we -- we  
08 tested it just like we do everything else.  
09 Q. Okay. Do you test everything  
10 else like this?  
11 A. Darts --  
12 Q. Or was that just sort of a  
13 throwaway comment?  
14 A. Darts through -- through the  
15 Allamon tool.  
16 Q. All right. Okay. Who asked or  
17 requested that that testing be done?  
18 A. BP. And a combination with  
19 Allamon.  
20 Q. Allamon also requested it?

21 A. It was -- it was all mutual  
22 agreement between all of us.  
23 Q. All right. Well, he says that  
24 the O-ring seal was damaged/pulled out of  
25 groove when it was pumped through the  
00480:01 expendable -- expandible ball seat.  
02 Do you see that?  
03 A. Yes, sir.  
04 Q. What does the expandible ball  
05 seat refer to? What is that?  
06 A. It's a seat in the Allamon tool.  
07 Q. Do you know how the -- how the  
08 dart was damaged other than the O-ring seal  
09 was damaged? I mean, is that -- what does  
10 that mean to you? Is the O-ring on the --  
11 on the -- on the dart?  
12 A. Yes, sir.  
13 Q. What's the purpose of that  
14 O-ring?  
15 A. The -- the O-ring seals inside  
16 the -- the plugs.  
17 Q. When?  
18 A. When the dart lands into the  
19 plug.  
20 Q. Now let's go to the front --  
21 first page of this, 17571. The -- the  
22 last -- well, the -- the next to the last  
23 e-mail, I suppose. The one from Gary  
24 Bordelon to Jim Hollingsworth.  
25 Who is Jim Hollingsworth?  
00481:01 A. Jim Hollingsworth, he is -- I'm  
02 not exact -- his -- his title. But he's,  
03 like, the general manager over cementation  
04 on hangers and --

Page 482:06 to 485:04

00482:06 Q. Did you run any more tests to  
07 make sure that this modification on the  
08 O-ring resulted in a functional non --  
09 non -- or non-damaged O-ring once it's sent  
10 through the Allamon tool?  
11 A. No, sir.  
12 Q. Why not?  
13 A. I can't answer -- I can't answer  
14 that question.  
15 Q. Okay. How do you know that it  
16 worked properly and that at the Macondo  
17 well this dart wasn't damaged?  
18 A. Because we had in an e-mail  
19 from -- from Brian Morel stating that  
20 the -- that the -- all the plugs -- saw all  
21 the indications, all the plugs launching on  
22 time. They saw the bottom plug hit. It  
23 did go at 2932, but -- but the bottom plug

24 hit on time and then the -- they bumped the  
25 top plug also.

00483:01 Q. Okay. They didn't -- they  
02 didn't see any of this, did they?  
03 A. I'm sorry?  
04 Q. They didn't see any of this,  
05 like this? They didn't see it happen --  
06 happen?  
07 A. No, sir.  
08 Q. They just felt from the  
09 evidence, I guess, that it did bump on  
10 time?  
11 A. They sent -- they sent an e-mail  
12 with all the pressure ratings.  
13 Q. Okay. Was the -- were the --  
14 were the darts involved in the testing the  
15 same type of darts that was eventually run  
16 in the Macondo well?  
17 A. Yes, sir.  
18 Q. Same model?  
19 A. Yes, sir.  
20 Q. Was the modification made to the  
21 dart that was actually run in the -- or the  
22 darts that were run in the -- in the  
23 Macondo well?  
24 A. To the best of my knowledge,  
25 yes, sir.

00484:01 Q. What's the best of your  
02 knowledge based on?  
03 A. I -- these darts were -- were  
04 shipped out of Houma.  
05 Q. When were they shipped?  
06 A. I -- I can't remember the -- the  
07 actual date. I can get that paperwork if I  
08 need to.  
09 Q. Well, he told you that it was on  
10 the 14th that -- I mean I told you that  
11 Bordelon wrote this e-mail on the -- on the  
12 evening of the 14th of April. And this --  
13 this incident occurred on the 20th, of  
14 course. And sometime after the 14th, these  
15 darts, I guess, were shipped out to the  
16 rig, or do you know?  
17 A. I'd have to verify with the --  
18 with the delivery ticket on when they  
19 actually shipped. I don't know exactly  
20 what that date is.

21 MR. GOFORTH:  
22 Do we have that, do you  
23 know?

24 Q. You sent over a lot of documents  
25 and I -- and so perhaps the delivery ticket  
00485:01 was in the documents that you produced.  
02 But if it wasn't, would you try to find it  
03 and give it to Mr. Russo?

04 A. Yes, sir.

Page 485:25 to 487:07

00485:25 kind of shifting a little bit here. With  
00486:01 respect to the ruptured disc and the bottom  
02 wiper plug, do you know what pressure it  
03 was designed to rupture?

04 A. Yes, sir.

05 Q. What was that?

06 A. About 9' and 1100.

07 Q. Have you -- has Weatherford or  
08 anyone on behalf of Weatherford performed  
09 any testing, analysis, or evaluation to  
10 determine why it took 2900 psi pressure to  
11 rupture the bottom plug disc?

12 A. To my knowledge, I -- I don't  
13 know.

14 Q. If it was designed to rupture at  
15 900 to 1100 psi, what would prevent it  
16 from -- from rupturing if the pressure are  
17 more that was exerted on it?

18 MR. RUSSO:

19 Object to form.

20 A. I'm not sure.

21 Q. Do you think it would be -- that  
22 there was solid debris that accumulated on  
23 top of the float collar that would impede  
24 the ability of the bottom plug disc to  
25 rupture?

00487:01 A. I'm not sure.

02 Q. Could that've been one of the --  
03 could that be one thing that would,  
04 perhaps, impede the ability to rupture?

05 MR. RUSSO:

06 Object to form.

07 A. Possibly.

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00487:23 Q. That bottom plug, the rupture  
24 disc should have -- should have ruptured it  
25 somewhere between 9' and 1100 psi. And it

00488:01 was a lot more pressure exerted against it,  
02 apparently, and it didn't rupture. And we  
03 don't know why, correct?

04 A. Correct.

Page 488:18 to 488:18

00488:18 BY MR. MATTHEWS:

Page 488:23 to 489:19

00488:23 Yesterday, you were asked  
24 some questions by BP about what you may  
25 have seen before, or what you knew about.  
00489:01 And some of the questions were, had you  
02 people -- had you seen or heard of  
03 companies ordering a number of centralizers  
04 and then reducing that number and using the  
05 reduced number.  
06 Do you recall something  
07 like that, the questions like that?  
08 A. Yes, sir.  
09 Q. Have you ever seen a situation  
10 where the centralizers were reduced, where  
11 the operator said, I want to have 21  
12 centralizers; Halliburton said, you ought  
13 to have 21 centralizers; the wellsite  
14 leader said, you ought to have 21  
15 centralizers, and then you use six? Have  
16 you ever heard of that situation?  
17 MR. CHEN:  
18 Objection, form.  
19 A. No, sir.

Page 490:09 to 495:02

00490:09 Q. Well, I'm really wondering  
10 post-blowup if you talked to anyone about  
11 what happened that caused the blowup or you  
12 had talked to anyone about cleaning up the  
13 spill?  
14 A. The only thing that -- that  
15 happened after the blowout, I got a call  
16 from a BP engineer on a Saturday afternoon.  
17 I believe it was that -- that following  
18 Saturday. He was -- he told me he was part  
19 of the -- the Wyoming Group and he was  
20 helping in starting the investigation. And  
21 he was trying to get some information. And  
22 at that time, I -- I told him, I said I --  
23 I really need to check with the Weatherford  
24 management before I can give you any  
25 information.  
00491:01 Q. Okay. What did he want to know?  
02 A. He -- he didn't get into  
03 specifics. He was just -- just said  
04 information, and then I just -- I told him  
05 what -- once I told him --  
06 Q. Did you ever get back with him?  
07 A. No, sir. And also -- also after  
08 that -- I'm -- I can't recall exact time,  
09 about 45 minutes to an hour, I got a call  
10 from a -- a BP lawyer. And he had asked --  
11 they asked me the same information that  
12 they were looking -- they were wanting to

13 ask me some questions about some things.  
14 And again, I told him the same thing. And  
15 in the meantime, I contacted the -- the  
16 Weatherford lawyers to let them know that I  
17 had been contacted by BP.

18 Q. So BP personnel had contacted  
19 you twice.

20 Have you ever had a  
21 discussion with them on what they wanted to  
22 ask you?

23 A. No, sir, I did not have a  
24 discussion with them.

25 Q. Do you know what they wanted to  
00492:01 ask you?

02 A. No, sir, I do not.

03 Q. Do you have any global idea  
04 about what the area might be?

05 A. No, sir, I do not.

06 Q. All right. Isn't it a fact --  
07 and I think we covered this yesterday. You  
08 don't know if the float collar converted or  
09 not?

10 A. No, sir.

11 Q. And I think it's a fact -- I  
12 think we said this yesterday. All the  
13 figures show on the barrels per minute flow  
14 that there weren't enough barrels per  
15 minute to convert the float collar?

16 MR. CHEN:

17 Objection, form.

18 A. Correct. All I know is that I  
19 was informed by BP --

20 Q. Well, we're going to get to  
21 that.

22 A. Okay.

23 Q. BP told you it converted, Brian  
24 Morel, right?

25 A. He told me the information in  
00493:01 the e-mail, correct.

02 Q. He told you the fluid compressed  
03 between the float collar and the reamer?

04 MR. CHEN:

05 Objection, form.

06 Q. He told you the blockage was in  
07 the -- somewhere between the float collar  
08 and the reamer; is that correct?

09 A. He -- he told me that the  
10 blockage was -- was in the shoe track,  
11 correct.

12 Q. And that's between the float  
13 collar -- it could be in the float collar  
14 and the reamer, right?

15 A. Yes, sir.

16 Q. Could it be in the production  
17 casing between the float collar and the

18 reamer?  
19 A. Yes, it could have been. Yes,  
20 sir.  
21 Q. And I think we said yesterday  
22 that you thought the compressive figures or  
23 some such or conversation about compression  
24 was in the daily rig report?  
25 A. Yes, sir.  
00494:01 Q. Let me show you exhibit 2598.  
02 MR. RUSSO:  
03 This is a BP number  
04 MB100136940?  
05 MR. MATTHEWS:  
06 Yes, sir.  
07 Q. And that's the daily drilling  
08 report for April the 19th, right.  
09 A. Yes, sir.  
10 Q. Have you seen that before?  
11 A. No, sir, I have not seen this  
12 document before.  
13 Q. Look at the next page, Bates  
14 Number 941 at the bottom.  
15 From 14:30 to 17:35, he  
16 goes through the nine attempts to convert  
17 the float collar, does he not?  
18 A. It's -- I can't -- it's kind of  
19 small.  
20 Q. I know it is.  
21 MR. RUSSO:  
22 That's why I was asking you.  
23 Q. But you'll see --  
24 A. Yes, sir. Yes, sir, it is.  
25 Q. It does. And it doesn't say  
00495:01 anything about compressive fluid, does it?  
02 A. No, sir.

Page 495:16 to 500:13

00495:16 Q. And yesterday we -- or  
17 exhibit 2584 was introduced in an e-mail  
18 chain from you to Brian Morel and then  
19 Morel to you.  
20 Where you asked, how did  
21 the cement job go, Brian?  
22 And he responds, Yeah, we  
23 blew it at 3140 psi, presumably.  
24 Correct?  
25 A. (Moves head up and down.)  
00496:01 Q. Yes?  
02 A. Yes, sir.  
03 Q. Yeah, we blew it at 3140. Still  
04 not sure what we blew yet.  
05 He didn't say anything  
06 about any blockage or anything being  
07 between the float collar and the reamer,

08 did he?  
09 A. No, sir.  
10 Q. What he could well have been  
11 speaking of was the wiper plug that landed  
12 on the top of the float collar?  
13 MR. RUSSO:  
14 Object to the form.  
15 A. Again, as I explained yesterday,  
16 the -- the wiper plug wouldn't have been  
17 there at this point in time.  
18 Q. The wiper plug wouldn't have  
19 been there? Don't you -- if you're -- are  
20 you saying that the wiper plug is not  
21 landed before you convert? Yes or no?  
22 A. No, sir.  
23 Q. No?  
24 A. No.  
25 Q. Have you ever seen anything that  
00497:01 raises the question of whether or not the  
02 wiper plug was, in fact, the obstruction?  
03 A. No, sir.  
04 Q. Are you saying that this wiper  
05 plug would not have landed after nine  
06 attempts --  
07 MR. RUSSO:  
08 Object to form.  
09 Q. -- to set -- to set this float  
10 collar?  
11 MR. RUSSO:  
12 Sorry. Object to form.  
13 A. Again, I'm not -- I'm not  
14 understanding your question in here.  
15 You --  
16 Q. Well, let me ask you this.  
17 Let's see. Let's go at it again.  
18 What's the function of the  
19 wiper plug?  
20 A. The function of the -- the  
21 cement wiper plug is to displace the  
22 cement.  
23 Q. All right. And it's also a  
24 separator --  
25 A. It's to separate the mud from  
00498:01 the cement.  
02 Q. Mud from what?  
03 A. Mud from the cement.  
04 Q. And the cement's above the mud?  
05 A. Yes, sir.  
06 Q. Okay. And the wiper plug is  
07 between them?  
08 A. Yes, sir.  
09 Q. And why are you trying to  
10 convert the float collar?  
11 A. To -- to -- the float collar is  
12 trying to convert it to -- to go back to a

13 conventional field, to be able to hold the  
14 cement back when the cement is in place.

15 Q. That's correct. So you're  
16 trying to convert it.

17 The mud is below you, you  
18 got the wiper plug, you're trying to  
19 convert to prevent the cement from going  
20 out the end, right?

21 A. Right.

22 Q. So the -- it could have been the  
23 wiper plug 'cause it's been pumped down?

24 MR. RUSSO:

25 Object to form.

00499:01 A. No, sir. No, sir. The -- let  
02 me -- when the -- they were trying to break  
03 circulation. At this point in time, the  
04 plugs are supposed to be -- I'm not going  
05 to say they're -- I'm guaranteeing the  
06 plugs are still on the running tool. But  
07 the plugs are still on the -- on the  
08 Dril-Quip running tool. And we're -- and  
09 all we have -- all we were trying to pump  
10 is mud at this point. I say we, all BP is  
11 trying to do is -- is to pump the mud.

12 Q. So the cement's not been put in  
13 the pipe?

14 A. To my knowledge, no, sir.  
15 The -- the -- usually, the procedure is --  
16 it's a standard procedure is that when  
17 we -- once they break circulation, then  
18 they circulate and then we begin to pump  
19 cement. And once -- then we launch plugs.

20 Q. All right. Let me ask you  
21 another question.

22 When -- during these nine  
23 attempts you pressured up to over -- or you  
24 didn't. But the pressure when pumped over  
25 3,000 pounds -- over 3,000 psi, right?

00500:01 A. Yes, sir, according to these --

02 Q. And somehow, whatever the  
03 obstruction is, wherever it is, it gets  
04 blown out. It gets -- something happens to  
05 it, right?

06 A. Yes, sir.

07 Q. What happened to it?

08 A. I don't know.

09 Q. Where is the only place for it  
10 to go?

11 A. Down.

12 Q. Out, right? Out the bottom  
13 through the float collar --

Page 500:16 to 500:17

00500:16 Q. -- right?

17      A.    Yes.   Possibly.