

Deposition Testimony of:

Xuemei Liu

Date: May 23, 2011

Created by:



www.indatacorp.com

Page 6:14 to 6:16

00006:14 XUEMEI LIU,
15 having been first duly sworn, testified as
16 follows:

Page 6:21 to 7:03

00006:21 Q. My name is William Large. I am
22 a lawyer for the Plaintiffs' Steering
23 Committee in the MDL 2179 DEEPWATER HORIZON
24 explosion litigation. So you're
25 understanding that's why you're appearing
00007:01 here today, to testify about matters related
02 to that?
03 A. Yes.

Page 7:07 to 7:19

00007:07 Q. Yes. Just to begin with, if we
08 can mark as an exhibit the 30(b)(6) notice.
09 (Exhibit No. 2369 was marked.)
10 Q. (BY MR. LARGE) I'm handing you
11 Exhibit No. 2369. Have you seen this
12 document before?
13 A. Yes.
14 Q. Is it your understanding that
15 you are here today to testify about Topic
16 No. 2, which is: Potential income revenue
17 and/or profit anticipated or expected to be
18 realized from the Macondo prospect?
19 A. Yes.

Page 7:24 to 8:04

00007:24 Q. Do you understand that the
25 testimony that you give here today is on
00008:01 behalf of BP entities, you in a sense are
02 standing in the shoes of BP to answer
03 questions for BP?
04 A. Yes, I understand that.

Page 8:22 to 8:22

00008:22 Q. There is nothing wrong with

Page 8:24 to 9:01

00008:24 May I ask you what you have done
25 to prepare for testifying today?
00009:01 A. I met with my lawyers.

Page 9:08 to 9:20

00009:08 Q. (BY MR. LARGE) For how long did
09 you meet with them?
10 A. About four -- roughly about four
11 hours on Thursday. Six, seven hours on
12 Friday. And two hours yesterday.
13 Q. During that time did you review
14 any documents?
15 A. I reviewed material Chad had
16 prepared for me.
17 Q. Approximately how many documents
18 did you review?
19 A. It's a lot of them, I don't
20 remember. It's a binder.

Page 10:06 to 10:06

00010:06 Q. How long have you worked for --

Page 10:11 to 10:14

00010:11 For which BP entity do you
12 currently work?
13 A. I currently work for BP's Gulf
14 Coast Restoration Organization.

Page 10:21 to 11:04

00010:21 Q. The -- do you use the acronym
22 GCRO?
23 A. That's correct.
24 Q. And for how long have you worked
25 for the GCRO?
00011:01 A. I started at August 2010.
02 Q. What is your -- what is the name
03 of your title at the GCRO?
04 A. Economics manager.

Page 11:16 to 11:18

00011:16 Q. As part of your duties and
17 activities for GCRO as economics manager, do
18 you perform financial analysis?

Page 12:05 to 12:12

00012:05 A. Not internal financial analysis.
06 The more collecting/analyzing data on Gulf
07 Coast economy.
08 Q. (BY MR. LARGE) Prior to your
09 job as the economics manager for the GCRO,

10 what was your position and with what entity?
11 A. My title was -- I was head of
12 finance for Gulf of Mexico exploration.

Page 13:13 to 14:16

00013:13 Q. The finance group which you
14 headed up, what was the primary
15 responsibility of that group?
16 A. The primary responsibility of
17 that group is working with the business
18 setup. I help them set up their budget,
19 track their spending, make sure we had a --
20 we have appropriate approval for the --
21 spending money. It's a finance and
22 accounting process. I also make sure all the
23 spending was categorized in the appropriate
24 bucket.
25 Q. Would you consider part of your
00014:01 work to conduct project finance analysis for
02 prospective capital investments?
03 A. Yes, the economic evaluation was
04 part of my team's responsibility.
05 Q. You mentioned that part of your
06 responsibilities was to secure the
07 appropriate approval. Could you please
08 explain for me what you meant by that term?
09 A. For me is more financial. There
10 is BP standard, you have to get a financial
11 memorandum. It's -- whatever the capital
12 investment, the capital we needed, we need to
13 make sure the document in place and document
14 approved, then, before start the operation.
15 So that's -- we call that a governance
16 process.

Page 15:13 to 16:07

00015:13 Q. Were you personally responsible
14 for preparing the financial memorandum?
15 A. We have a standard template. We
16 send it to whoever the expert working on
17 those particular sections, that they describe
18 it and send it back to us.
19 Q. When you say the expert for that
20 project, in this case would that be Mark
21 Hafle?
22 A. For financial memorandum it was
23 related or was describing the subsurface,
24 what is the structure looks like and all
25 that. That's going into exploration
00016:01 managers, exploration team leaders. They
02 would describe. So it's depend what section.
03 If it's drilling section, drilling section go

04 to the drilling engineers. If it's
05 subsurface or geology, geophysicist, that
06 goes to exploration manager. They put those
07 together, send it back to us.

Page 16:13 to 16:18

00016:13 Q. (BY MR. LARGE) Yes. You
14 mentioned that you worked with some experts
15 on preparing the financial memorandum for the
16 Macondo prospect. Is that fair?
17 A. My -- one of my team members,
18 Semina Sewani, she worked on this.

Page 16:20 to 16:25

00016:20 Do you know with whom she
21 worked, the experts with whom she worked?
22 A. I believe she sent the request
23 to exploration managers and she worked with
24 getting data, information, work with Mark
25 Hafle and also the reservoir engineers.

Page 19:11 to 19:17

00019:11 Q. (BY MR. LARGE) Ma'am, I've
12 asked you to look at what is Exhibit 2370 --
13 A. Uh-huh.
14 Q. -- with a final Bates number on
15 the bottom ending 256297. It is an e-mail
16 from you to Mr. Peter Zwart dated May 1st?
17 A. Yes.

Page 20:08 to 21:06

00020:08 Q. Is this exhibit the financial
09 memorandum -- or one of the financial
10 memoranda of which we spoke earlier?
11 A. Yes, this is the first one.
12 Q. And this first financial
13 memorandum, was this the one that you sent to
14 Mr. Illingworth?
15 A. That's correct.
16 Q. If I can ask you specifically,
17 who asked you to prepare this memorandum?
18 A. It is VP of Gulf of Mexico
19 exploration.
20 Q. And who is that?
21 A. Dave Rainey.
22 Q. And if we turn to the next page.
23 I think we see Mr. Rainey's signature there
24 dated September 30th, '09?
25 A. Yes.

00021:01 Q. We have a signature above that
 02 which says it's supported by Andy Inglis?
 03 A. Uh-huh.
 04 Q. And above that the project SPA,
 05 Michael Daly?
 06 A. Yes.

Page 21:10 to 21:10

00021:10 Q. Okay. At the top there are two

Page 21:13 to 22:16

00021:13 there is titled Sanction Request (NTE). And
 14 does "NTE" stand for net total expenditure?
 15 A. NTE stands for not to exceed.
 16 Q. Not to exceed. And Performance
 17 target (PT). Can you explain to me what a
 18 performance target is?
 19 A. Performance target here is the
 20 main forecast or main estimate of the well
 21 spending, the cost will be.
 22 Q. When this financial memorandum
 23 was approved, did that mean, therefore, that
 24 the project could spend a total of
 25 \$139,500,000 without seeking additional
 00022:01 approval?
 02 A. No, what this means is it is a
 03 estimate, is a dispu- -- distribution. There
 04 is a range. The performance target is the
 05 mean. Not to exceed is the 90, P90 we call
 06 that. Basically 90 percent of a chance our
 07 cost will be under this limit, is the 139,
 08 but a 10 percent chance it could go over.
 09 Q. And so when we look at what
 10 would be called a distribution curve of
 11 potential costs, out where you have the 90
 12 percent level is what you're saying, that
 13 there's a 90 percent chance of staying within
 14 roughly \$140 million?
 15 A. Should be. This came from the
 16 drilling engineers.

Page 24:05 to 24:23

00024:05 Q. Okay. Let's take these from
 06 left to right. The first, NPV7, again, you
 07 mentioned that's net present value with a 7
 08 percent discount rate, correct?
 09 A. That's correct.
 10 Q. And what you've done, just to
 11 restate, you have calculated this number at
 12 three different assumptions regarding oil and

13 gas prices, correct?
 14 A. That's correct.
 15 Q. Okay. The next column, internal
 16 rate of return, again, you've calculated
 17 three numbers which correspond to potential
 18 oil and gas price scenarios, correct?
 19 A. That's correct.
 20 Q. At this time that this financial
 21 memorandum was prepared, did BP have
 22 generally a estimate of the long-term value
 23 for crude oil?

Page 24:25 to 25:03

00024:25 A. The thing in the instruction we
 00025:01 do get is a general -- is just a long-term
 02 assumption. Internal BP we're assuming \$75.
 03 We call that a base price.

Page 26:02 to 26:02

00026:02 Q. (BY MR. LARGE) Let me ask a

Page 26:09 to 26:15

00026:09 I'm not asking how the 75 was
 10 derived, but in your calculations and in BP's
 11 calculations of what type of profit to
 12 expect, \$75 for oil and 7.5 dollars for a
 13 thousand cubic feet of gas are the
 14 assumptions that were given to you to use?
 15 A. That's right, yeah.

Page 27:03 to 27:12

00027:03 Q. And if we look at the next
 04 column, which is Success IRR, or internal
 05 rate of return, at the projected 75-dollar
 06 7.5-dollar projection, I see an internal rate
 07 of return of 20.4 percent. Did I read that
 08 correctly?
 09 A. That's correct.
 10 Q. Does BP consider 20.4 percent
 11 internal rate of return a good rate of return
 12 for an investment?

Page 27:15 to 27:22

00027:15 A. Yeah, the decision -- I do not
 16 know the decision process, who made the
 17 decision. But there is -- to my knowledge
 18 there is no hurdle have to be 20, 10 or there

19 is such -- it's just a indicator for some
 20 adding [phonetic]. For -- particularly for
 21 exploration wells, this is -- it just so much
 22 unknown.

Page 28:11 to 28:11

00028:11 Q. Okay. You mentioned hurdle

Page 28:15 to 29:10

00028:15 Can you tell me where you
 16 received your undergraduate degree and in
 17 what discipline?
 18 A. I received my undergraduate
 19 degree from Beijing University in China. My
 20 degree was bachelor of science in psychology.
 21 Q. As part of your undergraduate
 22 studies, did you take any courses in
 23 economics or finance?
 24 A. No.
 25 Q. Did you -- what year was -- did
 00029:01 you receive your bachelor of science?
 02 A. 1991.
 03 Q. After that point did you attend
 04 graduate school?
 05 A. Yes, I did.
 06 Q. And what school did you attend?
 07 A. Rice University.
 08 Q. What kind of degree did you
 09 receive and in what discipline?
 10 A. MBA in finance.

Page 31:23 to 32:13

00031:23 Q. What year did you start at BP?
 24 A. I started with Amoco in '97
 25 after my -- finish my MBA.
 00032:01 Q. What was --
 02 A. Then the merger.
 03 Q. What was your first position
 04 with Amoco?
 05 A. The economist.
 06 Q. As part of your work as an
 07 economist with Amoco, did you do what you
 08 referred to as project economics?
 09 A. That's correct.
 10 Q. After the merger with BP, did
 11 your position and your duties remain the
 12 same?
 13 A. Immediately after, yes.

Page 35:17 to 35:23

00035:17 Q. Do you recall what the chance of
18 a dry hole was determined to be in the
19 Macondo case?
20 A. In this FM, chance of discovery,
21 chance of success is 67. So is a dry hole
22 chance of 33.
23 Q. In your experience is that a

Page 35:25 to 36:22

00035:25 Macondo was considered a wildcat
00036:01 well, correct?
02 A. I believe so.
03 Q. Okay. Is a 67 per chance --
04 percent chance of success in your experience
05 a high percent or low compared to the mean?
06 A. Compared to the other
07 exploration wells I saw, I did not run
08 distribution, and this is relatively high
09 chance of success.
10 Q. And relative, like you said, to
11 other projects who either analyzed or saw, is
12 the success IRR lower than what you normally
13 observed?
14 A. I believe this is higher end of
15 it.
16 Q. Higher?
17 A. I did not really run comparison
18 with others. This is higher.
19 Q. And in general from a
20 profitability standpoint, is it fair to say
21 that Macondo was a relatively highly
22 profitable, relatively low-risk prospect?

Page 36:24 to 37:05

00036:24 A. It's look at different -- the
25 matrix, the return is reasonably good. But
00037:01 on the success NPV, it is a relatively small
02 project within BP. So is -- return is
03 relatively good but PV is reasonable -- there
04 are a lot of larger projects have higher
05 NPVs.

Page 45:10 to 45:25

00045:10 Q. Let me ask you a general
11 question here, more of a qualitative sense
12 with regard to Macondo. If the costs
13 exceeded the amounts originally projected,
14 the performance target of roughly 96 million,
15 how would that affect the internal rate of
16 return?

17 A. Our internal -- economics for
18 exploration, it assumed \$139 million in the
19 economics. It is not using 96. It use 139.
20 Q. Thank you. That was helpful.
21 Do you recall what ultimately
22 was spent in a gross amount on the Macondo
23 project?
24 A. I remember roughly about
25 150 million on April 20.

Page 46:07 to 46:14

00046:07 MR. MORRIS: Exhibit No. 2372. Bates
08 range ends in 6206?
09 MR. LARGE: That's correct.
10 Q. (BY MR. LARGE) Exhibit 2372 is
11 an e-mail from you, I believe, to Mr. Zwart
12 dated May 1st, 2010. Do you recall sending
13 this e-mail to Mr. Zwart?
14 A. Yes, I do.

Page 47:03 to 47:05

00047:03 Q. Okay. And just for ease of
04 proceeding, let's look at Exhibit 2372, Bates
05 range number at the bottom 6207?

Page 47:07 to 47:10

00047:07 Q. If we look two-thirds of the way
08 down the page on the right-hand side there is
09 something called Estimated Gross Cost?
10 A. Yes.

Page 47:13 to 48:04

00047:13 Q. And it lists a total project
14 cost of \$96,100,000. Do you see that?
15 A. Yes, I do.
16 Q. And was that the -- that's the
17 project target cost?
18 A. That's is a mean forecast.
19 Q. Mean forecast. If the Macondo
20 project requires expenditures of more than
21 \$96,100,000, is a subsequent authorization
22 for expenditure required?
23 A. The rule is that if it's 10
24 percent over, then there need to be a
25 supplemental AFE, but that supplemental AFE
00048:01 have within the approved FM capital number.
02 If is more than the FM approved, we need a
03 supplemental FM. So there is a process in
04 place we follow.

Page 49:03 to 49:13

00049:03 Q. That's right? And if we look --
04 that amount now and the authorization for
05 expenditure is 124 million; is that correct?
06 A. That's correct.
07 Q. Right above that there are a
08 calculation of 9 -- 96.1 million. That was
09 the original AFE amount; is that correct?
10 A. Uh-huh. That's correct.
11 Q. And the next is the total
12 supplemental amount of 27,900,000?
13 A. Yes.

Page 52:23 to 53:10

00052:23 Q. And in this AFE we see that the
24 authorization is for an additional
25 \$27 million; is that correct?
00053:01 A. That's right.
02 Q. So now the total project cost
03 that's authorized is \$151 million as of late
04 March; is that correct?
05 A. That's correct.
06 Q. And does this correspond with
07 your recollection you told me earlier that
08 the total cost for this project ended up
09 being about \$150 million?
10 A. Yes.

Page 54:25 to 55:10

00054:25 Q. And I guess really what I'm
00055:01 getting at is, is there an instance in which
02 unexpectedly costs rise so much that a
03 project is canceled?
04 A. No, not I know of.
05 Q. In your ten years, even 13 years
06 going back to Amoco, can you recall an
07 instance where a well was spudded and drilled
08 partially where because of the economics
09 later, the project was not completed?
10 A. No.

Page 90:13 to 90:13

00090:13 (Exhibit No. 2376 was marked.)

Page 90:24 to 92:21

00090:24 Q. If you look at the total project

25 costs for this AFE dated June 18th, 2009?
00091:01 A. Yes.
02 Q. The project costs, at least
03 indicated there, is \$120 million --
04 \$120,580,000. Do you see that?
05 A. Yes, I do.
06 Q. Do you have any idea where that
07 number came from?
08 A. Yes. That came from Mark Hafle.
09 Q. Okay. Just a stab in the dark,
10 would Mark Hafle have used the TAM process to
11 develop that number to your knowledge?
12 A. No, this is -- the TAM is a --
13 he could have used this for TAM, so, I mean,
14 but you do not use the TAM for this.
15 Q. Okay. Do you recall why the
16 number of roughly 120 million eventually
17 decreased to around 96 million in the AFE
18 that was eventually executed?
19 A. Yes. If you read this middle
20 page, it is -- specifically says in the text
21 box, it says: AFE also include additional
22 18 days and 21.4 million for the suspension
23 of the well prior to peak of hurricane season
24 and a restart of the well following the end
25 of the peak of hurricane season.
00092:01 So what this saying, my
02 understanding was, we will start the well.
03 Before we finish the well, we'll stop
04 drilling, we'll move away during the
05 hurricane season. There will be no activity.
06 There is two months of no drilling activity.
07 Then it will come back. So there is actual
08 20-something million because of moving in,
09 moving out.
10 Later on in the new FM, it is
11 assuming we are -- it is past the six -- or
12 60 days already over.
13 Q. Was it originally anticipated
14 that the well was going to be spudded earlier
15 than it originally was?
16 A. There was a discussion about it.
17 Q. And if it was earlier, then this
18 would have been roughly the AFE, the
19 \$120 million that you would be accounting
20 for; is that correct?
21 A. Could be. Could be, yeah.

Page 94:25 to 95:01

00094:25 Q. Okay. Let me ask you to turn to
00095:01 Tab 12 which will be Exhibit 2378?

Page 95:04 to 95:04

00095:04 (Exhibit No. 2378 was marked.)

Page 96:15 to 97:01

00096:15 Q. And what I'd like to ask you is
16 about a third of the way down there is a line
17 called Resource Potential?
18 A. Yes.
19 Q. And it says: Gross risked
20 P90-mean-P10 is 44-64-86.
21 Do you see that?
22 A. Yes, I see. It is a gross
23 unrisked P90-mean-P10 is 44-64-86.
24 Q. And so the 44, I assume that's
25 44 million barrels?
00097:01 A. Barrel of oil equivalent.

Page 97:15 to 98:06

00097:15 Q. Does the 44 million and the 64
16 and the 86 represent recoverable oil -- oil
17 and oil equivalents?
18 A. What this says, resource
19 potential for the structure. BP does not own
20 a hundred percent of the structure, the
21 block, MC252. Does not own a hundred
22 percent. Own 80 percent. So what's here is
23 describing the total resource in the
24 structure. So the BP's 80 -- the other 20
25 percent may never get produced or recovered.
00098:01 Q. I understand. Okay. Over time,
02 from the time this project was analyzed in
03 earlier 2009 in kind of the May/June/July
04 time frame, did the estimate of the resource
05 potential increase, to your knowledge?
06 A. Not I know of.

Page 101:18 to 101:21

00101:18 (Exhibit No. 2380 was marked.)
19 Q. (BY MR. LARGE) The first e-mail
20 in the middle is from you to David Rainey and
21 dated March 24th, 2010?

Page 101:23 to 102:18

00101:23 Q. And I think -- does this
24 represent what you just described to me about
25 Mr. Rainey -- or Mr. Daly, excuse me, having
00102:01 authority to approve a project that is under
02 \$100 million net?
03 A. That's correct.

04 Q. And is Mr. Daly the MCD
05 referenced?
06 A. Yes.
07 Q. In this time period of roughly
08 March 22nd, so when the AFE was authorized on
09 March 26th, was the process moving along
10 faster than what you were normally used to?
11 A. Yes, because the operation. And
12 when the operation happened we need to move
13 the paperwork fast, yes.
14 Q. Faster than usual; is that
15 correct?
16 A. That's right.
17 Q. Was it fairly frantic getting
18 all this stuff together?

Page 102:20 to 103:13

00102:20 A. It was not really. We were
21 okay. That's why we -- the document is not
22 ready so I give everybody the heads-up, it's
23 coming, we're putting it together and that's
24 why I talked to Martin, so get everybody in
25 line. The paper -- once the paperwork, send
00103:01 it over and so they can sign it all right and
02 quickly.
03 Q. (BY MR. LARGE) Were you told by
04 anyone, such as Mr. Rainey, that this needed
05 to be done quickly?
06 A. I told. And our land negotiator
07 told me they wanted it done quickly so he can
08 send it out quickly.
09 Q. And who is the name of the
10 London negotiator?
11 A. Michael Beirne is the -- he is
12 the --
13 MR. MORRISS: Land.

Page 103:19 to 104:03

00103:19 mean, Mr. Beirne is a land man?
20 A. Yes, he is a land man. That's
21 why he want it -- you can go back and see he
22 want ASAP.
23 Q. He needs to get -- excuse me --
24 that's because he needs to get approval from
25 the working interest owners?
00104:01 A. Uh-huh.
02 Q. Is that correct?
03 A. That's right.

Page 105:20 to 105:21

00105:20 Q. Good morning. My name is Bruce
21 Bowman.

Page 105:23 to 105:23

00105:23 Q. And I represent Halliburton. A

Page 116:25 to 117:01

00116:25 Q. Okay. What was the calculation
00117:01 of potential income from the Macondo well?

Page 117:05 to 117:17

00117:05 A. You mean, potential
06 profitability?
07 Q. I'll go with either one. How
08 about -- we'll go with potential
09 profitability right now.
10 A. Yeah, the way BP look at
11 evaluating a project is there is a set of
12 indicators we use, like NPV discounted at 7
13 percent, IRR, investment efficiency and
14 discounted payback in years.
15 So those are the four indicators
16 are standard indicators in our financial
17 memorandum.

Page 118:04 to 118:11

00118:04 Q. (BY MR. BOWMAN) I understand.
05 But the topic you actually were produced on
06 is: Potential income revenue and profit
07 anticipated or expected to be realized from
08 the Macondo well.
09 So can you tell me, sitting here
10 today, what the anticipated profit on the
11 Macondo well was?

Page 118:14 to 118:17

00118:14 A. Anticipated value overall to be
15 realized is based on 75-dollar oil,
16 7-dollar-50 gas. NPV is -- in the success
17 case is about 417 million.

Page 118:19 to 118:24

00118:19 A. That's correct. Of course is
20 this exploration well, the outcome, you know,
21 is could be dry hole, could be negative value
22 to the group and it could be positive. This

23 is just one base-case scenario in case of
24 success.

Page 124:11 to 124:21

00124:11 Q. Okay. I'm sorry. Where is the
12 drilling part?
13 A. That would be Readiness to
14 Execute. If you look at the third bullet:
15 The Macondo well will be drilled by Marianas
16 rig.
17 Q. Take 77 days to drill?
18 A. To drill, yeah.
19 Q. Okay. That comes from the
20 drilling people?
21 A. Yeah.