

**DRAFT**

Interview of Robert Kaluza

Date

FEMALE VOICE: Was it the potential (inaudible).

Glenn Breaux: I mean, (inaudible) involved with the Coast Guard (inaudible) first of all (inaudible) and (inaudible) the first thing is to vent overboard with, uh, with, uh, {power blower}.

Glenn Breaux: Okay. Okay.

Glenn Breaux: (Inaudible), okay, you had just come off tour yeah - and what is on the - I was able to get -

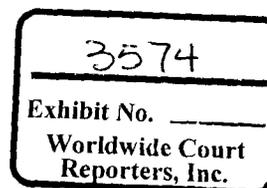
Glenn Breaux: I was able to get a **sample** drawing here. Yes, and we'd {also} you're on station and you're at 8,000 roughly feet, the, the ( mud was pumped) seemed more to be getting the spacer to the top, and there seemed to be (**well problems**).

Robert Kaluza: Well, top above the, top above the, annular preventer. Okay, I've got somewhere in here spacer.

Glenn Breaux: Yeah, okay, good.

Glenn Breaux: And then they seemed to be problems with the upper annular functioning, but the lower annular was shut-in.

Robert Kaluza: Well, I'm not sure if it was the upper or lower annular



1 Glenn Breaux: Okay.

2 MALE VOICE: I don't,

3 MALE VOICE: An annular was shut in.

4 Glenn Breaux: Okay.

5 Glenn Breaux: What - okay, now, the choke and the kill  
6 line, again, that was just to check the pressure down below the  
7 annular.

8 Glenn Breaux: Okay, that's here. And so what we were  
9 looking at to check to see if there was pressure on it.

10 MV: Yeah, the kill line was open.

11 Glenn Breaux: Kill line was open.

12 Glenn Breaux: Yeah. Okay, other than that, that - the  
13 well started to flow.

14 MALE VOICE: No, no.

15 Glenn Breaux: Well, let me back up. You circulated the  
16 spacer to this point.

17 MALE VOICE: Yeah,

18 Glenn Breaux: The shoe tested from - I can't read my  
19 writing, the uh, the open kill line you checked it was okay,  
20 mud, mud coming back, (inaudible) from where you said mud was  
21 coming back, and then they shut, shut-in the lower annular.

22 Does that kind of seem what

23 MALE VOICE: Well, no, no, no, -they intentionally - we  
24 intentionally shut down. I mean, through here, you're okay. I

1 mean, their. But what we did is we were trying to displace to  
2 seawater, so we pumped a 16.2 pound spacer ahead of the  
3 seawater, to push the 14.2 mud out of the hole okay? When the  
4 spacer got entirely above either the upper or lower annular soon  
5 as it got there, we stopped.

6 Glenn Breaux: Okay.

7 MALE VOICE: Then what we do is we monitor the kill line.  
8 See, that would now give us a negative test.

9 Glenn Breaux: Yeah.

10 MALE VOICE: And the kill line was open, and the drill pipe  
11 was also - the drill pipe was closed, okay? So we monitored the  
12 kill line. We had no flow at the kill line. And from there,  
13 there were a few other things we did, but that was the situation  
14 when we initially shut down.

15 Glenn Breaux: Okay. (Inaudible)

16 FEMALE VOICE: What were those numbers, 16.2 -?

17 Robert Kaluza: Pounds per gallon spacer every and sea  
18 water at 8.6 pounds per gallon and then the mud weight is a  
19 (inaudible). I couldn't - I just woke up. I didn't even have  
20 (inaudible).

21 Robert Kaluza: Okay. The seawater, we're using 8.6 pounds  
22 per gallon. The mud was 14.0 pounds per gallon. We had a  
23 5.4 pound per gallon differential. The plug spacer was 16  
24 pounds per gallon.

1 Glenn Breaux: Okay, at the point you shut it down, okay,  
2 then what happened?

3 Robert Kaluza: Well, we monitored the kill line. In our  
4 permit, we're asked to monitor the kill line for the negative  
5 test, so we monitored the kill line. There was zero flow, zero  
6 pressure. On the drill pipe, we shut it in. There was 1,260  
7 psi on the drill pipe as shut in. I spoke with the tool pusher,  
8 who you've already talked to, Randy, and he said the way that he  
9 would do it is he would have the negative tests on the drill  
10 pipe. And I said, "Well, the drill pipe and the kill line  
11 should actually be equal, because we should have seawater  
12 everywhere, on the choke line, on the kill line, on the boost  
13 line, and you should have seawater from 8,367 feet, which is our  
14 bottom, to the annular that is closed. So they should be equal.

15 What we did was we bled off drill pipe, and we bled the  
16 drill pipe to zero. We bled 15 barrels. And it bled to zero.  
17 So now we could have had the negative test on the drill pipe the  
18 way that Randy preferred to do it. But in our permit, we were  
19 asked to monitor the kill line. So we said - well, we shut -  
20 first of all, we shut the kill line before we bled the drill  
21 down. So we opened up the kill line, and we got some flow back  
22 through the drill pipe. So we shut the kill line and talked  
23 about it, and we said why would we get flow, you know? We  
24 shouldn't. Everything should be here. Everything should be

1 equal. And we said, well, we may have still some heavy mud that  
2 didn't get completely displaced. See, there's so many ways that  
3 you may still have some heavy mud in through that displacement,  
4 because you've got a 15-pound plug that's intermingling with  
5 seawater. You've got your spacer intermingling with the mud,  
6 and when you shut down, you shut down at a calculated place.  
7 And then you shut in your annular preventer.

8 Another thing that, a phenomenon that everyone should  
9 understand is we're dealing with compressible fluid. The mud is  
10 compressible on both ends of your seawater. It's compressible  
11 below the seawater, because it's 14 pound per gallon (Synthetic  
12 Oil Base Mud), right? It's compressible above the spacer and  
13 the seawater, and also the compressible on top of an annular  
14 preventer. Annular preventer is made out of rubber, and if you  
15 push anything on a bladder or on rubber, it kind of pushes down,  
16 and it increases pressure. So we talked about that, and he  
17 said, well, they knew that pressure on the drill pipe was just  
18 the pressure of the hydrostatic pressure, which was above the  
19 annular preventer. {Let's say} the annular preventer was at  
20 5,000 feet, which is fairly accurate at 5,000 feet, you'd have  
21 5,000 feet of heavy mud, 14 pounds per gallon. The seawater is  
22 8.6 pounds per gallon. That differential is about 1400 psi,  
23 right? It's 1412 if you calculated that, 5,014.

1           So we said we should expect about 1400 psi on drill pipe,  
2 and we had 1262 I think was the number on the drill pipe. So,  
3 but we couldn't understand why if you open the kill line, that  
4 the drill pipe should flow. So at that time, I went down and I  
5 talked to Don in his office, on the rig and we discussed this  
6 situation. And Don just pointed out, he said, "I heard that,  
7 Bob. We have to monitor by the kill line." I said, "That's  
8 right, Don, but the guys on tower right now prefer to monitor  
9 down the drill pipe, because that's how they've done it in the  
10 past." And you can do it really either way. It depends on how  
11 the permit is written and how the plan is written, etc.

12           So, anyway, that's how they prefer to do it, so I came back  
13 to the rig floor, and I said Randy and (the rest of the guys),  
14 the guy (I said), "We need to just monitor by the kill line.  
15 And at that time, it was time for release time in that, so Don  
16 came to the rig floor. So then Don came up and he said, "Okay,  
17 now what all have we done?" And we've reviewed everything we  
18 did with him (inaudible). And then we made sure that the kill  
19 line was full, so we filled up the kill line, made sure it was  
20 full. So we pumped up, because we just wanted to make sure it  
21 was full of seawater. And as soon as we pumped on it, we got  
22 pressure, I think about 130 psi.

23           And, then, we said okay, we're going to close in the drill  
24 pipe, and we're going to monitor on the kill line then. So we

1 opened the kill line at the BOP at the ocean bottom, and this  
2 was about 5,000 feet, between 5,040 and 5,000 feet. I'm not  
3 exactly sure what the exact depth of that kill line is.

4 So we opened that valve, and we closed at the choke at  
5 surface. And what you'll see then is the differential, if  
6 there's any kind of differential. And the pressure went up to  
7 30 psi, so we said, well, let's just (bleed) that down to the  
8 mini-trip tank. We have a mini-trip tank on the rig floor.  
9 That's where you really watch for the smaller of the volumes.  
10 And I think that mini-trip tank holds only about five to eight  
11 barrels. That's all it holds. So we opened it to the mini-trip  
12 tank, and the mini-trip tank had 0.6 barrels in it, 0.6 barrels  
13 in it. We opened to the mini-trip tank, and that 30 psi that  
14 was trapped, it was trapped pressure in there from pumping on  
15 it.

16 So we bled it off and got 0.2 barrels, and that's  
17 (nothing). So now we're doing a negative test on the kill line,  
18 right, and we monitored the mini-trip tank. The mini-trip tank  
19 stayed steady at 0.8 barrels for the entire 30 minutes, and I  
20 stayed on the rig floor. And that lasted until 7:50 p.m. At  
21 that time, I mean, I was going to relieve Don early, because I  
22 was going in today, and he was switching over to days. So the  
23 way we do it is I relieve him about two in the morning, and then  
24 he goes to bed, takes a nap for two hours and then comes and

1 relieves me at six when I'm getting ready to get on the  
2 helicopter. So I wanted to stay to see if we got the successful  
3 negative test, so we got a successful negative test, no flow  
4 whatsoever, monitoring from the kill line in the BOP stack  
5 up to the surface. With seawater, it's all the way down to  
6 8,367 feet. That is equivalent of about 2340 psi. We had to  
7 calculate it (inaudible), but it was about 2340 psi is the  
8 equivalent differential pressure right there.

9 So at 7:50, the test was over, and I said to Don, "I'll see  
10 you at two a.m." And I went to bed.

11 Randy Josey: There was a tour taking place. Somebody on  
12 the rigs and higher officials (inaudible), that was 5:30 or so,  
13 coming through the drill shack. Were you on that tour?

14 ROBERT KALUZA: No, un-uh [no], I wasn't.

15 Randy Josey: You in the drill shack or -

16 ROBERT KALUZA: No, in fact, Jack, Randy sorry about that,  
17 I think Jack will be over there (laughing). We had Pat O'Brien  
18 out here, we met, David Sims, who is Operations Manager, Don (on  
19 site leader), the Operations Manager for TransOcean. And they  
20 were out here to kind of tour of the rig. In fact, we had heard  
21 they were going to have a meeting downstairs, but because this  
22 was a fairly important operation, I went down and talked to  
23 them and said that, "Right now, we're just trying to get this

1 negative test up on the rig floor, and it's important, so we  
2 won't be able to make the meeting."

3 So they, somewhere, I don't know where they held the  
4 meeting. Somewhere in the living quarters, they were holding  
5 the meeting. No, Don and I were both up on the rig floor, so  
6 I wasn't on the tour at that point.

7 Randy Josey: You say when the tour came through.

8 ROBERT KALUZA: Well, this was real early, early during the  
9 day. I think we were just finishing up the positive test. See,  
10 prior to all this, we had done a positive test to 2500 psi, and  
11 it held solid, solid as a rock for 30 minutes. Yeah, I think we  
12 were just either finishing it -

13 Randy Josey: You were on the tour with Vice President  
14 {Hannon}?

15 ROBERT KALUZA: No, I wasn't. I think Randy was,  
16 (inaudible), Jimmy the, Jimmy Harrel to OIM. Then those three,  
17 they may have had someone else.

18 Randy Josey: What I'm getting at is when they made the  
19 tour and they went through the drill shack, two of them dropped  
20 out of the tour and stayed in the drill shack.

21 Randy Josey: Two of them (went on)?

22 ROBERT KALUZA: May have been Randy.

23 MALE VOICE: (Inaudible).

24 ROBERT KALUZA: Okay, Randy may have.

1 Randy Josey: Were you in the drill shack when they came  
2 down?

3 ROBERT KALUZA: Yes, I was.

4 Randy Josey: What was going on then? Why would they drop  
5 out of the tour?

6 ROBERT KALUZA: Well, maybe we had just started the  
7 displacement. Oh, maybe it was because we had to displace the  
8 meeting. I don't recall exactly what time we got there.

9 Glenn Breaux: Was there a (well) problem?

10 ROBERT KALUZA: No. No, we did the positive test, and then  
11 we knew we had to get to the displacement. So we always we have  
12 a pre-tower operation and safety briefing. And it was a written  
13 procedure. I wish I still had it, actually. I carry things in  
14 this pocket, and I just don't have it. But it was a written  
15 step-by-step process of how we would do the displacement, and we  
16 brought everybody into the dog house for that, or drill shack.  
17 And maybe that's why Randy came off. I really don't recall. I  
18 just remember the (inaudible), yeah.

19 FEMALE VOICE: Let me interject here. You said, at one  
20 point, you went to go talk to Don.

21 ROBERT KALUZA: Yeah.

22 FEMALE VOICE: And Don said the permit said monitor by the  
23 kill line.

24 ROBERT KALUZA: Yes.

1 FEMALE VOICE: About what time was that?

2 ROBERT KALUZA: Probably about 5:45 to 6:00, about the time  
3 we were going to change over.

4 FEMALE VOICE: Okay, and so you went to see Don. You came  
5 back up, told Randy, "Monitor by the kill line."

6 ROBERT KALUZA: Yes.

7 FEMALE VOICE: And right about then, Don shows up for  
8 watch.

9 ROBERT KALUZA: Yes.

10 FEMALE VOICE: So then this conversation you were having  
11 with somebody about the bladder and rubber has some room in it,  
12 some give, who were you having that conversation with?

13 ROBERT KALUZA: Randy.

14 FEMALE VOICE: And where were you having this?

15 ROBERT KALUZA: (and any) other members of the crew in the  
16 drillers cabin.

17 FEMALE VOICE: In the what, in the drill house?

18 ROBERT KALUZA: In the doghouse or the drill shack, okay,  
19 the drill shack.

20 FEMALE VOICE: Okay, and how did you guys get there,  
21 talking about that?

22 ROBERT KALUZA: Well, we had 1260 psi when we stopped.  
23 When we stopped the displacement, we had 1260 psi on the drill  
24 pipe).

1 FEMALE VOICE: And about what time did you guys stop the  
2 displacement?

3 ROBERT KALUZA: Probably around 5:00, probably.

4 FEMALE VOICE: Okay, and so what went on from about five to  
5 5:30? What were you doing?

6 ROBERT KALUZA: Well, we were discussing how we wanted to  
7 take this test.

8 FEMALE VOICE: You and Randy?

9 ROBERT KALUZA: Yes. I always wanted to do the negative  
10 test. And, of course, there's a junior toolpusher up there.  
11 His name is Wyman, but Wyman really didn't say very much. It  
12 was between Randy and I. It was just a discussion really.

13 FEMALE VOICE: You were talking with Randy about the  
14 differential?

15 ROBERT KALUZA: About which technique to use. Really there  
16 was -

17 FEMALE VOICE: Where you monitor from?

18 ROBERT KALUZA: Yeah, we could monitor either from the  
19 drill pipe or the kill line, yeah.

20 FEMALE VOICE: So that conversation lasted about  
21 45 minutes?

22 ROBERT KALUZA: No, oh, no. That's when we then decided to  
23 bleed the drill pipe down. Let's just bleed the drill pipe down  
24 and see if we can get it to zero.

1 FEMALE VOICE: So then you opened the kill line, and then -

2 ROBERT KALUZA: No, we opened the drill pipe.

3 FEMALE VOICE: Opened the drill pipe (and then bled down),  
4 and there was still flow.

5 ROBERT KALUZA: Yeah, (inaudible), we bled that through  
6 the Halliburton's main unit, and it bled back seawater, about  
7 (15 concequous), I'm pretty sure 15 barrels.

8 FEMALE VOICE: And you say to yourself, "Why is there  
9 flow?"

10 ROBERT KALUZA: Well, yeah, yeah, and that was our  
11 discussion. We did, because we thought one of two things.  
12 One, you may have a U-Tube effect, where you didn't get all the  
13 heavy mud out, all the synthetic oil-based mud. If you don't  
14 get all the synthetic-based mud out, it, it's going to be on  
15 top, and it's going to push down. See, by calculation, it  
16 should go above the annular preventer,

17 Randy Josey: and then you shut it in (the preventer).

18 Robert Kaluza: But that's by calculation. See, when you  
19 mix seawater with this synthetic oil-based mud in the spacer,  
20 and synthetic oil-based mud, there can be intermingling, and you  
21 don't get (inaudible). There's no clear -

22 FEMALE VOICE: Well, you're in the weeds on me (inaudible),  
23 so you guys ran that test at about what time?

24 ROBERT KALUZA: Oh, probably around 5:30, probably.

1 FEMALE VOICE: And sometime between 5:30 and 5:40, so you  
2 were in the drill shack between 5:30 and 5:45?

3 ROBERT KALUZA: Yes.

4 FEMALE VOICE: And you never saw a tour come through with  
5 all this hierarchy?

6 ROBERT KALUZA: Well, I saw those guys come through, the  
7 hierarchy, but I don't recall what time it was, though.

8 FEMALE VOICE: Okay.

9 ROBERT KALUZA: I don't.

10 FEMALE VOICE: But it was before you went off watch, so it  
11 was before -

12 ROBERT KALUZA: Oh, yeah, (inaudible).

13 FEMALE VOICE: It was before 1800.

14 ROBERT KALUZA: I'm sure it was; exactly right).

15

16 FEMALE VOICE: And you remember seeing the Captain stay  
17 behind?

18 ROBERT KALUZA: No, well, that's right. He was on the tour  
19 I think, but I don't think he stayed behind. I don't think the  
20 Captain stayed behind.

21 FEMALE VOICE: What about the OIM?

22 ROBERT KALUZA: Jimmy may have stayed behind for a while.

23 FEMALE VOICE: You don't remember having any discussion  
24 with him while you were having this discussion with Randy?

1           ROBERT KALUZA: No, un-uh [no], no. No. It was really  
2 Randy and I, and I mean, that was having this discussion. And  
3 here's something that you'all should know is I came over just  
4 to relieve one of the other company men, Ronnie Sepulveda. I'd  
5 been over at Thunder Horse. And so I, of course, don't know the  
6 people as well as the other people know and, you know, so I know  
7 Randy a little bit from the first time I came to the Horizon  
8 about seven years ago. And so it was really between he and I  
9 and the (inaudible).

10          Randy Josey: How many years you've been with TransOcean?

11          ROBERT KALUZA: Oh, no, I've been with BP.

12          Randy Josey: I mean, BP.

13          ROBERT KALUZA: Twelve years.

14          FEMALE VOICE: Do you often fill in like this?

15          ROBERT KALUZA: Well, we often do when people need to go to  
16 well control school, things like that, yeah.

17          FEMALE VOICE: And this is a similar operation, rig, the  
18 setup and all?

19          ROBERT KALUZA: Yeah, oh, yeah, yeah.

20          FEMALE VOICE: BP owns Thunder Horse (inaudible) or  
21 whatever?

22          ROBERT KALUZA: Yeah, BP, we own the rig, Thunder  
23 Horse (inaudible).

1 FEMALE VOICE: And who writes this permit that says you'll  
2 monitor by the whatever?

3 ROBERT KALUZA: Well, we send in the permit request with  
4 the procedure.

5 FEMALE VOICE: To who?

6 ROBERT KALUZA: To the MMS.

7 FEMALE VOICE: And they decide whether you'll monitor by  
8 kill line or you'll monitor by (inaudible)?

9 ROBERT KALUZA: Well, what we do is we almost make the  
10 suggestion in the procedure. In fact, I have -

11 FEMALE VOICE: This one?

12 ROBERT KALUZA: Okay, I just happen to have it in my  
13 pocket. So they submit a little procedure with the request to  
14 permit.

15 FEMALE VOICE: And your preferred method was not what the  
16 permit said?

17 ROBERT KALUZA: No, Randy's preferred method was not what  
18 the permit said.

19 FEMALE VOICE: Okay. So you and Don were on the same page?  
20 You went by the permit?

21 ROBERT KALUZA: Yes.

22 FEMALE VOICE: Randy -

23 Glenn Breau: Well, at this point, it sounds like you did  
24 it both ways, and that way you were covered.

1           ROBERT KALUZA: Yeah, in a way, kind of, but we did hold it  
2 for 30 minutes.

3           MALE VOICE: Okay, (inaudible).

4           ROBERT KALUZA: We may have had that drill pipe open for  
5 10 minutes at the most, and it bled to zero, so it was {a kill}.  
6 See, that's the thing about this whole situation. I mean,  
7 you bleed the drill pipe down, and the drill pipe is down to  
8 8367 feet with seawater or maybe a little intermingling of the  
9 heavier mud in some places pretty much until you get it all pure  
10 seawater. But the drill pipe is down to 8367 feet, and when we  
11 bleed it down, then it's a long stem with seawater in it. And  
12 when you bleed it and you open it, and nothing flows, you're  
13 saying to yourself, you know, this is a type of negative test  
14 that's showing that we don't have anything coming from the  
15 casing, nothing that's coming out of the casing and into the  
16 pipe. But then we did - like I said, then we did shut the drill  
17 pipe in and convert over to the kill line, and that's how we  
18 monitored the thing. That was how.

19          FEMALE VOICE: What do you think should have been done  
20 different?

21          ROBERT KALUZA: Well, there's several techniques, negative  
22 testing, several techniques. This technique is one that can be  
23 used, but it is the most elaborate and complex.

24          FEMALE VOICE: The one that was utilized?

1           ROBERT KALUZA: Yeah.

2           FEMALE VOICE: Okay.

3           ROBERT KALUZA: Yes, see, all you need to do to do a  
4 negative test is down any line, down the drill pipe, down the  
5 kill line, if you have synthetic oil-based mud in the entire  
6 system, and you displace say just the drill pipe. And you pump  
7 down the kill line with seawater all the way into the BOP and  
8 the returns come up through the riser of synthetic oil-based  
9 mud. And you get that section of 5,000 feet full of seawater,  
10 then you close in a pipe ram) or the rubber. Pipe ram, I mean  
11 would be better, because it's a hard shut-in rather than having  
12 any kind of a bladder effect on your annular, close that line  
13 and then open it up at surface, and that is enough to invite the  
14 negative test.

15           The other option is with synthetic oil-based mud in your  
16 entire stack is to run your drill pipe down to whatever depth  
17 you want to go, 8,367, and then pump seawater down it, then take  
18 returns back up the annulus, and then closing the pipe rams  
19 right there and then open the drill pipe up. Now you've got  
20 that straw or that drill string inside the heavy mud, and it's  
21 down inside with light fluid in it with it closed off. You  
22 invite then anything that can come up the hole through the drill  
23 pipe. That's the right procedure.

1           In this situation, what we did was we put the drill strings  
2 down to {6337} feet, then we pumped down a kill line and got  
3 that seawater and shut it in. Then we pumped down our choke  
4 line with seawater and shut it in. Then we pumped down our  
5 boost line (we have a boost line to boost our riser) which is on  
6 top of the BOP. We pumped down in, and we got it to seawater  
7 and shut it in, because you've got valves down in the BOP stack.  
8 So those three lines are full of seawater. Then we had the  
9 drill string in there, and we pumped this big spacer, about 450  
10 barrels of 16-pound spacer, which should push all that heavy mud  
11 out from the whole entire well bore from 8367 feet all the way  
12 up. And you push it up and up and up and up till you get it up  
13 to your annular preventer by calculation, and then you close it  
14 in right there.

15           Now you have seawater all in here, from 5000 feet to 8367,  
16 totally seawater, then you just open up those valves and if you  
17 cleaned them completely out with seawater, you should have  
18 seawater everywhere, see? That's what we did. You got now  
19 seawater everywhere, and as long as, theoretically, everything  
20 is fine where you do have now seawater here without too much  
21 contamination, everything should work just according to plan.  
22 There are situations everyone has to understand about  
23 compressibility of this fluid down below, compressibility and  
24 waste on top of an annular preventer above you, and maybe some

1 intermingling where you didn't get a real good displacement.  
2 Those are some considerations, also. So when you shut in and  
3 you see 1260 psi, you say to yourself, "Okay, what could that  
4 be?"

5 Now on this rig, because I haven't been here that often or  
6 that much, on this rig, where Randy works with certain company  
7 men, they prefer to do the negative test out at the drill pipe.  
8 Other company men prefer to do their negative tests out of the  
9 kill line. Well, that was what Randy had worked with company  
10 men who liked to do it out at the drill pipe, so he was  
11 supporting that way of doing it. On the other hand, we had  
12 submitted our permit to monitor at the kill line, so -

13 FEMALE VOICE: Which is the safer method?

14 ROBERT KALUZA: The safest method is to leave synthetic  
15 oil-based mud inside your system, because what if you do get  
16 flow, and you've got everything already displaced to seawater.  
17 Now you got to put it all back to synthetic oil-based mud, and  
18 you now have maybe mixed gas with seawater, with spacers, with  
19 synthetic oil-based mud. You have a problem with what to do  
20 with the waste, with the commingling. It's a huge problem,  
21 okay (for them).

22 Glenn Breaux: You got to take (inaudible) down (inaudible)  
23 back up to a point and pick up where what you actually did, when

1 you said you pumped down the drill pipe, kill line and choke  
2 line, displaced it all with seawater.

3 ROBERT KALUZA: Yes we did.

4 Glenn Breaux: Okay, and, therefore, you have the spacer (is  
5 filling)the annular.

6 ROBERT KALUZA: Yes.

7 Glenn Breaux: Okay.

8 ROBERT KALUZA: Should be above the annular.

9 Glenn Breaux: Should be above the annular. Okay, now the  
10 last statement you made about the spacer, okay, the spacer is  
11 leaving your mud in place, but how are you pulling a negative  
12 differential test?

13 ROBERT KALUZA: Well, if you go pump down the kill line  
14 just with seawater, and when you do that, your annulus is open  
15 or pipe ram Let's just say annular (assist). You leave it  
16 open. You pump it out. Now the kill line is full of seawater.  
17 Then if you close your annular, all of it should stay down.

18 Glenn Breaux: (Inaudible) just, see, I understand the  
19 seawater.

20 ROBERT KALUZA: You (have to take) seawater, allowing  
21 everything below your annulus -

22 Glenn Breaux: Um-hm [yes].

23 ROBERT KALUZA: - to {seek, to seek}, and now you're  
24 allowing 14 - it's essentially with 14-pound mud. You've got

1 1400 psi of differential, lighter fluid, lighter fluid here  
2 telling us anything below your annular saying, okay, here's  
3 1400 psi of an easy way out, you know. You can now start to  
4 flow.

5 Glenn Breaux: Well, the beauty of that, too, is you got  
6 such a small diameter that you can, your, if you had to kill it,  
7 you can pump a lot less volume.

8 ROBERT KALUZA: Oh, yeah. Yeah, and if you had to kill it,  
9 the only volume you have to worry about -

10 Glenn Breaux: Is the kill line.

11 ROBERT KALUZA: - is the kill line volume tube to get the  
12 seawater out.

13 Glenn Breaux: What the trouble - when MMS approved the  
14 kill line monitoring procedure, how was it distinguished in the  
15 permit in the package that it wasn't going to be just the kill  
16 line? Did you guys put in the procedure and what you actually  
17 did, everything at this point? Why not just put with (displace  
18 the) kill line (and go a simple way)?

19 ROBERT KALUZA: Yeah, because - well, it was the -

20 Glenn Breaux: (Inaudible) Permit.

21 ROBERT KALUZA: Yeah. All it did was just in a general way  
22 set monitor being kill line, and so because we've done it this  
23 way, if I just pull the displacement and do it and can do it  
24 and do do it while we displace, it was decided through our

1 engineering department that we should do the negative test via  
2 the kill line, via the vent.

3 Glenn Breaux: Okay, what's being displaced first, the  
4 drill pipe?

5 ROBERT KALUZA: Well, first thing we would displace was -  
6 and I know this is in order, was the boost line. The boost line  
7 was the first to seawater. And let's say all these lines are  
8 about 5,000 feet, there's (that's really a few feet).

9 FEMALE VOICE: Do they have anything drawn out for me,  
10 because I'm - in a simple way just some lines showing me  
11 (inaudible).

12 ROBERT KALUZA: Yeah. Let's just {say here}.

13 FEMALE VOICE: Again, not too technical, just basic.

14 ROBERT KALUZA: Okay, yeah. (OK, this your BOP here).  
15 Okay, subsea (inaudible) 5000 feet. Well, let's just say (a few  
16 feet). Okay, and this is {5050} feet (from the bottom up) to  
17 the bottom (inaudible). There's 50 feet in here. There's  
18 generally one, two or three places to come in with the kill  
19 lines, and they all go to here (like this), and all of them have  
20 run (along here). And above here, then, is what they call the  
21 (inaudible). It goes all the way (through). Okay, and that's  
22 just (say this) right here is your annular preventer right in  
23 this area. Actually, that's two, the upper and then let's say  
24 you have the lower, too, okay?

1 Now on your choke side (that is the same), okay, sometimes  
2 they only have two up, and they don't (really kill the well if  
3 you) pump down here, so you can (come back here). Okay, now at  
4 the very top up here is a boost line, and it runs (inaudible).  
5 And then you're going ahead and cutting (can come) up here. You  
6 can pump down here, because this riser is 5000 feet long and  
7 probably 1800 barrels. I mean, it's a huge amount of volume.  
8 So what you do is you drill, and all your cuttings up here, and  
9 you pump down here and boost it out faster.

10 So what you do in the displacement is you want to get -  
11 see, what we wanted to do was get this all with seawater down  
12 here where the pipe was. You've got {8300} feet down. What you  
13 wanted to do was get this entire well to this pipe (inaudible).  
14 So what you do is you want this all to be seawater up to here  
15 where the spacer is going to end up, right here. All this is  
16 going to be 14-pound mud. This in here is all going to be {8.6}  
17 mud, and then that spacer, which is 15 pounds,, 450 barrels  
18 (gonna cut it). So, hypothetically, that's (inaudible).

19 FEMALE VOICE: Were there annulars?

20 ROBERT KALUZA: Well, the annular is right below, because  
21 (inaudible) this is (inaudible) the top. This is (inaudible).  
22 So what we do is we displace this with seawater.

23 MALE VOICE: (Inaudible)

1           ROBERT KALUZA: We just pump down with seawater, and it  
2 has a valve here. They all have valves. And you pump with  
3 seawater, and you shut this down, not even seawater (inaudible).  
4 Then we went to the choke line, and we pumped down. I'm not  
5 sure which one they actually went into. It's a very tiny line  
6 of volume (inaudible), so you can ultimately close them while  
7 you're circulating (into it). It's only about like this long.  
8 It's a very little tiny (bit of volumn). But, anyway, so then  
9 you pump seawater down here. Let's say we pumped to here and  
10 closed it.

11           MALE VOICE: You have seawater here.

12           ROBERT KALUZA: Seawater here and then down the choke line.  
13 So then you pump down the kill line, down to the lowest one,  
14 and you'd get it all. And you close it, and then get this in  
15 seawater. Now the drill pipe (doesn't) run all the way down to  
16 here. And now we start pumping (that in), and then you pump the  
17 spacer first, 450 barrels (of spacer) because it's heavy, and  
18 you're going to separate these two muds, this and the seawater,  
19 because these two (don't like each other) synthetic oil-based  
20 mud and seawater (don't like each other) spacers between - and  
21 it's a heavy spacer, 16 pounds, heavier than mud. And when it's  
22 pumped down the drill pipe, it comes down and around, and all  
23 this is full of (seawa (he started to say seawater)) of  
24 synthetic oil-based mud initially. And you push it all up, and

1 then, by calculation, because we know all the (it's magnanimous,  
2 too hard).

3       So then we come up with it, and soon as we see, by  
4 calculation, that this is on top of your annular (preventer),  
5 then you close it. So now, soon as that's closed off, this is  
6 full of seawater, and everything here is full of seawater. And  
7 what it's saying is this little bit now and this distance down  
8 here is equivalent of 4300 - I can calculate it (you're ok).

9       MALE VOICE: (Inaudible).

10       ROBERT KALUZA: {Twenty-three}, sorry (inaudible), 2349.  
11 Now if you did that here at 5000 feet, (you come up with) about  
12 1400 feet. So we now can say that we can get a 2349 negative  
13 test, because now you've got this real light mud here. So  
14 what's down here is like sucking into a bag like this, and  
15 you're saying, okay, now we want to see if this casing is  
16 holding, and so, you know, if anything leaks, and it shouldn't,  
17 because you just tested at 2500 positive.

18       So if you have a plastic bottle - that's a good example.  
19 Can I have that plastic bottle? It's a good example (so it I)  
20 pumped into this (bottle, due to expansion), and then if I  
21 sucked up the bottom of it, same pressure, it would kind of come  
22 in. So what we're asking this casing to do is, first, hold this  
23 way (inaudible), and then we're sucking on it, and it still  
24 holds.

1 FEMALE VOICE: So what's a negative and a positive?

2 ROBERT KALUZA: Okay, the positive is going to be as you  
3 push down, and it squeezes out.

4 FEMALE VOICE: The negative would be (inaudible).

5 ROBERT KALUZA: The negative is you suck - let it - yeah,  
6 you feel that negative pressure here, they would put a negative  
7 pressure here and suck down the plastic bottle. You would then  
8 do the same thing with casing.

9 FEMALE VOICE: So a successful negative test is nothing  
10 corrupted.

11 ROBERT KALUZA: Well, nothing comes into the well, nothing  
12 flows. So what you do is you just leave it open. Yeah, if you  
13 want it here, you leave it open. If it doesn't flow, nothing is  
14 coming into your well bore. And so what we did in the APD was  
15 we just said we need to monitor via the kill line. So what we  
16 did was we did bleed this down to zero and could see that we  
17 couldn't do it. So by permit, we were asked to do it here.  
18 So that's seawater. This is seawater, the same effect, but by  
19 permit, we said we want it to be a kill line, because we have  
20 a gauge up here, a real accurate gauge.

21 So we just opened this to a gauge, and then if anything  
22 were to come in, it would make the gauge (inaudible), see,  
23 because this is all seawater. So that's how the whole negative

1 test worked. And this was how the whole setup was before this  
2 whole incident.

3 Glenn Breaux: Yeah, let me ask you this. (Inaudible) when  
4 you had the - it was how much of the drill pipe was (inaudible)  
5 pounds (inaudible). Now, again, 1250 psi, same drill pipe. At  
6 that point, if that happened to be pressure from below, by  
7 bleeding it down, what else coming in?

8 ROBERT KALUZA: Okay, well, if it keeps flowing.

9 Glenn Breaux: If it keeps flowing, okay, but after you've  
10 bled it down (you bled to 0).

11 Robert Kaluza: (Inaudible), yeah, it was open for about  
12 five minutes at least.

13 Glenn Breaux: Okay, about five minutes. Okay, and that  
14 should have been long enough. I'm just trying to determine  
15 how could (gas) and where did (gas) get to the (riser)? If  
16 that's 8000, that's 5000, in that short a time, you would have  
17 seen flow.

18 ROBERT KALUZA: Yeah, you would have seen flow. And then  
19 when we went to the negative test, that's why we'll leave it  
20 open for 30 minutes. Then all we did was we switched over to  
21 the kill line. We closed it at surface here.

22 Glenn Breaux: (tested both sides, the inside and vented)

23 Robert Kaluza: (and the choke and kill line).

1           ROBERT KALUZA: And so then on this side, we opened this  
2 up and just let it stay open. This was when Don came up there,  
3 went through the process we did, said, "Okay, we need to monitor  
4 on the kill side."

5           Glenn Breaux: And when you believed the {1250} psi was  
6 from possible mud that would fill back in there.

7           ROBERT KALUZA: Sure, just think if you had this 16-pound  
8 mud. By calculation, well, I'm sure it's going to commingle  
9 some. So let's say if you commingle 8.6 and 16-pound mud, and  
10 by calculation, we're saying this is where the bottom of the  
11 spacer is. Let's say some commingled. If some commingled, then  
12 you're going to have a little bit of heavy mud here, right? And  
13 if you do, it's going to be a little heavier -

14          Glenn Breaux: Going to fall.

15          ROBERT KALUZA: - and so when you shut down, you shut down,  
16 and you might have a little pressure on it. So then if you just  
17 bleed it down, and it goes to zero, you say, well, we may have  
18 a little bit of U-Tube, we may have a little flip-flopping, we  
19 call it, not necessarily gas, because if it's gas, it continues  
20 to flow, or if it's an influx, it continues to flow, because it  
21 has a free path to flow, and it would just flow, flow.

22          MALE VOICE: Okay, let me ask you this: I'm just drawing  
23 a blank (inaudible) all different angles. By doing it this  
24 way, and first we'll call it displacement of those lines and

1 displacing the choke and displacing the kill, if gas were to  
2 come in, in some kind of way, get trapped in the BOP, in the  
3 cavity of the BOP, okay, then by the time that you actually see  
4 flow and shut the BOP, that (gas) of course, now before the  
5 (inaudible) riser.

6 ROBERT KALUZA: It can't get to it.

7 Glenn Breaux: Yeah. So is it possible that because of the  
8 small volume in these lines(inaudible), even though they were  
9 displaced, flow wasn't detected because, at the same time,  
10 they're displacing mud from the pit to the tank to this boat,  
11 and that transfer of fluids, they're not able to keep up with  
12 small volumes.

13 ROBERT KALUZA: No, because we were at the Halliburton unit  
14 on this line, and we were at the Halliburton unit. On this  
15 line, we were onto a gauge.

16 Glenn Breaux: Just got a gauge.

17 ROBERT KALUZA: So a real sensitive gauge. Now in  
18 Halliburton leads to a separate tank, so they can monitor it.  
19 And this one went down to the Halliburton (inaudible).

20 FEMALE VOICE: (Inaudible) real sensitive gauge here?

21 ROBERT KALUZA: Way sensitive.

22 Glenn Breaux: Yeah, and then the Halliburton tank is a  
23 separate tank (mix mub) tank (where the mix is watched).

24 FEMALE VOICE: Who's monitoring this?

1           ROBERT KALUZA: We are in the driller shack. And it was  
2 at zero and remained at zero. That's all we got for 30 minutes.  
3 Here's how we monitored it. We left it open. Now, see, you  
4 don't have to stay at this gauge. You can go to this little  
5 tiny mini-trip tank here. It only holds five to eight barrels,  
6 and it started out at 26 that was in here (inaudible).  
7 (Inaudible). But we've had 30 psi kind of, because we would  
8 still - we want to make sure it was full, because - we just want  
9 to make sure.

10           So, we pumped into it. {Immediately, the pressure is up}  
11 (inaudible)telling us it is full. And so then we brought it  
12 back. So we think we maybe trapped 30 psi in here, so we just  
13 {wrote} 30 down (bled) from 0.6 to 0.8 and then monitored for 30  
14 minutes. So if the well is going to flow, it's definitely going  
15 to flow in 30 minutes, and if I'd have left this open (and let  
16 the cement) that had already gone to zero. If I'd left it open,  
17 it wouldn't - it didn't flow.

18           Glenn Breaux: Knowing that the well did not flow, without  
19 being monitored (or) a tank that could be monitored for flow,  
20 where in your opinion do you think the gas came in from?

21           ROBERT KALUZA: Well, here's - (laughing).

22           FEMALE VOICE: I know you have had to have thought about  
23 it.

1           ROBERT KALUZA: Oh, yeah. Oh, sure, sure. Okay, there's -  
2 when we finished this hole, we did some formation testing, and  
3 then we went to get a cleanup on it and cleaned it out before  
4 (inaudible). And then, in the casing way down here -

5           Glenn Breaux: what's down here?

6           Robert Kaluza: Oh, okay, (inaudible) seven-inch,  
7 18,303 feet (inaudible). Why do I remember? {I don't know}.

8           Glenn Breaux: Okay, so (inaudible).

9           ROBERT KALUZA: I did the (inaudible), yeah. I did the  
10 calculations. You know, I did the (same) calculation (and then  
11 some). So you remember what you did. So, anyway, this casing  
12 down here, here's one thing that BP will have to look, everybody  
13 will have to look at. After we did the clean-out runs, and when  
14 we did the cement job, this entire volume to - and when we did  
15 the clean-out run, we got 1120 units of gas. So there was  
16 (inaudible) in the formation, and we know that we had that much  
17 gas. And we {got gas back}, background gas between 20 and 30.

18           (Being gas cut means gas detected) entrained (synthetic)  
19 oil (base mud), hydrocarbons, molecularly attract each other.  
20 So a gas molecule loves a synthetic oil-based molecule. It  
21 doesn't like a water molecule, you know, but it loves the  
22 synthetic oil-based mud. You always have background gas. But,  
23 anyway, we got gas back on (inaudible), which we always have,  
24 almost everywhere. So, anyway, what we did was, though, to

1 cement this, we did not, I don't think, circulate the entire  
2 volume, (before the cement).

3 Glenn Breaux: Where's the one on the top? Is it below  
4 this (seal)?

5 ROBERT KALUZA: Well, this was a long {string}. We ran  
6 a long string here on this, so we got nine and seven-eighths  
7 (casing) all the way to the wellhead (inaudible), all the way to  
8 the wellhead. And here's another thing, and Don and I have  
9 talked about this, too. Well, first of all, let's get to the  
10 scenario. Let's say I've got this long string drawn 50/50  
11 (inaudible), 50/40.

12 Glenn Breaux: All right, I've got the (idea).

13 ROBERT KALUZA: So we got this long string from here to  
14 here, and when we cemented, we pumped our cement job, then we  
15 circulated probably 280 barrels of mud (inaudible) before we  
16 pumped cement. Then we did the cement job. I don't think we  
17 actually circulated the entire volume, so it's possible that  
18 what we did was we took some of this possible gas down here  
19 before the cement job and kind of parked it in the line  
20 somewhere in the hole, between here and here. That's possible.  
21 So now we were doing all this stuff, but the thing is if you say  
22 you parked it, and you give it a negative test (inaudible), it  
23 should flow, see? So I thought about that, if we parked some

1 gas somehow, not get it completely out of the hole during the  
2 cement job.

3 And then the other thing is we know that the gas came  
4 directly after the spacer got to the top. Is there any  
5 possibility at all that the gas {will be} circulating, got  
6 right underneath the spacer and got back here into the BOP,  
7 into the BOP, in there, above the kill line? And it wouldn't  
8 take a lot of gas.

9 Glenn Breaux: That's right, wouldn't take a lot of gas.

10 ROBERT KALUZA: Would only take one barrel, because soon  
11 as the spacer got back towards the (gas had been because it's in  
12 that final) - see, they were already getting spacers back. They  
13 got spacer, spacer, spacer, and then, all of a sudden, there was  
14 gas, and the gas was (inaudible).

15 Glenn Breaux: So the gas was left from not circulating the  
16 entire volume out?

17 ROBERT KALUZA: Possibly got in with the seawater and got,  
18 you know, above the drill pipe, goes over the drill pipe, yeah,  
19 and above - I mean, above the kill line. It had to be above  
20 the kill line, so it had to be in here where it wasn't - see,  
21 because we still had zero here on the choke side, and I think  
22 would open to the bottom kill valve. And so maybe that volume  
23 right in there could have some gas.

24 Glenn Breaux: But how far do they circulate?

1 ROBERT KALUZA: I don't know that (honestly).

2 Glenn Breaux: Okay.

3 ROBERT KALUZA: I don't.

4 Glenn Breaux: Well, even if gas came in here, it wasn't  
5 trapped, it would have been seen, unless you're saying it was  
6 closed.

7 ROBERT KALUZA: This was closed. If this gets closed, as  
8 soon as the spacer, by calculation (inaudible).

9 Glenn Breaux: So they should - after the spacer got  
10 (inaudible) closed, it got trapped below the cement (inaudible).

11 ROBERT KALUZA: It's possible, yeah.

12 Glenn Breaux: Is that when they saw it, after they opened  
13 the cement?

14 ROBERT KALUZA: No. No, they started circulating again.  
15 Oh, yeah, we circulated. Everything went according to plan  
16 again, started circulating. The mud came out right, strokes  
17 were right. There was no extra flow. See, that's the other  
18 part of this. If there was gas underneath, why didn't we see  
19 it start to flow? But we didn't. We started displacing again.  
20 And if you talk to the mud logger - and maybe you have, I don't  
21 know - he's the one that we talked to today (inaudible), Joe  
22 did, we, "Was there any aberration at all once we started  
23 displacing again?" No, all the flow was exactly as calculated.  
24 There was no extra flow. There was none of that. And so, I

1 mean, there was nothing wrong. I mean, nothing indicated  
2 anything was wrong. Nothing, seriously, nothing was wrong.

3 FEMALE VOICE: He said the negative test was good, and then  
4 he was telling about these gauges that he watches, that they're  
5 (inaudible).

6 ROBERT KALUZA: Yeah.

7 FEMALE VOICE: Is that any of these things?

8 ROBERT KALUZA: Well, I don't know. No, no, these gauges,  
9 the mini-trip tank, we watch. He may be tied into them, though.  
10 He may be, where he can (inaudible).

11 FEMALE VOICE: He was watching a gauge, and all of a  
12 sudden, he said they heard it, because his gauge dropped.

13 ROBERT KALUZA: I don't know.

14 Glenn Breau: Well, I (inaudible).

15 ROBERT KALUZA: So everything indicated we've got a  
16 successful negative test. Everything indicated there was no  
17 gas below the spacer, the heavy spacer.

18 The other thing that Don and I talked about, down here is  
19 where your hanger is, and it's got a seal down there. After we  
20 land the casing, we set the seals down there with pressure,  
21 pressure at the seal down there. Now these seals are the things  
22 that, of course, hold everything under that hanger. Don said,  
23 "Do you think that this negative test could possibly be enough,

1 at 4349 psi, to actually get this gas with that pressure to push  
2 those seals up?"

3 Now if they would push those seals out, and you have  
4 seawater in here, nothing is going to stop that gas. It's just  
5 going to go straight up, because mud will slow it down, because  
6 it's just the nature of synthetic oil-based mud, thickness, you  
7 know, the traction, hydrocarbon (adams). So seawater, it's like  
8 dropping a ball in water. I mean, there's nothing stopping -  
9 stop the gas from going. That's one other thing. If you had a  
10 seal with a seal failure here, and the gas was underneath here,  
11 (inaudible) and out.

12 Glenn Breaux: Back to after the negative test was  
13 performed, then they opened the annular and went all the way  
14 here and circulated.

15 ROBERT KALUZA: Yeah.

16 Glenn Breaux: When you see that small volume (trapped)  
17 below this annular, once we (it's open) and that's whatever  
18 small volume it is, (gets into that riser) that monitor,  
19 (inaudible).

20 ROBERT KALUZA: The thing was when he was monitoring the  
21 return flow, there was no indication of a (influx).

22 FEMALE VOICE: What time did that happen that you were just  
23 talking about?

1           ROBERT KALUZA: Well, we opened the (inaudible) probably, I  
2 don't know, this incident happened about 9:45, probably around,  
3 what, 8:45, something like that, I suppose. I don't know.  
4 Maybe it was eight, because that's quite a bit of volume right  
5 there that you got to pump out. So I don't know what time. Oh,  
6 we finished at eight, so they would have - it was 7:50, so they  
7 would have started about 8:00, and it would take about an hour  
8 and 45 minutes to get that pumped out of there.

9           Glenn Breaux: It's when that spacer actually surfaced?

10          ROBERT KALUZA: Yeah, that is when the gas surfaced,  
11 okay. But let's just you are circulating, and then you have a  
12 catastrophic failure at your seal (inaudible), because here's  
13 the deal. Now you've got almost - now you've got even a larger  
14 differential on the seal, because now you don't have this type  
15 of hydrostatic, because as soon as you - well, it should be the  
16 same I guess (inaudible). As soon as you open this, and the  
17 seawater gets here, you've already got this {gradient in} here  
18 anyway with the differential on this side. But I was just  
19 saying, if it was seawater, and these failed, the gap was just  
20 (inaudible).

21          Glenn Breaux: Well, when you guys first {relined} this  
22 well, and when it (inaudible) your 8367, your condition is all  
23 the way once you -

1           ROBERT KALUZA: We're just letting the hole fill (we've  
2 already conditioned the hole).

3           Glenn Breaux: Okay, and that's when you (be about  
4 circulated) all the way out, and you (inaudible).

5           ROBERT KALUZA: (Inaudible) this is when we did the  
6 (inaudible).

7           Glenn Breaux: Okay, so when you (were in there  
8 conditioning) when you (re-entered) this well, that would have  
9 (cleaned all this out).

10          Glenn Breaux: Did we circulate?

11          ROBERT KALUZA: We didn't circulate.

12          Glenn Breaux: You didn't there? No? Okay.

13          ROBERT KALUZA: Because we did the positive test. See,  
14 to do the positive test, you know, you have to come above your  
15 blind shear rams. So we just stopped up here (inaudible), above  
16 the BOP (inaudible) with the standard, if {these} pumped down  
17 the kill line, pressure test (inaudible), and then got to  
18 (inaudible) and then got down here.

19          Glenn Breaux: That's a very good possibility, that trapped  
20 gas on the mud did make its way to the low range?

21          ROBERT KALUZA: Well, possibly but, again, we didn't see  
22 any expansion here. And then the other one is if you did have a  
23 catastrophic failure at the seal, you have gas under here, and  
24 there was gas, and it just so happened that it failed at the

1 time that this was getting there, then you'd have that strong  
2 surge of gas.

3 Glenn Breaux: When the annular was closed, these {blinds}  
4 were open to check the pressure all this time?

5 ROBERT KALUZA: Yes, or one of them. I'm not sure if (if  
6 it was the upper or lower). I'm sure it was this one.

7 (Inaudible)

8 Glenn Breaux: See, and that's another thing I'm thinking  
9 about. If the gas were here, even though these lines are sort  
10 of small in diameter compared to this volume, that you may not  
11 see enough flow or pressure, and it's not until you open your  
12 annular, and then it gets into the big riser volume that these  
13 {fans} are not - now you've got (inaudible).

14 ROBERT KALUZA: That's a great fear of offshore, uh-huh  
15 [yes]. That's why a lot of times you wash across that annular,  
16 if you've ever shut it.

17 Glenn Breaux: You sweep it.

18 ROBERT KALUZA: You sweep it.

19 Glenn Breaux: Yeah, that's right.

20 ROBERT KALUZA: But in this case, we were doing the  
21 negative test, didn't see anything. So there's no indication  
22 of having gas while you're sweeping.

23 Glenn Breaux: That might be a recommendation that we can  
24 always make is sweep your preventer subsequent to opening - or

1 prior to opening, sweep (inaudible), or do a very simple  
2 negative test just using the (inaudible) your kill line, without  
3 the displacement.

4 Robert Kaluza: The displacement it makes it a very risky,  
5 more risky operation. So if you want to reduce risk, either  
6 just do it here and be happy with a 1400 psi negative test, or  
7 do it with drill pipe and get this kind of (inaudible), but only  
8 the drill pipe. And then all the rest (is synthetic oil base  
9 mud) and (inaudible).

10 MALE VOICE: Where did they plan on perforating this well?

11 ROBERT KALUZA: I don't know if the temporary abandonment  
12 (inaudible).

13 Glenn Breaux: I know somewhere in that area of here  
14 probably.

15 FEMALE VOICE: And there's concrete in there?

16 ROBERT KALUZA: Yeah. Yeah, we got a good cement (job).

17 FEMALE VOICE: So we're closed.

18 ROBERT KALUZA: The shoe was closed. That's what the  
19 positive test said. The positive test tells you that you've got  
20 a good cement job.

21 FEMALE VOICE: Right.

22 ROBERT KALUZA: (Inaudible). And there's multiple riser  
23 tops in this well, too, so you're also testing liner tops.

24 FEMALE VOICE: The spacer, (inaudible)?

1 ROBERT KALUZA: (Inaudible)  
2 FEMALE VOICE: I don't understand what you're (inaudible).  
3 ROBERT KALUZA: (Inaudible), you want it to (inaudible).  
4 FEMALE VOICE: A cork, like a cork, I mean, like it's  
5 acting as a cork? What does it do?  
6 ROBERT KALUZA: Yeah, it's acting -  
7 MALE VOICE: Yeah, acting like a cork, so just pushed  
8 everything above it.  
9 FEMALE VOICE: And (inaudible).  
10 Robert Kaluza: That's a way (inaudible), yeah,  
11 (inaudible).  
12 Glenn Breaux: : Okay.  
13 FEMALE VOICE: (Inaudible)  
14 MALE VOICE: You need to see a good drawing (inaudible).  
15 (Inaudible)  
16 FEMALE VOICE: Who do I contact at BP to get a good  
17 drawing?  
18 ROBERT KALUZA: Oh, you'd contact Engineering and the team.  
19 Well, contact the Well Team Leader, John Guide, G-U-I-D-E.  
20 FEMALE VOICE: (That's the one I see?)  
21 ROBERT KALUZA: Right.  
22 FEMALE VOICE: And does he have a phone number or an office  
23 number that I can look up?  
24 ROBERT KALUZA: I don't have his number.

1 Glenn Breaux: : Can you (inaudible) {prior to open}, this  
2 was just (pump down). It's the upper (inaudible). I don't know  
3 how close that would be (inaudible).

4 ROBERT KALUZA: And it could be done.

5 Glenn Breaux: : Oh, yeah.

6 ROBERT KALUZA: It could be done with the seawater.

7 Glenn Breaux: and then you're circulating any gas with that  
8 small diameter, which you can handle, you can control.

9 Robert Kaluza: Oh, yeah.

10 FEMALE VOICE: But I have one request. Your statement,  
11 your interview, don't (inaudible) in your statement. So I'm  
12 going to need you to start working on that. We've got enough  
13 for you to leave the boat tonight, but over the next few days,  
14 I need you to start drumming up a real statement, put those  
15 numbers where they go, tell us that whole story on paper.

16 ROBERT KALUZA: Okay.

17 FEMALE VOICE: So we did this line. At about this time, I  
18 talked to so-and-so. I know that I saw so and so; we were in  
19 the drill shack, blah, blah, blah.

20 ROBERT KALUZA: Okay.

21 FEMALE VOICE: So it's great information you have, but it's  
22 a little overwhelming, because it's very technical. But if it's  
23 down on paper, we can stop, look at it, maybe even call you if  
24 we need to and say, "When you said such-and-such, what did you

1 mean?" And I know I'm not the only one that's going to need  
2 that. BP is going to want it. They're going to want it.  
3 Everybody is going to want that better statement. So I would  
4 advise you to just get cranking on that.

5 ROBERT KALUZA: Okay. So I got time to do it?

6 FEMALE VOICE: Yes.

7 ROBERT KALUZA: Okay, good.

8 FEMALE VOICE: Yes, I want you to go home. I know you have  
9 things that you want to see and do long before you (inaudible) to  
10 this again.

11 ROBERT KALUZA: Yeah, get some sleep.

12 FEMALE VOICE: Yeah, yeah.

13 ROBERT KALUZA: Yeah, get all my identifications back.  
14 That's the big problem.

15 FEMALE VOICE: I know.

16 ROBERT KALUZA: IDs, passport, all this stuff (inaudible).

17 FEMALE VOICE: Yes. No, we're not going to hold you  
18 (inaudible). We've got what we need to get us going for a few  
19 days, but I will be following up -

20 ROBERT KALUZA: Okay.

21 FEMALE VOICE: - you know, (inaudible) a better  
22 (inaudible).

23 ROBERT KALUZA: And I can put my email address on there,  
24 too, if you'd like.

1 Glenn Breaux: Okay, once we get that schematic or drawing,  
2 (inaudible) go on from there. Yeah, (well Randy) any questions?

3 Randy Josey: Back to space out on the (tool joing), you  
4 know, space it out.

5 ROBERT KALUZA: I think they did. I don't know if they did  
6 or not, to be honest with you. In fact, when they started the  
7 displacement, we went through the displacement at a {pre-tour}  
8 meeting, and everyone was clear what they needed to do. I  
9 had to go down and work on the cementing calculations for the  
10 {ballanced} plug. So I went with the two cementers we got, and  
11 we went into my office, and we calculated the ballanced plug.  
12 Then I typed it up, and about an eight-bullet-point little  
13 program for the ballast plug. So they had already started the  
14 displacement while I was gone, yeah. But the thing is, most of  
15 these crews have done displacements many, many, many times.

16 Randy Josey: So {I didn't know if their standard}  
17 procedures was to space out before they closed the annular.

18 Robert Kaluza: yeah (inaudible) he may have to (inaudible).  
19 I'm sure they would.

20 FEMALE VOICE: I think I've got everything I need.  
21 (Inaudible)?

22 MALE VOICE: I agree.

23 FEMALE VOICE: {Jack}?

24 MALE VOICE: (Laughing)

1 MALE VOICE: Jack!

2 MALE VOICE: Yeah.

3 FEMALE VOICE: Okay. Well -

4 MALE VOICE: Robert.

5 FEMALE VOICE: You can leave here free to go eat.

6 ROBERT KALUZA: (Inaudible) I know everybody's pretty  
7 tired, and we even had to go have a talk with (inaudible) down  
8 there, because they all want to get home (inaudible).

9 FEMALE VOICE: Um-hm [yes], (inaudible).

10 ROBERT KALUZA: Traumatic experience for all of them, all  
11 of them.

12 FEMALE VOICE: So John Guide, he's out of where?

13 ROBERT KALUZA: He's in the BP office in Houston. I think  
14 he's there now (inaudible) 281/366-2000, I think, is the  
15 operation at BP (inaudible).

16 FEMALE VOICE: And he's (inaudible)?

17 ROBERT KALUZA: He's the Well Team Leader, and he  
18 (inaudible).

19 FEMALE VOICE: All right, go ahead and go before we find  
20 another question (laughing)

21 ROBERT KALUZA: Thank you very much. Okay, don't need  
22 anything else (inaudible), okay. All right, thank you.

23 MALE VOICE: (Good job).

24 FEMALE VOICE: Thank you. Get some rest.

1 ROBERT KALUZA: Yeah.

2 MALE VOICE: That (inaudible).

3 MALE VOICE: Yeah, he's very technical.

4 MALE VOICE: Yeah.

5 MALE VOICE: He knows possibilities.

6 FEMALE VOICE: The only thing I don't understand is he  
7 stayed on watch until about what time? He never left, because  
8 he wanted to see an accurate negative test, right?

9 Randy Josey: He was in the process of doing the test, and  
10 he just wanted to finish it up.

11 FEMALE VOICE: At about 8:00.

12 MALE VOICE: And he stayed over and (inaudible).

13 FEMALE VOICE: So at about eight, he said, "I'm satisfied.  
14 I'm going to bed."

15 MALE VOICE: Right.

16 FEMALE VOICE: And then they did what? What went on for  
17 the next hour and 45 minutes? They got that accurate test, and  
18 then they decided to -

19 Glenn Breaux: Well, they said they opened up the annular  
20 preventer. They started circulating again, and when that spacer  
21 got to the surface, that's when (inaudible).

22 FEMALE VOICE: Which is about how far?

23 Randy Josey: (Inaudible). A spacer is 450 barrels.

24 Glenn Breaux: Yeah, 450 barrels.

1 FEMALE VOICE: Of gooey stuff?

2 Randy Josey: Yeah, gooey stuff. And that's what he was  
3 talking about was on the rig floor, all that - he called it  
4 "snot."

5 FEMALE VOICE: So 400 - no, that's not right. What was the  
6 feet from the spacer to the surface?

7 Glenn Breaux: Well, roughly 5,000 - from the BOP to the  
8 mud lines to the rig, 5,000 feet. That's the water depth.

9 FEMALE VOICE: Anybody good with math that can figure out  
10 how fast that stuff was moving, 5,000 feet over an hour and  
11 45 minutes.

12 Randy Josey: Depends on how fast they're pumping, too.  
13 Somebody had the pumps on gallons per minute. They pumped  
14 so many barrels per minute, and I don't know what they were  
15 pumping.

16 FEMALE VOICE: (Inaudible) calculations?

17 Glenn Breaux: That would be if we knew how many {strokes}  
18 (he was pumping).

19 MALE VOICE: How fast it's coming out.

20 MALE VOICE: And having their (inaudible).

21 FEMALE VOICE: Okay.

22 Randy Josey: But, now, when they were doing this, we can  
23 get the mud loggers to (report) this, like you said, goes to the  
24 {bank}.

1 FEMALE VOICE: Right.

2 Randy Josey: Real time, so they have a chart showing the  
3 returns. Does that make sense? Okay, their records will tell  
4 you what you want to know.

5 FEMALE VOICE: It sounds like an official log was sent back  
6 to shore to put the mud logger entries into the system was what  
7 he was saying. So we want to be able to get those mud logger  
8 records out here.

9 MALE VOICE: Transmitted immediately.

10 FEMALE VOICE: Right, and that -

11 MALE VOICE: (Inaudible)?

12 FEMALE VOICE: Oh, I don't know. I guess it depend  
13 (inaudible), just because you know {how} they're looking at it.

14 MALE VOICE: Yeah, (inaudible).

15 MALE VOICE: What now?

16 MALE VOICE: Which log?

17 MALE VOICE: Everything on the rig.

18 MALE VOICE: Yeah, unless it's transmitted  
19 contemporaneously.

20 Randy Josey: And the (inaudible) it was transmitted {to  
21 the} mud logging unit real time, so they should have in the  
22 office (inaudible).

23 FEMALE VOICE: Well, he's on our list of people still to  
24 talk to, and I think he's got a pretty good story. You know, I

1 don't know, but want to make sure (inaudible) that he does about  
2 a two-hour interview. Mud logger, drill fluid specialist,  
3 {client} specialist, drill quip service tech, chief mate,  
4 offshore installation manager, janitor (welder)?

5 MALE VOICE: Yeah.

6 FEMALE VOICE: (Inaudible). I know he's wearing red  
7 and a hat on, and he's got shaggy hair, and his daughter and  
8 son-in-law are in the Coast Guard, and their last name is  
9 {Bahea}; daughter's name is {Heather}, I believe. Don't ask  
10 me how I know these things.

11 MALE VOICE: (Inaudible).

12 FEMALE VOICE: Well, did they check in with -

13 FEMALE VOICE: Can I please (inaudible)?

14 MALE VOICE: (Inaudible).

15 MALE VOICE: (Inaudible).

16 MALE VOICE: (Inaudible). How do you get out of here?

17

18 (End of interview)

