

Deposition Testimony of:

Andy Inglis

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Page 8:05 to 8:07

00008:05 ANDREW GEORGE INGLIS,
06 having been first duly sworn, testified as
07 follows:

Page 8:14 to 8:16

00008:14 Can you tell us your full name,
15 please, sir?
16 A. Andrew George Inglis.

Page 8:20 to 8:22

00008:20 Q. And who is your current
21 employer?
22 A. Petrofac Limited.

Page 20:20 to 22:19

00020:20 Q. Okay. All right. Let me get a
21 little of your background. I understand
22 you -- you are working for a company called
23 Petrofac; is that true?
24 A. That's correct.
25 Q. And where is it headquartered?
00021:01 A. It's headquartered here in
02 London.
03 Q. And when did you begin working
04 for Petrofac?
05 A. I began on the 4th of January.
06 I didn't take the post up full time until the
07 4th of April.
08 Q. All right. And we're talking
09 about of this year?
10 A. Sorry, yes, 2010 -- 2011.
11 Q. And when did your employment
12 with BP, P.L.C., end?
13 A. The contract ended at the end of
14 2010.
15 Q. And your formal education is in
16 mechanical engineering?
17 A. It's actually in engineering,
18 degree is in engineering.
19 Q. All right. And do I understand
20 that you joined BP, P.L.C., in 1980?
21 A. That's correct.
22 Q. And you became the CEO of
23 exploration and production on February the
24 1st of 2007; is that correct?
25 A. That's correct.
00022:01 Q. And that was at essentially the
02 same time that Mr. Hayward left the position

03 that you entered and became BP's CEO?
 04 A. I'm not sure of the exact timing
 05 when Dr. Hayward became the -- the group CEO.
 06 Q. About the same time?
 07 A. It was probably within that
 08 quarter. I'm not sure the timing of the
 09 hand-over between him and -- and Lord Browne.
 10 Q. And you became a main board
 11 director at the same time?
 12 A. Again, I'm not sure when the
 13 actual board meeting was where the -- when it
 14 was actually formally approved, but it would
 15 be around that date, in the first quarter of
 16 2007.
 17 Q. All right. Did I get the
 18 phraseology correct, main board director?
 19 A. I was a director of BP, P.L.C.

Page 52:02 to 52:03

00052:02 MR. DEGRAVELLES: This is going to be
 03 Exhibit 6297.

Page 52:18 to 53:09

00052:18 Q. This is the BP press
 19 announcement that announces, among other
 20 things, your leaving BP; is that true, sir?
 21 A. That's correct.
 22 Q. All right. And that would have
 23 been -- you were going to step -- in fact,
 24 you did step down on October 31st from the
 25 board; is that correct?
 00053:01 A. That's correct.
 02 Q. And you were going to leave and
 03 did leave the company at the end of the year,
 04 correct?
 05 A. That's correct.
 06 Q. And you were asked to stay on BP
 07 during that interim period to help in the,
 08 quote, transition; is that true, sir?
 09 A. That's correct.

Page 77:24 to 79:24

00077:24 Q. In terms of your -- the
 25 leadership structure as it existed -- and I'm
 00078:01 going to be now talking about April 20th,
 02 2010, and before -- you were second in
 03 command under Mr. Hayward or Dr. Hayward; is
 04 that true?
 05 A. That's not true.
 06 Q. Okay. Who was second in

07 command?
08 A. There wasn't a second in
09 command.
10 Q. Who was next in line of
11 authority?
12 A. There were a range of people
13 in -- next in line of authority.
14 Q. All right. Who were those
15 people?
16 A. The CFO was Byron Grote. Chief
17 counsel was Rupert Bondy. The head of HR
18 was -- was Sally Bott. The head of S&OI was
19 Mark Bly. The head of refining and marketing
20 was Iain Conn. The head of the upstream
21 business was -- was myself.
22 Q. And exploration and production,
23 you were the head of, correct?
24 A. I was the head of exploration
25 and production.
00079:01 Q. And as such, describe what your
02 responsibilities were, other than what you've
03 already said. Or you can just repeat it, if
04 you want to.
05 A. You know, I was responsible for
06 the -- the operations of the upstream
07 business across the globe, that covered
08 the -- the -- the safety and reliability of
09 those operations, the -- the operational
10 performance, the investment in that business,
11 all of the aspects of running a -- a global
12 business.
13 Q. Would you, other than perhaps
14 Dr. Hayward, have been the highest person in
15 line of authority over exploration and
16 drilling operations worldwide?
17 A. That's correct.
18 Q. And that, of course, would
19 include Gulf of Mexico, correct?
20 A. Again, as I said, I was
21 responsible for the -- the safety and
22 reliability of -- of our operations globally.
23 So that would include the Gulf of Mexico
24 operations.

Page 80:13 to 80:22

00080:13 Q. All right. And in terms of
14 safety for drilling and exploration
15 operations in the Gulf of Mexico and
16 worldwide insofar as safety is concerned,
17 other than perhaps Dr. Hayward, you would
18 have been the highest in line of authority;
19 is that true?
20 A. In terms of the -- the
21 responsibility for their safe and reliable

22 operations, yes.

Page 84:04 to 84:14

00084:04 Q. And all of the people you're
05 talking about who were in Houston were in the
06 same building as BP North America, BP
07 Exploration for Gulf of Mexico, or were they
08 two -- in more than one building in Houston?
09 A. There is more than one build- --
10 sorry, there's more than one building in
11 Houston. We were in Westlake 1. I'm
12 actually not sure. I think it was actually
13 the lower 48 that was actually -- the onshore
14 assets that were in -- mostly in Westlake 1.

Page 85:03 to 85:16

00085:03 Q. With respect to your role in
04 safety for BP, you served on -- in a -- in a
05 committee called the Group Operation Risk
06 Committee; is that correct?
07 A. That's correct.
08 Q. And if you would explain, what
09 is GORC?
10 A. The Group Operations Risk
11 Committee was a committee that was chaired by
12 Tony Hayward. It reviewed the safety and
13 operation integrity performance of each of
14 the businesses. It also had on it the
15 functional heads that would provide an
16 independent view of -- of that performance.

Page 106:19 to 106:25

00106:19 MR. DEGRAVELLES: Yes, for now. This
20 is going to be tab 47, Volume 2, which I
21 don't have an exhibit -- previous exhibit
22 sticker on. We're going to mark this as
23 Exhibit 6299. There are no Bates numbers, so
24 I'm assuming it's a native --
25 natively-produced format document.

Page 107:07 to 107:16

00107:07 Q. (BY MR. DEGRAVELLES) And my
08 question is, does this appear to be a
09 PowerPoint presentation at a conference --
10 2003 conference of the Society of Petroleum
11 Engineers and the International -- I'm sorry,
12 the -- yeah, the International -- what is
13 IADC? I'm drawing a blank. What is IADC,
14 sir?

15 A. It's the International
16 Association of Drilling Contractors.

Page 112:21 to 113:05

00112:21 And, first of all, let me ask
22 you to look at the last sentence on Page 11,
23 and I'll read it into the record.
24 Quote, No blowout has yet
25 occurred in ultra-deep water (water depths of
00113:01 5000 feet or greater) but statistics show it
02 is likely to happen. Are we ready to handle
03 it, question mark.
04 Did I read that correctly?
05 A. You read that sentence correct.

Page 117:25 to 118:12

00117:25 Q. As of April the 10th, 2010 had
00118:01 there been a blowout in ultra-deepwater; that
02 is to say, water depths of 5,000 feet or
03 greater?
04 A. Not to my recollection.
05 Q. Do you agree that in 2003 the
06 SPE and IADC said, "but statistics show it is
07 likely to happen"?
08 A. I don't think this is an SPE or
09 IADC paper. It was at the conference. I
10 think the paper was prepared -- I can't read
11 it on Page 2. Can you read who the speaker
12 was? My version doesn't --

Page 119:17 to 120:08

00119:17 Q. Do you -- do you agree that as
18 of April 10th, 2010 no blowout in deepwater
19 had been successfully capped?
20 A. Again, I -- I -- I don't know.
21 Q. You don't know?
22 A. Well, I assume if there hasn't
23 been a blowout from this date to that -- to
24 the next date, therefore no attempt had been
25 made to cap one.
00120:01 Q. No, my question is -- and I'm
02 asking on whatever source of information that
03 you may draw on in your many years as a CEO
04 of exploration and drilling and your previous
05 positions for 30 years at BP, do you know
06 prior to April 10th of 2010 an instance in
07 which a blowout in deepwater had been
08 successfully capped?

Page 120:11 to 120:17

00120:11 A. I might -- if you think about it
12 globally across the world, I'm not aware.
13 Q. (BY MR. DEGRAVELLES) Okay. The
14 answer is no, I do not know of any instance,
15 correct?
16 A. I don't know positively or
17 negatively.

Page 120:25 to 121:06

00120:25 Q. (BY MR. DEGRAVELLES) But I
00121:01 wasn't referring to the paper. Simple
02 question. Do you agree, sir, that the fact
03 that there had never been a success capping
04 of a blowout in deepwater before April 20th
05 of 2010 presented a significant risk of
06 deepwater drilling?

Page 121:08 to 121:24

00121:08 A. There are other techniques to
09 handle a blowout, as this paper talks about.
10 It talks about bridging as being one
11 technique. It talks about a capping stack as
12 being one technique. It talks about a relief
13 well being one technique.
14 Q. (BY MR. DEGRAVELLES) Do I
15 understand your testimony to be, that you
16 disagree with the proposition that capping a
17 well in deepwater is a significant risk of
18 drilling in deepwater?
19 A. What -- what I said was that if
20 you had a well blowout, there are several
21 techniques to --
22 MR. DEGRAVELLES: Object to the
23 responsiveness of the answer. Please, sir,
24 listen carefully to my question.

Page 122:11 to 123:10

00122:11 A. Capping a well is one technique
12 that you would use to handle a well integrity
13 problem, a blowout. There are many
14 techniques to do that. Capping the well
15 would be one, bridging a well would be one,
16 drilling a relief well would be one. So the
17 issue is do you have a technique that could
18 respond to the incident.
19 Q. That is a good question. My
20 question is do you agree that capping a well
21 in deepwater prior to April 20th of 2010 was
22 a significant risk in drilling?
23 A. Again, I can only answer that is

24 the risk has to be actually connected back to
25 the cause. The cause would be a -- a well
00123:01 integrity problem. How would you handle that
02 well integrity problem. You could do it
03 through a variety of ways.
04 Q. You -- so you -- do you agree or
05 disagree that it is a significant risk in
06 deepwater drilling?
07 A. Well, I'm -- if that risk can be
08 mitigated by drilling a relief well, it
09 wouldn't be. It may or may not be, is the
10 answer that I'm -- I'm actually giving.

Page 124:10 to 125:08

00124:10 Q. And with respect to containment,
11 if you have a blowout, it is more complicated
12 in deepwater than in shallow water, do you
13 agree with that?
14 A. I do agree with that.
15 Q. Because you have high seafloor
16 pressures, correct?
17 A. Simply the deployment of the
18 equipment in deeper water creates more
19 operational challenges, so there are a whole
20 series of challenges.
21 Q. But one of the challenges is
22 high seafloor pressures, correct?
23 A. It would be one of the
24 challenges.
25 Q. And low water temperatures,
00125:01 correct?
02 A. Lower water temperatures.
03 Q. Okay. And so would you then
04 agree that with respect to deepwater drilling
05 in the Gulf of Mexico two of the major risks
06 are loss of well control and the riser
07 failure and loss of containment?
08 A. I would agree with that.

Page 127:25 to 128:04

00127:25 Q. I see. As a part of BP's
00128:01 gaining permission to drill the Macondo well,
02 it submitted an initial exploration plan; is
03 that true?
04 A. I believe that's correct.

Page 128:12 to 128:24

00128:12 MR. DEGRAVELLES: Yeah, it's in
13 Volume 1, the last tab. And it's been
14 previously introduced as Exhibit 768.

15 Q. (BY MR. DEGRAVELLES) First of
16 all, do you recognize this document?
17 A. No, I haven't seen it before.
18 Q. Do you understand that this is a
19 BP document presented to the MS -- which was
20 presented to the MMS as a part of the
21 application process?
22 A. Again, without reviewing the
23 document and looking through it, I don't
24 know.

Page 129:15 to 130:21

00129:15 Q. Sure. Do you recognize this
16 exhibit as an initial exploration plan
17 presented by BP Exploration & Production,
18 Inc., in February 2009 as a part of the
19 application for -- to drill in the Gulf of
20 Mexico Mississippi Canyon Block 252?
21 A. Yeah, I haven't seen the
22 document before, and I -- and I don't know
23 whether this was the -- the actual plan that
24 was submitted. There is no transmittal with
25 it. There is no signatures with it. So I
00130:01 can't comment on that.
02 Q. All right. Does this appear to
03 be the kind of document that would be
04 presented as an initial exploration plan?
05 A. You know, again, I -- in the
06 general sense, yes. I don't know whether
07 this was the actual document that was
08 submitted or -- or -- or whether it was just
09 a draft. I don't know.
10 Q. All right. And looking --
11 looking at the -- well, let's just assume for
12 the moment this is the plan that was
13 submitted, okay. If you would, sir, go to
14 Page 1193, which is a Bates stamp, the last
15 four digits we're talking about. And if you
16 need to look at that page -- have you seen
17 this page?
18 A. No, I haven't.
19 Q. Okay. If you would, read that
20 page, and I'll ask you some questions about
21 it.

Page 130:25 to 132:08

00130:25 Q. (BY MR. DEGRAVELLES) All right.
00131:01 Mr. Inglis, the question, first of all, is to
02 your understanding, worst-case scenario
03 determination made by the person applying for
04 permission to drill?
05 A. Say that again.

06 Q. Yes, sir. Is -- when a
07 person -- a company like BP applies to drill,
08 are they required under law to provide a
09 worst-case scenario determination?

10 A. I'm not sure that these are
11 the -- what the permit requirements are.

12 Q. Had you ever heard of a
13 worst-case scenario determination before
14 today?

15 A. Yes, I have.

16 Q. What is that?

17 A. I don't have a detailed
18 definition of it. In what context would you
19 be --

20 Q. I don't need a technical
21 definition. What is your understanding of
22 worst-case scenario determination for
23 purposes of applying for permission to drill?

24 A. In purposes of applying for
25 permission to drill, my understanding of that
00132:01 is that it would be the worst-case discharge
02 that would be expected from the -- from the
03 well.

04 Q. And that's information provided
05 in this case by BP; is that true?

06 A. If it was BP submitting the --
07 the planning application, yes, that's
08 correct.

Page 132:22 to 133:05

00132:22 Q. (BY MR. DEGRAVELLES) Yes. The
23 question is the reason that this worst-case
24 scenario determination, A, is made and, B, is
25 submitted to the MMS is so that the MMS and
00133:01 the United States Government on whose behalf
02 the MMS is acting can be assured that if
03 there is a worst-case scenario, the person
04 who's drilling the well can handle it
05 successfully, correct?

Page 133:07 to 133:16

00133:07 A. The purpose of it is for the MMS
08 to be able to approve the -- the well plan
09 submission, which a piece of it is the -- the
10 worst-case discharge.

11 Q. (BY MR. DEGRAVELLES) And the
12 reason that the MMS wants that information is
13 so that it can be assured if the worst-case
14 scenario happens, the person that's drilling
15 the well can handle it, correct?

16 A. It wants it --

Page 133:18 to 134:12

00133:18 A. The purpose for having it there
 19 is to be able to determine what the
 20 worst-case scenario is and -- and for the MMS
 21 to be -- to be assured that -- that that can
 22 be handled.
 23 Q. (BY MR. DEGRAVELLES) Thank you,
 24 sir. Now, in this case this worst
 25 scenario -- worst-case scenario determination
 00134:01 is made by BP and it has a calculation of
 02 worst-case scenario volume, uncontrolled
 03 blowout per day of 162,000 barrels; is that
 04 correct?
 05 A. That's what it says in the
 06 document, correct.
 07 Q. All right. Do you know how this
 08 determination was made?
 09 A. No, I don't.
 10 Q. Was this determination accurate
 11 in terms of what actually happened in the
 12 Macondo, April 20, 2010 event?

Page 134:14 to 134:16

00134:14 A. I don't believe -- no, I don't
 15 have the information to be able to answer
 16 that question.

Page 134:22 to 135:01

00134:22 Q. All right. And you don't have
 23 that understanding, given all the work that
 24 you did in connection with the relief effort?
 25 A. No, I don't. Well, I personally
 00135:01 don't have that information.

Page 135:24 to 136:08

00135:24 Q. Okay. I'm not asking you for
 25 the number, the exact number. Just do you
 00136:01 agree that uncontrolled blowouts in the Gulf
 02 have occurred many times before April 20,
 03 2010?
 04 A. They have occurred before.
 05 Q. And the fact that they have
 06 occurred before is one reason that the law
 07 requires BP to predict what it will be if
 08 that should occur; isn't that so?

Page 136:10 to 137:03

00136:10 A. I can't connect the two. What I
 11 can say is part of the planning process for a
 12 well, if there as a requirement to put a
 13 worst-case scenario determination.
 14 Q. (BY MR. DEGRAVELLES) What is an
 15 uncontrolled blowout?
 16 A. An uncontrolled blowout is a
 17 flow from a well which can't be controlled by
 18 the equipment that's -- that's there.
 19 Q. And that's what happened on
 20 April 20, 2010, correct?
 21 A. That's correct.
 22 Q. And one reason that you can have
 23 an uncontrolled blowout occur is because the
 24 blowout preventer either for mechanical
 25 reasons, mechanical failures, or operator
 00137:01 error, or both doesn't work, correct?
 02 A. That would be one of the
 03 reasons.

Page 139:25 to 141:16

00139:25 Q. (BY MR. DEGRAVELLES) My
 00140:01 question is really simple, and it can be
 02 answered with a yes or a no. Isn't it true,
 03 sir, that blowout preventers are not
 04 fail-safe?
 05 A. There is -- yeah, there is a
 06 scenario where a blowout preventer can -- can
 07 fail. They are designed however, to have a
 08 very high level of reliability, but there is
 09 a scenario where a blowout preventer may not
 10 operate.
 11 Q. So my -- the answer to my
 12 question is yes, you would agree that --
 13 A. I don't understand what you mean
 14 by fail-safe, so I don't --
 15 Q. All right. Let's use two
 16 definitions?
 17 A. I don't understand.
 18 Q. All right. Let's use two
 19 definitions. Fail-safe being it works a
 20 hundred percent of the time. If that's the
 21 definition of fail-safe, blowout preventers
 22 are not fail-safe, correct?
 23 A. A hundred percent of the time
 24 in -- is -- you know, is -- is an extreme
 25 level of reliability. If that's the case
 00141:01 that you're putting out, then the answer is
 02 that --
 03 Q. Is what?
 04 A. -- we can't guarantee that --
 05 that it will always operate.
 06 Q. And if that's the definition,
 07 blowout preventers are not fail-safe,

08 correct?
09 A. That's correct.
10 Q. Thank you. Now, if the
11 definition of fail-safe is that when they
12 fail, they fail in a safe mode, such that
13 they -- the oil and gas does not get out, if
14 that's the definition of fail-safe, then
15 blowout preventers are not fail-safe,
16 correct?

Page 141:19 to 142:24

00141:19 A. We just -- we just redefine
20 fail-safe?
21 Q. (BY MR. DEGRAVELLES) Yes. Have
22 you ever heard the definition of fail-safe in
23 the context that I just gave it?
24 A. No, I haven't.
25 Q. That the device fails, but it
00142:01 fails in a safe mode, you've never heard of
02 that definition as --
03 A. It's a different definition than
04 the one we just discussed.
05 Q. I understand. I'm using it in a
06 different -- using a different definition.
07 Do you understand the definition that I've
08 just given you?
09 A. I do understand the definition
10 that you've just gave me yes.
11 Q. Have you heard it before?
12 A. I've heard it before, yes.
13 Q. It's an engineering concept?
14 A. It is.
15 Q. Okay. Now, if you use fail-safe
16 in that context, blowout preventers are not
17 fail-safe, are they, sir?
18 A. They are designed to fail in a
19 safe mode. They are designed to fail in a
20 safe mode.
21 Q. So you would agree with me, sir,
22 that uncontrolled well blowouts with spillage
23 of oil into the environment is entirely
24 foreseeable?

Page 143:01 to 143:07

00143:01 A. No, I -- it is a scenario for
02 which we prepare and plan.
03 Q. (BY MR. DEGRAVELLES) Okay. And
04 that's because it can happen?
05 A. It can happen.
06 Q. It is foreseeable, correct?
07 A. It is foreseeable.

Page 143:14 to 143:17

00143:14 Q. Yes. Because blowout preventers
15 can fail, it is foreseeable that you can have
16 a blowout preventer failure which allows an
17 uncontrolled blowout?

Page 143:19 to 143:23

00143:19 A. In the event that a blowout --
20 blowout preventer fails, that would be an
21 un- -- it could lead -- it could lead to an
22 uncontrolled leak. May not do, but it could
23 do.

Page 144:14 to 144:18

00144:14 Q. (BY MR. DEGRAVELLES) I
15 understand. Yeah, the last one on the table
16 is blowout preventers failing and allowing an
17 uncontrolled well blowout, that can happen
18 and is therefore foreseeable, correct?

Page 144:20 to 144:21

00144:20 A. The failure of -- of a blowout
21 can happen, that's correct.

Page 145:03 to 145:06

00145:03 Q. (BY MR. DEGRAVELLES) The
04 failure of a blowout preventer leading to a
05 uncontrolled blowout can happen and is
06 therefore foreseeable, correct?

Page 145:08 to 145:12

00145:08 A. If it doesn't fail in the
09 fail-safe mode, there would therefore be a
10 release.
11 Q. (BY MR. DEGRAVELLES) And is
12 therefore foreseeable, correct?

Page 145:14 to 145:17

00145:14 A. It is the scenario that is
15 potentially -- there.
16 Q. (BY MR. DEGRAVELLES) And is
17 therefore foreseeable, correct?

Page 145:19 to 146:02

00145:19 A. Foreseeable means that you --
20 all the -- all the circumstances you've
21 anticipated, you know, can be there.
22 Q. (BY MR. DEGRAVELLES) And they
23 can be?
24 A. It is -- it is a scenario that
25 could occur.
00146:01 Q. And is therefore foreseeable,
02 correct?

Page 146:04 to 146:16

00146:04 A. I've given -- it is a small --
05 Q. (BY MR. DEGRAVELLES) I know,
06 but you haven't answered my question?
07 A. I know, but I don't understand
08 why you're using the word "foreseeable."
09 Q. There may be reasons, sir, but
10 it's not for you to ask. It is for me to ask
11 the question and you to answer it, and I
12 would please appreciate it if you would do
13 so.
14 A. It is a scenario that can be
15 envisaged.
16 Q. And is therefore foreseeable?

Page 146:18 to 146:19

00146:18 A. In the context of a scenario
19 that is envisaged it is foreseeable.

Page 147:08 to 147:14

00147:08 Q. Yes. Because this scenario that
09 you just painted is foreseeable that a
10 responsible well operator and driller,
11 drilling operator must make sure before he
12 begins to drill that he has the ability to
13 effectively respond to a blowout and loss of
14 oil, correct?

Page 147:16 to 148:01

00147:16 A. As part of the plan that was
17 submitted there was a worst-case scenario
18 that envisaged that happening.
19 Q. (BY MR. DEGRAVELLES) So you
20 agree, yes, a responsible operator should be
21 able to respond to a worst-case scenario,
22 correct?
23 A. As part of the well plan that

24 was submitted there was a worst-case scenario
25 determination, and there was a scenario that
00148:01 BP was prepared to respond against.

Page 148:04 to 148:11

00148:04 Q. (BY MR. DEGRAVELLES) I
05 understand about the application. We've
06 covered that. I'm satisfied with that. I'm
07 just asking you a straight-up question, which
08 is a responsible operator should be prepared
09 before he begins to drill to respond
10 successfully to a worst-case scenario; is
11 that true, sir?

Page 148:13 to 149:10

00148:13 A. And BP prepared a plan that was
14 approved by the MMS to do that.
15 Q. (BY MR. DEGRAVELLES) But what
16 they said was a worst-case scenario certainly
17 wasn't a worst-case scenario, was it, sir?
18 A. I don't know.
19 Q. You don't know that the Macondo
20 well -- well, if the Macondo well blowout was
21 the worst-case scenario, BP certainly didn't
22 successfully respond to it, did they, sir?
23 A. BP responded in line with the
24 way that -- that the plan visaged, which was
25 to contain the well, the spill at the surface
00149:01 and drill a relief well.
02 Q. Is it, sir, your testimony under
03 oath that BP successfully responded to the
04 Macondo blowout?
05 A. BP responded to in line with the
06 plan that was laid out, which was that the
07 collection of the oil at the surface and to
08 drill a -- a relief well. It actually
09 managed to stem the flow of the well before
10 the relief well was drilled.

Page 149:13 to 149:20

00149:13 Q. (BY MR. DEGRAVELLES) My
14 question is -- and this may be your
15 definition of success. Maybe what happened
16 post April 20th is your definition of
17 success. I don't know. But I would like you
18 to answer my question, which is -- is it your
19 testimony that BP successfully responded to
20 this blowout post April 20th of 2010?

Page 149:23 to 150:22

00149:23 MR. DEGRAVELLES: He hasn't answered my
24 question.
25 Q. (BY MR. DEGRAVELLES) Whether
00150:01 you believe BP has successfully responded?
02 A. BP responded in line with the
03 plan that was laid out. That's my definition
04 of success.
05 Q. Okay. All right. And so your
06 definition of success also includes billions
07 of dollars of damage done to the environment,
08 natural resources, property, and businesses,
09 correct?
10 A. No, it doesn't. And I deeply
11 regret that the incident occurred and -- and
12 I'm sorry for the impact that it had on the
13 inhabitants of -- of the Gulf Coast.
14 Q. Sir, I appreciate your personal
15 view, but that's not the question that I'm
16 asking. Your definition of success
17 inclusion, based on what I'm understanding,
18 successful response to a worst-case scenario
19 includes a situation where you have billions
20 of dollars of damage done to the environment,
21 natural resources, property, and business; is
22 that correct?

Page 150:25 to 151:11

00150:25 A. BP responded in line with the
00151:01 plan that it had laid out, and it brought all
02 the equipment that it could -- could bring to
03 bear on the surface to -- to collect the oil.
04 It drilled the relief well in line with its
05 plan, and it intervened to stop the oil
06 before the relief well was -- was drilled.
07 In terms of the capabilities
08 that it brought to bear, the -- the -- the
09 response involved parties from the
10 government, from the industry, and that
11 enabled the well to be brought under control.

Page 151:14 to 151:21

00151:14 Q. (BY MR. DEGRAVELLES) My
15 question, sir, is therefore based on your
16 previous testimony, your definition of a
17 successful response in -- can be a situation
18 where you have, as here, billions of dollars
19 of damage done by the environment -- to the
20 environment, natural resources, property, and
21 business; is that correct?

Page 151:23 to 153:05

00151:23 Q. (BY MR. DEGRAVELLES) That is
24 within your definition of a successful
25 response, correct?
00152:01 A. My definition of successful
02 response is part of unified command did BP do
03 everything it could to bring the well under
04 control.
05 Q. Regardless of whether it did it
06 well or not well?
07 A. My -- that's -- you asked my
08 definition of success.
09 Q. Yeah.
10 A. That's my definition of success,
11 is they did everything that it could do in
12 line with the plans and procedures that it
13 had in place to bring it under control, and
14 that was a plan that was approved by the MMS.
15 Q. And, in fact, I think you just
16 said it, really, the only effective way to
17 deal with a blowout of this kind is to drill
18 a relief well, correct?
19 A. At the time that was the
20 industry practice.
21 Q. And we're talking -- I
22 understand. I'm not asking about industry
23 practice. Insofar as BP was concerned the
24 only way to effectively respond to this
25 blowout was by -- with a relief well,
00153:01 correct?
02 A. The industry practice at the
03 time was to collect oil at the surface and to
04 drill a relief well. That was the ultimate
05 way to intervene.

Page 153:08 to 153:13

00153:08 Q. (BY MR. DEGRAVELLES) I'm not
09 asking about industry practice, Mr. Inglis.
10 I'm asking a simple question. Isn't it true
11 that the only way to effectively respond
12 prior to April 20th, 2010 to this kind of
13 blowout was a relief well?

Page 153:15 to 154:24

00153:15 A. BP in line with other industry
16 participants had two primary means of
17 intervention, collecting the oil at the
18 surface and drilling a relief well. Those
19 were the technologies that were available
20 prior to April the 20th.
21 Q. (BY MR. DEGRAVELLES) And with

22 respect to the relief well you're talking
 23 about it took three months, correct?
 24 A. Again, it depends on the -- on
 25 the geology and geography, but for the -- the
 00154:01 relief well at Macondo, that's correct.
 02 Q. And with respect to the
 03 containment portion of the effort following
 04 this blowout, the containment effort resulted
 05 in unprecedented damage in terms of billions
 06 of dollars to the environment, natural
 07 resources, and property damage; isn't that
 08 true, sir?
 09 A. The containment effort did
 10 result in damage to the environment, that's
 11 correct.
 12 Q. And you therefore consider that
 13 to be successful, true, sir?
 14 A. Again, what I describe as -- as
 15 success --
 16 Q. I understand.
 17 A. -- was our ability to take the
 18 technologies that was available, the
 19 equipment that was available in line with the
 20 plan that had been approved and execute
 21 those.
 22 Q. And therefore from your point of
 23 view and from BP's point of view the
 24 containment effort was successful?

Page 155:02 to 155:12

00155:02 Q. (BY MR. DEGRAVELLES) Correct?
 03 A. Against my definition of --
 04 of -- of actually being able to execute the
 05 plan, it was -- it was executed in a
 06 successful way. Was there damage to the
 07 environment as a result yes, there was.
 08 Q. And prior to the time that BP
 09 began to drill the well it was not prepared
 10 to handle the situation of the kind that
 11 occurred at Macondo, correct?
 12 A. It was --

Page 155:14 to 156:11

00155:14 A. (Continuing) It was prepared to
 15 handle it. There was a plan in place that
 16 was approved by the MMS. That plan involved
 17 collection of the oil at the surface, and it
 18 involved drilling a relief well.
 19 Q. (BY MR. DEGRAVELLES) And it
 20 also involved a number of failed attempts to
 21 cap the well, correct?
 22 A. It involved a number of

23 activities that were under the guidance of
 24 unified command. Those activities involved
 25 executing a strategy which was don't make the
 00156:01 situation worse, use the equipment that is
 02 best available to -- to intervene, and
 03 through that process there were a series of
 04 options that were attempted with that
 05 scenario in place, that strategy in place.
 06 Q. And from BP's point of view you
 07 were in charge, correct?
 08 A. No, I wasn't.
 09 Q. Who was in charge?
 10 A. The unified command was in
 11 charge.

Page 156:24 to 159:11

00156:24 Q. All right. If you would turn
 25 sir, to Page 1 -- tab 127.
 00157:01 MR. NEAL: What volume?
 02 MR. DEGRAVELLES: This would be in the
 03 last Volume 7.
 04 Q. (BY MR. DEGRAVELLES) And if you
 05 would, sir, I'm going to ask you to look at
 06 the document to see whether you recognize it,
 07 and then I'm going to ask you specifically
 08 about Pages 4 and 5.
 09 MR. GODFREY: Is this the Merck report?
 10 MR. DEGRAVELLES: Let me see. Let me
 11 get to it myself. This has been previously
 12 introduced as exhibit 2402.
 13 MR. NEAL: It's tab 125.
 14 MR. DEGRAVELLES: I'm sorry, it's
 15 tab 127.
 16 Q. (BY MR. DEGRAVELLES) Now, do
 17 you recognize this as a PowerPoint the panel
 18 discussion at a seminar of the Bureau of
 19 Ocean Energy Management Regulation and
 20 environment that was held on September 13,
 21 2010 in Lafayette?
 22 A. I haven't seen the document
 23 before.
 24 Q. Did you perhaps attend this
 25 conference?
 00158:01 A. No, I didn't.
 02 Q. Do you know whether or not
 03 anybody from BP attended this conference?
 04 A. I don't know.
 05 Q. And what I'm really asking, if
 06 you'll go to Pages 4 and 5, the information
 07 there summarizing the improvised attempts to
 08 contain the Macondo well, whether or not
 09 those two pages capture that?
 10 A. No, they don't.
 11 Q. All right. What's wrong with

12 it?
13 A. Well, they don't actually set
14 out the -- the overall strategy that was
15 agreed through unified command. That
16 strategy was not to make it worse, use the
17 available techniques that we have as soon as
18 they could be deployed. It doesn't capture
19 the fact that there were multiple work
20 streams being pursued throughout this time
21 period. And, again, the strategy was that as
22 those multiple work streams came to fruition
23 was to use the ones that didn't make the
24 matter worse and were available the earliest.
25 Q. It is true that the first effort
00159:01 to contain the well was a containment dome?
02 A. That's correct.
03 Q. And that was a dismal failure?
04 A. The containment dome didn't
05 succeed because hydrates were -- were formed
06 inside the dome.
07 Q. And did you say, quote, If we
08 had tried to make a hydrate-collection
09 contraption, we couldn't have done a better
10 job, close quote?
11 A. That's correct.

Page 159:18 to 160:06

00159:18 Q. I'm sorry, the fourth page and
19 the fifth page. Do those pages capture
20 efforts that were made and the dates on which
21 they were made?
22 A. I can't recall the exact dates.
23 What's not shown on page -- on either of the
24 pages is the drilling of the relief well,
25 which was done in parallel with -- with all
00160:01 of this.
02 Q. All right. And with -- without
03 regard to the date, are the items set forth
04 items which were, in fact, improvised
05 attempts -- attempts to contain the Macondo
06 well?

Page 160:10 to 160:21

00160:10 A. They were -- what Page 4 shows
11 is the sequence of -- of interventions
12 that -- that were made to contain the well.
13 Q. (BY MR. DEGRAVELLES) All right.
14 Now, don't you agree, sir, that BP should
15 have had the ability to cap or contain this
16 well before they begin to drill the well?
17 A. BP had the -- the ability to
18 intervene, as it was laid out in its plan.

19 It had the ability to intervene through
20 collection at the surface and drilling the
21 relief well.

Page 161:01 to 162:21

00161:01 Q. (BY MR. DEGRAVELLES) Do you --
02 don't you agree, sir, that BP should have had
03 the ability to cap the well before they began
04 to drill the well?

05 A. There was the ability to cap the
06 well through the activation of the BOP
07 remotely with the ROV. That was -- that was
08 technology that existed at the time. It
09 proved to be unsuccessful. So there were
10 existing techniques available at the time.
11 The copper dam was an existing technique that
12 was available at the time. Because of the
13 gaseous nature of the crude, of the -- the
14 gaseous nature of the fluid coming from the
15 well, it wasn't successful in -- in this
16 occasion.

17 So in this specific occasion,
18 this specific water depth with this specific
19 event those two interventions didn't work.

20 Q. How much money did BP spend --
21 BP spend per year for research and
22 development of new technology for exploration
23 and drilling?

24 A. Worldwide?

25 Q. Yes, sir.

00162:01 A. On all R&D?

02 Q. Yes, sir, for ex- -- I'm talking
03 about exploration and drilling.

04 A. For all exploration and
05 production the number would be both capital
06 and operating expense would be -- I can't
07 recall the exact number in 2009, but it would
08 have been several hundred million dollars.

09 Q. How much did BP spend per year
10 for research and development in terms of
11 containing and dealing with -- with well
12 blowouts?

13 A. In terms of abs- -- of
14 containment activities, that wasn't part of
15 the -- of the plan. I think money was spent
16 on -- on the surface with companies like
17 MSRC, but I think in terms of actual
18 containment activities as you describe them,
19 there wasn't any research going on.

20 Q. Meaning zero dollars?

21 A. Zero dollars.

Page 164:12 to 165:17

00164:12 Q. (BY MR. DEGRAVELLES) Let me ask
 13 you this: In terms of the capping device
 14 that was ultimately created and installed
 15 successfully, I believe in, what, July, mid
 16 July?
 17 A. Mid July.
 18 Q. The materials that were used to
 19 construct that capping stack were available
 20 before April 20th, 2010, correct?
 21 A. The materials were available.
 22 The issue was not the materials. The
 23 question was would it be a -- an appropriate
 24 technique to deploy on the well given its
 25 current configuration and the fluids that
 00165:01 were coming up -- up through that.
 02 Q. And the scientific principles
 03 that were used to design the capping stack
 04 were certainly around for a long time before
 05 April 20th of 2010, correct?
 06 A. As I said, the scientific
 07 principles were available. The materials
 08 were available. The issue was not the
 09 scientific principles or the materials. The
 10 issue was given the configuration of that
 11 well, the nature, the "anglination" of the
 12 LMRP, what was inside the wellbore, was it an
 13 appropriate technique.
 14 Q. And what BP and others were able
 15 to accomplish in essentially three months
 16 certainly could have been accomplished before
 17 April the 20th, 2010; isn't that true, sir?

Page 165:20 to 167:03

00165:20 A. Could you repeat the question?
 21 Q. (BY MR. DEGRAVELLES) Yes. In
 22 terms of doing the research that was done,
 23 doing the thinking that was done, doing the
 24 design that was done, doing the construction
 25 that was done post April 20th, 2010 to
 00166:01 develop a capping device which would work
 02 under these circumstances, all of that could
 03 have been done before April 20th of 2010;
 04 isn't that true, sir?
 05 A. No, it's not. That's not quite
 06 true.
 07 Q. Why; isn't that true?
 08 A. The issue is not the materials
 09 themselves or the technology. The issue was
 10 twofold. One was to deploy the capping stack
 11 revolved -- involved progressive removal of
 12 constrictions from the -- the flowing well.
 13 So against the unified command's strategy and
 14 not making it worse it required an evolution

15 of that.

16 And the second big issue is
17 associated with could it be actually deployed
18 on the configuration of the well as it was
19 evident on -- on the seafloor, and that
20 required a huge amount of testing to be done
21 to say that this a technique wouldn't make
22 the matter worse.

23 Q. All of that, sir, was
24 accomplished in three months, true?

25 A. That was accomplished in the
00167:01 period of three months, that's correct.

02 Q. And all of that could have been
03 accomplish before April 20th, correct?

Page 167:06 to 170:08

00167:06 A. As I -- as I was just said, sir,
07 I'll just repeat the points that I made, is
08 that the strategies agreed in unified command
09 was to progressively pursue options in a
10 manner that they didn't make it worse, didn't
11 make the situation worse, and that they were
12 available to be deployed. Before they were
13 deployed all the risks of deployment had to
14 be understood. So BP would make
15 recommendations to the unified command, they
16 would be approved by the unified command,
17 then they would be put into operation.

18 The deployment of the capping
19 stack required a huge amount of engineering,
20 of testing of the deployment of it against a
21 vast number of -- of scenarios. Those
22 scenarios were -- were developed as we
23 successively intervened on the well, we built
24 knowledge of -- of the well, and even at the
25 end when it was deployed there were risks
00168:01 associated with its deployment that had to be
02 managed through the way in which the well was
03 shut in. We wouldn't have had that knowledge
04 at the beginning.

05 So I -- I don't quite agree with
06 the way that you described it for those
07 reasons.

08 Q. (BY MR. DEGRAVELLES) Would you
09 agree that -- that there were -- after --
10 within really three months or four or five
11 months, whatever, between the time that it
12 happened and the time that it was contained
13 that there were elements of subsea
14 containment which were developed that were
15 not in place prior to April 20th?

16 A. Yes, there were elements across
17 the whole vast area of intervention
18 techniques. There were elements that had

19 been developed, that's correct.
 20 Q. And one was an inventory of
 21 immediately deployable open and close
 22 containment systems proven at a depth with
 23 associated operating procedures, true?
 24 A. That's correct.
 25 Q. And those could be applied in
 00169:01 any number of circumstances, not just
 02 specific to Macondo, correct?
 03 A. Again, just to be absolutely
 04 clear, the operating procedures were specific
 05 to -- to Macondo. It depends on the water
 06 depth. It depends on the fluid. It depends
 07 on the -- the structure of the BOP, is the
 08 LMRP connected, is the riser on top. Every
 09 situation is -- is going to be different.
 10 And the intervention techniques, you can
 11 develop generic tools, but the intervention
 12 techniques have to be specific to the
 13 geometries, the pressures, the temperatures,
 14 the water depths. So we have proved some
 15 pieces of equipment. We have proved them
 16 with operating procedures in certain
 17 locations. That doesn't mean to say that you
 18 can then go out and take that operating
 19 procedure and use it in a different water
 20 depth, with a different fluid, with a
 21 different BOP configuration.
 22 Q. The -- the inventory of
 23 immediately deployable open and close
 24 containment systems proven at depth with
 25 associated operating procedures that were
 00170:01 developed after this accident, what do you --
 02 what is this inventory?
 03 A. It's an inventory of top hats,
 04 as they were called, which is a series of --
 05 of small containment domes that could be put
 06 over a leak from the BOP, they could be put
 07 over a leak from a riser, depending on the
 08 configuration.

Page 170:16 to 171:04

00170:16 A. So a series of caps that could
 17 be deployed in various geometries. They
 18 wouldn't cover all the geometries, but they
 19 were clearly developed for the specific
 20 geometries that were in place in Macondo, so
 21 they would be suitable for that. They may or
 22 may not be suitable for different locations.
 23 A series of RITT tools, the riser and
 24 insertion tools. If there was a riser, you
 25 could insert the RITT tool in the riser. And
 00171:01 there are a series of containment devices
 02 that employed a buoyant riser that could

03 be -- you know, could then connect to a -- a
04 containment vessel at the surface.

Page 171:17 to 173:04

00171:17 Q. (BY MR. DEGRAVELLES) Sir, my
18 question was these devices that you have
19 talked about that could be used in a multiple
20 variety of situations that were developed
21 after Macondo, they could have been developed
22 before Macondo, correct?

23 A. They could have been developed
24 before Macondo. The issue would be is
25 whether they would have worked on Macondo.
00172:01 There still would have been significant work
02 to have been done to deploy them in those
03 circumstances. So would they have worked at
04 that pressure, would they have worked at
05 that -- with that reservoir fluid, would they
06 have worked with the geometry that was
07 available at the time.

08 So what I want to make clear is
09 you have the tool, but would the tool be
10 applicable? Would the tool actually work
11 with the operating procedures? So you could
12 certainly develop a more comprehensive tool
13 kit. The issue is would it have worked in
14 those set of circumstances.

15 Q. Nothing magic about the
16 development of the tool kit that you talk
17 about after April the 20th, 2010 that could
18 not have been done before then, that's my
19 only question?

20 A. There is a lot of magic in the
21 development of that tool kit because it's not
22 just the tools themselves. It's are they
23 applicable to the instance that occurred, and
24 would they therefore be effective, what
25 operating procedures would you actually need.
00173:01 I don't want to leave you with the impression
02 that you can simply take a capping stack and
03 have applied it to Macondo well on day one.
04 That was not the case.

Page 179:10 to 179:16

00179:10 Q. And you're certainly familiar
11 with Deepwater Horizon?

12 A. I am.

13 Q. Would you agree that it has --
14 it was the worst environmental disaster in
15 this country?

16 A. That's correct.

Page 299:06 to 302:01

00299:06 Q. Okay. After the Macondo
07 blowout, you had a role in the response?
08 A. I did.
09 Q. And what was your role?
10 A. My role was to support the team
11 that was operating in -- in Houston. The way
12 that the structure was set up, as in any
13 incident like this, there was a unified
14 command structure. So there were formal
15 roles within that unified command structure.
16 Actually, Doug Suttles sat as the most senior
17 person within that. It operated out of
18 Robert.
19 As part of the unified command
20 structure, there is a surface response
21 structure, which was the -- the effort that
22 was being run out of -- of Robert.
23 The -- within any pollution
24 response, there is a source control team,
25 people that are trying to isolate the source.
00300:01 If it was a -- a tanker that was leaking,
02 you'd try to find the hole in the tanker, fix
03 the source of the leak. So in that unified
04 command structure, there is a source control
05 team.
06 That source control team
07 remained in -- in Houston. It didn't go
08 to -- to Robert. Again, it was part of the
09 unified command structure. It had people
10 from -- the MMS were part of the team, the
11 Coast Guard were there, all of the industry
12 experts were there.
13 My role in Houston was actually
14 to -- to provide support for that team,
15 whether it be -- we were pulling people in
16 from the BP organization across the world.
17 So as we pulled people in, we needed to make
18 sure that we weren't weakening other parts of
19 the organization and how could we get the
20 people there and manage the -- the huge pull
21 that it had on our -- on our -- on our
22 organization.
23 It was also about working with
24 our contractors and our partners in the Gulf
25 of Mexico, whether they be working in the
00301:01 Gulf of Mexico or worldwide, how could we
02 bring the whole of the industry's capability
03 to bear.
04 So that's the role that I
05 played. I wasn't part of the formal
06 structure, but I was there supporting the
07 team.
08 Q. Okay. From BP's point -- point

09 of view, Suttles was on the official unified
 10 command under the source control prong. Were
 11 you in charge?
 12 A. No, I wasn't, no. Again, we
 13 had -- you know, there was a reporting
 14 structure up through -- so the unified -- it
 15 wouldn't -- you know, there wasn't a -- the
 16 structure worked through -- from Doug through
 17 the -- the structure that worked in Robert.
 18 There were key individuals working key
 19 elements of the response. There was a person
 20 involved on the operational elements of it
 21 each day. They had daily phone calls
 22 reported up. I did sit in on some of those
 23 phone calls, but not in an official role
 24 through the structure of the unified command.
 25 I was still running the upstream business at
 00302:01 the time.

Page 304:03 to 305:23

00304:03 Q. I've heard of an internal BP
 04 flow assessment team.
 05 A. No, I'm not familiar with that,
 06 no.
 07 Q. Okay. Do you know any people
 08 working for BP who were involved in trying to
 09 determine how much oil was coming out of
 10 Macondo?
 11 A. There was -- there were people
 12 as part of, you know, unified command. There
 13 were people working in Robert on that as part
 14 of the unified command structure. There were
 15 people in -- in Houston that worked on
 16 questions that were raised, in particular
 17 questions -- some of the questions raised
 18 by -- by Secretary Salazar. So there was
 19 work, you know, going on to support the
 20 unified command, and there was work that was
 21 done in response to -- to questions that did
 22 come out directly from -- from government.
 23 One of the other roles that I
 24 performed in Houston was -- it was actually
 25 Salazar requested it, because he did have a
 00305:01 daily conversation with -- you know, with BP,
 02 with a senior representative of BP. So I --
 03 I undertook that role, and occasionally
 04 questions would come from him.
 05 Q. Okay. Did you also have a --
 06 the duties of speaking to Admiral Allen?
 07 A. If -- it was more the reverse,
 08 is that if Admiral Allen was with Secretary
 09 Salazar, they would talk. A question might
 10 come from their conversation. When
 11 Admiral Allen was the federal on-scene

12 commander, his direct line was in to Doug --
 13 in to Doug, you know, through the -- through
 14 the unified command structure. Admiral Allen
 15 did visit Houston. When he was in Houston, I
 16 did talk to him.

17 Q. What about Landry?

18 A. Again, I -- if I recall
 19 correctly, Admiral Landry was the federal
 20 on-scene commander before Admiral Allen. So
 21 the same would apply. And, actually, he was
 22 working as the head of the unified command
 23 and it was through -- through Doug.

Page 310:24 to 311:02

00310:24 Q. (BY MR. O'ROURKE) Do you know
 25 any people at BP during the response who were
 00311:01 working on determining the amount of oil that
 02 came out of Macondo?

Page 311:11 to 312:10

00311:11 A. (Continuing) Yes, I do remember
 12 some of the names.

13 Q. (BY MR. O'ROURKE) Okay. And
 14 who are they?

15 A. To the best of my recollection,
 16 as part of the unified command structure
 17 in -- in Robert, David Rainey was working
 18 with other experts in unified command, NOAA,
 19 on -- on determining the -- the flow rate.
 20 In response to questions from
 21 Secretary Salazar, in particular, around
 22 the -- what would happen if -- if -- if there
 23 wasn't a pressure restriction from -- from
 24 the well, what -- what could be the increase
 25 in flow.

00312:01 Q. That's what -- that's what
 02 Mr. Rainey was working on?

03 A. No, no. Mr. Rainey was working
 04 on a flow rate assessment, you know, as -- as
 05 part of unified command. So he was working
 06 with NOAA as part of that. There was
 07 separate work done in Houston with regard to
 08 the -- the well, what would happen if the BOP
 09 was not sitting on the well, acting as a
 10 restriction.

Page 312:24 to 314:15

00312:24 Q. And who at BP other than David
 25 Rainey was doing any work on determining the
 00313:01 amount of oil that came out -- came out --

02 A. So there was -- and I won't get
 03 all of the names here, but there was a
 04 subsurface team, people, you know, geologists
 05 working on it, so people that were -- who had
 06 geologic knowledge of that region.

07 So, you know, there was a --
 08 there was a team there. There was some
 09 people who were -- a production -- production
 10 operations engineers, hydraulics people.
 11 Mike Mason was -- was one of those people
 12 working in -- in -- in that team, the two --
 13 you know, those two people came -- those two
 14 specific teams came together.

15 Q. Do you remember the names of any
 16 of the geologists?

17 A. I think -- best to my
 18 recollection, I think Cindy Yeilding may have
 19 been one of the people working in that team.
 20 Again, there was sort of shift patterns going
 21 on. It wasn't -- it wasn't the same people
 22 all the time.

23 Q. Does the name Trevor Hill mean
 24 anything?

25 A. And Trevor Hill, yes. Trevor
 00314:01 Hill -- Trevor Hill is B -- was BP's flow
 02 assurance expert. So he did some work, you
 03 know, in particular on looking at the -- the
 04 flow through the -- the capping stack, so,
 05 you know, those sorts of issues where he'd be
 06 looking at flow hydraulics.

07 Q. Were you acting in the role of
 08 an engineer when you were assisting in
 09 Houston?

10 A. No, I wasn't acting in a role of
 11 engineer. I was relying on -- if I was
 12 asking a question from Secretary Salazar, it
 13 was about making sure that the right people
 14 were -- were asked -- were assigned to the
 15 tasks.

Page 323:19 to 332:09

00323:19 Mr. Godfrey, that's very nice. What was the
 20 exhibit number you attached to it?

21 THE WITNESS: 6304?

22 Q. (BY MR. O'ROURKE) Thank you.
 23 Any reason to doubt the 3306 pounds per
 24 square inch figure?

25 A. I generally have no recollection
 00324:01 where the pressure was being read, what the
 02 gauge was. So, no, I don't know what the
 03 pressure was other than it was a pressure
 04 reading below the BOP.

05 Q. Could I, let's see, ask you to
 06 jump to tab --

07 A. Can we take that book -- that
08 out of the book and give it --
09 MR. O'ROURKE: I was going to do it
10 afterwards.
11 MR. NEAL: Okay.
12 Q. (BY MR. O'ROURKE) Tab 10,
13 please. Tab 10 is a one-page document,
14 BP_HZN_2179MDL33011865. Do you know if
15 that's your handwriting?
16 A. Yes, I believe that is my
17 handwriting.
18 Q. Do you remember ever seeing this
19 document before right now?
20 A. I haven't seen it until -- until
21 now, that's correct.
22 Q. Okay. I guess you saw it once,
23 because you wrote it.
24 A. Yeah, whenever the document --
25 do you know the date of the document?
00325:01 Q. I don't. I was going to ask you
02 that. Do you know when this was from or what
03 it was for?
04 A. Do you mind if I read it?
05 Q. Of course.
06 A. Yeah.
07 Q. I'm going to ask you more about
08 No. 1 than No. 2.
09 A. Okay.
10 Q. Do you -- do you remember why
11 this was prepared? Or you're just reading
12 it?
13 A. The guy -- I don't have a
14 recollection of the document itself, but
15 if -- it's part of the -- the daily updates
16 with -- with Secretary Salazar that, you
17 know, there were always questions that were
18 being asked. What it would appear to be is
19 there was a question -- in anticipation of a
20 question around the measuring of the pressure
21 inside the LMRP top hat. So I believe that
22 was -- you know, the purpose of this was to
23 be able -- for me to be able to respond to a
24 question of, you know, what's the time line
25 to get that information.
00326:01 Q. Okay. Did you ever speak to
02 Mr. Hunter referenced in the first bullet?
03 A. Yes, Tom Hunter was part of
04 the -- the science team that was created
05 by -- or created -- part of the science team
06 supporting Secretary Chu.
07 Q. Okay.
08 A. So he was a frequent -- or he
09 was -- the science team were part of the --
10 the team providing advice to the unified
11 command based in Houston.

12 Q. Do you remember responding to
13 him at all for this request for pressure
14 readings?
15 A. There was a -- you know, there
16 was a request, the team -- the operation team
17 that were working the -- the -- the top hat
18 would have received that. I've written the
19 word formal. So there would have been a
20 request through unified command to the team
21 in -- in Houston during the source control
22 to -- I presume, to take a pressure reading
23 in the top hat.
24 Q. Do you remember providing the
25 information?
00327:01 A. The actual pressures?
02 Q. Yes.
03 A. By -- I wouldn't have provided
04 it yes.
05 Q. Okay.
06 A. You know, they were -- at that
07 time it was a fully integrated team in
08 Houston. All the information was freely
09 available. So, you know, you know,
10 literally, you know, how it was measured,
11 whether it was done with an ROV, whether it
12 was by camera or whatever, that information
13 would have been, you know, freely available.
14 Q. Do you know if anybody inside BP
15 ever used these pressure readings from top
16 hat No. 4 for purposes of understanding or
17 estimating flow rates?
18 A. I'm not sure. I'm not sure I
19 can -- I can't recollect -- I can't recollect
20 what was done with the data. The -- the --
21 the data was a request particularly from the
22 science team around being able to measure
23 from the top hat the -- the pressure
24 differential across the -- the containment
25 vessel, and from that there was a view from
00328:01 the science team that you could actually
02 estimate the flow.
03 Q. And are you talking about some
04 people from within BP there?
05 A. No, I mean the -- the science
06 team.
07 Q. Okay.
08 A. You know, the science -- you
09 know, science team. So it would -- this was
10 in response to a request from the science
11 team, because they were -- it was a response
12 from Tom Hunter.
13 Q. Do you -- do you know of anybody
14 within BP used this data, the pressure data
15 to make calculations of the flow?
16 A. I -- you know, I can't recall

17 whether it was used. What I can recall is
18 that it was a very -- the whole pressure
19 measurement was very difficult to do, I can
20 recall that. I'm not -- I can't recall
21 whether we -- whether there was ever a
22 definitive pressure reading taken.

23 Q. Okay. What's it say on the left
24 column with the four -- with the three box
25 and your handwriting?

00329:01 A. It says, "Scientists were
02 members of the team." So what it's saying is
03 in terms of trying to design the -- do the
04 practicality of design, installation and
05 shipping offshore, I think people who were
06 designing the gauge, there was two BP people,
07 there were scientists from Secretary Chu's
08 team, some Ocean Engineering engineers who
09 are experts in the operation of ROVs and
10 sub -- subsea equipment and then some
11 Oceaneering techs who would be people who
12 could manipulate ROVs or put in place a gauge
13 or something like that. Then it says in
14 science territory versus engineering, which
15 is something that's actually very difficult
16 to do.

17 Q. And --

18 A. To explain the time line, I
19 think -- there was a question from
20 Secretary -- maybe it was a question from Tom
21 Hunter or Secretary Chu or Secretary Salazar,
22 you know, why is it -- why is it going to
23 take so long, and this was the explanation.

24 Q. And what did you write it upper
25 right?

00330:01 A. Submit to, I think that what I
02 wrote was submit to Watson today. Do you
03 want us to continue? And then I wrote,
04 fabrication, finish today. Then I wrote,
05 calibrate to get the required accuracy, 22nd
06 of June.

07 Q. And you said it was difficult to
08 measure the pressures --

09 A. I think that's also -- what I
10 did write and put a circle around it, .1. I
11 think it was for the accurate -- for the
12 measure -- for this to be accurate, I think
13 it had to be -- I think -- I think the
14 request from Tom Hunter was that, you know,
15 it had to work at a certain level of
16 accuracy.

17 Q. Can you imagine that there was
18 some difficulty in measures the pressures?

19 A. I'm saying that, you know, part
20 I can remember the time line was -- was, if
21 you like extensive, it was what, it was six

22 days.
 23 Q. I think you just said to me
 24 there was some difficulty in measuring the
 25 pressures, and you're not sure if they were
 00331:01 accurate?
 02 A. Yes, that's right.
 03 Q. Okay. Is there any reason, but
 04 do you also remember that oil was being taken
 05 up from the top hat to the surface,
 06 collected?
 07 A. I'm assuming that this is around
 08 the middle of June, so that would have been
 09 occurring then, that's correct.
 10 Q. Do you think that there's any
 11 reason to question the accuracy of no --
 12 collection rate numbers?
 13 A. What I'm questioning is the
 14 accuracy with which a gauge could be
 15 installed.
 16 Q. Yeah.
 17 A. Because this is a very -- again,
 18 my recollection of this conversation was the
 19 actual installation of the gauge in this
 20 location was very difficult to do.
 21 Q. Okay.
 22 A. Therefore, would it operate
 23 reliably was the -- the question. Was it a
 24 reliable measurement was the question.
 25 Q. Can I get you to look at behind
 00332:01 tab No. 4, please?
 02 A. Tab 4?
 03 MR. GODFREY: Did you mark that? Is
 04 that correct?
 05 MR. O'ROURKE: Can you stop and go back
 06 to tab 10? Sorry.
 07 MR. GODFREY: Just so we know what we
 08 have.
 09 MR. O'ROURKE: Tab 10 will be 6305.

Page 332:17 to 334:04

00332:17 Q. (BY MR. O'ROURKE) Tab 4 is an
 18 e-mail from Tom Marshall, Saturday, June 5th,
 19 2010, to various, including Mr. Inglis.
 20 A. That's correct.
 21 Q. BP-HZN-2179MDL01623128 and
 22 following through 23154. Do you -- do you
 23 remember getting this e-mail?
 24 A. I do remember being updated on
 25 the -- on the -- the collection containment
 00333:01 performance of the -- of the Enterprise.
 02 Q. Okay. Now --
 03 A. As part of the process of --
 04 because Secretary -- Secretary Salazar on the
 05 daily calls --

06 Q. Okay.

07 A. -- was usually asked, although I
08 think the e-mail has gone to, you know, the
09 science team that were there, from Sandia and
10 Los Alamos and so forth. This was a report
11 that was going out to everybody and also to
12 everybody else.

13 Q. When you said UGS, do you mean
14 U.S. Geological Survey?

15 A. I can't remember who, but the
16 Sandia -- the people from the Sandia National
17 Labs. The people from Los Alamos, they were
18 part of the -- of the science team that were
19 there, and they were there at Secretary Chu's
20 request.

21 Q. And who is Tom Marshall?

22 A. Tom Marshall was one of the --
23 the operational heads in the unified command
24 structure. So as we operated the Enterprise,
25 that came underneath his -- his agreement.

00334:01 Q. Okay. Mr. Marshall has provided
02 to various people, copying you, collection
03 rates?

04 A. That's correct.

Page 335:07 to 335:09

00335:07 Q. So the comment you made about
08 the gauge in the top hat doesn't apply to the
09 data in this e-mail?

Page 335:11 to 336:21

00335:11 A. I think we're talking about two
12 separate things.

13 Q. (BY MR. O'ROURKE) Okay.

14 A. Yeah, I don't see how they're
15 connected, you know. There is -- there is
16 unreliability in -- in this measurement
17 technique, as there is with all techniques.

18 Q. Okay. What's the unreliability
19 in the technique reflected in Mr. Marshall's
20 e-mail?

21 A. Well, you know, given the nature
22 of the flow, the flow regime, is all the gas
23 separated, the size of the orifice, was it
24 properly calibrated, you know, were those
25 are -- are things that could impact it, was
00336:01 there foaming in the separator. There are
02 various issues associated with any --
03 measurement of any fluid flow.

04 Q. Okay. Are you aware of any
05 specific reasons to believe that any of these
06 were problems in the collection in this

07 24-hour period?
 08 A. No, the point that I'm making is
 09 it was inherently unreliable.
 10 Q. Are you aware of anybody doing
 11 any work after the time of this e-mail to
 12 calibrate or amend these figures?
 13 A. On -- on -- you know, people
 14 were doing their best efforts to ensure that
 15 the best techniques were being used. I can't
 16 recall, you know, whether there was work done
 17 afterwards, but the only point that I'm
 18 making is that with any flow regime like
 19 this, there is unreliability in measuring it.
 20 Q. Can I get you to put the sticker
 21 6306 on there, please? Thank you.

Page 338:10 to 340:14

00338:10 Q. Do you remember any collection
 11 of seismic data with respect to well
 12 integrity after the capping stack was put on?
 13 A. Yes, I do.
 14 Q. Okay. Who was taking that --
 15 who was taking the seismic data?
 16 A. Do you mean which company was
 17 actually doing it in terms of --
 18 Q. Okay.
 19 A. I don't -- I don't know which --
 20 I don't know who was actually -- which
 21 company was shooting the seismic. I can't
 22 remember the name of the vessels now.
 23 Q. Do you remember --
 24 A. But there was a seismic -- a
 25 seismic boat that was deployed that was
 00339:01 shooting seismic -- shooting seismic around
 02 the well.
 03 Q. And they were hired by BP?
 04 A. By unified command.
 05 Q. And do you know who at BP was
 06 overseeing that work?
 07 A. Yes. I can't remember. It
 08 was -- I can't remember surname. Christian
 09 name is Andrew.
 10 Q. Does the name Topaz refresh your
 11 recollection?
 12 A. Topaz, that was the name, that
 13 was the name of one of the vessels. I think
 14 it was one of two vessels that were being
 15 used.
 16 Q. Okay. Do you remember the name
 17 of the company?
 18 A. I'm sorry, I don't.
 19 Q. Okay. The purpose of taking
 20 this seismic was to check the integrity of
 21 the well, it having been capped by the

22 capping stack?
 23 A. In the broader sense, yes.
 24 Q. I'm going to ask you to take a
 25 look behind tab No. 9. Tab No. 9, an e-mail.
 00340:01 A. Andy Hill, sorry, was the name
 02 of the -- the -- that's on this e-mail, Andy
 03 Hill.
 04 Q. Is the name of the person who
 05 did what?
 06 A. Andy Hill was a guy who was
 07 doing the interpretation of the seismic.
 08 He's a shallow hazards experts.
 09 Q. Okay. He works for BP?
 10 A. He works for BP.
 11 Q. And is it fair to say if I want
 12 to find out where all the seismic data is, I
 13 should talk to Andy Hill?
 14 A. Yes.

Page 341:02 to 341:06

00341:02 Q. (BY MR. O'ROURKE) So for the
 03 record, behind tab 9 is an e-mail from
 04 Benjamin Thurmond July 25, 2010, to various,
 05 including Inglis -- MDL 2179MDL0159715, with
 06 an attached PowerPoint in native format?

Page 342:09 to 342:15

00342:09 Q. Okay. And this is a chart of
 10 seismic data that was collected?
 11 A. Just let me look.
 12 Q. The middle column is QC stack.
 13 A. Yeah, so this is a -- a list of
 14 the -- by date of each of the seismic lines
 15 that were acquired.

Page 342:20 to 343:25

00342:20 Q. And do you know how many -- do
 21 you have any basis for knowing if more data
 22 than what's on this chart was collected?
 23 A. I don't have any basis to
 24 believe that more data was collected than is
 25 on this chart. I can't guarantee the chart
 00343:01 is complete, but --
 02 Q. There is nothing that in- --
 03 A. Nothing in my head. The only
 04 thing I can point out is I remember there
 05 were two vessels that were working, the
 06 Nikolai as well as the Topaz. So there was
 07 data potential from the Nikolai.
 08 Q. Okay. Do you remember how many

09 days, approximately, the seismic data was
10 collected to test the well integrity?

11 A. No, I don't remember exactly.
12 All I can rely on is the -- the dates that
13 are on this piece of paper. I can't
14 remember -- it was a decision made by the
15 science team not to continue to do it, the
16 well had integrity.

17 Q. Okay.

18 A. That was potentially the point
19 of which the data was -- you know, was no
20 longer collected. The intensity, also, of
21 the -- of the review process diminished in
22 time as confidence was gained in the
23 integrity of the well. So the, you know,
24 data may have been collected afterwards that
25 wasn't subsequently processed.

Page 344:10 to 344:12

00344:10 Q. Can I ask you to please mark
11 what's behind tab No. 9 with this No. 6307?
12 A. (Witness complies.)

Page 344:22 to 345:04

00344:22 Q. (BY MR. O'ROURKE) Tab 6 is a
23 PowerPoint, appears to be by Mr. Inglis,
24 July 12th, 2010, 2179MDL03011186 through 96.
25 Do you remember presenting this?
00345:01 A. I can't remember the exact
02 presentation. I do know that I did give
03 updates to the board in terms of their role
04 response.

Page 345:11 to 345:14

00345:11 Q. Thank you. The second slide and
12 the third slide talk about bringing on more
13 vessels to increase collection capacity.
14 A. Can I just read them?

Page 346:01 to 347:04

00346:01 Q. On Page 2 the second bullet
02 talks about recovery. I'm sorry. The third
03 bullet down, the recovery rates will expand
04 or the recovery capacity will expand. And in
05 the chart, you were planning to expand it in
06 early August to 80,000 plus thousand --
07 80,000 plus barrels per day.
08 A. That's correct.
09 Q. Did you have estimations or

10 calculations that led you to believe that you
11 needed 80,000 plus barrels per day capacity?
12 A. No. It was all about a desire
13 to build redundancy into the equipment. So
14 you had a series of -- of pieces of
15 equipment, all of which could suffer down
16 time. As you can see, the Enterprise was --
17 there is some words there saying back on-line
18 on Tuesday or Wednesday. So each individual
19 piece of equipment, you know, had the
20 potential to be unavailable. And so the goal
21 was to keep on building redundancy into the
22 equipment so you always had a backup and that
23 was the aim, was to always had a backup and
24 so you continued to build. We didn't stop
25 building capacity at any point. We were
00347:01 always looking to bring on more and more
02 options and to bring on options that had more
03 availability, if there were to be a hurricane
04 scenario.

Page 348:13 to 348:15

00348:13 MR. DART: Just as a matter of
14 housekeeping, Mr. O'Rourke's tab 6 has been
15 marked as Exhibit 6308 for the record.

Page 414:12 to 415:06

00414:12 Q. Were you generally aware of the
13 operations of the unified command in
14 connection with the response to the spill?
15 A. Just in a in a general sense.
16 There was so much going on at the time that
17 my only focus was on supporting the team that
18 were doing the -- the source control. I
19 wasn't doing anything else other than the
20 role of ensuring there was good communication
21 between BP and the -- and the government.
22 Q. Were you aware that dispersants
23 were used in response to the spill pursuant
24 to the direction of unified command?
25 A. I was aware that as part of the
00415:01 operations around containment dispersants
02 were -- were sprayed, I think, at times when
03 the level of hydrocarbons had built up around
04 the vessels. Dispersants were also deployed
05 as part of the source control in the -- at
06 the subsea.

Page 417:09 to 417:19

00417:09 Q. And is it your belief, sir, that

10 the unified command was responsible for
11 making the decisions related to the use of
12 dispersants?
13 A. Again, the unified command had
14 overall control of the -- of the response.
15 All decisions eventually, you know, came
16 through the unified command structure, were
17 signed off by the federal on-scene commander.
18 So that was the structure by which all
19 decisions were made.