

Deposition Testimony of:

Philip Lee

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Page 439:24 to 440:24

00439:24 Q. Once aboard the Deepwater
25 Horizon, what did you do to familiarize
00440:01 yourself with the equipment, the rig, and
02 its crew?
03 A. I was introduced to the captain
04 and OIM. I went through a rig orientation
05 on lifeboats, emergency evacuation
06 procedures and I was introduced to the
07 drill crews, the drillers, and just
08 basically walked around the rig, asked
09 questions, was -- was told about the rig.
10 Q. Your practice was to -- was to
11 interact with the crew and spend many hours
12 on the rig floor?
13 A. Yes, sir.
14 Q. How long would you say it took
15 you to really get comfortable with the rig
16 and its crew, from an operations
17 perspective?
18 A. I don't know how to answer that.
19 I mean -- I don't know.
20 Q. Certainly your level of
21 confidence would -- would rise as you spent
22 more time on the rig and saw its -- all of
23 its equipment and operation?
24 A. Yes, that's a fair statement.

Page 441:24 to 442:09

00441:24 To your knowledge in the months
25 you were assigned to the Deepwater Horizon,
00442:01 did Mr. Kaluza ever work a hitch aboard the
02 rig?
03 A. I don't know.
04 Q. You were not aware that he ever
05 had?
06 A. No, I wasn't.
07 Q. He was not a well site leader
08 any time that you were onboard working an
09 opposite tour?

Page 442:12 to 443:24

00442:12 A. A well site leader on the
13 Horizon?
14 Q. Yes.
15 A. Not that I am aware of. I don't
16 know.
17 Q. Was your experience on the
18 Deepwater Horizon the only time that you've
19 ever been a well site leader in deepwater?
20 A. Yes.

21 Q. What was the extent of your
22 experience, if any, in other assignments in
23 deepwater drilling? Had you had any other
24 assignments, be it -- although not as a
25 well site leader -- leader?

00443:01 A. For BP?

02 Q. For BP.

03 A. Yes, I went one week on Ocean
04 Confidence. I don't remember the time, but
05 I went a week on Ocean Confidence. I
06 wasn't assigned as a well site leader. I
07 went and spent a week, ran an expandable
08 liner.

09 Q. What month and year was that, if
10 you recall?

11 A. I don't recall.

12 Q. Have you had any other deepwater
13 experience for companies other than BP?

14 A. As a well site leader?

15 Q. Yes.

16 A. No, sir.

17 Q. In any other capacity?

18 A. Yes, sir. In the early '70s, I
19 worked for three months with Diamond M on
20 the New Era.

21 Q. In what role?

22 A. I was hired as a driller, worked
23 derricks while another guy could train on
24 the break, and I quit after three months.

Page 444:05 to 444:10

00444:05 Q. You gave some testimony about
06 cement testing. I'm going to see if I got
07 this right. Did you testify that you want
08 to see 12-, 24- and 48-hour cement
09 compressive strength results before doing a
10 cement job?

Page 444:13 to 444:23

00444:13 A. I -- I think I testified that I
14 would look at the 12, 24, and 48
15 compressive strength, yes.

16 Q. If available?

17 A. If available.

18 Q. Why do you want to see the
19 48-hour compressive strength result?

20 A. I don't know. It's just a habit
21 to see what it is. If it's 2000 pounds,
22 3000 pounds. I don't really have a reason
23 for it, I just want to see what it is.

Page 446:08 to 446:10

00446:08 Q. You have never run a nitrogen
09 cement job before, have you?
10 A. No, sir.

Page 447:01 to 447:04

00447:01 Q. Well, you're -- your knowledge
02 of how to perform the job of a well site
03 leader, has it been primarily based on
04 on-the-job training in the field?

Page 447:07 to 448:05

00447:07 A. Not primarily, no, sir.
08 Q. All right. What -- what -- what
09 has been the primary source of your
10 education or knowledge of how to do the
11 well site leader's job in deepwater
12 drilling?
13 A. The deepwater drilling part is
14 not any different from any other drilling
15 part. So the -- the -- I think I expressed
16 yesterday that I had been to technical
17 schools and things like that as far as
18 drilling the well. So I -- the education
19 part is what's got me throw'd off,
20 Mr. Clements. It -- when you say deepwater
21 in drilling --
22 Q. Okay.
23 A. -- okay, well, you drill whether
24 it's deepwater, or shallow water, or on
25 land. So I have had training in the
00448:01 drilling aspect of it.
02 Q. What about in temporary
03 abandonment procedures? Have you had
04 training in temporary abandonment
05 procedures?

Page 448:08 to 448:19

00448:08 A. No, sir.
09 Q. Have you ever served as well
10 site leader in deepwater when a temporary
11 abandonment procedure was undertaken?
12 A. No, sir.
13 Q. Have you ever installed a float
14 collar in a deepwater production interval
15 shoe track?
16 A. No, sir.
17 Q. Have you ever run a cement bond
18 log in the production interval of a

19 deepwater well?

Page 448:22 to 448:24

00448:22 A. I don't know.
23 Q. You don't recall having done so?
24 A. I -- I don't recall.

Page 449:06 to 449:08

00449:06 Q. Have you ever installed a long
07 casing string in the production interval of
08 a deepwater well?

Page 449:11 to 449:14

00449:11 A. No, sir.
12 Q. Have you ever performed a
13 positive pressure casing test in a
14 deepwater well?

Page 449:17 to 450:05

00449:17 A. Yes, sir.
18 Q. On what wells?
19 A. Kodiak 2 and Macondo.
20 Q. And when did you do a positive
21 pressure test on the Macondo well?
22 A. I don't recall the date.
23 Q. Was it aboard the Deepwater
24 Horizon?
25 A. Yes, sir.
00450:01 Q. Have you ever performed a
02 positive pressure test -- excuse me -- a
03 positive pressure casing test after
04 nitrogen cement was used to cement the
05 casing?

Page 450:08 to 450:11

00450:08 A. No, sir.
09 Q. Have you ever displaced a
10 deepwater well with water prior to
11 temporarily abandoning the well?

Page 450:14 to 450:17

00450:14 A. No, sir, not that I can recall.
15 Q. Have you ever displaced the mud
16 in the well with water before setting a
17 surface plug?

Page 450:20 to 450:24

00450:20 A. Deepwater?
 21 Q. Yes.
 22 A. No, sir.
 23 Q. You have never set a surface
 24 plug in a deepwater well?

Page 451:02 to 451:04

00451:02 A. No, sir, not that I can recall.
 03 Q. Have you ever run a seal
 04 assembly in a deepwater well?

Page 451:07 to 451:08

00451:07 A. No, sir, not that I can recall.
 08 Q. Or a lockdown sleeve?

Page 451:11 to 451:14

00451:11 A. No, sir.
 12 Q. Do you feel like you would have
 13 had the expertise to do those tasks on the
 14 Deepwater Horizon in April 2010?

Page 451:19 to 451:22

00451:19 A. I don't know.
 20 Q. Have you ever had specific
 21 instruction to perform those tasks in
 22 deepwater, in a deepwater well?

Page 452:02 to 452:04

00452:02 A. What tests?
 03 Q. The ones I just covered with
 04 you.

Page 452:07 to 452:11

00452:07 BY MR. CLEMENTS:
 08 Q. Setting a seal assembly, setting
 09 a surface plug, displacing mud to seawater
 10 3300 feet?
 11 A. Not that I can recall.

Page 453:13 to 455:20

00453:13 In the course of responding to

14 Mr. Clements' questions and some others,
15 you talked about the time you spent on the
16 rig beginning in August of '09, and you had
17 an opportunity to work with the crew on the
18 Deepwater Horizon; is that right?
19 A. Yes, sir.
20 Q. Had an opportunity to meet the
21 Transocean and service contractors that
22 were working on the rig?
23 A. That's correct.
24 Q. Did you have an opportunity to
25 work with the Halliburton mudloggers on the
00454:01 Deepwater Horizon?
02 A. Yes, I did. One in particular
03 worked the same tour that I worked.
04 Q. Is that Joe Keith?
05 A. It is.
06 Q. Can you describe the
07 relationship you had with Joe Keith?
08 A. I think it was professional. I
09 think it was -- was a working relationship
10 for a service provider that was working for
11 BP. And cordial to each other and --
12 Q. Yours and his hitches and tours
13 tended to align?
14 A. Yes, sir.
15 Q. You and he worked together a lot
16 of the eight months or so you were on the
17 rig?
18 A. That's correct.
19 Q. And did you ever form any
20 opinions as to his quality and skills as a
21 mudlogger?
22 A. Yes, I did.
23 Q. What opinion was that?
24 A. I thought he was very good at
25 what he did. I thought he was a good
00455:01 mudlogger.
02 Q. Do you have any -- any doubts
03 about his skill or ability?
04 A. No, sir.
05 Q. Anything he did over the course
06 of that eight months led you to have any
07 questions about his competence?
08 A. No, sir.
09 Q. You viewed him as a
10 conscientious, capable mudlogger?
11 A. Yes, sir.
12 Q. He could do the job?
13 A. Yes, sir.
14 Q. When we talked yesterday or when
15 you testified yesterday about simultaneous
16 operations, I think you testified, and
17 correct me if I'm wrong, but the rig
18 engaging in simultaneous operations can

19 impact a mudlogger's ability to do his job,
20 can't it?

Page 455:23 to 457:15

00455:23 A. It's my opinion that -- that
24 activities on the rig can alter what he
25 sees on his screen, yes, sir.
00456:01 Q. Can you explain how that would
02 alter what he sees on his screen?
03 A. For a pit volume totalizer, a
04 PVT system, or even a trip tank, and even
05 just a little extent on the Horizon with a
06 percent of flow on return, if a crane is
07 swinging a lift and lowering a lift and
08 swinging back, the rig tends to move and it
09 would change the readout. It would change
10 the PVT total and the percent of flow
11 return total.
12 Q. So crane movement can affect the
13 pit volume changes reflected on the Sperry
14 monitors?
15 A. Yes, sir.
16 Q. The crane movement can also
17 affect the flow-out readings on the Sperry
18 monitors?
19 A. To some extent. It wasn't that
20 great of an extent on the flow return
21 percent.
22 Q. And would that be same true for
23 the -- those monitors for Transocean?
24 A. Yes, sir.
25 Q. Other activities on the rig
00457:01 influence the data that is received by the
02 Sperry mudloggers other than crane
03 movement?
04 A. I don't recall any.
05 Q. Okay. For example, normal sea
06 conditions, if you're taking heavier waves,
07 that can influence pit volume change?
08 A. It could, yes.
09 Q. It could influence the flow-out
10 return readings?
11 A. Yes, sir.
12 Q. Would you agree that it makes it
13 more difficult for the mudlogger to monitor
14 downhole conditions if a lot of activity is
15 going on simultaneously on the rig?

Page 457:18 to 457:22

00457:18 A. I think so, yes.
19 Q. Did you ever have any doubts
20 about Joe Keith's ability to monitor what

21 was going on on the rig?
22 A. No, sir.

Page 458:02 to 460:02

00458:02 Q. What is your understanding of
03 what the mudlogger does on the Deepwater
04 Horizon?
05 A. My understanding was that the
06 mudloggers track the parameters, the rate
07 of penetration, the depth of the bit, pit
08 volumes totals, return percent flow. They
09 go to the shale shakers and take a sample
10 of the return cuttings, clean them, analyze
11 them to the extent of sand, bag them, tag
12 them, get ready to send the samples in,
13 provide reports, communicate with the
14 driller and the AD.
15 Q. What would they communicate with
16 the driller and AD about?
17 A. If he saw a change or if -- if
18 something were taking place that -- that
19 concerned him on his monitor, he would call
20 the driller and ask him if -- if anything
21 was going on, if the crane was working, the
22 crane was moving, or whatnot. He would
23 just communicate with the drill crew on any
24 changes that he might see.
25 Q. Okay. It seems like in your
00459:01 description of your understanding of a
02 mudlogger's job, it sort of falls into
03 three categories. They're monitoring
04 certain parameters, they're checking
05 samples and bagging and tagging them, and
06 then communicating with the driller and AD
07 about what they are seeing downhole; is
08 that fair?
09 A. Not necessarily what they are
10 seeing downhole, but what they are seeing
11 on the PVT and the percent of flow.
12 Q. What they see on their monitors
13 reflecting downhole conditions?
14 A. Correct.
15 Q. What is your understanding of
16 why the mudloggers are monitoring those
17 parameters reflecting downhole conditions?
18 A. I don't know why BP hires them.
19 I mean, that --
20 Q. Fair to say that they are sort
21 of a second set of eyes to detect trends in
22 what's going on downhole?
23 A. Yes, that's a fair statement.
24 Q. The driller, the AD, the
25 drilling crew are the -- have the primary
00460:01 responsibility for monitoring downhole

02 conditions; would you agree with that?

Page 460:05 to 460:09

00460:05 A. I think so, yes, sir.
06 Q. So then the mudloggers perform
07 the second set of eyes, and then if they
08 see something, then they will report to the
09 drilling crew in your experience?

Page 460:12 to 460:19

00460:12 A. Yes, sir.
13 Q. You testified yesterday about
14 several well control events, the March kick
15 and early April kick. In your experience,
16 both on the Deepwater Horizon and in
17 general, whose responsibility is it
18 primarily to -- to monitor the well to
19 detect kicks in advance?

Page 460:22 to 460:22

00460:22 A. The driller.

Page 461:04 to 461:07

00461:04 Q. Based on your eight months on
05 the Deepwater Horizon, did you have any
06 experience with the drilling crews in terms
07 of not timely detecting kicks?

Page 461:10 to 462:04

00461:10 A. No, sir.
11 Q. What about with the mudloggers,
12 any experience with them not timely
13 detecting kicks?
14 A. No, sir.
15 Q. I think also you testified
16 yesterday about the data on the monitors
17 that the mudloggers were watching, that
18 that was also available to you in the
19 company man's office?
20 A. That's correct.
21 Q. Now, is that -- is that
22 transmitted throughout the rig on the
23 closed captioning TV systems?
24 A. The TVs that I turned on, I
25 could access that channel in my bedroom, in
00462:01 the office. There was one in the
02 conference room that you could access. So

03 as far as all of the TVs, I don't know. I
04 know some of them.

Page 462:11 to 462:14

00462:11 Q. The monitors or the TVs that you
12 had access to and periodically watched, you
13 could see the same data that the mudloggers
14 were watching and transmitting?

Page 462:17 to 463:09

00462:17 A. I don't know what all they
18 transmitted off site. I could select a
19 channel on the TV and see what was
20 presented and there was a monitor in the
21 driller shack, a monitor in their office, a
22 monitor in my bedroom that presented the
23 same data, so --
24 Q. Did you have occasion while you
25 were on the Deepwater Horizon to visit the
00463:01 mudlogger shack?
02 A. Yes, sir.
03 Q. And did you see the
04 configuration of the shack and the various
05 monitors that the mudloggers watched?
06 A. Yes, sir.
07 Q. Are you familiar with the data
08 that the mudloggers were watching on the
09 Deepwater Horizon?

Page 463:12 to 463:18

00463:12 A. Yes, sir, I think so.
13 Q. When you -- how often did you
14 look at the TV to see the data?
15 A. I don't know how often I looked
16 at it.
17 Q. You had occasion to do that?
18 A. Yes, sir.

Page 464:04 to 464:22

00464:04 Q. Fair point. In terms of your
05 visits to the mudlogging shack, you could
06 see the types of data that was being
07 monitored. For example, the rate of
08 penetration, stand pipe pressure, flow-out,
09 that sort of thing; is that fair?
10 A. Yes, sir.
11 Q. In terms of the type or the
12 categories that were being monitored in the
13 mudlogging shack, were those the same

14 categories that were then visually
15 presented to you on a closed captioned TV
16 systems, the monitors to which you had
17 access?

18 A. For the most part, best I
19 recall, yes.

20 Q. Anything come to mind that was
21 not available to you on the closed
22 captioned TV system?

Page 464:25 to 464:25

00464:25 A. Nothing comes to mind, no.

Page 465:12 to 465:24

00465:12 Q. I was going to ask about both
13 actually. Let's start with the Sperry Sun.
14 Are you familiar with what the drillers
15 could see in the drilling shack from the
16 Sperry Sun data?

17 A. If I -- as I recall, it was the
18 same screen that I could see in the office
19 or the bedroom or anything on the closed
20 circuit.

21 Q. So the same thing you could see
22 on the closed captioning TV when you
23 periodically looked at it, the drillers
24 could see in the drilling shack?

Page 466:02 to 468:04

00466:02 A. Yes, but the mudlogger would
03 have to -- from the drilling screen to the
04 tripping screen, the mudlogger would have
05 to send that data to the drill floor and
06 it -- even in the office, if I were in the
07 office and I knew we were fixing to pull
08 out of the hole, maybe they were
09 circulating, finishing circulating bottoms
10 up, then I could see his drilling screen.

11 And if I went to the floor,
12 typically I would have to ask, would you
13 put -- display the tripping screen, which
14 has the trip tanks on it, rate of movement,
15 block height, and those things on it for
16 pulling out, that the mudlogging unit is
17 capturing.

18 The -- so if I went back down to
19 the office, he would have to pipe that same
20 screen. He would have to flip it to give
21 it to me if I wanted the tripping screen in
22 the office. So it wasn't everything that

23 he displayed on the closed circuit. You
 24 would typically -- and Joseph and some of
 25 the rest of them got to where they would
 00467:01 automatically send the tripping screen to
 02 the driller if he knew he was tripping and
 03 things like that. So it -- I'm saying too
 04 much to say nothing, but -- yes.
 05 Q. I appreciate that. If I
 06 understand then, there was a standard set
 07 of data that was transmitted, at least to
 08 those monitors you discussed, there was a
 09 subset of what the mudloggers were
 10 watching?
 11 A. It was -- it would be a subset
 12 in my opinion of one of the screens that
 13 the mudlogger could display on the -- on
 14 the closed circuit.
 15 Q. And then depending on rig
 16 activities, you or the driller could then
 17 request additional or different data to be
 18 transmitted to monitor, for example, when
 19 you're tripping?
 20 A. Yes, sir.
 21 Q. Did you ever have occasion to
 22 ask for certain data to be sent to you that
 23 was not, the mudloggers refused to provide?
 24 A. No, sir.
 25 Q. Separate and apart from the
 00468:01 Sperry Sun monitor in the drilling shack,
 02 was there additional data available to the
 03 drillers, assistant driller, the drilling
 04 crew, about downhole conditions?

Page 468:07 to 468:12

00468:07 A. You would have to tell me what
 08 you mean by downhole conditions.
 09 Q. Rate of penetration, stand pipe
 10 pressure. Was there other data available
 11 to the drillers separate and apart from the
 12 Sperry Sun data being transmitted?

Page 468:15 to 469:21

00468:15 A. Yes. Yes, sir.
 16 Q. What additional data was there?
 17 A. It was the PVT, the percent of
 18 flow, block height, rate of penetration,
 19 torque, rpm of the top drive, as you said,
 20 pump pressure, stand pipe pressure, pump
 21 strokes per minute, pump strokes per minute
 22 total.
 23 Q. During the course of your eight
 24 months on the Deepwater Horizon, did you

25 have occasion to gain an understanding of
 00469:01 the various monitors and sensors that were
 02 on the rig to detect those parameters?
 03 A. The monitors and sensors is the
 04 question. I never physically went and
 05 looked at a sensor.
 06 Q. But you knew they were there?
 07 A. They would pretty well have to
 08 be there for it to work, yes.
 09 Q. Are you familiar with the high
 10 tech?
 11 A. Yes, somewhat. I'm not an
 12 expert on it.
 13 Q. Understood. Nor am I. What is
 14 your understanding of what the high tech
 15 system was?
 16 A. It was the whole chair, the
 17 design of the chair, the way the driller's
 18 chair operated, the monitors that he had,
 19 the CCU, the computer that controlled the
 20 operation of the drawworks and the rig and
 21 his monitors on the rig.

Page 470:03 to 470:05

00470:03 Q. With respect to the mudloggers,
 04 would it be uncommon for a mudlogger to
 05 take a break during his 12-hour tour?

Page 470:08 to 470:13

00470:08 A. I never watched them that close.
 09 I don't know.
 10 Q. Would it surprise you for a
 11 mudlogger during his 12-hour tour to take a
 12 break?
 13 A. No, it wouldn't.

Page 470:21 to 471:19

00470:21 Q. Would you -- would you fault a
 22 mudlogger for taking a break at some point
 23 during his 12-hour shift?
 24 A. No, sir.
 25 Q. Have you heard of any criticisms
 00471:01 of Joe Keith for having taken breaks during
 02 his mudlogging shifts?
 03 A. No, sir.
 04 Q. Did you ever criticize Joe Keith
 05 for taking breaks?
 06 A. No, sir.
 07 Q. Did you ever criticize Joe Keith
 08 for anything with respect to his

09 performance on the Deepwater Horizon?
10 A. Yes, sir.
11 Q. What was that?
12 A. Not displaying the tripping
13 screen on the rig floor when he knew we
14 were tripping.
15 Q. When was that?
16 A. Two or three times. It didn't
17 take long for Joe to pick up we need to
18 present that up there. A couple of times.
19 I don't remember when it was.

Page 473:21 to 474:21

00473:21 Q. So in some sense, the Sperry Sun
22 and high tech systems had various
23 redundancies?
24 A. Yes, sir.
25 Q. And you wanted to see both sets
00474:01 of data to ensure consistency or verify the
02 accuracy of the data you were monitoring?
03 A. That's correct. And also to
04 have redundancy in case one of them fell on
05 its face.
06 Q. Were both of those available to
07 the Transocean drilling crew?
08 A. Well, certainly the one in high
09 tech was theirs and Sperry Sun had a
10 monitor beside the driller's chair.
11 Q. And you said that -- that in
12 your -- or in those instances, you would
13 have expected Mr. Keith to know that the
14 rig was tripping; is that right?
15 A. Yes, sir.
16 Q. How does the mudlogger know
17 what's going on on the rig?
18 A. When they pump a slug and they
19 start pulling out of the hole and -- the
20 mudlogger should know that they are not
21 drilling. So --

Page 476:19 to 476:23

00476:19 Q. Now, setting aside the issue
20 with the trip tanks, in general when the
21 mudlogger's in his shack monitoring the
22 various data he's receiving, how is he
23 aware of what's going on on the rig?

Page 477:01 to 477:20

00477:01 A. I don't know that. I mean, I
02 don't know how -- various means of

03 communication.

04 Q. What means of communication are
05 those?

06 A. They had the GAI-Tronics, the
07 intercom system throughout the rig. There
08 was the telephone call. I mean, there's a
09 phone that they could call him. He could
10 hear announcements over the intercom. The
11 shaker hand would typically line up the
12 trip tanks and you could hear him on the
13 intercom system say, The trip tank's lined
14 up, trip tank on the hole, or -- and Joseph
15 could hear that because he had a speaker in
16 his mudlogging shack.

17 Q. So when -- when the rig crew
18 announces the next activity, the mudlogger
19 should hear that as well?

20 A. He could. Yes, he should.

Page 478:12 to 478:22

00478:12 Q. Was it your standard practice to
13 advise the rig crew what was going to
14 happen in the next 12-, 24-hour period?

15 A. Yes, sir.

16 Q. Do you know if that was the same
17 for other well site leaders?

18 A. I do not know.

19 Q. Would it surprise you if Joseph
20 Keith testified that you did a good job
21 about doing that, but other well site
22 leaders did not?

Page 478:25 to 479:05

00478:25 A. I have no opinion on that,
00479:01 so --

02 Q. Have you seen e-mail
03 correspondence involving the other well
04 site leaders in which they did do that on
05 the Deepwater Horizon?

Page 479:08 to 479:08

00479:08 A. I don't recall any.

Page 479:17 to 483:02

00479:17 Q. Was it your practice to monitor
18 the data during any specific operations on
19 the rig?

20 A. Yes, sir.

21 Q. Which operations would you -- be

22 important to you to actually monitor data
23 being transmitted?

24 A. All of them; drilling, tripping.

25 Q. So when you say that you had the
00480:01 monitor available to you, that one of the
02 channels on the closed circuit TV displayed
03 some Sperry data, how often did you monitor
04 that?

05 A. I don't know how often I
06 monitored it. When I wanted to or if I
07 felt like I needed to. I don't know. I
08 couldn't tell you.

09 Q. Were there specific operations
10 the rig engaged in in which you made sure
11 to monitor that data?

12 A. I would say yes.

13 Q. What operations would those be?

14 A. If we were circulating
15 bottoms-up prior to pulling out of the
16 hole, prior to a trip, and I was in the
17 office getting a trip sheet. I have some
18 spreadsheets that's my own generation that
19 I used, and I might be in the office
20 getting that trip sheet ready to go, and I
21 would want to be interested in what the gas
22 was and what the total strokes has been
23 circulating since we started circulating
24 bottoms-up.

25 I would already have an idea of
00481:01 how what -- how many strokes we would have
02 to pump to get bottoms up, and I would have
03 an interest in what the gas was doing and
04 how many strokes the driller had pumped.

05 Q. Any other operation specifically
06 come to mind in which you wanted to make
07 sure you were monitoring data?

08 A. Not through the closed circuit.
09 I think that was the question you asked,
10 but --

11 Q. Right, the Sperry data.

12 A. Not through the closed circuit
13 system, no. The other data that I would
14 have an interest in, I would be sitting
15 there with a driller to where I could see
16 it.

17 Q. During your 12-hour tour, where
18 would you typically spend your time?

19 A. Most of my time was spent in the
20 driller's shack or around the rig floor,
21 around the deck.

22 Q. How much of that time would
23 actually be in the company man's office?

24 A. As little as I could get by
25 with.

00482:01 Q. I understand that. When you

02 were in the driller's shack during your
03 tours, was it your practice to rely on the
04 data being displayed by the Transocean high
05 tech system or did you rely on the Sperry
06 Sun monitor?

07 A. Both. They were both displayed.
08 I didn't have a preference over which one.
09 It depended if -- the Sperry Sun monitor
10 was better for background gas, monitoring
11 the gas. The -- the drilling -- the
12 Transocean system didn't -- didn't have the
13 gas trap and the shakers that displayed
14 the -- the gas in the mud system.

15 Q. Were there any -- other than the
16 gas, were there any other specific data
17 requirements or operations that you wanted
18 to rely on the Sperry Sun monitors or data
19 more than the Transocean high tech system?

20 A. Well, Sperry Sun displayed more
21 than just the mudlogging data. We had the
22 LWD tools that Sperry Sun provides, and
23 they were in the hole, and they had a track
24 or a log that was displayed on a screen.
25 So you said Sperry Sun, but there's two
00483:01 different Sperry Suns. There's two
02 different activities.

Page 489:08 to 490:06

00489:08 Q. Had you reviewed any of the
09 Lessons Learned that BP prepared as a
10 result of the March kick?

11 A. No, sir.

12 Q. Are you familiar with traction
13 reports?

14 A. Yes, sir.

15 Q. Can you explain what traction
16 reports are?

17 A. It's a reporting system that BP
18 uses to capture information, pertinent data
19 or data surrounding instances or accidents
20 and --

21 Q. Is there a BP requirement that
22 well control events be -- a traction report
23 be prepared for well control events?

24 A. To my knowledge, it is.

25 Q. Do you know whether a traction
00490:01 report was prepared with respect to the
02 March 8th kick?

03 A. I do not.

04 Q. Did you participate in the
05 preparation of any such report?

06 A. No, sir.

Page 492:05 to 492:23

00492:05 Q. I think yesterday you testified
06 that you're familiar with what cement
07 mudlogging is?
08 A. Familiar, yes.
09 Q. You're not an expert, but you
10 know generally what -- what it is and what
11 it does?
12 A. Yes, sir.
13 Q. Part of its function is to
14 verify the top of cement; is that fair?
15 A. That's my understanding, yes.
16 Q. Another part of its function is
17 to identify the integrity of the cement
18 job, whether it's bonded between the casing
19 and the formation.
20 A. It's my understanding.
21 Q. Is it your understanding that BP
22 makes the decision as to whether or not to
23 run a cement bond log?

Page 493:03 to 493:04

00493:03 A. I don't know who makes the
04 decision, honestly.

Page 493:13 to 494:07

00493:13 Q. Do you know who made the
14 decision to run the cement bond log?
15 A. No, sir.
16 Q. Do you know why a cement bond
17 log was not run on the Deepwater Horizon on
18 April 19th and 20th, 2010?
19 A. I do not know.
20 Q. Did you have any conversations
21 with any of the other BP company men about
22 that decision?
23 A. No, sir.
24 Q. Are you familiar with any BP
25 documentation as to a decision-making
00494:01 criteria on when and when not to run a
02 cement bond log?
03 A. No, sir.
04 Q. Do you know if there is any such
05 written procedure or policy on when and
06 when not to run a cement bond log?
07 A. No, I don't.

Page 496:19 to 496:25

00496:19 Q. Have you had an opportunity to

20 look over what's been marked Exhibit 2678?
 21 A. Yes, sir.
 22 Q. This is an e-mail from Brian
 23 Morel to you and Don Vidrine on March 30,
 24 2010; is that right?
 25 A. Yes, sir.

Page 501:02 to 501:03

00501:02 Q. Who makes the decision on what
 03 rate to pump the cement?

Page 501:06 to 501:10

00501:06 A. I don't know who makes the
 07 decision.
 08 Q. Do you know if that's a BP
 09 decision based on ECD and other downhole
 10 conditions?

Page 501:13 to 502:07

00501:13 A. The cement recommendation is
 14 sent, with a Halliburton logo on it sent to
 15 our cementer. It specifies the -- the --
 16 the required mixing water. It specifies
 17 the cubic feet of cement, the additives to
 18 be pumped or mixed into that blend of
 19 cement, the density of the blend of cement,
 20 and the rate it's to be pumped. That's on
 21 the Halliburton --
 22 Q. Do you have any understanding of
 23 how Halliburton puts together that
 24 cementing proposal?
 25 A. No, sir.
 00502:01 Q. Do you know where Halliburton
 02 obtains the information on which it bases
 03 that cementing proposal?
 04 A. No, sir.
 05 Q. Do you know whether BP provides
 06 the information upon which Halliburton
 07 bases that cementing proposal?

Page 502:10 to 502:10

00502:10 A. I don't know.

Page 503:22 to 505:19

00503:22 BY MR. HARTLEY:
 23 Q. All right, Mr. Lee. I want to
 24 return to the March kick just briefly. You

25 testified yesterday that you have not read
00504:01 the Bly report; is that right?
02 A. That's correct.
03 Q. I want to ask about -- there's a
04 section in the Bly report, about a couple
05 of sentences in there, and see if that jogs
06 your recollection or if you have any
07 additional information.
08 On page 105 of the Bly report,
09 I'm just going to read the sentence for
10 you. It states that BP Macondo well team
11 conducted an engineering analysis of the
12 kick.
13 Were you involved in any
14 engineering analysis of the kick?
15 A. No, sir.
16 Q. Did you talk to anybody with BP
17 about conducting any such engineering
18 analysis?
19 A. No, sir.
20 Q. Had you ever heard before today
21 about an engineering analysis having been
22 done?
23 A. No, sir.
24 Q. It goes on and says that a
25 Lessons Learned document containing the
00505:01 analysis and recommendations was
02 distributed among the BP Gulf of Mexico
03 drilling and completions organization.
04 Are you within the BP Gulf of
05 Mexico drilling and completions
06 organization?
07 A. Yes, sir.
08 Q. Do you recall ever receiving any
09 such Lessons Learned document?
10 A. No, sir.
11 Q. Do you recall receiving any
12 document about the March kick?
13 A. No, sir.
14 Q. It also indicates that the wells
15 team leader indicated that Transocean and
16 BP leaders aboard the rig were given verbal
17 feedback about the handling of the event.
18 Did you ever receive any verbal feedback
19 about that March kick?

Page 505:22 to 507:03

00505:22 A. No, sir.
23 Q. Did Murry Sepulvado ever tell
24 you about having received any verbal
25 feedback?
00506:01 A. No, sir.
02 Q. After you left the rig on March
03 10th of 2010, had you ever heard anything

04 more about that March kick before the last
05 few days?

06 A. No, sir.

07 Q. Now, returning to the cementing
08 portion of -- of our day. You said in
09 response to Mr. Clements' questions today
10 and some of the questions yesterday that,
11 in looking at the lab test results, you
12 looked at the compressive strength tests,
13 the 12-, 24-, and 48-hour tests, right?

14 A. Yes, sir.

15 Q. Why do you look at those, those
16 specific tests?

17 A. I don't have a particular reason
18 for looking at it. I --

19 Q. Among other things, you want to
20 make sure at some point the cement is going
21 to set up and have compressive strength; is
22 that fair?

23 A. Yes, sir, that's what it --

24 Q. And I think you testified
25 yesterday, and correct me if I'm wrong,
00507:01 that -- that you would not want to run a
02 positive pressure test before the cement
03 sets up?

Page 507:06 to 507:11

00507:06 A. I would have, no.

07 Q. So if you had a compressive
08 strength test that indicated that there was
09 no compressive strength at the 12-hour
10 mark, would you run a compressive -- or run
11 a positive pressure test prior to 12 hours?

Page 507:14 to 507:19

00507:14 A. I don't know. I don't --

15 Q. If you were the well site leader
16 on the rig at the time, would you run a
17 compressive -- or run a positive pressure
18 test before the lab test results indicated
19 you would have compressive strength?

Page 507:24 to 507:25

00507:24 A. I don't know what I would do. I
25 don't.

Page 508:20 to 508:23

00508:20 Q. In your experience, what can
21 happen if you run a positive pressure test

22 prior to the cement developing compressive
23 strength?

Page 509:01 to 509:16

00509:01 A. I think, as I have already
02 stated, the casing could -- could expand
03 due to the pressure. And when you relieve
04 the pressure, the casing will relax to its
05 natural form and you would have a void.
06 Q. A void in the annulus?
07 A. Micro annuluses.
08 Q. Micro annuluses?
09 A. What I understand it is called.
10 Q. Micro annuluses. And channeling
11 would result?
12 A. I don't know.
13 Q. Channeling could result?
14 A. I don't know.
15 Q. Would that compromise zonal
16 isolation?

Page 509:19 to 510:02

00509:19 A. I don't know.
20 Q. It's something you would not
21 want to have happen in any event?
22 A. I don't think so.
23 Q. Would the similar be true with
24 the negative pressure test, that you would
25 want to wait until the cement sets up and
00510:01 develops compressive strength before
02 running the negative test?

Page 510:07 to 510:10

00510:07 A. I don't know.
08 Q. Would you run a negative test
09 prior to the time at which you understand
10 the cement to develop compressive strength?

Page 510:13 to 510:25

00510:13 A. I don't know. I have never been
14 in that situation. I don't know.
15 Q. I'm going to hand you what I
16 have marked as Exhibit 2679. It is tab 26.
17 (Exhibit 2679 was marked
18 for identification.)
19 This is an e-mail from Jesse
20 Gagliano to you and others on April 16th of
21 2010. Do you see that?
22 A. Yes, sir.

23 Q. And in this, he indicates that
24 attached is the updated proposal and
25 OptiCem report.

Page 512:18 to 512:23

00512:18 Q. Okay. After April 20th, 2010,
19 after the incident, did you review any of
20 the OptiCem reports Jesse Gagliano sent in
21 April of 2010?
22 A. Not that I recall. I don't
23 recall reviewing one of them.

Page 513:08 to 513:18

00513:08 When you were on the rig on your
09 last hitch extending from March into April
10 2010, did you have conversations with
11 others about the number of centralizers to
12 be run on the production casing?
13 A. Not that I recall, no, sir.
14 Q. Do you recall any discussions
15 about the difference between bow spring
16 centralizers and centralizer subs?
17 A. I don't recall any conversations
18 about centralizers.

Page 514:12 to 514:25

00514:12 Q. In your experience, looking at
13 OptiCem reports, did you review anything
14 other than the volumes, fluid density rate
15 of pumping? Did you review the number of
16 centralizers being modeled, the gas flow
17 potential, any other sections of those
18 reports?
19 A. Not that I recall, no, sir.
20 Q. Do you recall seeing a section
21 in the OptiCem reports about gas flow
22 potential?
23 A. No, sir.
24 Q. Is that something which you
25 would be interested in?

Page 515:03 to 515:04

00515:03 A. I don't know. I mean, I have
04 never noticed it on there, so --

Page 517:25 to 518:02

00517:25 Q. Did BP or Transocean tool

00518:01 pushers ever conduct well control drills on
02 the Horizon?

Page 518:05 to 518:10

00518:05 A. Yes.
06 Q. While you were there?
07 A. Yes.
08 Q. Did you ever participate in
09 those drills?
10 A. Yes.

Page 519:02 to 519:25

00519:02 Q. What other drills were run on
03 the Horizon while you were there?
04 A. Numerous. There's a man
05 overboard drill that was run by the marine
06 crew. There was a general alarm drills,
07 fire and evacuation drills.
08 Q. So there were no other well
09 control drills other than the kick
10 detection drill?
11 A. Kick detection is a well control
12 drill.
13 Q. Were there any other drills?
14 A. Not that I am aware of.
15 Q. Okay. How was the kick
16 detection drill run?
17 A. It was a simulated kick and it
18 was simulated closing the blowout
19 preventers or if it was run during the
20 trip, it was simulated installing a -- pull
21 open the safety valve in the drill pipe and
22 getting it closed and alerting the crews.
23 Q. And would it simulate a gain or
24 a loss?
25 A. It would be simulated, yes.

Page 520:16 to 520:18

00520:16 Q. Did BP expect you mentor the rig
17 crew to help them improve their skill
18 sense?

Page 520:21 to 520:24

00520:21 A. I think so.
22 Q. So were you evaluating the
23 driller on the Deepwater Horizon on a
24 regular basis?

Page 521:02 to 521:04

00521:02 A. Yes.
 03 Q. Did you also evaluate the
 04 assistant driller?

Page 521:07 to 521:08

00521:07 A. Yes.
 08 Q. How about the tool pushers?

Page 521:11 to 521:14

00521:11 A. Yes.
 12 Q. Were there any other rig
 13 personnel that you were consistently
 14 evaluating on the rig?

Page 521:17 to 521:19

00521:17 A. I don't think I was consistently
 18 evaluating anyone.
 19 Q. Regularly?

Page 521:22 to 521:24

00521:22 A. The cook.
 23 Q. Anyone else besides the cook?
 24 A. No.

Page 522:04 to 522:11

00522:04 Q. When you left the rig on April
 05 7th, were you aware of any problems with a
 06 drill pipe pressure gauge?
 07 A. No. Not that I recall, no.
 08 Q. Do you recall any problems with
 09 any gauges when you left the rig on April
 10 7th?
 11 A. No, sir.

Page 525:20 to 525:22

00525:20 Q. Do you agree that the Macondo
 21 well was a pore pressure/narrow window
 22 well?

Page 526:02 to 526:03

00526:02 A. In my opinion it is, yes, or it
 03 was.

Page 532:04 to 532:06

00532:04 Q. Do you believe that just prior
05 to the March 8 kick, that the Horizon was
06 drilling as fast as it could?

Page 532:09 to 532:12

00532:09 A. No.
10 Q. Well, then would you agree that
11 drilling operations were moving rather
12 quickly?

Page 532:15 to 532:17

00532:15 A. No.
16 Q. Do you think the Horizon was
17 drilling too fast to see a kick coming?

Page 532:22 to 533:11

00532:22 A. No.
23 Q. You have already stated that you
24 haven't seen the Lessons Learned document;
25 is that correct?
00533:01 A. That's correct.
02 Q. I'm going to ask you a couple of
03 questions about what the document
04 recommended. One of the recommendations
05 was rig-based subsurface personnel were to
06 meet at least twice a day to discuss data
07 from the previous 12 hours and communicate
08 the consensus from these conversations to
09 the operations geologist.
10 Do you know if that was
11 implemented?

Page 533:16 to 533:18

00533:16 A. I don't know.
17 Q. Do you know if that was
18 implemented on the rig?

Page 533:23 to 534:06

00533:23 A. I don't know if it was.
24 Q. The next one is subsurface
25 personnel were to examine all potential
00534:01 indicators of PP, pore pressure, shift, and
02 background gas and d-Exponent to be
03 displayed in real-time displays on the rig,

04 operations and INSITE Anywhere.
05 Do you know if that was
06 implemented?

Page 534:09 to 534:09

00534:09 A. No, I don't.

Page 534:22 to 534:25

00534:22 Q. The next one: Rate of
23 penetration must allow all indicators to be
24 evaluated in real-time.
25 Was that implemented on the rig?

Page 535:03 to 535:09

00535:03 A. I don't know what that means. I
04 don't know.
05 Q. Do you know what rate of
06 penetration means?
07 A. Yes.
08 Q. What does that mean?
09 A. How fast you're drilling.

Page 535:22 to 536:03

00535:22 Q. Do you know if an investigation
23 was conducted into the March 8th kick on
24 the rig?
25 A. No, I don't.
00536:01 Q. During the time you were there
02 an investigation was not conducted,
03 correct?

Page 536:06 to 536:07

00536:06 A. That's correct. Not that I
07 remember, so --

Page 540:02 to 540:16

00540:02 Q. Did anyone from BP ever
03 interview you about the March 8 kick?
04 A. Not that I recall, no, sir.
05 Q. What was your opinion about John
06 Guide?
07 A. I don't have an opinion of John
08 Guide.
09 Q. What did you think about him
10 personally?
11 A. Personally, I think he was a

12 good man.
 13 Q. What did you think about him as
 14 a wells team leader?
 15 A. I think he was a good wells team
 16 leader.

Page 541:05 to 542:01

00541:05 Q. Have you ever heard of a GoM
 06 Communication Plan?
 07 A. Not that I remember, no.
 08 Q. If you wouldn't mind turning to
 09 tab 5 in the 1 of 2 volume, I would
 10 appreciate it. Have you seen this document
 11 before?
 12 A. Not that I remember, no, sir.
 13 Q. So then you're not familiar with
 14 the GoM Communications Plan?
 15 A. This is a GOM Exploration and
 16 Appraisal Communications Plan, I'm looking
 17 at.
 18 Q. Yes, sir.
 19 A. No, sir. I don't think I have
 20 ever seen this before.
 21 Q. Well, just generally, are you
 22 aware of a Gulf of Mexico Communications
 23 Plan?
 24 A. No, sir, not until this time.
 25 Q. Outside of this document?
 00542:01 A. No, sir.

Page 542:18 to 543:07

00542:18 Q. Communicate with towns,
 19 communicate with the well site leaders,
 20 communicate with Houston. I don't know
 21 what word you want to use, but to
 22 communicate with BP personnel that were not
 23 on the rig.
 24 A. Yes.
 25 Q. Were you aware that there were
 00543:01 written procedures for when you were
 02 supposed to do that?
 03 A. Yes, it's in Roles and
 04 Responsibilities, yes.
 05 Q. Are you aware that BP segregates
 06 its decision-making procedures into five
 07 different tiers?

Page 543:12 to 543:15

00543:12 A. No, I'm not.
 13 Q. Are you aware that well site

14 leaders are accountable for tier one
15 decisions?

Page 543:18 to 544:01

00543:18 A. I don't know anything about tier
19 one decisions. I don't know.
20 Q. Are you familiar with the MOC
21 process at BP?
22 A. Yes, sir.
23 Q. Are you aware that you're
24 responsible for assuring that MOC
25 documentation is in place for tier one
00544:01 decisions?

Page 544:04 to 544:05

00544:04 A. I don't recall the tier one. I
05 mean --

Page 545:10 to 545:16

00545:10 Q. Did you ever receive any formal
11 training from BP on float collar
12 conversion?
13 A. No, sir.
14 Q. Did you ever receive any formal
15 training from BP on how to conduct negative
16 pressure tests?

Page 545:19 to 546:05

00545:19 A. No, sir.
20 Q. Did you ever receive any formal
21 training from BP about working with foamed
22 cement slurry?
23 A. No, sir.
24 Q. Did you ever receive any formal
25 training from BP about when to use or not
00546:01 to use a cement bond log?
02 A. No.
03 Q. Did you ever receive any formal
04 training from BP about when to circulate a
05 bottoms-up?

Page 546:08 to 546:12

00546:08 A. There's times in the -- in some
09 of our manuals, it dictates when you
10 circulate bottoms-up. So, yes, I have had
11 training on when to circulate bottoms-up,
12 if that's what you're referring to.

Page 547:12 to 547:20

00547:12 Q. Did BP provide you any formal
13 training about the procedure for setting a
14 lockdown sleeve?
15 A. No, sir. I have never set one,
16 so --
17 Q. Did BP provide you with any
18 formal training with regard to the risks
19 associated with running a long string
20 versus a liner?

Page 547:25 to 548:08

00547:25 A. I don't recall any, no.
00548:01 Q. Do you know what risks are?
02 A. No, I don't.
03 Q. Do you know the advantages or
04 disadvantages of running a long string
05 versus a liner?
06 A. No, I don't.
07 Q. Do well site leaders have the
08 authority to alter well plans?

Page 548:11 to 548:11

00548:11 A. No, not alter. No.

Page 554:20 to 554:25

00554:20 Q. I'm trying to understand your
21 statement that you made yesterday that you
22 said you were not scared to death but you
23 felt like you were behind the learning
24 curve with regard to working on the
25 Deepwater Horizon.

Page 555:03 to 555:05

00555:03 BY MR. GUIDRY:
04 Q. Do you recall making that
05 statement?

Page 555:08 to 555:10

00555:08 A. Yes.
09 Q. Is that accurate, what I just
10 explained to you?

Page 555:13 to 555:25

00555:13 A. I think that's probably the
14 statement I made yesterday, yes, sir.
15 Q. Did you ever feel comfortable
16 working on the Deepwater Horizon?
17 A. Yes.
18 Q. How long before you became more
19 familiar with the crew and the rig to feel
20 more comfortable?
21 A. I don't -- I don't recall how
22 long it took. I mean, it -- it was a new
23 place. You get comfortable with your
24 surroundings, get comfortable with people.
25 I don't know how long it took.

Page 556:04 to 556:22

00556:04 Q. Did you do any preparation
05 before you arrived on the Deepwater
06 Horizon?
07 A. Preparations? I packed my bag.
08 I mean, I --
09 Q. For your work on the Deepwater
10 Horizon?
11 A. No, I didn't.
12 Q. You didn't review any
13 Horizon-specific literature or talk to
14 anybody about working on the Horizon?
15 A. I talked to John Guide about it
16 in the cubicle in Houston; some aspects of
17 the Horizon.
18 Q. But other than that, there was
19 no preparation?
20 A. Not until I got onboard the rig
21 and then I got the -- got to sign on tour,
22 so --

Page 559:02 to 559:04

00559:02 Q. Earlier you testified that
03 running a bottoms-up is a good practice, I
04 believe you said today.

Page 559:07 to 560:06

00559:07 BY MR. GUIDRY:
08 Q. Do you agree with that statement
09 I just said?
10 A. Yes, sir. I agree that I did
11 say that earlier.
12 Q. And running a bottoms-up cleans
13 the debris from the well and helps break up
14 the gelled mud. I believe we dis --
15 previously discussed that yesterday. But

16 are bottoms up also used to detect whether
17 the mud is absorbing gas?
18 A. Well, they can -- I don't know
19 if mud absorbs gas. The comment yesterday
20 was it can break up gels if you had a mud
21 system that tends to gel up, is one thing
22 that I said. Typically, synthetic
23 oil-based muds doesn't have the tendency to
24 gel up like water-based mud would. And
25 yes, I do agree that if there's gas in the
00560:01 wellbore, that you can circulate it out of
02 the hole by circulating bottoms up.
03 Q. And running a bottoms up will
04 help you detect whether there's gas in the
05 well?
06 A. Yes, sir.

Page 560:17 to 560:19

00560:17 Q. Would you agree that circulating
18 a bottoms up is important to eliminate gas
19 from the system?

Page 560:24 to 561:02

00560:24 A. Yes.
25 Q. Would you agree that circulating
00561:01 a bottoms up is important to achieve a good
02 cement job?

Page 561:07 to 561:13

00561:07 A. Not necessarily you have to get
08 bottoms up to get a good cement job, no,
09 sir.
10 Q. Do you think circulating a
11 bottoms up is important to put you in a
12 better position of achieving a good cement
13 job?

Page 561:16 to 562:16

00561:16 A. I'm going to say again, not
17 necessarily. And if you want, I will
18 explain why I'm saying that.
19 Q. Please.
20 A. When you mix and pump that
21 cement and get it in the casing, there's
22 mud in that casing that's clean. It's not
23 gas contaminated mud inside that string of
24 casing from top to bottom. When the cement
25 goes down, that mud is leading coming out,
00562:01 coming back up the outside of the casing.

02 When the cement goes down and turns the
03 corner, that mud that's in that casing is
04 flushing that angle that's around that
05 casing before the cement gets there.
06 In my view you don't necessarily
07 have to circulate bottoms up in order to
08 have an annulus suitable for cement to get
09 there because there's mud leading the
10 cement that's going down, turning the
11 corner, and filling it, washing that void
12 out, flushing that void out before the
13 cement gets there, is my opinion.
14 Q. So you believe -- so you believe
15 the -- running the cement does the same job
16 as circulating bottoms up?

Page 562:19 to 562:19

00562:19 A. I didn't say that, no, sir.

Page 563:09 to 563:10

00563:09 Q. Does BP consider running a
10 bottoms up to be a recommended practice?

Page 563:13 to 563:18

00563:13 A. In my opinion, yes, sir.
14 Q. Did you know that BP considers
15 circulating a minimum of two bottoms up
16 before starting to pump the cement job or a
17 minimum of five hours, whichever is
18 greater, to be a best practice?

Page 563:21 to 563:22

00563:21 A. I think it says if possible. Or
22 does it?

Page 565:03 to 565:06

00565:03 Q. Bottoms up circulation can be a
04 time consuming process, correct?
05 A. It can take time to circulate
06 bottoms up, yes, sir.

Page 568:25 to 569:08

00568:25 Q. As a well site leader, what were
00569:01 your specific duties regarding safety
02 aboard the Deepwater Horizon?
03 A. Specific duties regarding

04 safety? I was expected to be and I tried
05 to be a safety leader and understand the
06 jobs to be done and ensure that they were
07 done in a safe manner to better -- to the
08 best of my ability and knowledge.

Page 569:15 to 570:13

00569:15 Q. Are you familiar with the BP
16 risk register?
17 A. I have heard of it, yes, sir.
18 Q. I'm gathering that you have
19 never seen it before, though.
20 A. Not that I can remember.
21 Q. Can you turn to tab 100?
22 A. Which book, sir?
23 Q. Volume 2 of 2, please.
24 A. 2 of 2, 100.
25 Q. Yes, sir. Are you familiar with
00570:01 this document?
02 A. Yes, sir, I am familiar with it.
03 Q. Can you state for the record
04 what the name of this document is?
05 A. It says: Beyond the Best Common
06 Process.
07 Q. And for the record, this is
08 BP-HZN-2179MDL00333308 through 3497.
09 What is this document used for?
10 A. I don't know. I would to have
11 read the document and try to get it back in
12 my head. I don't recall what it was used
13 for. I don't -- I don't recall.

Page 571:04 to 571:04

00571:04 Q. What is this document used for?

Page 571:07 to 571:17

00571:07 A. It says here that it's an
08 introduction, key numbers for success,
09 Number 2, D&C value assurance. It also has
10 another introduction description of
11 process. D&C VA. I don't know what D&C VA
12 is. The acronym VA, I don't know what that
13 is. Has a D&C VA alignment that's CVP. I
14 don't recall what that CVP stands for.
15 Q. Well, instead of you reading it
16 to me, what reasons would you have to take
17 a look at this document?

Page 571:22 to 572:24

00571:22 A. I can't think of any, sir.
 23 Q. If you wouldn't mind, turn to
 24 page 54 in the document, Bates
 25 BP-HZN-2179MDL0033361.
 00572:01 A. Okay.
 02 Q. Do you know what the risk
 03 management process is?
 04 A. No, sir, I don't.
 05 Q. Have you ever read this section
 06 before?
 07 A. Not that I recall.
 08 Q. Do you know what the risk
 09 management roles and responsibilities are?
 10 A. No, sir, I do not.
 11 Q. Have you ever been asked to
 12 become familiar with this section, Element
 13 5, Risk Management, starting on page 54?
 14 A. I might have. I don't recall.
 15 I could have been.
 16 Q. You don't recall ever looking at
 17 this section?
 18 A. I don't recall, no, sir.
 19 Q. What exactly is BP's risk
 20 register?
 21 A. I don't know.
 22 Q. Are there any documents that
 23 you're aware of that are used to identify
 24 major hazards or operational risks?

Page 573:02 to 573:08

00573:02 A. Not that I can remember.
 03 Q. Are you familiar with BP's
 04 safety pulse checks?
 05 A. Not that I recall, no, sir.
 06 Q. Do you recall safety surveys
 07 being performed on the Deepwater Horizon
 08 while you were there?

Page 573:11 to 573:15

00573:11 A. Safety surveys? Audits, yes.
 12 Q. Do you ever recall a survey
 13 being performed on Deepwater Horizon called
 14 a safety pulse check?
 15 A. Not that I recall, no, sir.

Page 579:25 to 580:08

00579:25 Q. Have you ever seen any hazard
 00580:01 barrier documents that identify risk
 02 mitigation plans?
 03 A. No, sir, not that I can recall.

04 Q. Did you review a risk and
05 responsibility matrix for the Macondo job?
06 A. Not that I remember, no, sir.
07 Q. Did you ever see a document that
08 identified any safety critical equipment --

Page 580:15 to 581:06

00580:15 A. Yes, I think I did.
16 Q. And which equipment did the
17 document represent as being safety
18 critical?
19 A. The document that I saw was the
20 audit that was being done, the marine
21 assurance audit, when I went onboard the
22 rig, the first hitch I was on the rig. And
23 those items that were listed on that audit
24 form would be safety critical, the bilge
25 pumps and watertight doors and all those
00581:01 thing that's listed on that form.
02 Q. That form was to address
03 problems with those pieces of equipment,
04 correct?
05 A. That's my understanding, yes,
06 sir.

Page 581:25 to 582:11

00581:25 Q. Have you ever participated in
00582:01 the creation of a MOC for the Deepwater
02 Horizon?
03 A. I don't think I have for the
04 Deepwater Horizon, no, sir.
05 Q. Do you consider the MOC
06 procedures to be discretion --
07 discretionary or mandatory?
08 A. Mandatory. I think they are
09 mandatory.
10 Q. Do you have any idea where you
11 fit into BP's risk management structure?

Page 582:14 to 582:17

00582:14 A. Not from recall, no, sir.
15 Q. Do you know what action you are
16 accountable for or responsible for
17 according to the risk management policies?

Page 582:20 to 582:24

00582:20 A. Not from recall, no, sir.
21 Q. If you observed or thought of a
22 potential risk involved in Macondo well

23 operations, what is the procedure of what
24 you did to address that concern?

Page 583:04 to 583:04

00583:04 A. I don't recall seeing any.

Page 584:17 to 584:23

00584:17 Q. Was there a formal process in
18 place for dealing with safety risks on the
19 rig?
20 A. Was there a formal process, you
21 said?
22 Q. In place for dealing with safety
23 risks on the rig.

Page 585:01 to 585:10

00585:01 A. Best I can recall, yes, it was.
02 Q. And what was that process?
03 A. Investigate, for one; report,
04 analyze, disseminate.
05 Q. What part did you play in that
06 process, if any?
07 A. I don't recall playing any part
08 in that on the Horizon.
09 Q. On any rig?
10 A. I don't recall.

Page 591:14 to 591:23

00591:14 Q. If the Nile well had to be
15 plugged no later than July 2nd in order to
16 comply with MMS regulations, and the
17 Kaskida well had to begin activities by May
18 16th and the Kaskida well was expected to
19 produce 450 million barrels per day of oil
20 or its equivalent, would you agree that all
21 of this put pressure on the Horizon team or
22 BP to make certain that the Macondo was
23 completed on schedule?

Page 592:03 to 592:13

00592:03 A. I can't speak for the team.
04 There was no pressure put on me to do
05 anything quickly or in a hurry, or nobody
06 ever asked me why anything took so long to
07 do it. So I can't speak for the team. I
08 didn't hear nothing about it. No, sir.
09 Q. Did any of your superiors

10 mention to you or did you hear from any of
11 the other well site leaders that BP
12 management was concerned that the Macondo
13 was taking too long to complete?

Page 592:18 to 592:18

00592:18 A. No, sir.

Page 593:06 to 593:24

00593:06 MR. GUIDRY:

07 Mr. Lee, just as a housekeeping
08 measure, I am going to attach two of the
09 documents we discussed. The first one was
10 tab 5, Gulf of Mexico Exploration and
11 Appraisal Communications Plan, September
12 2009. This is the revised third edition.
13 It's BP-HZN-2179MDL00269632 through 658.
14 This will be attached as Exhibit Number
15 2680.

16 (Exhibit 2680 was marked for
17 identification.)

18 The second document referenced
19 as tab 100 is the Beyond the Best Common
20 Processes we briefly discussed. And that
21 is BP-HZN-2179MDL00333308 through 3497. I
22 will attach that as Exhibit 2681.

23 (Exhibit 2681 was marked
24 for identification.)

Page 599:08 to 601:03

00599:08 Q. Prior to the job. And during
09 the job, if the plug lands as indicated by
10 a pressure spike on the gauge when you kind
11 of calculated it to land, that would
12 indicate that the cement job is going as
13 planned, correct?

14 A. Yes, sir.

15 Q. All right. Now, full returns on
16 a cement job, that is something
17 that -- that's something that you would
18 want to see on a cement job, right, full
19 returns?

20 A. Yes, sir, I would want to see
21 it.

22 Q. If you have full returns, that
23 would be an indication that the cement is
24 not running off into the formation
25 somewhere during the cement job?

00600:01 A. That's correct. It could
02 indicate that, yes, sir.

03 Q. All right. So in kind of a
 04 summary, as a well site leader for BP,
 05 would you be interested in observing lift
 06 pressure and seeing to it that there was
 07 timely bumping of plugs and establishing
 08 that there's full returns during the cement
 09 job to give you an indication that that
 10 cement job went as planned?

11 A. Yes, those are indications that
 12 the cement job went as planned. Yes, sir.

13 Q. Right. Now, you mentioned what
 14 Sperry Sun is doing and what Halliburton is
 15 doing during a cement job. I want to kind
 16 of go through it to see who would be
 17 recording data, be it the driller, be it
 18 BP, be it the cementing company and/or the
 19 mudlogging company, and anybody else during
 20 the cement job.

21 All right. So let me start with
 22 the driller, in this case, Transocean.
 23 Would Transocean be making any records,
 24 such as in an IADC drilling report or
 25 anything else about when plugs are landing,
 00601:01 whether lift pressure was observed and/or
 02 whether they got full returns during a
 03 cement job?

Page 601:08 to 601:11

00601:08 A. Yes. I would expect the driller
 09 to make a note of that in the IADC.

10 Q. In a IADC report?

11 A. Yes, sir.

Page 601:24 to 602:02

00601:24 Q. All right. So the IADC would be
 25 a report that a driller -- the drillers
 00602:01 keep concerning lift pressure, timely
 02 bumping of plugs and full returns, correct?

Page 602:07 to 602:17

00602:07 A. I think the IADC as far as the
 08 cement job is concerned would be what the
 09 driller did, what he saw, the landing of
 10 the plug would be noted, whether it did or
 11 did not land. Yes, sir, it would be part
 12 of it.

13 Q. Okay. Are there any other
 14 reports that the driller would keep or
 15 would have indicating those type of
 16 parameters, such as lift pressure, timely

17 bumping of plugs, and full returns?

Page 602:22 to 604:07

00602:22 A. I don't know.
23 Q. All right. What type of records
24 or reports does BP itself generate
25 concerning those three parameters?
00603:01 A. The three parameters being?
02 Q. Lift pressure, timely bumping of
03 plugs, and full returns during the pumping
04 of a cement job.
05 A. It's observed and noted, the
06 condition of those three parameters,
07 whether we did or didn't. It would be
08 noted in the -- certainly on a IADC, the
09 morning report -- it's now called
10 OpenWells. At -- at times it's -- there
11 was a program they used called DIMS
12 reports. The morning report system that we
13 use, the 24-hour reporting system we use,
14 it would be noted also in it. And that
15 would be primarily derived from the
16 driller's IADC report, what he filled out
17 on the IADC report.
18 Q. All right. Explain to me what a
19 DIMS report is, please.
20 A. It's a system that BP uses to --
21 for the capturing of data and for filling
22 out daily reports of logs of events and --
23 Q. All right. And you -- and you
24 said -- has the DIMS report replaced this
25 OpenWells system or they -- or that's
00604:01 something similar --
02 A. It's vice versa. The OpenWells
03 replaced DIMS. I don't remember -- don't
04 recall the timeframe when it replaced it.
05 It was sometime in 2010, but I don't recall
06 exactly when OpenWells replaced the DIMS
07 reporting system.

Page 604:21 to 604:25

00604:21 Q. Fair enough. How about the
22 mudlogging company, either on this job or
23 any job you have been involved with? Do
24 mudloggers typically keep records during
25 the cement pumping job?

Page 605:05 to 605:06

00605:05 A. It's my understanding they do,
06 yes, sir.

Page 622:23 to 624:25

00622:23 Q. Okay. And I know that wasn't
24 easy to listen to or participate in, but
25 there was a discussion. Can you tell me
00623:01 generally about what the discussion
02 included?
03 A. Jimmy didn't discuss with me
04 anything as to what he thought might have
05 happened. Jimmy was telling me that he was
06 in his bedroom. I think he said he was in
07 his shower and some noise or something got
08 his attention. And he was going to go out
09 in the hallway or whatever and there was an
10 explosion, and Jimmy explained how it had
11 blown the quarters or accommodation walls
12 apart and described the debris that was in
13 the -- what would have been a hallway and
14 how he couldn't see anything.
15 He had something in his eyes and
16 he wasn't sure if he was bleeding. And he
17 described how he was going to go to the
18 bridge. Said he wanted to go to the bridge
19 and disconnect; to see if he could get it
20 disconnected, but -- he talked about trying
21 to get through the debris and the rubble
22 that was what -- at one time were the
23 living quarters, the accommodations on the
24 rig.
25 Q. Yes.
00624:01 A. He broke down a couple of times.
02 Tears came to his eyes and I stood there
03 and let him get his composure. He said
04 that he was crawling. He said he was going
05 to try to go through the galley. And I
06 knew what he meant, to wind up going up the
07 hallway that winds up to a room that you go
08 through, a transit room to go through to
09 get up to the bridge.
10 He said when he got in the
11 galley -- and he broke down again. He
12 couldn't talk for a minute or two. He had
13 some colorful language to go along with
14 what he saw, but he said that the conveyor
15 was in the galley, and said he couldn't go
16 through the galley. And I don't remember
17 how he said he got back around, but
18 eventually he wound up on the bridge. And
19 he said when he got on the bridge, he said
20 there was some people there. I
21 didn't -- didn't register all of the -- any
22 of the people he said was there. And he
23 said that he -- said that he beat on
24 the bleep, bleep, bleep, button. So that
25 was the extent of it.

Page 630:07 to 630:15

00630:07 You were BP's top man out there
08 when you were on tour, correct?
09 A. Yes, sir, one of them. Okay,
10 when I'm on tour, yes, sir.
11 Q. All right. And the idea -- my
12 question is: How is it that you wouldn't
13 have heard all of the -- the chatter, if
14 you will, on the e-mails about what a
15 disastrous situation this seemed to be?

Page 630:18 to 630:21

00630:18 A. I can't answer that. I don't
19 know.
20 Q. Isn't true, sir, that basically
21 no one communicated their concerns to you?

Page 630:24 to 631:01

00630:24 BY MR. PALMINTIER:
25 Q. They didn't tell you, did
00631:01 they --

Page 631:04 to 631:05

00631:04 BY MR. PALMINTIER:
05 Q. -- their concerns?

Page 631:08 to 631:08

00631:08 A. I can't answer. I don't know.

Page 633:07 to 633:12

00633:07 I'm asking you: Isn't it true
08 that when there's a heightened amount of
09 activity -- you can call it SIMOPS if you
10 want, you can call it multiple projects
11 going on at one time -- there also needs to
12 be a heightened awareness for safety?

Page 633:17 to 633:18

00633:17 A. Yes, sir. I would agree with
18 that.

Page 636:12 to 636:22

00636:12 Q. I have -- you know, I've noted
13 your relatively relaxed feeling about the
14 well before the explosion. I wanted to
15 make sure I got -- I -- I understood what
16 you knew about what was going on out there.
17 We have established that certainly these
18 communications with the language we've
19 talked about was exchanged. You were not
20 in that loop, but you knew about --
21 obviously, you knew about the March 8th
22 stuck pipe and kick event, correct?

Page 636:25 to 637:06

00636:25 A. Yes, sir.
00637:01 Q. You knew about other kicks that
02 happened between then and the time of the
03 explosion?
04 A. Other kicks?
05 Q. You're not familiar with any
06 other kick that occurred after March 8th?

Page 637:09 to 637:21

00637:09 A. No, sir.
10 Q. You were aware that the -- the
11 -- this was a well that had a narrow pore
12 pressure profile, correct? That is -- is
13 that right?
14 A. Yes, sir that's my
15 understanding.
16 Q. If you had been on the Horizon
17 on April 20th, 2010, I want you to tell me
18 what you would have done when you were
19 confronted with the order and the
20 requirement to perform a negative pressure
21 test.

Page 638:01 to 638:07

00638:01 A. I don't know what I would have
02 done.
03 Q. Well, isn't it true, sir, you
04 wouldn't have been able to perform it
05 yourself? That's a given based on
06 your -- based on your previous testimony,
07 correct?

Page 638:10 to 638:19

00638:10 BY MR. PALMINTIER:
11 Q. Is that right?

12 A. That's correct. I would not be
13 able to do it on my own.
14 Q. And I heard you allude to the
15 fact that you would ask for assistance from
16 maybe not your colleague who was the other
17 well site leader, but you would have asked
18 for assistance maybe from the driller or
19 from the tool pusher, correct?

Page 638:24 to 638:24

00638:24 A. That's correct.

WITNESS NAME: Philip Earl Lee

DATE TAKEN: June 1-2

IN RE: OIL SPILL BY THE OIL RIG "DEEPWATER HORIZON" IN THE GULF OF MEXICO, ON APRIL 20, 2010

CORRECTIONS:

PAGE: 273 LINE: 3 CHANGE: "Jimmy Harrell of OIM" to "Jimmy Harrell the OIM"
PAGE: 314 LINE: 6 CHANGE: "increased" to "increase"
PAGE: 402 LINE: 10 CHANGE: 16ths to 16-inch
PAGE: 402 LINE: 11 CHANGE: "16 to 16"
PAGE: 418 LINE: 10 CHANGE: nitrated to nitrified
PAGE: 469 LINE: 9-10 CHANGE: high tech to Hitec
PAGE: 469 LINE: 14 CHANGE: high tech to Hitec
PAGE: 471 LINE: 25 CHANGE: high tech to Hitec
PAGE: 472 LINE: 23 CHANGE: high tech to Hitec
PAGE: 474 LINE: 8-9 CHANGE: high tech to Hitec
PAGE: 479 LINE: 9 CHANGE: Kathleen to Cathleen
PAGE: 479 LINE: 13 CHANGE: Kathleen to Cathleen
PAGE: 514 LINE: 8 CHANGE: Nexin to Nexen
PAGE: 526 LINE: 5 CHANGE: Payne to Paine
PAGE: 51 LINE: 22 CHANGE: bits to pits
PAGE: 97 LINE: 9 CHANGE: carefully "MONITOR" his
PAGE: 110 LINE: 21 CHANGE: BUCK TO BULK
PAGE: 111 LINE: 18 CHANGE: HEADS TO ADDITIVES
PAGE: 114 LINE: 3 CHANGE: HOWELL TO DOWWELL
PAGE: 205 LINE: 6 CHANGE: JUNK TO JUMP
PAGE: 214 LINE: 25 CHANGE: TEST TO TASK
PAGE: 273 LINE: 3 CHANGE: OF TO THE OIM
PAGE: 337 LINE: 16 CHANGE: TUBE TO TOOL
PAGE: 373 LINE: 2 CHANGE: THAT TO IN SANDS
PAGE: 422 LINE: 10 CHANGE: SHELL SURFACE TO SHALE SHAKERS
PAGE: 466 LINE: 3 CHANGE: HAVE TO SWITCH FROM DRILLING SCREEN
PAGE: 482 LINE: 13 CHANGE: AND TO TO AT THE SHAKERS
PAGE: 519 LINE: 20 CHANGE: PULL TO FULL
PAGE: 519 LINE: 21 CHANGE: REMOVE "THE" (BEFORE SAFETY)
PAGE: 562 LINE: 4 CHANGE: ANGLE TO ANNULAS
PAGE: 619 LINE: 21 CHANGE: BREAK TO BRAKE
PAGE: 625 LINE: 3 CHANGE: LET TO GIVE ME