UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF LOUISIANA

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IN RE: OIL SPILL BY THE OIL RIG *DEEPWATER HORIZON* IN THE GULF OF MEXICO ON APRIL 20, 2010	DOCKET NO. MDL-2179 SECTION "J" NEW ORLEANS, LA WEDNESDAY, OCTOBER 2, 2013

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IN RE: THE COMPLAINT AND PETITION OF TRITON ASSET LEASING GMBH, ET AL	DOCKET NO. 10-CV-2771 SECTION "J"

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UNITED STATES OF AMERICA V. BP EXPLORATION & PRODUCTION, INC., ET AL	DOCKET NO. 10-CV-4536 SECTION "J"

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DAY 3 MORNING SESSION

TRANSCRIPT OF NONJURY TRIAL PROCEEDINGS
HEARD BEFORE THE HONORABLE CARL J. BARBIER
UNITED STATES DISTRICT JUDGE

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I N D E X

P-R-O-C-E-E-D-I-N-G-S

WEDNESDAY, OCTOBER 2, 2013

M O R N I N G S E S S I O N

(COURT CALLED TO ORDER)

07:59:29 THE DEPUTY CLERK: All rise.

07:59:46 THE COURT: Good morning, everyone.

07:59:48 VOICES: Good morning, Your Honor.

07:59:50 THE COURT: Please be seated.

07:59:53 All right. A couple of preliminary matters. 07:59:58 First of all, the time clock status report from our 08:00:04 timekeepers. As of this morning, the aligned parties have used 08:00:12 6 hours and 37 minutes, so they have 8 hours and 23 minutes 08:00:15 remaining in the source control segment. BP has used 7 hours 08:00:20 and 33 minutes. They have 7 hours and 27 minutes remaining.

08:00:25 We had a variety of complaints yesterday about 08:00:32 the temperature in the courtroom. For some reason, people are 08:00:42 not complaining to me, though. They're complaining to 08:00:44 everybody else in the courthouse, so it gets to me second and 08:00:45 thirdhand.

08:00:45 I would suggest, if you have a complaint, you 08:00:47 ought to voice it in the courtroom and not to third parties, 08:00:51 because I'm the only one that can do something about it.

08:00:53 But we had complaints that it was too cold the

first day, so we asked them to turn the temperature up. Then, yesterday morning, I had complaints that it was too warm, so we turned it back down. Then during the day, we had complaints that it was too cold again.

It seems like we can't make everybody happy. It does tend to be cool in these courtrooms. We tend to keep them cool, particularly when we have so many people here. I'm never cold because I have this big, heavy robe on. All I can say is we're doing the best we can.

What's the temperature right there? It warms up overnight because -- of course, now without a budget, we're lucky we have -- I expect them to turn the lights and air conditioners off at any moment.

But what's the temperature right now, Stephanie?

THE DEPUTY CLERK: 73.4.

THE COURT: It's 73.4, so it's a good bit warmer than it was yesterday, but it's gradually cooling. We'll try to keep it between maybe 71 and 72. It had gotten down to about 69, I think, at some point yesterday, which was probably a little too cool.

So we're doing the best we can to accommodate everybody, but, unfortunately, not everyone agrees on what ideal temperature is, it seems. But if anybody has any real issues, just bring them up to us, to me or my staff, and we'll try to address them, okay?

Any other preliminary matters?

MR. LI: Your Honor, just quickly, Luis Li.

On behalf of the aligned parties, I would like to file, offer and have introduced the exhibits that were used in Rob Turlak's examination yesterday.

THE COURT: Any objections? Hearing none, those are admitted.

(WHEREUPON, the above referenced exhibits were admitted.)

MR. LI: Thank you, Your Honor.

MR. MILLER: Good morning, Your Honor, Kerry Miller for Transocean the aligned parties.

I don't know if Your Honor wants to take up BP's Rule 52(c) motion or not this morning.

THE COURT: Frankly, I got it via e-mail late last night. I didn't get to print it out and actually read it. I actually haven't read it. I skimmed it over, but I haven't read it in detail myself yet. But are you asking for time to reply or what?

MR. MILLER: Your Honor, my initial request would be what we said yesterday, and that is it's premature under Rule 52(c) because the record is still open and will remain open.

Mr. Irpino reminded me that I was not exactly right on the status of the exhibits. We have Category 2 and

Category 4 exhibits, which will be about 35 documents not coming in until the final marshalling conference, so the record remains open for that, and we haven't rested until that evidence comes in.

THE COURT: Remind me again. I know you all have all these various categories. Remind me, what are Category 2 and Category 4, again.

MR. MILLER: They were generically called at one point, Your Honor, orphaned exhibits, that is, exhibits that were not included within the bundles and were not to be used with a witness on the stand.

THE COURT: You wanted to have it in the record.

MR. MILLER: We wanted to have it in the record.

THE COURT: Is that 4 or 2?

MR. MILLER: Both. I guess it's better, sort of, 2A and 2B, because they fall under the generic category --

THE COURT: Now, you're really confusing me. You went from 4 to 2 to 2A.

MR. MILLER: Anthony, if I say something wrong, hit me over the head.

2A would be 25 exhibits that have been, I think, worked out amongst the parties ahead of time. We know what those are. We're just waiting until the final marshalling conference to move them into evidence.

Category 4 is after the trial is over, after the

live witnesses are done, Judge Shushan granted the sides, not the parties, but the respective sides, up to ten more exhibits -- we did this in Phase One -- to introduce into the record. Those have not been preagreed to. We would have to have a meet and confer process about that on or around the final marshalling conference.

So it totals up, potentially, from each side, 35 exhibits come into the record, not until the final marshalling conference.

MR. LANGAN: Your Honor, it's Andy Langan for BP.

I think the standard under Rule 52(c) is whether or not a party has had a chance to be fully heard on the issues in the matter. The aligned parties have.

If Mr. Miller wants to point to one of those 25 or 35 exhibits to see if it makes any difference to the legal grounds of our motion, I guess he's free to do so, but it sounds to me like trying to put off the inevitable until another day.

We request that Your Honor take this motion up at Your Honor's convenience, and not let this procedural quirk change the fact that they have really been fully heard on these issues.

THE COURT: I think what I'll do, I'm not going to rule on your motion right now. I'll defer it at least until the end of this phase, this segment. I'll allow the aligned parties to

file a written opposition between now and the end of the week. If you all can convince me that it doesn't make sense to rule on it now, I'll consider that; or, as Mr. Langan suggested, if you're aware of some document that's not in evidence yet, but you will be offering in evidence, you certainly can point to that in your opposition, okay? All right.

MR. MILLER: Your Honor, I would like to convince you that it doesn't make sense for us to file a written response by the end of the week for this reason.

This trial -- or this segment of the trial ends tomorrow at 6:00. Mr. Brock, I think, mentioned yesterday that, given BP's status coming up in the quantification trial, that they were interested in working with the other side to come up with a posttrial briefing schedule that makes sense to them, given their status. We're in a different situation.

I think today is the day Your Honor has his en banc meeting.

THE COURT: No, that's the 16th.

MR. MILLER: Oh, the 16th.

At any rate, I think that time would be better used for us to work with BP. This is all stuff we're going to do in posttrial briefing. Why we're filing two papers on it, I don't think makes sense for a trial that ends tomorrow at 6 o'clock.

We would submit that we agree to a posttrial

briefing schedule and address those issues in the posttrial briefing schedule.

BP has preserved the record, they've filed a motion, but it just seems to be a duplication of efforts to address these issues twice, in the fact that the trial ends tomorrow at six.

MR. LANGAN: Actually, Your Honor, if we're looking for efficiency, if Your Honor takes our motion up and grants it, we're not going to have posttrial briefs on the source control phase.

I mean, we can cut through this. The legal issues are pretty clear here. They are never going to be able to show gross negligence about our source control efforts. It's totally preposterous. We ought to take this up now and cut through it.

THE COURT: Let me think about it during today, and I'll let you all know by the end of the day.

MR. DOYEN: Your Honor, if the Court would like a brief on this issue, which is fine with us, we would ask for Monday, rather than Friday. There is not too much time for us between now and Friday.

We would be happy to submit a brief. We agree with Mr. Miller. We think, in the long sense, it makes sense to fold this in. We'll be briefing this, we are confident, in full in posttrial briefs. I'm also happy to be heard on the

merits orally any time you think is appropriate on the motion.

THE COURT: Well, I would rather you do it in writing at this point, so we don't take up more time when we should be listening to witnesses. Why don't you do it by 5 o'clock Monday, okay?

MR. DOYEN: Thank you, Your Honor.

MR. LANGAN: Thank you, Your Honor.

MS. KARIS: Your Honor, we do have a couple of housekeeping matters, and then we can resume with Mr. Dupree's testimony.

I would offer to the Court the depositions and tender for the record the exhibits BP used with Dr. Bea, as well as Mr. Turlak. We have circulated those lists. No objections have been received, so we move those into the record at this time.

THE COURT: All right. Without objection, those are admitted.

(WHEREUPON, the above referenced exhibits were admitted.)

MS. KARIS: Thank you.

Similarly, we have our exhibits for Mr. Ziegler, which I would also tender at this time. There have been no objections with respect to those exhibits.

THE COURT: All right. Hearing no objection, those are admitted.

08:09:14 (WHEREUPON, the above referenced exhibits were admitted.)

08:09:16 MS. KARIS: We do have a dispute with respect to Mr. Ziegler's exhibits that were sent to us by the aligned parties. I'm not sure if those are going to be offered at this time, but we have some outstanding issues on those.

08:09:31 MR. SMITH: Your Honor, Prescott W. Smith for Halliburton and the aligned parties.

08:09:35 We would offer a full list of the exhibits and the demonstratives and call-outs, including the video that we watched, that were used during the examination of Edward Ziegler yesterday.

08:09:51 THE COURT: Have you identified which ones are at issue or you object to?

08:09:56 MR. SMITH: I believe the --

08:09:56 THE COURT: No, no, I'm asking Ms. Karis.

08:09:59 MS. KARIS: Yes, Your Honor. We object to the admission of Mr. Ziegler's report without redactions. We have no objection that some portion of that report should come in, but the Court sustained part of our *Daubert* objection, so, at a minimum, those opinions --

08:10:14 THE COURT: I agree with that. We did this last time, as I recall.

08:10:17 MS. KARIS: Exactly.

08:10:19 THE COURT: I'm going to instruct counsel to work this

out over the next day or two. You all ought to be able to agree on the redactions that are necessary in accordance with the rulings.

MS. KARIS: Thank you.

The second piece of that, which, again, we did in Phase One, with no objection from the Plaintiffs' Steering Committee, is for testimony that was not admitted because it was cumulatively, where the Court sustained our objections, likewise those opinions don't belong in the report.

The Plaintiffs agreed in Phase One to take those opinions out. We worked out a process. I propose the same process be used here.

I've proposed it to Mr. Smith. He told me they didn't agree to redact cumulative opinions, which the Court sustained our objection to. That would be contrary to the procedure which was set in Phase One.

MR. SMITH: Your Honor, if I may, Magistrate Judge Shushan has already issued an order on this in terms of further redactions to the Expert Reports, and she denied that request.

THE COURT: Well, we're in trial now. It's my ruling. Judge Shushan doesn't rule on what evidence comes in during trial.

So I agree with Ms. Karis. I think you all need to work through this process.

MS. KARIS: Thank you, Your Honor.

MR. SMITH: Thank you, Your Honor.

MS. KARIS: I'll hand up our lists.

THE COURT: Any other preliminary matters? If not, we can resume. I see our witness is still here.

Good morning, Mr. Dupree.

THE WITNESS: Good morning, Your Honor.

THE COURT: You're still under oath.

THE WITNESS: Yes, sir.

THE COURT: I also understand that you all have one more thing, I'm sorry. Mr. Langan, I think, circulated last evening an e-mail eliminating two witnesses.

MR. LANGAN: Yes, Your Honor. Mr. Brock can address this.

THE COURT: Tell me who those were.

MR. BROCK: We took out Mr. Carden and Mr. Wellings, James Wellings.

THE COURT: Mr. Wellings and Mr. Carden will not be called by BP, okay.

MR. BROCK: That's right.

THE COURT: Okay. Thank you.

MS. KARIS: Your Honor, with respect to Mr. Wellings, there was one issue that we wanted to raise, which is we just wanted to know that, in light of the fact that we're not calling Mr. Wellings, whether he can -- whether the plaintiffs

intend to call him, or whether he can be released to return to his job in Brazil.

THE COURT: Anybody on the aligned parties' side plan to call Mr. Wellings?

MR. BRIAN: We need to confer over the recess before making a decision. We're looking at his bundle right now. We can give you a decision, I think, after the morning recess.

THE COURT: After the morning recess, okay.

MR. BRIAN: Brad Brian on behalf of Transocean.

THE COURT: Good. Thank you.

MS. KARIS: May I proceed, Your Honor?

THE COURT: Yes.

MS. KARIS: Thank you.

JAMES DUPREE,

after being previously sworn by the Clerk to testify to the truth, the whole truth and nothing but the truth, did testify on his oath as follows:

DIRECT EXAMINATION BY MS. KARIS: (Continued)

Q. Good morning, Mr. Dupree.

A. Good morning.

Q. When we broke yesterday, we were talking about a presentation that you gave to members of the Federal Science Team, as well as others, with respect to various options being considered in mid-May, May 16th, with respect to securing the well or shutting in the well. Specifically, we were talking

about the dynamic kill component or proposal.

Just to reorient ourselves, we were then discussing the risk of a broach that was presented in connection with the BOP, one of the options.

If we can pull up D-23247A, please.

Using this demonstrative, can you explain to the Court what the risk of a broach was with respect to the relief wells which you discussed in relation to the BOP option being presented at that meeting?

A. So in this particular demonstrative, we're going to talk about how -- the way a relief well works. We're going to come down and intersect deep in the well, above the reservoir, and then we're going to inject mud up into the segment here.

If we have a rupture -- or one of the rupture disks has activated here, and if there is a broach at the 18-inch, the weight of the mud then can find its way out, and then you have -- instead of having oil floating underneath the sea bed, you have, you know, the mud column, mud, high pressure mud moving out into the sea -- underneath the sea bed and doing the same thing as the oil would.

So that mud would fall back out potentially. You would have to continue to inject mud. But that would take the pressure -- the whole idea of putting this mud on top of the reservoir is to put the pressure on top to stop -- to stop the flow here. The weight of this mud stops the flow.

If the mud can discharge out through the 18-inch shoe, then that weight can be lost, and then the reservoir can come back.

Now, it just makes it very, very difficult for the relief well -- to design and complete a relief well if you're dealing with this type of situation, so.

Q. What would the impact be on the relief well in the event that you had this broach as a result of the operation?

A. So that would depend. At the time we're drilling a relief well, we don't know if it's up the annular or up the middle. But it really complicates the potential success of the relief well because we have another outlet point to worry about and consider in the kill of the well.

Q. Okay. Now, if we can pull up 14281N.2.

At the May 16th presentation that you gave to the government, did BP make a recommendation as to what the path forward should be?

A. Yes. At this point in time, we're discussing a dynamic and momentum kill. That would be just mud-only type kill, without the particulates that we talked about. We're talking about just doing that.

Q. Is this the same as Top Kill, as was ultimately performed?

A. No, Top Kill is mud with the particulates, the particles and the blocking agents that we talked about yesterday afternoon. That's Top Kill is a combination of both of these.

08:17:40 Q. Now, had the plan all along been to do a momentum kill
08:17:48 rather than -- momentum or dynamic kill rather than the
08:17:53 Top Kill operation such as the one that was ultimately
08:17:58 executed?
08:17:58 A. No. The plan all along had been to have a junk shot
08:18:02 component in our kill. As I said, we planned everything in
08:18:05 parallel. If we needed a junk shot, we were engineering a junk
08:18:10 shot because we were engineering and putting the manifold in
08:18:13 place.
08:18:14 At the time, we were actually putting stuff on the
08:18:15 sea bed at this particular date. We're preparing for a junk
08:18:18 shot and the dynamic kill.
08:18:20 Q. We'll discuss shortly the reasons why the planning changed
08:18:24 at this point; but, before we do that, in connection with this
08:18:29 presentation recommending the dynamic kill, there is a list of
08:18:33 what the reasons were, what the basis was for BP recommending
08:18:36 dynamic kill at this point. Can you describe for the Court
08:18:39 what those reasons were?
08:18:41 A. So if we could get access into the BOP, we didn't see any
08:18:45 risks, but potentially a very high reward.
08:18:48 There was a piece of data that was showing up at the
08:18:51 base of the BOP, pressure -- there is a pressure gauge at the
08:18:54 base of the BOP that we had activated, and we were getting data
08:18:58 from that pressure gauge.
08:18:59 We didn't think that we could -- that we could --

through the operation, we could control impacting the pressure, the burst disks, the rupture disks, and -- we didn't see any downside in putting mud into the BOP and trying to kill the well. We knew that we could make multiple attempts.

Q. To be clear, did you think as a result of the procedure that was being developed you could control the risks associated with broaching?

A. Yes.

Q. Did you ultimately write a procedure that accounted for controlling that risk --

A. Yes.

Q. -- of broaching that we have been talking about?

All right. If we can now go to TREX-142819N.N.

This slide is titled, "Governing Question, What are the Implications of the Latest Pressure Data at the Top of the LMRP and the Base of the BOP?"

Can you explain to the Court what you were presenting at the time of this presentation with this slide?

A. So for about three days, from May 16th through to about May 19th, we were looking at momentum and dynamic kill. Essentially, because of this -- we had this pressure at the base of the BOP. It had started out, and within one week -- it had started out at about 3800 psi, and it was falling. It had fallen 700 psi.

So that's an indication that -- if the pressure at

08:20:40 the base of the BOP is falling, it's an indication that the
08:20:43 well is weakening. It's getting weaker and weaker. Therefore,
08:20:48 the success -- what we're saying here is the success of a mud
08:20:52 kill starts as dramatically go up.
08:20:54 THE COURT: What do you mean, the well is getting
08:20:57 weaker?
08:20:58 THE WITNESS: Well, the oil is coming up, and it's
08:21:01 demonstrating a pressure at the base of the BOP. It's fighting
08:21:04 its way through the BOP.
08:21:06 If the pressure at the mud line begins to fall,
08:21:10 then the well -- then the strength -- the source of the
08:21:14 pressure is the reservoir, the oil sands down below. That's
08:21:16 the source of the pressure. It's coming up the pipe.
08:21:20 If the pressure here begins to fall, it means
08:21:23 that the source is getting weaker. That's the only way to
08:21:26 describe how -- when the pressure would begin to fall.
08:21:31 THE COURT: What date was that?
08:21:32 THE WITNESS: This was the week prior to May 16th.
08:21:35 So we have this gauge. Pressure is falling.
08:21:38 If you remember, Your Honor, the weight of the
08:21:40 ocean out here is 2,250 psi. So if it falls 700 psi in a week,
08:21:48 and then if it continues to fall, you know, the ocean will
08:21:51 eventually kind of kill the well.
08:21:54 That's what we're talking about here, that we
08:21:56 were observing this pressure drop on this gauge that we

reactivated. It is indicating that the well is weakening, and, therefore, something is happening down below. Dynamic changes are going on at the well.

It could be cutting water. It could be water could be coming from the sands where the oil was that's weakening the well; but, for some reason, we believe at this point in time that the well is becoming weaker.

Then that increases our chances of just going in there with mud and doing it. If we wait much longer, at least in the trends that we saw at the time, we thought the weight of the ocean was enough potentially to even help us kill the well.

EXAMINATION BY MS. KARIS:

Q. To be clear, was there a pressure gauge called PTB at the bottom of the BOP that was giving you pressure readings that were being monitored?

A. Yes. I mean, there was a pressure gauge there. It didn't output direct pressure. It outputted ohms, just like most gauges do. The calibration of that gauge was what we struggled with to make sure it was calibrated properly.

Q. Did the government have access to the data from the PTB reading at that time?

A. Yes, absolutely. It was an important piece of data that we had collected. Certainly, Secretary Chu was always interested in more data.

Q. Was that data available to the government realtime that

demonstrated to you, at least, that the well might be getting weaker?

A. Yes.

Q. Was that part of your thinking in going forward with the momentum kill suggestion alone at this time?

A. Yes, and that's what we're presenting here. We're talking about that particular phenomena that's going on in the well that we're observing, and we're discussing it at this particular meeting.

Q. There is a statement here for review -- I'm sorry, review. After you state that the likelihood of a successful dynamic or momentum kill increased significantly, you go on to state under review: "National Lab Red Team expected to conduct a dynamic kill pumping schedule review as early as Monday."

First, can you tell the Court what is the National Lab Red Team?

A. So during this presentation, we made several requests to the government to use some of their National Lab scientists to calculate -- or to overview and look at the pumping schedules that we are -- that we're going to present.

The concept of Red Team -- Red Team/Blue Team is to get a totally independent view on the pumping schedule?

Q. What is a pumping schedule as it pertains to the momentum kill operation?

A. So any time -- it's standard industry engineering practice

08:24:43 that before we run a job, we actually try to simulate what we
08:24:50 might be able to see when we're actually pumping the job.
08:24:53 So a pumping schedule would be, based on a bunch of
08:24:56 different assumptions, what we expect on pressure -- pressure
08:25:02 over time or pressure versus amount of mud pumped, what we
08:25:06 should expect in this particular situation.
08:25:08 Q. To your knowledge, did the National Labs Team complete the
08:25:12 requested work there?
08:25:12 A. Yes.
08:25:15 Q. Do you know when that review took place?
08:25:19 A. Well, I think it was over the weekend or on Monday or
08:25:22 Tuesday.
08:25:22 Q. Did you participate in that review?
08:25:24 A. No, I did not.
08:25:25 Q. Was there a meeting immediately following your
08:25:30 presentation to the government, something called the kill the
08:25:32 well on paper meeting?
08:25:33 A. Yes, that's correct. That was part of these requests
08:25:36 being implemented by the government.
08:25:39 Q. Were you present for that meeting?
08:25:41 A. No, I was not.
08:25:42 Q. Now, if we can pull up TREX-140914.2.1.
08:25:59 First, can you tell the Court what these notes are
08:26:02 from.
08:26:02 A. As I described earlier, there was a 6:30 and a 4:30

meeting that I held every day. This is the meeting notes from May 18th, 6:30 a.m.

You can see, the notes read through the different teams are reporting out their progress, what they've done in the last 24 hours, what they expected.

The Engineering Team here is reporting out that the kill the well on paper notes should be out today. This is where I was informed of the completion of that particular operation.

Q. So these meetings notes on May 18th of 2010, with reference to engineering, who was invited to participate on these calls where this point was discussed?

A. These are the morning meetings I discussed where we work in a conference room where all the teams are located. Certainly, the Department of Interior, the BOEMRE people are there, the Coast Guard is there, my Teams are there. The phone line is open to New Orleans for the Unified Command to listen in on the report outs. Science Team representatives are also there.

Q. In the meeting notes it says, "One of the outcomes from the review was the verification of the fact that the kill could struggle if rates are significantly higher than the current estimates." What is being reported there?

A. So that was being reported that through the modeling at the pump rates that we thought we could get, how many barrels

per minute of mud we could pump, and depending on the configuration, a pretty simple configuration that we designed, that if the flow rate was greater than ten -- it was within the range of 10 to 15,000 barrels a day, that the likelihood of success of a solely momentum kill, a mud kill, would be significantly reduced. That was what that was referring to.

Q. And so was that fact, that modeling indicated that the success rate could be significantly reduced if the flow rate is over 10 or 15,000, discussed on your interface call on the morning of the 18th where everyone was invited to participate?

A. Yes. And then there is quite a bit of discussion about this ongoing all the way up to Top Kill about the pump curves and the pump schedules.

Q. Now, you referenced the modeling had indicated. What modeling are you talking about?

A. So this is -- we had one of the founders -- or the developers of what also called the OLGA model, which is one of the standard industry models. The gentlemen that wrote the software ran these models for us.

Q. Is it Dr. Rygg?

A. Yes.

Q. And what did Dr. Rygg's modeling do with respect to performing a momentum kill operation, momentum kill alone?

A. So Dr. Rygg's models were the source of these conclusions about the effectiveness of the -- the kill would be

08:29:14 significantly reduced over 10 to 15,000 barrels a day.
08:29:19 Q. Now, was flow rate relevant to momentum kill?
08:29:22 A. Yes. Flow rate was relevant here, as I just testified,
08:29:24 that if it was greater than 10 to 15,000 barrels a day, a mud
08:29:31 kill, just a mud-alone kill would struggle. It's based on the
08:29:35 configurations that we had, the pump rates that we assumed that
08:29:38 we would get and the inputs into the model.
08:29:42 Q. Did Dr. Rygg's modeling include the impact of adding junk
08:29:49 shots to these operations?
08:29:49 A. No.
08:29:53 Q. Now, was flow rate relevant to the Top Kill operation that
08:29:56 included junk shot and momentum kill from your perspective?
08:30:01 A. No, the flow rate wasn't relevant. Because as I testified
08:30:04 earlier, the idea of the junk shot was to get in there and
08:30:08 do -- with the particulates and plug off as much of the well as
08:30:11 you could for just a long enough period of time to push the mud
08:30:15 down the hole. And the success of that was kind of an unknown,
08:30:18 how successful that would be.
08:30:21 Q. And so if you add the junk, the ball bearings and all the
08:30:26 other materials that you've described, what is your expectation
08:30:29 with respect to its effectiveness -- strike that.
08:30:33 If you add the junk, what effect would that -- do you
08:30:38 expect that to have on flow rate?
08:30:40 A. Well, the junk, as you saw on the demonstrative, was --
08:30:44 the intention of the junk is to clog up the different orifices

and potential flow paths inside of the BOP to restrict, so the mud doesn't go up, but it goes down and it fights its way down to kill the well.

Q. Mr. Dupree, did flow rate affect your decision to ultimately recommend Top Kill, which included junk shot plus a momentum kill?

A. No.

Q. And why not?

A. Well, at the point in time we're going into the operation, certainly once we do the diagnostics on the first day and we know we have access, we know we can pump in the well, we were prepared, we have the junk shot, the manifold ready to go, there were no regrets at that point in time. We've mitigated most of the risks. There were no regrets to go ahead and try and kill the well right then.

Q. During opening statements, counsel for the aligned parties stated that BP knew that Top Kill would not work if the well was flowing at 15,000 barrels a day or higher. Do you agree with that statement?

A. No. It's momentum and dynamic kill that would not work, but Top Kill, based on the junk shot, and the success of the junk shot would determine whether or not -- the junk shot would determine whether or not Top Kill would be successful or not.

Q. Now, you referenced earlier that part of the thinking why momentum kill might work is the change in the pressure gauge or

the result of the reading pressures. Did that change within a couple of days?

A. Yes, ma'am. What happened, the pressure readings that were falling at the base of the BOP all of a sudden moved up to -- they went from 3100, shot back up to 3400 pounds. At that point in time, that's very -- in a reservoir engineering sense and oil field sense, that's not possible that the reservoir would weaken and strengthen and weaken.

And then the gauge begins to move around. So then we suspect the quality of the gauge and the quality of the readings that we're getting.

And then we remove the momentum and dynamic kill at that time and go right back to junk shot, because we actually were probably misled by those readings in the gauge.

Q. And the Court will hear a lot more about the PTB pressure gauge changes as part of the next phase of this, but with respect to your decision to ultimately recommend Top Kill, did that impact your decision, that is, to go from momentum kill back to Top Kill operations?

A. The pressure gauge?

Q. Yes.

A. Yes. The gauge was clearly not giving us accurate readings, so we couldn't trust the fact that the pressure was falling at the base of the BOP, and so it was prudent to return directly to what we were doing, which was Top Kill.

08:33:43 Q. Now, did you meet again with the government to discuss
08:33:45 your revised recommendation?
08:33:47 A. Yes.
08:33:47 Q. If we can now look at 142710N.1.
08:33:56 Can you tell the Court what this is, first of all?
08:33:59 A. This is a presentation to the Science Team,
08:34:02 Secretary Salazar, days before we execute on Top Kill.
08:34:09 Q. Now if we can go to 142710N.4.
08:34:17 And to be clear, who participated in this
08:34:18 presentation?
08:34:20 A. So it was the Science Team, Secretary Salazar, members of
08:34:24 government, the Coast Guard, pretty much everybody that would
08:34:29 come whenever -- Ms. McNutt, everybody that was kind of
08:34:33 interested in this operation and deeply involved in it.
08:34:36 Q. And 142710N.4, which is entitled "Diagnostic Objectives,"
08:34:46 is part of your presentation to Secretary Salazar and the other
08:34:49 members of the Science Team.
08:34:51 Can you tell us what you're communicating here?
08:34:53 A. So for about 30 days, we have been flying around outside
08:34:57 of this BOP with ROVs and studying it, but we had never been
08:35:01 able to get inside of it. And this is the first time that
08:35:05 we're actually going to try to get inside of the BOP and learn
08:35:08 something.
08:35:09 And so we're talking about what the issues are on the
08:35:13 first day. So Top Kill was designed to be at least three days.

08:35:17 Day 1 was nothing but diagnostics, because there were a lot of
08:35:25 unknowns at the time.

08:35:25 So here we're talking about, can we function these
08:35:27 valves? These valves have been shut for a long time. We need
08:35:30 access to come in here to inject that mud. We knew that on the
08:35:34 kill line there had been reports that the kill line potentially
08:35:39 could have been blocked, so we don't know if there's blockages.

08:35:43 And we don't know if we're going to be able to get
08:35:46 access into any of these spots and if all of these valves will
08:35:50 open, because we need to use the yellow pod and the newly
08:35:56 reestablished yellow pod that we rebuilt and put back in the
08:35:59 BOP, we're going to need to use it to be able to open all these
08:36:01 valves and close all these valves in order to have a successful
08:36:05 operation. We had never done that once we reestablished the
08:36:08 yellow pod. We haven't activated these valves at all.

08:36:11 So we're talking about how we're going to get access.
08:36:15 We put pressure gauges on the goosenecks here, because we cut
08:36:19 and we reestablished connections onto the choke and kill lines
08:36:23 down here. We have pressure gauges so that we're going to be
08:36:26 able to measure pressure from here to here if we are able to
08:36:29 open these up.

08:36:31 We're going to try to -- during the diagnostic phase,
08:36:37 we're going to pump in with mud. Here are the different rams.
08:36:39 We don't know what rams are closed, what's open. Are there
08:36:44 closed chambers? Are there pipe between two pipe rams here,

and therefore, this is a closed chamber and we won't be able to pump into it? And then just overall about the pressure drops and the path.

So Day 1 of Top Kill is just about learning. Is getting in there, can we open the valves? Can we pump mud into it? Is this system blocked up? What -- and then -- that's what it's all about. That's what we're talking about. We're going to do a diagnostic phase on the first day.

Q. Was one of the benefits of going forward with Top Kill the ability to get this diagnostic information?

A. Yes, absolutely. It was the first time -- like I said, we had been flying around for 30 days in an ROV staring at the BOP, not knowing what the configuration was, not knowing what type of pressure restrictions may be inside of it. And this is the first time we're going to be able to try to collect some data.

Q. Were some of the uncertainty that you've just described affecting your ability to identify the -- a way to shut-in the well?

A. Yes. Yes. So we -- so we'll do the diagnostics, and then we will regroup at the end of that day and decide, is everything -- are we still on track to try to kill the well?

The other -- only other concern we had at the time was, you know, we talked about the junk. This is a 3-inch line, and the junk has to be carried and then it has to make

this right turn bend here. And we had done a lot of experimentation in different labs in Houston to try to assure ourselves that we could pump the junk around these corners. That was another thing that we were considering and talking about.

Q. Okay. Now, during this meeting in which you're discussing with the government the benefits of Top Kill, did you also identify some of the risks associated with the procedure?

A. Yes.

Q. And if we can look at 142710N.13. The slide is titled "Don't Make It Worse, Top Risks."

First of all, tell us what we're looking at here generally.

A. So this is the slide of -- to discuss the risks of executing the job. We typically had a discussion about what the impact of that particular job would be.

Q. And is the "don't make it worse," was that one of the guiding principles?

A. Yes. That was one of the guiding principles that we discussed constantly, that we would not want to make any -- any situation worse that preclude us having future options to kill the well.

Q. And the first risk identified here is, "Broach at the seabed," and it references the burst disk.

Is that the risk of a broach that we were previously

discussing?

A. The broach we were talking about before was from -- was from below. But this particular broach would be if we inject the mud and when the mud is fighting its way down, if we push too hard at the top, we create enough pressure down there, if we're across the rupture disk, that we could potentially activate the rupture disk with mud and then send mud out underneath the seabed.

Q. Is this risk of a broach, a broach occurring during the operation?

A. No. It's actually a -- it's a breakdown of the 18-inch shoe and then losing mud while we're pumping the job.

Q. And did you mitigate the risk associated with a broach at the seabed that's identified here?

A. Yes.

Q. If we can look at 142710N.6.

Using this slide, can you explain to the Court how you mitigated the risk of a broach that was discussed with the government on May 23rd.

A. So you see this red zone up here. What we've done is we calculate the pressures at the surface that we manage, you know, we manage the pump pressures at the surface, and we set a limit with a certain number of barrels pumped. We don't allow the surface pressure to exceed this, because that's the limit based on the physics. If mud is going down the hole, you don't

want that higher pressure if you're pushing from the surface, because then you could actually activate the ruptured disk.

So these limitations are built into the job. The guys offshore that are going to pump the job know that the first 300 barrels, you can't exceed 8,000 psi, 8,000 pounds per square inch of pressure. And once you're beyond 300 barrels, you should not exceed 7,600 psi of pressure.

Q. At any time when Top Kill was executed, did it exceed the pressure limits identified here?

A. No.

Q. Now, if we can go back to 142710N.13, the slide titled "Don't Make It Worse." There is a reference here to impact relief well success.

What was the risk discussed with the government in connection with impacting the relief well success?

A. It's the same risks that I testified to last night. And we saw on that demonstrative that the relief well is 2,600 feet away. And the same mud moving below, we don't want that mud to pressure up sands and to pressure up nearby formations when the guys on the drilling rig are drilling down and hit unexpected high pressure, would be a very bad thing for the relief well, especially if they hit something that's unexpected for them.

And so we did didn't want the relief well to be impacted for this job.

Q. Did you mitigate that risk --

08:42:23 A. Yes.
08:42:24 Q. -- prior to executing Top Kill?
08:42:25 And tell the Court how you mitigated that risk.
08:42:29 A. So the 18-inch shoe in the Macondo well is about
08:42:32 8,600 feet. That's where the shoe is. And so we wanted to
08:42:35 make sure that we had cemented pipe into the well, but below
08:42:39 that depth -- or to that depth on at least the first relief
08:42:43 well, so that that is all cased off. They had already drilled
08:42:47 that section and it was protected by pipe. So that if the mud
08:42:50 did move up there, the relief well is already drilled down and
08:42:54 cemented pipe in place beyond that depth.
08:42:56 And so --
08:42:57 Q. After mitigating the risks associated Top Kill, did you,
08:43:03 on behalf of BP, ultimately recommend Top Kill to proceed?
08:43:09 A. Yes.
08:43:09 Q. And what was the reason for your recommendation?
08:43:12 A. Well, we believed that it was -- I certainly believed that
08:43:15 it was a low risk, we would learn a lot, and we potentially
08:43:20 would kill the well.
08:43:23 Q. Was proceeding with Top Kill consistent with your "do no
08:43:31 harm" strategy?
08:43:31 A. Yes. Because certainly if we managed the risks of the
08:43:35 relief well, which we did about the day before we executed the
08:43:38 job, we implemented -- we cemented the 18-inch on the *DD III*,
08:43:44 and if we didn't pump beyond that, we were going to learn a

great deal and we were going to potentially kill the well.

Q. Now, who ultimately approved the execution of the Top Kill procedure, junk shot with momentum kill?

A. That was -- Unified Command ultimately approved the operation.

Q. And if we can now look at 8538.1.1.

Can you tell us what this exhibit is?

A. This is the approvals page for the procedure for momentum kill pumping operations.

Q. And under the approval here is Admiral Mary Landry's signature, but above there is Mr. Brennan.

Who is Mr. Brennan?

A. Mr. Brennan is the Coast Guard official assigned to us at -- in -- in Houston. He's the -- he's Ms. Landry's representative of the Coast Guard in Houston. He's with us constantly in every meeting and led the Coast Guard effort for a period of time in Houston.

Q. Were you communicating directly with Admiral Landry or were your communications primarily with her representative in Houston, Rear Admiral Brennan?

A. Commander Brennan.

Q. Commander Brennan, excuse me.

A. It was mainly with Commander Brennan, yes.

Q. Now, if you'll look at 9148.1.1. And tell the Court what this is.

A. This is the junk shot. This is LCM pills, is the terminology for the junk shot. Loss circulation material pills, LCM. So this is the junk shot component of the procedure for Top Kill.

Q. And again, does this contain the signature of folks who approved the junk shot component as well as the review by Commander Brennan?

A. Commander Brennan. Yes.

Q. Now, did you personally monitor the execution of Top Kill?

A. Yes. I was there continuously during all the operations.

Q. And how long did those operations last?

A. Three days. We pumped for three days, operated for three days.

Q. At any point in time while you were executing Top Kill, did you believe that Top Kill was working?

A. Yes. On Day 3, it actually -- well, we had pumped at over 50 barrels per minute. We shot the last of the junk that we had, made a real -- the guys offshore made a real effort to try to keep a consistent mud flow going.

And as we were watching the job in the Operation Center, the weep at the kink -- the weep coming out of the kink had slowed and stopped. We reached a certain pressure threshold, but certainly we thought we had potentially killed the well. And there was a celebration in the room. A lot of people thought we had won and we were winning.

Q. Did Top Kill ultimately prove to be successful in killing the well?

A. No. Because shortly after that, after a period of time, we saw the well fight back, push the mud back out, and then kind of regained its strength and it started flowing again.

Q. Were there members of the government who were also monitoring the Top Kill operation throughout the entire time it was being executed and present with you?

A. Yes. I was with Secretary Chu the whole time. He was in the main command room where we were watching all the operations. Tom Hunter from the National Labs, a lot of the Science Team, Deputy Secretary Hayes was there. Secretary Salazar was not there. But yeah, the Science Team, mainly Secretary Chu, all day long we were monitoring it together.

THE COURT: That's in Houston.

THE WITNESS: Yes.

THE COURT: You weren't offshore?

THE WITNESS: No. We were all in Houston.

We did have radio contact to the offshore operations, so we could hear every order that was going on, on the Q-4000 where they were running the operation. So we could hear every order.

We couldn't see the status of the mud pits all the time, how much mud we had, but we can hear the different orders. And we had a direct feed of all the pressure data that

was being measured realtime, so we had that in the room and we could see that on the screen, plus the ROVs watching the kink and watching what was going on.

EXAMINATION BY MS. KARIS:

Q. If we could now pull up 144 -- I'm sorry, 144470N.1.1.

Can you tell the Court what this is a photo of?

A. So this is a photo of -- I'm in the photo. It's myself and -- let me see if I can --

Q. Is that you right there?

A. Yes. This is the -- after the first day in Top Kill, the diagnostics is finished. It's at night. There's Secretary Chu, members of the Science Team, George Cooper, Tom -- I think this is Tom Hunter, Secretary Chu, some of the BP Team, other Science Team members.

This is in their conference room. They had several conference rooms upstairs because we couldn't accommodate their team fully in the Crisis Center. And we are discussing the diagnostic phase of the Top Kill.

Q. And was this discussion occurring realtime as the operations were occurring?

A. Yes.

Q. You said this is Mr. Hunter. Do you know if that is Mr. Lynch actually?

A. It looks like Mr. Hunter to me. I don't know.

Q. Fair enough.

A. Mr. Hunter used to wear a blue jacket.
Q. Now, coming out of the Top Kill operation, was there an attempt to understand the data that was observed during the Top Kill operations?
A. Yes.
Q. Tell the Court about that attempt to understand what was observed during Top Kill.
A. So the Top Kill ended on a Friday afternoon, Friday night late. And the Engineering Teams, both on the Federal Science Teams and the BP Engineering Teams, immediately tried to assimilate all the observations that had occurred during the actual operation. What had happened, what did we observe, what did we learn, and put that into perspective.
Q. And what did you conclude from that preliminary analysis?
A. We concluded from the analysis that we were able to get mud down the well. We felt the pressure of the well. We were able to get mud down the well, but for some reason, we couldn't get mud beyond a certain depth and a certain pressure.

And at that point in time, our pressure flat lined and we couldn't -- we couldn't keep pushing down. And that depth was coincident to where we thought -- where we knew the rupture disks -- the presence of the rupture disks were.
Q. And if we can now pull 150306N.2.

Again, is this a chart that was presented -- we'll get into the presentation in a minute, but is this a chart that

was presented to the United States Government?

A. Yes, that's correct. And --

Q. Using this chart, can you explain to the Court what impact -- or what are we seeing here in connection with the analysis that was done post Top Kill of the data that was observed?

A. So, as I said earlier in the week, we always like to run a model ahead of time to try to give us some idea of how to prepare ourselves so we -- we'd have a model that's not what we expect.

But this blue curve is what we observed on pressure. So this is the mud line pressure. The pressure at the mud line. And this is relating to where the mud would have hit the disks as it went down, where is the presence.

And what you're seeing here is that the pressure in the mud line is increasing right here. You see -- so what that is, is that as the mud enters the BOP and it goes down, it is fighting the energy from below.

So we would expect the pressure to go up because it's fighting us. It's going up, it's going up, and it's going up. And you would expect it to go up, the pressure to go up, and then you expect it to start to -- expect it to start to fall off as the weight of the mud begins to win. As it begins to overcome the force of the reservoir, the pressure would fall off. This is here, as planned.

08:52:15 So we get the -- we get the actual increase in
08:52:19 pressure as the mud is entering the BOP. And then we get some
08:52:23 fall off, but then we flat line here. We talk about the
08:52:29 pressure flat lining once it got 700 psi, drop is increased.
08:52:31 That's what concerned us. Why couldn't we keep going
08:52:37 deeper? And it was coincident with the areas where these
08:52:41 rupture disks had been placed in the 16-inch casing.
08:52:44 So we're concerned that that mud, instead of going --
08:52:48 continuing to go deeper, is actually going out the sides, and
08:52:51 we're just -- we're just kind of sitting there on top of the
08:52:54 oil. And our mud is not continuing to push it down, but it's
08:52:58 actually potentially going out through the rupture disk and
08:53:02 broaching at the 18-inch shoe.
08:53:04 Q. Now, the analysis that was done immediately following
08:53:09 Top Kill, was Mr. Pattillo involved in that analysis?
08:53:14 A. Yes, Mr. Pattillo -- or Dr. Pattillo, he's one of the
08:53:20 foremost experts in casing design. And he was BP's expert in
08:53:24 casing design.
08:53:25 And when we -- when we looked at this particular
08:53:29 scenario, the question certainly I had was -- to Dr. Pattillo
08:53:35 and to others was, how could these rupture disks have been
08:53:39 activated before this, because we certainly didn't activate
08:53:43 them because we never got the pressure high enough?
08:53:45 So in order to complete the story -- complete the
08:53:48 kind of the concept here of the rupture disks being activated,

we needed a -- some explanation of how they could have been activated during the event.

Q. And did Mr. Pattillo attempt to understand the data that was generated as a result of executing Top Kill as it related to the rupture disks?

A. Yes, Mr. Pattillo did. And he made a representation -- or made a presentation that weekend.

Q. What was the result of Mr. Pattillo's work? Dr. Pattillo, I'm sorry.

A. Dr. Pattillo concluded that during the actual blowout event, you know, the first day or so, you could put together a scenario where you could -- where you could see enough pressure differential on those rupture disks that they could have ruptured. That was his conclusion. It wasn't a definitive, but you could design a scenario whereby they could have been ruptured.

Q. Could Mr. -- Dr. Pattillo rule out the possibility that the rupture disks had failed as a result of the initial event or explosion?

A. No. He did not rule out that -- that it could have happened then.

Q. Now, was that the only possible explanation for --

A. No. Certainly, since we didn't understand the configuration in the BOP, we didn't understand everything that was going on, it's not the only explanation that you could --

you could conclude with this data, but it was certainly an observation that could not be ignored.

Q. And were the results of Dr. Pattillo's work shared with the United States Government?

A. Yes. Dr. Pattillo presented his results.

Q. If we can now look at 150306N.1.

First, tell us what we're looking at with a document dated Monday, May 31st, 2010.

A. So this is a presentation to Secretary Salazar. He wasn't present during the Top Kill event. The Top Kill was on Friday. On Monday he came to receive a review of Top Kill. This is actually his handwriting. And he is noting who is in the room with him, Ms. McNutt, Coast Guard, and the MMS, and he put his name on the report -- on the document.

Q. And -- I'm sorry. Did you participate in this presentation?

A. Yes. I gave this presentation.

Q. And did Dr. Pattillo also participate?

A. Yes. I had Dr. Pattillo discuss his findings on the rupture disks.

Q. Now, let's look at some of the information that was shared as part of this presentation. 150306N.6, "Rupture and Burst Disk."

First, during this presentation, did you identify a number of different scenarios for what possibly could have

happened during Top Kill?

A. Yeah. The main part of this presentation was to take all the observations, the things that we observed -- the Engineering Team had taken all the observations and tried to understand, tried to make sense of all observations to derive, not a conclusion, but actually a way forward. What were the observations? What did we learn? And what does it mean?

And one key part of that was this presentation on how during the initial event you could -- as Dr. Pattillo puts it here, "An event-related rupture of a collapse disk can be conjectured."

Q. Was Dr. Pattillo presenting that this was a conclusion that the rupture disks had failed, or simply that this was one of the possibilities?

A. He was saying that it was possible that it could have happened during the actual event, the early days in the event, because he's assuming certain columns of oil and gas and the weights of the mud behind the rupture disks. He's making some assumptions about how, in fact, they could have been activated during the -- during the event.

Q. Okay. To be clear, when you're referencing "during the event," what event are you referring to?

A. During the explosion, the early days of the explosion --

Q. So during the initial explosion --

A. Yes.

Q. -- not as a result of the Top Kill?
A. Not as a result of Top Kill because we never -- we never pumped at a pressure that would have activated the disks.
Q. To your knowledge, did anyone represent to the government in this meeting that this was the only possible explanation?
A. No. We didn't have full explanation at the time, but we had a significant number of observations, things that we had observed and things that -- and we tried to reconcile those observations against what we knew.
Q. Did the government have the same underlying data that BP used to do this analysis?
A. Yep. Certainly, Secretary Salazar -- I mean, Secretary Chu, I mean, had this data on his computer. He spent a significant amount of time analyzing the pump curve data.
Q. Do you know if the United States Government conducted its own analysis, Dr. Chu, Dr. Hunter and others, to understand what the Top Kill data showed?
A. Certainly, they took away the data. From conversations with Dr. Hunter and Secretary Chu, it was my understanding they had done a lot of work in trying to understand the observed pump curves out of Top Kill.
Q. Are you aware of what the Government's conclusion was from its own analysis?
A. So I believe that they -- they concluded not that the burst disks were fully ruptured during the event, they didn't

08:59:41 1 believe that, but they did believe that there was a possibility
08:59:44 2 that they were -- that they had been activated, and their
08:59:49 3 behaviors from that point forward demonstrated that that was
08:59:52 4 their conclusion, in that they did not want to take the risk of
08:59:56 5 broaching the well.
08:59:56 6 Q. Did that seem prudent to you to not take the risk of
09:00:01 7 broaching the well?
09:00:02 8 A. Absolutely.
09:00:02 9 Q. Now, was BOP-on-BOP still under consideration prior to the
09:00:08 10 Top Kill?
09:00:08 11 A. Yes.
09:00:08 12 Q. As a result of this concern that you couldn't rule out
09:00:13 13 that the rupture disks had failed during the initial explosion,
09:00:17 14 what effect did that have on the going forward strategy?
09:00:26 15 A. You know, one of the most difficult times in my time in
09:00:30 16 the Crisis Center was the night -- that Friday night and that
09:00:33 17 Saturday, when we were evaluating this data, because it
09:00:38 18 couldn't be -- it couldn't be ignored that the rupture disks
09:00:42 19 were potentially an issue, and that meant that BOP-on-BOP was
09:00:46 20 not the next option to move on, that BOP-on-BOP was too risky
09:00:52 21 because it could broach the well.
09:00:55 22 Therefore, we were headed to collection, the full
09:00:59 23 collection exercise that we were going to execute. We were
09:01:01 24 going to move down on -- our engineering and everything
09:01:04 25 parallel, we're moving down to a full collection mode going

09:01:09 forward, which meant that we were going to be there a
09:01:12 significant amount of time, we were going to be waiting on the
09:01:14 relief wells, and we were going to be engineering a significant
09:01:17 amount of more equipment, and we were going to put a lot more
09:01:20 in place.
09:01:20 Q. You mentioned that it was the most difficult time in the
09:01:27 Crisis Center. Why was it so difficult to accept that you
09:01:31 could not rule out this possibility?
09:01:32 A. Well, I didn't -- early on, I didn't want to rule out
09:01:39 BOP-on-BOP. There were still a lot of outstanding issues to
09:01:42 resolve. It was the next operation, but I couldn't ignore what
09:01:47 was going on here.
09:01:47 Then I had to go to the Team and tell them, we're
09:01:50 going to collection, which meant a significant amount of more
09:01:54 time. It meant that the environmental impact would be ongoing,
09:01:58 and that we would continue to fight on, which was a very tough
09:02:02 thing to do, you know, to lead them through that.
09:02:05 Q. Now, as a result -- as a result of this concern from the
09:02:13 Top Kill data, you said BOP-on-BOP was no longer the next step?
09:02:20 A. That's correct.
09:02:21 Q. What effect -- why is it that the concern over the rupture
09:02:25 disks affected the BOP-on-BOP option?
09:02:30 A. Well, in the situation of the BOP-on-BOP, the installation
09:02:35 of the BOP would have just been to shut -- to put the BOP on,
09:02:38 first we have to take the LMRP -- we would have to get past the

issues we had before, but the only option is to just close in the well. I've got no option for collection. You know, the capping stack at that point in time looks like the most viable option going forward because not only can it shut in the well, but we can collect from the capping stack on the well, and I don't have to remove the LMRP.

But the BOP is just a single ram shutting of the well. If I broach the well, I'm going to have to reopen the well, and then I've created a broached system.

Q. Did you inform the government of BP's going forward on recommendation?

A. Yes.

Q. Did the Unified Area Command agree with BP's recommendation of not going forward with BOP-on-BOP in light of the fact that you could not rule out the possibility that the rupture disks had broached?

A. Yes.

Q. Now, pull up 9412.1.2, please.

Mr. Dupree, can you tell the Court what it is that we're looking at in 9412.1.2.

A. This is an e-mail from Bernard Looney to Thad Allen, the National Incident Commander. It's an e-mail notifying Thad Allen of our decision not to move forward with BOP-on-BOP. Tony asked Bernard to send this note.

Q. Moving quickly now to 9412.2.3. At the top, there is a

09:04:28 reference. It says, "Rational for Containment versus
09:04:29 BOP-on-BOP." It says, "Our Strategy to Date." Are those the
09:04:33 strategies that you had previously identified as don't take any
09:04:37 risk, work all possible options in parallel, and then leverage
09:04:42 your resources and no stone left unturned?
09:04:44 A. Yes, and this is the attachment to that e-mail.
09:04:45 Q. Now, focus on Learnings from Top Kill Operation. What did
09:04:50 you tell the government with respect to the learnings from the
09:04:54 Top Kill operation?
09:04:55 A. So on point number one, that the diagnostics and the
09:04:59 analysis of the data suggests that the rupture disks may have
09:05:03 failed during be initial well control event, meaning the first
09:05:07 day or two. If they had failed, an attempt to shut in the well
09:05:11 from the surface using BOP would cause hydrocarbons to flow to
09:05:15 shallow formations and onwards to the sea floor, which was the
09:05:19 broach scenario. That would definitely make it worse.
09:05:23 Q. All right. It says here, "The diagnostics and data
09:05:26 acquired suggest that rupture disks in the 16-inch casing may,"
09:05:32 in italics, "have failed during the initial well control event.
09:05:35 If," again, in italics, "if they failed, any attempt to shut in
09:05:40 the well from the surface using the BOP-on-BOP option could
09:05:45 cause hydrocarbons to flow to shallow formations."
09:05:48 A. That is correct.
09:05:48 Q. Were you communicating that that was a possibility, rather
09:05:52 than a --

09:05:53 A. Yes, we weren't being definitive, but what we were saying
09:05:58 is, it is a risk that cannot be ignored at this point in time.
09:06:01 We cannot ignore the fact that if the rupture disks have been
09:06:06 activated, that you would broach the well if you went with
09:06:09 BOP-on-BOP.
09:06:09 Q. If we go back to the document and call out the decisions.
09:06:17 I'm sorry. Perfect. Thank you.
09:06:19 So to summarize and wrap this up, what decision was
09:06:23 ultimately reached from the concerns that arose from analyzing
09:06:28 the Top Kill data?
09:06:30 A. So we decided that we would go to full collection. We
09:06:35 will go with an LMRP cap. That means we'll cut the kink and
09:06:40 put a cap on the LMRP to collect as much as possible using the
09:06:44 *Discoverer Enterprise*.
09:06:44 We'll use the choke and kill lines to flow back to
09:06:49 the *Q4000* to burn as much hydrocarbons as possible, and then we
09:06:54 will begin to install floating production storage units to
09:06:58 produce -- with shuttle tankers, and try to produce as much of
09:07:02 the oil as possible.
09:07:03 Q. So having made the strategic move to collections as the
09:07:07 going forward plan, did you then present that strategy, if you
09:07:14 will, to the United States Government?
09:07:15 A. Yes, we did.
09:07:16 Q. Was the government in support of the strategy of no longer
09:07:20 going forward with BOP-on-BOP, but instead moving towards a

collection strategy?

A. Admiral Allen approved this particular document and approved our proposal.

Q. If we can now look at 140797N.1, a document dated June 15th of 2010.

Again, do you recognize this document?

A. Yes.

Q. Tell the Court what this is.

A. This is a presentation on our efforts to move on all the types of collection that we will have put in place over a period of time over the coming month. This is a presentation to Secretary Salazar and Secretary Chu and Admiral Allen.

Once we decided to go to collections, they immediately wanted to know how we're building the capacity over time to collect as much hydrocarbons as possible.

Q. If we can now go to 140797N.4.

Is this a part of that presentation?

A. Yes, that's correct. It's just outlining all the agencies, government, industry and service providers, that are still deeply involved in the effort.

Q. Was Transocean a part of those service providers?

A. Yes.

Q. Was Cameron also a part of the service providers?

A. Yes, Cameron was there assisting us with the BOP. Transocean had the *Discoverer Enterprise* and two of the

other -- the relief well drillships involved.

Q. Did Transocean ever suggest that you should not go forward with a collection strategy, but instead you should proceed with a BOP-on-BOP strategy?

A. No. Not to my knowledge.

Q. Yesterday, we saw an e-mail from a Cameron employee who expressed some frustration about the fact that there were changes going on at this time. Was it the case that, as a result of learning data from Top Kill, there were ongoing changes to the going forward strategy?

A. Absolutely.

Q. Was that the result of learning and acquiring more data from the well as you were trying to figure out how to shut this in?

A. It was as a result of learning from the Top Kill operation.

Q. Now, if we can go to 1470797N.11.

If you can briefly describe to the Court what we're seeing here that was part of that presentation.

A. So we're showing here the efforts ongoing of what we're going to engineer to put in place, what we call a containment collection to a capacity of 60 to 80,000 barrels a day, as I'll discuss, and beyond that.

So we have the *Horizon* BOP here, the LMRP and the BOP. We have the capping stack in place. This demonstrates

09:10:00 1 the use of the capping stack. It has the ability -- we're
09:10:04 2 going to collect off of the top of the capping stack. We're
09:10:07 3 going to be able to collect off the sides of the capping stack.
09:10:11 4 Then we're also still using the original Top Kill manifold here
09:10:15 5 to flow hydrocarbons back through the Top Kill manifold into
09:10:19 6 other manifolds, so that we can put in place a FPSO called the
09:10:26 7 *Toisa Pisces* and the *Helix Producer*.
09:10:28 8 With that combination of four vessels, we were going
09:10:32 9 to have 60 to 80,000 barrels a day of collection capacity
09:10:35 10 available.
09:10:38 11 Now, the issues and the things that we describe in
09:10:41 12 this particular presentation was -- you notice there will be
09:10:45 13 four big flares ongoing. All of this will be -- all these
09:10:49 14 vessels will be tightly knitted in a small area around the
09:10:53 15 well. There will have to be shuttle tankers offloading the
09:10:57 16 *Enterprise*, and they'll have to be lightering the ongoing four
09:11:02 17 big flares. Massive simultaneous operation to manage in order
09:11:06 18 to get collection to 80,000 barrels a day. That's the
09:11:09 19 discussion we're having.
09:11:11 20 This is what we're implementing and building at the
09:11:13 21 time. We're building to put all of this in place.
09:11:16 22 THE COURT: What was the time?
09:11:17 23 THE WITNESS: This is -- this is June 15th, we're
09:11:20 24 discussing this; but, by July, early July, we have the
09:11:25 25 *Helix Producer* in place and the *Enterprise*, and we're moving

09:11:29 1 the *Q4000* off and putting the *Clear Leader* in place to produce
09:11:35 2 hydrocarbons.
09:11:35 3 We hadn't started up the *Toisa Pisces* yet, but we
09:11:39 4 certainly were putting in these freestanding risers, which is a
09:11:42 5 big operation to install pipe so that we can go from the
09:11:45 6 manifolds -- so we're pulling oil off of the sides of the BOP.
09:11:49 7 The capping stack, you can see here it has vents on each side,
09:11:52 8 so you can -- you can produce hydrocarbons off the sides. You
09:11:57 9 can produce hydrocarbons off the top. You can -- and you have
09:12:00 10 the ability to open and close these sides. It's a smaller,
09:12:04 11 lighter weight system, but its main purpose is to allow you to
09:12:08 12 collect and potentially shut in the well.
09:12:12 13 EXAMINATION BY MS. KARIS:
09:12:13 14 Q. So was the initial plan for the capping stack at this time
09:12:17 15 to use it as a collection device?
09:12:19 16 A. Yes, that's correct. With the side ports and the vents,
09:12:23 17 we were going to be able to divert the oil through manifolds up
09:12:29 18 to these different vessels and potentially maybe to a producing
09:12:34 19 facility called Na Kika nearby. It's one of our producing
09:12:41 20 facilities about 20 miles away.
09:12:43 21 Q. Now, if collection was the preferred course of action at
09:12:48 22 this point in light of the Top Kill analysis, why was the well
09:12:52 23 ultimately shut in using the capping stack?
09:12:55 24 A. So as we're coming up into July, there is a proposal from
09:13:01 25 the government to do another test to collect some data, to do a

09:13:05 well integrity test.
09:13:07 Q. What is a well integrity test?
09:13:10 A. So a well -- we designed a -- we had proposal from
09:13:13 Secretary Chu to potentially do a well integrity test. A well
09:13:18 integrity test was designed that if we shut in the well using
09:13:22 the capping stack, and we measured the pressure response on
09:13:28 surface, there could be two extremes of pressure where we could
09:13:33 conclude that things were going very well and there wasn't a
09:13:36 broach going on, or a much lower pressure where we would be
09:13:41 deeply concerned that a broach could happen.
09:13:45 So we were -- and there is a chart that shows the --
09:13:47 in the actual implementation of the procedure, the boundaries
09:13:52 of pressure. So we're going to shut in the well, we're going
09:13:55 to measure the pressures, watch the pressures, and then
09:13:59 determine if we're -- if -- if -- in the extremes of these
09:14:02 pressures, whether or not we could keep the well shut in.
09:14:05 Q. You mentioned a request from Secretary Chu.
09:14:09 If we could pull up 142679.1.1. 142679.1.1.
09:14:23 Is this an e-mail that reflects that Secretary Chu
09:14:26 was interested now in going forward with this well integrity
09:14:30 test?
09:14:30 A. Yeah, it's titled, "Possible Test of Rupture Disk
09:14:37 Integrity." This is Mr. Tooms, who was leading our engineering
09:14:40 effort on behalf of BP. He's describing that the -- they are
09:14:44 proposing potentially shutting in the well, or at least raising

09:14:47 1 the downstream pressure, to try to do a diagnostics as to
09:14:52 2 whether or not the disks were intact or not.
09:14:54 3 Q. Then 142679.2.1, please.
09:15:00 4 Is this e-mail from Secretary Chu showing his
09:15:06 5 continuing analysis and trying to understand the rupture disk
09:15:11 6 issue?
09:15:11 7 A. Yes. This e-mail is -- Secretary Chu, he is e-mailing his
09:15:16 8 whole Science Team. He's attached an attachment that he's
09:15:24 9 outlined proposed tests of the rupture disks. We are also
09:15:28 10 worried about hurricanes, and if we have to leave for a
09:15:33 11 hurricane, could we shut in the well for a certain period of
09:15:35 12 time or throttle back the well.
09:15:37 13 He's proposing to his Science Team, which is all the
09:15:40 14 people on this -- a lot of the people cc'd on this list, about
09:15:44 15 doing the integrity test.
09:15:45 16 Q. Now, you mentioned a well integrity test. Was there a
09:15:49 17 procedure ultimately written to perform an integrity test to
09:15:52 18 monitor the pressures during the attempt to shut in the well
09:15:59 19 using the capping stack?
09:15:59 20 A. Yes. There was a procedure written, and eventually it was
09:16:03 21 approved.
09:16:03 22 Q. Is that at 140331N.1.1? Is this the well integrity test
09:16:11 23 that the United States Government requested and ultimately
09:16:14 24 signed off on?
09:16:15 25 A. Yes.

09:16:15 Q. Up until the time that the -- first of all, was this test
09:16:23 performed?
09:16:23 A. Yes. It was performed. We shut in the well using a choke
09:16:28 on the side of the -- on the side of the capping stack and
09:16:32 successfully shut in the well and then monitored the pressures.
09:16:37 Q. Up until the time that the well integrity test was
09:16:40 performed in mid-July, had the United States Government, either
09:16:43 from its own independent analysis, to your knowledge, or BP,
09:16:47 from its own analysis, been able to rule out the rupture disks
09:16:54 scenario?
09:16:54 A. No, we were not able to rule out at that point in time.
09:16:59 That's why we so cautiously went into this particular
09:17:02 procedure, did a lot of engineering ahead of time to understand
09:17:04 what success and failure looked like in the procedure.
09:17:07 Q. In order to use the capping stack to both collect and then
09:17:13 ultimately perform the well integrity test, was there a request
09:17:17 to add additional pressure gauges, pressure readings to that
09:17:21 capping stack?
09:17:21 A. Yes, absolutely. Secretary Chu and the Science Team
09:17:25 wanted to make sure we had redundant pressures and redundant
09:17:30 measurements on the capping stack, and we certainly had that.
09:17:32 Q. Did BP have to engineer, plan, design for and ultimately
09:17:38 execute those additional requests made by the United States
09:17:41 Government as part of the capping stack?
09:17:42 A. Yes. Also, the valves on the side of the capping stack

had to be designed to be fail open valves, so in case there was any loss of pressure, the valves would fail to open -- always fail open rather than fail closed, because of the concerns over the rupture disks and managing the rupture disks.

Q. Just to close, Mr. Dupree, was the capping stack used to shut in the well?

A. Yes.

Q. When did that happen?

A. That happened on July 15th.

Q. After the well was shut in using the capping stack on July 15th, can you tell the Court what the remaining steps were as part of the source control operations that you oversaw, very high level?

A. So we managed it, and we monitored the pressure over time. We eventually were convinced that no broach was ongoing. We shot seismic and watched the sea floor that there was no risk of a broach.

Then we rigged up on the well and killed the well with mud; pumped mud down the well, killed the well statically. You know, so we just pumped it down, and we killed the well.

Then, later on, we pumped a large cement slug into the well and cemented the well from the base -- about a mile deep of cement into the well.

Q. Mr. Dupree, as a result of your involvement in the source control efforts that BP put in place following the incident,

and as the leader of BP's source control efforts, could you describe for the Court your impression of those efforts?

A. So, you know, when I arrived there that night, I knew that there was potential for loss of life. Indeed, there was. I knew that there was a horrendous environmental disaster that was going to incur that we were going to have to deal with.

At the time, we set some principles. Certainly, from my standpoint, we lived by those principles throughout the whole response.

I'll really proud of my Team, the Teams that worked for me. I pushed those people very, very hard. We worked long hours. They executed operations, engineered an enormous amount of equipment, and did extraordinary things in order to try to shut in the well.

The thing I think I'm most proud of is I think, if you envision there's point in time where we have the *Enterprise*, the *Q4000*, burning big flares right next to each other. We've got two drilling rigs going on. I've got other workboats. I've got lightering operations happening. I've got thousands of people out there over the site working. The thing I'm most proud of is that we went through all that, we executed all these operations, and nobody else got hurt. Nobody else got injured seriously at all during all this operation.

I think it's -- as we look at pictures and diagrams, it's easy to forget that a lot of people responded, and we were

able to execute these operations without hurting anybody.

Q. Throughout the entire time that you were working on those source control efforts, did you have only one goal in mind, and that is to shut in this well?

A. Absolutely. Every day, that was the only thing on my mind was what I was going to do next and how I was going to shut in this well.

MS. KARIS: Thank you. I have no further questions.

MR. BARR: Your Honor, it might take me a minute to set up here. I'm old fashioned. I use paper.

MS. KARIS: Just to be clear, you're --

MR. BARR: I'm putting stuff up on --

MS. KARIS: I'm just wondering if Mr. Dupree's going to be able to see what you're putting up, if it's going to be on the ELMO --

MR. BARR: Yeah. No, no, no. I'm doing it electronically.

MS. KARIS: Okay. All right. Thank you.

MR. BARR: May I proceed, Your Honor?

THE COURT: Yes.

MR. BARR: Brian Barr for the Plaintiffs' Steering Committee and the aligned parties.

CROSS-EXAMINATION BY MR. BARR:

Q. Mr. Dupree, how are you this morning?

A. I'm fine.

09:22:38 Q. Can I get up on the screen TREX-142819, please. Could you
09:22:55 go to .9. Let's try this a different way. That's not coming
09:22:55 up.
09:24:18 (WHEREUPON, at this point in the proceeding, there
09:24:19 was an off-the-record discussion about the exhibit.)
09:24:19 EXAMINATION BY MR. BARR:
09:24:30 Q. Do you see that this is the *Deepwater Horizon* Review
09:24:32 PowerPoint you talked about where you met with the
09:24:35 Science Team, correct?
09:24:36 A. That's correct.
09:24:36 Q. As part of that meeting, there was a discussion about a
09:24:43 decrease in pressure of 700 psi; is that correct?
09:24:47 A. That's correct.
09:24:48 Q. Now, can I get TREX-9313.
09:24:58 You knew prior to that meeting, did you not, that if
09:25:01 there was a decrease of 700 psi, that that meant there was a
09:25:06 flow rate of 86,600 barrels per day, did you not?
09:25:13 Can you blow up the middle e-mail there, Carl.
09:25:23 Do you see that, sir?
09:25:24 A. Yes.
09:25:26 Q. So you were told prior to this May 16th meeting with the
09:25:31 Federal Science Team that to have a 700 psi depletion, the rate
09:25:37 required was 86,600 barrels per day, correct?
09:25:43 A. So I saw this piece of work. I don't recall the
09:25:47 underpinning. I didn't see it all, but this has to do with

depletion in the reservoir and trying to explain -- if that 700 psi was depletion of energy in the reservoir -- was only attributed to the depletion of the energy in the reservoir, that this would require the rate of 86,000 barrels a day.

So I don't recall the actual underpinning work, but this was a piece of work on depletion of the reservoir to try to explain the 700 psi.

Certainly, the 700 psi could have -- the decrease of 700 psi could have been to water production, could have been to be sand in-filling the well, it could have been to all kinds of different things.

Q. But you were told by Mr. Liao, correct?

A. No, I wasn't told by Mr. Liao. I think I was cc'd this on -- it appears that I'm cc'd or e-mailed --

Q. Carl, can you go up to the top e-mail and blow that out so Mr. Dupree can see it. This is on 9313.1.

Do you see that this was sent to you by Mr. Mason?

A. Yes. That's correct.

Q. Mr. Mason worked for BP, correct?

A. That's correct.

Q. He sent this to you on May 16th, the same day as the Federal Science Team meeting, correct?

A. That's correct.

Q. Informing you that to have a 700 psi depletion, it would take a flow rate of 86,600 barrels per day, correct?

09:27:19 A. Yes, and that's, as I say, a depletion number -- if the
09:27:22 reservoir was depleted in that period of time, based on
09:27:25 calculations that he had made, that that was the rate, but I
09:27:28 never saw the underlying documentation on this.
09:27:31 Q. But you had a meeting with the Federal Science Team on
09:27:34 May 16th, where you told them that the momentum kill could
09:27:40 struggle at flow rates higher than 10 to 15,000 barrels per
09:27:44 day, correct?
09:27:44 A. That's correct.
09:27:44 Q. But you didn't tell them that you had an internal
09:27:48 calculation from BP that suggested the flow rates could be as
09:27:51 high as 86,600 barrels per day, did you?
09:27:54 A. No, I personally didn't tell them. I don't know what of
09:27:57 this work was shared with them at that point in time, but no, I
09:28:02 didn't tell them that.
09:28:04 Q. If you had told them that, it's rather unlikely that the
09:28:08 momentum kill would have been allowed to go forward, correct?
09:28:12 A. Actually, what we were discussing was that continued
09:28:15 pressure depletion, and if the measurements at the base of the
09:28:18 BOP were going to continue to deplete -- it was about the
09:28:21 pressure, and not the rate -- that we would be successful with
09:28:25 a mud kill.
09:28:27 So we knew that something dynamic was ongoing. This
09:28:31 was to try to explain the 700 psi as a result of depletion, not
09:28:35 as a result of any other thing that was going on inside the

wellbore.
Q. But this calculation is a way to inform flow rate, correct?
A. It is a way to explain depletion.
Q. It explained it by saying the flow rate would have to be 86,600 barrels per day to get that depletion, correct?
A. I don't know the assumptions that Mike has made here, but that's what he's asserting.
Q. That was not disclosed to the Federal Science Team, correct?
A. To my knowledge, that was not discussed in that meeting, no.
Q. Now, I want to move on from that.

You would agree with me that all of the technology deployed in response to the Macondo spill was existing technology, correct?
A. All the technology deployed in the spill was existing technology, meaning that there was no new technology developed?
Q. Yes, sir.
A. In general, I would agree with that. With the source control, there was nothing new technology. There were some things that we did with subsea dispersants that was definitely new. There was things that we engineered like the top valve on the -- that was going to be placed on the top of the LMRP was going to be new.

09:30:02 So there were some things that were things that were
09:30:05 never done before we'd new technology, but, in general, most of
09:30:09 the things we implemented were existing and known technology.
09:30:12 Q. Things like capping stacks were existing technology,
09:30:12 correct?
09:30:18 A. Well, a capping stack in the way that -- what we designed
09:30:21 and put in place was not existing at the time that we employed
09:30:28 a capping stack in deepwater, for deepwater at 5,000 feet of
09:30:32 water.
09:30:32 Q. But the technology to build a capping stack was available;
09:30:38 BP just hadn't taken the time to build the actual stack, right?
09:30:41 A. The technology to build a capping stack was available.
09:30:44 Q. It was practical and feasible to do, correct?
09:30:48 A. Yes, you could have built a capping stack.
09:30:50 Q. The reason that hadn't been done was because prior to the
09:31:04 Macondo spill BP hadn't contemplated everything that could be
09:31:09 totally required to close in a deepwater blowout, correct?
09:31:12 A. Yes. I believe that, at least at the time that I arrived
09:31:17 to respond to the spill, we did not have a capping stack
09:31:21 similar to the ones that we have today.
09:31:23 Q. That's because BP had never thought of that, correct?
09:31:27 A. It had not been considered.
09:31:28 Q. You had the technology, but you hadn't built the
09:31:34 equipment, correct?
09:31:34 A. We hadn't built a capping stack, no.

09:31:37 Q. Now, would you agree with me that, in terms of cost,
09:31:46 building the capping stack was not a large sum of money?
09:31:50 A. Yeah, building a capping stack wouldn't be a significant
09:31:54 amount of money considering the amount of money that we spent
09:31:56 in the deepwater.
09:31:57 Q. Would you agree with me that if BP had spent the time or
09:32:10 made the effort prior to Macondo to build a capping stack, that
09:32:14 the well would have been capped sooner?
09:32:21 A. It would depend. As I -- it would depend on what kind of
09:32:25 capping stack you had built. As I described, the capping stack
09:32:28 that we built was purpose built for Macondo with fail open
09:32:33 valves and other components to close in the well. So it would
09:32:39 depend on the type of situation that you were embarking on.
09:32:43 Q. You may have to make some modifications, but it would
09:32:47 certainly advance the design if you had built or planned for
09:32:50 this ahead of time, correct?
09:32:53 A. We could have -- yeah, it would have advanced the designs
09:32:56 if we would have had all the components ahead of time, yes.
09:32:59 Q. You could have deployed it quicker, correct?
09:33:03 A. Deployment would depend on a debris removal and
09:33:06 preparation of the wellhead -- of the well to receive a
09:33:09 capping stack.
09:33:10 Q. Let's look at your deposition, if you don't mind.
09:33:12 Could I get TREX-100208.284. That will be Line 16
09:33:38 through -- let's do lines 9 through 22, if you could blow that

09:33:38 up.

09:33:42 All right. You see where you're asked the question
09:33:48 here: "But if those things would have been in place before
09:33:50 they were, empirically that cost would have been reduced, and
09:33:54 the amount of hydrocarbons released into the Gulf would have
09:33:58 been reduced; isn't that true? If this instrumentation had
09:34:01 been placed sooner?"

09:34:01 And your answer, was it not, sir: "Certain the
09:34:05 expectation -- if you -- if you'd had some of the equipment
09:34:07 built beforehand, we could have deployed it quicker,
09:34:11 absolutely."

09:34:12 A. That's correct.

09:34:12 Q. You agree with that as you sit here today, correct?

09:34:14 A. Yes, I agree that if we had had some of the equipment, we
09:34:18 could have deployed sooner.

09:34:19 Q. You could have capped the well sooner, correct?

09:34:21 A. It would have been possible, yes.

09:34:23 Q. You know today that capping stacks are available for
09:34:29 deepwater, correct?

09:34:30 A. Yes. BP has built its own capping stack. Certainly,
09:34:34 through MWCC, we have access to several capping stacks, and
09:34:39 that the consortiums have built together.

09:34:42 Q. The use of that capping stack has been tested, correct?

09:34:47 A. Excuse me. The use?

09:34:48 Q. There have been drills on --

09:34:48 A. Yes.
09:34:51 Q. -- installing such a capping stack in deepwater, correct?
09:34:53 A. Yes, the MWCC ran a drill where we deployed a
09:34:57 capping stack on a stump on the seabed last year.
09:35:00 Q. In deepwater, correct?
09:35:01 A. In deepwater, that's correct.
09:35:02 Q. It actually, under the drill, the well was capped in
09:35:07 4.7 days, correct?
09:35:08 A. Yes. Yes. Well, the cap was deployed on top of a stump
09:35:14 in a very short period of time.
09:35:15 Q. Right. Why don't we look at the exhibit, so you're not
09:35:19 guessing.
09:35:20 Let's go to TREX-9573.1.
09:35:31 You see that this is a PowerPoint. Is this
09:35:36 PowerPoint, sir, this is the drill, correct, that was run last
09:35:40 year, in 2012?
09:35:42 A. Yes. I haven't seen this PowerPoint before, but I
09:35:44 certainly received a briefing in the MWCC board meetings with
09:35:48 regard to the capping drill, yes.
09:35:50 Q. Let's go to 9573.3.
09:35:55 You see that this says drill details estimated at
09:35:59 10 to 14 days; correct?
09:36:00 A. That's correct.
09:36:01 Q. Actual well capped at 4.77 days, correct?
09:36:04 A. That's correct.

09:36:04 Q. That's much quicker than 87 days, is it not?
09:36:09 A. That's much quicker than 87 days. It was done on a
09:36:13 parking pile, which means it's a stud that they put on the sea
09:36:19 floor. Yes, it was done very quickly.
09:36:21 This particular capping stack was deployed on wire,
09:36:24 whereas we deployed ours on drill pipe.
09:36:28 Q. How much more time do you think that would have added?
09:36:31 A. Drill pipe versus wire?
09:36:33 Q. Yes, sir.
09:36:33 A. I think it's a question of accuracy. I don't think it
09:36:37 would take much more time to deploy the capping stack on the
09:36:41 drill pipe versus wire, but this drill was done to prove that
09:36:44 you could do it with wire.
09:36:46 Q. Now, you've testified quite a bit yesterday and today that
09:36:52 you were the leader of the source control, right?
09:36:55 A. That's correct.
09:36:55 Q. There was not a higher ranking person in Houston for the
09:37:02 majority of time at BP other than you, correct?
09:37:04 A. There were higher ranking -- for a majority, there were
09:37:07 higher -- my boss, Andy Inglis, was in Houston. He didn't sit
09:37:12 in the Crisis Center. He sat outside -- in an executive area
09:37:16 outside the Crisis Center. Certainly, he was there.
09:37:19 Tony Hayward was there at times. The chairman of the
09:37:23 company was there at times. Bob Dudley was there at times in
09:37:30 that executive area, but not in the actual Crisis Center.

09:37:32 Q. So when it came to the leader of source control, you were
09:37:35 the highest ranking person at BP in charge of that effort,
09:37:39 correct?
09:37:39 A. I was in charge of leading the effort in the Crisis
09:37:42 Center, yes.
09:37:42 Q. It was your job to gather information and make
09:37:47 recommendations to the Unified Command, correct?
09:37:49 A. That's correct. Well, engineer options, present options,
09:37:54 prepare the options, socialize those options, and then
09:38:00 eventually recommend them.
09:38:00 Q. Unified Command was dependent upon you to give them
09:38:06 accurate information, correct?
09:38:07 A. That's correct.
09:38:08 Q. If you didn't do that, bad decisions could be made,
09:38:08 correct?
09:38:15 A. My job was to provide the most accurate and clear
09:38:18 information as I could. That's correct.
09:38:19 Q. You've listed three guiding principles of the response. I
09:38:24 think you said don't make it worse, parallel tracking, and no
09:38:29 stone left unturned; is that correct?
09:38:31 A. That's correct.
09:38:31 Q. Would a fourth, maybe unstated because it should be
09:38:36 unnecessary principle, would be tell the truth?
09:38:37 A. That's correct. Well, and in the number three, to be as
09:38:44 inclusive as possible, yes.

09:38:45 Q. You would agree with me here today that in all instances
09:38:48 BP was not open and honest, correct?
09:38:53 A. Well, certainly what I observed, it was open and honest,
09:38:56 that we did everything we could.
09:38:57 Q. You understand, sir, that your company has pled guilty?
09:39:02 A. Yes, I understand that the company entered into a plea.
09:39:05 Q. A plea that they were not always open and honest, correct?
09:39:11 A. Yes. I can understand that post the event. I'm talking
09:39:14 about at the time, certainly I'm testifying that I believe
09:39:17 everything was open and honest.
09:39:18 Q. But you've come to learn after the fact --
09:39:21 A. Yes.
09:39:22 Q. -- that your company was not always open and honest,
09:39:25 correct?
09:39:25 A. Yes. We pled on an obstruction of Congress plea.
09:39:33 Apparently, not all of the material was available -- in a
09:39:35 letter to Congressman Markey, not all -- material that could
09:39:39 have been included was not included in that letter. That
09:39:42 particular response was done in New Orleans. It wasn't done in
09:39:45 Houston. I don't have any personal knowledge about that
09:39:48 particular event at the time. I found out about it later.
09:39:54 Q. Have you read the allocution with the plea agreement?
09:39:57 A. Yes.
09:39:57 Q. It states that BP was not honest and open with the
09:40:01 Unified Command when it came to flow rate, correct?

09:40:03 MS. KARIS: Objection, Your Honor. That misstates the
09:40:05 plea. The plea pertains to a letter to Congressman Markey.
09:40:10 MR. BARR: We'll pull that up here in a little bit.
09:40:12 I'm a little surprised Carrie is disagreeing with it.
09:40:16 THE COURT: Well, I think Ms. Karis is saying that you
09:40:18 didn't accurately state the plea agreement. If you have it,
09:40:22 why don't you read the exact language.
09:40:24 MR. BARR: I'll get it here in just one second,
09:40:26 Your Honor.
09:40:27 THE COURT: Okay.
09:40:34 MR. BARR: That's one of the problems with piles of
09:40:36 paper in front of you.
09:40:38 THE COURT: I'm surprised somebody as young as you
09:40:42 needs to rely on paper. I thought it was only folks like me.
09:40:44 MR. BARR: I've always had an affinity to it. I don't
09:40:44 know what that's all about.
09:40:50 10347.
09:40:53 EXAMINATION BY MR. BARR:
09:41:02 Q. Can you go to the next page, Carl. We'll figure this out
09:41:06 here, I'm sorry. Try .17. Blow up paragraph 5.
09:41:24 Do you see this is the allocution, sir? Mr. Dupree?
09:41:29 A. Yes. Yes. These are the -- I believe, the lists
09:41:34 underneath the title, the Obstruction of Congress in the Letter
09:41:39 to Secretary -- to Congressman Markey.
09:41:42 Q. Right. It says, "In fact, as set forth above, BP had

multiple internal documents with flow rate estimates that were significantly greater than 5,000 BOPD that it did not share with Unified Command," correct?

A. In the as set forth, I believe it's stating, as I read this agreement, to Congressman Markey, because this is Number 5 of several points that were in the obstruction of Congress, in that it was not included to Congress Markey, which would then mean it wasn't included to Unified Command.

Q. Right. This actually says there's multiple internal documents -- multiple, not just one letter -- multiple internal documents with flow rate estimates significantly greater than 5,000 BOPD that it did not share with Unified Command, correct?

A. It did not provide in the letter to Congressman Markey that would have been shared with Unified Command.

I believe, if you look at .1 and .2, it refers to the sets of documents that this is outlining -- that it's stating here, internal documents is in .1 and .2.

Q. That would be internal documents like the document I just showed you earlier that showed a flow rate of 86,600 barrels per day, correct?

A. It's not my understanding that that was the document that they were referring to.

Q. But that was not disclosed to the Unified Command, correct?

MS. KARIS: Your Honor, I'm going to object. This

isn't stating what the plea says. The plea specifically starts --

THE COURT: I'll sustain the objection. I think the plea agreement is in evidence. It speaks for itself. You can figure out what the significant of that is.

MR. BARR: I'll move on.

MS. KARIS: Thank you, Your Honor.

EXAMINATION BY MR. BARR:

Q. Now, you'll agree, as the source control leader, you've had no training in killing of wells, correct?

A. I had no formal training in well kill operations, no.

Q. You're not an expert in source control, correct?

A. I'm not an expert in killing wells. It's an unprecedented event that, hopefully, you'll only go through once in a lifetime.

But I had had significant training in incident command systems and also -- and participated in lots of drills over my career.

Q. When you say you had training in incident command systems, that's how to organize people and direct them, correct?

A. Yes.

Q. That's not how to kill a well?

A. That's correct.

Q. You would agree that you didn't come across anybody at BP during the response that had training on how to conduct a

source control operation in deepwater prior to April 20th, correct?

A. No. I knew that we have an -- segment authority on staff in BP, Mr. Mark Mazzella, who was an expert in killing wells and was an executive in Wild Well Control for many years, that works for our company, and he is the one that executed Top Kill on our behalf, executed offshore.

Q. So you believe Mr. Mazzella was trained in deepwater blowout source control?

A. Mr. Mazzella was trained in blowouts. So I can't attest to his training in deepwater, but I know that he was well trained in how to kill a well and had worked for some of the premier companies.

Q. Prior to April 20 of 2010, had you even read BP's Oil Spill Response Plan?

A. No, I wasn't there at -- for a very short period of time, as I testified earlier, only a few months. I knew that an Oil Spill Response Plan was in place because it was part of the regulatory requirement of the company.

Q. But you had never read it?

A. Not the original Oil Spill Response Plan when I arrived at the -- before April 20th.

Q. When it came to controlling the source of the Macondo Well, did you even refer to the Oil Spill Response Plan?

09:45:38 A. Excuse me, did I --
09:45:39 Q. Did you refer to it?
09:45:40 A. The teams on the ground referred to the Oil Spill Response
09:45:43 Plan.
09:45:43 Q. That wasn't my question. I asked if you did?
09:45:46 A. No, I didn't directly refer to the Oil Spill Response
09:45:49 Plan. It's a plan in place that the team would execute on in
09:45:54 case of an emergency. And that's why we have a crisis
09:45:59 management system and a team in place to do that.
09:46:00 Q. So in your efforts as the leader of the source control
09:46:03 effort, that's not a document you ever even looked at, correct?
09:46:06 A. It's not a document I referred to during the response, no.
09:46:09 Q. Would that be because it didn't provide you anything on
09:46:12 how to control the source?
09:46:13 A. That document would have led to a couple things: One, it
09:46:17 would have told me to activate the BOP, which I attempted to
09:46:20 do; and, it would have said that I would have established an
09:46:24 incident command system and spudded relief wells, which I did;
09:46:28 and, then use all efforts to control the source.
09:46:33 It wouldn't have referred to any other mechanisms to
09:46:36 control the source.
09:46:36 Q. So the only source control plan you had was not even a
09:46:41 document you looked at in trying to figure out how to control
09:46:43 the source, correct?
09:46:44 A. I never looked at that document, but certainly the people

on staff, my regulatory team and the response team I had in the Crisis Center, were responding relative to that document.

Q. What you did relative to that document, as I understand it, you went out to attempt to assemble the team of technical experts, correct?

A. That's correct. We immediately tried to assemble a team to respond to the well.

Q. You assembled people both inside and outside BP who you thought could have technical expertise, correct?

A. That's correct.

Q. That would include people like Wild Well Control?

A. That's correct.

Q. Companies like Cameron?

A. Yes.

Q. Companies like Transocean?

A. Yes.

Q. Now, I want to ask you something and find out whether or not you agree with it. Would you agree that no matter how good you are or how safe you think you are, there is no substitute for a backup plan and preparation for the worst case scenario?

A. Yes, I would agree with that. Yes.

Q. Does that comment sound familiar?

A. Yes, it does. I'm not sure what document it was from, probably the -- documents.

Q. That's something that you've said before, isn't it?

09:48:01 A. Yes.
09:48:01 Q. You'll agree that in the case of the Macondo Well, BP had
09:48:11 no backup plan or preparation for the worst case scenario,
09:48:15 correct?
09:48:15 A. Certainly on the source control side we didn't have the
09:48:19 preparations that we have today.
09:48:20 Q. Those are preparations you could have had, correct?
09:48:23 A. Those are preparations that we're definitely learning from
09:48:27 the event, yes.
09:48:28 Q. No, that wasn't my question. My question was, those are
09:48:31 preparations you could have had prior to April 20th, had you
09:48:35 thought about it?
09:48:36 A. Had we had the foresight, yes, we could have had them.
09:48:38 Q. Because when you were making decisions during the Macondo
09:48:44 spill, you did a lot of engineering and preplanning before you
09:48:48 executed on any operation you were conducting, correct?
09:48:51 A. That's correct.
09:48:52 Q. That's a good policy to follow, is it not?
09:48:55 A. General engineering practice to plan properly ahead of an
09:48:59 execution of a job and have a proper procedure, yes.
09:49:01 Q. That was not done prior to the Macondo, that was not a
09:49:05 policy that was followed, correct?
09:49:08 A. Yeah, there was nothing in place of the nature of the
09:49:12 equipment and things that we engineered prior to Macondo.
09:49:14 Q. Was there any document you referred to inside BP that

09:49:20 provided you a plan on what to do -- strike that -- that
09:49:27 provided you a plan on how to control the source of a deepwater
09:49:32 blowout?
09:49:32 A. Certainly not a document that would have been directly
09:49:36 attributable to the Macondo event, no.
09:49:38 Q. You were starting from scratch, correct?
09:49:42 A. Yes, engineering everything right up front.
09:49:44 Q. There was nothing you could look to that provided you any
09:49:48 guidance on the decisions to make, correct?
09:49:51 A. No, other than the fact that we would try to activate the
09:49:55 BOP and the safety system, and we would immediately spud relief
09:49:59 wells.
09:49:59 Q. Now, as you sit here today, you would recognize that your
09:50:24 planning prior to Macondo did not incorporate the things that
09:50:28 were needed in order to attack a deepwater blowout, correct?
09:50:34 A. We certainly weren't as prepared as we are today, that's
09:50:39 correct.
09:50:39 Q. That wasn't my question. My question again, sir, was you
09:50:42 would agree that the planning you had in place prior to
09:50:46 April 20, 2010, did not incorporate all of the things that BP
09:50:50 would have needed in order to attack a Macondo-type event?
09:50:54 A. Yes, we're didn't have the equipment to attack a
09:50:57 Macondo-type event. As I said, that's why we had to engineer
09:51:00 so many things simultaneously on the fly.
09:51:02 Q. I want to talk to you a little bit about the Top Kill and

the junk shot.
A. Sure.
Q. Now, going back to the guiding principle that you talked about, which was don't make the situation worse, was that BP's guiding principle, or was it provided to you by somebody else?
A. As I recall, we agreed that very early on, as a leadership -- as a leadership team that -- you know, in the first day or two of the incident, that was what we decided we would do. So I think it was an agreement amongst the leadership that that was the approach we would take.
Q. Now, you understand that Dr. Chu believed that the guiding principle of don't make the situation worse is too simplistic?
MS. KARIS: I object to form, foundation as to what Dr. Chu believes.
MR. BARR: I'm happy to show him the deposition.
MS. KARIS: Same objection.
MR. BARR: Your Honor, he's the highest source control leader for BP, he's testified for the past two and a half hours that the Science Team and Dr. Chu were fully embedded in the team. I think Dr. Chu's testimony --
THE COURT: All right. I guess his question is whether -- I don't know if Dr. Chu said that in not. Is that in evidence somewhere?
MR. BARR: It's in his deposition.
THE COURT: In his deposition.

09:52:51 MS. KARIS: I don't know if Mr. Dupree has the
09:52:53 foundation for what's in Dr. Chu --
09:52:55 THE COURT: A lot of people during this trial are being
09:52:59 shown what other people said and asked to comment on it.
09:53:02 Are you familiar with that? If so, can you --
09:53:04 THE WITNESS: No, he certainly never shared that with
09:53:06 me. I'm not familiar with the comment, and he never shared
09:53:08 that directly to me in that way.
09:53:11 MR. BARR: Can I get TREX-100028.1.
09:53:40 MS. KARIS: I have the same foundation objection.
09:53:42 We've had experts who have considered and reviewed the
09:53:45 testimony of other witnesses as part of their remit, speak to
09:53:50 testimony of others, and I understand that, but Mr. Dupree is
09:53:54 called for his knowledge. He's a fact witness. He just
09:53:57 testified he doesn't know what Dr. Chu believes and has never
09:54:01 seen Dr. Chu's testimony.
09:54:03 So I think there is a difference between a fact
09:54:06 witness being asked about testimony he's never seen.
09:54:09 MR. BARR: Your Honor, Mr. Brock represented in opening
09:54:12 statement that the instruction -- that BP was instructed to
09:54:17 follow a don't make it worse principle by the Federal Science
09:54:21 Team. This is in direct contrast to that. That's what this
09:54:26 gentleman has talked about for the past two and a half hours.
09:54:28 THE COURT: Well, we probably have throughout this
09:54:32 trial, including Phase One, spent too much time with showing

one witness what another witness said and asking them to comment on it. I generally don't think that's very helpful for anybody. But if you all want to waste your time doing that, you're running time off your clock.

MR. BARR: I understand. I will take Your Honor's counsel and move on.

THE COURT: Okay.

EXAMINATION BY MR. BARR:

Q. Now, you understood prior to the Top Kill that you -- that BP had represented that would modeling must confirm that the well could be killed with Top Kill before it went forward, correct?

A. No, I'm not familiar with a comment directly like that. I -- certainly, modeling was important for the dynamic kill and momentum kill.

Q. Can I get TREX-6124. This is 6124.1.

You see that this is the *Deepwater Horizon* Review from Sunday, May 23, 2010, correct?

A. That's correct.

Q. Can we go to 6124.2. Can you blow up this little box.

You see it says, "Prerequisites Before Starting"?

A. Yes.

Q. It says, "Model Confirms We Can Kill Well," correct?

A. That's correct.

Q. No such model ever did that, did it?

09:56:07 A. You know, I think, if you go to the thing on the side
09:56:09 there, I think it's talking about momentum and dynamic kill;
09:56:13 but, yeah, you couldn't run a model at that time. You could
09:56:17 run a model for dynamic and momentum kill. It's impossible to
09:56:21 model junk shot -- or the effects of the junk shot and the
09:56:23 clogging agents in the well.
09:56:24 Q. Let's zoom out, so you can see what's on this page. You
09:56:27 see up on the top it says, "Top Kill"?
09:56:29 A. Yes, but on the right it says, "Mud Momentum Kill."
09:56:33 Q. Then it says, "Mud Momentum." Then it says, "Partial
09:56:42 Bridge & Continue Mud Momentum Kill." Then it says, "Seal &
09:56:43 Continue Mud Momentum Kill." That's talking about a junk shot,
09:56:45 right?
09:56:45 A. Yes.
09:56:45 Q. So this whole slide is about the Top Kill, which you
09:56:51 describe as the effort of using bridging materials and mud at
09:56:53 the same time?
09:56:54 A. That's correct.
09:56:55 Q. What it says is a prerequisite before you do that is that
09:57:00 you confirm we can kill the well, right?
09:57:01 A. Yes, that's what it says, but I don't recall that that's
09:57:05 what we were trying to say, that we could model a junk shot.
09:57:09 That wouldn't make any sense for us to say that.
09:57:12 Q. Well, it was certainly never done, was it?
09:57:15 A. Well, it's impossible to model an effective junk shot

because you don't understand the -- what the components are inside the BOP and what junk will lodge and what junk won't lodge and where it will lodge, so certainly you wouldn't model that.

You would model momentum and dynamic kill that -- at a certain rate of which you would hope the junk shot would make sure that you were below in order to kill the well.

Q. And the modeling you had done on momentum kill showed that if flow was greater than 15,000 barrels per day, the momentum kill was not going to work?

A. Was unlikely to succeed. Yes, it was probably not going to work.

Q. Then there was no modeling, as you've testified, on junk shot?

A. No. And I can't imagine how you model a junk shot with all the different scenarios and components inside the BOP. In order to model, you would have to understand the configuration. Extremely difficult. And understand how the different platelets would potentially bond or lodge and where -- it's impossible to model that particular component.

Q. You're aware that it was represented to government that the Top Kill had a 60 to 70 percent chance of success?

A. At the time I was not aware of that, no.

Q. If somebody had come to you and said, we're going to tell the government that Top Kill has a 60 to 70 percent chance of

09:58:39 success, you would say, don't say that. We have no way to know
09:58:43 that. Right?
09:58:43 A. I certainly wouldn't have represented it in that way.
09:58:45 Q. But you're not disagreeing that it was represented,
09:58:45 correct?
09:58:49 A. At the time, I didn't -- I was unaware of anybody saying
09:58:52 that.
09:58:52 Q. Can we get TREX-11317. Can you blow up that whole --
09:59:02 Do you see that this is an e-mail from Ken Salazar,
09:59:08 correct, Secretary Salazar?
09:59:09 A. Yes.
09:59:11 MS. KARIS: I object to foundation.
09:59:14 THE WITNESS: I've never seen this before, but --
09:59:15 MS. KARIS: I object to the foundation of this document
09:59:18 with this witness.
09:59:25 THE COURT: I think he just said he wasn't aware of
09:59:28 this representation, so I don't know what else he could say.
09:59:33 MR. BARR: Well, I just wanted to show him that
09:59:36 Mr. Salazar said that he was told this was an 80 percent chance
09:59:39 of success.
09:59:39 THE COURT: Is this in evidence?
09:59:41 MS. KARIS: I'm not aware of it being in evidence. And
09:59:43 Mr. Dupree testified twice that he was not aware of that
09:59:47 statement at that time.
09:59:49 MR. BARR: Your Honor, again, this is the gentleman who

led the source control effort and he testified that he does daily conferences with Ken Salazar and Secretary Chu.

MS. KARIS: That doesn't give him foundation, I'm sorry.

THE COURT: I think he said what he can say about it. He said he wasn't aware of this type of representation, and he wouldn't have made the representation. So I don't know what else he can say.

EXAMINATION BY MR. BARR:

Q. If somebody represented that, you disagree with them, correct?

A. I certainly wouldn't have made a representation in that way, because knowing going -- I would have gone right back to the diagnostics of what we didn't know at the time, which was very difficult to understand if we were going to get access to the well, we were going to be able to pump into the well.

Q. I believe your testimony was, is Unified Command had to approve all procedures that were being done, correct?

A. That's correct.

Q. And if they were under the impression that Top Kill was a slam-dunk or had a 60 to 70 percent chance of success, that would be an incorrect perception, correct?

MS. KARIS: Your Honor, objection to be foundation. Calls for speculation as well.

THE COURT: I sustain the objection.

EXAMINATION BY MR. BARR:

Q. Now, would you agree with me that there were high risks to the junk shot?

A. I testified to two risks to junk shot, yes. One would be of the -- endangering the rupture disks. The other one was, obviously, of the relief well, impacting the relief well.

Q. Right. And I believe you testified that you wouldn't want to do anything -- as one of your reasons for not doing the BOP-on-BOP, because you didn't want to take options off the table, correct?

A. I didn't want to potentially broach the well. I think I would be answering much different questions here if I had broached the well and ignored that information.

Q. But you didn't want to -- I believe your testimony on direct was that you did not want to take options off the table, correct?

A. That's correct. The fallback option or the industry standard option to kill the well and the ultimate option to kill the well was the relief well. And I certainly did not want to endanger the success of the relief well.

Q. But what you ended up doing by doing the Top Kill was taking options off the table, correct?

A. I learned a great deal and took BOP-on-BOP off the table because of its risks, yes.

Q. And that was done because of the reasoning that BP offered

10:02:44 as to why the Top Kill failed, correct?
10:02:51 A. What was done?
10:02:53 Q. The removal of the BOP-on-BOP.
10:02:54 A. That's correct. We made a presentation on the
10:02:57 observations from Top Kill to the government science team and
10:03:04 the government, and we recognized that the risk of the rupture
10:03:09 disks not being in place were very impactful under the forward
10:03:13 option BOP-on-BOP and could cause a broach in the well, so we
10:03:16 removed the option.
10:03:18 Q. And that was the only explanation you offered, was the
10:03:24 collapse disks, correct?
10:03:25 A. No, it was not. There were other -- in the different
10:03:31 scenarios presented on those days, there were other various
10:03:35 observations -- observations, but the one that was most glaring
10:03:39 to us and concerning was the fact that we couldn't pump deeper
10:03:43 and we couldn't get beyond that 6,300 psi. And that was
10:03:49 coincident with the depths of the rupture disks. And so that
10:03:52 was the key learning from that particular operation.
10:03:56 Q. And you offered three scenarios, correct?
10:04:00 A. That's correct.
10:04:00 Q. And of those three scenarios, two were considered possible
10:04:04 but not plausible, correct?
10:04:07 A. That was the way it was stated in the document, yes.
10:04:10 Somebody on the Engineering Team wrote that as a way to lead
10:04:13 the discussion.

10:04:14 Q. And the only plausible explanation provided was the
10:04:21 collapse disks, correct?
10:04:23 A. Well, the way the document is written was a "Lessons
10:04:28 Learned" document. And the only observe -- the only
10:04:33 explanation that matched the observations we had, that was
10:04:37 closest to matching them, was the rupture disks, compromises of
10:04:43 the rupture disks, yes.
10:04:43 Q. You agree today the collapse disk had nothing to do with
10:04:47 the Top Kill failure, correct?
10:04:49 A. Yes. Because later on we find out, certainly through
10:04:52 killing the well, that the rupture disks were indeed intact.
10:04:56 Q. And you believe they were intact prior to the Top Kill,
10:04:56 correct?
10:05:00 A. I had no reason to believe -- I was cautious about them,
10:05:04 but I had no reason to believe that they weren't intact. But I
10:05:08 was cautious about them in the different presentations, because
10:05:12 I was still concerned about broach. But yeah, I had no reason
10:05:15 to believe they weren't intact prior to Top Kill.
10:05:17 Q. If you had thought the collapse disks were not intact
10:05:21 prior to Top Kill, you wouldn't have done Top Kill, correct?
10:05:25 A. Yeah, if I would have thought that they were -- that they
10:05:29 were collapsed, it would be -- you know, these things are six
10:05:33 or 7,000 feet down in the well, so I would have no way of
10:05:36 knowing that, right? But, I don't know, I would be speculating
10:05:41 about that. But at the time, I certainly had no idea what the

10:05:46 situation was with the rupture disks. I had no way of knowing
10:05:51 post the event.
10:05:51 Q. Let's -- the first time a discussion of a potential
10:05:57 collapse of the rupture disks was after the Top Kill, the first
10:06:04 time it was ever discussed, true?
10:06:06 A. It was the first time that scenario had been brought
10:06:10 forward about how they may have been compromised early in the
10:06:14 event. Certainly we had never -- they never had that
10:06:18 observation or understanding prior to that, no.
10:06:20 Q. And you would agree with me that if during the initial
10:06:29 event flow was up through the casing, collapse disks could not
10:06:36 have been impacted, correct?
10:06:37 A. I think if Mr. Pattillo's analysis demonstrates that, the
10:06:42 flow would have had to have been up the annular side of the
10:06:45 well. In his analysis that he presents, the flow would have
10:06:48 had to have been up the annular side of the well with mud on
10:06:52 the back side of the 16-inch casing.
10:06:54 Q. Right. So if flow is up the production casing, the
10:06:57 collapse disks could not have ruptured, right?
10:07:02 A. I'm not sure about all the thermal modeling that would
10:07:06 have gone on in that, but certainly it wouldn't have matched
10:07:10 Mr. Pattillo's piece of work, because he said it would have had
10:07:14 to have been up the annular at the time. And at the time we
10:07:16 had no idea if the flow was up the annular or up the center of
10:07:19 the casing or was coming up both.

10:07:22 Q. Can I get TREX-7270.1.

10:07:32 Now, you see that this is a report from Add Energy
10:07:36 dated May 31, 2010?

10:07:42 A. Yes. But I've never seen this report before.

10:07:44 Q. So you've never even seen this report?

10:07:46 A. I don't believe I've ever seen this report before, no.

10:07:49 Q. So you were not aware that Dr. Rygg was doing a simulation
10:07:55 of the *Deepwater Horizon* incident, were you?

10:08:00 A. I'm aware Dr. Rygg did a lot of work for us, but I'm not
10:08:03 aware of -- I certainly didn't have this -- I haven't seen this
10:08:07 report before.

10:08:07 MS. KARIS: Your Honor, I'm going to make a foundation
10:08:09 objection. This may be inadvertent.

10:08:12 You said Dr. Rygg. I believe this is
10:08:15 Mr. Emilsen's work, who was part of the Investigation Team,
10:08:18 completely separate from the work that Dr. Rygg was doing. So
10:08:21 that may be an inadvertent statement, but this is not
10:08:24 Dr. Rygg's work.

10:08:25 THE COURT: It seems to be related to the Bly
10:08:28 investigation; is that right?

10:08:29 MS. KARIS: That's correct, Your Honor, which was a
10:08:30 team, as Your Honor heard, completely separated from the rest
10:08:33 of the operations.

10:08:36 MR. BARR: Your Honor, we'll move on. It's not an
10:08:39 important point.

EXAMINATION BY MR. BARR:

Q. Now, when you brought in these technical experts to advise BP on what to -- how to control this well, you would agree with me that you should listen to those people, correct?

A. Are you referring to the Science Team?

Q. No. I'm referring to companies like Wild Well Control.

A. Yes. I agree we should listen to our work with the partners, yes.

Q. And you would agree with me that Wild Well Control was not included in the decision-making process, correct?

A. Excuse me. Was not included?

Q. Was not included in the decision-making process.

A. They were supporting the Engineering Teams and the engineering effort, yes, but not as far as the decisions. They were providing data that would help informed decisions and information that would help informed decisions.

Q. And they were providing recommendations that would disagree with going forward on the junk shot, true?

A. Not to my knowledge, they were -- they provided recommendations of that nature.

Q. So that's another thing that was never told to you?

A. No. What, that they disagreed with the junk shot operation?

Q. Yes, sir.

A. The company?

10:10:05 Q. Yes, sir.
10:10:06 A. The company -- well, they were helping us engineer that,
10:10:09 and they participated in the peer assist, so -- and one of the
10:10:15 vice-presidents helped lead the peer assist, so no, I'm not
10:10:20 aware of that.
10:10:20 Q. Would it surprise you to find out that Wild Well Control
10:10:23 actually preferred the BOP-on-BOP option?
10:10:27 A. I wasn't aware that Wild Well Control preferred the
10:10:31 BOP-on-BOP option.
10:10:32 Q. Let's go to TREX-10611.1.
10:10:44 You see that this is an e-mail from Pat Campbell
10:10:48 dated May 17, 2010, correct?
10:10:54 A. Yes.
10:10:56 MS. KARIS: Your Honor, I make a foundation objection
10:10:57 again. I believe this is an internal Wild Well document.
10:11:01 There is no foundation for Mr. Dupree to testify to this
10:11:04 document. He already testified he wasn't aware of what
10:11:08 Wild Well's recommendation was with respect to this issue.
10:11:12 MR. BARR: But, Your Honor, again, he has testified
10:11:14 that Wild Well Control was the company -- one of the companies
10:11:17 he brought in. And I think it's important for context to see
10:11:22 that Wild Well Control is disagreeing with the recommendations
10:11:26 he has talked to this court about for the past two and a half
10:11:29 hours.
10:11:30 MS. KARIS: Your Honor --

10:11:31 THE COURT: Are you aware of that?
10:11:32 THE WITNESS: No. And I've never seen this document
10:11:35 before.
10:11:36 THE COURT: Okay. Then we should move on.
10:11:40 MR. BARR: All right. We'll move on, Your Honor.
10:11:53 Your Honor, it's about 10:15. Do you want to
10:11:57 take the morning recess?
10:12:00 THE COURT: Are you about finished?
10:12:03 MR. BARR: I may be. If we take a recess, I may be
10:12:08 able to cut this down some.
10:12:09 THE COURT: All right. We'll recess for 15 minutes.
10:13:02 (WHEREUPON, at 10:13 a.m. the Court took a recess.)
10:36:19 THE DEPUTY CLERK: All rise.
10:36:20 THE COURT: Please be seated.
10:36:21 All right, Mr. Barr.
10:36:22 MR. BARR: Thank you, Your Honor.
10:36:25 EXAMINATION BY MR. BARR:
10:36:25 Q. Mr. Dupree, I just want to go back to one thing real
10:36:29 quickly.
10:36:29 MR. BARR: Can we play clip 150307.
10:36:45 MS. KARIS: Your Honor, I'm going to object. I think
10:36:47 this witness has already said he's not aware of this statement.
10:36:50 The Court sustained a foundation objection, and, I thought,
10:36:53 asked for us to move on.
10:36:55 THE COURT: Well, let me ask. Mr. Dupree, do you know

where these statements came from --

THE WITNESS: No, I do not.

THE COURT: -- as to why Mr. Hayward and others were saying it was 60 or 70 percent?

THE WITNESS: No, I don't, Your Honor.

Certainly, in any discussions I had, nobody ever asked me for a chance of success, and we never calculated chance of success that I'm aware of.

I never -- and Secretary Salazar or Secretary Chu never asked or required a chance of success calculation.

THE COURT: Thank you.

MR. BARR: You got my examination done for me.

THE COURT: Thank you, I'll send you a bill.

UNIDENTIFIED SPEAKER: Maybe it will get paid that way, Your Honor.

UNIDENTIFIED SPEAKER: That wasn't very nice.

EXAMINATION BY MR. BARR:

Q. All right. I want to show you TREX-9353.

Now, you testified on direct that TO at no point was pushing the BOP-on-BOP, do you recall that?

A. I wasn't aware that Transocean had any -- had an option that they wanted to put forward on BOP-on-BOP.

Q. You see that this was a letter from Doug Suttles to Admiral Landry on May 26, 2010, correct?

A. Yes, but I've never seen this letter before. Did you want

10:38:18 me to read it?
10:38:19 Q. No, I understand. But the reference is to Top Kill
10:38:22 planning and the approved procedures, correct?
10:38:32 I'll just read it to you. Last paragraph. "The
10:38:35 undersigned representatives of the Unified Command agree to
10:38:38 commence the execution of the 'Top Kill Operation' as set forth
10:38:42 in the procedure approved by the Unified Command, except as may
10:38:48 be amended or revised during the operation by the appropriate
10:38:52 delegates in Houston." Do you see that?
10:38:53 A. Yes, I see that. So it's a letter stating that we're
10:38:58 going to execute the procedures that were approved.
10:38:59 Q. Right. It's undersigned representatives of the
10:39:05 Unified Command agreed to it, correct?
10:39:07 A. Yes. We proposed a procedure and agreed to the procedure.
10:39:10 Q. Could you go to 9353.2.
10:39:13 Can you see the space there for Transocean to sign
10:39:24 off, it's not signed, correct?
10:39:25 MS. KARIS: Your Honor, foundation. If all Mr. Barr is
10:39:31 asking is has TO signed this, I guess the witness can answer on
10:39:34 this document. Whether TO ever signed off on the procedure, I
10:39:39 don't know whether Mr. Dupree would know of that.
10:39:42 MR. BARR: All I'm asking is if there is a signature on
10:39:45 that line.
10:39:46 THE COURT: That's a good question.
10:39:46 THE WITNESS: I'm totally unaware of whether or not

Transocean signed off on this document or not.

EXAMINATION BY MR. BARR:

Q. There is no signature in that space?

A. Not on this particular document, no.

Q. I want to talk to you --

A. This is in reference to which procedure? Top Kill?

Q. Top Kill. If you go back to -- I'll let you go back --

THE COURT: That's the second page or the first page?

MR. BARR: That's the second page, Your Honor.

EXAMINATION BY MR. BARR:

Q. 9353. Do you see that? In that last paragraph, it says, "the undersigned representative."

A. Oh, okay. I see. So this is a letter -- so this isn't the signatures on the actual -- the actual procedure, this is a separate letter?

Q. This is -- the undersigned -- what's represented in the letter is that the undersigned representatives agree to commence the execution of the Top Kill, correct?

A. Yes. I never seen this before, so I was totally unaware of it.

Q. But that's what it says, right?

A. That's what it says, yes.

Q. Now I want to talk to you for a little bit about the status of the BOP-on-BOP prior to the Top Kill, okay.

You would agree with me that the BOP-on-BOP being

10:40:58 ready was a prerequisite to the Top Kill, correct?
10:41:04 A. BOP -- no. The BOP-on-BOP being ready was a prerequisite
10:41:08 to Top Kill?
10:41:08 Q. Yes, sir.
10:41:09 A. Being an engineer, it would have been -- because it was a
10:41:13 post-Top Kill -- potential post-Top Kill operation.
10:41:17 Q. Let me show you TREX-120227.
10:41:24 Now, you see that this is -- at the top of that, it
10:41:26 has your name on it, from James Dupree, Dear Admiral
10:41:36 Landry.doc? You see that?
10:41:36 A. Yes, to my assistant.
10:41:37 Q. Right. May 25, 2010, correct?
10:41:39 A. Yes.
10:41:39 Q. Could we go to 120227.2, the next page.
10:41:49 You see you have written out here for
10:41:52 Dear Admiral Landry.
10:41:53 If we could just blow that whole thing up.
10:41:56 You see Number 4, "Under prerequisites for the
10:42:03 Top Kill operations, points 4 & 10: The Transocean
10:42:07 *Development Driller II* will be ready to run their BOP on top of
10:42:12 the *Deepwater Horizon* BOP following the removal of the riser
10:42:15 and LMRP. Leading up to this operation, the LMRP Cap may be
10:42:20 utilized," correct?
10:42:24 A. Yes, that's what it says. That's correct.
10:42:25 Q. You described that in your letter as a prerequisite for

10:42:30 the Top Kill, correct?
10:42:32 A. Well, it can't be a prerequisite that we would remove the
10:42:39 LMRP, but that the *DD II* was ready. The *DD II* was still
10:42:45 engineering and preparing the BOP, and that was the intention
10:42:46 at the time.
10:42:46 Q. Can we go to TREX-142700.
10:42:58 You see this is from Doug Suttles to Andy Inglis and
10:43:01 yourself, James Dupree, letter to Admiral Landry re: Top Kill,
10:43:09 correct?
10:43:09 A. Yes.
10:43:10 Q. That's May 24th, 2010, correct?
10:43:12 A. That's correct.
10:43:12 Q. Could we go to the next page, which is 142700.2.
10:43:19 This is an actual letter to Admiral Landry from
10:43:25 Doug Suttles, correct?
10:43:26 A. Yes.
10:43:27 Q. It's May 23, 2010, correct?
10:43:30 A. Yes.
10:43:31 Q. This is, what, three, four days before Top Kill starts?
10:43:35 A. Yes, Top Kill starts on May 26th.
10:43:37 Q. Go down. It says, "Top Kill Operation," correct? You see
10:43:45 that in bold in the subject?
10:43:47 A. Yes.
10:43:47 Q. Then it says, "The prerequisites for the Top Kill
10:43:52 operation are." You see that?

10:43:53 A. Yes.
10:43:54 Q. Number 4, "Transocean *Development Driller II* ready to run
10:43:59 their BOP on top of the *Deepwater Horizon* BOP." Correct?
10:44:04 A. Yes.
10:44:05 Q. That's what was represented to Admiral Landry would be
10:44:10 done before Top Kill was started, correct?
10:44:14 A. Yes. That's what it states. Certainly, that's what we
10:44:20 were engineering to at the time.
10:44:34 MR. BARR: Your Honor, at this point I don't have any
10:44:36 other questions.
10:44:37 THE COURT: Redirect.
10:44:41 MS. KARIS: Very brief, Your Honor.
10:45:05 May I proceed?
10:45:06 THE COURT: Yes.
10:45:08 MS. KARIS: Thank you, Your Honor.
10:45:08 REDIRECT EXAMINATION BY MS. KARIS:
10:45:11 Q. Mr. Dupree --
10:45:11 MS. KARIS: For the record, Hariklia Karis for BP on
10:45:16 redirect.
10:45:16 EXAMINATION BY MS. KARIS:
10:45:17 Q. I want to follow up very briefly on a couple of the points
10:45:19 that were just made.
10:45:20 Mr. Barr just showed you a letter to Admiral Landry
10:45:22 regarding the *DD II* being ready to run the BOP. What was it
10:45:27 that you were representing was being done in connection with

10:45:32 the *DD II*'s BOP in that letter to Admiral Landry?
10:45:36 A. That we were preparing to have the *DD II* to be able to run
10:45:43 BOP-on-BOP following the Top Kill operation.
10:45:44 Q. Did that process continue throughout the Top Kill
10:45:49 execution?
10:45:50 A. Yes, we were still in preparation mode to run the
10:45:53 BOP-on-BOP as the next preferred option at the time.
10:45:56 Q. So was your statement to Admiral Landry consistent with
10:46:00 the actions you had in place?
10:46:02 A. Yes, I believe it was consistent with what we were
10:46:04 intending to do at the time.
10:46:05 Q. Okay. Now, Mr. Barr asked you also about the BOP --
10:46:11 removing the BOP-on-BOP option, and how that fit into the don't
10:46:17 make it worse guiding principle. Do you recall those
10:46:22 questions?
10:46:22 A. Yes, yes.
10:46:23 Q. Can you tell the Court, was removing the BOP-on-BOP option
10:46:30 consistent or inconsistent with the don't make it worse
10:46:35 principle?
10:46:35 A. It was extremely consistent with the don't make it worse
10:46:39 principle. The BOP-on-BOP option, the learnings were that it
10:46:43 was extremely risky, much riskier than we had thought.
10:46:46 Therefore, we removed it as an option that we would proceed
10:46:49 with.
10:46:50 It doesn't mean that we couldn't come back once we

had moved to options that were less risky to proceed with.
Q. Was going forward with Top Kill inconsistent with the practice of don't make it worse or don't eliminate your other options?
A. No. It was consistent with it. We saw it as a low risk option with a potential high reward.
Q. Was the BOP-on-BOP option removed as a result of acquiring data and information from Top Kill?
A. Yes. As I've testified, that we learned a great deal during Top Kill. We couldn't ignore what we saw in the observations with the status of the ruptured disk and -- we just couldn't ignore that particular piece of data and decided against BOP-on-BOP and moved directly to collection.
Q. Just a couple more questions. Going back now to the beginning of Mr. Barr's examination. He talked to you about the technology that did or didn't exist prior to the Macondo incident. You were asked whether, if you had had the foresight, whether you could have planned to have the equipment that existed -- or that was developed as a result of the Macondo incident? I believe your answer was you could have had it if you had the foresight for Macondo. Explain to the Court what you mean.
A. Well, some of the things that we engineered in the event, you know, were particular to the well. So, for example, the flex joint at the top of the well, the strengthening tools

around that, nobody would have ever engineered that but for that particular issue, to strengthen the flex joint.

The kink, we engineered things to potentially protect the kinks or strengthen the kink. We engineered mud manifolds and different things, particularly compliant with the three-inch choke and kill lines on the BOP.

So things -- certain things you could foresee, but other things that you were going to engineer directly for the situation in front of you, you would have to engineer at the time. So that was what I was referring to.

Q. You were similarly asked about whether there was any backup plan in the event of a blowout. Did BP's plan, in the OSRP that you referenced at least being generally familiar with, shutting in the BOP and then standing up a team in order to get expertise in place, was that plan executed as part of the Macondo operations?

A. Yes, absolutely. That was what the plan said, and that's exactly what we did.

Q. What was the industry plan, to your knowledge, for responding to a deepwater blowout at the time of the incident?

MR. BARR: Your Honor, objection. This witness cannot speak about what the standard in the entire industry is.

MS. KARIS: I will rephrase.

EXAMINATION BY MS. KARIS:

Q. Mr. Dupree, as a result of being involved in the oil and

gas industry for 27 years at the time of the Macondo incident, were you familiar with what the industry's plan was for responding to a deepwater blowout?

MR. BARR: Your Honor, I still have the same objection. He cannot speak to the internal plans and policies of all these different companies.

THE COURT: Overrule the objection.

MS. KARIS: Go ahead, Mr. Dupree.

THE WITNESS: Yes, the standard industry practice would be you activate the safety devices that you have that, either on the rig or on the sea floor, which is the BOP. Then you immediately spud a relief well. That would be the standard practice and procedure.

EXAMINATION BY MS. KARIS:

Q. Was that consistent with BP's plan at the time?

A. Yes, and that's what I testified to earlier.

MS. KARIS: I have no further questions. Thank you.

THE COURT: Thank you, Mr. Dupree. You're done.

THE WITNESS: Thank you very much.

THE COURT: All right. BP can call its next witness.

MR. BROCK: Yes, Your Honor. BP's next witness is Mr. Mark Mazzella. I'll step back to get him.

Further good news, we've talked to the aligned parties. They will not be calling Mr. Wellings, so he has been released.

10:51:00 THE COURT: Okay, very well.

10:51:12 What's the temperature right now, Stephanie?

10:51:15 THE DEPUTY CLERK: 71.6.

10:51:16 THE COURT: 71.6. How is everybody feeling?

10:51:19 MS. KARIS: I think the witnesses appreciate the cooler temperature, so they are not complaining, I promise.

10:51:28 MR. IRPINO: Your Honor, to be clear, the deposition bundle for Mr. Wellings is what's going to go in. It's not going to be live, but his depo bundle will still be offered in evidence. We're having Indata put that together.

10:51:40 THE COURT: Is that correct, Mr. Brock?

10:51:40 MR. BROCK: This spot right here is cold.

10:51:46 MR. FITCH: Judge, Tony Fitch.

10:51:47 I'm partly the instigator of all of this, also a delegate of others.

10:51:53 THE COURT: You were ratted out by Judge Shushan. I didn't want to call you out by name this morning, Mr. Fitch.

10:52:00 MR. FITCH: I thought I would make my daily confession. I figured that. It's just been right here. It's just one of those things.

10:52:06 THE COURT: Then I've learned a few minutes ago during our break, Judge Shushan was insulted when I referred to her as a third party instead of by name.

10:52:20 THE DEPUTY CLERK: Please raise your right hand. Do you solemnly swear that the testimony you are about to give

will be the truth, the whole truth and nothing but the truth, so help you God?

THE WITNESS: I do.

MARK MAZZELLA

was called as a witness and, after being first duly sworn by the Clerk, was examined and testified on his oath as follows:

THE DEPUTY CLERK: Please take a seat. State and spell your name for the record.

10:52:30 THE WITNESS: My name is Mark Mazzella, 10:52:34 M-A-Z-Z-E-L-L-A.

10:52:36 DIRECT EXAMINATION BY MR. BROCK:

10:52:38 Q. Mr. Mazzella, would you tell Judge Barbier where you work 10:52:41 at the present time.

10:52:44 A. Yes, sir, I work at BP in Houston.

10:52:47 Q. How long have you worked for BP?

10:52:50 A. I've been there since 2005.

10:52:51 Q. At the time of the *Deepwater Horizon* incident, what was 10:52:56 your job with BP?

10:52:58 A. I was the segment engineering technical authority for well 10:53:03 control, sometimes in short we're called well SETA.

10:53:13 Q. Tell the Judge what the responsibilities of the segment 10:53:18 engineering technical authority are at BP, or were at the time.

10:53:21 A. Well, the well control SETA had several responsibilities, 10:53:29 one of which included the preparedness, providing guidance for 10:53:33 well control response, the training of the response, also the

10:53:38 technical content for policies and all things encompassing
10:53:43 about well control. Also, about responding to well control
10:53:47 events and blowouts.
10:53:50 Q. How did you first get involved in the *Deepwater Horizon*
10:53:53 event?
10:53:53 A. I received a phone call the night of the 20th from our SPU
10:54:02 well control TA.
10:54:03 Q. We're going to talk a little bit in just a minute about
10:54:06 what you did after learning of the event to put the plan in
10:54:11 place that was going forward.
10:54:12 First of all, I would like to talk a little bit about
10:54:14 your background.
10:54:16 If we could have D-23320, please.
10:54:16 COURT REPORTER: Will you pull the microphone a little
10:54:16 closer to you.
10:54:16 THE WITNESS: Yes, ma'am.
10:54:27 MR. BROCK: Just pull it over to you a little bit.
10:54:30 THE WITNESS: How is that?
10:54:30 MR. BROCK: That's better.
10:54:31 EXAMINATION BY MR. BROCK:
10:54:32 Q. Mr. Mazzella, can you use this slide just to talk to the
10:54:36 Judge a little bit about your background and experience in the
10:54:41 area of well control.
10:54:41 A. Yes, sir. This is a good summary of my experience. I've
10:54:47 been in the oil and gas industry for 36 years. Thirty of those

years have been committed to well control, planning and response to blowouts.

As you can tell by this slide, I spent a good amount of my career working for Cudd Well Control. Ultimately went from a specialist up through Vice-President of Global Operations and Engineering.

I was fortunate enough in 2002, with a select group of people, to form a company called Global Pressure Control. It was a hundred-person well control company. We did the same work that Cudd did, obviously.

I've been fortunate enough to be a part of the remediation of some well control events, hundreds of them. I've worked within the Unified Command in various operations, assisting those guys and working with them as part of the responses as well.

Q. Have you also worked as an incident commander? We have that on the slide here, including as incident commander.

A. Yes, sir. I was actually formally trained as an incident commander and participated in that capacity for some operators. The majority of them, though, like me to help them with the responses rather than be part of an incident command.

Q. Let's see our next demonstrative D-23321, please.

Is this sort of a map of the world that you helped us put together that shows us the different areas in the world where you have been involved in well control activity?

10:56:36 A. Yes, sir, it is. It's a good geographic illustration of
10:56:41 it. These dots represent areas where I actually responded to
10:56:47 blowouts and helped remediate them.
10:56:50 Q. Is there one of these areas that you would like to point
10:56:58 out as a place where you have done significant work?
10:57:01 A. Well, one thing I would like to point out is just because
10:57:04 you see one dot doesn't mean it was just one event. There has
10:57:08 been multiple events in some of these areas, one of which is
10:57:11 Kuwait.
10:57:11 I was in Kuwait 167 days, and there were a little
10:57:16 over 300 wells that our teams worked on. So it was quite an
10:57:21 achievement.
10:57:21 Q. In terms of your history and career in well control, have
10:57:27 you had the opportunity to work with and learn from the leaders
10:57:31 in the field?
10:57:33 A. Yes, sir. You know, there are guys that were my mentors
10:57:37 that were legends in the business, guys like Red Adair, Coots
10:57:42 Matthews, Boots Hansen, Bob Cudd, Joe Bowden, of course, with
10:57:50 Wild Well Control, those guys, they were instrumental in
10:57:52 molding my experience and helping me understand, you know, the
10:57:55 techniques that we use in well control.
10:57:57 Q. How did you get involved in well control?
10:58:03 A. Well, early in my career I began as a driller, working on
10:58:05 the drilling rigs, running the rigs. You know, with any type
10:58:11 of operation, there are always some type of issue that comes

10:58:14 1 up. So, you know, I developed some problem-solving skills that
10:58:18 2 a lot of my colleagues, you know, they remembered.
10:58:21 3 When I moved into the pressure control arena, the
10:58:24 4 well control arena, I just carried that with me and leveraged
10:58:28 5 those problem-solving skills to help me understand and learn
10:58:32 6 more about well control.
10:58:33 7 Q. Mr. Mazzella, just for background, do you sit on any
10:58:38 8 industry committees?
10:58:39 9 A. Yes, sir, I do. I sit on the IADC Well Control Committee.
10:58:43 10 I was elected by that committee to sit on the IADC Review
10:58:49 11 Board. I also am part of various forums, SPE, API and others.
10:58:56 12 Q. Thank you. I want to turn now to the issue of
10:59:01 13 preparedness for a spill at BP prior to April of 2010. What
10:59:08 14 did you do to help BP prepare for a deepwater blowout?
10:59:13 15 A. Well, there are several things. As a well control SETA,
10:59:17 16 you know, there is a responsibility to help our teams be
10:59:20 17 prepared for a well control event and blowout. You know, it's
10:59:26 18 all a piece of the pie.
10:59:30 19 Personally, for me, it was about training, providing
10:59:35 20 the well control response guide and the policies, and helping
10:59:39 21 the teams understands exactly what the responsibilities for
10:59:43 22 each individual responder would be.
10:59:48 23 More importantly is be there, offer technical
10:59:51 24 assistance if a well control event was experienced.
10:59:53 25 Q. Did you have involvement in writing the well control

response guide for BP?

A. Yes, sir, I did. I wrote the original template and assisted the -- a lot of our regions with the development and customizing their own plans.

Q. Let's look at D-23322. This is TREX-2386.

Would are you describe for the Court what this document is?

A. Yes, sir. This is the well control response guide that was in place for our Gulf of Mexico SPU prior to Macondo.

Q. What is the date of this document? Can you see it there?

A. It's January 2010.

Q. If we could scroll forward to the call-out for this document, please.

Maybe just using this as your framework, can you describe for the Court what the purpose or the objective of this document is?

A. This document outlines clear instructions to team members in the event of a well control event. It's a tiered approach. In other words, it classifies events, and then for each classification it allows for proper responses and personnel and teams that are formulated and put in place.

It's also part of the incident management plan. It also takes into account that not every well control event is the same. They are all unique, and there's flexibility in the response guide to allow for ramp-up.

Q. This is the guide that you mentioned a few minutes ago that you helped to assemble and to make available to folks at BP?

A. Yes, sir. This guide would have been instrumental in being part of our blueprint for all of our continuing operations as we progressed in an event and remediated it.

Q. Mr. Mazzella, based on your background and experience, how do you know what should go in a guide such as this?

A. Well, I've spent the last 30 years preparing these things and responding with them, so I've got a pretty good background in them.

Q. How does this contingency plan compare to plans that you wrote and have reviewed for other operators in the Gulf of Mexico?

A. Well, I've reviewed a lot of well control plans for various operators. You know, the one thing that you always look for, is it going to meet the needs at the time that you have an event. This plan here far exceeds anything that I've ever seen from other operators.

Q. Now, you mentioned earlier that you were involved with training on the guide. Can you describe for the Court the training system that was in place with regard to the guide and your involvement with that training?

A. Yes, sir. What we tried to do with this guide, and were very successful at it, was to standardize it across our

company. So the guide that you see here is similar to guides that we have in other regions in our area.

So what we would do is we would have a group of trainers. There would be a systematic approach to the trainers, making sure that these guys were carrying the same message that we were throughout the company. That message would be to make sure that everybody classifies and responds to an event in the same way. A lot of benefits to that.

From there, it would be carried out where the SPU well control TA's -- one of the guys that were tasked with that -- would provide the detailed training and break teams up into little groups and practice scenarios that were part of the training slides in the training curriculum.

Q. One of the things that's been represented to the Court is that BP employees were asked to do something they had not been taught to do in terms of the response; is that a true statement?

A. No, sir.

Q. Now, in terms of the commitment to resources, did you have the resources available to you to formulate the plan and to train employees on what to do in the event of a well control event?

A. Yes, sir, we did. We had a lot of internal and external resources.

Q. Now, in this plan, is there rig-specific information?

11:04:54 A. There is.
11:04:54 Q. Can you describe that for the Court, please?
11:04:58 A. What we had in the document in the form of appendices were
11:05:03 rig-specific information that doesn't change. The rig is a
11:05:07 fixed object. It doesn't change capacities and loads and
11:05:10 things like that. That's the kind of information that first
11:05:13 responders absolutely have to have.
11:05:15 Q. Let's see D-23323, please.
11:05:30 Is this a call-out of the appendices to the well
11:05:34 control response guide?
11:05:36 A. Yes, sir. As you can see, in appendix four is the
11:05:40 *Deepwater Horizon* information.
11:05:40 Q. Then let me turn your attention to D-23926, which is
11:05:46 TREX-142592.
11:05:49 Just briefly describe for the Court, what are the two
11:05:52 documents on the screen?
11:05:53 A. Yes, sir. This is some of the information that is rig
11:05:58 specific, speaks to the rig capabilities and the BOP stack.
11:06:02 Q. Do these documents satisfy the BP requirement of having
11:06:13 asset-specific well control guides, in your view?
11:06:17 A. Yes, sir, it does. As the well control technical
11:06:21 authority for BP Worldwide, you know, it comes under my
11:06:24 authority of meeting those requirements. This absolutely
11:06:29 fulfills that.
11:06:30 Q. Now, let's turn our attention to another resource that's

available to you in the event of a well control event, and that's in the area of blowout response specialist.

As the well control SETA, do you have involvement with that?

A. I'm sorry, sir?

Q. As the well control SETA, do you have -- S-E-T-A -- do you have responsibility for the engagement of specialists in well control?

A. Yes, sir, I do.

Q. Can you describe what -- for the Court what your work is in that area?

A. Well, one of the primary things I do is review the contracts. You know, I'm looking for competency. I want to make sure that a well control service provider can provide the response people and equipment that's needed to remediate an event.

Q. Why is it that having contracts with blowout response specialists is the appropriate thing to do in terms of planning for a well control event?

A. Well, every well control event is unique, and every one of them brings special issues. Our well control service providers all bring unique capabilities and competencies to the table.

For instance, our Wild Well guys, you know, they have got one of the best marine offshore divisions that there is. The Cudd guys are some of the best land cappers there are.

Boots & Coots, you know, the best relief well drillers.

You know, with that in place, it makes it good to have multiple contracts and make sure this these teams are up and ready at your disposal.

Q. All right. Thank you for that.

Let's look at D-23325. This is TREX-11467. We'll just start with this. If you'll take the call-outs down just for a second, please.

First of all, if you would identify for the Court what this is.

A. This looks to be the Master Service Agreement. The contract number references Wild Well Control.

Q. You mentioned that you had contracts with Wild Well Control, Cudd and Boots & Coots. Would you have contracts with all of those companies?

A. Yes, sir, and others. You know, I'm probably forgetting some, but, you know, we had contracts with SafetyBOSS, Alert, people like that. There is a whole list of them.

Q. Now, if we can have the call-outs here.

So in the context of having contractors in place to respond in the event of an emergency, can you just use this slide to describe what we're looking for the contractors to do and why we are looking to them to help the company in the event of a well control event.

A. Well, basically, what we're saying here is that the well

11:09:46 control service providers have the equipment and personnel to
11:09:49 respond to us. We're also saying that they will respond to us,
11:09:54 if asked.
11:09:55 Probably more importantly, that there is something,
11:09:58 whether it's people or equipment that they don't have, we're
11:10:04 empowering them to get it.
11:10:05 Q. Let's look at D-2336A.
11:10:12 You mentioned that one of your roles is to review the
11:10:16 contracts. I'll just ask you if this is one of the sections of
11:10:22 the contract that is important to you?
11:10:23 A. Yes, sir. It is.
11:10:25 Q. Can you tell the Court why?
11:10:26 A. Yes, sir. What I would look for here is looking at the
11:10:32 well control equipment, you know, in the first place, to
11:10:36 understand what their capabilities are. It's just what they
11:10:38 can bring to the table for us.
11:10:39 I'm not concerned with the compensations and things
11:10:45 like that, the charges. I'm looking for what can they do for
11:10:48 us. This section is really good in identifying what those
11:10:52 lists of equipment are.
11:10:52 Q. How are you able to assure yourself on behalf of the
11:10:57 company that the contractor can provide the services that it is
11:11:05 promising to provide?
11:11:06 A. Well, fortunately for me, you know, I've been in the well
11:11:11 control community for a long time, so I know a lot of the

people. I've worked with a lot of them over the years, so I understands what their competency levels are and what they are capable of.

Secondly, you know, I'm familiar with the equipment. I can look at the equipment and verify its utility, whether or not it's going to be able to do our job or not.

I also look at their engineering, do they have the software they need to the help us assess and develop contingencies and techniques to remediate.

Q. Prior to the *Deepwater Horizon* event in April of 2010, did Wild Well Control, Cudd, or Boots & Coots have a deepwater capping stack available for use by you and others in industry?

A. No, sir. They did not.

Q. Do you know of any entity in the entire oil and gas industry that had prebuilt deepwater capping stacks prior to the *Deepwater Horizon* incident?

A. No, sir, there were not any.

Q. Why would you sign off on a contract like this with Wild Well even though they don't have or didn't offer at the time a deepwater capping stack?

A. Well, it's been my experience in the industry prior to Macondo that a Macondo-type capping stack had never been required.

We understood at that time that, you know, each well control event, each deepwater well control event could present

11:12:51 unique -- not opportunities, but unique conditions that would
11:12:55 need to be evaluated by specialists, and those unique
11:13:02 conditions prepared for, and develop the proper tooling that
11:13:09 was needed to do remediate and place a capping stack.
11:13:12 Q. Was a deepwater capping stack feasible before the
11:13:17 *Deepwater Horizon* incident?
11:13:18 A. Well, it depends on what you mean by feasible. There
11:13:23 was -- a piece of the dumb iron was available. By that, I mean
11:13:26 the ram-type equipment. The interfaces between the rams and
11:13:32 the well, for instance, the BOP's, was not available. That
11:13:37 technology hadn't been explored at that time.
11:13:41 Q. Just for a second, you've mentioned the term, the
11:13:48 "uniqueness of the event, every event is different."
11:13:50 Prior to the *Deepwater Horizon* event, had you, in
11:13:53 your entire career in the well control industry, ever seen a
11:13:58 document, paper, presentation that suggested that a
11:14:03 capping stack could or should be landed on the flex joint above
11:14:08 the LMRP?
11:14:11 A. Absolutely not. Everything that I had seen in my career
11:14:15 up to that point was that it was going to require removal of
11:14:18 the LMRP and cap the H-4 connector.
11:14:21 Q. The H-4 connector is where?
11:14:24 A. It is below -- well, one of them is right below the two
11:14:31 annulars, in between the annulars and the base of the BOP
11:14:35 stack.

11:14:38 Q. Mr. Mazzella, were there surface capping stacks that were
11:14:42 built before the *Deepwater Horizon* incident?
11:14:44 A. Yes, sir, there were.
11:14:45 Q. Can you describe those for the Court and how they were
11:14:50 used.
11:14:50 A. There were surface capping stacks that were developed
11:14:55 based on historical blowouts that most of the industry had
11:14:59 experienced.
11:15:02 In some instances, those stacks could be deployed and
11:15:06 used on a well with little modification. But, for the most
11:15:11 part, there was always some kind of modification that had to
11:15:15 happen with those BOP's to help guide them on, help them
11:15:20 facilitate their job.
11:15:20 We relied on the well control specialists to help us
11:15:24 understand what these needs were. Usually when those capping
11:15:29 stacks came out, there was a whole infrastructure to provide
11:15:32 that modification, be it engineering and operations, to build
11:15:35 that kind of interface.
11:15:36 Q. Thank you. I want to turn now to the response.
11:15:39 You were called the night of the incident and, I
11:15:44 think, drove to the incident command center at that point,
11:15:46 correct?
11:15:47 A. Yes, sir.
11:15:47 Q. What did you do once you arrived?
11:15:50 A. Well, the first thing that I did once I arrived was start

the process of getting the right people in place, helping formulate the teams, making sure our specialists were engaged and on their way.

One of the first phone calls I made was to David Barnett and Pat Campbell with Wild Well to get their folks out. I also called Boots & Coots and Cudd and asked them to put equipment and personnel at our disposal.

Q. Do you recall when your well control specialists arrived?

A. The Wild Well got there -- excuse me, the Wild Well team got there about six that morning, their people. The Boots & Coots and Cudd people started coming in later on that day and continued throughout the operation. As our different teams needed various support, you know, we kept that infrastructure moving.

Q. Why it is a good practice to have contractors come in immediately after an incident like this to help assess the situation and formulate the plan forward?

A. Well, as I mentioned previously, you know, these conditions are unique. You know, we bring these specialists in because of their knowledge. They understand, you know, the different conditions and the techniques that have to be employed to be able to remediate it effectively.

These guys see a lot of this stuff. You know, we listen to their input and help develop the procedures that are needed to bring equipment and people, and leverage everything

that we have to stop it. We also put them on our teams.

Q. Now, you did help set up some technical teams in response to the incident, correct?

A. Yes, sir. There were -- there were technical teams pulled together as provided by the well control response guide.

Q. Let's look at D-23328. If you'll just come on with the call-outs to that document, please.

Can you describe for Judge Barbier what this slide shows and how it relates to the response in the initial days after the event?

A. Yes, sir.

Your Honor, as you can see, to the left is a list of information talking about primary TRT, which is Tactical Response Team, which is engineering, Kill Team, Relief Team, Capping Team. This is some of the information that you have in the well control response guide that helps you populate your teams.

What you see on the right is actually what we did. There was an Engineering Support Team, Top Kill Static, Kill Team, Relief Well, Bottom Kill, you know, the same thing, Capping Team, Containment Teams.

So as you can see, there's a lot of similarity in the two. That's just because the teams followed the well control response guide.

One of the things that the well control response

guide did do and did recognize is that sometimes there are these unique conditions where we need to ramp up, and we need additional support. It identifies that.

In some instances here, we've had teams pulled together to evaluate considerations that a team member, a group of people may have come to the table and said, hey, guys, what do you think about this? Well, we would look to our response guys. We would get the right people, engage them, and study up on it, see if it was a viable option.

Q. What's your comment on the way in which the BP Team, the contractors and others that were brought in, responded to this event in the initial days in terms of getting organized and gathering the information necessary to understand the predicament or the issues that had to be dealt with?

A. Well, the two things that really, really come to mind here is that it was systematic, and it was in control. Everyone followed the guides. Everyone followed the direction of the teams.

As these teams were put together, you know, we made sure that the right people were there. Because, you know, you can put a team together; if you don't have the right people in it, it's not going to be very effective.

So it was important to us to get those right people in there and make sure that, you know, we didn't have a lot of people moving from team to team without this thing being

organized.

Q. As you undertook to understand the issues surrounding the blowout, were there guiding principles that you followed in the work that you did?

A. Absolutely. You know, the single most driving force for all of us was just don't make matters worse. We knew that there were several possible opportunities that we had to remediate this thing, but the one thing we kept in mind is we did not want to progress a technique that would shut the well in and, if it failed, prevent us from using an alternative technique.

This make it -- not make it worse mindset was carried through our teams at the lowest levels all the way through our executive management.

Q. I want to turn now to the issue of Top Kill. The Court has heard a good bit about this technique, but I want to get your perspective on a few of the issues.

First of all, what was your involvement in the Top Kill effort, please, sir?

A. I was part of the effort to design and implement the Top Kill program.

Q. Had you been successful with Top Kills prior to the *Deepwater Horizon* response in your career, over your career in well control?

A. Yes, sir, I have. I have performed hundreds of these

11:22:01 Top Kill type operations on surface wells, both on and
11:22:06 offshore. I've helped design them. I've pumped them.
11:22:10 You know, Top Kill type operations have met with
11:22:14 pretty good success. Personally, you know, I've experienced a
11:22:17 60 to 70 percent success rate in the ones that I've pumped.
11:22:20 Q. Had a Top Kill procedure like the one that was being
11:22:25 discussed for *Deepwater Horizon* ever been attempted before, to
11:22:29 your knowledge?
11:22:30 A. No, sir. There had never been a deepwater Top Kill --
11:22:36 excuse me -- type operation completed. Or even attempted, for
11:22:39 that matter.
11:22:40 Q. Did you have a view, based on your work with the team, as
11:22:50 to the sequence of events in May, that is, which was better to
11:22:56 do first, BOP-on-BOP or Top Kill?
11:23:02 A. I did. You know, the Top Kill was a procedure that we
11:23:08 could do and mitigate the risks, where BOP-on-BOP the risks
11:23:13 were much higher and much more difficult to remediate.
11:23:17 Q. Which of those techniques was ready first to be executed?
11:23:24 A. Well, the Top Kill procedure had been signed off on by the
11:23:32 Unified Command long before BOP-on-BOP did.
11:23:36 Q. Now, when you say that the risks associated with Top Kill
11:23:39 were less than the risks with BOP-on-BOP, what does that mean?
11:23:44 Explain that to the Court.
11:23:45 A. Well, the Top Kill we could place procedural and
11:23:52 mechanical barriers in place where we wouldn't overpressure the

11:23:56 well and where we wouldn't take a chance on -- on hurting the
11:24:00 integrity of the blowout well.
11:24:03 You could facilitate a softer shut-in, if you could,
11:24:09 where BOP-on-BOP had a lot of different risks. If you shut the
11:24:13 well in, it would be a hard shut-in, which is like a water
11:24:16 hammer, it really hits the well hard and has an impact
11:24:20 integrity.
11:24:20 There was also pieces about, you know, stacking a BOP
11:24:23 on top of another BOP. This thing weighed 200 tons. Is it
11:24:29 going to stand up there if we had to disconnect in hurricane
11:24:33 season, which we were approaching? Is it going to topple? We
11:24:37 didn't know the answer to these questions.
11:24:38 There were other issues as well. You know, trying to
11:24:42 understand how we can place it where it won't impact people.
11:24:45 Something that heavy just can't be lowered with, you know, a
11:24:49 cable. We had to have a way of landing it on the riser. And
11:24:55 what does that flow do that's coming through there? Does it go
11:24:59 to the vessel? All of these kind of things had to be worked
11:25:01 out.
11:25:01 Q. Just to back up for a second. In terms of the
11:25:04 organization of the response, we've got some teams here. What
11:25:08 was your involvement in the -- with the teams over late April,
11:25:13 May and June? What was your interaction with the teams?
11:25:17 A. Well, I was involved with all these teams. You know, my
11:25:20 support, like I had mentioned before, had to do with bringing

11:25:23 the right people in. Also, I would provide technical
11:25:27 assistance. I would answer questions that the teams may have.
11:25:31 I would also help them identify gaps and see if we couldn't
11:25:35 understand what it took to mitigate those gaps and risks.
11:25:39 Q. So pursuant to that, I'll ask you, did you attend a
11:25:43 Top Kill peer review on May 6th of 2010?
11:25:47 A. Yes, sir, I did.
11:25:47 Q. Let's see D-23881, which is TREX-142916.
11:26:00 Can you describe for the Court, please, what this is?
11:26:03 A. Yes, sir. When we do peer reviews, we pull together a
11:26:08 term of reference in some cases. And that's what this is.
11:26:12 It's representative of what we're going to discuss, which was
11:26:15 in this case, the junk shot and the two kill procedures.
11:26:19 Q. Can I stop you right there. Why is it a good thing to do
11:26:22 a Top Kill peer review? Why does that represent good practice?
11:26:26 A. Well, it's a really good tool to help us understand, you
11:26:31 know, what have we missed? Is there something out there that
11:26:33 the team hasn't looked at? And it's coming from a group of
11:26:37 people that isn't associated with the development of the
11:26:40 procedure or the technique.
11:26:41 Q. Let's look at D-23882, which is some further information
11:26:53 on the Top Kill peer review of May 6th. Can you pull that up,
11:26:59 please.
11:26:59 Can you just describe for the Court who the
11:27:03 participants were at this meeting. You mentioned folks would

11:27:06 come in from outside. Who was there?
11:27:08 A. Well, we had a lot of well control specialists. We had
11:27:14 some of our contractors that were there. We had some of our
11:27:18 colleagues from other operators, Chevron, Exxon, folks like
11:27:23 that. We had -- some of our distinguished petroleum
11:27:30 engineering professors from various universities were there.
11:27:34 Teams that were -- or guys that were, you know, capable of
11:27:39 providing the understanding and guidance that we needed if we
11:27:44 missed something.
11:27:44 Q. Now, let's turn over to D-23884, which is TREX-10506.
11:27:59 Can you describe for the Court what this is?
11:28:04 A. This is actually just a list of the findings. And,
11:28:07 basically, what it says, was with the Top Kill procedure, that
11:28:12 the team that came in to help us peer review this didn't find
11:28:18 any show-stoppers.
11:28:20 They did point out some things that we needed to
11:28:23 continue to progress, and we did. And -- but the reality is
11:28:29 they didn't find anything that said no, you should not do this.
11:28:32 Q. Let's go back to D-23882. And here are the high level
11:28:46 risks that were identified at the May 6th meeting.
11:28:50 What did you and other members of the team do to
11:28:53 mitigate -- deal with the risks that were identified in the
11:29:01 peer review on May 6th?
11:29:03 A. Well, all of this has to do with overpressurization,
11:29:05 whether it's the surface equipment or the downhole conditions

of the well. You know, the broaching and failure of the well internally. And, of course, how that impacts the relief well.

And, of course, the equipment failure that really impacts people.

From the people standpoint, we did lots of drills. We did lots of peer reviews. We would actually have people in these drills where folks would offer up problems that could pop up, and we would have to solve them realtime during these drills.

From the broaching standpoint, you know, as I mentioned earlier, we put procedural and mechanical boundaries in place so that while we were pumping the job, we couldn't exceed it. Even if we wanted to, the manual relief valves would discharge and not allow us to put excess pressure on a well.

From a subsurface standpoint, let's say all of that went wrong and somehow or another we did start charging a subsurface strata that could influence the relief well. Well, we looked at that, because it was a big concern. The relief well was one of those tools that we had a lot of confidence in.

So what we did was just understand, okay, there's an area in there where that is critical, so the best thing to do is case it off, make sure we drill that interval, get the casing set, and it's no longer a component so we can move forward with the operation.

11:30:38 Q. What was your personal view about moving forward with
11:30:44 Top Kill in late May?
11:30:47 A. Well, I agreed with it.
11:30:47 Q. Can you tell the Court why?
11:30:50 A. Well, Top Kill, as we mentioned, had opportunities to
11:30:55 mitigate risks. You know, we could mitigate the
11:30:59 overpressuring. We could mitigate the subsurface influence.
11:31:03 There were a lot of things that we had control over. All these
11:31:06 known problems that could be presented we had.
11:31:08 From a -- I guess, a -- well, from a BOP standpoint,
11:31:23 those risks would have been a lot more difficult.
11:31:28 Q. What happens if you undertake to do a BOP-on-BOP and the
11:31:32 BOP hangs up, you can't get the LMRP off the lower BOP? Can
11:31:36 you do the junk shot if that occurs?
11:31:38 A. Well, one of the big problems with trying a capping
11:31:42 operation, which is a little bit different than a BOP-on-BOP,
11:31:47 but nevertheless, where you have to remove the LMRP is, what if
11:31:50 you can't get the LMRP off? What if, because of some problem
11:31:56 inside the stack with drill pipe, whether it's buckled or
11:32:00 folded over itself, something that prohibits you from pulling
11:32:03 it off, then what do you do? You can't pick it up. You can't
11:32:08 set it back down. You've made matters worse now.
11:32:11 And there is not much mitigation that you can do for
11:32:14 that, because getting in there and trying to cut it is
11:32:17 something that had never even been looked at, much less

attempted. So it really reduces what you can and can't do.

Q. Would proceeding with BOP-on-BOP before Top Kill potentially take a source control option off the table?

A. Well, by performing Top Kill first, what you could do is, if it was unsuccessful, you could progress a BOP-on-BOP if you needed to.

If you tried to progress the BOP-on-BOP first, then that removal of the LMRP, which meant controlling the lower stack, would have been limited and would have made a Top Kill-type operation very, very difficult.

Q. Thank you.

Now I want to turn now to the actual implementation of Top Kill on -- beginning on May 26th. First, I'll ask you, do you know whether or not the United States of America approved initiating the Top Kill?

A. Yes, sir, they did. Every procedure that we did offshore had approval of the Unified Command.

Q. And will you describe for Judge Barbier, please, what your role was in the execution of the Top Kill technique.

A. I led the Forward Team that actually went offshore with a select, handpicked group of guys that have done that for the majority of their careers and implemented the approved procedures.

Q. Let's look at D-23334, which is TREX-142710.

And we have some vessels pulled up there, and I would

11:34:05 just like to ask you, Mr. Mazzella, if you can describe for the
11:34:12 Court the vessels that were there, what they were there for,
11:34:16 and then I'll get to the subsea setup after that, please.
11:34:22 A. Yes, sir. What you see here in the middle, the red and
11:34:26 white piece of this is the Q-4000. That's where all of our
11:34:32 riser attachments, all our bridging material that was part of
11:34:36 Top Kill was connected. It was what all the vessels supported.
11:34:44 You also see the *Centerline*, which had pumping
11:34:49 capabilities on it. It had cementing capabilities to backup
11:34:54 the cementing capabilities that were on the Q-4000. The
11:34:58 command center was also on the *Centerline*, where I was.
11:35:01 We had the *Strongline*, which was a sister ship that
11:35:07 had additional mud stores and support on it as well.
11:35:12 Those vessels -- the *Centerline* held around
11:35:15 30,000 barrels of mud and the cementing capabilities as well,
11:35:22 as I mentioned.
11:35:23 We also had backup to our horsepower. You see the
11:35:26 BJ Services' *Blue Dolphin*. That was our primarily kill vessel.
11:35:30 It had a lot of horsepower. It had a lot of mud capabilities
11:35:33 as well.
11:35:34 And then we also had backup to that, the Halliburton
11:35:38 *Stem Star*, which is a sister vessel. It can do the same thing
11:35:44 that the *Blue Dolphin* could.
11:35:46 The one thing that we're not showing here are the
11:35:48 vessels that provided all the ROV feeds. Because while we're

working this thing, we had to have eyes at the ocean floor. And, you know, we had six video feeds in the command center, and we needed backup for that, obviously. Plus we needed ROVs that would manipulate valving and things like that were part of the subsea architecture.

Q. Mr. Mazzella, at the time the Top Kill procedure was implemented, did you believe that there was a reasonable chance that it would succeed?

A. Absolutely.

Q. Would you have brought all these ships together and all these people to execute a procedure you thought wouldn't work?

A. Absolutely not. You know, we had close to 300 people offshore. There was probably twice that in the Crisis Center helping. You know, we had -- there was infrastructure everywhere that was helping us. You just speak to the logistics of getting everybody in place. The SimOps that was part of this, you know, to make sure that vessels didn't run over each other was a huge undertaking as well.

No, we wouldn't have tried this if we didn't think it would work.

Q. Let me move to a different question about the Top Kill. To your understanding, was the success of Top Kill dependent on flow rate?

A. No, sir. Top Kill had two components to it with respect to the Macondo Well: One was the placing of bridging material.

11:37:19 And the second was the momentum kill.
11:37:20 Q. There has been testimony in the case about the orifice
11:37:26 size within the BOP. Was the success of junk shot dependent on
11:37:34 orifice size?
11:37:35 A. Yes, sir, in part. Two things affect a junk shot: One
11:37:41 is, obviously, how big a hole you need to plug up or how many
11:37:44 holes you have to plug up. And secondly, is -- and, more
11:37:49 importantly, is, what kind of differential pressure is this
11:37:52 bridging material going to have to see.
11:37:55 In other words, when it goes into place and it plugs
11:37:58 itself off and the well starts building pressure up, you know,
11:38:02 that pressure affects the success of that bridging material.
11:38:05 If it isn't placed right or the hole is too big or, you know, a
11:38:11 lot of different factors, it can fail the bridging material.
11:38:14 Q. Can you describe just for the Court what was the size of
11:38:18 bridging material that you were able to get into the system?
11:38:21 A. Yes, sir. We were limited to -- the lines on the *Horizon*
11:38:27 stack is 3-inch. The biggest material we pumped was 2 7/8 in
11:38:32 outside diameter.
11:38:32 Q. How can you use small sizes of bridging material to stem
11:38:39 flow in an orifice that is bigger than the material that you're
11:38:43 putting into the system?
11:38:45 A. Yes, sir. It's all about sequencing. It's all about
11:38:49 getting the right material to start with and sequencing it over
11:38:53 a period where it can build on itself.

11:38:55 It's kind of like, you know, you hear the thing from
11:38:58 your heart doctor, hardening your arteries, how things just
11:39:02 build up over time as you pump through it. It's the same thing
11:39:05 here. You have to sequence your shots; you like to put the big
11:39:09 stuff in first and the small stuff to follow up to help close
11:39:13 it off.
11:39:14 Q. That gave me a little chest pain.
11:39:16 A. Sorry.
11:39:17 Q. Let's see D-23829A.1.1. And this is a demonstrative we've
11:39:31 seen before, but I would just like to get your perspective on
11:39:35 how the junk shot is used to assist in the procedure.
11:39:41 A. Okay. This is -- this hopefully will help us understand
11:39:47 this thing, because I can understand someone that has never
11:39:50 done a junk shot or a Top Kill operation, you would think, man,
11:39:53 this is crazy, but it's actually a really proven technique.
11:39:58 What you've seen here so far is the mud coming into
11:40:01 the *Horizon* stack from surface, from the Q-4000. It introduces
11:40:08 itself into the flow stream. And what this does is help us
11:40:13 understand what's open? What's closed? Can we pump? Can we
11:40:16 facilitate placement of the junk shot?
11:40:18 If we can move this thing a little bit forward, yeah.
11:40:23 So we pump the mud, and as we're pumping it, we
11:40:26 introduce the bridging material. It starts off big, ends up
11:40:30 smaller. And as it goes in, it starts to bridge itself. It
11:40:35 starts to pack off in various areas where the well could be

leaking through. As it builds on itself, it starts to stem the flow.

And if we could continue on.

As you can see, it builds and builds and builds until it's finally stemmed the flow. And then we go ahead and continue on and we can facilitate the kill mud that goes in and pumps downhole and end up killing the well.

Q. Can you describe for Judge Barbier how this material builds on itself within the BOP and how the sequencing of materials and the size of materials helps with that?

A. Yes, sir. It's real important to sequence it. We had the big material placed on a manifold subsea real close to well. It was designed as a junk shot manifold. Those were progressed into the wellbore and into the stream first.

From there, all the other material came from the Q-4000 some 5,000 feet way. And those materials, we had a manifolding setup there with *shot cannons*, we called them, probably a poor representation of that, but that's what it was, where we could shoot different sizes of material based on the responses that we saw from pressure and flow.

As it does that, of course, the big stuff goes in and then you start layering this thing and it starts building a bridge where additional material can get in there and support your stemming the flow.

Q. Was there a time during the process that folks believed

that it might be working, that the junk shot might be successful?

A. You know, we saw some indications early on, on some pressure spikes. Of course, at that time, you know, the Forward Team, it was a little bit difficult to interpret them because we didn't see any change in the flow.

Once we -- we had expired all of the bridging material -- and it's helpful to understand that those of us that had done this stuff, these junk shots, you know, I had the majority of guys right offshore with me. We had done six or eight of these shots over our careers for various wells. We pumped 22 of them here. And was completely unsuccessful.

When we brought the pumps on to try and see if we could -- you know, if some of the bridging material had worked and we just hadn't seen it, we saw some pressure changes, but eventually we saw a flat line where we weren't putting mud downhole.

Q. Okay. Thank you.

Just a couple more questions about the Top Kill. If we could see D-24342, which is Exhibit 142710, please.

You referenced a few minutes ago some manifolds and how they were used in the junk shot procedure. Can you use this diagram to help Judge Barbier understand where these manifolds were, what they did, and if they were helpful as part of your risk mitigation for the junk shot?

11:43:59 A. Yes, sir.

11:44:00 Your Honor, as you see on to the right, there is a
11:44:04 riser going back to surface. That was the tie into the Q-4000.
11:44:08 Okay. That's where all the mud and the junk material, bridging
11:44:14 material from surface was pumped.

11:44:16 From there, there is a header and two lines going
11:44:20 into another manifold on the seabed. That manifold is the one
11:44:26 that had the large material in it, where we could sequence them
11:44:29 one at a time if we needed to.

11:44:31 There was some uniqueness about this manifold. It
11:44:36 had capabilities to vent, which is one of our mitigation tools
11:44:42 that we had. Let's say that this thing pumped and it shut
11:44:47 everything off and there was a concern about wellbore
11:44:50 integrity. Well, we looked at that, and we could, through this
11:44:53 manifold, release the well pressure and even set up where we
11:44:56 could collect off of it as well.

11:44:57 Then, of course, two lines into the BOP stack where
11:45:02 we could sequence them if we had to, or when we tried the
11:45:05 momentum kill, we could open everything up and pump.

11:45:07 The interesting part about this is the manifold
11:45:11 subsea was completely cycled. It was operated by ROVs. So we
11:45:17 could move these valves. We could open. We could close.

11:45:20 We could also do the same thing with the base stack
11:45:23 on the BOP to do our diagnostics to figure out what was opened
11:45:28 or closed.

11:45:28 Then, of course, there were other ROVs that were our
11:45:32 eyes down there so we could see what was going on.
11:45:35 Q. One more topic, Mr. Mazzella. After the procedure was
11:45:42 unsuccessful, were you involved in the work that went forward
11:45:48 in terms of developing the capping stack?
11:45:52 A. Yes, sir, I was.
11:45:55 Q. What involvement did you have with the Capping Team that
11:46:00 eventually shut in the well in July of 2010?
11:46:03 A. Well, one of the more important things was making sure we
11:46:08 had the right people there. As I mentioned before, some of our
11:46:11 well control providers had unique capping capabilities and
11:46:15 competencies, so we made sure those guys were part of the team.
11:46:19 We helped -- helped look at some of the risks and how
11:46:23 to mitigate those.
11:46:25 We actually took some of the information from our
11:46:29 BOP-on-BOP efforts and tried to see, you know, how that's going
11:46:35 to fit. Because at that time, we didn't understand exactly how
11:46:37 the flow was going to affect placement of the BOP. You know,
11:46:40 the hydrates, how is that going to be a part of this thing?
11:46:43 How do we mitigate that risk?
11:46:44 So I would help the teams identify those risks and
11:46:47 help them technically, see if we couldn't resolve the issues.
11:46:50 Q. Do you have familiarity with the differences between the
11:46:55 capping stack option that was used to shut-in the well and the
11:47:03 BOP-on-BOP option that was being considered?

11:47:06 A. Yes, sir. The BOP-on-BOP option was going to require a
11:47:12 lot more effort. As we mentioned before, it was a hard
11:47:17 shut-in. And then if we had to relieve pressure, it only had a
11:47:22 couple of conduits off of it that were going to be accessible
11:47:25 to us.
11:47:26 And, of course, there was that whole risk profile of
11:47:28 getting it installed and how that was going to affect our teams
11:47:31 at surface.
11:47:31 Q. One of the witnesses in this case has said that getting
11:47:33 the LMRP off and dropping another BOP on top of the lower BOP
11:47:41 would be easy as cake. Nothing to it. Do you agree with that?
11:47:46 A. Boy, that would have been some pretty rough cake to eat.
11:47:49 I don't know how you would -- you know, I don't know what he
11:47:52 meant by a piece of cake, but it's a pretty tough undertaking.
11:47:59 Q. Now, can you describe why that would be a tough
11:48:02 undertaking?
11:48:03 A. Well, as we discussed, just getting this thing on the well
11:48:09 is going to be tough. Getting the LMRP off was the big issue.
11:48:13 You know, there was some tremendous amount of uncertainty on
11:48:17 whether we could even pull that off.
11:48:19 You have a bent riser, you had to cut it off. There
11:48:22 were pieces of this thing that just especially had to be
11:48:26 dismantled.
11:48:28 And, frankly, if the LMRP system had operated
11:48:31 correctly when the *Horizon*, you know, hit their emergency

disconnect, it would have disconnected and it didn't. So, you know, we knew there were some issues with it.

Where the capping stack is lightweight, we could set it up for collection, so if we did get on the well, which we felt confident of once we worked out our interface, that if we couldn't shut the well in, we had a better opportunity to collect and stop putting oil into the Gulf. That was that whole piece about not making matters worse, not broaching.

Q. I would like to just ask you one more question, and that is, if you will, to summarize for Judge Barbier your view of the quality the company's preparedness and its response to this unfortunate event.

A. Well, in all honesty, Your Honor, I've been associated with remediating some of the worst catastrophes in oil field history, one of which was Kuwait. There were 746 wells on fire and a tremendous amount of infrastructure that came together to resolve that.

Same thing here. There were a group of people, oil field professionals, specialists, regulatory people, government people, that all came together with the same thought in mind: Let's stop this thing. Put politics aside. Put whatever aside. We have to stop this well.

And I'm going to tell you it was a tremendous effort, and I was glad to be a part of the fix. I hope like heck we never ever have to experience something like this again. But

11:50:12 if we do, I hope we have that team available to us.

11:50:17 MR. BROCK: Thank you, Mr. Mazzella.

11:50:21 THE COURT: Who is going to do the cross-examination? How long do you expect to be on cross-examination?

11:50:32 MR. PETOSA: Your Honor, Frank Petosa for the PSC and aligned parties. I anticipate approximately an hour.

11:50:36 THE COURT: All right. Let's take lunch, and we'll come back at 1 o'clock.

11:50:43 (WHEREUPON, at 11:53 a.m., the Court was in luncheon recess.)

11:53:38 * * *

11:53:39

REPORTER'S CERTIFICATE

I, Cathy Pepper, Certified Realtime Reporter, Registered Merit Reporter, Certified Court Reporter of the State of Louisiana, Official Court Reporter for the United States District Court, Eastern District of Louisiana, do hereby certify that the foregoing is a true and correct transcript to the best of my ability and understanding from the record of the proceedings in the above-entitled and numbered matter.

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