

# Deposition Testimony of:

## **Morten Emilsen**

Date: June 24, 2011

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Page 327:17 to 327:23

00327:17 Who -- is anyone paying you to be here to  
 18 testify yesterday and today?  
 19 A. I haven't been paid yet, but I suppose so.  
 20 And I guess that will -- I will be paid, yes.  
 21 Q. By who?  
 22 A. I guess that will be BP. I'm not 100 percent  
 23 sure, but...

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00329:19 Q. Do you expect to charge them \$8,000 a day for  
 20 your testimony here yesterday and today?  
 21 A. Again, this is a company decision. I'm not  
 22 working in the accounting department. I don't really  
 23 know.

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00330:17 Q. All right. Is it your testimony that you have  
 18 no idea what amount of money your company is charging BP  
 19 for your time today and yesterday?  
 20 A. That is correct. Because this is the first  
 21 time ever I have been to a deposition. Our frame  
 22 agreement with BP does not say anything about this kind  
 23 of work.  
 24 Q. Your rate sheet with BP and your customary  
 25 dealings with other clients doesn't provide a rate for  
 00331:01 deposition testimony?  
 02 A. That's correct.  
 03 Q. You have a rate for your work as a Level 2  
 04 engineer?  
 05 A. Level 1, Level 2, Level 3.  
 06 Q. Oh, and you're a Level --  
 07 A. The levels are -- has to do with --  
 08 Q. What is your level?  
 09 A. I was about to say that the levels has to do  
 10 with the incident and where we are working. Level 3 is  
 11 if you're working on-site on the blowout operation.  
 12 Level 1 is if you're working out of our headquarter in  
 13 Oslo. Level 2 is related to when we are working at the  
 14 company's offices outside of Oslo.  
 15 Q. And what's the rate for each of those levels  
 16 currently?  
 17 A. Level 2 is \$8,000 a day.

Page 331:25 to 332:17

00331:25 A. I feel this is a quiz. I think we saw the  
 00332:01 numbers yesterday. If I remember correctly, Level 3 is  
 02 \$10,000. There is also a clause in the contract  
 03 that can -- this -- Level 3 can vary depending on where

04 in the world we are.

05 Q. (BY MR. HASSINGER) Take a look at Exhibit  
06 7276. It's that piece of paper in front of you there.  
07 And as I understand it from your testimony  
08 yesterday, this document shows the amounts that your  
09 company billed to BP for work between 2005 and 2011; is  
10 that right?  
11 A. That's right.  
12 Q. Are you familiar with these entries from 2011,  
13 what the nature of the work was?  
14 A. Let's have a look. Not in detail on every one  
15 of them. There are one, two, three, four rows there.  
16 But I have a fairly good overview of -- of the -- the  
17 projects.

Page 332:21 to 333:04

00332:21 The first one is No. 129, BP Prudhoe Bay.  
22 Do you see that?  
23 A. Yes.  
24 Q. Can you tell us what the nature of your  
25 work -- "your," I mean your company's work -- for BP  
00333:01 was?  
02 A. I was not involved in that particular project,  
03 so I'm not 100 percent sure. But I think that was a  
04 contingency plan prepared for BP.

Page 333:21 to 334:08

00333:21 Q. And the next one, 118?  
22 A. It's a BP Valhall. That's a field in -- in  
23 Norway. Shallow gas. That is also related to -- I was  
24 not involved in that project. And that is also  
25 contingency related.  
00334:01 Q. And the third invoice, 134?  
02 A. That lists BP Skarv. That is also a field in  
03 Norway, and there's an abbreviation. They're saying  
04 "add." I think that has with additional simulations.  
05 Yeah.  
06 Q. And the fourth, No. 141?  
07 A. BP ORION. That's also contingency related  
08 work.

Page 334:20 to 336:23

00334:20 Can you tell me whether your company's  
21 work for BP in 2008 and 2009 included contingency  
22 planning?  
23 A. Most likely we did contingency plans for BP  
24 during those years, 2008, 2009, yes.  
25 Q. And 2007?  
00335:01 A. Same in 2007.  
02 Q. And in 2006?

03 A. That's the same contingency planning.  
 04 Q. And 2005?  
 05 A. Yeah. Same.  
 06 Q. It looks like the number of projects that your  
 07 company worked on between 2005 and 2009 steadily  
 08 decreased. In other words, there are more invoices,  
 09 more projects in 2005 than 2006 than 2007 and '08 and  
 10 '09. Do you see that?  
 11 A. I see that.  
 12 Q. Can you tell me why that is? Well, let me ask  
 13 you this first: Was there a decrease between 2005 and  
 14 2009 in the number of times BP called on you to perform  
 15 contingency planning for them?  
 16 A. With respect to the number of times BP called,  
 17 that's difficult to tell. But it looks like from  
 18 looking at this page, it seems like the number of  
 19 project actually -- actually been done has decreased  
 20 during that time period. But, again, it varies from  
 21 year to year.  
 22 Q. And so you agree with me that the number of  
 23 contingency projects BP called on your company to do  
 24 between 2005 and 2009 decreased steadily over that  
 25 period of time?  
 00336:01 A. I'm not sure if it decreased steadily, but I  
 02 see -- I see a decrease in number of projects. A lot of  
 03 these projects are in the North Sea --  
 04 Q. Uh-huh.  
 05 A. -- and the activity in the North Sea varies  
 06 with time.  
 07 Q. Do you agree with me that the number of times  
 08 that BP called on your company for a contingency  
 09 planning decreased from 2005 to 2006?  
 10 A. In 2005 to 2006 there might be just a few more  
 11 projects in 2005.  
 12 Q. And then, from 2006 to 2007 another decrease?  
 13 A. There are fewer projects in 2007 than 2006.  
 14 Q. And fewer contingency projects in 2008 than  
 15 2007?  
 16 A. That's true.  
 17 Q. And fewer are still in 2009, compared to 2008?  
 18 A. That's true.  
 19 Q. Has anyone at BP ever given you an explanation  
 20 for why the frequency that they call on you for a  
 21 contingency planning has decreased over these several  
 22 years?  
 23 A. Not as far as I know. But, again, I mean

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00337:04 Q. No one there has ever given you any  
 05 explanation for that?  
 06 A. Not to me.  
 07 Q. Has anyone in your company told you that they  
 08 have received an explanation from BP about that?  
 09 A. Not as far as I remember, no.

Page 337:22 to 339:08

00337:22 Q. (BY MR. HASSINGER) Let's talk about the  
23 document destruction issues. You were asked yesterday  
24 toward the end about shredding and not retaining  
25 documents and E-mails and phone calls being monitored.  
00338:01 Do you remember that discussion?  
02 A. Yes.  
03 Q. What I'd like you to tell me is: First,  
04 describe the process for me as far as generating paper.  
05 You said that generating things in connection with the  
06 investigation and your work, in particular, after the  
07 blowout, you were discouraged -- the investigative team  
08 was discouraged from printing out paper, things on paper  
09 as opposed to keeping information on a computer?  
10 A. Most of what I did was -- or everything I did  
11 was electronically. But if I needed to print a copy of  
12 a plot or anything, we were told that we should not have  
13 several copies or -- flowing around -- flying around.  
14 So we were asked to destroy printouts, copies of  
15 printouts.  
16 Q. When you say, "We were asked to do that," you  
17 mean everyone at your company who was working for BP?  
18 A. I didn't say that. I mean, as a being a part  
19 of that investigation team, team members were asked to  
20 destroy copies of printouts.  
21 Q. Asked by whom?  
22 A. I'm not sure if I remember who told me that.  
23 I guess that could be Kent Corser. I reported to Kent  
24 Corser, but I'm not really sure.  
25 Q. Obviously, some of your draft reports were  
00339:01 printed out because we looked at them, right?  
02 A. I've seen copies of my report, yes.  
03 Q. Did you, during your work for BP, shred,  
04 destroy, any of your draft reports?  
05 A. That might be true. I don't remember exactly.  
06 But I remember I destroyed printouts, but whether that  
07 was a report or a chart or some pages from the report, I  
08 don't really remember.

Page 340:08 to 340:18

00340:08 Q. Figures. What other types of documents were  
09 destroyed during your work for BP?  
10 A. I have to say that it was not destroying  
11 documents. Everything I do I do electronically of  
12 modelling using all input files, output files. And what  
13 I'm telling you is that -- and I don't understand that  
14 during the work we were asked to, if we needed to print  
15 some copies of the electronic documents, we were asked  
16 to -- to destroy copies of printouts, and for me, that  
17 sound like a reasonable thing. You don't want several  
18 versions of documents flying around.

Page 341:02 to 341:10

00341:02 Q. In the files that were saved electronically,  
03 were they written over as your work progressed?  
04 A. That's true.  
05 Q. And that was the typical of the investigative  
06 team?  
07 A. I can speak for myself and the -- the report I  
08 started to write on almost immediately was -- was a live  
09 document, if you like. It was continuously updated as  
10 long as we did the work.

Page 342:17 to 343:01

00342:17 Q. This wasn't your personal shredder. It wasn't  
18 Morten's shredder for the BP project, this was for  
19 everybody to use; is that right?  
20 A. I did not have a personal shredder, no.  
21 Q. This was for everybody there to use, the  
22 shredder you're talking about; is that right?  
23 A. I'm not sure I talked about a certain  
24 shredder.  
25 Q. There were more than one?  
00343:01 A. I'm not really sure.

Page 343:06 to 344:05

00343:06 A. Yes, I remember some part of that, yeah.  
07 Q. When you were retained, called upon for the  
08 Macondo Well, did anyone tell you that BP would be  
09 actively involved in editing your draft reports?  
10 A. No.  
11 Q. You explained to us yesterday and we looked at  
12 the red line track versions of your reports, remember  
13 with strike throughs and additions. Do you remember  
14 that?  
15 A. Yes. I saw a black and white copy --  
16 Q. Yeah.  
17 A. -- of that yesterday, yeah.  
18 Q. And that black and white copy showed some  
19 words struck through, correct?  
20 A. That's correct.  
21 Q. And showed whole paragraphs added to your  
22 draft. Do you remember that?  
23 A. Yeah, I remember that.  
24 Q. Is that typical in your line of work,  
25 generally speaking, not just for BP? But you told us  
00344:01 how you worked for most of the major oil companies in  
02 the world. When you do draft reports, is it typical for  
03 your client to come back and edit and strike through  
04 words and add paragraphs?  
05 A. I would not say that that is typical, no.

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00344:16 A. I know that it has been done before, but I'm  
17 not sure which project that was, but I agree it is not  
18 common that the operators do that. If you look at the  
19 nature of this incident on the investigation team, I do  
20 not personally find that strange that they actually do  
21 that kind of thing.  
22 Q. Why not?  
23 A. My work was a part of a large group,  
24 investigation team, and we were all working as a team  
25 trying to find out what was going on. And we document  
00345:01 that in a final report. And to me, it seems natural  
02 that there would be reviewers on the printed materials  
03 or on the documents.  
04 Q. Reviewers. That means people from your  
05 client's company who come in and edit your report and  
06 strike through words and add paragraphs? Is that the  
07 definition of a reviewer?  
08 A. Remember that I was a part of BP's internal  
09 investigation team. I work together with BP employees  
10 trying to find the causes that led up to this fatal  
11 incident.  
12 Q. Were you able to identify anything that -- any  
13 mistakes that BP made that caused this incident?  
14 A. I have not tried to do that kind of  
15 investigation. My job was to run dynamic simulations.  
16 Q. Getting back to the striking the words and  
17 adding the paragraphs, you told me that's it's atypical,  
18 it's not usual for your clients to have that level of  
19 involvement in your draft reports, right?  
20 A. That is right. Most of the work we do is  
21 related to contingency planning and the process there --  
22 process there is that we ask the client for a lot of  
23 input data and we run our simulations, write the report,  
24 and submit that to the customer.

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00347:08 A. I reported to Kent Corser, but later in the  
09 process, I also communicated a lot with David Wall and  
10 he sub -- submit the -- the documents to myself, the --  
11 the re -- the revisions.  
12 Q. (BY MR. HASSINGER) Did you have any -- well,  
13 let me ask it this way. Did -- did anyone else suggest  
14 revisions to you besides those two men?  
15 A. I would expect that there were a lot of people  
16 reviewing my report within the team.  
17 Q. The revisions came to you through one of these  
18 two men?  
19 A. That's correct. The revision -- at least some  
20 of the revisions came through David Wall.  
21 Q. Did the revisions come to you through anyone  
22 else?

23           A.    I got feedback from Kent Corser as well.  You  
 24 know, we worked as team, so we had a lot of discussions,  
 25 we got a lot of feedback, and we exchanged information  
 00348:01 almost every day.  
 02           Q.    Did anyone besides Mr. Corser or Mr. Wall give  
 03 you a revised draft of your report with words struck  
 04 through and paragraphs added?  
 05           A.    Not as far as I remember, no.  But I'm not 100  
 06 percent sure about that.  
 07           Q.    What about BP's lawyers, did you ever meet  
 08 with BP's lawyers about editing your report, reviewing  
 09 it, in other words?  
 10           A.    I met with BP lawyers during my stay in -- in  
 11 Houston.  
 12           Q.    How many times did you meet with BP's lawyers  
 13 regarding your work?  
 14           A.    We worked on the same floor, so, I mean, we --  
 15 we met every day, but -- so it's difficult to tell.

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00348:18           Q.    How many of them were there that you met with?  
 19           A.    I believe I met with one or two lawyers.

Page 349:22 to 350:09

00349:22           Q.    Did you meet with any BP lawyers anyplace  
 23 other than in Houston?  
 24           A.    No, I did not.  
 25           Q.    This law office we're in right now, have you  
 00350:01 ever been here before?  
 02           A.    No.  This is the first time I'm here.  
 03           Q.    When you went back to Houston in August, did  
 04 you meet with any BP lawyers then to discuss your  
 05 report?  
 06           A.    Not as I remember.  But, again, it's been a  
 07 year.  I'm not 100 percent sure about that.  But I  
 08 remember I met with them during my first stay in Houston  
 09 in May.

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00350:14           Q.    Tell me about that.  How many meetings were  
 15 there between you and BP's lawyers while you were  
 16 drafting your report?  
 17           A.    As I said, we worked as a group on the 25th  
 18 floor of Westlake 1 in Houston, so we met every day.  I  
 19 mean, we -- we worked in the same conference room like  
 20 this, and -- so I don't have a -- it depends what you  
 21 mean by "meet."  
 22           Q.    I guess.  
 23           A.    I met every day with them, with group members.  
 24           Q.    Who was in the group?  It was you, Morten.  It



25 was BP lawyers. Who else was in the group?  
00351:01 A. There were a lot of specialists from a variety  
02 of fields.  
03 Q. What about by company name?  
04 A. They were most BP employees.  
05 Q. All right. So we have you, we have BP  
06 lawyers, we have BP employees. Who else was in your  
07 group?  
08 A. There were a lot of people. If you're  
09 interested other companies, there were employees from  
10 Boots & Coots within the team.  
11 Q. Do you recall any others -- companies?  
12 A. Other companies?  
13 Q. Yes, sir.  
14 A. I know that Baker was involved during CFD  
15 calculations.  
16 Q. Do you recall any other companies that were  
17 part of your group?  
18 A. There were one employee from ExproSoft named  
19 Per Holand that was a part of the group.  
20 Q. The name of the company again, please?  
21 A. ExproSoft.  
22 Q. What type of work do they do, do you know?  
23 A. The guy from ExproSoft, he -- he deals with  
24 BOP's I think. I don't really know his full background.

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00352:11 So in May of 2010 when you were in  
12 Houston, you worked as part of the investigative team  
13 with BP lawyers, BP employees, Boots & Coots, and -- and  
14 others in a conference room like this?  
15 A. We -- we worked at the 25th floor on Westlake  
16 One in Houston. There were a lot of rooms on that  
17 floor.  
18 Q. You told me that you worked together in a  
19 conference room; is that right?  
20 A. We had several conference rooms. We had  
21 meetings. It was not a room. There were several rooms.  
22 Q. Explain to me your involvement with BP's  
23 lawyers in drafting your report. You told me that you  
24 would see those guys every day and, you know, you worked  
25 together as part of the team. Explain to me in as much  
00353:01 detail as you can your involvement with the BP lawyers  
02 in drafting your report.  
03 A. Yeah. I remember I had one meeting with one  
04 of the lawyers and we -- we went through my report.  
05 It's a very technical report so I remember he had some  
06 questions, what is this? I mean multiphase, what is  
07 multiphase? I had a lot of general questions to my  
08 report. And -- and I'm not sure exact what you're  
09 thinking of but --

Page 353:13 to 355:03

00353:13 So you had meetings with BP lawyers to  
 14 help them understand the technical aspects of your draft  
 15 report, correct?  
 16 A. That's correct. I also would expect that the  
 17 lawyers should -- was reading through my report to make  
 18 sure there were no confidentiality breaches with other  
 19 partners of the license, et cetera. I remember some --  
 20 could be some sensitive information that I was not  
 21 allowed to -- to have in my report. I don't remember  
 22 exactly what -- but he read through the report.  
 23 Q. All right. Did -- well, obviously, at least  
 24 on confidentiality issues, there were things that came  
 25 up where BP's lawyers instructed you to delete certain  
 00354:01 portions of some of the language from your report; is  
 02 that right, for confidentiality reasons?  
 03 A. I don't think they deleted some of the  
 04 language, but I remember, for instance, the -- the  
 05 compositional analysis of hydrocarbon fluid. I remember  
 06 I had that in the report initially, and I was asked to  
 07 take that out of the report.  
 08 Q. Okay. All right. There were instances,  
 09 though, weren't there, where BP's lawyers struck through  
 10 certain words and suggested other words be put in place  
 11 of the strike-throughs? There were instances of that?  
 12 A. Again, that is your words. That might have  
 13 happened, yes.  
 14 Q. And there were instances where BP's lawyers,  
 15 not striking through language, but suggesting additional  
 16 sentences or paragraphs be added to the report? There  
 17 were instances of that?  
 18 A. Some paragraphs were added. Some were taken  
 19 out. I don't remember who did that.  
 20 Q. You don't remember which lawyer it was?  
 21 A. Whether it was a lawyer or a technical writer  
 22 or engineers, I don't remember.  
 23 Q. You know that there were instances, maybe not  
 24 all the time, maybe sometime, those additions were  
 25 suggested by engineers or technical writers, but there  
 00355:01 were some instances where the additional language was  
 02 suggested to you by attorneys, by lawyers, right?  
 03 A. That could be true, yes.

Page 355:07 to 355:11

00355:07 Q. (BY MR. HASSINGER) In other words -- in other  
 08 words, when BP's lawyers suggested strike-throughs or  
 09 additional language, you were instructed to make those  
 10 corrections and not retain your previous draft; isn't  
 11 that true?

Page 355:13 to 355:14

00355:13 A. I always worked on one document, then I make a

14 live document.

Page 355:19 to 356:01

00355:19 When BP's lawyers suggested strike-throughs or gave you  
20 language to add to your report, they also told you  
21 specifically not to retain your previous draft; isn't  
22 that true?  
23 A. I'm not sure whether the BP lawyers told me  
24 about that, but I remember I was told, initially from  
25 Kent Corser, that I should keep one version of my  
00356:01 document and not have 100 different versions.

Page 356:24 to 357:23

00356:24 Q. What about when you were not in Houston,  
25 right, and you went back home or wherever, did you have  
00357:01 any communications either by E-mail or telephone with  
02 lawyers from BP to make edits to your report?  
03 A. No, I did not.  
04 Q. Prior to your work for BP on Macondo, had you  
05 ever been involved in a process where lawyers were part  
06 of your team making edits to your draft reports?  
07 A. First of all, I'm not really sure whether the  
08 lawyers made edits to my report. I'm not sure about  
09 that.  
10 Secondly, I -- there were two questions  
11 there. And -- and the last one was -- I don't think  
12 I've been involved in projects where I've met with  
13 lawyers.  
14 Q. Other than this one; is that right?  
15 A. Yeah. I cannot, from top of my head, come up  
16 with -- on other projects. But it might be. I mean,  
17 I've been involved in hundreds of different projects  
18 so...  
19 Q. Now you said a minute ago -- you said a lot  
20 this morning, you know, about the lawyers and the -- the  
21 edits and meeting with them daily. And then a minute  
22 ago you go and tell me that you're not sure if the  
23 lawyers made any edits. Which is it?

Page 357:25 to 358:06

00357:25 Q. (BY MR. HASSINGER) You told me a few minutes  
00358:01 ago that the lawyers suggested words to strike and gave  
02 you language to add -- BP lawyers when you were in  
03 Houston in May, in the conference room, as part of your  
04 team. Do you want to change that now and say they did  
05 not do that, or are you going to stick by your earlier  
06 testimony and admit that they did do that? Which is it?

Page 358:08 to 358:19

00358:08           A.    If I remember correctly you were the one that  
 09    said the BP lawyers stroke through and edited, directly,  
 10    my report.  What I said was that I remember I had a  
 11    meeting and we went through my report and they asked a  
 12    lot of questions, and the example I gave you was that I  
 13    remember that they asked me to take out a table showing  
 14    the fluid composition of the reservoir fluid.  
 15           Q.    (BY MR. HASSINGER)  You did tell me that.  And  
 16    then I asked you, there were other instances, were  
 17    there; other instances where BP's lawyers struck  
 18    language, suggested strikes to you and gave you language  
 19    to add to your report.  And you said "yes."

Page 358:21 to 359:07

00358:21           Q.    (BY MR. HASSINGER)  That is true, isn't it?  
 22    Isn't it true that BP's lawyers, when you were in  
 23    Houston in May, while you were drafting your report,  
 24    gave you strikes to make in your report, words to strike  
 25    out, and language to add?  Isn't that true?  
 00359:01           A.    I don't remember that that is true.  I  
 02    don't -- I don't think that was true, actually, but I'm  
 03    not 100 percent sure.  I know that there were done  
 04    revisions to my report and people reviewed it in track  
 05    changes.  But as I said, that was done by engineers,  
 06    technical writers.  It could be -- I don't know all the  
 07    people that reviewed my report.

Page 362:14 to 362:14

00362:14   which I'm going to mark as Exhibit 7278.

Page 362:16 to 363:06

00362:16           Q.    (BY MR. HYMEL)  And I want you to flip to the  
 17    second page in that document.  And the E-mail -- one of  
 18    the E-mails from you to Mr. Corser has your signature  
 19    block on it, and your signature block has you listed as  
 20    a senior petroleum engineer.  Was that your capacity in  
 21    June of 2010?  
 22           A.    Yes.  
 23           Q.    Okay.  And are you still a senior petroleum  
 24    engineer?  
 25           A.    I'm still a senior petroleum engineer, but my  
 00363:01   title is vice president, software and technology.  
 02           Q.    Okay.  When you were labeled as a senior  
 03    petroleum engineer back in June 2010, what were your  
 04    duties?  
 05           A.    My duties have been the same in the last 15 or  
 06    20 years.  I'm running dynamic simulations.

Page 364:08 to 364:10

00364:08 Q. Okay. Have you ever testified as an expert in  
09 court?  
10 A. No.

Page 365:14 to 366:06

00365:14 Q. Okay. I want you to turn to Tab 2 in your  
15 book. This is the document that was entered into -- was  
16 listed as Exhibit 7216 yesterday. It is your final  
17 report, dated August 29th, 2010. I want you to turn to  
18 Page 12 of that report.  
19 Down at the bottom of that page,  
20 Section 1.8 states the "Pore pressure and fracture  
21 pressure profile." And then it states that: "The pore  
22 and fracture pressure profiles are shown in Figure 1.3  
23 and Figure 1.4." And if we flip to the next page,  
24 there's Figure 1.3, and then the following page is  
25 Figure 1.4.  
00366:01 Where did you get the pore pressure  
02 numbers that you used for this graph?  
03 A. I got those from BP.  
04 Q. Okay. And similarly, where did you get the  
05 fracture pressure numbers?  
06 A. From BP.

Page 367:23 to 369:09

00367:23 Q. That's correct. Which is Figure 1.6, pore  
24 pressure and fracture pressure, expressed an equivalent  
25 mud weight in your May 31st, 2010 report. You would  
00368:01 agree with me that that graph is more detailed than the  
02 graph in your final report which expresses the same  
03 thing, pore pressure and fracture gradient in equivalent  
04 mud weights?  
05 A. Not necessarily more details. But it's a  
06 zoomed out picture, if you like. I'm not sure whether  
07 there are more information in this chart than the other  
08 chart, but it's just blown-up portions of that chart.  
09 Q. Okay. Well, let's go through the chart in the  
10 May 31st report sitting in front of you. It is  
11 expressed in the pressures expressed in .5 ppg  
12 increments, correct?  
13 A. That's correct.  
14 Q. And how is the pressure described in the final  
15 report?  
16 A. The increments are 1 -- 1 ppg.  
17 Q. So the May 31st report is more detailed. It  
18 shows .5 increments instead of just 1?  
19 A. You could say so; but from my point of view,  
20 it's not necessarily more details. It looks like there  
21 are even more -- or it's difficult to tell, but a lot of  
22 points creating the Chart 1.4 as well.  
23 Q. Okay. The Figure 1.6 in your May 3rd -- 31st  
24 report shows depth in 100-foot increments?

25 A. That's correct.  
00369:01 Q. And how is the depth shown in the Figure 1.3  
02 in your final report?  
03 A. Thousand feet increments.  
04 Q. Okay. And your Figure 1.4 in your May 31st  
05 report shows formation tops, correct?  
06 A. That's correct.  
07 Q. And are formation tops shown on the other  
08 report, 1.3 in your final report?  
09 A. No, sir.

Page 372:10 to 372:18

00372:10 Q. But as you get below and you get to the point  
11 where the maximum pore pressure is 14.2, don't you agree  
12 with me that you must maintain mud weight to cover that  
13 pore pressure as you drill further down below that  
14 depth?  
15 A. I think I answered that earlier. The details  
16 with respect to drilling the well, that was not my task  
17 during the investigation team. I did not look into the  
18 drilling operation of the well.

Page 372:25 to 373:06

00372:25 Q. Okay. Well, when you're drilling at 17,800,  
00373:01 aren't you required to maintain mud sufficient to cover  
02 the 14.2 pore pressure that's above?  
03 A. Again, I will repeat myself. I am not an  
04 expert in drilling wells so I guess you can ask those  
05 questions to a drilling engineer. I'm a petroleum  
06 engineer.

Page 374:20 to 380:03

00374:20 Q. All right. Turn to tab -- we're in Tab 3,  
21 your May 31st report. Turn to Page 22. This is  
22 Section 3.1, and it deals with oil density with pressure  
23 and temperature; and that concept was discussed  
24 yesterday, where the temperature and pressure changes as  
25 the oil comes up, and the oil does not actually expand  
00375:01 until it hits the flash point.  
02 Do you remember that conversation?  
03 A. Yes.  
04 Q. Okay. Now I want you to turn -- go back to  
05 your final report and keep this report open in front of  
06 you, but turn to Page 23 in your final report. Okay.  
07 And that is the same section in your final report, 3.1,  
08 "Oil density with pressure and temperature," and I want  
09 to direct your attention to the last paragraph of that  
10 report. And that was discussed with you yesterday with  
11 counsel for DOJ, and he asked you about some track  
12 changes in that report.

13 But what I want to talk with you about is  
14 the last paragraph that states: "However, it is noted  
15 that the Macondo accident was not caused by a small oil  
16 kick but by a continuous influx of hydrocarbons in the  
17 wellbore resulting in significant gained volumes that  
18 should have been detectable."

19 That paragraph was not in your May 31st  
20 report. Do you agree?

21 A. I agree.

22 Q. Okay. Now that paragraph, are those your  
23 words, or are those someone else's words that were put  
24 into your report?

25 A. It could be my words because I fully support  
00376:01 that writing here. But it might be that someone else  
02 put those words into my report.

03 Q. Okay. Now let's focus on the -- the -- the  
04 statement: "...resulting in significant gained volumes  
05 that should have been detectable." Okay. And I want to  
06 ask you that as your expertise as a petroleum engineer,  
07 are you saying that those volumes should have been  
08 detectable by a petroleum engineer, or do you have the  
09 expertise to tell me who else on the rig should have  
10 been able to detect those volumes?

11 A. Again, that is outside my scope of work during  
12 my time in -- as a part of the investigation team.

13 Q. Okay. So when you testified yesterday that  
14 there are significant gained volumes that should have  
15 been detectable, you're saying that as a petroleum  
16 engineer, you believe that a petroleum engineer should  
17 have been able to detect those volumes?

18 MR. CHAKERES: Object to form.

19 A. Well, we're talking about large volumes here,  
20 and if you monitor what is going into the wellbore and  
21 you monitor what is coming out of the wellbore, the  
22 significant amount of volumes here should be detectable  
23 if you're monitoring the wellbore.

24 Q. (BY MR. HYMEL) Well, any my question --

25 MR. GODWIN: Object to form.

00377:01 Q. (BY MR. HYMEL) And my question to you is: Do  
02 you have the expertise to tell me, as you sit here  
03 today, who should have been able to detect those  
04 volumes, people at different levels of -- on the rig, or  
05 are you just talking about a petroleum engineer?

06 MR. GODWIN: Object to form.

07 A. I am not into who on the rig that should  
08 detect those volumes.

09 Q. (BY MR. HYMEL) So you're speaking only with  
10 regard to engineers, correct?

11 MR. CHAKERES: Object to form.

12 A. I am a petroleum engineer, and I don't know  
13 who's -- who is responsible for monitoring the well.

14 Q. (BY MR. HYMEL) Turn to Tab 5. This is the  
15 E-mail that we've already discussed with -- when we were  
16 talking about your label as a senior petroleum engineer.  
17 It's E-mails back and forth between you and Kent Corser,

18 and I want to refer you to the first E-mail on that page  
19 which, of course, is the last E-mail in the chain.

20 It's from Kent Corser saying: "Morten, We  
21 need some help with an update on the dynamic model. Are  
22 you available now or is there someone else who could run  
23 the model? We have a sand at 17,467 MD that is 2' thick  
24 14.1 ppg and classified as GAS and would flow. Want to  
25 see how that fits to at least start the kick."

00378:01 Now, I didn't see you model any 14.1 ppg  
02 reservoirs in your report. Did you do so?

03 A. It's probably not in the report. I don't  
04 remember if I modelled it. I'm not really sure if I did  
05 that.

06 Q. Okay. Turn to Tab 6, please. Tab 6 is an  
07 E-mail that was discussed yesterday. It was an E-mail  
08 about when you were on vacation, and then they had some  
09 additional people do some work on your report. I want  
10 to refer you to Page 4 of that E-mail. And there's an  
11 E-mail from Dave Wall to you dated July 6th, 2010, and  
12 basically what he says is, "I know you're on holiday,  
13 but we want some additional work done." And he states,  
14 "We would like to prove that by diverting the 14-inch  
15 starboard diverter line that the release hydrocarbons  
16 would have been to a safe location, therefore explosion  
17 fire would not have occurred or if the gas did ignite,  
18 it would be in a safe location."

19 You responded back that you're currently  
20 in Cannes and you did not bring your computer. You did  
21 not think the 14-inch diverter would create any  
22 significant back pressure. But going down to the second  
23 line, you discuss this with Kent Corser in the BOP team,  
24 and there was a guy from the SPT group that had been  
25 hired to run some sensitivities.

00379:01 Did you ever run the -- the -- the  
02 calculations of the simulations that Mr. Wall asked you  
03 to do with regard to the diverter, or did you rely upon  
04 SPT?

05 A. I run the simulations regarding the potential  
06 back pressure that the different surface line could  
07 create on the system.

08 Q. And where were those? Did you prepare a  
09 report on that?

10 A. Some of the findings is in my final report,  
11 yes.

12 Q. And where are those findings?

13 A. Well, I have to -- if you look at Page 45 in  
14 my final report, we have a section there named 3.7.3,  
15 pressure drop in surface lines.

16 Q. Okay. And that is the extent of your work  
17 with regard to the diverter?

18 A. Yes, the diverters were also implemented  
19 in the -- in the model.

20 Q. The diverters were implemented in the model in  
21 what way?

22 A. As all the equipment. I mean, we -- we



23 modelled the wellbore with casing strings, kill and  
 24 choke lines, diverters, mud gas separator, vent line,  
 25 overboard line.  
 00380:01 Q. You're talking about with regard to your flow  
 02 calculations?  
 03 A. That's correct.

Page 380:18 to 381:08

00380:18 Q. I understand. But my point is Mr. Wall asked  
 19 you in an E-mail, he says, "We would like to prove that  
 20 diverting to the 14-inch starboard diverter line, that  
 21 the release of hydrocarbons would have been to a safe  
 22 location and therefore the explosion fire would not have  
 23 occurred, or if the gas did ignite, it would have been  
 24 in a safe location."  
 25 And I know you say you did some work with  
 00381:01 the diverter, but did you ever answer that question that  
 02 he asked to you, or was that somebody else who was  
 03 responsible for that?  
 04 A. No, actually, I remember before this  
 05 conversation, I ran simulations just to investigate that  
 06 effect, how much pressure could the surface equipment  
 07 cost or create on -- on the system. So this E-mail is  
 08 just one out of several discussions around that topic.

Page 381:19 to 382:19

00381:19 Q. Go to your final report scenario 7. Now, in  
 20 Scenario 7, you assume in some additional scenarios as  
 21 well that the flow was up the shoe track, correct?  
 22 A. That's correct.  
 23 Q. Okay. Now, how do you reconcile your opinions  
 24 with the HORIZON incident float collar study done by  
 25 Stress Engineering on November 22, 2010, that the float  
 00382:01 valves converted?  
 02 A. I was not too much involved in that. I don't  
 03 remember.  
 04 Q. Did BP ever tell you that they had hired  
 05 another set of experts, Stress Engineering, who did a  
 06 calculation and testing on the float collar and found  
 07 that the float valves converted which should have  
 08 stopped any flow up the shoe track?  
 09 MR. BARROW: Objection; form.  
 10 MS. O'CONNOR: Objection; form.  
 11 A. If I -- it might be that I heard something  
 12 about it; but from the top of my head, I don't really  
 13 remember.  
 14 Q. (BY MR. HYMEL) BP never gave you the stress  
 15 engineering report, did they?  
 16 MS. O'CONNOR: Objection to form.  
 17 A. No, I don't think so.  
 18 MR. HYMEL: Okay. Those are all the  
 19 questions I have. Thank you.

Page 385:03 to 385:11

00385:03 Q. Okay. Now I want to hand you what was  
 04 previously marked as Exhibit No. 7268 to your  
 05 deposition. It's already in the record, so we're not  
 06 going to mark it again. I'll give one to your lawyer  
 07 for BP, as well as your personal lawyer here.  
 08 And this document appears to be a Master  
 09 Services Agreement Emergency Well Services, and it has a  
 10 contract number on it, does it not, sir?  
 11 A. Yes.

Page 386:15 to 387:25

00386:15 Q. Okay. And I want to know if you know if the  
 16 work that Add Energy or Add Well Flow provided, the  
 17 services that it provided to BP, if they were covered by  
 18 this contract which you have there before you, which is  
 19 marked Exhibit 72 -- 7268?  
 20 A. I would expect so. But then, again, there are  
 21 several dates here. And I know there have been  
 22 extensions --  
 23 Q. All right.  
 24 A. -- to the contract, so...  
 25 Q. Have you seen any other agreement, other than  
 00387:01 the one you have there before you, that you believe you  
 02 and your company provided services under to BP in  
 03 connection with the Macondo Well blowout? Have you seen  
 04 any other agreement?  
 05 A. Maybe not master services agreements, no.  
 06 Q. No other agreement that you've seen; is that  
 07 correct?  
 08 A. It depends what you mean by "agreements."  
 09 Q. Well, contract. Have you seen any other  
 10 contract that your company used in performing its  
 11 services for BP in connection with the DEEPWATER HORIZON  
 12 engagement?  
 13 A. I guess I've not seen any other contracts.  
 14 But again, that is not my task, to -- to deal with  
 15 contracts. We have our own -- other people within the  
 16 company that takes --  
 17 Q. You have not seen any --  
 18 A. -- care of it.  
 19 Q. -- is what you're telling -- telling us,  
 20 correct?  
 21 A. That is your words.  
 22 Q. No. You said you've not seen any other  
 23 agreements.  
 24 A. I think I have not seen other agreements.  
 25 Q. Thank you.

Page 389:01 to 393:13

00389:01 Q. Okay. Were you the person within the company  
02 that received the initial contact from BP about  
03 performing services in connection with the April 20  
04 incident?  
05 A. I'm not sure whether it was myself. It might  
06 be Ole Rygg that received the first E-mail or phone  
07 call. I don't remember exactly.  
08 Q. All right. And -- and tell us, if you will,  
09 please, what was your understanding of the services that  
10 your company was going to be providing to BP in  
11 connection with the engagement related to the  
12 investigation of the blowout?  
13 A. We were asked to join the investigation team  
14 with our services related to dynamic simulations.  
15 Q. Okay. And when you say "dynamic simulations,"  
16 if you will, tell us what you -- what that means to you  
17 in terms of the engagement that your company had with  
18 BP.  
19 A. Dynamic simulations is our -- one of our main  
20 services that we support to our clients.  
21 Q. Okay. And this -- when you say "dynamic  
22 simulations," what were the dynamic simulations going to  
23 be of? What were they going to be representative of?  
24 A. Dynamic simulations of fluid flow in -- in the  
25 wellbore.

00390:01 Q. Okay. And who was it within BP that was your  
02 main contact?  
03 A. Kent Corser.  
04 Q. Okay. And how about Mr. Dave Wall, did you  
05 also have contact with him from time to time during the  
06 engagement?  
07 A. As I said earlier, I had contact with a lot of  
08 people, including Dave Wall.  
09 Q. Okay. And -- and about what was -- what -- in  
10 terms of the month, as best you can recall -- and I know  
11 it may -- may be difficult as far as the specific day --  
12 what's your best recollection as to the month and day  
13 that your company was engaged by BP in re -- in  
14 connection with this matter?  
15 A. April 30th is my best guess.  
16 Q. April 30, okay, sir.  
17 And then -- and then about how long was  
18 your company involved -- I realize you're here today and  
19 have been preparing for your deposition. But in terms  
20 of involved with the investigation and the writing of a  
21 report, how long was your company involved?  
22 A. I can speak for the work I did within the  
23 investigation team, and that was more or less up to the  
24 publishing date of September 8th.  
25 Q. September 8. And that was for the Bly report?

00391:01 A. Yeah. My -- my report as an appendix to the  
02 Bly report, yes.  
03 Q. Okay. Yesterday, it was identified as  
04 Appendix W, was -- I believe you identified it as the --  
05 was the report of AE, Add Energy, that was added to the

06 Bly report. And you said that was September 8.  
07 Did you write that report in its entirety,  
08 Appendix W?  
09 MR. GODWIN: Do you have a copy of it,  
10 Jon?  
11 Q. (BY MR. GODWIN) I'm going to hand you a copy  
12 here of the document that was marked yesterday and  
13 just -- won't re-mark it. We'll just kind of have it  
14 here so we can go over it briefly.  
15 And -- and my question is fairly simple.  
16 Appendix W, which is the report of Add Energy. Did you  
17 write the entire report?  
18 A. Appendix W is my report.  
19 Q. Okay, sir. And my question is: Did you write  
20 all of it, or did you have others write any parts of it  
21 that you -- that you supported or sponsored?  
22 A. The report was, as I told earlier this day,  
23 subject to review. And so other people have reviewed  
24 the report and added or subtracted some -- some  
25 sentences and paragraphs and...  
00392:01 Q. Okay. And we know we're going to talk about  
02 what BP did or did not do with regard to the report, and  
03 that's been covered a little bit. I'm going to cover it  
04 somewhat more. Did other folks within Add Energy, any  
05 division of Add Energy or Add Well -- whatever, Add Well  
06 Company, did others within your organization, did they  
07 add anything to the report?  
08 A. No.  
09 Q. Okay. So the -- may we then understand that  
10 Appendix W, which is the Add Energy report, is a report  
11 that was prepared by you and BP?  
12 A. The report was prepared by myself, but we  
13 worked as a team, the investigation team.  
14 Q. You being who worked as a team, you and BP?  
15 A. The investigation team as a group.  
16 Q. Okay. Well, what I want to do is -- did  
17 anybody other than BP make any suggested changes to  
18 Appendix W, the Add Energy final report? Anybody other  
19 than BP?  
20 A. I don't think so.  
21 Q. Okay. So going back to my question, the Add  
22 Energy report, which is Exhibit 7265 was a joint report  
23 that was prepared by you -- by you at Add Energy and BP,  
24 correct?  
25 A. That is your words. My understanding is  
00393:01 Appendix W is a report prepared by myself covering all  
02 the dynamic simulations and evaluations I did as part of  
03 the scope of my work, and it was subject to review  
04 within the team.  
05 Q. Well, not only was it subject to review; but,  
06 frankly, BP made extensive changes to the report and  
07 modifications, did they not, while it went, as you say,  
08 from one draft to another?  
09 A. That is your words. They did not do anything  
10 with respect to technical findings.

11 Q. Okay, sir.  
12 A. But there were phrases and wordings they  
13 added, that's correct.

Page 393:19 to 396:25

00393:19 don't have to find it. Exhibit 7248 was a document, I  
20 believe, that was marked yesterday. I want to look here  
21 at Exhibit 7248. This is a document that Morten Emilsen  
22 wrote on August 9, 2010 to Dave Wall, is it not?  
23 A. That's correct.  
24 Q. And -- and it was regarding BP incident  
25 investigation?  
00394:01 A. That's correct.  
02 Q. And in the first part here you say, "Dave, I'm  
03 in Houston and are happy to see that our main  
04 conclusions are unchanged." Did I read that correctly?  
05 A. That's correct.  
06 Q. That's what -- that's what you said as of  
07 August 9, correct?  
08 A. The mail says so, yes.  
09 Q. Okay. That's what it says. Now, I want to  
10 take and look at Exhibit 7229. I'm going to hand you  
11 now what was marked yesterday as Exhibit 7229. This is  
12 a document you have here from Dave Wall to you, dated  
13 August 17, eight days later, correct, than when you  
14 wrote your E-mail to him on August 9, correct?  
15 A. That's correct.  
16 Q. Okay. Let's see what Mr. -- what Mr. Wall  
17 said about the extent of the changes to the document.  
18 It says -- now if you look back at 7248, which was the  
19 first E-mail, the E-mail you wrote on August 9, it shows  
20 the importance of it as being normal, does it not?  
21 A. That's correct.  
22 Q. It says normal is important, correct?  
23 A. That's correct.  
24 Q. Look over at Mr. Wall's E-mail to you of eight  
25 days later, August 17, and the importance says "high,"  
00395:01 correct?  
02 A. That's correct.  
03 Q. And it says -- subject is: Comments on the  
04 report. Correct?  
05 A. That's correct.  
06 Q. You understood that to be the comments on your  
07 AE Energy's report, did you not, sir?  
08 A. I can read the subject field says, a reply,  
09 comments on the report, yes.  
10 Q. And did you understand that to mean the report  
11 that you had been working on with BP?  
12 A. Yes, sir.  
13 Q. Okay. Let's go down to see what Mr. Wall says  
14 to you in the first paragraph. "Morten, there are so  
15 many changes that I don't think track changes would have  
16 been much help. If it helps you feel any better, I  
17 worked on the report all day Sunday and much of

18 Saturday." Did I read that correctly?  
 19 A. Yes.  
 20 Q. Does that suggest to you that Mr. Wall was  
 21 saying that, to your report, he had over two days,  
 22 Saturday and Sunday, that he had made extensive changes  
 23 to your report? That's what he says, isn't it, there in  
 24 Paragraph No. 1?  
 25 A. "Extensive" is your words, but he writes that,  
 00396:01 "There was so many changes that I don't think track  
 02 changes would have been much help."  
 03 Q. Okay. And did you understand that to mean  
 04 that he was almost -- rather than doing track changes,  
 05 he was almost rewriting certain parts of the report?  
 06 A. That is your words.  
 07 Q. Do you agree with it?  
 08 A. I can read what he said.  
 09 Q. Do you agree with what I just said, and that  
 10 was that track changes were insufficient to capture the  
 11 changes that Mr. Wall was making on behalf of BP?  
 12 A. Might be true, yes.  
 13 Q. Okay, sir. And it goes on to say, "What I  
 14 have discovered is that this is all part of the required  
 15 process to ensure a high-quality report is eventually  
 16 delivered." Did I read that correctly?  
 17 A. Yes.  
 18 Q. "I have had many people review my part of the  
 19 main investigation report and after nearly six weeks, I  
 20 have a product that is good. Stick with it. Try to  
 21 stay patient and feel free to change anything you feel  
 22 appropriate. It is your report. It is really important  
 23 I get the report back tomorrow, though." Did I read  
 24 that correctly?  
 25 A. Yes, sir.

Page 397:07 to 398:03

00397:07 Q. (BY MR. GODWIN) I have, "All of the team  
 08 leaders have now reviewed the report, and I now have  
 09 further edits to offer you." Read that correctly?  
 10 A. Yes.  
 11 Q. "What I propose we do is send the report back  
 12 to me tomorrow" -- "is you send the report back to me  
 13 tomorrow when you're ready and I will do track changes  
 14 and add any of the TL," team leader, "comments. ^ I feel  
 15 value adding and then return before COB," close of  
 16 business, "tomorrow." Did I read that correctly?  
 17 A. Yes.  
 18 Q. "This report will be the most scrutinized and  
 19 challenged report you will ever write. We need to get  
 20 it to the point where it is really robust and you are  
 21 completely happy with it, but it has to be completed end  
 22 of business Houston time on Thursday." Did I read that  
 23 correctly?  
 24 Q. Yes. So they were looking for you to sponsor,  
 25 through Add Energy, your company, a robust report that

00398:01 will provide BP with the support it needed to support  
02 its positions in this litigation. Is that what you  
03 understood?

Page 398:05 to 398:13

00398:05 A. No.  
06 Q. (BY MR. GODWIN) Okay, sir. As a part of the  
07 investigation, you were being asked from Mr. Wall, from  
08 BP, to prepare a robust report, were you not, according  
09 to the very wording of his E-mail there in the last  
10 paragraph?  
11 A. That's the last paragraph, yes.  
12 Q. That's what he said, didn't he?  
13 A. That's what this E-mail says, yes.

Page 399:09 to 399:22

00399:09 And what's your best estimate, if you have  
10 one, as to of the 59 pages, how many of those pages  
11 contained changes or suggested changes by any folks at  
12 BP?  
13 A. I don't --  
14 Q. All of them, half of them, two-thirds of them?  
15 A. I'm not sure I have an answer to that. If you  
16 look back to the first E-mail, there is a -- I am saying  
17 that I'm glad that the main conclusions are unchanged.  
18 The changes we are talking about now are more -- it had  
19 nothing to do with the general findings, the results  
20 from the work I did. It's more wording and spell checks  
21 and -- the main conclusions, and the simulation results  
22 are unchanged.

Page 400:08 to 400:13

00400:08 I asked you a question. It was a yes or  
09 no. Did he write to you on August 17 and tell you that,  
10 "There was so many changes that I don't think track  
11 changes would have been much help." Did he say that in  
12 his E-mail to you?  
13 A. Yes, he did.

Page 400:15 to 401:09

00400:15 Now, in terms of what you were doing for  
16 BP, my understanding is that you were requested to model  
17 the flow of the hydrocarbons up through the well. Was  
18 that part of the engagement?  
19 A. The engagement was that I should build  
20 and run -- build a model and run simulations.  
21 Q. Okay. And were -- and were there two models?  
22 The one with the hydrocarbon through the casing, and  
23 secondly, the hydrocarbon throw through the annulus?

24 Were those the models that you were to build?  
25 A. I built a number of different models but those  
00401:01 two were the main flow path scenarios as we regarded as  
02 likely.  
03 Q. Okay, sir. And did you model the  
04 hydrocarbons, the gas, going up the annulus and then  
05 crossing over into the casing at any point? Did you  
06 model that --  
07 A. I don't --  
08 Q. -- scenario?  
09 A. I don't think I modelled that scenario.

Page 402:05 to 402:22

00402:05 Q. Okay. So what I understand you to say is --  
06 so cut through some of the questions -- nobody with BP  
07 ever discussed with you whether the casing had or lacked  
08 integrity prior to the blowout; is that your testimony?  
09 A. I mean, I don't remember everything, but there  
10 were a lot of discussions. I'm not sure.  
11 Q. Okay. My question is, were you informed by BP  
12 that you should model any scenario that would take into  
13 account a possible lack of integrity in the casing prior  
14 to the blowout? Were you asked to model that as one of  
15 the many models that you prepared?  
16 A. No, I don't think so.  
17 Q. Okay. Did anybody ever suggest to you at BP  
18 that -- that there were folks there within BP who  
19 actually thought that the hydrocarbon flow came up  
20 through the annulus crossed over into the casing and  
21 then through the riser to the rig floor? Did you hear  
22 anyone say that at BP?

Page 402:24 to 402:24

00402:24 A. I don't remember. No.

Page 404:06 to 405:01

00404:06 My question to you is, sir -- is this.  
07 Did BP tell you, as part of the engagement, what the  
08 most likely scenarios were of the flow path that they  
09 wanted you to model?  
10 A. No. That was actually also a part of my scope  
11 to identify flow path scenarios.  
12 Q. Well, did BP tell you what they believed one  
13 or more of the people on the investigative team  
14 believed -- believed were the most likely scenarios of  
15 the flow path? Did they tell you that at any time in  
16 connection with your engagement?  
17 A. During the process and based on the evidence  
18 as we got them -- the most likely scenario were  
19 identified.



20 Q. And who told you -- who within BP told you  
21 what the most likely scenarios were of the flow path?  
22 A. That was a result of the investigation group.  
23 Q. Who told you that, sir, is my question? Was  
24 it Mr. Wall, Mr. Corser or somebody else?  
25 A. I don't understand the question. Nobody told  
00405:01 me what the most likely scenario was.

Page 405:07 to 405:22

00405:07 A. You know, we worked in a long period of time  
08 here, several weeks. When I first came there, there  
09 were several possible flow path scenarios.  
10 Q. Okay.  
11 A. And my -- part of my task was to run  
12 simulations and evaluate the different flow path  
13 scenarios.  
14 Q. Okay. And -- and were you asked by BP to run  
15 a model that would show the flow path being up through  
16 the annulus?  
17 A. Yes, flow path through the annulus was one of  
18 the scenarios we modelled.  
19 Q. Okay. And were you asked to run a flow path  
20 going up the shoe track up the casing?  
21 A. That was an also a possible scenario we  
22 modelled, yes.

Page 406:16 to 406:20

00406:16 Q. Was there any -- was there any conversation in  
17 your presence regarding your scope of work that BP at  
18 any time thought that the seal assembly may have lifted?  
19 A. I remember discussions whether the seal  
20 assembly could be lifted or not, yes.

Page 407:04 to 407:05

00407:04 Q. Did -- but it was BP employees that told you  
05 that, sir, that said that in your presence?

Page 407:07 to 407:14

00407:07 A. Investigation team.  
08 Q. (BY MR. GODWIN) Which was BP?  
09 A. Was mostly by BP employees.  
10 Q. Okay, sir. Now, did anybody there on the team  
11 that was discussing their belief that the seal assembly  
12 had lifted, did anybody tell you why they thought the  
13 seal assembly had lifted, what was their opinion about  
14 that?

Page 407:16 to 407:23

00407:16 A. That was not really part of my scope with  
17 them. The annulus flow path was initially a likely  
18 scenario that we modelled.  
19 Q. (BY MR. GODWIN) Was a likely scenario. And  
20 that entailed taking into account that the seal assembly  
21 had lifted, thereby allowing hydrocarbons to escape from  
22 the annulus. Was that your understanding when you were  
23 doing the modelling?

Page 407:25 to 408:02

00407:25 A. I do not really model the seal assembly as  
00408:01 such, but the flow path in the annulus was one of the  
02 scenarios I modelled.

Page 408:16 to 408:18

00408:16 Q. (BY MR. GODWIN) When you said that they told  
17 you that they believed that the seal assembly had  
18 lifted --

Page 408:20 to 409:02

00408:20 Q. (BY MR. GODWIN) -- did you take in -- did you  
21 take -- did you take into account in your modeling that  
22 if, in fact, the seal assembly did lift, that that was  
23 one of the flow paths that would have allowed the  
24 hydrocarbons to escape through the seal assembly and get  
25 over -- and get up into the riser and go to the rig  
00409:01 floor? Did you take that into account in any of your  
02 models?

Page 409:05 to 409:25

00409:05 A. I modelled the scenario where the flow path  
06 was through the annulus.  
07 Q. (BY MR. GODWIN) Yes, sir.  
08 A. That was one of the scenarios I modelled.  
09 Q. And did you extend that model to take into  
10 account that the hydrocarbons would go not only through  
11 the annulus, but also go upward through the seal  
12 assembly? Did you take that into account?  
13 A. That was modelled.  
14 Q. Thank you, sir.  
15 And did you reduce that writing to a  
16 computer form? Was it -- was it put in a computer  
17 format that we would be able to see that particular  
18 model?  
19 A. All my models are in the electronic format,  
20 yes.  
21 Q. Okay, sir. And they've been provided to BP?  
22 All of -- all your work and your models that have been

23 put on -- in computer format, they've been provided to  
24 BP?  
25 A. Yes.

Page 410:05 to 412:05

00410:05 Q. (BY MR. GODWIN) Regarding the -- the possible  
06 flow paths that you were asked to consider in doing your  
07 modeling work, you received the information about those  
08 possible flow paths from BP, did you not?  
09 A. A lot of the inputs that goes into my model, I  
10 rec -- I received those from -- from BP. With respect  
11 to the various flow path scenarios, that was discussion  
12 between me and -- and the rest of the team.  
13 Q. Okay. And to BP members?  
14 A. BP members, team members.  
15 Q. Okay. My point that I'm making is: Is that  
16 the information you used in preparing your models was  
17 information that BP either gave to you in writing or  
18 verbally or both?  
19 A. That's correct.  
20 Q. Okay. You did not independently attempt to  
21 make any determination about the possible flow paths  
22 prior to performing your models, did you, sir?  
23 A. Well, this is kind of -- we do this kind of  
24 work, and we are trained in looking into a situation  
25 and -- and look at various flow path scenarios.  
00411:01 Q. But my question is a little bit more specific,  
02 and I respect the fact that that's the kind of work you  
03 folks do. But my question is: In terms of looking at  
04 the data that you receive, verbal or written or both,  
05 regarding the possible flow paths, you got all of that  
06 information from BP, you did not make any independent  
07 determination, did you?  
08 A. The input data, with respect to well design  
09 and PVT and reservoir, et cetera, was -- I received  
10 those from -- from BP.  
11 Q. Thank you, sir.  
12 Now, as I understand it, you were  
13 talking -- you were talking yesterday about the OLGA  
14 model, and -- and my notes show that you said that the  
15 OLGA model cannot model cement. Did I -- did I remember  
16 that correctly?  
17 A. Yeah. OLGA is not a model to -- to or a  
18 software to model cement. That's correct.  
19 Q. Okay, sir. And I also made had a note that  
20 you said yesterday that you could really not offer any  
21 testimony as to the integrity of the barriers there in  
22 the well. You identified the barriers, or some of them,  
23 but you said -- what I wrote down was that you could  
24 not -- you could not testify as to the integrity of the  
25 well barriers.  
00412:01 Did I remember that correctly?  
02 A. Yeah. I run dynamic simulations, and barriers  
03 are included in my model in terms of casing and BOP as a

04 valve and other barriers, but cement is -- is not a  
05 direct input to model.

Page 414:23 to 415:09

00414:23 Q. Well, do you believe the float collar, as you  
24 say, if it was down there and you know there was a float  
25 collar there, we talked about it, you talked about it  
00415:01 yesterday, are you telling us that you believe that if  
02 the hydrocarbons did go up through the casing, that --  
03 that the float collar had failed to allow them to go  
04 through the float collar? Is that what you're telling  
05 us?  
06 A. I'm just modeling a scenario where the  
07 hydrocarbons are flowing through the casing.  
08 Q. Up through a damaged float collar?  
09 A. Up through the casing and up to surface.

Page 415:13 to 415:23

00415:13 Q. Okay. Taking into account that the float  
14 collar had been damaged at some point. You took that  
15 into consideration as a part of your modeling, did you  
16 not?  
17 A. Yeah, that is details. I do not include float  
18 collars as such in my model.  
19 Q. Did you consider, though, the float collar in  
20 doing your modeling? You said there was talk about it  
21 being damaged at some point with BP investigator -- the  
22 investigative team. My question is: Did you take that  
23 into account in your modeling? "Yes" or "no"?

Page 415:25 to 416:19

00415:25 A. I would just repeat where I said the float  
00416:01 collar --  
02 Q. (BY MR. GODWIN) Did you take it into account  
03 for purposes of your modeling?  
04 A. -- is not a part or an input to my model.  
05 Q. Did you take into account that the float  
06 collar had been damaged in connection with your  
07 modeling? "Yes" or "no," sir?  
08 A. I don't really know if I can answer "yes"  
09 or "no" to that.  
10 Q. Did --  
11 A. I model a scenario where the hydrocarbons  
12 flowed through the casing and up through -- up to  
13 surface.  
14 Q. And you know there was a float collar there in  
15 the well, as you say, down below? You know that, do you  
16 not, sir, as part of your work?  
17 A. There were to flapper valves down there, and  
18 they had to be opened to allow hydrocarbons to flow

19 through those.

Page 416:21 to 418:02

00416:21 Let's talk, if we can, a little bit about  
22 the various hydrocarbon pay zones there. Are you aware  
23 that there were six pressurized zones there in the well?  
24 A. I was aware that there were several zones on  
25 the Macondo Well.  
00417:01 Q. Okay. Did -- and -- and let me go through  
02 them with you and see if you remember these being the  
03 ones that you took into account. There was a 12.6 ppg  
04 hydrocarbon zone. Did you take that into account in  
05 your modeling?  
06 A. You cannot use only pressure, I guess, because  
07 there are several zones at various depths, but the  
08 target reservoir zones were pressured at 12.6 pounds per  
09 gallon.  
10 Q. Okay. Did you also take into account that  
11 there was a 13.1 ppg hydrocarbon zone?  
12 A. That was included in my simulations, yes.  
13 Q. Okay. Did you also take into account in your  
14 simulations that there was a 14.1 ppg brine -- brine  
15 zone?  
16 A. Yes. We evaluated that.  
17 Q. Did you also take into account that there was  
18 a 14.1 ppg hydrocarbon zone?  
19 A. There -- there were discussions around that,  
20 and I had a lot of discussions with reservoir engineers,  
21 and if I remember correctly -- I'm not sure if you're  
22 talking about the same sand, but that was very thin sand  
23 with about almost zero net pay.  
24 Q. Thank you. Were the -- were the three zones  
25 with 12.G -- 12.6 ppg pore pressures, were they  
00418:01 considered by BP to be the, quote, main pay zones, if  
02 you know?

Page 418:04 to 419:24

00418:04 A. Yes. There were the upper and the lower M56  
05 sands that were the main -- or the target reservoir  
06 sands.  
07 Q. (BY MR. GODWIN) And those were the 12.6 ppg  
08 sands that were the target main pay zones? Is that the  
09 ones you're referring to?  
10 A. That's correct.  
11 Q. Thank you. And did -- did ADD Energy take  
12 into account all of the pressurized zones in its OLGA  
13 modeling?  
14 A. Yes. We did.  
15 Q. Did ADD account for the higher 1.1 ppg sand,  
16 the M 57 B, that was purportedly discovered by BP after  
17 the incident?  
18 MS. O'CONNOR: Object to form.

19 Q. (BY MR. GODWIN) Did you take that into  
 20 account?  
 21 A. Which one? I remember, as I said, when I was  
 22 there, there were discussions around a 14 pounds per  
 23 gallon sand, but as I said, that was almost zero net pay  
 24 and not expected to produce at all.  
 25 Q. Well, in reviewing your report, I don't find  
 00419:01 that that 14.1 ppg brine sand was included in your  
 02 Appendix G to the Bly report. Do you recall including  
 03 that in your report?  
 04 A. I don't think so.  
 05 MR. GODWIN: Exhibit?  
 06 MS. O'CONNOR: His report is Appendix W.  
 07 MR. GODWIN: Appendix W. I thank you for  
 08 the clarification.  
 09 Q. (BY MR. GODWIN) Do you remember taking that  
 10 into account and including that in your report, that  
 11 14.1 ppg zone that you say you believe existed?  
 12 A. I remember it was taken into account during  
 13 the work. I don't think it is mentioned in the report.  
 14 Q. Okay. And can you tell us why you did not  
 15 mention that pay zone in the report?  
 16 A. No. Really, except that it would not -- as it  
 17 was a brine zone, it would not affect the overall  
 18 conclusions of the simulations itself.  
 19 Q. Okay. And with regard to the 13.1 ppg sand  
 20 zone, you're aware that that was up above the 12.6 --  
 21 12.6, three zones, are you not, sir?  
 22 A. Yes.  
 23 Q. Are you aware that in the Bly report -- I  
 24 believe that is at Page 35.

Page 420:01 to 420:02

00420:01 Q. (BY MR. GODWIN) I'm going to hand you a  
 02 couple of pages out of the Bly report -- Bly report.

Page 420:04 to 420:05

00420:04 Q. (BY MR. GODWIN) And there was a -- look if  
 05 you will at Page 35.

Page 420:07 to 421:05

00420:07 Q. (BY MR. GODWIN) Look at Page 35 of the Bly  
 08 report. And I'm not giving you the entire report, but  
 09 this is a true and correct copy of that page.  
 10 Look down under "Cement Placement" where  
 11 it says, "When the placement model was running 21  
 12 centralizers."  
 13 You see that?  
 14 A. Yes.  
 15 Q. "The results indicated that the possibility of

16 channeling above the main hydrocarbon zones would be  
17 reduced."

18 Did I read that correctly?

19 A. Yes.

20 Q. Okay. Go down to conclusion. "...although  
21 the decision not to use 21 centralizers increased the  
22 possibility of channeling" of "the main" -- "above the  
23 main hydrocarbon zones."

24 You see that?

25 A. Yes.

00421:01 Q. Okay. Did -- did you take into account in  
02 your modeling that by not using 21 centralizers but  
03 instead using six, that there would be channeling there  
04 within the well above the main three zones of 12.6 ppg  
05 zones? Did you take that into account?

Page 421:07 to 421:19

00421:07 A. Well, I did static evaluations of pressure  
08 profiles where we assumed that there was only small  
09 channels that could transfer pressure from the reservoir  
10 into the annulus.

11 Q. (BY MR. GODWIN) Okay. And that took into  
12 account then that there was channeling there above the  
13 12.6 ppg pay zones at the 13.1 sand that would have  
14 allowed there to have been open areas in the cement,  
15 that would have allowed the hydrocarbons to escape up  
16 through the annulus? Is that what you're saying, sir?

17 A. That was a part of the job where I was looking  
18 at the pressure, the static pressure profiles in the  
19 annulus.

Page 422:13 to 423:17

00422:13 Q. (BY MR. GODWIN) Look at Page 39, please.  
14 Tell me when you get there.

15 A. Yes.

16 Q. If you will, here in your report it starts out  
17 in the paragraph at the top, "If the 13 ppg sand..."

18 Are you referring there -- is that the  
19 same as the 13.1 ppg sand that is above the 12.6 sands?

20 A. I guess so.

21 Q. Okay. "If the 13 ppg sand is able to flow, it  
22 is probable that other sands will also be open to flow."

23 Did I read that correctly?

24 A. You read that correctly.

25 Q. Go down to the -- to the last sentence in that  
00423:01 paragraph where it says: "It is therefore concluded  
02 that the 13 ppg sand probably caused the initial  
03 pressure increase of 1400 psi seen during the negative  
04 test but other sands will have contributed to the flow  
05 from the well once they became underbalanced."

06 Did I read that correctly?

07 A. You read that correctly.

08 Q. Did you form the opinion as a part of your  
 09 modeling that the first flow there within the well  
 10 occurred at the 13.1 ppg sand therefore or after --  
 11 thereafter increasing the pore pressure in the well that  
 12 caused other sands to flow as well? Was that -- was  
 13 that part of the opinion that you formed in connection  
 14 with your work?  
 15 A. You're kind of reading -- you're not -- taking  
 16 things out of context here, I believe. This was -- I  
 17 run a number of simulations. This was Case 3.

Page 424:05 to 424:09

00424:05 My question is this: When you were doing  
 06 your modeling, did you take into account the initial  
 07 flow came from the 13.1 ppg sand? That's the first  
 08 question. And your answer is?  
 09 A. It was taken into account.

Page 425:05 to 425:13

00425:05 My question is, is: Did you form the  
 06 opinion that the reason for the 13 -- for the reason for  
 07 the gas flow in the 13.1 ppg sand was as a result of  
 08 there being channeling at that level in the well at that  
 09 depth? Did you form that opinion?  
 10 A. Case 6 is based on assumptions, and the 1400  
 11 psi seen during a negative test could be caused by  
 12 pressure communication to this 13 pounds per gallon  
 13 sand.

Page 425:17 to 426:06

00425:17 Q. (BY MR. GODWIN) Did you -- well, did you take  
 18 into account that there could have been the possibility  
 19 of channeling there at the sand -- the 13.1 ppg sand --  
 20 A. I have to --  
 21 Q. -- that would have caused or allowed for the  
 22 gas to flow there at that level as the initial pressure  
 23 release? Did you form that opinion?  
 24 A. The OLGA model cannot look at channeling  
 25 itself. Cement is not an input to the OLGA model.  
 00426:01 Q. Did you, when you were -- when you came up  
 02 with your opinion that the gas first started flowing as  
 03 a part of one model after 13.1 sand, did you discuss  
 04 with BP as to whether or not there was proper, adequate  
 05 centralization above the 12.6 main pay zones? Did you  
 06 ask them for that?

Page 426:08 to 426:17

00426:08 A. I did not discuss that with BP.  
 09 Q. (BY MR. GODWIN) You know we went over here



10 earlier and we showed where, in the Bly report, that  
11 Mr. Mark Bly and his investigative team, of which you  
12 were a member, said that there would be an enhanced  
13 chance of -- of channeling above the main pay zones  
14 because of lack of centralization. You remember that in  
15 the report, do you not, sir?

16 A. I remember I read something about that in the  
17 report.

Page 427:06 to 430:04

00427:06 Q. (BY MR. GODWIN) Mr. Emilsen, in re -- I went  
07 back and looked at your report -- your company's report,  
08 where it talked about the initial pressure, initial flow  
09 coming from 13.1 ppg sand.

10 As a part of the work that you were doing  
11 under the BP engagement, did you take into account as  
12 part of your modeling that when the well started flowing  
13 at the 13.1 ppg sand, that that increased the  
14 hydrostatic pressure there in the well down below it,  
15 thereby causing the 12.6 main pay zones to begin  
16 flowing, also? Did you take that into account?

17 A. That was discussed and evaluated as a part of  
18 my work.

19 Q. Okay, sir. And -- and is it your opinion,  
20 having done various models, that, in fact, the initial  
21 flow began there at the 13.1 ppg sand as your report  
22 says and that thereafter the 12.6 sands also began to  
23 flow? Is that your opinion?

24 A. That is one of the assumptions, yes.

25 Q. Okay. And not just an assumption, but that --  
00428:01 are you saying that in terms of your final report, that  
02 that report codifies that opinion, that the initial flow  
03 was at the 13.1 ppg sand which thereafter increased the  
04 hydrostatic pressure in the well below it, causing the  
05 12.6 ppg sands to begin flowing? Is that the opinion  
06 that is reflected there in your report, sir?

07 A. Pressure communication could eventually be  
08 with the 13 pounds per gallon sand, and later it -- it  
09 flowed from 12.6.

10 Q. After the 13.1 had started flowing, increasing  
11 the hydrostatic pressure at the 12.6 levels, and then  
12 they started flowing. That's the opinion that you  
13 reached as a part of your report, is it not?

14 A. That is not true.

15 Q. I thought you just said that's what you did,  
16 was the 13 -- your report says and you've said here  
17 today that the 13.1 sand began flowing initially.

18 A. Yes. It transported pressure, communicated  
19 pressure, that's correct.

20 Q. Hydrostatic pressure increased at the 12.6  
21 sands after the 13.1 sand began to flow, correct?

22 A. No. The hydrostatic pressure at the 12.6 did  
23 not increase and then cause the 12.6 sand to flow.

24 Q. What was it that caused the 12.6 sands to

25 begin flowing, then, after the 13.1?

00429:01 A. A pressure lower -- the well got more  
 02 underbalanced than 12.6. Then the 12.6 sands started to  
 03 flow.

04 Q. Okay. Well, yeah, if we take out the  
 05 hydrostatic part of it and as you clarified it -- I just  
 06 want to make sure I get it down right -- that the flow  
 07 in the well began at the 13.1 sand. That then was  
 08 followed up -- you said there was an underbalancing of  
 09 the well, which increased the pressure at the 12.6 sand,  
 10 and then the 12.6 sands began to flow. Is that the  
 11 sequence in which you believe that the well flowed there  
 12 that is codified in your report?

13 A. No. I think you're mixing -- you're talking  
 14 about pressure increase at the 12.6 sand.

15 Q. Did it increase or decrease?

16 A. Decrease.

17 Q. Okay.

18 A. To be able to flow from a sand, the pressure  
 19 has to decrease below the reservoir pressure.

20 Q. Well, let's go back in and make sure we get it  
 21 right.

22 The 13.1 ppg sand began to flow initially.  
 23 You say that your report; you said it today. Are we  
 24 together so far?

25 A. It communicated pressure, at least.

00430:01 Q. Okay. And then there was a decrease in the  
 02 pressure thereafter that caused the 12.6 ppg sands to  
 03 flow?

04 A. That's correct.

Page 431:24 to 432:01

00431:24 Q. (BY MR. GODWIN) When you did your modeling,  
 25 did you assume that the negative pressure test had been  
 00432:01 correctly interpreted prior to the blowout?

Page 432:03 to 432:10

00432:03 A. It was not a direct input to what I was doing.  
 04 Q. (BY MR. GODWIN) Okay, sir. So then, for  
 05 purposes of your work, you didn't take into account what  
 06 had happened with regard to the negative pressure test;  
 07 is that -- is that accurate?

08 A. Well, I did simulations and modeling from  
 09 3:00 o'clock, including the negative test, trying to  
 10 match the pressure readings from the realtime data.

Page 433:18 to 434:15

00433:18 Let's look at Tab 3 if we can. This is  
 19 Exhibit 7248, which we've had here earlier today. It's  
 20 the E-mail from Mr. Emilsen to Mr. Dave Wall, dated

21 August 9. If we can have that.  
 22 I want to go down to the bottom part of  
 23 it, the paragraph beginning was "As you have seen." Do  
 24 you see that, sir?  
 25 A. Yes.  
 00434:01 Q. "As you have seen, the modeling results are  
 02 very sensitive to the amount and location of the  
 03 hydrocarbons in the wellbore, and smaller changes" --  
 04 something "W-R-T" -- I don't -- what's that word there?  
 05 A. With respect to.  
 06 Q. With respect -- okay, with respect -- "choking  
 07 effects and well productivity will affect the results."  
 08 Did I read that correctly?  
 09 A. Yes.  
 10 Q. It goes down further to say: "My main concern  
 11 is though, that we are now explaining two similar  
 12 pressure build-ups with two different mechanisms, and I  
 13 have a hard time supporting that conclusion."  
 14 You were telling Mr. Dave Wall this,  
 15 correct?

Page 434:20 to 435:22

00434:20 Q. (BY MR. GODFREY) Did I read that last  
 21 sentence correctly?  
 22 A. Yes.  
 23 Q. Okay. And you were telling him you were  
 24 having a hard time supporting a conclusion. Was he  
 25 asking you to support a conclusion that you were unable  
 00435:01 to agree with?  
 02 A. New findings, new witness accounts stated that  
 03 the BOP was not operated before 2141, meaning that our  
 04 first simulation where we assumed that they are -- we  
 05 tried to match the first pressure buildup by a partly  
 06 leaking BOP now have to -- we had to run additional  
 07 models based on the new information we received.  
 08 Q. And that new information was what, sir?  
 09 A. That was that the BOP had not been operated  
 10 before 2141.  
 11 Q. And who told you that?  
 12 A. The BP team.  
 13 Q. Did the BP team tell you that -- that they  
 14 thought that the BOP had been leaking prior to the --  
 15 prior to the blowout was that a fact that was given to  
 16 you for you to take into consideration as a part of your  
 17 modeling?  
 18 A. I'm not sure if I received that information  
 19 whether that's been leaking prior to the blowout; but  
 20 during the negative test, it was leaking.  
 21 Q. The BOP was leaking?  
 22 A. Yes.

Page 435:24 to 436:01

00435:24 And you received that information from the  
 25 BP investigative team?  
 00436:01 A. Yes.

Page 436:10 to 438:03

00436:10 Q. (BY MR. GODWIN) I'm going to hand you what  
 11 John has marked as Exhibit 7279. Quickly here, this  
 12 shows -- if you will go to the second page of this  
 13 E-mail string, there appears to be an E-mail there at  
 14 the top that was written by Mr. Kent Corser on June 25  
 15 that said, "Morten." You see that, sir?  
 16 A. Yes.  
 17 Q. You see it? "We need some help with an update  
 18 on the dynamic model. Are you available now or is there  
 19 someone else who could run the model? We have a sand at  
 20 17,467 feet md that is two feet thick, 14.1 ppg and  
 21 classified as gas and would flow. Want to see how that  
 22 fits to at least start the kick." Did I read that  
 23 correctly?  
 24 A. Yes.  
 00437:01 Q. Okay. And you go over to the first page, if  
 02 you will, please. And going up the E-mail string, where  
 03 Mr. -- where you wrote to Mr. Corser regarding dynamic  
 04 simulations report, where you say, "Remember some  
 05 initial discussions we had on this stringer, the  
 06 reservoir engineer claimed it cannot flow. If it can,  
 07 it is possible that an influx could be taken from this  
 08 zone also before the negative test as it is above or at  
 09 balance with the 14 ppg mud in the hole." Did I read  
 10 that correctly?  
 11 A. Yes.  
 12 Q. And you go down to the last sentence, and you  
 13 say, "We know the oil was flowing initially and we know  
 14 that we were under balanced also to the 12.6 ppg sand  
 15 during the negative test without taking any gains." Did  
 16 I read that correctly?  
 17 A. Yes.  
 18 Q. Go up to the top E-mail, including it here,  
 19 where Mr. Kent Corser wrote to you on June 25 regarding  
 20 dynamic simulation report. He said, "This sand is new.  
 21 They did a new study and have classified it as a gas  
 22 bearing and capable of flow. See attached chart. This  
 23 is NOT" -- and they capitalize, all caps, "not" -- "this  
 24 is NOT the brine sand."  
 25 And then he says -- Mr. Corser of BP says,  
 00438:01 "Will this change the best fit for flow (shoe versus  
 02 annulus)? You working across the street?" Did I read  
 03 that correctly?  
 04 A. Yes.

Page 438:09 to 438:19

00438:09 Q. Well, did you ask him what he was talking

10 about? Was it the 14.1 sand that was the new sand that  
11 was -- that he believed was capable of flowing?  
12 A. This is what the discussion is about, yeah.  
13 Q. Okay. When he asked you, "Would this change  
14 the best fit for flow (shoe versus annulus)," what did  
15 you understand him to mean by that?  
16 A. I guess you have to ask him about that, but  
17 it's pretty obvious, isn't it, whether -- he was  
18 interested in whether this would change the best fit for  
19 the flow.

Page 439:01 to 439:04

00439:01 Q. BP wanted the fit for flow to go up through  
02 the casing. You understand that BP's position was it  
03 wanted the flow to go through the casing and the shoe  
04 track, do you not?

Page 439:06 to 439:12

00439:06 A. That is not my understanding.  
07 Q. (BY MR. GODFREY) Well, if the -- if the new  
08 sand at 14.1 was flowing as well as the 13.1 sand was  
09 flowing before the 12.6 sands were flowing, that would  
10 support gas going up through the annulus, would it not?  
11 A. I --  
12 Q. According to your own report?

Page 439:16 to 439:21

00439:16 Q. (BY MR. GODFREY) That would support -- that  
17 would support the flow through the annular -- through  
18 the annulus, would it not?  
19 A. I don't agree.  
20 Q. Sir?  
21 A. I do not support that assumption.

Page 450:14 to 453:12

00450:14 Q. All right, sir. Thank you.  
15 Okay. Now I want to just ask you a few  
16 questions about some of the conclusions that you reached  
17 in your report. And if we can take a look at the  
18 summary -- or actually the conclusions which, I believe,  
19 begin on Page Roman Numeral 7. Do you see that, sir?  
20 A. Yes.  
21 Q. Okay. And looking at the bottom paragraph,  
22 you say that, "According to simulations, the well became  
23 underbalanced at 2052 hours resulting in flow of  
24 hydrocarbons into the wellbore."  
25 Did I read that correctly?  
00451:01 A. Yes.  
02 Q. And was that your conclusion?

03 A. Yes.  
04 Q. And I take it that the underbalancing would  
05 have been -- would have resulted from the displacement  
06 of mud by seawater?  
07 A. That is true, yeah, part -- yes.  
08 Q. Okay. And you go on to say in the next  
09 sentence that simulations show a total gain of around 40  
10 barrels taken between 2052 hours and 2108 hours, a  
11 result supported by the gains calculated from recorded  
12 mud pit data, correct?  
13 A. Yes.  
14 Q. Okay. Would you consider that to be a  
15 significant gain?  
16 A. Well, I'm not into categorizing it as sizes of  
17 various gains, but it's -- it's 40 barrels.  
18 Q. Okay. And then after this initial gain, did  
19 the well continue to flow?  
20 A. Was that a question?  
21 Q. Yes.  
22 A. Sorry. Yes, always the well continued to flow  
23 after that initial gain.  
24 Q. Okay. And the explosion eventually occurred  
25 at 2149; is that correct?  
00452:01 A. That is probably correct.  
02 Q. If you look at Page 20 of your report.  
03 A. Uh-huh.  
04 Q. The third paragraph, it says, "That at  
05 approximately 2149 hours, the first explosion occurred,  
06 and the lights went out almost simultaneously."  
07 Do you see that?  
08 A. Yes.  
09 Q. All right. So as I understand what -- what  
10 you told me, the well began to flow at 2052, and the  
11 explosion occurred at 2149; is that correct?  
12 A. That's correct.  
13 Q. So if my math's correct, that's a period of 57  
14 minutes?  
15 A. Okay.  
16 Q. So the explosion occurred 57 minutes after the  
17 well first began to flow, correct?  
18 A. Okay. Yes.  
19 Q. And when did you conclude that the rig crew  
20 first attempted to control the well by activating the  
21 BOP?  
22 A. That was not the part of my scope, so I was  
23 not involved in -- in those.  
24 Q. Okay. Well, the investigative team that you  
25 were part of reached a conclusion on that, correct?  
00453:01 A. Yes.  
02 Q. If we look at -- again, going back to Page 20  
03 of your report, first paragraph says that, "Witness  
04 accounts suggest that it is unlikely that any action was  
05 taken to shut-in the well with a BOP element before 2141  
06 hours."  
07 Do you see that?

08 A. Yes.  
09 Q. So if that's true, that would be, according to  
10 my math, 49 minutes after the well began to flow,  
11 correct?  
12 A. Okay.

Page 453:22 to 453:23

00453:22 I'm going to hand you a section of the Bly  
23 report, Pages 103 through 108.

Page 455:08 to 458:23

00455:08 Go back to Page 106 again. In addition to  
09 the -- the table that we have there, if you look right  
10 above, it actually states in the report, "When the  
11 annular preventer was activated at approximately 2141  
12 hours, the model estimated the influx volume to be  
13 approximately 1,000 barrels."  
14 You see that?  
15 A. Yes.  
16 Q. Okay. Now, was this -- is this modeling that  
17 you did?  
18 A. Yes.  
19 Q. Okay. You believe it to be accurate?  
20 A. As accurate as a model can be, yes.  
21 Q. All right, sir. Let me show you a couple of  
22 additional pages out of the Bly report. Pages 126  
23 through 128. And if you look at Page 128 under Section  
24 3.7, you see there's another reference to OLGA well flow  
25 modeling right there.  
00456:01 It says, "The OLGA flow modeling suggests  
02 that if the BOP had been closed and sealed around the  
03 drill pipe prior to 2138 hours, hydrocarbons would  
04 probably not have entered the riser."  
05 Did I read that correctly?  
06 A. Yes.  
07 Q. Is that what your modeling showed?  
08 A. Yes.  
09 Q. All right, sir. Now, as I understand your  
10 work, you concluded that when the crew first closed the  
11 annular at 2141, they did not get it completely closed;  
12 is that correct?  
13 A. That's correct.  
14 Q. You concluded they got it over 99 percent  
15 closed but not fully sealed around the drill pipe?  
16 A. Approximately yes.  
17 Q. Okay. And then five or six minutes later,  
18 they either increased the pressure on the annular or  
19 activated a variable bore and -- and achieved a complete  
20 seal; is that correct?  
21 A. Yeah. They -- at least that we believed that  
22 they got 100 percent seal.  
23 Q. Okay. And if we look back at Page 104 of the

24 Bly report, you looked at this in the context of trying  
25 to explain the -- some of the pressures that were seen,  
00457:01 correct?  
02 A. That was part of the job, yes.  
03 Q. All right. And I'm looking at the last bullet  
04 point on Page 104 of the -- of the Bly report. It says,  
05 "One of two possible actions would have caused the rapid  
06 pressure increase to 5700 psi from 2147 hours to 2149  
07 hours. Either the rig crew possibly first closed an  
08 annular preventer and then closed a VBR in accordance  
09 with Transocean's protocol for handling well control  
10 events or the rig crew possibly first closed an annular  
11 preventer and then increased its closing pressure to  
12 create a seal."  
13 Do you see that?  
14 A. Yes.  
15 Q. Okay. And as I understood your testimony  
16 yesterday, we know that at 2140 -- at 2147 hours, at  
17 least, there was a -- a 100 percent seal, correct?  
18 A. That's correct.  
19 Q. And the well was completely shut in at that  
20 point, was it not?  
21 A. That's our assumption, yes.  
22 Q. It's your conclusion, correct?  
23 A. It's our conclusions, yes.  
24 Q. All right. Did you do simulation work on  
25 the -- the flow of the gas into the mud gas separator?  
00458:01 A. Yes. I -- I did.  
02 Q. All right. Take a look at the second part of  
03 the Bly report I handed you beginning at Page 126.  
04 Section 3.6 talks about outcomes of different shut-in  
05 scenarios. Do you see that?  
06 A. Yep.  
07 Q. And then if we go to Page 128, the top of that  
08 page, it says, "The investigation team has also  
09 concluded that if the well had been lined up to the  
10 starboard diverter rather than the mud gas separator,  
11 the majority of the gas would have been diverted safely  
12 overboard."  
13 You see that?  
14 A. Yep.  
15 Q. Did you do some modeling related to that  
16 question?  
17 A. I modelled the -- the pressure drop that could  
18 occur in -- in the diverter.  
19 Q. And was your modeling consistent with that  
20 conclusion as expressed there in the Bly report?  
21 A. I did not look into the -- what happened after  
22 the -- the gas flowed out of the diverter, so it's  
23 difficult to answer -- answer that question.

Page 459:01 to 459:08

00459:01 Q. Okay. Sir, you've been asked a number of  
02 questions about how the report was put together and the



03 fact that some people at BP had input into it and so  
04 forth.  
05 I guess my question to you is simply: Do  
06 you feel that the conclusions that you expressed in your  
07 report are, in fact, accurate?  
08 A. Yes, I do.

Page 463:06 to 464:23

00463:06 Q. (BY MS. PIERCE) If you'll turn to the back  
07 page, and the last paragraph right before you sign off  
08 was we'll continue and the back page. The paragraph  
09 starts with, "As you might have noticed."  
10 A. I'm not sure where we are.  
11 Q. On the very last page. 7230?  
12 A. Yeah. All right.  
13 Q. You see the paragraph that begins with, "As  
14 you might have noticed," and then I guess it's the last  
15 full sentence. It starts in the second line, it says,  
16 "A lot of the changes are typos and formatting. That's  
17 fine, but some of the changes are of technical character  
18 as the one mentioned in the conclusions section." Did  
19 you -- do you see that?  
20 A. Yes.  
21 Q. And did I read that correctly?  
22 A. Yes.  
23 Q. So there were some technical changes made  
24 while you were on vacation by others to your report,  
25 correct?  
00464:01 A. If I remember correctly, this has to do with  
02 some numbers in the summary chapter which I had to  
03 change again back to what -- the real numbers.  
04 Q. So -- so you took those technical changes that  
05 they had made and you changed them back to your original  
06 numbers?  
07 A. That's correct.  
08 Q. Do you recall, as we sit here today, what  
09 sections those were to or what the numbers related to?  
10 A. Without being 100 percent sure, I believe some  
11 of them related to mix with respect to flow potential  
12 and the flow potential versus net pay.  
13 Q. And when you made those changes back, did  
14 Mr. Wall or anyone else from BP push back on you, and,  
15 say, no, we don't want those changes. We want our  
16 versions and our numbers in there?  
17 A. No.  
18 Q. So your changes were accepted?  
19 A. Yes.  
20 Q. So then to follow up on Mr. Redden's question,  
21 you agree with all the conclusions that currently are  
22 included in your report?  
23 A. I do.

Page 465:10 to 465:19

00465:10 follow up on topics covered by others. You were asked a  
11 number of questions about a newspaper article a  
12 Norwegian newspaper article and the translation referred  
13 to the destruction of printouts. Do you recall those  
14 questions?  
15 A. Yes.  
16 Q. Mr. Emilsen, did you destroy any documents  
17 that you thought would -- could potentially be evidence  
18 in either in -- in the investigation or in this  
19 litigation?

Page 465:22 to 466:02

00465:22 A. No, I did not.  
23 Q. (BY MS. O'CONNOR) Did you destroy any  
24 electronic versions of documents?  
25 A. No, I did not.  
00466:01 Q. And did you destroy any documents that you  
02 thought were the only copies of those documents?

Page 466:05 to 466:12

00466:05 A. No, I did not.  
06 Q. (BY MS. O'CONNOR) Let's talk also about the  
07 other topic that's been covered a fair amount, the --  
08 the nature of the edits that were provided to your  
09 report. Do you believe that any of the edits provided  
10 to you by BP members of the investigation team or anyone  
11 else on the investigation team changed the conclusions  
12 in your report?

Page 466:14 to 466:18

00466:14 A. No, they did not.  
15 Q. (BY MS. O'CONNOR) Did you -- did you believe  
16 at the time that you issued your report, as well as do  
17 you believe today, that your report is accurate and  
18 reflects your analysis?

Page 466:20 to 466:25

00466:20 A. I do.  
21 Q. (BY MS. O'CONNOR) Were there any changes  
22 provided to you by either BP members of the  
23 investigation team or anyone else on the investigation  
24 team that changed the report in a way that you are not  
25 comfortable with?

Page 467:02 to 467:02

00467:02 A. No.