

In the matter of an arbitration under the Rules of Arbitration  
of the Arbitration Institute of the Stockholm Chamber of  
Commerce

No: V (116/2010)

ICC Hearing Centre 112, avenue Kleber  
75016, Paris

Day 3  
Hearing on Quantum

Wednesday, 30th January 2013

Before:

PROFESSOR KARL-HEINZ BOCKSTIEGEL PROFESSOR SERGEI LEBEDEV MR DAVID  
R HAIGH QC

BETWEEN:

ANATOLIE STATI GABRIEL STATI ASCOM GROUP SA TERRA RAF TRANS  
TRAIDING LIMITED

Claimants

-v-

THE REPUBLIC OF KAZAKHSTAN

Respondent

REGINALD SMITH, KENNETH FLEURIET, KEVIN MOHR, JAMES TOHER, HELOISE  
HERVE, AMY ROEBUCK FREY, ALEXANDRA KOTLYACHKOVA and VALERYA  
SUBOCHEVA, of King & Spalding, appeared on behalf of the Claimants.

DR PATRICIA NACIMIENTO, MAX STEIN and SVEN LANGE, of Norton Rose  
LLP, and JOSEPH TIRADO, of Winston & Strawn, appeared on behalf  
of the Respondent.

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09:30 1

Wednesday, 30th January 2013

2 (9 37 am)

3 TH CHAIRMAN: Good morning, everybody. Before we get going  
E  
4 with the first expert, let me just give the results of  
5 the timekeeping team. Now, including the one hour that  
6 we already agreed last night, that means that the  
7 claimants have 3 hours and 43 minutes left, and the  
8 respondent 2 hours 52.

9 Now, looking at that, I could imagine that we still  
10 have some margin tomorrow, in case we really need it.  
11 I'm just saying that. If we take off the breaks, it  
12 won't be much maybe, but it depends a little bit how we  
13 go today and how we spend the time. But I think we  
14 might have some flexibility tomorrow, in case you can't  
15 really do it in these periods I've just mentioned. But  
16 it's a bit hard to say right now because we don't know  
17 how the rest of the morning goes.

18 Yes?

19 DR NACIMIENTO: I have one suggestion, Mr Chairman. I think  
20 it would be useful to have the respective experts  
21 together, and based on the programme that would apply,  
22 I would say, for FTI and Deloitte. And it might be  
23 useful to decide that we are going to have them  
24 tomorrow, because I think it would be beneficial to hear  
25 them in one session.

09:38 1 THE CHAIRMAN: Well, we are in favour of expert  
2 conferencing, as you know.  
3 DR NACIMIENTO: Yes.  
4 THE CHAIRMAN: But as far as I could see, it has only been  
5 prepared for one group of experts where we have a joint  
6 statement, a joint comparison report.  
7 DR NACIMIENTO: Actually, there is also now one for Deloitte  
8 and FTI.  
9 THE CHAIRMAN: There is?  
10 DR NACIMIENTO: Yes, there is one. It has been agreed last  
11 night, and we could -12THE CHAIRMAN: I see. So we don't know  
that, of course.  
13 DR NACIMIENTO: No, that's a new development.  
14 THE CHAIRMAN: Okay.  
15 DR NACIMIENTO: I think we have printed copies, and we  
16 could -17THE CHAIRMAN: I personally think it would be  
preferable to  
18 have them together, because otherwise the separate  
19 examinations tend to go into things which have been  
20 written before and which you nevertheless feel you have  
21 to question again. So if the parties can agree on that,  
22 I would certainly be in favour.  
23 MR SMITH: I want to be clear, Mr Chairman. I thought we  
24 had an agreement with the other side that each party  
25 would examine the experts witnesses from the other side

09:39 1 first, and then there will be conference. You are not  
2 proposing a change to that?  
3 DR NACIMIENTO: No. My proposal is to decide now to move  
4 FTI and Deloitte completely to tomorrow.  
5 MR SMITH: Oh. That is our agreement.  
6 DR NACIMIENTO: Is that in agreement with the Tribunal?  
7 THE CHAIRMAN: It's a bit for you whether there is  
8 sufficient time to do that tomorrow then, but I suppose  
9 there is, if you feel ...  
10 DR NACIMIENTO: So we shall organise a print-out then of the  
11 joint issue list.  
12 THE CHAIRMAN: Okay. So we will have two groups of experts  
13 together, but it will still be done in the way you had  
14 suggested and we accepted: that you have your time with  
15 them separately first. So it's not really expert  
16 conferencing in the traditional way. Since you are so  
17 efficient on both sides it may well be that the  
18 conferencing part will be short as far as we are  
19 concerned, but we'll see that. 2 0 DR NACIMIENTO: Okay.  
21 MR SMITH: One other thing. I don't know that we discussed  
22 this, but I want to make sure. With respect, for  
23 example, to Ryder Scott and Gaffney Cline -- let's take  
24 them first -- there are two witnesses that are appearing  
25 for the respective firms. Will those witnesses appear

09:41 1 at the same time; in other words, will they both be at  
2 the witness table?  
3 THE CHAIRMAN: I would think so.  
4 DR NACIMIENTO: Yes.  
5 MR SMITH: Okay. And that's satisfactory for us; I just  
6 want to make sure.  
7 DR NACIMIENTO: And for Gaffney Cline it's even three  
8 witnesses.  
9 THE CHAIRMAN: They should certainly be together, because  
10 basically they will make up their own mind who is best  
11 to answer a certain question, I suppose.  
12 MR SMITH: That will be interesting.  
13 THE CHAIRMAN: But you may want to insist that somebody else  
14 answers, but we'll see.  
15 Alright. So if you feel comfortable that this can  
16 be done in addition to the one fact witness we have  
17 tomorrow, we will move -- what is it, Deloitte?  
18 DR NACIMIENTO: Deloitte and FTI.  
19 THE CHAIRMAN: Deloitte and FTI to tomorrow morning.  
20 DR NACIMIENTO: Yes.  
21 THE CHAIRMAN: A final question: do the parties intend to  
22 present oral closing statements in addition to the two  
23 rounds of post-hearing briefs? Because that, obviously,  
24 you would have to calculate into your time.  
25 MR SMITH: If the question is with respect to this



09:42 1 particular session that concludes tomorrow, it has not  
2 been within the contemplation of claimants that we would  
3 have oral closing submissions.

4 We had suggested at the last hearing that if the  
5 Tribunal would find it useful, claimants certainly would  
6 be prepared to come back for a one-day session, for  
7 example, for summation, after all of the writings are  
8 in. We think that might be helpful, but again that's  
9 within the discretion of the Tribunal.

10 DR NACIMIENTO: And the same position from our side. We  
11 also think it would be useful to have closings, but  
12 later on, after all the submissions.

13 TH CHAIRMAN: Okay, we can discuss that then. But as far  
E as tomorrow is concerned, there will be no closing  
14 submissions.  
15

16 Okay, we'll deliberate that and then, as usual, send  
17 you a draft procedural order on the further procedure.  
18 We'll have to discuss a few other things before that,  
19 and that will be part of that.

20 Alright. Without further ado, we turn to  
21 Professor Olcott.

22 (9 43 am)

23 PROFESSOR MARTHA BRILL OLCOTT (called)

24 TH CHAIRMAN: Professor Olcott, you have a declaration in  
E front of you. Would you be kind enough to read that out  
25

09:43 1 to us?

2 THE WITNESS: I solemnly declare upon my honour and  
3 conscience that my statement will be in accordance with  
4 my sincere belief. I am aware that in my testimony  
5 I have to tell the truth and nothing but the truth.  
6 I am also aware that if I do not comply with this  
7 obligation, I may face severe legal consequences.

8 THE CHAIRMAN: Thank you. Alright, respondent for the  
9 introduction.

10 MR TIRADO: Thank you, sir.

11 (9.44 am)

12 Direct examination by MR TIRADO

13 Q. Good morning, Professor Olcott. Hopefully you have in  
14 front of you a report dated 1st December 2012.

15 A. Yes .

16 Q. Is that correct?

17 A. Yes .

18 Q. And is that your report?

19 A. Yes, it is.

20 Q. Do you have anything you wish to correct or change in  
21 that report?

22 A. No, I don't.

23 Q. Professor Olcott, I think it might be helpful for the  
24 Tribunal if you could begin, perhaps, by giving just  
25 a general overview of your professional qualifications

09:44 1 and work experience.

2 A. I have a PhD in political science and specialised in  
3 political economy. For the last 40 years --  
4 unfortunately it's almost that long! -- I've worked on  
5 Central Asia and on Kazakhstan.

6 I am a tenured and now retired professor of  
7 political science at Colgate University. I am  
8 a visiting professor at Michigan State University.  
9 I have been a senior associate at the Carnegie Endowment  
10 for International Peace since 1995.

11 In 1992 Secretary of State James Baker waived  
12 a hiring freeze in the State Department to make me  
13 a special assistant on Central Asia for the Deputy  
14 Secretary of State. In 1994 President Clinton appointed  
15 me to the Central Asian American Enterprise Fund, which  
16 was a \$150 million fund. I was the sole expert on that  
17 fund. I held that for five years. In the years since,  
18 I have on numerous occasions provided expertise in the  
19 US, in the EU and in the Central Asian countries.

20 I began working doing political risk in the oil, gas  
21 and gold industries in 1990. I worked with Chevron  
22 before even the collapse of the Soviet Union on the  
23 Tengiz agreement. I spent three years as an expert  
24 advisor for Unocal when they were engaged in  
25 Turkmenistan, Uzbekistan and Kazakhstan. I've done

09:46 1 political risk analysis for ExxonMobil and for  
2 British Gas, and for AMCO before it became part of BP.

3 In recent years, a year ago I was appointed the only  
4 American on the International Monetary Fund's Central  
5 Asia and Caucasus Group. There are two Europeans on the  
6 fund; one was the former head of the EBRD, and the other  
7 the former head of the bank of Switzerland.

8 I've written extensively on the oil and gas industry  
9 in Central Asia and in Russia, including spending two  
10 years on a project involving Russian oil and gas  
11 interests in the border regions with Kazakhstan.

12 Q. Thank you, Professor Olcott.

13 In your report you describe your background to your  
14 experience and knowledge in the oil and gas industry in  
15 Russia, Kazakhstan and in Central Asia specifically.

16 Can you elaborate a little more on that?

17 A. I've written extensively on the oil and gas industry in  
18 all those places, in addition to the advising that I've  
19 done. I've published in my books on Kazakhstan on it.

20 I've done four or five reports on the oil and gas  
21 industry in Russia, the Caspian region and Kazakhstan  
22 for the Baker Institute of Public Policy.

23 Q. As you say, Professor Olcott, you've done extensive  
24 research on the gas market and industry in the former  
25 Soviet Union. What is particularly unique about

09:47 1 Kazakhstan?

2 A. Like elsewhere in the former Soviet Union, the gas  
3 industry in Kazakhstan is tied directly to Gazprom, as  
4 the principal export route for any gas in western  
5 Kazakhstan. Since 2010, some of the gas of Kazakhstan  
6 in the north-west part of the country -- in the central  
7 part of the country has been able to exit through China.  
8 But for all intents and purposes, Gazprom still  
9 dominates the export market in Kazakhstan.

10 In distinction from the other Central Asian  
11 countries, the bulk of Kazakhstan's oil and gas income  
12 comes from oil. Gas makes up a very small fraction of  
13 its oil and gas income, and the bulk of its gas income comes  
14 from transit fees rather than from the export of gas.

15 Kazakhstan's export of gas is also really unique in  
16 the fact that the way that Kazakhstan's gas grid is laid  
17 out, although the country produces large volumes of gas,  
18 or medium volumes of gas, the gas pipeline network  
19 doesn't serve Kazakhstan's own cities. So the bulk of  
20 Kazakhstan's gas export is either tied to Karachaganak,  
21 which is a very specific project that requires the gas  
22 to go to the Orenburg gas refinery, or it's tied to  
23 swapping gas so that Kazakhstan can supply gas to its  
24 own cities.

25 So Kazakhstan's actual export to foreign markets is

09:49 1 very, very small; it's much smaller than Uzbekistan's,  
2 it's about a seventh, and it's a tiny fraction of  
3 Turkmenistan's export.

4 Even when Russia is not supplied with large  
5 quantities of Turkmen gas -- because, as I talk about in  
6 my testimony, there have been periods when the gas flow  
7 has been interrupted -- Gazprom has not been willing to  
8 pick up large amounts of gas from either Uzbekistan or  
9 Kazakhstan. So in point of fact, the annual quotas for  
10 gas export through the Gazprom pipeline system actually  
11 give Kazakhstan very little, a couple of -- 2 or 3 bcm  
12 per year of gas that can go into that pipeline system  
13 that's not effectively tied to being exchanged by  
14 pre-existing exchanges for gas to be used in Kazakhstan.

15 That really makes Kazakhstan unique among the three  
16 gas producers in Central Asia.

17 Q. Thank you, Professor Olcott.

18 When you say in your report -- and this is at  
19 paragraph 6 of your report -- "all of Kazakhstan's gas  
20 producers are expected to sell the majority of their gas  
21 on the country's domestic market", what do you mean by  
22 that?

23 A. The Kazakh Government has the right to ask as  
24 a strategic requirement that gas be sold domestically.  
25 And in fact Kazakhstan's own national gas company,

09:51 1 KazMunaiGas, has found in recent years that it has had  
2 to increase the amount of gas, shift the balance in gas  
3 between the domestic and export markets, in order to  
4 provide more for the domestic market itself.

5 The problem of exporting the gas, the challenge of  
6 exporting the gas is one that all subsoil  
7 licence-holders, including KazMunaiGas, have faced over  
8 the last 20 years.

9 Q. Just to be clear, when you refer to "the challenge of  
10 exporting", what do you mean by that?

11 A. The difficulty of finding pipeline capacity for the gas.  
12 The gas market is really different from the oil market:  
13 in order to sell gas, you have to have a prearranged  
14 buyer and you have to have a way to transport that gas  
15 to that buyer. That's why the extensive literature on  
16 Turkmenistan, which is the gas giant of Central Asia,  
17 always stresses the fact that Turkmenistan may never be  
18 able to develop all its gas, simply because it can't  
19 find ways to get it out.

20 This is the challenge throughout the region. This  
21 is why so much attention has been spent in recent years  
22 to try to develop alternative pipeline routes to Europe  
23 underneath the Caspian, the Nabucco pipeline that the EU  
24 supports: because right now the capacity of the three  
25 Central Asian states, Turkmenistan, Uzbekistan and

09:52 1 Kazakhstan, to produce gas far exceeds the capacity of  
2 any one of these states to market this gas  
3 internationally.

4 MR TIRADO: Thank you, Professor Olcott.

5 Sir, that concludes my direct examination.

6 TH CHAIRMAN: Thank you. We come to cross.

E  
7 (9 52 am)

8 Cross-examination by MR FLEURIET

9 Q. Professor Olcott, good morning. My name is Ken Fleuriet  
10 and I'll be asking you some questions on behalf of the  
11 claimants in this proceeding.

12 First of all, I've noticed that you have been here  
13 for all of this proceeding and that you sat through all  
14 of October's hearing. Are you being paid to consult on  
15 this case in addition to your work in drafting your  
16 expert opinions?

17 A. No, I'm not.

18 Q. So you've just been volunteering your time, sitting  
19 through these hearings?

20 A. The time -- the money that I was paid to prepare the  
21 expert reports was a lump-sum payment, and I was free to  
22 spend that money and my time as I wished.

23 Q. So you've just been volunteering the time that you've  
24 been sitting in the hearing room?

25 A. The money I was paid covered preparing the testimony and



09:53 1 appearing on the day that I was questioned. It was my  
2 decision to spend my vacation time, which is what this  
3 is, how I want it.  
4 Q. Was that true for the last hearing as well?  
5 A. That was true of both hearings.  
6 Q. How much are you being paid to serve as an expert  
7 witness in this case?  
8 MR TIRADO: Sir, I'm not sure that's an appropriate  
9 question.  
10 MR SMITH: I would assume it will be in your cost  
11 submission. Or if not --  
12 MR FLEURIET: It's an entirely appropriate question for  
13 an expert.  
14 THE CHAIRMAN: I was hesitant myself when I heard that. But  
15 of course it's true, it will be in the cost submission,  
16 at least if requested.  
17 A. I am happy to have it in the cost submission; I am not  
18 happy to say in a public setting how much I am being  
19 paid, because I honestly feel that's --  
20 THE CHAIRMAN: I accept that. Okay.  
21 MR FLEURIET: You've reached a significant number of legal  
22 conclusions in your opinions. Are you a qualified  
23 lawyer?  
24 A. I am not a lawyer. I am a political scientist who has  
25 been giving this kind of expert advice for 40 years in

09:55 1 various settings.

2 Q. You have been giving legal advice in various settings?

3 A. I didn't say I was giving legal advice. I've been  
4 giving expert opinions. It's for lawyers to decide how  
5 to handle those opinions.

6 Q. You don't have any legal training yourself, do you?

7 A. I have gone through my educational qualifications.

8 Q. Could you please --

9 A. I have worked in this area with lawyers, with lawyers  
10 from the State Department, throughout a 40-year career.  
11 I am not making judgments that are the place of the  
12 Arbitration Tribunal to make.

13 Q. You've never gone to law school, have you?

14 A. I have said that I have a PhD in political science from  
15 the University of Chicago.

16 Q. So that's a "no" to my question?

17 A. Of course it's a "no" to your question.

18 Q. Okay.

19 Let me ask you to turn to paragraph 29 of your  
20 second statement, if you would, where you are talking  
21 about the bidding war in gas prices between China and  
22 Russia, and some of the prices that were available in  
23 the 2006-2009 time period.

24 I am going to refer you to tab 2 in your binder,  
25 which is Exhibit 2 to your supplemental report. This

09:56 1 report was published, as you can see on the cover page,  
2 in December 2008; correct?

3 A. Correct.

4 Q. Let me ask you to turn to page 55 of this report. I'm  
5 going to be asking you about a couple of sentences that  
6 are highlighted in your binder as well as maybe one or  
7 two that are not.

8 Let me start at the top of the page, where it says:  
9 "Turkmenistan and Uzbekistan in 2007 got \$100 from  
10 Russia for gas. Kazakhstan in early 2007 got \$140, then  
11 \$165 for its gas."

12 Correct?

13 A. Correct. Could you remind me what paragraph in my  
14 testimony you asked me to pay attention to?

15 Q. I referred you to paragraph 29, in which you cite  
16 Exhibit 2 of your report, and I am now reading to you  
17 from Exhibit 2 of your report, which is also Exhibit 2  
18 in your binder.

19 A. Mm-hm.

20 Q. And I just read to you from the top two lines at page 55  
21 of Exhibit 2.

22 A. Right, I have them.

23 Q. So there in 2007, at least according to this article,  
24 Kazakhstan got \$165 for its gas; correct?

25 A. It was reported to have gotten it and in fact did not

09:58 1

get it.

2 Q. Well, that's what this evidence shows it got, does it  
3 not?

4 A. No, this evidence shows that it was reported to have  
5 gotten it. It was reported in the press; that's not the  
6 same --

7 Q. Where does it say "reported" in this sentence,  
8 Ms Olcott?

9 A. Okay, I went back to the footnote, which is 397.

10 Q. This looks to me like a declarative statement in terms  
11 of what Kazakhstan got, at least according to the author  
12 of this article.

13 A. No, it's - -

14 THE CHAIRMAN: Keep it slow, keep it slow, otherwise --

15 A. It's a declarative statement by the author that is  
16 footnoted. I went back to the source of the footnote --  
17 that's academic writing -- and you go back to see it is  
18 not a government report.

19 I subsequently found the statements of Gazprom for  
20 the pricing of that period and Kazakhstan did not get  
21 \$140. I was careful to say it was speculated or it was  
22 said to be offered. That's why I used the phrase "[it]  
23 was said to be offering", because it's not a government  
24 report; it's an academic statement.

25 John Roberts is the source of the footnote.

09:59 1 John Roberts had no access to the Kazakh Government  
2 report in the article that he wrote, and since I know  
3 him and I've checked with him, at no point that I've  
4 spoken to him has he ever said that he had access. This  
5 was from media reports.

6 MR FLEURIET: Okay.

7 Then here, at the end of this top paragraph, it  
8 says:

9 "... Kazakhstan in late 2007 asked for \$190 and will  
10 be able to take advantage of the 2009 price levels as  
11 well . "

12 Correct?

13 A. I'm sorry, will you tell me again which one you're  
14 reading, from me or from the source?

15 Q. I'm on the same Exhibit 2 that I quoted the previous  
16 question from.

17 A. Okay. Yes, that's his opinion.

18 Q. That's his opinion as of December 2008; correct?

19 A. That's right; that's his opinion.

20 Q. What I'm trying to establish with you is the opinion of  
21 the market in 2008, so I appreciate that.

22 A. Right. But part of what I did in my report was to go  
23 beyond the opinions and to try to find the state of what  
24 the actual pricing was. And I have since then --  
25 I mean, in my report I have some of it: I have the

10:00 1 figures for 2010 and 2011. And since then I've been  
2 able to find figures for the whole period of 2003 on:  
3 figures for what Gazprom reports that it paid KazRosGaz  
4 for Kazakh gas. Those figures appear in Gazprom's  
5 financial statements.

6 At the time that I wrote this, I was only able to  
7 find the figures that appeared on the Ministry of  
8 Justice of Kazakhstan's website, and since then I've  
9 gone through all the Gazprom annual reports to see if  
10 I could find better data.

11 Q. So you're referring to a number of figures that aren't  
12 in your report; is that right?

13 A. No, I'm referring to two figures that are in this  
14 report, the figures of -- I have to ...

15 Q. You just said you did a lot of additional research --

16 A. Afterwards. But if you go to -- sorry.

17 Q. Let me finish my question.

18 A. I'm sorry.

19 THE CHAIRMAN: Both of you please make sure that the other  
20 has finished. I know it's a conversation, but we still  
21 have to make sure it is clear on the transcript.

22 A. I'm sorry. I'm really sorry.

23 MR FLEURIET: You just referred to a number of figures that  
24 you claim you located after you submitted this report.

25 My question to you was simply that those figures are not

10:01 1 reflected in this report, are they?

2 A. No, they are. The first set are. In paragraph 30 of my  
3 report:

4 "This notwithstanding, the Kazakh Government agreed  
5 to sell its gas for \$170 per 1000 cm for 2010, delivered  
6 to Aleksandrov Gai in an agreement signed in April 2010.  
7 And in January 2011 they agreed to sell the gas ... for  
8 \$185 per 1000 cm ..."

9 It should be "bcm":

10 "... for 2011."

11 And both of those are exhibits in my report.

12 Q. I see those figures for 2010 and 2011, but I was asking  
13 you about the figures for 2007. You have not provided  
14 the figures you mentioned for 2007 anywhere in evidence,  
15 have you?

16 A. No, because I didn't discover them till last week.

17 But because I didn't believe that I was going to  
18 find figures -- I knew that the government had not  
19 received that money -- I did extensive interviewing in  
20 Uzbekistan in 2007 and 2008, and I met with the people  
21 in the Ministry of Foreign Affairs in Uzbekistan that  
22 had dealt with Gazprom, and they said they never got  
23 anywhere near the figures.

24 That's why I was very careful to say these were the  
25 figures reported in the press, but that I didn't believe

10:03 1 people got anywhere close to the figures.

2 Q. Well, again, I am interested on the figures that are  
3 being reported in the press because I'm interested in  
4 what the market thought in 2008.

5 Now, the third thing I'd like to ask you about is  
6 you see here the reference again on page 55 where it  
7 says:

8 "In mid-January 2008, it became clear that China had  
9 agreed to pay \$195 for Central Asian gas ... "

10 Right?

11 A. Right. But as I put in the report, and I'm not sure --  
12 I'd have to look for exactly where, they actually were  
13 only paying \$100. Here it is, 31:

14 "Kazakhstan continues to receive roughly \$100 per  
15 1000 [cubic metres] of gas from the Chinese ... owned  
16 gas companies."

17 And if I could correct your statement that what was  
18 in the press is what the market thought, what's in the  
19 press is not what the gas industry thinks is the  
20 pricing. It may be what academics think is the pricing,  
21 but it's not what the gas industry thinks. The gas  
22 industry uses other sources, including their own  
23 transactions and the transactions of partners.

24 Q. You yourself are an academic rather than the gas  
25 industry, aren't you?



10:04 1 A. I work extensively with people in the gas industry, and  
2 I don't publish the stuff that I do when I'm working as  
3 a consultant in the gas industry.

4 Q. Well, I'm just referring to a report that you -- okay.

5 THE CHAIRMAN: Please, let everybody finish and not jump  
6 over each other.

7 MR FLEURIET: Okay. I'm just referring to a report that you  
8 have cited as evidence in your statement. Let me move  
9 on.

10 So part of what's happening here at this point in  
11 time, in 2007 and 2008, is that Russia and China are in  
12 a bidding war for Central Asian gas; correct?

13 A. That was certainly the perception at the time. But in  
14 point of fact, China can't deliver -- China can't market  
15 most of the gas that has to go through Russia. China  
16 can only market virtually all of Turkmenistan's gas in  
17 the future.

18 So the bidding war was largely with regard to  
19 Uzbekistan and Turkmenistan, which has its principal  
20 gasfields passing on the gas pipeline route -- and the  
21 gas pipeline routes were also in my report somewhere --  
22 passing on the gas pipeline route that goes to China.  
23 The bulk of the gas in western Kazakhstan cannot go to  
24 China.

25 The bidding war was as much for Putin and his effort

10:05 1 to reassert a sense that Russia was a dominating partner  
2 in Central Asia as anything else.

3 Q. Yes, but the bidding war is also impacting the price of  
4 Kazakh export gas in this period of time, isn't it?

5 A. I have said in other writings that I believe that the  
6 biggest thing that impacted the price of gas for  
7 Kazakhstan and Turkmenistan in this period in time was  
8 the shutoff of gas by Ukraine. Gas was shut off in 2006  
9 and then again in 2009. I think it was 2006 was the  
10 first year; 2009 was definitely the second year. And  
11 the fact that the gas was shut off in 2009 frightened  
12 everybody, and in order to try to keep the Central  
13 Asians as better partners for the European market, the  
14 pricing was increased.

15 Q. Well, I agree with you on that. I think that, as well  
16 as the bidding war with China, was having an impact.

17 So what happens then is that Russia, on  
18 March 11th 2008, announces that it is going to apply  
19 European market prices to Central Asian gas; correct?

20 A. That's correct. But European market prices vary  
21 enormously, and the Central Asians still provide the  
22 bulk of the gas to the Caucasus, which are technically  
23 in Europe: to Moldova, Belarus and Ukraine. And the  
24 Ukrainian -- for the period up to or through 2011, the  
25 pricing for that gas still remains significantly below

10:07 1 Europe. And up through 2 009, nobody got -- the  
2 Ukrainians paid \$95 for the Central Asian gas in 2009  
3 and nobody else paid more than \$110.  
4 Q. Yes. I'm really, Ms Olcott, trying on get you to focus  
5 on 2008. I'm not asking you questions about 2009 to  
6 2011. I'm trying to establish what the perceptions were  
7 in 2 008. I know that most of your opinion talks about  
8 2009 and afterwards, but if you could limit your answers  
9 to what I ask you about, we'll probably get through this  
10 a lot quicker.  
11 A. Okay. The question is: whose opinion? If you're  
12 talking about the opinion in the press, yes, the opinion  
13 in the press was that starting in 2009 -- because again,  
14 the gas prices are done at six-month and then at  
15 three-month intervals -- the perception in the press was  
16 that there would be higher prices; by people that didn't  
17 know when the gas prices were calculated, they may have  
18 thought in 2 008; by people that knew when the gas prices  
19 were calculated, they probably didn't think till 2009.  
20 Q. Okay. Let me ask you to move now to tab 18 in your  
21 binder. This is Exhibit C-674 in the record; it's  
22 a report published by the Oxford Institute for Energy  
23 Studies.  
24 Would you agree with me that the Oxford Institute  
25 for Energy Studies is a credible source of public

10:08 1 information about the gas market?

2 A. It's a credible source of public information and Shamil  
3 is a credible author.

4 Q. Okay. This study was published in November 2008, you'll  
5 see on the cover page.

6 Let me ask you to turn to pages 44 and 45. Starting  
7 on page 44 on the third paragraph and then going into  
8 the fourth paragraph, and also at the top of page 45,  
9 I just want to point out to you that there are -- and  
10 ask you to comment on, if you have any comments --  
11 I want to point out to you that there are four separate  
12 references in this Oxford study to the \$180 2008 price  
13 for gas.

14 You will see the first one, the second sentence of  
15 the third paragraph:

16 "In 2008 the processed gas was exported by KazRosGaz  
17 at \$180 ... (sold to Gazprom for subsequent export)."

18 Do you see that?

19 A. I do, and I have gone back over his sources and I've  
20 been unable to find the source that he cites.

21 I read this report when it first came out; it's  
22 based on data that was approximately six months old at  
23 the time it was published, which was November 2008.

24 I know the publishing process for academic publications.

25 Things go through at least six weeks, but oftentimes

10:10 1 a few months, of review.

2 I have gone through all of Yenikeyeff's footnotes to  
3 try to ascertain where he got the information from, and  
4 I cannot find that -- I can find press statements that  
5 were made in that period by officials in KazMunaiGas.  
6 This doesn't have a link to their website. It can't be  
7 recovered in any way that's easy.

8 Q. Well, my question was just simply whether or not you had  
9 seen that sentence, but if you'd like to keep pleading  
10 we're going to be here a very long time.

11 The second reference in the third paragraph is to  
12 the \$180 price:

13 "Russia has also initially agreed that KazRosGaz  
14 will be allowed to export some (currently undisclosed)  
15 gas volumes to the CIS states and Europe at the export  
16 price of \$180/mcm."

17 That's as we saw in the previous article; correct?

18 A. Mm-hm.

19 Q. Then down at the bottom of the page, there is the  
20 reference to the Russian-Kazakh Karachganak -- my  
21 pronunciation is probably off -- deal of autumn 2007 and  
22 the \$180 price.

23 Then if you will turn with me to the top of page 45,  
24 you will see again that Kazakhstan, under the Central  
25 Asian prices for Gazprom in the 2008 table, is listed as

10:11 1           \$180 for the first half of 2008 as well as \$180 for the  
2           second half of 2008; correct?

3    A.   Right. And that's what I said: that I couldn't find  
4           proof of those prices when I went through his article  
5           and researched the pricing.

6           That's the thing about a scholarly article: you have  
7           to put your sources down; and when you put your sources  
8           down, other people are supposed to be able to go and  
9           confirm them. I was unable to confirm his prices except  
10          through press releases. They don't appear on  
11          KazMunaiGas's website.

12   Q.   Well, you said earlier that this was an institute and  
13          author that you respect, so I'm just trying to point out  
14          to you what he is saying about the gas prices. He may  
15          well have done his own research; correct?

16   A.   That's not what a footnote is. He's a fine author. We  
17          all write things in periods of time. He wrote this  
18          article in the middle of 2008; it was published in  
19          November 2008. He used the best data -- I assume he  
20          used the best data available to him at that time.

21          I wrote my expert report in November and  
22          December 2012 and went back and researched the period of  
23          2003-2011. Different information is available to you in  
24          2011 and 2012 for the period 2008 than was available in  
25          2008.

10:13 1 So you would expect a good scholar to be able to  
2 find more information in 2012 about the period 2008 than  
3 a good scholar in November 2 008 could have found about  
4 October 2 008 or June 2 008. That's the nature of  
5 scholarship.

6 Q. Okay. Let me ask you now to turn to page 15 of this  
7 article, if you would. I am going to be asking you  
8 about the third paragraph, the portion that should be  
9 highlighted in your binder?

10 A. It is .

11 Q. It says:

12 "The ever-increasing interest of Beijing, Washington  
13 and Brussels in securing ..."

14 You can read that sentence:

15 "... Central Asian energy supplies ... has prompted  
16 Moscow to offer greater incentives to Kazakhstan ..."

17 That is the competition we were talking about  
18 earlier. It says:

19 "It is thus unsurprising that Russia has already  
20 agreed to pay European prices (minus transport and other  
21 related costs) for Central Asian gas from  
22 1 January 2 009."

23 There is a citation there.

24 A. Mm-hm.

25 Q. Then it says:

10:14 1 "Kazakhstan estimates that the result of these  
2 arrangements will be 60-70% gas price increases from the  
3 2008 level of \$180 per thousand cubic metres (\$/mcm) to  
4 \$3 06/mcm in January 2009."

5 Do you see that?

6 A. I do. That's footnote 41 and it was a Reuters statement  
7 and it was a quote from a press conference made by  
8 an official in KazMunaiGas, and it says that's what they  
9 expect. It doesn't say what they achieved, and we now  
10 know they didn't achieve it.

11 Q. Okay.

12 A. Nor did they achieve the \$195 for the Chinese gas.

13 Q. Let's look at that press release. It's in your binder  
14 as well. I believe it's tab 10. This is Exhibit C-677  
15 in the record.

16 A. I'm sorry, I can't find it. Can you remind me where it  
17 is?

18 Q. Tab 10 in your binder.

19 A. Okay, tab 10 in my binder has an agreement with  
20 KazTransGas. Oh, wait, it's the very back of 10. It's  
21 right before 11. Is that the press release from  
22 March 18th 2008 you're talking about?

23 Q. Yes, it's the press release from Reuters, and I just  
24 wanted to refer you to the middle of the press release  
25 where it says:



10:16 1 "On Tuesday, KazMunaiGas ... said in a statement  
2 that its own price could increase by 60-70 percent from  
3 January 2009 to up to \$306 per tcm compared with \$180  
4 now. "

5 Do you see that?

6 A. I do. And it says "its own price could increase", and  
7 in fact it didn't increase.

8 Q. I understand. But again, I'm just trying to establish  
9 with you what the world was like in mid-2008, not what  
10 it was like in hindsight in 2012.

11 A. It's whose world? If it's the world of the Reuters  
12 reader, yes. If it's the world of a gas company  
13 thinking about what price it's likely to get for  
14 exporting its gas, no one I talked to in 2008 thought  
15 they were going to get those prices.

16 Q. So your testimony is that throughout 2008, with all of  
17 these public reports indicating that \$180 is the  
18 established price, these public discussions of the  
19 bidding war, as you call it, between China and Russia,  
20 the result, as everyone understood it, of the Ukrainian  
21 gas crisis that you mentioned, and public statements  
22 being made of the price going up to \$3 06, your testimony  
23 to this Tribunal is that nobody in the industry believed  
24 any of that?

25 A. Nobody in the industry believed that they were going to

10:17 1 get \$300. People knew they were going to get more than  
2 the gas prices in the period from 2003, when they were  
3 down there at around \$30, and that's true of Turkmen gas  
4 and Uzbek gas as well as Kazakh gas. Everybody knew it  
5 was going up. But did people think they were going to  
6 get anything like what was being sold on the Ukrainian  
7 market, at the Ukrainian and German market? No, people  
8 didn't think so.

9           Honestly, I went out and spent months in Central  
10 Asia at that point interviewing people because I was  
11 writing about this for the Baker Institute and in my own  
12 books, and I did not find senior oil and gas people in  
13 Turkmenistan, or government people in Turkmenistan and  
14 Uzbekistan, or the oil people I knew in Kazakhstan who  
15 thought the prices were going to go anywhere near the  
16 press prices.

17           Everybody thought the prices were going to go up.  
18 There was no question that people in the CIS were paying  
19 more for gas. The question was how much they were going  
20 to go up.

21 Q. Yes, I accept that perhaps with respect to the \$306, but  
22 let me ask you more specifically about the \$180.

23           It's been reported in all of these sources that that  
24 is the established export price for 2008. Is it your  
25 testimony that nobody believed that price and that that

10:18 1 price was not achieved; or is it your testimony that in  
2 fact gas was being sold for \$180 as was being reported?  
3 A. My testimony is gas was not being sold for \$180 in 2008.  
4 My testimony is also that people didn't -- I mean,  
5 there's a strong level of distrust among people with  
6 regard to Gazprom, whether it's deserved or undeserved,  
7 and I heard time after time that the netbacks to the  
8 producers were going to be substantially less than \$180.  
9 That's what small producers said; that's what the people  
10 in the government said to me.  
11 Q. Okay. I'm not -- we'll get to the --  
12 A. And I'm talking about in 2008. I apologise.  
13 Q. We'll get to the prices being paid to producers later.  
14 Right now I'm talking about the established export  
15 price. All of these publications, and others in the  
16 record, refer to an export price of \$180 as being paid  
17 at the border. Is it your testimony to the Tribunal  
18 that Gazprom was not paying \$180 at the border?  
19 A. If you allow me to cite figures that I found out  
20 afterwards, I will tell you that it is my testimony that  
21 Gazprom didn't -- and I can demonstrate that they  
22 didn't -- pay KazRosGaz \$180 in that period. But  
23 I didn't know that at the time I wrote the testimony;  
24 I have learned it subsequently by virtue of my own  
25 research, because I wasn't satisfied.

10:20 1 Q. You've learnt that subsequently to December 1st 2012,  
2 when you put in this opinion?

3 A. What, the exact figure that they paid? I told you:  
4 I learnt it last week, when I was preparing to come  
5 here. I kept looking and looking and looking.

6 Q. Well, given the fact that this opinion is almost  
7 exclusively about gas export prices, why didn't you look  
8 into these figures you claim you found before you wrote  
9 your opinion?

10 A. I looked; I didn't see it. I looked in everything  
11 I could find from the Kazakh Government. I had a finite  
12 period of time. I had to hand in the report. I am  
13 a scholar; I wasn't satisfied, so I kept looking.

14 I knew there was some chance I would be testifying.  
15 But I am going to write about this, having nothing to do  
16 with the hearing. I have spent a ton of time on this  
17 because this is what I do, is do research on this.  
18 I continue doing research. I spent way more time on  
19 this project than I have ever spent on a project because  
20 it was really interesting to me, and I felt like if you  
21 looked far enough, you could actually find the figures  
22 in open source.

23 Yenikeyeff is a good scholar; he never found the  
24 figures in open source. It's very hard to do, and  
25 I kept finding alternative ways to do it. I eventually

10:21 1 found them in disclosures to Gazprom's stockholders.

2 Q. Alright. I just find that very interesting, that you  
3 didn't do that work before you wrote the report, but  
4 let's move on.

5 Let me ask you a couple of final questions on this  
6 point and then I'll move on.

7 We have talked earlier about the competitive  
8 pressures that Russia and Gazprom were under from China  
9 and Europe. Your report, as well as your testimony in  
10 direct examination, tends to suggest that Gazprom is  
11 all-powerful. Would you agree with me that the reality  
12 in mid-2008 is in fact much more nuanced, and that  
13 Gazprom is in fact feeling these competitive pressures  
14 from the Europeans and the Chinese?

15 A. I agree with you, and I think the biggest thing that  
16 Gazprom faces is the fact that Europeans are buying less  
17 and less of its gas, and that has a blowback impact on  
18 Central Asia; it no longer has the same market for the  
19 Central Asian gas that it had previously.

20 I agree, I think Gazprom is a company that's under  
21 a great deal of pressure; in fact, what people are  
22 writing now is that its day may have passed. But it  
23 doesn't mean it needed the Central Asian gas.

24 What Russia is under pressure from is China and  
25 Central Asia. Gazprom doesn't even want the Turkmen gas

10:23 1 that China is taking now. So I think we have to

2 distinguish between Russia and Gazprom.

3 Q. Alright. Let me ask you to turn now to paragraph 70 of

4 your second statement.

5 In this section V of your statement you are

6 referring to the KazAzot project and what's been called

7 in this case the tripartite agreement.

8 A. Mm-hm.

9 Q. You say here at paragraph 70 that:

10 "Tolkyn was being offered the opportunity to export

11 gas, not because KazTransGas had a real need for their

12 gas, but because they were seeking to incentivize the

13 owners of Tolkyn to supply gas to the Kazazot plant."

14 There is no reference there. Do you have any

15 personal knowledge as to why Tolkyn was being offered

16 the opportunity to export gas?

17 A. Only what I've read in the FTI report and in your

18 exhibits to your complainants' statement. This was my

19 opinion.

20 Q. That's right. But it's not based on any kind of

21 conversation with KazTransGas in terms of what was

22 motivating them?

23 A. Nothing -- excuse me for interrupting. No, all the work

24 in this statement has been based on things that are

25 presented in the case and presented in open source.

10:25 1 I've had no conversations about this.

2 In the course of this hearing I have met somebody in  
3 KazTransGas once, when my visit corresponded to a visit  
4 of the respondent's legal team. I sat through  
5 20 minutes. I asked him one general question about  
6 transit of gas. I've never had any other conversations  
7 with any officials in the Kazakh Government with  
8 anything having to do with this case or anything that  
9 appears in my testimony. I never at any time had  
10 a discussion about Tolkyn. I never had any discussion  
11 with any Kazakh official about KazAzot.

12 Q. That would include KazMunaiGas as well; right? You have  
13 not had any discussions with them as to what their  
14 motivations were in terms of this agreement?

15 A. I have not had any discussions with anybody from the  
16 Ministry of Oil and Gas about all of this, from  
17 KazMunaiGas, from anybody. This is no different than  
18 a scholarly piece. That was my opinion, based on how  
19 little export quota there actually is going to  
20 Kazakhstan in those years.

21 Q. Okay. Let me ask you to turn to Exhibit C-97, which is  
22 tab 8 in your binder.

23 I guess just to orient you, you'll note on the top  
24 of the first page that the date of the signing of the  
25 two parties that signed this agreement was

10:27 1 November 17th 2008. Do you see that?

2 A. Yes, I do.

3 Q. Then if you will turn to the Russian version of the  
4 signature page as well as the English translation --  
5 although I think you speak Russian?

6 A. I do.

7 Q. -- you'll note that the agreement was signed by TNG as  
8 well as KazMunaiGas.

9 A. I do.

10 Q. You'll also see on the signature page that TNG is  
11 signing this agreement as the supplier and KazMunaiGas,  
12 or KMG, is signing the agreement as the exporter; right?

13 A. Mm-hm.

14 Q. Under this agreement it was the exporter, KazMunaiGas,  
15 that was to take delivery of TNG's export gas and pay  
16 the prices set forth in this agreement; right?

17 A. Mm-hm.

18 Q. Let me ask you now to turn to Article 8 of the  
19 agreement, and if you would just take a moment to read  
20 provisions 8.1 through 8.4.

21 A. Mm-hm.

22 Q. Actually, if you'd like, you can read through all of  
23 Article 8, if you want to take a moment.

24 A. Alright. I have read it many times before too.

25 Q. KazAzot had nothing to do with the provisions here under



10:28 1 Article 8, did it?

2 A. No, it didn't.

3 Q. And KazAzot is not referred to anywhere in Article 8,  
4 is it?

5 A. It isn't. But there's an earlier agreement that you  
6 have in your FTI report from 2007. There's a footnote  
7 to the FTI report that talks about Tolkyn coming in as  
8 the supplier of gas for KazAzot in place of  
9 Shagyrlly-Shomyshty. That's in the FTI report that's  
10 provided with the complainants' case, and the letter --  
11 that agreement or that conversation or protocol; I think  
12 it's a protocol -- as I recall, is only in Russian in  
13 the packet of FTI footnotes.

14 Q. That's right. I believe you are referring to exhibit --  
15 is it 302? It's what's been referred to as the undated  
16 agreement. And I will just represent to you that, as  
17 I believe you're aware, KazTransGas was the exporter or  
18 proposed exporter under that agreement, rather than  
19 KazMunaiGas.

20 A. I think we're still talking about two different  
21 agreements, because that 3 02 doesn't include the  
22 presence of Shagyrlly-Shomyshty. And Shagyrlly-Shomyshty  
23 is in the protocol that's in the FTI first report.

24 Q. Why don't you look behind tab 9 in your binder.

25 A. Okay, I'm sorry if I'm wrong. I have a blank tab 9 in

10:30 1 my binder. (Pause)

2 Q. I will just represent to you -- and your counsel can  
3 correct later on re-direct if they think I am wrong --  
4 that there are two things that are referred to as  
5 a tripartite agreement: one is the undated agreement,  
6 which is C-302. My understanding is that this agreement  
7 was drafted in May. Then what I was asking you about is  
8 the November 17th 2008 agreement, which is the second  
9 tripartite agreement.

10 A. Right. But there's a third agreement which is separate  
11 from these two which precedes both of them, which is in  
12 the FTI report.

13 Q. Maybe. I'm not aware of that off the top of my head.  
14 But these are the two I'm going to be asking you about,  
15 behind tab 8 and tab 9, which again are C-97 and C-302.

16 Moving back to Article 8 of Exhibit C-97, which is  
17 on page 7 of the agreement, would you agree with me that  
18 in terms of the export provisions of this contract and  
19 the export price that is to be paid, there is  
20 an agreement between the exporter and the supplier, the  
21 two parties that signed the agreement?

22 A. Yes. But, as you pointed out, I'm not a lawyer. I take  
23 this as an agreement. I'm confused about it because  
24 KazRosGaz was the designated exporter for Tolkyn by the  
25 Kazakh Government. So I found the whole thing

10:32 1           confusing. But I'm not an international lawyer; I can't  
2           speak to the legality of which takes precedent over  
3           what. But certainly I know the terms of this agreement.  
4    Q.   Well, I agree with you that KazRosGaz was the exporter.  
5           Would you agree with me that that is quite likely why  
6           KazMunaiGas has replaced KazTransGas as of the date of  
7           this November 2008 agreement?

8    A.   Again, because I'm not a lawyer, I wouldn't trust my  
9           judgment on this point. But it seemed to me it was  
10          still a confusion because KazMunaiGas doesn't represent  
11          KazTransGas in any of the other transactions I saw.

12                 So I found this whole thing confusing, and I have no  
13          clarity about that. I trust both of your two sides to  
14          figure out what really is happening, but I don't know,  
15          I can't say that that's the reason why KazMunaiGas  
16          replaced it.

17   Q.   Let me give you the opportunity to answer the question  
18          again. I want to be clear what I am talking about.

19                 You have given opinions about this agreement. Is it  
20          your commercial opinion that KazMunaiGas replaced  
21          KazTransGas by November 2 008 because in fact KazMunaiGas  
22          is the one that owns half of KazRosGaz?

23   A.   Honestly, it still doesn't seem sufficient to me. It  
24          seems to me that KazTransGas should have been the one to  
25          replace them --

10:33 1 Q. KazTransGas was the party to the May agreement --

2 A. No, I'm sorry, KazRosGaz should have been --

3 I apologise. In my opinion -- but again, it's not

4 a legal opinion -- it should have been KazTransGas who

5 replaced them on the second contract because it doesn't

6 seem to me that KazMunaiGas still, even as the owner of

7 KazTransGas, had that right to send that gas out.

8 But I'm not a lawyer. I mean, I can't speak to the

9 legality of that.

10 Q. You don't need to speak to the legality of that; I'm not

11 asking you for a legal opinion. But is it your opinion

12 that KazMunaiGas, as an owner of KazRosGaz, would not

13 have been able to export its gas through KazRosGaz?

14 A. Yes, it is my opinion that they wouldn't; that

15 KazTransGas should have been the agent to begin with.

16 That's my opinion. But again, you are asking me

17 a question that exceeds my legal competence.

18 My expert opinion as a specialist on oil and gas is

19 that KazRosGaz should have been the signature on that.

20 But nobody asked my opinion about it when they drafted

21 it.

22 Q. Let me ask you to look at what the respondent in this

23 case has said on this issue. It is at paragraphs 293

24 and 294 of the rejoinder on quantum, which is behind

25 tab 19. This is from pages 81 and 82 of the rejoinder

10:35 1 memorial on quantum. Let me ask you to take a look  
2 there at paragraphs 2 93 and 2 94, including the quotation  
3 in 294 from Exhibit R-343. (Pause)  
4 A. Mm-hm.  
5 Q. Alright. Then let me give you a chance to look at  
6 Exhibit R-343, which is another tab, which is what is  
7 being quoted there, which is the letter from Gazprom to  
8 KazMunaiGas dated 27th October 2008. It's behind tab 14  
9 in your binder.  
10 A. It's the letter from 27th October 2008; is that what  
11 we're talking about?  
12 Q. Right, and this is the letter where Gazprom is insisting  
13 that KazRosGaz rather than KazTransGas be the exporter.  
14 I just wanted to give you the opportunity to look at it,  
15 because it had been quoted in the paragraph of the  
16 rejoinder that I just ... (Pause)  
17 Having --  
18 A. I'm still reading. Excuse me, I'm sorry. I have one  
19 more paragraph. I'm reading it in Russian. (Pause)  
20 Okay, I read the whole --  
21 Q. Having read this letter as well as the citations in the  
22 respondent's rejoinder, would you agree with me that it  
23 is likely that KazMunaiGas replaced KazTransGas in this  
24 tripartite agreement as a result of Russia's insistence  
25 that KazRosGaz be the exporter?

10:38 1 A. I still understood it as having to be KazRosGaz itself  
2 as the signatory. That was my understanding of it.  
3 I have read this before. I then went out and did  
4 research about what deposits KazRosGaz had exclusively  
5 been given -- that Gazprom had designated KazRosGaz as  
6 the exclusive agent, and that was how I understood this  
7 letter. To me, that second contract still was  
8 a confusion. But obviously that's just my opinion.

9 Q. Let me ask you to refer back now to C-97 behind tab 8,  
10 and let me ask you to look at the very bottom of page 2.  
11 This is a provision in which:

12 "The Exporter [which is KazMunaiGas] is entitled to  
13 transfer its rights and obligations" --

14 A. I'm sorry, can you tell me what point?

15 Q. Again, we are at C-97 behind tab 8, and we are at the  
16 very bottom, last sentence on page 2.

17 A. In English or Russian -- I have it. It's exactly the  
18 same place.

19 Q. This is a provision by which:

20 "The Exporter is entitled to transfer its rights and  
21 obligations under this Agreement to [an] Authorized  
22 organization ... "

23 Then if you look at the definition of "authorized  
24 organization", which is in about the middle of the page,  
25 that refers to an organisation affiliated with the

10:39 1 exporter.

2 Now, I'm not going to ask you for a legal opinion  
3 here, but does this help clarify in your mind, as  
4 a layperson, that KazMunaiGas would have simply assigned  
5 this to KazRosGaz, its affiliate, and that in fact is  
6 why KazMunaiGas is the party to this agreement?

7 A. It still doesn't answer my obvious question, which is  
8 why KazRosGaz wasn't put on the agreement to begin with.  
9 And it doesn't demonstrate -- it means that they have  
10 the right to transfer it, but I don't see that they  
11 transferred it.

12 But again, you are taking me way out of my area of  
13 competence and asking me to agree to something that  
14 I don't fully understand. You've asked for my opinion  
15 and I've given it.

16 Q. I think the Tribunal has got that point. Let me move  
17 on.

18 By the way, as an aside, you comment in your opinion  
19 on the Moldova agreement of 2006 in some detail; I just  
20 have one question about that. Are you aware that  
21 KazRosGaz eventually did export gas to Moldova in 2006  
22 for that \$160 price?

23 A. I just know that Moldova bought gas from Kazakhstan in  
24 that year and that the \$160 was delivered at the  
25 Moldovan border. And that's also in the FTI report

10:41 1 footnote 93, that the \$160 price was delivered at the  
2 Moldovan border. That's in your report; that's where  
3 I found it.

4 Q. Right. So essentially the protocol of the agreement  
5 that Mr Stati had negotiated for \$160, the deal ended up  
6 happening for \$160 anyway; right?

7 A. I have no idea whether the deal happened at \$160.

8 The two pieces of information I know were that the  
9 \$160 price, according to footnote 93 in FTI 1, was for  
10 \$160 delivered at the Moldovan border, which tells me  
11 nothing about the purchase price on the Kazakh-Russian  
12 border; and I know that Kazakhstan became a supplier --  
13 had historically been a supplier of Moldovan gas and has  
14 continued to be a supplier of Moldovan gas.

15 I have not seen any documentation that tells me the  
16 price that was paid for that gas, either at the Kazakh  
17 border or at the Moldovan border. The only document  
18 I have seen is the one that's in your report in the FTI  
19 number 1.

20 Q. Are you aware that it was KazRosGaz that actually served  
21 as the exporter?

22 A. I had no idea who; I've just seen that it was Kazakh gas  
23 that was supplied in the Gazprom agreements. And  
24 actually in Gazprom they don't say who supplied the gas,  
25 whether it was KazTransGas or not.



10:42 1 Now, having read through every Gazprom financial  
2 report from 2003 on, at no point do they say that it was  
3 KazTransGas's gas going to Moldova, and I've read all  
4 the little bits that have to do with the sale of gas to  
5 Moldova and the transit price and the purchase price,  
6 and at no point have I seen that KazTransGas did it.  
7 That doesn't mean that they didn't do it, but I've never  
8 seen that.

9 Q. Are you aware that TNG was among Kazakhstan's four  
10 largest gas producers?

11 A. In 2008 I think it was. It was the fourth largest gas  
12 producer in that year, and there was a huge gap between  
13 the first two certainly, and I think the first three,  
14 and the fourth. It produced approximately a 20th, or  
15 even less, of the amount of gas produced by the first  
16 largest producer.

17 Q. Okay. Let me refer you now to tab 7, which is  
18 Exhibit C-52 in the record.

19 A. Mm-hm.

20 Q. I know you're not a lawyer, but did you look at this  
21 contract prior to drafting your opinion?

22 A. Yes, I did, several times.

23 Q. Let me refer you to I believe it's page 9.

24 A. Do you want to give me just the number and I'll find it  
25 in Russian?

10:44 1 Q. I think it's 6.1.12.

2 A. I think we both know those by heart by now.

3 Right, 6.1.12, "(Reads in Russian)": you can export  
4 the oil and gas production at any time, or from time to  
5 time .

6 Ah, I'm about to shred your binder.

7 Q. Just to refamiliarise ourselves with the language under  
8 6.1.12, the contractor has the right to:

9 "Export its share of Hydrocarbons at any time and  
10 with any regularity."

11 And under the preceding provision, 6.1.11, the  
12 contractor has the right to:

13 "Have access to the Transportation Systems, which  
14 directly or indirectly are owned and controlled by  
15 the Republic, at commercially reasonable prices and  
16 conditions, and not less favorable than those provided  
17 to any other producers ... "

18 Right?

19 A. Right. I wrote about that in my report.

20 Q. Is your understanding, as a non-lawyer, that under those  
21 provisions Kazakhstan is in fact required to enable the  
22 contractor to export at any time, with any regularity,  
23 and to receive commercially reasonable prices and  
24 conditions for transport?

25 A. My assumption was that they had to permit them and they

10:46 1           couldn't pay them in a discriminatory fashion.

2                    But again, I mean, here the question is gas: that  
3           you have to have a buyer on the other end and a way to  
4           transport gas. And this is the challenge of exporting  
5           gas anywhere in Central Asia: you can't get a buyer  
6           until you can guarantee transit. And the challenge here  
7           was not accessing Kazakhstan's piece of the Central  
8           Asian pipeline, the CAC pipeline as they call it; the  
9           challenge was getting gas across the Russian Federation.  
10          And this does not speak -- the Russian Federation is not  
11          a party to this contract; Gazprom is not a party to this  
12          contract.

13                   This is the reality of selling gas. That was why  
14          I wrote that this provision in and of itself does not  
15          guarantee export sale of gas; you have to be able to  
16          transport gas.

17    Q.   Well, in addition to having to transport gas through  
18          Russia or to China, or turn it into liquids, or do  
19          something beyond the Kazakh borders in Kazakhstan, you  
20          also have to deal with one of the state's designated  
21          purchase agents, as you call them in paragraph 25 of  
22          your opinion; right?

23    A.   Effectively that's what you have to do, although there  
24          is no evidence -- I mean, I have not seen anywhere it  
25          said that if -- because Kazakhstan has enormous amounts

10:47 1 of spare capacity in its pipeline system: it has about  
2 60 bcm of spare capacity. So I've seen no evidence that  
3 anybody has been banned from accessing that pipeline  
4 system if they had a buyer in Europe, for example, that  
5 Gazprom was willing to have pass through Russia.

6 So I have not seen in this case anything that  
7 says -- or any place -- that a buyer could not access,  
8 has been denied access to the pipeline system if it had,  
9 for example, a European purchaser and the right of  
10 transit by Gazprom. If Gazprom bought the gas from  
11 somebody, then there is nothing in Kazakh law that I see  
12 that would prevent the gas from being transited. They  
13 have the excess capacity.

14 Q. Alright. But the question is not just accessing the  
15 pipeline; it's whether or not a producer can access the  
16 pipeline at commercially reasonable prices, right?

17 A. I think we are talking about two things: if you are  
18 talking about purchase of the gas or you are talking  
19 about transit of the gas. Transit of the gas is a fixed  
20 rate in Kazakhstan and it's publicly available; it's  
21 gone from \$1.11 for 100 kilometres, 1,000 cubic metres  
22 for 100 kilometres, to about \$1.70, and it may now be  
23 edging up to \$2. That's totally different than  
24 a commercial price for the purchase of your gas.

25 Q. Alright. Let me refer you to paragraph 25 of your

10:49 1 opinion, where you talk about the state's -- you refer  
2 to them as "designated purchase agent".

3 A. Right.

4 Q. That's just a fancy word for a state middleman,  
5 isn't it?

6 A. No, it's -- I mean, it's a trading company; a middleman  
7 if you want. But that doesn't preclude direct sale to  
8 a third party outside of the country.

9 Tell me what paragraph, excuse me, again?

10 Q. I'm sorry. It's 25.

11 A. I've shuffled my pages so I can't find it. I've got it.

12 Q. Have you heard of GazImpex and Kemikal?

13 A. Yes, I have.

14 Q. All these companies we are talking about are ultimately  
15 owned or controlled by Mr Kulibayev, aren't they?

16 A. Kemikal -- GazImpex, I'm not sure who it's owned by.  
17 Kemikal is a private -- was at that period in time, to  
18 the best of my knowledge, managed by Samruk-Kazyna. I'm  
19 not sure who it is managed by now.

20 I have spent a lot of time trying to find out  
21 whether Timur Kulibayev in fact has owned either  
22 property, and I have not found evidence that he does.

23 Q. Isn't this in fact kind of a fancy scheme in terms of  
24 what I would call in Texas a racket: the producer has to  
25 sell through these state middlemen who take

10:51 1 a significant portion of every deal?

2 A. They don't take a significant portion; they take  
3 a portion that is accepted by the anti-monopoly  
4 commission of Kazakhstan and seems to be -- again,  
5 I haven't done a comparative study of percentages,  
6 whether 20-30% is standard, because 20% is in that  
7 contract you talked about, the tripartite agreement.

8 But Kazakhstan's anti-monopoly commission sets the  
9 percentage that can be taken, and GazImpex and Kemikal  
10 had other clients in the country that were paid roughly  
11 the same amount.

12 The bigger challenge, they actually buy very small  
13 volumes of gas, because the problem is Kazakhstan itself  
14 exports very small volumes of gas to the foreign market.

15 Q. How much of an average export deal do these state  
16 middlemen get?

17 A. All I know is what's in your contract: that it said 20%  
18 in your contract.

19 Q. Do you have any idea whether the average cut that they  
20 get is more than 20%?

21 A. I have no idea.

22 And I spent a lot of time at one point in my career  
23 trying to figure out where Timur Kulibayev's assets  
24 really were, and the bulk of his assets seem to have  
25 been from the oil industry. So I just have no -- I am

10:52 1 not trying to conceal anything -- I have no reason to  
2 believe that (a) he is personally profiting from this,  
3 and (b) that there are large profits going to either of  
4 these two companies.

5 Q. In your view as a layperson, is a price that includes  
6 a significant cut for one of these state middlemen  
7 a commercially reasonable price?

8 A. I know that other exporters in Kazakhstan are continuing  
9 to sign deals with these companies; they obviously see  
10 it in their interests to do it. That would be my only  
11 measure. I know that Tethys Petroleum still works  
12 exclusively with them; that's all I can say. That's the  
13 only company that I've found that is still dealing with  
14 these two, and I've seen no evidence that anybody has  
15 stopped dealing with them.

16 MR FLEURIET: I have no further questions.

17 THE CHAIRMAN: Thank you very much. Any re-direct?

18 MR TIRADO: Sir, just a couple of very quick follow-up  
19 questions.

20 (10 .53 am)

21 Re-direct examination by MR TIRADO

22 Q. Professor Olcott, did you do any research into the gas  
23 export prices for the year 2008 prior to submitting your  
24 report?

25 A. Did I find the final prices --

10:53 1 Q. No, did you just do any research; did you look?

2 A. Yes, I did, I looked -- I spent hours and hours and  
3 hours on the Kazakh Ministry of Justice website, which  
4 is where I found the 2010 and 2011 prices. There were  
5 approximately 12,000 documents. I Googled it. I used  
6 the search function any way you can possibly use it.  
7 I found prices for 2004, and then 2010, 2011.

8 I didn't think about going back to Gazprom's  
9 statements to its shareholders as a source of finding  
10 Kazakhstan's gas prices.

11 Q. So when Mr Fleuriet says that you didn't do that work  
12 before you wrote the report, do you agree with that?

13 A. Absolutely not.

14 Q. Okay. I think you mentioned in your testimony that you  
15 found these prices in the disclosures to Gazprom's --

16 A. I did.

17 Q. Could you just explain that context?

18 A. Yes. Because Gazprom is publicly traded and because  
19 Gazprom owns half of KazRosGaz, with the Kazakh  
20 Government owning the other half of KazRosGaz, they have  
21 to disclose to their stockholders any dealings with  
22 related parties. They also own half of Moldova Gas,  
23 which is why I found the Moldovan figures as well.

24 So I went through all -- as I said, I was  
25 frustrated, so I went through when I had extra time;



10:55 1 I spent my vacation in Puerto Rico doing this -- all the  
2 figures that were disclosed by Gazprom from 2003 on that  
3 related to transactions with either Kazakhstan or  
4 Moldova, and this was reported because it was a related  
5 trade. So they had to report the income of KazRosGaz;  
6 how KazRosGaz got the income; whether there were any  
7 fees paid to the people from Gazprom who were also part  
8 of the KazRosGaz board. Which is how I found it.

9 It was -- I mean, it was really incredibly  
10 time-consuming, and I apologise that I didn't have the  
11 time or hadn't thought of it in the dozens of hours  
12 I spent doing this first report.

13 Q. Thank you. One final question: do you recall the range  
14 of prices paid?

15 A. In this period, yes. It ranged from \$30 in 2003 to --  
16 then it went up by increments. \$30; then 2004, \$32;  
17 2006, \$36; 2007, \$59; if I recall correctly, 2008, it  
18 was like \$89 -- then \$89, then \$110, and it then went to  
19 \$112, and then went back down to \$110, and then \$170 and  
20 \$185 only in 2011 and 2012. And they are average  
21 figures across the years, so they vary slightly from  
22 quarter to quarter.

23 MR TIRADO: Thank you, Professor Olcott.

24 No further questions, sir.

25 THE CHAIRMAN: Nothing from you? Nothing from my

10:56 1 colleagues?

2 MR HAIGH: No, thank you.

3 THE CHAIRMAN: Alright, Professor Olcott, that's it. Thank

4 you very much.

5 THE WITNESS: Thank you.

6 THE CHAIRMAN: We will now have a short break. So

7 I understand correctly that Mr Balco is the next one?

8 DR NACIMIENTO: Yes.

9 MR FLEURIET: Yes.

10 THE CHAIRMAN: So we'll have a short break to organise that.

11 (10 .57 am)

12 (A short break)

13 (11 .12 am)

14 PROFESSOR TOMAS BALCO (called)

15 THE CHAIRMAN: Welcome, Professor Balco. You know by now

16 that we would ask you to read out to the declaration

17 which I hope you have in front of you. You do not?

18 THE WITNESS: I apologise, there is no declaration in front

19 of me. But I'm happy to repeat it or just -- so either

20 I can listen to the translators, who can read it to me

21 and I can confirm, or find some other solution.

22 THE CHAIRMAN: Do the translators have my expert

23 declaration? I'm not sure. Well, wait here. I have

24 a copy here. I'll read it out. This happens sometimes;

25 it's a trick!

11:14 1 I will read it out to you and if that is agreeable,  
2 you can confirm: "I solemnly declare upon my honour and  
3 conscience that my statement will be in accordance with  
4 my sincere belief."

5 THE WITNESS: Yes.

6 THE CHAIRMAN: Thank you very much. Okay, introduction by  
7 respondent.

8 MR TIRADO: Thank you, sir.

9 (11 .14 am)

10 Direct examination by MR TIRADO

11 Q. Good morning, Professor Balco. Do you have in front of  
12 you a copy of your expert report dated  
13 30th November 2012?

14 A. Yes, I do.

15 Q. And is there anything in that you would like to add or  
16 correct?

17 A. No.

18 Q. Okay.

19 Professor Balco, could you briefly describe to the  
20 Tribunal your professional background and work  
21 experience?

22 A. My professional background including the education:

23 I have three law degrees, out of which the highest is  
24 doctor of law degree, and I have a degree in

25 international tax law, which is a postgraduate Master's,

11:15 1 LLM course. I am also a certified accountant;

2 I qualified with the UK professional body ACCA.

3 Currently I work as associate professor at the  
4 KIMEP University in Almaty, where I teach taxation  
5 courses: courses like Tax Law in Kazakhstan, Taxation in  
6 Kazakhstan, International Tax Law, Taxation of  
7 Multinational Enterprises, Principles of Taxation.

8 I have also proposed to the university to establish  
9 a centre for research of Central Asian tax issues. It's  
10 called Central Asian Tax Research Centre, which  
11 I basically, with the support of the university founded  
12 and I am serving as a founding director of this centre.

13 I carry out several community activities. Some of  
14 them that can be mentioned: I work as a chair of tax  
15 working group of American Chamber of Commerce in  
16 Kazakhstan. That is basically a body which brings on  
17 concerns of the foreign investors, and I try to  
18 spearhead policy change to improve the investment  
19 climate in Kazakhstan.

20 I also serve as a member of several sub-committees  
21 of a committee of experts of the United Nations on  
22 international tax matters.

23 Q. Thank you, Professor Balco.

24 Your expert report deals with the assessment of  
25 corporate back-taxes by the tax committee in

11:16 1 February 2009, and specifically with the question of  
2 whether Article 20 or Article 23 of the applicable tax  
3 law applied to the deduction of certain drilling  
4 expenses.

5 Could you please describe the difference between  
6 these two articles?

7 A. Article 20 contains several provisions. Actually, it's  
8 a general article that applies to different types of  
9 assets which are subject to depreciation.

10 The article in the period under question contained  
11 also a point which allowed items -- or the certain  
12 discretion of a taxpayer. For certain types of  
13 expenses, the taxpayer could choose: either expend the  
14 expenses directly or capitalise them and depreciate them  
15 over a period of time.

16 On the other hand, Article 23 is a special article  
17 which deals specifically with the geological expenses  
18 which would be subject to capitalisation and subsequent  
19 depreciation over a period of four years.

20 So, to summarise, Article 20 would be general  
21 article dealing with any types of assets; Article 23  
22 would be specific article dealing with expenditures  
23 which may not even qualify as an asset, but they are  
24 subject to capitalisation and subsequent depreciation  
25 over a period of four years.

11:18 1 Q. As part of the preparation for your report, did you

2 review the subsoil use contracts for KPM and TNG?

3 A. Yes, I did.

4 Q. Do either of those contracts make specific statements

5 about which of the articles applies in different cases?

6 A. All the three agreements contain instruction which

7 basically clarifies the treatment of those expenses.

8 It's quite detailed. It clarifies what should happen in

9 respect of accounting all those expenses, and also what

10 happens in terms of the tax treatment of those expenses.

11 Q. Thank you.

12 You will know the present case relates to certain

13 drilling expenses, and you have stated at, to be

14 specific, paragraph 2.1 of your report -- that's at

15 page 15 in your report -- as costs relating to the

16 drilling of wells, geophysical research, mobilisation

17 and demobilisation of wells, development of wells and

18 well-kill operations.

19 Would you assign these costs to Article 20 or

20 Article 23?

21 A. As I concluded in my report, I included these costs into

22 Article 23.

23 Q. Can you explain why you reached that conclusion, or how

24 you reached that conclusion?

25 A. Because the subsurface use contracts specifically

11:19 1 mentioned this category of expenses in Article 23 and  
2 provided guidance to the taxpayer that these expenses  
3 are subject to capitalisation and subsequent  
4 depreciation.

5 MR TIRADO: Thank you, Professor Balco. That concludes my  
6 direct examination.

7 THE CHAIRMAN: Thank you. Cross-examination, please.

8 (11 .19 am)

9 Cross-examination by MS ROEBUCK FREY

10 Q. Professor Balco, good morning. It's still good morning.

11 My name is Amy --

12 THE CHAIRMAN: I am going to have to ask you to get closer  
13 to the microphone.

14 MS ROEBUCK FREY: Sorry. Thank you. I will try to keep  
15 that in mind.

16 May name is Amy Frey, I am counsel for the claimants  
17 in this case, and I have a few questions for you today  
18 about your expert report.

19 Before we get started, do you speak or read Russian?

20 A. Yes, I do.

21 Q. Fluently?

22 A. It takes some time, but I can read through text.

23 Q. Okay. And you mentioned during the questioning from  
24 counsel for Kazakhstan that you had been teaching tax  
25 law in Almaty. How long have you been doing that?

11:20 1 A. I have been teaching tax law in Almaty for six years

2 now.

3 Q. Did you review any Kazakh laws other than tax laws when  
4 you were preparing your report?

5 A. Well, I had a brief consideration of the definition of  
6 construction under the architectural definitions or law  
7 which deals with architecture, but I wouldn't carry out  
8 in-depth analysis because I concluded that it is not  
9 necessary because the definitions or clarifications  
10 included in the subsurface use contracts are specific  
11 enough. There is no need, therefore, to go to  
12 definitions of different laws, which actually confuse  
13 the matter in my opinion.

14 Q. Okay. If you could look, please, at page 19 of your  
15 report. This is your section 2.3.2.1, and here you are  
16 discussing the applicable law under the claimants'  
17 subsoil use contracts.

18 You're aware that as those contracts were originally  
19 drafted, they contained tax stabilisation clauses;  
20 correct?

21 A. Yes, that's right.

22 Q. And you state here that contract 3 02 was executed  
23 July 31st 1998, contract 210 was dated August 12th 1998,  
24 and contract 305 was dated March 30th 1999; correct?

25 A. That's right.



11:21 1 Q. Do you understand that the original tax stabilisation  
2 clauses stabilised the tax regime as of those dates that  
3 the respective contracts were entered into?

4 A. If one carefully reviews the subsurface use contracts,  
5 one can see there is a number of supplements and  
6 amendments to those contracts. So those amendments  
7 agreed by both parties have amended the original  
8 provisions.

9 Q. Right. I understand that in 2 0 04 -- and I think you  
10 address this in your report as well -- there was a --  
11 I think you refer to it actually as a "tax harmonisation  
12 supplement".

13 A. Well, I explain it in that way because it kind of makes  
14 sure that it brings to the same level. There were three  
15 different agreements, and there could have -- you know,  
16 in the period of time, the changes to tax law were quite  
17 frequent, and I think that the intention to have the  
18 same instruction in all the three agreements would make  
19 sure that there is no kind of differences between the  
20 treatments by months or something like that.

21 So that's why there is no official title, like  
22 "harmonisation", but I would -- effectively these  
23 supplements created a harmonisation role for the regime,  
24 so -- of the taxpayer.

25 Q. I agree with you, actually. I think that's a good way

11:23 1 to characterise the 2004 supplement. Prior to 2004,

2 however, each of the contracts' tax regimes were

3 stabilised as of the date they were entered into?

4 A. That's correct.

5 Q. And then after 2004 the tax regime that applied to the

6 contracts was the tax law as of April 1st 1999, right?

7 A. That's correct.

8 Q. And I think you just mentioned all three subsoil use

9 contracts contain the same provision in that respect?

10 A. Exactly.

11 Q. Turning now to the dispute, the corporate income tax

12 dispute that you just summarised, the essence of this

13 dispute is whether KPM's and TNG's drilling expenses

14 were properly deducted under Article 20 or Article 23;

15 right?

16 A. Yes .

17 Q. If you turn to page 15 of your report, the third

18 paragraph from the bottom. You say here:

19 "... the Claimants argue, that the provisions of

20 Article 20 were to be used, which would allow it to use

21 a 100% amortization (full deduction in the year when

22 these costs were incurred), [whereas] the Republic

23 argues that the rate of 25% was [to be] used as

24 prescribed by Article 23 and thus allowing only gradual

25 depreciation of these costs over ... time."

11:24 1 Is that right?

2 A. That's correct.

3 Q. Isn't it the case then that the issue here is not

4 whether these deductions could be taken, but when they

5 could be taken?

6 A. That's right.

7 Q. So, in other words, claimants argue that these expenses

8 could have been deducted 100% in the year that they were

9 incurred, whereas the Republic claims that they could

10 only be deducted 25% in that year and then capitalised

11 and further gradually deducted over time?

12 A. That's correct.

13 Q. Did you calculate the tax difference between that

14 scenario -- the Article 23 scenario, I will call it,

15 where KPM and TNG deducted these expenses gradually over

16 time -- did you calculate the difference between that

17 scenario and what actually occurred here?

18 A. The calculation was actually done by the tax committee.

19 I must say that in their assessment they quite correctly

20 acknowledged the fact that it was a timing difference,

21 and they, on the one hand, excluded deduction from the

22 immediate deductions and capitalised those expenses

23 where they belong, and they actually permitted to the

24 taxpayer also the depreciation that was duly charged.

25 So I didn't have to carry out that calculation

11:25 1 because it was done already by the tax committee, and

2 I must say that was the right approach.

3 So the tax assessment which was done, there is  
4 already the result of the corresponding adjustment. So  
5 it was not only excluding of the expenses and not  
6 allowing the deduction, but it was permitting the  
7 gradual depreciation.

8 Q. And the total amount that the tax committee found KPM  
9 and TNG owed was in the range of US\$62 million; correct?

10 A. That's correct.

11 Q. So is it your testimony that the US\$62 million reflects  
12 the difference between those two scenarios?

13 A. It reflects the tax due as a difference, because there  
14 is a difference whether you get the -- for both the  
15 company, which could dividend the money out, for  
16 example, and use it for its own purpose, and for the  
17 state.

18 So, basically, while I completely agree with the --  
19 basically, as I explained in my report, it's about  
20 a mode of cost recovery: how quickly you can, as  
21 an investor or a taxpayer, recover the costs. So that's  
22 a very valid point that you mention. On the other hand,  
23 the \$62 million represents the tax assessment to be paid  
24 at the due time, plus the applicable penalties under the  
25 law for failing to do so.

11:26 1 Q. Right. And putting the penalties aside for a minute,  
2 the tax assessment that was claimed to be owed would  
3 have to take into account the gradual deductions that  
4 could be taken in subsequent years?

5 A. It was taken into consideration in the tax assessment,  
6 and I specifically looked into it because it could have  
7 been overlooked and there could have been a mistake done  
8 by the tax authorities.

9 Q. So, I'm sorry, I'm a little confused. Does the  
10 \$62 million take --

11 A. Yes .

12 Q. -- those gradual further deductions into account?

13 A. It does. It's included into the assessment.

14 Q. And did you check that calculation, or did you just rely  
15 on the ministry's --

16 A. I relied on the calculations done, I didn't go through  
17 the revising of the calculations. It can be done, if  
18 that would be considered useful by the Tribunal.

19 Q. Okay.

20 Now, do you agree that section 4.4.7 -- I don't know  
21 if you remember it by number, but you reference it in  
22 your report; that's a provision of the subsoil use  
23 contracts -- do you agree that that provision describes  
24 the expenses that are subject to Article 20 versus  
25 Article 23?

11:27 1 A. Could I have access to the exhibits, so I can ...?

2 Q. We will come to that provision in a minute. But I can  
3 show you actually in your report on page 20,  
4 section 2.3.2.2, you reference subsection 4.4.7 of the  
5 subsoil use contracts.

6 A. That's correct.

7 Q. You see that there?

8 A. Yes .

9 Q. Okay. Then you say in the same section here that --  
10 actually, if you move over to page 22, you say that  
11 a critical issue to this dispute is whether point 8 of  
12 that subsection applied or whether point 9 applied, and  
13 you cite and quote, actually, points 8 and 9 on page 21.

14 A. That's right.

15 Q. Okay. I actually want to look at those two provisions  
16 in the tax law. So this is Exhibit 10 to your report.

17 A. Yes, thank you very much. (Handed)

18 Q. Now, point 8, which is quoted in your report on page 21,  
19 says that:

20 "Processing equipment, acquired to be used in  
21 production purposes, and expenditures for own-account  
22 construction.

23 "- [Are to be depreciated] in accordance with  
24 item 10, Article 20 of the Tax Law (at the discretion of  
25 Contractor)."

11:29 1 Do you see that?

2 A. Yes .

3 Q. And if you look at the Article 20 I just handed you,  
4 which was appended to your report, item 10 is not  
5 included there.

6 A. Mm-hm. So I'm already quoting section 4.4.7 from the  
7 subsurface use agreement, where this information is  
8 taken from.

9 Q. Right. But it refers to Article 20, item 10 of the tax  
10 law, and that subsection is not included in the tax law  
11 that was appended to your report.

12 A. Yes. Well, I'm quoting here, as I mentioned, the  
13 section 4.4.7. I am not making a reference to that. So  
14 that's why -- well, I didn't consider to include it as  
15 an exhibit because what we need to also realise is that,  
16 as I mentioned, tax law was changing over time. So  
17 I didn't do the cross-reference whether the version  
18 indeed contains this point or not. So, yes, that is  
19 something that can be corrected.

20 Q. Okay. I agree with you actually that provision 4.4.7 in  
21 the subsoil use contracts includes the quote you have  
22 included on page 21, which references Article 20,  
23 item 10 of the tax law. But we don't have what  
24 Article 20, item 10 of the tax law actually is, because  
25 the version of the tax law that you submitted with your

11:30 1 report doesn't include it.

2 So don't you think that it's important --

3 A. It is --

4 Q. -- to know what --

5 A. Well, the --

6 Q. -- item 10 --

7 A. Yes --

8 Q. -- of Article 20 says --

9 A. -- unfortunately, I realise now --

10 THE COURT REPORTER: Sorry, sorry. You're interrupting each  
11 other and it's not clear --

12 THE CHAIRMAN: Again, take your time. Be slow.

13 A. I realise now, when I look again into the Exhibit 10  
14 section 10 was already excluded from that version. So  
15 when referencing it, I already included the version  
16 which is dating to a later date. So I apologise for  
17 that. But basically it includes the same provision  
18 which is mentioned in the report.

19 So it is, I would say -- how to call it? -- the  
20 information is in the report which is more important  
21 and that's what the reference should be considered for  
22 our further considerations. And if I was to reference  
23 the Tax Code, indeed if I made a conscious reference  
24 back to that provision, I would have double-checked them  
25 and made sure it was there. In this case it's not



11:31 1                   there; I acknowledge that.

2       MS ROEBUCK FREY: But are you saying Article 20, item 10 is  
3           referenced in your report?

4       A.   No, I didn't reference it. That's why I didn't include  
5           it as a specific exhibit, so that's why --

6       Q.   Okay. From the wording here, that's the provision,  
7           item 10 of Article 20, that tells us the depreciation  
8           rate that should apply to the expenses at issue here?

9       A.   Exactly.

10      Q.   Which we don't know, because we don't know what it says?

11      A.   Can you please repeat?

12      Q.   We don't know what Article 20, item 10 says, because we  
13           don't have it; right?

14      A.   Well, it says exactly the point which was already  
15           mentioned in the -- it was taken from the Tax Code into  
16           that instruction. So it's written there on page 21.

17      Q.   But it just says that the depreciation shall be in  
18           accordance with that article, and we don't have the  
19           article.

20      A.   Okay, got it. Yes. Thank you.

21      Q.   If you look at the version of the tax law that you  
22           submitted as Exhibit 10 to your report, you will see at  
23           the top of it that it says that it is with amendments  
24           and additions as of December 31st 2001.

25      A.   Mm-hm.

11:32 1 Q. So this is actually not the version of the tax law that  
2 applied to the contracts at issue here, right?

3 A. Mm-hm.

4 Q. Because we established earlier that the version of the  
5 tax law was the version as of April 1st 1999; right?

6 A. Yes .

7 Q. Did you review that version of the tax law when you  
8 prepared your report?

9 A. Yes, I did.

10 Q. But you didn't include it with your report?

11 A. I had it, unfortunately, only in the Russian language,  
12 and this was the only English translation that I had  
13 available. That is why I submitted it in the version  
14 that it -- this. Unfortunately, not every version of  
15 the tax law was translated into Russian over that time.  
16 So for convenience I used the English version, but  
17 I didn't check that the reference is missing already.

18 Q. How can we be sure that they are the same?

19 A. Well, they're not the same, because here it's already  
20 excluded. That's why I acknowledge that the Russian  
21 version would be a better exhibit. So that was  
22 an omission from my side and can be corrected to clarify  
23 that point.

24 Q. Okay. It's a little difficult to determine whether  
25 Article 20 or Article 23 properly applied if we don't

11:33 1 have the right version of Article 20 or Article 23, but  
2 let's take a look at what we do have.

3 If you look at Article 23 to Exhibit 10. It's  
4 titled "Costs on geological research and development for  
5 natural resources production"; right?

6 A. Mm-hm.

7 Q. And Article 23 itself describes what is included as such  
8 costs; correct?

9 A. Yes .

10 Q. It says that such costs include:

11 "... costs on evaluation, arrangement, general  
12 administrative costs and costs connected with payment of  
13 signature bonus and commercial discovery bonus ..."

14 Right?

15 A. Mm-hm.

16 Q. It does not say that construction cost for wells should  
17 be included in "geological research and development  
18 costs", does it?

19 A. I think exactly for that purpose there was a supplement  
20 to the contract which provided very clear instructions  
21 on what is included.

22 Q. Okay. I'll turn to the contractual provisions in just  
23 a minute. But according to the law itself, Article 23  
24 does not say that construction costs for wells should be  
25 included under Article 23, right?

11:35 1 A. So I will turn back to what was the expenses in the  
2 question: it was costs for drilling of wells,  
3 geophysical research, mobilisation/demobilisation  
4 expenses, development of wells and well-kill operations.

5 If I may read one more time the provision of  
6 Article 23, it says:

7 "Costs, made by subsoil user on geological research,  
8 exploration and development for natural resources  
9 production including costs on evaluation, arrangement,  
10 general administrative costs and costs connected with  
11 payment of signature bonus ... "

12 Exactly these items are included; I mentioned them  
13 earlier. So if you compare the types of expenses, these  
14 are exactly the same expenses. As we can elaborate  
15 shortly, the subsurface use agreement provides  
16 additional clarification on that, exactly in the same  
17 line.

18 Q. This list of disputed expenses that you just read out  
19 from your report --

20 A. Yes .

21 Q. -- where did you get that?

22 A. From the tax assessments.

23 Q. So that's just a paraphrase of the tax assessment?

24 A. Well, it was tax assessments, yes, and also the  
25 complaints by the taxpayer. So both were mirroring each

11:36 1 other, so it was not that one was talking about  
2 different expenses than the other. I think there was  
3 very clear agreement on which expenses they are. These  
4 are these expenses.

5 What is also interesting, when you review the  
6 arguments of the taxpayer, they actually acknowledge  
7 applicability of Article 23. The main matter was they  
8 said both could be applied, Article 20 and Article 23,  
9 but then they twist around interpretation of the  
10 subsurface use agreement, and that's where the opinions  
11 of the taxpayer and the tax committee depart.

12 I am happy to clarify that during the session, to  
13 show where that departure happened and why, and where  
14 is, in my opinion, the discrepancy between the two  
15 positions.

16 Q. But just to clarify, the list of disputed expenses that  
17 you have written in your report here, that's your own  
18 language, it's not a quote from either of those  
19 documents; correct?

20 A. It's my translation from those documents. Both are, as  
21 I mentioned, the tax assessment and also the appeal,  
22 complaint of the taxpayer.

23 Q. Okay. I am going to hand you a copy of Exhibit C-45,  
24 which is contract 305, and I have colour-coded some of  
25 the provisions there in an attempt to hopefully let this

11:37 1 move along more smoothly, because it's a long document.

2 I am using one of the subsoil use contracts as  
3 an example, but, as you mentioned earlier, all three  
4 contain the same provisions.

5 If you turn to the blue flag, which is  
6 section 4.4.7.12, and this lists the items that are  
7 subject to depreciation under Article 23 of the tax law.  
8 It says here that such expenditures, subject to  
9 Article 23, are:

10 "... intangible assets relative to the right for  
11 acquisition of geological survey, Exploration and  
12 Production;

13 "Subscription bonus;

14 "Bonus of commercial discovery ... "

15 Right?

16 A. Mm-hm.

17 Q. Three things: intangible assets, subscription bonus and  
18 bonus of commercial discovery?

19 A. And point 4, which you omitted. Can you read it? I can  
20 read it, please.

21 THE CHAIRMAN: Take your time, both of you, please.

22 A. Shall I read it?

23 Q. Point 4?

24 A. Yes. Fourth bullet point:

25 "... any other expenditures in accordance with

11:38 1 item 2.3 of this Supplement."

2 MS ROEBUCK FREY: That's right, and I was just about to  
3 refer you to section 2.3, which I have marked in red.

4 It's a previous section --

5 A. If you give me one more minute, I will see if there's  
6 anything else I would like to highlight here.

7 Q. Of course. (Pause)

8 A. It also would be important to highlight the last  
9 sentence, which says:

10 "In order to assess depreciation for each Tax year  
11 following the Reporting period, the amount of  
12 expenditures, capitalized in accordance with Article 23  
13 of the Tax Law, shall be increased by the amount of  
14 expenditures incurred during the appropriate Tax year  
15 and subject to capitalization under item 2.3.2 of this  
16 Supplement and shall be decreased by the amount of  
17 depreciation deductions incurred during the preceding  
18 Tax year under this item."

19 So that would be another important point, because it  
20 gives us a more clear reference exactly to the  
21 expenditures that we are talking about.

22 Q. Right. I think we should look at section 2.3.

23 A. Yes .

24 Q. It's marked with a red flag there.

25 Now, section 2.3 is titled "Principles of tax

11:40 1            accounting of Contractor's expenses during different  
2            periods of Contractual activity", and you will see it  
3            has three subsections. The first one is "Prior to  
4            Production", and it says:  
5            "... all expenses related to conduct of Contractual  
6            activity, except for the expenses, for acquisition of  
7            fixed assets and construction expenses, shall be" -8 A. Yes. And  
I need to point out again what -9        THE CHAIRMAN: Sorry, let her  
finish, and then -10        THE WITNESS: Okay, I apologise, yes.  
11        MS ROEBUCK FREY: Thank you.  
12            "... shall be subject to inclusion into expenses  
13            determined by the Contractor under Article 23 ..."  
14        A. Mm-hm. So, if I may correct -15        Q. I actually haven't asked a  
question yet.  
16        A. Okay.  
17        Q. If you could let me get to my question.  
18        A. Apologies. Yes, yes.  
19        THE CHAIRMAN: The rules of the game are that she asks  
20            questions and you respond to the questions.  
21        THE WITNESS: I apologise.  
22        THE CHAIRMAN: And that's how it is.  
23        THE WITNESS: Of course, of course. I will correct it.  
24            I apologise for that.  
25        MS ROEBUCK FREY: I just want to look at the provisions of



11:40 1 section 2.3 and then I will have a question.

2 Subsection 2.3.1 says that:

3 "Prior to Production, all expenses related to  
4 conduct of Contractual activity, except for the expenses  
5 for acquisition of fixed assets and construction  
6 expenses, shall be subject to ... Article 23 ..."

7 The second subsection notes in further subsection 1:

8 "expenses for geological prospecting and exploration  
9 operations listed in item 6.2.5 ..."

10 Again:

11 "... except for expenses incurred for acquisition of  
12 fixed assets and construction, [should be] capitalized  
13 before completion of Exploration operations."

14 And then the third subsection says:

15 "Expenses for acquisition of fixed assets and  
16 construction shall be entered in accordance with  
17 items 4.4.7.1-4.4.7.11 of this procedure."

18 That's broadly those subject to Article 20, right?

19 A. Mm-hm. So can I now provide --

20 Q. Well, actually I haven't asked another question yet.

21 A. Sorry, go ahead.

22 Q. So according to Article 2.3, expenses for fixed assets  
23 and construction costs are not subject to Article 23?

24 A. Can you please repeat the question?

25 Q. According to subsection 2.3 that I just reviewed here,

11:42 1 expenses for the acquisition of fixed assets and  
2 construction expenses are not applicable, are not  
3 subject to Article 23?  
4 A. Mm-hm. So --  
5 Q. Is that right?  
6 A. No.  
7 Q. That's not right?  
8 A. So can you please repeat? Maybe -- I apologise for  
9 that, because maybe I am already focused on my answer.  
10 Just to make sure, please.  
11 Q. The question is very simple.  
12 A. Yes .  
13 Q. According to section 2.3, expenses for the acquisition  
14 of fixed assets and construction expenses are not  
15 subject to Article 23?  
16 A. That's not correct.  
17 Q. Why?  
18 A. I am prepared to clarify.  
19 So, as was just mentioned by the attorney, if I may  
20 point out a couple of important points in the provision.  
21 THE CHAIRMAN: Just focus on the question, of course.  
22 A. Sure. So I'm clarifying it. I want to clarify because  
23 it creates a confusion.  
24 THE CHAIRMAN: Okay.  
25 A. And it creates confusion in the court proceedings, and

11:43 1 it's confusion.

2 THE CHAIRMAN: Never mind about our court proceedings; we  
3 will deal with that. You just focus on the question you  
4 have.

5 A. So, first of all, I would like to clarify the point:  
6 it's section 2.3.2 which talks about expenses which are  
7 incurred once the company enters into production stage.  
8 It means the production already started.

9 And there are three types of expenses. The very  
10 first expense mentioned says:

11 "expenses for geological prospecting and exploration  
12 ... listed in item 6.2.5 ..."

13 That item exactly mentions the expenses under the  
14 question.

15 MS ROEBUCK FREY: We're going to move to that item in just  
16 a minute. My question was really limited to 2.3.

17 A. And -- can I finish now my statement, please?

18 Q. Of course.

19 A. Okay. Then it continues:

20 "... except for expenses incurred for acquisition of  
21 fixed assets and construction ..."

22 But very important omission that happened here was  
23 that there is a comma which says:

24 "... capitalized before completion of Exploration  
25 operations."

11:44 1 Okay? And that is where mistakes happened, because

2 "capitalized before completion of Exploration  
3 operations" would mean that these expenses were not  
4 expense immediately. It means that these expenses  
5 were -- if you are constructing a building, you are  
6 creating -- there is a work in progress and eventually  
7 there is a building, there is an asset which is  
8 capitalised, and then subject to continuous  
9 depreciation.

10 The exclusion that is referred to by the attorney  
11 refers to "expenses incurred for acquisition of fixed  
12 assets and construction, capitalized before completion  
13 of Exploration operations", and that makes a big  
14 difference.

15 Also the logic behind tax law provides a little bit  
16 of guidance in understanding it better. What  
17 basically ... I now lost the point. I can come back to  
18 it, and then there will be confusion on it. It's just  
19 that I may be a little anxious, I apologise.

20 So I stop here. But basically the point I made was  
21 that these expenses listed in this article are subject  
22 to treatment of Article 23. The exclusion that was  
23 mentioned only refers to expenses which were capitalised  
24 and are before the production. So it covers the period  
25 before the expenses were even incurred.

11:45 1 Q. So are you saying the phrase "capitalized before  
2 completion of Exploration operations" refers to the  
3 exception there?

4 A. Exactly.

5 Q. The exception doesn't stand on its own, even though it  
6 is set off by commas?

7 A. Exactly.

8 Q. Okay.

9 A. Hope this helps.

10 Q. Do you know whether a well is a fixed asset?

11 A. A well would constitute a fixed asset if -- yes, it  
12 would.

13 Q. Do you know how a well is constructed?

14 A. There are several stages of construction of a well.

15 I must admit I am not an expert on the construction of  
16 the wells.

17 Q. Does it include drilling?

18 A. It includes drilling.

19 Q. Thank you.

20 Let's move to Article 6.2.5, which I think you  
21 wanted to get to earlier, and that one is flagged in  
22 green.

23 Actually, if you will turn to the page just before  
24 that section, so we can look, section VI is with respect  
25 to value-added tax; right?

11:46 1 A. Yes, that's correct.

2 Q. Then 6.2.5, I agree with you, includes a list of certain  
3 operations. But do you see how it says:

4 "For the purposes of this section, geological  
5 exploration and prospecting operations shall cover,  
6 without limitation, the following works and service ... "

7 A. That's correct.

8 Q. So is it your testimony that this section that includes  
9 a list of work, but also expressly states "For the  
10 purposes of this section", and this section refers to  
11 value-added tax --

12 A. Yes .

13 Q. -- it's your testimony that this list is relevant to  
14 determining the rates of depreciation under either  
15 Article 20 or Article 23?

16 A. Yes. There was a specific reference earlier, in the  
17 section that we have read, which said: these expenses  
18 which are listed in section 6.2.5 would be subject to  
19 treatment of Article 23.

20 There is also logical link. I will explain why  
21 there might be confusion between: why is it in  
22 a section on VAT? These expenses are substantial  
23 amounts. To build a well is very costly. There is  
24 a VAT exemption from that because that would be -- it's  
25 basically almost like an incentive or treatment from the

11:48 1 state: we will not charge you VAT on the construction of  
2 the wells because we understand it will be a long-term  
3 process and you may not be even able to recover the VAT  
4 any [time] soon. For that purpose, in some countries --  
5 and Kazakhstan is a country -- there is an inclusion of  
6 exemption, to make it cheaper for the investor to  
7 construct that well. So that is the reason for the  
8 exemption.

9 The exact list of the items which would be  
10 considered, those items which benefit from this  
11 treatment are mentioned here. And as I was mentioning  
12 earlier, section 2.3.2, which we have been discussing,  
13 makes a reference to this section, which provides like  
14 detailed bullet-pointed list of those expenses which  
15 should be on the one hand exempt from VAT, on the other  
16 hand subject to capitalisation and gradual depreciation.

17 So there is like the internal logic of the legal  
18 system or tax system here.

19 Q. I understand that item 6.2.5 refers back to 2.3, and we  
20 just reviewed a minute ago that 2.3 contains an explicit  
21 exception for expenses incurred for acquisition of fixed  
22 assets and construction; right?

23 A. Can you point me out, please, this reference that you  
24 are referring to?

25 Q. I'm sorry. 2.3 referenced to 6.2.5; that's how we got

11:49 1           there in the first place.

2     A.   But there is no cross-reference, as you just mentioned.

3     Q.   Exactly.

4     A.   So let's correct that. Thank you.

5     Q.   And 6.2 relates to VAT, as you just described?

6     A.   Yes, and as I just explained.

7     Q.   Did you review all four Kazakh court decisions on this  
8         issue when you were preparing your report?

9     A.   I didn't have available the two decisions that were  
10        mentioned yesterday. I tried to access them and they  
11        are not available to me.

12    Q.   Did counsel for Kazakhstan provide you with all the  
13        materials you would need to prepare your report?

14    A.   They did provide me with the materials that I considered  
15        necessary. And I actually yesterday asked, after these  
16        two decisions were mentioned, I asked to have an access  
17        to those; unfortunately they were not able to locate it.

18    Q.   So were you aware that those decisions even existed  
19        before you prepared your report?

20    A.   Well, I understood that they existed because I saw the  
21        decision of the Supreme Court which refers to the  
22        previous decisions and basically overturns it. I wanted  
23        to have a closer look yesterday if there was any new  
24        arguments that the taxpayer would bring, other than  
25        those that I had basically seen in the appeal to the tax



11:50 1 statements. But I don't know if there are any new  
2 arguments for that.

3 Q. So you were unable to review the decisions --

4 A. Well --

5 Q. Excuse me -- of the two Kazakh courts that found in KPM  
6 and TNG's favour on this issue?

7 A. That's right.

8 Q. Are you aware that one of those decisions was from the  
9 Court of Cassation in June 2010?

10 A. That's what I understood, yes.

11 Q. It wasn't until after Kazakhstan took over KPM and TNG  
12 that the Supreme Court heard this issue and then  
13 subsequently issued its decision in November 2010.

14 A. Mm-hm.

15 Q. You are aware of that?

16 A. Yes .

17 MS ROEBUCK FREY: Thank you. I have no further questions.

18 TH CHAIRMAN: Questions from your side?

E

19 MR TIRADO: Just a very quick follow-up.

20 (1 .51 pm)

1

21 Re-direct examination by MR TIRADO

22 Q. Professor Balco, counsel for the claimant referred you  
23 to Exhibit 10 of your report. There was some confusion  
24 as to the correct version of the law. Is it possible to  
25 obtain a copy of the Russian version overnight?

11:51 1 A. Yes, I think so.

2 MR TIRADO: What I was going to suggest, if it's helpful for  
3 counsel for claimants, if we could provide that to you,  
4 and I'm sure Professor Balco will be available tomorrow  
5 should you wish to follow up on the line of questioning  
6 that you started with him, to discuss that.

7 MS ROEBUCK FREY: I think we are happy in principle to be  
8 given the correct version of the law, but I don't know  
9 if we will be in a position to respond to it by  
10 tomorrow.

11 MR TIRADO: I appreciate that. But I think Professor Balco  
12 is available tomorrow, so should that position change,  
13 then you may want to make that available.

14 Sorry, Professor Balco, did you want to ...

15 A. I also wanted to offer that I will review the two  
16 decisions that have been discussed, if any new arguments  
17 were raised or whether it was the same arguments which  
18 I mentioned earlier.

19 The departure happened in ignoring that omission.  
20 I will just double-check if it has impacted on my  
21 report: those two decisions, did they bring any new  
22 argument or position that needs to be taken into  
23 consideration? So I would like to offer that to the  
24 Tribunal, to have a look.

25 TH CHAIRMAN: That's very kind. I think we'll leave it to  
E

11:52 1 the parties, including the respondent, whether they want  
2 to submit something or propose something in that regard.

3 MR TIRADO: Yes, sir. So no further questions.

4 TH CHAIRMAN: Please.

E

5 (1 .52 am)

1

6 Questions from THE TRIBUNAL

7 MR HAIGH: Professor Balco, I want to refer you to page 9 of  
8 your report, please. I want you to help me understand  
9 what you've said here, because I'm not sure I do.

10 It's under the heading identified by paragraph 4.4  
11 in your report. The heading is "Special provisions in  
12 Subsurface Use Contracts". You will see where I am  
13 referring to, I assume?

14 A. Yes, I see it in front of me.

15 MR HAIGH: Thank you. The paragraph I want to ask you about  
16 begins with the phrase:

17 "Currently Kazakhstan concludes only the 2nd type of  
18 these agreements ... "

19 Meaning -- well, you've illustrated that above. You  
20 say:

21 "... however it does not include the stability  
22 clauses in these new agreements anymore."

23 And I note that. Then your paragraph goes on, and  
24 this is the part I need your help with. It's the last  
25 full sentence that is in that paragraph, and it says:

11:54 1 "Most of the Royalty Agreements however were not  
2 subject to approval of the President of RK ..."

3 I assume you mean the Republic of Kazakhstan?

4 A. Yes .

5 MR HAIGH: "... and were concluded directly between the  
6 Investors and the competent state bodies ..."

7 And that would be the case here, right?

8 A. Yes .

9 MR HAIGH: Then you say:

10 "... which is the reason why most tax professionals  
11 believe that the absence of such guarantee clause in the  
12 Current Tax Code invalidates the Stability Clauses in  
13 the historical Subsurface Use Agreements."

14 Can you help me understand the last part of that,  
15 the parenthetical part of that sentence, beginning  
16 "which is ... why"?

17 A. It is a legal question which there was no, I would say,  
18 legal authority ruling on that. There is no legal  
19 statement that the stability for those contracts were  
20 abolished. There is like a prevailing opinion among the  
21 tax professionals and practitioners there is no more  
22 stability, but when I was looking for confirmation of  
23 that statement, I didn't find any legal pronouncement  
24 there is no more stability.

25 The previous versions of the Tax Code would

11:55 1 explicitly mention that the stability is valid,  
2 et cetera. The omission of that statement in the new  
3 agreement creates this question. I was hoping that  
4 there will be court decisions or some clarifications  
5 been given by some authority to that extent, but nobody  
6 would clarify that.

7 So that's why I basically mention here the matter of  
8 fact. Most people believe that. I'm not entirely sure  
9 that the stability was abolished by simple omission.

10 What has been then happening in practice is that  
11 companies would take it as a matter of fact and they  
12 would simply switch to the new regime; or -- and that  
13 was most of the cases -- they were renegotiated, those  
14 agreements, and under, I would say, bilateral agreement,  
15 move to the new tax regime, which in many cases was more  
16 favourable, because when it was designed in 2008 it was  
17 taken into consideration the world prices of oil, which  
18 from historical \$40 per barrel went to \$200 per barrel.  
19 And the Tax Code until then was taking into  
20 consideration the low prices of oil. So the new version  
21 now was adjusted to the \$200 per barrel price.

22 What then happened eventually is that, as we know,  
23 the world prices of gas and oil went significantly down.  
24 So for many, the majority of companies which actually  
25 agreed to that, it was more favourable to use the new

11:56 1 regime. So in the spirit of the provision that was  
2 mentioned yesterday in the bilateral agreements, they  
3 would renegotiate those agreements and move on with the  
4 new version of the Tax Code and the new regime.

5 MR HAIGH: So is it your understanding that simply the  
6 absence of a guarantee with respect to the stability  
7 clauses is construed by some in terms of Kazakh law to  
8 have removed the stability clauses in the historical  
9 subsurface use agreements?

10 A. That's a tough legal question and I'm still thinking  
11 what is the right answer to that. Because there is two  
12 possible ways to look at it: one way would be that you  
13 necessarily have to have a statement of the stability in  
14 a Tax Code. Maybe I lean more to the side which would  
15 suggest that basically the stability was guaranteed in  
16 the original agreement, and therefore whatever change  
17 happens in the domestic law or at a level of the  
18 Tax Code should not have impact on the provisions agreed  
19 in the agreement.

20 So actually I lean here on the side of the  
21 investors, and I have been actually quite vocal on that  
22 point also in Kazakhstan. Yes, if you review my  
23 writings on that point, I actually would suggest that it  
24 was -- I don't think that -- if there was a legal case,  
25 I would probably suggest: no, the stability still should

11:58 1           prevail for those agreements even without explicit  
2           guarantee, because it doesn't say "on the other hand and  
3           it's revoked" or "it will not apply to any other  
4           contracts".

5                    It's a tricky legal question, but I lean to the  
6           side, I would say, of honouring the agreements concluded  
7           by the investors and the state.

8   MR HAIGH: So in the case of the subsurface agreements here,  
9           the three subsurface agreements that are the subject in  
10          part of this dispute, is it your opinion that even in  
11          the absence of a tax provision guaranteeing stability  
12          clauses, those stability clauses in those subsurface  
13          agreements would still be enforceable?

14   A. I would say so. The provision which we have been  
15          discussing yesterday, or was mentioned during the  
16          witness statement, that provision basically says: no  
17          changes in tax law should have an effect on the  
18          contractor if they are putting him into economic  
19          detriment, so if there are less advantages for him.

20                    So in the part where the new provisions would  
21          basically put the contractor in a less favourable  
22          outcome when you would balance it out, I would say then  
23          it shouldn't be applicable. If it would be actually  
24          more favourable, I would say nothing in the agreement  
25          would preclude application of such norms, within the

11:59 1 spirit of that provision that has been mentioned

2 yesterday.

3 But I need to point out: for every contract has  
4 different economics. And to make a conclusion: was this  
5 to the detriment of the investor or not, one would need  
6 to put the numbers next to each other and say: is the  
7 changes, is the new regime or is this rule to the  
8 detriment or not? That's how we could find an answer to  
9 that question.

10 MR HAIGH: Thank you very much.

11 THE CHAIRMAN: I had a similar question, but part of it you  
12 have kindly answered.

13 The first question: are we talking about once the  
14 new tax law comes, or any mandatory law? And I take it  
15 tax law is mandatory law in Kazakhstan, as in other  
16 countries. Now, are we talking about what effect it has  
17 from now on, from that date, on contracts, of course,  
18 which have been concluded in the past -- obviously also  
19 new contracts, but that's not really what we are talking  
20 about -- or are we talking about retroactive application  
21 of the tax law?

22 A. I would say from the moment onwards, because retroactive  
23 application would mean that one would have to go back  
24 and recalculate all the taxes based on the new regime.  
25 So I would say any evaluation or consideration would



12:01 1 probably need to take from the point -- from this point  
2 onwards.

3 Now, I think a very important point in the oil and  
4 gas industry would be the overall results of the  
5 project. If I would be making those calculations,  
6 I would not be recalculating the amounts prior to the  
7 change of the law; but, however, I would need to look at  
8 the overall results of the project from the beginning  
9 until the end, because then I will be able to assess the  
10 impact of such a change on the investor. Because the  
11 project is not a year; it's a long-term investment. And  
12 only then one could conclude the impact.

13 THE CHAIRMAN: But that gives you a lot of discretion, if  
14 you look at the entire project, because the various  
15 aspects and their cost effects may be seen quite  
16 differently by different people. Therefore you open  
17 a box of a lot of discretion in that context, don't you?

18 A. Well, this should be in favour of the investor, because  
19 if you would put it in an isolated way, from this point  
20 onwards, if you would evaluate only that part, you would  
21 not take into consideration the investments were costs  
22 borne previously. Because the whole project would have  
23 significant investment at the beginning and then gradual  
24 return on the investment at the end of the project.

25 So that's why, in answering the question in full and

12:02 1 saying: was it a deduction or not, I would need to take  
2 it from the beginning to the end to make the judgment.  
3 And actually that's being done; people who work in those  
4 companies and make those budgets and plans, they would  
5 always look into: what did we spend? What was our  
6 results until now and what will be the results going  
7 forward? Does it make sense or not?  
8 THE CHAIRMAN: The idea of stability clauses is, of course,  
9 that you can calculate from the very beginning --  
10 A. Until the end, yes.  
11 THE CHAIRMAN: -- what the project is going to bring you or  
12 cost you, and so on. Therefore, whatever happens later  
13 may be affected if you change the legal basis.  
14 A. Exactly.  
15 THE CHAIRMAN: Okay. So we are not talking about  
16 retroactivity; we are talking about the time after a new  
17 tax law comes, and obviously on the interpretation of  
18 that to some extent, as we know.  
19 A. That's correct.  
20 THE CHAIRMAN: Okay, thank you. Any questions?  
21 Alright, Professor Balco, thank you very much  
22 indeed.  
23 THE WITNESS: Thank you.  
24 THE CHAIRMAN: Now we are at 12 o'clock. Is it correct that  
25 all we have for the day is the two experts from the two

12:04 1 sides?

2 MR SMITH: That's correct, Mr Chairman. It will be the  
3 experts from Ryder Scott and then from Gaffney Cline,  
4 and then the conference.

5 THE CHAIRMAN: What is the idea? Because the proposal came  
6 from the parties, and we agreed, as we discussed before,  
7 not to traditional conferencing but to first having sort  
8 of a traditional cross-examination and then perhaps  
9 conferencing.

10 Is the idea that you want to examine and  
11 cross-examine in the usual way, basically, as we do with  
12 witnesses, these expert teams separately first, and then  
13 put them together?

14 MR SMITH: Yes, Mr Chairman. The plan would be that we will  
15 present Ryder Scott on direct examination; respondent  
16 will cross-examine Ryder Scott; the panel will obviously  
17 have an opportunity, and may hold its questions until  
18 the conference. And then thereafter we will conclude  
19 the examination of Gaffney Cline in the same order, and  
20 then there will be a conference thereafter.

21 THE CHAIRMAN: In other words, we have several sections of  
22 the examination that could be set up in the timing.

23 MR TIRADO: Correct.

24 THE CHAIRMAN: That's your understanding as well?

25 MR TIRADO: That's my understanding.

12:05 1 TH CHAIRMAN: Now, my next question is then: what are we  
E  
2 doing now? It's 12 o'clock, but if we have separate  
3 sections, we could use the one hour before lunch;  
4 otherwise it will become -- first, we are not sure if we  
5 can have our food early enough.

6 So if we could start the first section now, that  
7 perhaps would be making good use of our time. We are  
8 talking about Ryder Scott.

9 MR SMITH: I think we are prepared to do that.

10 TH CHAIRMAN: Why don't we do that? Okay, five minutes'  
E  
11 break, and then Ryder Scott appears.

12 MR TIRADO: Thank you.

13 (1 .06 pm)  
2

14 (A short break)

15 (1 .15 pm)  
2

16 RYDER SCOTT

17 MR MICHAEL NOWICKI (called)

18 MR JAMES LATHAM (called)

19 TH CHAIRMAN: Welcome, gentlemen.  
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20 MR LATHAM: Thank you.

21 MR NOWICKI: Thank you.

22 TH CHAIRMAN: I'm not sure how long you have been in the  
E  
23 room to see what the procedure is, but it is indeed that  
24 as far as experts are concerned, we have a declaration.  
25 Actually I was asked by my colleague where I took it

12:15 1 from: it comes from the ICSID proceedings, where we use  
2 it and where it is part of the statutes.

3 Now, we would like to ask you to read out -- you  
4 have a sheet of paper in front of you -- in any order  
5 you like the short declaration, if that's agreeable to  
6 you.

7 MR NOWICKI: I solemnly declare upon my honour and  
8 conscience that my statement will be in accordance with  
9 my sincere belief.

10 MR LATHAM: I solemnly declare upon my honour and conscience  
11 that my statement will be in accordance with my sincere  
12 belief.

13 TH CHAIRMAN: I take it you are Mr Latham?  
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14 MR LATHAM: That's correct.

15 TH CHAIRMAN: I thought so. And you are Mr Nowicki?  
E

16 MR NOWICKI: That's correct.

17 TH CHAIRMAN: Now, unless the parties see it otherwise,  
E  
18 I would feel that the two gentlemen are free: who feels  
19 better in a position to answer a question, we leave it  
20 to them, because they will know better what they worked  
21 on in their reports.

22 DR NACIMIENTO: Yes. No problem from our side. The only  
23 issue that I would like to raise: apparently there is  
24 a presentation, and we received also a print-out here.  
25 Maybe you could explain what it is, and if these are new

12:17 1 documents.

2 MR TOHER: Very simply, it is a grouping of slides showing  
3 representative materials from their backup DVDs that  
4 were produced that contains their calculations and their  
5 materials, and each one of the slides has an  
6 identification at the bottom where it comes from off of  
7 the DVDs. Then we have two slides from the opening  
8 statement that we are also going to discuss.

9 DR NACIMIENTO: We reserve any comments.

10 THE CHAIRMAN: Well, generally the rules have been whatever  
11 is on the file can be used again as demonstrative  
12 exhibits, and for the time being I would understand that  
13 this is the case here.

14 MR TOHER: Yes.

15 THE CHAIRMAN: But obviously we haven't looked at the things  
16 in detail, so I quite understand that you want to look  
17 at them first, before you finally comment. For the time  
18 being, I think we will use them. Okay?

19 Alright. Introduction by the claimants, please.

20 Direct examination by MR TOHER

21 Q. Good morning, gentlemen. I will start with Mr Nowicki.

22 Mr Nowicki, what is your position with Ryder Scott?

23 A. (BY MR NOWICKI) I am a geologist and a geophysicist, and  
24 I am also the senior vice president of the firm.

25 Q. Can you describe your role in the evaluation of Tolkyn,

12:19 1 Borankol and the 302 properties in this case?

2 A. (By MR NOWICKI) Yes. My role was to conduct  
3 a geological evaluation of the properties, and the key  
4 component of that evaluation was the analysis of the  
5 available seismic and petrophysical data.

6 Q. What was the specific purpose of your evaluation in this  
7 case?

8 A. (By MR NOWICKI) Well, there are several.

9 The geological evaluation allows us to quantify  
10 volumetrically the in-place hydrocarbons that are  
11 contained in any of the reservoirs or the prospects that  
12 we evaluated.

13 Secondly, it allows us to identify the lateral and  
14 vertical limits of the reservoirs, and in particular it  
15 allows us to identify the interface between the  
16 hydrocarbons and the underlying aquifer, which we call  
17 the hydrocarbon-water contact.

18 And finally, it allows us to identify areas of the  
19 reservoirs that are at significant heights above the  
20 hydrocarbon-water contact versus areas that are in close  
21 proximity to it, and also it allows us to identify areas  
22 where the reservoir is the thickest and has the best  
23 quality.

24 Q. What is the significance of the height and thickness  
25 calculations that you made?

12:20 1 A. (By MR NOWICKI) Well, wells that are located in the  
2 structural highs and the thickest areas of the reservoir  
3 will tend to be the best producers.

4 Q. What information did you have to work with to conduct  
5 your evaluation?

6 A. (By MR NOWICKI) Well, I had the seismic data and I also  
7 had a variety of data that was acquired during and  
8 immediately after drilling the wells, principally well  
9 log data. The dataset was really quite extensive,  
10 particularly in the case of Borankol and Tolkyn.

11 Q. You referenced seismic data. What is the interpretation  
12 of seismic data intended to accomplish?

13 A. (By MR NOWICKI) Well, potentially several things,  
14 depending upon the quality of the seismic data and also  
15 the characteristics of the reservoirs that you are  
16 trying to evaluate.

17 For the reservoirs that we examined here, it was  
18 used, together with the available well control, to  
19 define structural surfaces that tie to the tops of the  
20 reservoirs or the prospects. And it is also used to  
21 identify any faulting that might be important in the  
22 evaluation.

23 Q. We've handed out a packet of slides and we will put the  
24 first slide up. If you will just, rather than trying to  
25 turn around and look at them, use your packet in front



12:21 1 of you.

2 What does this first slide show us?

3 A. (By MR NOWICKI) There were two seismic projects that  
4 were provided on our backup DVDs: one for Borankol, and  
5 another one covering Tolkyn and the contract 3 02 area.  
6 This map was prepared in our seismic project for Tolkyn  
7 and contract 302 area, and it illustrates the seismic  
8 coverage that we had available to us for those areas in  
9 the process of our evaluation.

10 The green shaded area shows the outline of the  
11 Tolkyn 3D survey, and that provides us with 3D seismic  
12 coverage over Tolkyn, Tabyl and Tabyl West. And the  
13 various black lines -- or perhaps they look a little  
14 more grey on this slide -- show the available 2D data.

15 Q. Did you receive additional seismic data covering the  
16 Interoil Reef?

17 A. (By MR NOWICKI) Yes, I received 3D seismic volume  
18 covering the Interoil Reef. But that data was received  
19 fairly recently and, as a result, that data was not  
20 considered in any of the results that are presented in  
21 our reports.

22 Q. Respondent used a map in its opening presentation, and  
23 I have included that at the very back of the slide  
24 packet as a loose sheet. It's the first of two loose  
25 sheets in the back of the slide packet.

12:23 1                    If you could turn to that map, does that map appear

2                    to include as part of it the map that is currently being

3                    projected on the screen from your seismic project data?

4                    A.    (By MR NOWICKI) Yes, it does. They look fairly similar,

5                    but a little bit -- it looks like some things have been

6                    added to this particular map.

7                    Q.    Does that map that respondent used in its opening show

8                    an outline of the area that is covered by the 3D seismic

9                    that you received on the Interoil Reef structure?

10                   A.    (By MR NOWICKI) Yes. There is a purple rectangular --

11                   or perhaps it's brown, I can't really tell -- on the

12                   western side of the contract 302 area, and it

13                   encompasses most of the polygon that is marked as the

14                   Interoil Reef lead here. That rectangle is the

15                   3D survey.

16                   Q.    How do you know that that particular rectangle

17                   represents the area where the 3D coverage of the reef

18                   structure exists?

19                   A.    (By MR NOWICKI) I know that because I loaded the 3D data

20                   into my seismic project along with some interpreted

21                   horizons, and from the review of that data I know where

22                   the location of that survey is, and it's where it is.

23                   Q.    Has your evaluation of the Interoil Reef changed as

24                   a consequence of the 3D seismic data that you received;

25                   and if it has, how has it changed?

12:24 1 A. (By MR NOWICKI) Yes, it has changed. The basic reason  
2 for that is the seismic imaging on the 3D volume is  
3 markedly better than it was on the 2D data on which  
4 I relied in my reports.

5 The improved data quality allows for a better  
6 definition of the reef. And as a result, the revised 3D  
7 interpretation, the position of the reef has shifted  
8 slightly: it's moved somewhat to the south, and the axis  
9 rotates a little bit in a clockwise fashion relative to  
10 where it is outlined on the 2D interpretation.

11 In addition, in my review of the new data, that's  
12 allowed me to revise my geologic chance of success  
13 estimate for the prospect up to 9%.

14 Q. What was it previously?

15 A. (By MR NOWICKI) It was 5%.

16 Q. Okay. Do you know how the Munaibay 1 well is situated  
17 relative to the reef structure?

18 A. (By MR NOWICKI) Well, if you're talking about the way it  
19 was defined on the 2D interpretation, the Munaibay 1 sat  
20 at the southern flank of the reef structure. With the  
21 new 3D interpretation, it is situated in a pretty good  
22 structural position, fairly close to the crest of the  
23 structure.

24 Q. If the Munaibay 1 well was drilled deeper, would it  
25 reach the reef structure?

12:26 1 A. (By MR NOWICKI) Yes, it would. My understanding is that  
2 the proposed depth of that well was 6,000 metres, and  
3 I believe that that is going to be within the depth  
4 range that one would expect to encounter the reef.  
5 Q. We'll put the next slide up, which is the second slide  
6 in your packet that is not loose; it's the second entry  
7 there.  
8 THE CHAIRMAN: I'll put numbers on the slides --  
9 MR TOHER: That would be excellent.  
10 THE CHAIRMAN: -- for ease of reference later on.  
11 MR TOHER: I neglected to do that, and I apologise.  
12 Can you tell us what this next slide in your packet  
13 shows?  
14 A. (By MR NOWICKI) Yes. This provides an example of our  
15 interpretation of the 3D data over Borankol.  
16 3D data is generally a significant improvement over  
17 2D data in a number of respects. First of all, it is  
18 typically the case that the data quality improves  
19 substantially on 3D versus 2D. And secondly, 3D allows  
20 you to investigate a reservoir or a prospect within  
21 a 3D volume as compared to a limited number of  
22 2D slices, like you have to do with 2D data.  
23 Q. Moving on to what data is collected from wells, once  
24 an exploration well is drilled, what types of data are  
25 typically acquired?

12:27 1 A. (By MR NOWICKI) Well, the data that is collected in  
2 an exploration well is typically pretty extensive. It  
3 includes things such as well logs, core data, wireline  
4 pressure test, wireline fluid test. And this data is  
5 used to characterise certain qualities of the reservoir  
6 in the proximity of the well bore, and it's also used in  
7 combination with the available seismic data to identify  
8 locations for future delineation and development wells,  
9 and also to quantify the in-place hydrocarbons.

10 Q. Is data also collected from the delineation and  
11 development wells?

12 A. (By MR NOWICKI) Yes, important data is collected from  
13 those type of wells, but generally it's not as extensive  
14 as the data that is collected from the exploration  
15 wells. The data from the delineation and development  
16 wells is used to better refine your understanding of the  
17 reservoir and also to better refine your estimate of  
18 in-place hydrocarbons.

19 Q. As I understand it, you acquire well log data from both  
20 of these types of wells. What was involved generally in  
21 your interpretation of the available well logs in this  
22 case?

23 A. (By MR NOWICKI) That would be on the next slide. This  
24 slide provides a well log from the Munaibay 1 well, and  
25 that's included in the geographics project that was

12:29 1 provided on our backup DVDs.

2 When a well is drilled, or shortly thereafter, tools  
3 are lowered inside the well and a variety of  
4 measurements are made. We collectively refer to these  
5 measurements as the raw curves. Log analysis or  
6 petrophysical analysis involves taking these raw curves  
7 and applying a number of analytical techniques to  
8 generate what we call interpreted curves.

9 The key interpreted curves are the Vshale curve, or  
10 shale volume curve, porosity curve and the water  
11 saturation curve. And if we take these interpreted  
12 curves and apply a series of cut-offs, for example  
13 porosity not less than a given value or water saturation  
14 not more than a given value, we can determine the net  
15 pay in that well and in that reservoir. And the net pay  
16 is the intervals within the reservoir that have  
17 sufficient quality to contribute to the production from  
18 the reservoir.

19 This type of analysis was done for every well at  
20 Tolkyn, Borankol, Munaibay and Taby1 for which I had  
21 sufficient raw data to do a quantitative analysis.

22 Q. Have you reviewed the two reports that GCA presented in  
23 this case?

24 A. (By MR NOWICKI) I have.

25 Q. Could you determine from those reports or from any of

12:30 1 the information that GCA supplied whether they did any  
2 independent log analysis?

3 A. (By MR NOWICKI) Well, from my reading of the reports, it  
4 does not appear to me like they did any log analysis on  
5 any well.

6 Q. You just referred in your log analysis description to  
7 mapping. What is the purpose of geological mapping?

8 You can move to the next slide. We'll skip this  
9 particular slide, the third one, and just move on.

10 A. (By MR NOWICKI) Okay. Basically our petrophysical  
11 results are summarised in a series of Excel spreadsheets  
12 that are on the backup DVD. There is a summary for  
13 every field, every reservoir and every well. Those  
14 results feed directly into our geological mapping.

15 Our geological mapping is intended to provide  
16 a visual representation of certain key results from our  
17 geological evaluation, and for each reservoir we  
18 produced three different types of maps. The map that  
19 you're looking at here is a top-of-structure map, and  
20 that is intended to define the top of the reservoir  
21 surface, and it also allows us to identify the position  
22 of the hydrocarbon-water contact.

23 The next map we generate is on the next slide, and  
24 we call it -- there is a number of names you could call  
25 it, but we call it a net sand distribution map.

12:32 1 Flipping one more slide, the structure map in  
2 combination with the net sand distribution map are used  
3 to generate what we call a net pay isochore map, such as  
4 the one illustrated here.

5 Q. What is the purpose of a net pay isochore map?

6 A. (By MR NOWICKI) Well, the net pay isochore map allows us  
7 to make a calculation of the net reservoir volume, which  
8 is the most important parameter in the volumetric  
9 calculation of in-place hydrocarbons.

10 Also, if this was a little better reproduction, you  
11 could clearly see that it allows you to see where the  
12 reservoir limits are, and also places where the  
13 reservoir is thick and places where it's thin.

14 The net pay isochore map, in combination with the  
15 structure map, allows you to identify the best locations  
16 to place future wells, and it also allows you to  
17 identify the best candidates from among existing wells  
18 for future recompletion.

19 Q. Could you determine from your review of GCA's reports  
20 whether GCA did any independent mapping of Borankol,  
21 Tolkyn or 3 02?

22 A. (By MR NOWICKI) I saw no GCA maps in any of the reports  
23 or any of the materials that were provided.

24 Q. What are, generally speaking, the two categories,  
25 contingent resources and prospective resources?



12:34 1 A. (By MR NOWICKI) These are resource classification terms  
2 that are defined in the Society of Petroleum Engineers'  
3 petroleum resource management system.

4 Q. My understanding is that block 3 02 had two types of  
5 resources, contingent and prospective, both. What did  
6 you do to evaluate the block 3 02 contingent resources?

7 A. (By MR NOWICKI) Well, it basically was the same process  
8 that was used for Tolkyn and Borankol, with one  
9 difference being that the dataset was not quite as  
10 extensive. For the contingent resources at Munaibay,  
11 I had available to me 2D data, and for the contingent  
12 resources at Tabyl, that was covered by the Tolkyn 3D  
13 survey.

14 Also, there was data available for the exploration  
15 wells that were drilled in those two fields, and the  
16 volume uncertainty that we saw in our evaluation, the  
17 contingent resources, is captured in the various  
18 categories, the 1C, 2C and the 3C categories.

19 Q. What do the 1C, 2C and 3C categories mean, and in  
20 particular what are their significance?

21 A. (By MR NOWICKI) Well, 1C is going to be a conservative  
22 estimate. It basically represents a high confidence  
23 number. Your 2C is going to be your best technical  
24 estimate based on the information that you have  
25 available at the time of your evaluation, and that

12:35 1 typically is the number that's used for making economic  
2 decisions. And your 3C is going to represent an upside  
3 scenario.

4 Q. For the prospective resources that were in block 302,  
5 what did you do to evaluate them?

6 A. (By MR NOWICKI) For the prospective resources we had  
7 seismic data available to us. That would be 3D data in  
8 the case of the prospect that's called Tabyl West, and  
9 2D data for the Bahyt prospect, for North Munaibay and  
10 for the Interoil Reef.

11 There was some data from wells that were located  
12 fairly close to those prospects, but of course they  
13 didn't penetrate the prospects themselves. But that  
14 data did allow us some degree of calibration of our  
15 seismic data.

16 The analysis of the seismic data allowed us to come  
17 up with estimates for one of the important volumetric  
18 parameters, which is area. The values that we used for  
19 the other volumetric parameters had to come from our  
20 knowledge of penetrative reservoirs which we believed to  
21 be analogues to the prospects.

22 Of course, we have a range of uncertainty with the  
23 prospective resources as well; you will see a low, best  
24 and high case estimate. And the volumes that are in  
25 each one of these categories is how we capture the

12:37 1 volume uncertainty with our prospective resource

2 estimates.

3 Q. So you have 1C, 2C and 3C for contingent, and low, best  
4 and high for prospective. What do the categories low,  
5 best and high estimate mean; and again, what's their  
6 significance?

7 A. (By MR NOWICKI) Once again, low is going to be  
8 a conservative estimate. Your best estimate is going to  
9 be a best technical estimate based on all of the data  
10 that you have available to you at the time of your  
11 evaluation, and that represents the number that people  
12 typically use in making economic analyses or economic  
13 decisions. And the high is going to be an upside  
14 scenario.

15 Q. What is the difference 1C, 2C and 3C, and low, best and  
16 high?

17 A. (By MR NOWICKI) Well, there's a couple of ways you could  
18 characterise the difference. First of all, one would  
19 expect the difference between a 1C and a 3C contingent,  
20 the range of that difference to be narrower than is the  
21 case between the low and the high prospective estimates,  
22 and that's simply because you have more data to evaluate  
23 a contingent resource than you do a prospective  
24 resource.

25 Then I guess the other comment I could make is that

12:38 1 if a prospect is successfully drilled, there would be  
2 a migration from the low, best and high prospective  
3 estimates into their parallel contingent categories.  
4 However, there's a little word of caution there:  
5 when you drill an exploration well and discover  
6 a reservoir, you typically gain a significant amount of  
7 data, and incorporating that data into your volume  
8 estimates generally makes changes to the magnitude of  
9 those estimates, and sometimes those are fairly  
10 material.  
11 Q. You mention that you did, of course, review GCA's  
12 reports. Could you discern from those reports whether  
13 GCA did any independent geological, petrophysical or  
14 seismic analysis?  
15 A. (By MR NOWICKI) I saw nothing in any of the GCA reports  
16 that led me to believe that they did any of that work.  
17 Q. In your professional capacity, is that work necessary?  
18 Is the independent work that you did necessary in order  
19 to fully analyse reserves and resources for a fair  
20 market valuation?  
21 A. (By MR NOWICKI) Yes, it is necessary. I really don't  
22 see how a thorough and reliable analysis could be  
23 conducted without it.  
24 Q. We'll turn to you now, Mr Latham. Can you describe for  
25 us what your position is with Ryder Scott?

12:39 1 A. (By MR LATHAM) At Ryder Scott I am a reservoir engineer,  
2 technical advisor and senior vice president.

3 Q. And what was your role in the evaluation of Borankol,  
4 Tolkyn and the 302 properties?

5 A. (By MR LATHAM) My role was the quantification of the  
6 reserves and resources, with particular emphasis on the  
7 projection of future reserves and resources conforming  
8 to industry-standard definitions.

9 Q. What is the difference between your role and  
10 Mr Nowicki's role?

11 A. (By MR LATHAM) I think you could characterise the  
12 difference in our roles as essentially one of focus.  
13 Mr Nowicki is primarily focused on reservoir  
14 characterisation and in-place resource and reserve  
15 estimates, whereas my role was primarily focusing on  
16 recoverable reserves and resource estimates.

17 Q. In your analysis of the Borankol, Tolkyn and  
18 302 properties, what did you do specifically with  
19 respect to the proved producing in Borankol and Tolkyn?

20 A. (By MR LATHAM) The first thing we did was integrate the  
21 results of the geological analysis provided by  
22 Mr Nowicki into our performance and volumetric  
23 estimates.

24 In addition, we had to quantify the fluid properties  
25 of oil and gas located in the various reservoirs in the

12:41 1 subject fields. Those include things such as specific  
2 gravities, pressure, volume, temperature  
3 characteristics; what we typically refer to as PVT data.

4 In addition to that, I did a material balance  
5 calculation for the Artinskian dolomite reservoir in the  
6 Tolkyn field, which is the principal producing reservoir  
7 in that field.

8 And then, of course, I did a considerable amount of  
9 decline curve analysis for various other wells and  
10 properties, in every case trying to ensure that we use  
11 the best technique possible.

12 Q. You mentioned the words "material balance". What is  
13 a material balance analysis?

14 A. (By MR LATHAM) In layman's terms, I think it would be  
15 fair to say the material balance is an accounting of  
16 what goes into, comes out of and what accumulates in  
17 a reservoir, and incorporates the changes in the  
18 physical properties of the fluids contained therein,  
19 primarily in response to pressure changes.

20 Q. Why, in your view, is a material balance analysis  
21 important in this case?

22 A. (By MR LATHAM) We found the material balance analysis  
23 for the Artinskian dolomite in the Tolkyn field provided  
24 us with a reliable estimate of in-place gas and gave us  
25 insights to recoverable volumes.

12:42 1 Q. Did you review the GCA reports as well?

2 A. (By MR LATHAM) Yes.

3 Q. From your review of GCA's two reports, could you  
4 determine whether GCA did perform a material balance  
5 analysis for the Artinskian dolomite formation in the  
6 Tolkyn field?

7 A. (By MR LATHAM) Well, I believe in both reports there was  
8 some discussion in their reports about material balance,  
9 but neither in their report or in the materials that  
10 were produced did I determine that they did any material  
11 balance calculations.

12 Q. What does the phrase "behind-pipe reserves" mean?

13 A. (By MR LATHAM) Behind-pipe reserves are reserves that  
14 exist in reservoirs behind well casing that cannot be  
15 brought on to production until either a work-over or  
16 a recompletion, wherein they perforate and perhaps  
17 stimulate the reservoir in order to allow reservoir  
18 fluids to flow into the well bore.

19 Q. What did you do specifically in your engineering  
20 analysis of the behind-pipe reserves in Borankol and  
21 Tolkyn?

22 A. (By MR LATHAM) For each reservoir we had to identify the  
23 existing and former completions in the particular  
24 reservoir. We then had to calculate or determine  
25 an EUR, or expected ultimate recovery, for each of those

12:44 1 completions. We then performed a volumetric analysis on  
2 each reservoir in order to determine the remaining  
3 reserves in that reservoir.

4 Next, we then took maps such as the ones that  
5 Mr Nowicki provided to us and on those identified well  
6 bores that would be the optimal recompletions to this  
7 particular reservoir. Of course, the idea in mind is to  
8 maximise recovery from each reservoir.

9 Q. How did you allocate the behind-pipe reserves for each  
10 reservoir?

11 A. (By MR LATHAM) After we identified the specific  
12 candidates for recompletion, we then allocated the  
13 remaining reserves to those wells, primarily based on  
14 the thickness or net pay in the well and the structural  
15 position in the reservoir.

16 Q. After you determined the volumes to be allocated to each  
17 recompletion, what did you do to schedule the  
18 recompletions themselves?

19 A. (By MR LATHAM) This is one of the more important things  
20 we had to do, was to assess well bore availability over  
21 the remaining life of the contract. Then what we did  
22 was we determined, based on the performance of the  
23 existing completion, the times at which they would be  
24 available for recompletion, and then scheduled them  
25 accordingly.



12:45 1 Q. We'll put a slide up now. It is the next slide in the  
2 grouping. Can you tell us what this particular slide  
3 shows?

4 A. (By MR LATHAM) Yes, this is a slice or a section of  
5 a larger compilation that is organised well by well,  
6 reservoir by reservoir, that shows each current and  
7 former completion in a particular reservoir,  
8 colour-coded. It then shows where we have scheduled  
9 work-overs for the targeted reservoirs, and in addition  
10 to that it shows the approximate timing. It also shows  
11 that some intervals were not set up, and those are  
12 indicated by NSU.

13 Q. In the slide packet we have behind that segment another  
14 one that we are not going to try to show on the screen  
15 because it would not appear very well. Is this  
16 particular slide the complete recompletion grid that you  
17 performed?

18 A. (By MR LATHAM) The slide is a piece of this larger  
19 presentation, yes.

20 Q. Okay. So that one is the February completion grid.

21 I'll put the next slide up: it's one of  
22 Ryder Scott's maps. Can you tell us how this particular  
23 map relates to your recompletion analysis and to the  
24 previous grid, recompletion grid?

25 A. (By MR LATHAM) This is an example of how we incorporated

12:47 1 the geological information into our behind-pipe  
2 calculations. This map shows the current and former  
3 completions in the Jurassic 1C reservoir. This is the  
4 same map that Mr Nowicki used as an example of a net pay  
5 isochore.

6 On this map we have also shown the recompletion  
7 candidates; and then further on, we then, using  
8 a different symbol in the legend, it indicates which of  
9 the actual candidates were scheduled in that particular  
10 reservoir. You will notice in this case there was one  
11 candidate that was not scheduled.

12 Q. Did you have initial isochore maps from Mr Nowicki for  
13 each zone?

14 A. (By MR LATHAM) Absolutely.

15 Q. We'll flip back to the second loose slide that we are  
16 not showing on the screen at the back of the packet.  
17 During respondent's opening they showed this chart that  
18 we've included.

19 The chart shows an increase in Ryder Scott's  
20 projected production for Borankol beginning in  
21 approximately 2014. Can you explain why the projected  
22 production shown here declines through 2014, then  
23 increases, and then goes down again?

24 A. (By MR LATHAM) Sure. The field decline, which in this  
25 case showing roughly around 2009, that you see between

12:48 1           2008 and 2013, is largely reflective of natural decline  
2           of the existing producing wells, augmented by  
3           a comparatively small number of recompletions during  
4           that timeframe, averaging about three per year.

5                   However, in 2014, as the existing completions  
6           declined to marginal rates, there is an increase in the  
7           number of work-overs going over between the period 2014  
8           and 2017, averaging seven and a half a year. The  
9           increase in production is just a natural extension of  
10          a prudent operator's plans to maximise recovery in the  
11          reservoirs .

12    Q.    Could you discern from GCA's reports whether GCA  
13          scheduled any recompletions of specific wells at  
14          specific times to specific zones?

15    A.    (By MR LATHAM) While there is some discussion in the  
16          reports of behind-pipe, I cannot say that I can identify  
17          any of those in that way, no.

18    Q.    Could you tell whether GCA did any of the independent  
19          analytical work that you did to assess behind-pipe  
20          reserves and accompanying recompletions?

21    A.    (By MR LATHAM) No.

22    Q.    In the absence of that independent analytical work that  
23          you describe in assessing behind-pipes, could  
24          a recompletion grid of the type that we've seen here  
25          have been reliably compiled?

12:50 1 A. (By MR LATHAM) In the absence of geological analysis,  
2 volumetric analysis, and identification of well bores  
3 and reservoirs, I don't think that would be possible.

4 Q. You mentioned earlier that you did decline curve  
5 analysis of the proved producing reserves. What is  
6 a decline curve analysis?

7 A. (By MR LATHAM) Decline curve analysis is kind of a group  
8 term that refers to a whole variety of techniques, all  
9 of which have one thing in common, and that's historical  
10 performance data is used as the basis for determining  
11 the remaining reserves.

12 Q. What specific decline curve analyses did you do here?

13 A. (By MR LATHAM) In the Borankol field, the vast majority  
14 of the individual well projections were based on rate of  
15 production versus time.

16 In the Tolkyn field, we also used rate of production  
17 versus time for the non-Artinskian producing wells.  
18 However, for the Artinskian wells, while we did provide  
19 rate-time projections, all of those were tied to the  
20 material balance results.

21 Q. In your view of GCA's first report, could you tell what  
22 methodology they employed to evaluate the producing  
23 reserves in Borankol and Tolkyn?

24 A. (By MR LATHAM) From what they stated in their reports  
25 and from the produced material, I think we would have to

12:52 1 conclude that the vast majority of their producing  
2 reserves were based on decline curve methodology.  
3 However, from the produced documents, it was very  
4 difficult for me to tell what specific technique they  
5 used.

6 Q. In your review of GCA's second report, could you tell  
7 what methodology they employed to evaluate the producing  
8 reserves in Borankol and Tolkyn?

9 A. (By MR LATHAM) In their second report, GCA commented  
10 that the basis for their producing reserves in the  
11 Tolkyn field was unchanged from their first report,  
12 except that they had extended their production forecast  
13 through the contract term. I still cannot determine  
14 exactly what methodology they used there.

15 Q. That's for the Tolkyn field?

16 A. (By MR LATHAM) The Tolkyn field.

17 With respect to Borankol, they definitely made  
18 a change in methodology from the first report to the  
19 second report. In the second report they employed  
20 a field-wide water cut versus cumulative production plot  
21 as the basis for all of their producing reserves, and  
22 this probably accounts for why they had a fairly  
23 substantial increase in the producing reserves from  
24 their first report to their second report.

25 However, in the production information they

12:53 1 produced, they used an approximate 1.4% per month

2 decline rate, and that's what the calculations show.

3 But what is the source of that 1.4% decline rate, they

4 produced neither calculations or identification of

5 exactly what the source of that is.

6 Q. In the two reports, could you tell what methodology GCA

7 actually did use to make their behind-pipe estimates?

8 A. (By MR LATHAM) In Tolkyn and in their first report at

9 Borankol, there was no mention of methodology at all.

10 That's not to say they didn't have one; just it's not

11 apparent from the produced materials.

12 At Borankol in their second report, they developed

13 what they referred to as a "type well", and they applied

14 that type well as the basis for all 43 of their

15 behind-pipe recompletions, and my presumption is that

16 they used the type well identically on each

17 recompletion.

18 Q. What is a type well?

19 A. (By MR LATHAM) A type well or a type curve is

20 a mathematical expression of, I would have to say,

21 an average well decline curve. The really important

22 thing about type wells or type curve is you have to

23 ensure that the correct -- you have to be discriminate

24 in selecting the data that goes into the type well. But

25 in this particular case, they do not provide us any

12:55 1 computation or identification of the basis for their  
2 type well.

3 Q. Is a type well projection of behind-pipe reserves in  
4 your view an appropriate methodology for estimating  
5 behind-pipes?

6 A. (By MR LATHAM) Frankly in this case, I don't think -- we  
7 are talking about Borankol field here -- I don't think  
8 the type well adequately reflects all the geological  
9 information, all the variety of things in the reservoir,  
10 such as where the thicks and thins are, what's  
11 structurally high and what's structurally low. I doubt  
12 that it would really be reflective.

13 Q. In your experience, would a prudent buyer or seller of  
14 oil and gas properties accept a field-wide decline curve  
15 analysis as the basis for valuing the properties?

16 A. (By MR LATHAM) Generally, I would say not. You are  
17 talking about substantial expenditure on a very small  
18 amount of data. Professionally I would think that it  
19 would only be a coincidence that the results of such  
20 analysis would reflect reality.

21 Q. In GCA's second report, GCA decreased the amount of  
22 their estimated resources in the Munaibay oil formation  
23 and increased their total number of development wells.  
24 Could you discern the rationale or methodology behind  
25 this decrease in resources and increase in development

12:57 1

wells?

2 A. (By MR LATHAM) The specific methodology, no. GCA did  
3 state in their second report that they had revisited the  
4 test data on Munaibay 1. This is data that was  
5 available at the time they prepared their first report.  
6 Apparently the result of that is that they reduced the  
7 reserves and increased the numbers of wells required,  
8 but there's no particular description as to how that  
9 occurred; (1). And (2) they produced no documents other  
10 than the report itself regarding that.

11 MR TOHER: I will pass the witness.

12 TH CHAIRMAN: Well, it's 1 o'clock. But let me consult  
E  
13 with the parties.

14 Procedural objection by DR NACIMIENTO

15 DR NACIMIENTO: Yes. We are forced to submit a procedural  
16 objection. I believe what we just heard is a revised  
17 report, and I believe it's based on documents that were  
18 requested by claimants to be submitted last week and  
19 where the Tribunal decided not to submit them.

20 We had also submitted in writing that the Tribunal's  
21 order should not be circumvented by using information of  
22 the documents in the direct examination, and we believe  
23 that this is what just happened; we have just been  
24 confronted with a very significant amendment in the  
25 report. And I believe that respondent's expert should



12:58 1 be in a position to address it, and should be in

2 a position to address it in time.

3 The last report that we received from claimants was  
4 May 28th 2012. We now received -- and I mean now in  
5 this hour -- a revised report, and we had no possibility  
6 to address it.

7 I submit that this is a breach of due process, it is  
8 a circumvention of the Tribunal's order, and we request  
9 the Tribunal to rule accordingly and to at least grant  
10 respondent time to address it. And I am not speaking  
11 about the time of a lunch break.

12 TH CHAIRMAN: Any comments from your side?  
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13 MR SMITH: If we could address it, if respondent's counsel  
14 would be more specific as to what in particular she is  
15 objecting to; particularly since she did not object  
16 during the direct examination, which would have been the  
17 appropriate time, one would have thought, if she in fact  
18 was objecting to the submission of any evidence. But if  
19 she can be more specific.

20 DR NACIMIENTO: Yes, I can be specific, and it relates to  
21 the 3D seismic.

22 Claimants requested a week ago to submit new  
23 documents. Among those documents, there was  
24 a presentation relating to the 3D seismic. And I am  
25 emphasising: a presentation, not even the 3D seismic

13:00 1           itself. We haven't seen those documents; they have not  
2           been allowed in. Claimants have not even requested to  
3           submit them, and they have been introduced right now  
4           through the back door.

5           We submit this is trial by ambush, and we strongly  
6           object to this.

7 MR SMITH: If I could just pose another question,  
8           Gaffney Cline in its report comments extensively on the  
9           very 3D I believe we are talking about. If that is not  
10          the case, I would like to hear respondent's view on  
11          that. It is our understanding that Gaffney Cline in  
12          fact has reviewed and had access to the very 3D that  
13          counsel is now objecting about, and they comment on it  
14          in their second report.

15          Respondent's counsel in fact presented in their  
16          opening statement an outline of the very 3D seismic that  
17          apparently now they are claiming they are being ambushed  
18          by. I am not aware of any ambush.

19 DR NACIMIENTO: I am not prepared to address any technical  
20          issues here without consulting first with respondent's  
21          expert. This is beyond my expertise, and I need to  
22          consult with them to see their position.

23 TH   CHAIRMAN: Alright. I think we will have the lunch  
24   E           break now. We have listened to that. You will consider  
25           what you heard on both sides, obviously. So far I was

13:01 1 not aware that any new documents had been introduced  
2 here. If it is true that the 3D seismic was used by  
3 your experts, I'm sure you will check that and then come  
4 back to that.

5 DR NACIMIENTO: We will come back, and we request to have  
6 sufficient time for this, and it's going to be more than  
7 one hour's lunch break.

8 TH CHAIRMAN: I think then you should be specific about  
E  
9 what really is new. Are you claiming that there are new  
10 documents before us?

11 DR NACIMIENTO: There is new information referring to  
12 a document that has not been submitted.

13 TH CHAIRMAN: Which is what?  
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14 DR NACIMIENTO: The 3D seismic.

15 TH CHAIRMAN: And which was not available to your own  
E  
16 experts?

17 DR NACIMIENTO: It's my understanding. But this is what  
18 I need to confer with the experts about, and it has not  
19 been subject before of the discussions.

20 It seems -- and I just reviewed the record -- that  
21 claimants' experts received the 3D seismic a few days  
22 ago, and this is what prompted them apparently to revise  
23 their estimate. We have not been made aware of this.  
24 And this is a significant change, and we need to address  
25 it.

13:03 1 TH CHAIRMAN: Well, but you can, I suppose, within a short  
E  
2 time talk to your experts and find out whether they  
3 indeed used the 3D seismic.  
4 DR NACIMIENTO: Yes.  
5 TH CHAIRMAN: You don't need two hours for that; that can  
E  
6 be done over lunch.  
7 MR SMITH: Mr Chairman, I would just, for the assistance of  
8 counsel, refer to GCA's second report at page 20,  
9 paragraph 89, which refers to 3D seismic and the  
10 contract 3 02 area that was apparently analysed by  
11 respondent. I am not aware that respondent ever  
12 produced any of that 3D in the course of this  
13 proceeding, notwithstanding the fact that their experts  
14 apparently have reviewed it.  
15 DR NACIMIENTO: Is it your position, counsel, that this is  
16 the identical 3D seismic that you are referring to? And  
17 it's just for clarification.  
18 MR SMITH: It's hard to know, since Gaffney Cline has  
19 produced very few documents to support their report --  
20 we'll get into that -- including the 3D seismic.  
21 DR NACIMIENTO: That was not my question. Are we speaking  
22 about one 3D seismic; is that the identical document?  
23 MR SMITH: Well, the 3D seismic, as I understand it, is one  
24 set of seismic data that was shot over the contract 302  
25 properties. I'm not aware of any other 3D seismic that

13:04 1 has been shot. And we believe it was reflected in  
2 respondent's opening presentation, in its slide  
3 presentation, the grid for the 3D seismic.  
4 DR NACIMIENTO: Do you have a date for the 3D seismic?  
5 MR SMITH: Mr Stati testified as to when the 3D seismic,  
6 I believe, was shot. But again, I believe that's  
7 a question for your experts.  
8 DR NACIMIENTO: We are trying to identify the 3D that you  
9 are referring to. That's my question.  
10 MR SMITH: All I am saying is, to assist in your questions  
11 to your experts, I believe that the 3D seismic that you  
12 are complaining about is the seismic that is referred to  
13 in the Gaffney Cline second report at paragraph 89. If  
14 it is not, then that is something that can be  
15 clarified --  
16 DR NACIMIENTO: My question, in order to find out what it  
17 is: which 3D seismic are you referring to? What is the  
18 date of that 3D seismic? I would also be interested in  
19 learning: when did you receive it, and when did you  
20 provide it to your experts?  
21 MR SMITH: We can certainly discuss that after the lunch  
22 break.  
23 DR NACIMIENTO: We need to know. We need to identify the  
24 3D seismic that you're referring to; that's the main  
25 document.

13:05 1 THE CHAIRMAN: But if it is true that in your opening

2 statement you referred to a 3D seismic --

3 DR NACIMIENTO: We did not. We did not.

4 THE CHAIRMAN: Well, okay.

5 DR NACIMIENTO: I am just trying to find out the document

6 that claimants are referring to. Which 3D seismic are

7 you referring to?

8 MR SMITH: I am not sure I can provide any more elaboration

9 to you. You demonstrated in your opening presentation

10 a slide with 3D seismic boundaries, at least what our

11 witness --

12 THE CHAIRMAN: Perhaps you could identify the slide as well.

13 MR SMITH: Yes, it's slide 23 in the Norton Rose opening.

14 THE CHAIRMAN: Let him finish first.

15 MR SMITH: It is slide 23 in respondent counsel's opening

16 statement. There is a grid that our experts have

17 testified appears to be the grid for 3D seismic work.

18 The only way that counsel could have prepared that slide

19 was to have obtained that slide, we presume, from

20 Gaffney Cline or their client. That would be the 3D

21 that we are referring to.

22 As to the question of when it was received, I'll

23 have to answer that -- I don't want to mis-state that

24 for the record. I believe that the 3D seismic was shot

25 and the results were received in 2009, 2008 or 2009, but

13:06 1 I will have to confirm that.

2 THE CHAIRMAN: That's another matter anyway.

3 DR NACIMIENTO: Can I refer back to the record of today, and  
4 it was your question: has your evaluation of the  
5 Interoil Reef changed as a consequence of the 3D seismic  
6 data that you received? And my question is: which  
7 document is that? Which 3D seismic is that that you are  
8 referring here to and that you asked your experts to  
9 analyse?

10 MR SMITH: I am not prepared to answer that question now,  
11 but I presume you can ask that question on  
12 cross-examination of the experts.

13 DR NACIMIENTO: This is really the basis for my objection.  
14 I am trying to find out the basis for the experts'  
15 revised estimate, and we need to find out which  
16 3D seismic that is. Otherwise I'm not in a position to  
17 consult with respondent's experts.

18 THE CHAIRMAN: Well, why don't you look at your own  
19 slide 23, then discuss it with your experts over lunch,  
20 and then we will come back to that. For the time being,  
21 I don't see any new document presented.

22 It happens, of course -- and that may happen later  
23 as well -- that experts as witnesses give additional  
24 information. If that changes earlier information, we  
25 will have to deal with that. But that is another

13:08 1 matter. Right now, procedurally all we need to know

2 is: has a new document been used?

3 I would suggest that we now have the lunch break,  
4 you discuss it with your experts; that's a relatively  
5 limited matter, and I'm sure you will reflect about that  
6 as well.

7 We will come back at 1.45 and then see where we are.

8 Alright.

9 (1 08 pm)

10 (Adjourned until 1.45 pm)

11 (2 15 pm)

12 TH CHAIRMAN: Let's restart the hearing, and first of all  
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13 try to pick up our procedural discussion from before  
14 lunch. Do you want to start?

15 Submissions by DR NACIMIENTO

16 DR NACIMIENTO: Thank you, Mr Chairman. I want to give you  
17 some background and context of where this discussion  
18 really fits into these proceedings, and actually it is  
19 related to the Interoil Reef, and that is allegedly  
20 claimants' most valuable asset, for which they claim  
21 over \$1 billion.

22 Claimants have reached that amount by making  
23 an unrisks calculation. It now seems that claimants  
24 have realised that after all they need to take into  
25 account some risk, and it now seems that claimants are



14:16 1           trying to increase these risk assumptions from 5% to 9%.

2           They do this based on a document that is not part of  
3           this arbitration.

4           Why is it not part of this arbitration? First of  
5           all, claimants never submitted it; they never asked  
6           leave to submit it. The leave they asked a week ago  
7           referred to a presentation related to that document.  
8           And if I say "that document", this is the 3D seismic.  
9           And we do not have a specific date. This is what  
10          I tried to establish with counsel for claimants, and we  
11          did not get the date. But the document that I am  
12          speaking about is the 3D seismic on the Interoil Reef.

13          We also heard -- and this is misleading -- counsel  
14          for claimant stating that this is a document known and  
15          actually used by respondent. This is wrong. The  
16          document they refer to is the map that we had used for  
17          our opening, and this is a map that respondent's  
18          experts, Gaffney Cline, received during a site visit in  
19          2011. This is a map, part of a presentation from  
20          Tristan, and actually it shows simply the location of  
21          the field, and it's a map used for prospective  
22          investors.

23          The underlying 3D on DVD was never submitted, and  
24          this is what we are talking about --

25    THE CHAIRMAN: To whom?

14:18 1 DR NACIMIENTO: To respondent or to the experts.

2 TH CHAIRMAN: Okay.

E

3 DR NACIMIENTO: At this stage, during that site visit, they

4 received a presentation, and this presentation simply

5 contained this map. 3D seismic is very different.

6 3D seismic, you need to review it on a DVD. It's

7 a voluminous document and it's not simply one page.

8 This is the one page that Gaffney Cline received in

9 2011.

10 They could derive from this document that actually

11 3D must exist. This is what they refer to in their

12 second report and to their two footnotes in which they

13 refer to the 3D seismic --

14 TH CHAIRMAN: When you say "they", you mean whom?

E

15 DR NACIMIENTO: Gaffney Cline. I am talking about

16 Gaffney Cline, because this is the second argument that

17 we heard this morning.

18 The argument was "respondent's experts have it", and

19 they referred to it not only in their opening but [also]

20 in Gaffney Cline's expert report. And this is wrong.

21 What I just mentioned is Gaffney Cline could derive from

22 this map that 3D exists, and this is what they referred

23 to in their second report. They have never seen a 3D;

24 they have never received it.

25 The 3D seismic and the risk assessment based on that

14:19 1           3D seismic leads us to the GCoS. And GCoS of course,  
2           this has been changed now -- this is what we just  
3           heard -- from 5% to 9%, and GCoS may be a triggering  
4           point for many other elements of relevance in this  
5           arbitration, and it may lead to a recalculation of many  
6           other numbers that we have here.

7           We need to emphasise that also all estimates of  
8           Ryder Scott, of claimants' experts, in their written  
9           report are based on 2D and not on 3D. And the same goes  
10          also for Gaffney Cline's reports: they are all based on  
11          2Ds and not on 3Ds. As a consequence, no expert from  
12          [either side] has relied on 3D in the written report.

13          Apparently Ryder Scott have now received it; they  
14          had not received it before their second report. We  
15          don't know exactly when they received it, but they did  
16          receive it. And they just confirmed that, based on  
17          their review of 3D, they changed their estimate.

18          Gaffney Cline has not seen it and has not reviewed it.

19          Claimants have also emphasised in their opening the  
20          importance of seismic, whether 2D or 3D. Apparently  
21          they link a major impact to the seismic. And what  
22          I mentioned before: seismic, and the geological chances  
23          of success, may be one element, but there may be also  
24          many other elements leading actually to the amounts  
25          being claimed here which may be affected by that

14:21 1 calculation.

2 The document we submit actually was withheld from  
3 respondent; it was also withheld from the Tribunal.  
4 Claimants' own experts received it only apparently a few  
5 days ago, and they do not refer to it in the written  
6 report.

7 Our request is to exclude any reference to the  
8 3D seismic for the purpose of this hearing; to request  
9 claimant to submit the 3D seismic, and to submit also  
10 the respective report; and to grant respondent an  
11 opportunity to address it in writing and to submit a new  
12 report by Gaffney Cline.

13 THE CHAIRMAN: Thank you. Claimant, please.

14 Submissions by MR SMITH

15 MR SMITH: Well, I guess I will start at the end: we have no  
16 objection to the experts deferring their testimony on  
17 interpretation of the 3D seismic, but rather  
18 supplemental reports to be provided.

19 Going back just for context, I think that counsel  
20 for respondent -- and this may be water under the  
21 bridge -- but Mr Fleuriet, in the questioning of  
22 Mr Romanosov, in his testimony, asked specifically  
23 a question regarding the existence of 3D seismic; it was  
24 not objected to by respondent's counsel. He confirmed  
25 that 3D seismic had in fact been shot of the reef

14:23 1 structure.

2 Then counsel for respondent asked extensive  
3 questions of Mr Romanosov not only about the existence  
4 of the 3D seismic but also the date when it was shot;  
5 Mr Romanosov testified it was at the end of 2008. She  
6 asked the date it was interpreted; he indicated in early  
7 2009. These were questions by respondent's counsel on  
8 the subject of 3D seismic. So it's not a surprise that  
9 the seismic exists.

10 It is in fact true that Ryder Scott only recently  
11 received the underlying raw data. When I say  
12 "recently", late last week. We obtained the raw data  
13 from geologists for Ascom. Once we saw the  
14 Gaffney Cline second report and we saw the reference in  
15 that second report on rejoinder, in two different  
16 paragraphs, to the existence of 3D seismic for the  
17 Interoil Reef, we then asked the client again whether  
18 that seismic exists. Apparently it does exist; it does  
19 exist in a form that can be interpreted. It has very  
20 recently been provided to Ryder Scott; they would  
21 obviously like an opportunity to spend more time with it  
22 as well.

23 So I think that the proposal of respondent's counsel  
24 is an appropriate proposal: that the issue not be  
25 addressed at this hearing. This only, by the way,

14:24 1 relates to the GCoS estimates for the Interoil Reef; it  
2 doesn't affect any of the other testimony of the  
3 geologists or engineers in this proceeding. But on that  
4 narrow issue we can talk tomorrow about a procedural  
5 schedule for the additional written submissions from  
6 Ryder Scott and Gaffney Cline.

7 We have no objection to providing the raw data.

8 I will state for the record I believe the respondent has  
9 the raw data, because you are required to file  
10 3D seismic with the government when you shoot it. So  
11 the MEMR probably has the 3D seismic.

12 We also suspect that KPM EP has the 3D seismic,  
13 because we believe it was also included in the data room  
14 that KMG EP reviewed. We also suspect that it may be  
15 referred to in the valuation reports that are being  
16 withheld by respondent where KMG EP evaluated all of the  
17 assets, including the Interoil Reef; but again, we don't  
18 know that because we've not been privy to access to  
19 those documents.

20 THE CHAIRMAN: Alright. Now, as far as procedure is  
21 concerned, do I understand correctly that there is some  
22 agreement between the parties that no reference should  
23 be made to the 3D seismic now, obviously; and that in  
24 the later procedure, which we will discuss either  
25 tomorrow or maybe even starting this evening, depending

14:25 1           how much time we have, we will provide for what both of  
2           you agreed: that the experts have an opportunity to  
3           study that in more depth and then submit new reports,  
4           and that includes, obviously, the option that the  
5           parties can comment on these reports?

6   DR NACIMIENTO: And it may also lead to the necessity of  
7           having another hearing.

8   TH   CHAIRMAN: Well, we'll discuss that as well.  
9   E

10            Alright, then I don't think we have to consult on  
11           that. That seems to be agreed.

12            So now we will turn to cross-examination from the  
13           respondent's side.

14   (2 26 pm)

15                                   Cross-examination by DR NACIMIENTO

16   Q.   Good afternoon.

17            Could I ask you to open tab 5 of your binder. This  
18           is your first expert report. Could you open it on  
19           page 2. I will quote you from the second paragraph:

20            "It should be noted that all hydrocarbon quantities  
21           presented in this report have not been adjusted for  
22           risk. Further, reserves definitions, as discussed  
23           below, require that all 'reserves' quantities be  
24           economically recoverable under defined conditions. Such  
25           considerations include, but are not limited to,  
              hydrocarbon prices, development costs, operating

14:28 1 expenses, royalty payments, contract expiration dates,  
2 and certain taxes or other obligations which may affect  
3 field and/or well economic limits. Ryder Scott has not  
4 rigorously applied such factors in its analysis. Such  
5 analysis has been conducted by other expert witnesses in  
6 this case. Consequently, economic reserves projections  
7 may vary somewhat from those included in the report."

8 If you refer here to "other expert witnesses in this  
9 case", who are you referring to?

10 A. (By MR LATHAM) That would be FTI.

11 Q. And you spoke to FTI about this?

12 A. (By MR LATHAM) Yes.

13 Q. To whom did you speak?

14 A. (By MR LATHAM) When? Which report?

15 Q. In both reports.

16 A. (By MR LATHAM) In the first report, that would have been  
17 Laura Hardin and Sinea Park.

18 THE COURT REPORTER: Sorry, you're very, very quiet. Can  
19 you move the microphone closer?

20 THE CHAIRMAN: I think somehow you have to get closer to the  
21 microphones or speak louder. Okay.

22 DR NACIMIENTO: And in the second report?

23 A. (By MR LATHAM) That would be Howard Rosen.

24 Q. And what about Laura Hardin? She is also an author of  
25 the report.



14:29 1 A. (By MR LATHAM) I'm not aware of that.

2 Q. When did you last speak to Laura Hardin?

3 A. (By MR LATHAM) It's probably been ... I'm speculating

4 about this, but I think it was about six months ago.

5 Q. Six months ago: that would be when? Can you try to give

6 me a rough date?

7 A. (By MR LATHAM) No.

8 Q. Was it before the second report?

9 A. (By MR LATHAM) I don't recall.

10 Q. Did you speak with Laura Hardin at all with regard to

11 the second report?

12 A. (By MR LATHAM) I don't believe so.

13 Q. You don't believe?

14 A. (By MR LATHAM) That's correct.

15 Q. Just to clarify, is it your testimony that you did not

16 speak to Laura Hardin with regard to the second report?

17 A. (By MR LATHAM) No, that's not my testimony at all.

18 Q. What is your testimony?

19 A. (By MR LATHAM) My testimony is I don't recall whether

20 I spoke with her or not.

21 Q. If you say here you have been dealing or -- these are

22 "other expert witnesses in this case", and upon my

23 question you said: it's FTI. And then I asked: who at

24 FTI? Is it your testimony that Laura Hardin is not one

25 of the other expert witnesses mentioned here?

14:30 1 A. (By MR LATHAM) In the first report?

2 Q. This is the first -- your first report --

3 A. (By MR LATHAM) I understand. I'm just getting

4 clarification of the question.

5 Q. Yes .

6 A. (By MR LATHAM) She was at the time.

7 Q. She was at the time?

8 A. (By MR LATHAM) Yes.

9 Q. How many times did you approximately meet with

10 Laura Hardin?

11 A. (By MR LATHAM) Oh, many.

12 Q. Many times?

13 A. (By MR LATHAM) Mm-hm.

14 Q. Approximately how many times?

15 A. (By MR LATHAM) I do not feel like I can accurately

16 answer that question, because I don't have a record of

17 what days or what times we met, and some of this was

18 more than two years ago. I would say at least two

19 dozen.

20 Q. In the part of your first report that I just quoted, you

21 mentioned here an adjustment for risk. Is that the

22 geological chance of success?

23 A. (By MR LATHAM) I beg your pardon?

24 Q. I just quoted --

25 A. (By MR LATHAM) Could you cite specifically?

14:32 1 Q. Yes. We are still at the same part, and I just quoted  
2 from your first report. And you are mentioning here  
3 an adjustment for risk.

4 A. (By MR LATHAM) That's right. All the reserve and  
5 resource quantities are expressed as 100%; they are not  
6 adjusted for risk.

7 Q. You refer here to the geological chance of success?

8 A. (By MR LATHAM) No. I refer to all the reserves and  
9 resource quantities, whether they be reserves,  
10 contingent resources or prospective resources. There is  
11 no geological chance of success, other than one that  
12 would be associated with reserves or contingent  
13 resources.

14 Q. You mention here in that quote "economically  
15 recoverable".

16 A. (By MR LATHAM) Yes.

17 Q. Does this mean that in addition you also need to take  
18 into account commercial risk?

19 A. (By MR LATHAM) Generally, we do not -- where reserves  
20 are concerned, there typically it's going to be  
21 a variation of what types of risk. But contingent  
22 resources, you are dealing specifically with commercial  
23 risk.

24 Q. If you mention here "economically recoverable", you  
25 refer to economic risks; is that right?

14:33 1 A. (By MR LATHAM) Typically.

2 Q. My question is very specific to that part of your  
3 report.

4 A. (By MR LATHAM) Okay.

5 Q. Does this refer to economic risks that need to be taken  
6 into consideration?

7 A. (By MR LATHAM) What types of economic risk do you refer  
8 to?

9 Q. I quoted from your report.

10 A. (By MR LATHAM) I understand. But I need to be sure that  
11 I understand your question.

12 Q. Why don't you take a look at the report? We just read  
13 it for the record, and maybe you can read for yourself.  
14 There you have some considerations that in your report  
15 you submitted need to be taken into consideration.

16 THE CHAIRMAN: Can you tell us again where exactly in the  
17 report we are all looking at?

18 DR NACIMIENTO: Yes, it's page 2, the second paragraph.

19 A. (By MR LATHAM) Would you repeat your question, please?

20 Q. My question is: do you have to take into account  
21 economic considerations, or economic risks?

22 A. (By MR LATHAM) I think "considerations" is a wrong  
23 characterisation of that.

24 Q. Economic risks; I just rephrased my question. And this  
25 is based on the quote from your report, and here you

14:35 1 enumerate some of the economic risk factors that need to  
2 be taken into consideration.

3 A. (By MR LATHAM) I don't believe we would call operating  
4 expenses and royalty payments to be economic risks.  
5 Let's not confuse economic parameters or financial  
6 parameters with economic risk.

7 Q. Is it your testimony that no economic risks need to be  
8 taken into account?

9 A. (By MR LATHAM) Not at all.

10 Q. Is it your testimony that economic risks have to be  
11 taken into account?

12 A. (By MR LATHAM) It depends on what you are referring to.  
13 For example, if you look at the Borankol and Tolkyn  
14 field projections, by definition, in order to be  
15 reserves, those reserves have to be economic. That does  
16 not mean that they have to be risks; that only means  
17 that -- by that I mean geological risk. But they do  
18 have to be economic to produce.

19 Q. If you're talking about "economic", what is it that you  
20 mean?

21 A. (By MR LATHAM) That means making a profit.

22 Q. Could you please take a look again, this is also under  
23 tab 5, and here page 6 of your report. And I am  
24 quoting --

25 THE CHAIRMAN: Sorry, can you tell us which paragraph?

14:37 1 DR NACIMIENTO: It is the second part, last paragraph headed

2 "Interoil . . . Reef . . .":

3 "Ryder Scott attributes a geological chance of  
4 success to the Carboniferous Reef Prospect of 5 percent.  
5 Additionally, it is necessary, in our opinion, to  
6 consider range of development cost scenarios in view of  
7 the unusual depth, anticipated high pressures and  
8 temperatures, and other related technical challenges."

9 When you drafted the production schedules for  
10 contract 3 02 properties, have you taken into account  
11 what you list here on page 6: "the unusual depth,  
12 anticipated high pressures and temperatures, and other  
13 related technical challenges"?

14 A. (By MR LATHAM) Yes.

15 Q. When you forecasted that the Interoil Reef would be  
16 producing in the year 2010, did you take into account  
17 economic risks?

18 A. (By MR LATHAM) No.

19 Q. Is it your testimony that you did not take into account  
20 the economic risks listed here and on the quote?

21 A. (By MR LATHAM) No, these were unrisks.

22 Q. Could you speak up? I have difficulties in  
23 understanding you.

24 A. (By MR LATHAM) Sure. I beg your pardon.

25 No, the projections that we provided to FTI were

14:39 1

unrisky.

2 Q. Isn't it a fact that you expected FTI to apply these  
3 risks?

4 A. (By MR LATHAM) We expected them to deal with counsel for  
5 the claimants and make an assessment as to what they  
6 would produce in their reports. I had no control over  
7 that.

8 Q. Did you discuss with FTI about the risk assessment, your  
9 risk assessment and their risk assessment?

10 A. (By MR LATHAM) We didn't discuss their risk assessment;  
11 we certainly did discuss ours.

12 Q. You informed them that you did not take into account the  
13 risk factors that you address here on page 6 of your  
14 report?

15 A. (By MR LATHAM) That's correct.

16 Q. You mention in that part of the report -- that's page 6,  
17 referring to the Interoil Reef -- you mention "other  
18 technical challenges". Would this be also H2S?

19 A. (By MR LATHAM) That's a possibility, certainly.

20 Q. Would you agree with me that there is a certain  
21 possibility of H2S in the gas?

22 A. (By MR LATHAM) I think that's what I just said.

23 Q. Just to clarify, you would agree with me that this is  
24 a risk factor that --

25 A. (By MR LATHAM) I would state that there is the

14:40 1 possibility --

2 Q. Can I finish? -- that this is a risk factor that needs  
3 to be taken into account?

4 A. (By MR LATHAM) Certainly it's a possibility that it  
5 could occur. I don't know how small or large that risk  
6 might be.

7 Q. And when you state in your analysis that an analysis  
8 that has to be adjusted for risk -- and this is what  
9 I just heard your testimony -- that it has been  
10 conducted by other expert witnesses in this case, did  
11 you also refer to FTI in that case?

12 A. (By MR LATHAM) Yes.

13 Q. Are you aware that FTI has disregarded geological risk  
14 for the assessment of the contract 302 properties?

15 A. (By MR LATHAM) That's my understanding.

16 Q. Did you discuss this with them?

17 A. (By MR LATHAM) No.

18 Q. Did you address it at all in your discussions with them?

19 A. (By MR LATHAM) They were aware of our assessment of the  
20 geological chance of success.

21 Q. You mentioned that you had many discussions with FTI.  
22 Was that an issue?

23 A. (By MR LATHAM) No.

24 Q. It was never addressed at all in your discussions?

25 A. (By MR LATHAM) You asked if it was an issue, and I said



14:42 1

no.

2 Q. Okay. Maybe you can explain --

3 A. (By MR LATHAM) That was not --

4 Q. -- if you say "an issue", what would that be for you?

5 A. (By MR LATHAM) That would sound almost like

6 a disagreement --

7 Q. Can you speak up, please? I cannot understand.

8 THE CHAIRMAN: I think it's easier to understand with

9 headphones.

10 A. (By MR LATHAM) When you say "an issue", I interpret that

11 to mean like a disagreement or a dispute. It's

12 a factor. And certainly, since they've seen our

13 reports, obviously they know what our geological chance

14 of success is -- our assessment of it, sorry.

15 DR NACIMIENTO: So this was not an issue and not a dispute

16 between you and FTI?

17 A. (By MR LATHAM) No.

18 Q. Can I refer you to tab 3 of your binder; this is R-326.

19 A. (By MR LATHAM) I'm sorry, could you tell me what page?

20 THE CHAIRMAN: She'll tell you in a second, I'm sure.

21 DR NACIMIENTO: Page 37.

22 THE CHAIRMAN: Normally it's flagged.

23 DR NACIMIENTO: In your assessment, did you consider the

24 possibility of encountering H2S within the gas?

25 A. (By MR LATHAM) Are you referring to something in the this report, on this

14:44 1

page?

2 Q. Yes. Generally, in your assessment, we spoke about the  
3 technical challenges and we spoke about H2S. It was  
4 your testimony that you agreed with me that H2S needs to  
5 be taken into consideration. My question now is: did  
6 you consider the possibility of encountering H2S within  
7 the gas?

8 A. (By MR LATHAM) What gas?

9 Q. In your assessment -- I refer you to tab 3, R-326, of  
10 your binder.

11 A. (By MR LATHAM) You need to identify what you're  
12 referring to.

13 Q. Let me rephrase this. Could you please still look at  
14 R-326, tab 3.

15 THE CHAIRMAN: Perhaps it would be useful to say what it is  
16 actually, because for the experts "R-326" doesn't mean  
17 a thing. We can look at the title page and know.

18 DR NACIMIENTO: This is a report prepared for Max Petroleum,  
19 and we will get to this in a minute.

20 Did you speak with FTI about capex for facilities,  
21 pipelines or other infrastructure for contract 302?

22 A. (By MR LATHAM) Our role in the assessment of capital  
23 cost was very limited. While we were in Moldova, we did  
24 review the historical capital cost associated with such  
25 areas as Tolkyn, and a variety of others, to get a sense

14:46 1 of what the historical cost had been. We talked about  
2 the capital cost to drill the wells. But other than  
3 that, we had no involvement in the assessment of the  
4 capital cost.

5 Q. When you say you had "no involvement", does it mean you  
6 didn't address it at all with FTI?

7 A. (By MR LATHAM) That's correct.

8 Q. So is it your testimony that capex for facilities,  
9 pipelines or other infrastructure for contract 302 was  
10 not part of your discussions with FTI?

11 A. (By MR LATHAM) Yes.

12 Q. If you now look at R-326, tab 3. That is a report  
13 prepared by your firm for Max Petroleum, and  
14 Max Petroleum is a company undertaking exploration on  
15 a nearby block in Kazakhstan.

16 Were you involved personally in that report?

17 A. (By MR NOWICKI) I was not.

18 Q. Were you?

19 A. (By MR LATHAM) I was not, no.

20 Q. Could you turn to page 37. I am quoting from the third  
21 paragraph in the middle. I'll read it for you and for  
22 the record:

23 "Paleozoic carbonate reservoirs in Kazakhstan, and  
24 elsewhere, are known to produce significant quantities  
25 of [H2S] . "

14:48 1 THE CHAIRMAN: "... of sour gas."

2 DR NACIMIENTO: Sour gas.

3 "Max ..."

4 Which is the subsoil user:

5 "... estimates a 25 percent volume of

6 non-hydrocarbon gas from the targets in their portfolio.

7 RSC ..."

8 Ryder Scott:

9 "... concurs that this is necessary economic

10 consideration for the Type II prospects."

11 Would you agree with this statement?

12 A. (By MR LATHAM) Agree with what portion of this

13 statement?

14 Q. With the whole statement.

15 A. (By MR LATHAM) We haven't analysed this, so I can't

16 agree whether it is or is not correct.

17 Q. Maybe we can take it then in steps. Would you agree

18 that the Carboniferous Reef is a Palaeozoic carbonate

19 reservoir in Kazakhstan?

20 A. (By MR NOWICKI) Yes. Well, a little qualification: we

21 don't really know what age it is, but we suspect it is.

22 Q. You would agree that it is?

23 A. (By MR NOWICKI) We suspect that it is.

24 Q. Would you agree that for fields like the supposed

25 Carboniferous Reef, H<sub>2</sub>S has to be taken into account?

14:49 1 A. (By MR NOWICKI) I believe there's a chance that it will  
2 be present.  
3 Q. And does it have to be taken into account?  
4 A. (By MR NOWICKI) In what sense?  
5 Q. As an element that may come up.  
6 A. (By MR NOWICKI) Yes, it has to be considered.  
7 Q. Yes. Would you also agree that in order to separate H2S  
8 from natural gas, a subsoil user needs a gas metering  
9 facility?  
10 A. (By MR LATHAM) We certainly would agree that were there  
11 H2S present in the gas, there would be the need for the  
12 appropriate processing facility to remove the H2S, yes.  
13 Q. And that a subsoil user also needs facilities for  
14 recovering, storing and disposing of the sulphur  
15 produced as a waste product?  
16 A. (By MR LATHAM) It would depend certainly on the  
17 quantity, yes.  
18 Q. Would you also agree that such facilities would need to  
19 be ready when the production from the Carboniferous Reef  
20 starts?  
21 A. (By MR LATHAM) If there is H2S present, yes.  
22 Q. In your report you submitted that the starting date for  
23 production [was] the beginning of 2010?  
24 A. (By MR LATHAM) I don't believe it was the beginning of  
25 2010.

14:51 1 Q. Let's put then 2010. Based on what you just testified,  
2 and based on the assumption that H2S needs to be taken  
3 into account, is it your position that, according to  
4 your schedule, these facilities would need to be ready  
5 by the start of production, and so by 2010?

6 A. (By MR LATHAM) Certainly the facilities would need to be  
7 ready before production could begin, yes.

8 Q. In this case it would be 2010?

9 A. (By MR LATHAM) I couldn't hear you, I'm sorry.

10 Q. And in this case it would be in 2010?

11 A. (By MR LATHAM) Yes.

12 Q. I believe I heard you, Mr Nowicki, confirming that H2S  
13 is a possibility and needs to be taken into account.  
14 Let's assume that it's just a possibility.

15 If you had a client thinking about drilling on  
16 a structure with a chance of sour gas, would you advise  
17 your client of this element and of this risk?

18 A. (By MR NOWICKI) If I had reason to believe that there  
19 was H2S in it, I would mention that to them, yes.

20 Q. You would make him aware of the existence?

21 A. (By MR NOWICKI) Yes.

22 Q. Would you also make him aware that this needs to be  
23 taken into account for the drilling plan?

24 A. (By MR NOWICKI) Well I'm not a drilling engineer, so  
25 I don't know specifically what would have to be done in

14:52 1 order to prepare to enter a reservoir with a high level  
2 of H2S.

3 Q. You agreed with me that you would make him aware of the  
4 fact --

5 A. (By MR NOWICKI) I would make him aware of everything  
6 that I knew, and if I knew that, yes, I would make him  
7 aware of that.

8 Q. Would you make him aware of it because it's an important  
9 element for your client's risk assessment?

10 A. (By MR NOWICKI) I don't think it's much of an element in  
11 the geologic chance of success. I don't think it's any  
12 factor at all.

13 Q. Your testimony is H2S is not a factor at all in  
14 assessing the GCoS?

15 A. (By MR NOWICKI) That is correct.

16 Q. Could I please ask you to turn to tab 1 of your binder,  
17 this is C-69, and to please open page 32. This is  
18 an overview of the reserves of the Borankol field.

19 On the right side of the table, if you please look  
20 at the second, third and fourth bullet points:

21 "As at 31 December 2006 the Group's 2P reserves were  
22 assessed by Ryder Scott to amount to 72.4 [million  
23 barrels of oil equivalent].

24 "As at 31 December 2007 the Group's 2P reserves were  
25 assessed by Miller and Lents to amount to 24.6 [million

14:55 1 barrels of oil equivalent].

2 "The 66% decrease of the Borankol field 2P crude oil  
3 and gas reserves as of 31 December 2007 compared to  
4 31 December 2006 results from more and more recent data  
5 being available to the new appraisers Miller and Lents.  
6 The approaches used in both estimations are the same."

7 Given this 66% decrease in 2P reserves, would you  
8 agree that even in the case of a 2P reserve, which are  
9 also called the best estimate, there remains substantial  
10 uncertainty with regard to any kind of reserve estimate?

11 A. (By MR LATHAM) Generally speaking, as a property becomes  
12 more mature, there is certainly substantially less  
13 expectation that the reserve numbers would change  
14 dramatically.

15 Q. Could you please turn to tab 2 of your binder, and that  
16 is the first FTI report, Exhibit L, page 38. It shows  
17 the development production schedule for the  
18 Interoil Reef. Is this a schedule that is based on  
19 information that you provided to FTI?

20 A. (By MR NOWICKI) I'm sorry, we might not be on the right  
21 page. You said page 3 8?

22 Q. It's the first FTI report, page 38 of Exhibit L.

23 A. (By MR LATHAM) Mr Chairman, we are on that page and  
24 there's no - -

25 THE CHAIRMAN: I have the same problem.



14:58 1 DR NACIMIENTO: We will resolve it immediately. It's not  
2 the report itself, but the exhibits and they are  
3 numbered separately. It is also flagged. (Pause)

4 Was this schedule prepared on the basis of  
5 information provided from you to FTI?

6 A. (By MR LATHAM) I believe that is correct.

7 Q. Is it correct that, based on the schedule, the  
8 Interoil Reef production starts in 2010?

9 A. (By MR LATHAM) It looks like -- I'm just speculating  
10 here, just looking at the table, but it looks like it's  
11 mid-2010.

12 Q. Could I ask you to turn to tab 6 of your binder. This  
13 is Exhibit C-67.

14 A. (By MR LATHAM) I'm sorry, counsellor, could you give us  
15 the -16 Q. Tab 6, Exhibit C-67.

17 A. (By MR LATHAM) Where is that?

18 THE CHAIRMAN: C-67 is for us. It's not indicated here.

19 DR NACIMIENTO: We might be able to do it without referring  
20 to it.

21 My question is: when did you assume the first  
22 exploratory well to be drilled?

23 A. (By MR LATHAM) I believe it was 2009.

24 Q. When you prepared your expert report, did you have  
25 an opportunity to examine TNG's application for

15:00 1 an extension of the exploration period?

2 A. (By MR LATHAM) No.

3 Q. It is by coincidence that that application is dated  
4 14th October 2008, and that is the same date which  
5 claimants have taken as the date of valuation?

6 A. (By MR LATHAM) The date of what?

7 Q. Of their valuation date; the date as of when they  
8 calculate the damages.

9 Would you agree that for your report, this is  
10 an important document?

11 A. (By MR LATHAM) Are you asking us if the assessment or  
12 basis for the date at which --

13 Q. No, let me ask again. We just established that you did  
14 not receive the application for an extension of the  
15 exploration programme?

16 A. (By MR LATHAM) For?

17 Q. For the Interoil Reef -- for contract 302.

18 A. (By MR LATHAM) Thank you.

19 Q. You did not receive that?

20 A. (By MR LATHAM) That's correct.

21 Q. And it is incidentally the same date as claimants'  
22 valuation date, 14th October 2008. Would you consider  
23 that this is an important document?

24 A. (By MR LATHAM) I'm sure it is to the claimant.

25 Q. Is it a document that would be of relevance to you for

15:02 1 your report?

2 A. (By MR LATHAM) No.

3 Q. When you drafted your report, were you aware of any  
4 planning work that TNG had conducted before  
5 14th October 2008?

6 A. (By MR LATHAM) Since we initiated this steady after  
7 those dates, I don't believe it would have been material  
8 particularly to our specific charge in this case.

9 Q. Were you aware of any application made by TNG to drill  
10 a well on the reef?

11 A. (By MR LATHAM) No.

12 Q. Are you aware of how long the application process to  
13 drill such a well takes in Kazakhstan?

14 A. (By MR LATHAM) I've heard testimony about it during this  
15 hearing, as I recall.

16 Q. And this is the only source of information that you  
17 have?

18 A. (By MR LATHAM) Yes.

19 Q. Are you aware of how long it usually takes in Kazakhstan  
20 to produce a field development plan?

21 A. (By MR LATHAM) No.

22 Q. Are you aware of how long it may take to get all the  
23 necessary approvals to actually start the development?

24 A. (By MR LATHAM) No.

25 Q. Is it your testimony that you didn't take any of this

15:03 1 into account in your projected start date for the

2 production?

3 A. (By MR LATHAM) In our discussions with the claimant, the  
4 schedules and their intentions were primarily what we  
5 discussed. We didn't do this -- perhaps the word is "in  
6 a vacuum". But were we looking at the statutory  
7 requirement requiring a certain amount of time in order  
8 to be approved? No.

9 Q. We just heard your testimony a few minutes ago that the  
10 production start was in 2010, and the information on  
11 that production start was transferred from you to FTI.

12 A. (By MR LATHAM) Yes.

13 Q. Are your projections for the commercialisation of the  
14 Interoil Reef based on the drilling of one single  
15 exploration well?

16 A. (By MR LATHAM) I really apologise, but there were  
17 a couple of words there I didn't quite understand at the  
18 beginning of that sentence.

19 Q. I'm talking about the commercialisation of the  
20 Interoil Reef, the commercial use --

21 A. (By MR LATHAM) Commercialisation.

22 Q. -- and your projections for the commercial use of it.  
23 Is it based on the drilling of one single exploration  
24 well?

25 A. (By MR LATHAM) I was not assessing the commercial

15:05 1 success of whether it was one well, two or three.

2 Q. Then maybe I could ask it more generally.

3 Would you say, is it best business practice to start  
4 the development without drilling any appraisal well to  
5 fully understand the size and the potential of  
6 a discovery?

7 A. (By MR LATHAM) I'm sorry, I'm going to have to ask you  
8 to repeat that.

9 Q. It's a very general question related to what you assume  
10 to be best business practice.

11 A. (By MR LATHAM) I was not assuming any best business  
12 practice.

13 Q. But that's my question for you. Let's just assume for  
14 now the best business practice: would that be to start  
15 the development without drilling any appraisal well?

16 A. (By MR LATHAM) No, I don't think that would be typical.

17 Q. In your development projection schedule, the schedule  
18 that you propose assumes the drilling of two wells in  
19 2009 and four wells in 2010 --

20 A. (By MR LATHAM) That's correct.

21 Q. -- for the best estimate. What is your assumption how  
22 long it would have taken to drill one well on the  
23 Interoil Reef?

24 A. (By MR LATHAM) Today we've heard -- or not today, but  
25 rather yesterday -- it would be about six months.

15:06 1 Q. What is your assumption?

2 A. (By MR LATHAM) I think that's a reasonable number.

3 Q. One question to Mr Nowicki.

4 A. (By MR NOWICKI) Yes.

5 Q. In the process of preparing your geological assessment  
6 of the Interoil Reef for the two written reports, did  
7 you speak to the claimants about their plans to drill on  
8 the Interoil Reef?

9 A. (By MR NOWICKI) No. I didn't have very much direct  
10 contact with claimants. I was just evaluating the  
11 geology of it.

12 DR NACIMIENTO: I have no further questions.

13 TH CHAIRMAN: Thank you. Any questions in re-direct?  
E

14 MR TOHER: Yes.

15 TH CHAIRMAN: Okay, go ahead.  
E

16 MR TOHER: Just a couple.

17 (3 08 pm)

18 Re-direct examination by MR TOHER

19 Q. Is the handling of H<sub>2</sub>S a relatively well-known process  
20 in the gas production business?

21 A. (By MR LATHAM) Yes.

22 Q. Had H<sub>2</sub>S been encountered in Tolkyn?

23 A. (By MR LATHAM) Yes.

24 Q. Do you have any reason to believe that TNG was unable to  
25 deal with H<sub>2</sub>S if it was encountered?

15:08 1 A. (By MR LATHAM) No.

2 MR TOHER: I have no further questions.

3 DR NACIMIENTO: Mr Chairman, there is one issue. Apparently

4 the record is not very clear. I had asked the two

5 experts whom they spoke to from FTI with regard to the

6 first report, and apparently their answer was not

7 audible and we don't have it on record.

8 (3 09 pm)

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9 Further cross-examination by DR NACIMIENTO

10 Q. Could you tell us: in preparing the first report, whom

11 from FTI did you speak to?

12 A. (By MR LATHAM) Are you referring to me or to Mr Nowicki?

13 Q. Whoever can give me the answer.

14 A. (By MR LATHAM) Yes, it was Laura Hardin.

15 Q. And you mentioned before that it was also a second

16 person?

17 A. (By MR LATHAM) Her associate.

18 Q. Who was that?

19 A. (By MR LATHAM) Sinea Park.

20 DR NACIMIENTO: Thank you.

21 TH CHAIRMAN: Nothing from your side?

E

22 MR TOHER: Nothing further.

23 TH CHAIRMAN: Yes, please go ahead.

E

24 (3 09 pm)

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25 Questions from THE TRIBUNAL

15:09 1 MR HAIGH: Gentlemen, I want to ask you for a bit further

2 assistance on the issue of risk.

3 First of all, counsel for respondent referred you to  
4 page 2 of your first report, which has a paragraph that  
5 begins:

6 "It should be noted that all hydrocarbon quantities  
7 presented in this report have not been adjusted for  
8 risk. "

9 You will recall that you answered certain questions  
10 in relation to that paragraph.

11 A. (By MR LATHAM) Yes.

12 MR HAIGH: Just to help us understand this subject, first of  
13 all, was that your instruction, that you not do that  
14 adjustment for risk?

15 A. (By MR LATHAM) No, that was not our instruction; that's  
16 the way it is historically and traditionally done.  
17 That's exactly the way GCA has done it in this case and  
18 exactly the way we have done it in this case. There's  
19 really very good reasons for that.

20 MR HAIGH: That's what I wanted to hear. What is the reason  
21 for that?

22 A. (By MR LATHAM) Number one, why don't we take proved  
23 reserves first. Proved reserves are defined as being  
24 reasonably certain, for example. That's a component of  
25 the definition. Probable reserves are less certain, but



15:11 1 they are more likely than not to be recovered, for  
2 example. That's not the current precise statement of  
3 it, but I think that's a useful and helping way of  
4 looking at it. Possible reserves, for example, would be  
5 considered less likely than not.

6 In other words, although there are risks associated  
7 with each category, whether that be reserves, contingent  
8 resources or prospective resources, they all vary, and  
9 typically what people want to know from us is the  
10 unrisks stream, and they will apply their own  
11 assessment of risk to it.

12 MR HAIGH: When you say "they will apply their own  
13 assessment of risk to it", conceptually what sort of  
14 exercise is that?

15 A. (By MR LATHAM) I think probably the most common example  
16 is in acquisition, for example.

17 MR HAIGH: Yes.

18 A. (By MR LATHAM) A potential buyer, for example, will  
19 apply some risk to the proved reserves, just to give  
20 themselves a reasonable rate of return perhaps. Now,  
21 with respect to probable reserves, they will apply  
22 greater risk because there's more uncertainty associated  
23 with those reserves.

24 So in arriving at the price that they are willing to  
25 pay, they are going to assess the amount of risk

15:12 1 associated with each category of reserves, and it really  
2 does vary quite a bit.

3 MR HAIGH: Let me try to say back to you what I think I am  
4 hearing when you speak of the risk in these terms.

5 There are geological risks, because you take certain  
6 data that you have had a chance to look at, whether it's  
7 seismic or some well logs or other forms of testing, and  
8 you provide an opinion based on whatever that  
9 information seems to indicate to you about what you  
10 anticipate the reserves are going to be; and roughly  
11 speaking, the more data that you have available, the  
12 more confident you may be in your opinion. Is that  
13 generally true?

14 A. (By MR LATHAM) I think that would be a fair assessment.

15 MR HAIGH: In addition to that, assume that I'm interested  
16 in buying a field from somebody, or an oil- and  
17 gas-producing company from somebody. In addition to  
18 taking into account your opinions about the geological  
19 chances of success, will I also want to look at, say,  
20 pricing forecasts, for example?

21 A. (By MR LATHAM) Certainly.

22 MR HAIGH: There are people who think they know what's going  
23 to happen in the future, and they will tell you what  
24 they think the market price is likely to be depending on  
25 various scenarios, presumably?

15:14 1 A. (By MR LATHAM) Absolutely.

2 MR HAIGH: If it's a not yet fully matured or developed  
3 production, there will be other sort of infrastructure  
4 risk assessments as to how long it will take and how  
5 much it will cost you to get the field up and running  
6 and operating at full capacity; right?

7 A. (By MR LATHAM) I think that's a very real consideration,  
8 yes .

9 MR HAIGH: I take it that you fellows and Ryder Scott don't  
10 claim any expertise -- or at least you are not offering  
11 any expertise -- in connection with these kinds of  
12 opinions, in relation to either pricing forecasts or  
13 infrastructure development or any related matters. Is  
14 that correct?

15 A. (By MR LATHAM) In this particular engagement, no, we are  
16 not.

17 MR HAIGH: Alright. To go back to my initial question: why  
18 did you not?

19 A. (By MR LATHAM) We were not asked to.

20 MR HAIGH: Okay. So it was part of your instruction to  
21 develop an opinion along the lines that you've done?

22 A. (By MR LATHAM) We were assigned the task of assessing  
23 the geological, geophysical analysis, doing the  
24 engineering work on the -- developing estimates of the  
25 remaining reserves and projecting those reserves. But

15:15 1 we have not applied prices and costs and just the  
2 routine, as you say, infrastructure development and that  
3 sort of thing, no.

4 MR HAIGH: Right. At the end of your first report on  
5 page 8, in the first paragraph under the heading  
6 "General", among other things, you say:

7 "... we have not made any field examination of the  
8 properties."

9 I take it that's, first of all, factually accurate?

10 A. (By MR LATHAM) Correct.

11 MR HAIGH: Does that concern either one of you as to the  
12 quality of your opinion?

13 A. (By MR NOWICKI) It doesn't me. The data that we collect  
14 is not -- it's not important at all that we make a field  
15 inspection to do a reserve estimate or reserve  
16 assessment. I think that statement is more for  
17 environmental concerns and things of that nature. But  
18 we do not need to make a site visit to do our work. All  
19 the data is provided to us generally electronically, and  
20 we have more than enough data to make the assessment  
21 without visiting the field.

22 MR HAIGH: Mr Latham?

23 A. (By MR LATHAM) I would make one point here with respect  
24 to that. I think probably, along the lines of the way  
25 you're broaching this topic, there sometimes is the

15:17 1 assumption that we have; and if we have not, it's  
2 important for us to put it in -- you know, this is just  
3 part of routine disclosure for us.

4 MR HAIGH: Alright. But does it enter into what reliance  
5 a reader should put on your opinions, that you weren't  
6 out in the field looking at these facilities or looking  
7 at the field itself? Does that make any difference to  
8 the quality of what you're telling us your opinion is  
9 right now?

10 A. (By MR LATHAM) As a generality, it has no effect at all.

11 MR HAIGH: I want to ask you about the water production  
12 issue. This seems to be a contentious point between  
13 yourselves and GCA. Just remind me, if you would -- and  
14 I have read your second report, but I just wanted to  
15 make sure that I have a general understanding of this.

16 You say in your second report that you provided some  
17 water production profiles and discussed the issue of  
18 water production in your first report, but there seems  
19 to be some ongoing contention that you've either  
20 overlooked or not given enough weight to the water  
21 production issue, and in particular this implication --  
22 or perhaps it's a positive assertion -- that there was  
23 a surge in production in 2008 that may have led to  
24 increased water production.

25 A. (By MR LATHAM) This does seem to be an area of I think

15:20 1           it's both misunderstanding and contention between the  
2           various experts here.

3   MR HAIGH: Alright. Well, I'm going to give Gaffney Cline  
4           a similar platform, so now's your chance. Tell me about  
5           it, if you would.

6   A. (By MR LATHAM) When the rates in the field were  
7           increased in the fourth quarter of 2007, in addition to  
8           about six wells being drilled, which would obviously  
9           provide some additional deliverability, they also opened  
10          the wells up quite a bit. And during much of 2008 the  
11          rate in the field was quite high, as it was called for  
12          in the FDP.

13                Now, my personal assessment of this is very simple:  
14                at the end of 2008 -- pardon me, not at the end, but as  
15                of 10/14/2008, out of all the fields in the field, there  
16                were only three producing any material amount of water.  
17                They were all close structurally, immediately adjacent  
18                to one another, and that to me did not spell that there  
19                was going to be a field-wide problem.

20                Now, obviously as 2009 and 2010 approached, and when  
21                you look at the production graphs, I think we had to be  
22                very careful to recognise, particularly in 2009, that  
23                the big drops in production there were not just uniquely  
24                because of water; there was also a tremendous market  
25                problem that year. Much of the production was shut in.

15:21 1           So the gas didn't just suddenly disappear.

2           My personal professional opinion: raising the rates  
3           as much as they did may have accelerated the water  
4           production, but I think it would have occurred anyway,  
5           probably just further down the track.

6   MR HAIGH: Is there a basis for you, as a reservoir  
7           engineer, to draw your conclusions about whether the  
8           wells were being overproduced in 2008?

9   A. (By MR LATHAM) Without a lot of detailed data, that's  
10          pretty hard to do. But it's pretty clear that at that  
11          point in time -- subsequent to our effective date -12 that  
water became a more substantial issue with certain  
13          of the wells. There's still certain of the wells have  
14          had no problem at all. But I think -- and to some  
15          extent the recommended solution, which is to reduce the  
16          withdrawal rate, has been practically imposed on the  
17          field because of market conditions.

18          I still think that -- I definitely would concur that  
19          our projections did not occur in 2009 and 2010; you know  
20          that factually after the fact. But also I should hasten  
21          to add that when we assess reserves as of a certain  
22          date, we are supposed to use data only available through  
23          that date. And obviously because of the difference in  
24          our effective dates, Gaffney Cline -- understandably -25  
has to take into account all those events that occurred

15:23 1                   between 2008 and 2010.

2       MR HAIGH: Alright. Let me turn to one other topic, and  
3           that's the behind-the-pipe reserves, principally in  
4           Borankol, I guess it is.

5       A.    (By MR LATHAM) Yes.

6       MR HAIGH: I think I understood you to say in your earlier  
7           testimony that behind-the-pipe reserves are those that  
8           have some potential, either on a rework or --

9       A.    Recompletion.

10      MR HAIGH: -- a recompletion basis.

11      A.    Yes .

12      MR HAIGH: So in speaking of behind-the-pipe reserves, do  
13           you try to evaluate what kind of recompletion steps or  
14           reworking efforts need to be undertaken in order to  
15           potentially realise the opinion that you're expressing  
16           about behind-the-pipe reserves?

17      A.    (By MR LATHAM) Well, I think that there's several issues  
18           that have to be taken into account here. For the most  
19           part -- it's not exclusive; they've had plenty of  
20           instances where it is otherwise -- but in order to  
21           optimise and to facilitate your recomplete mechanically,  
22           to optimise and recomplete your wells, you usually want  
23           to move uphole; in other words, to the shallower  
24           horizons.

25                   Now, in the Borankol field the vast majority of the



15:24 1 wells have been completed in the J7 sands, in the  
2 Jurassic VII, and that's where currently most of them  
3 are. Consequently, the J6, 5, 4, 3, 2 and several J1  
4 sands are still all uphole, so that mechanically it's  
5 quite feasible; there really shouldn't be any particular  
6 concern about that.

7 MR HAIGH: Just to interrupt you for a second, maybe this is  
8 a question for Mr Nowicki, but do those shallower sands  
9 have geological potential?

10 A. (By MR NOWICKI) Yes, they do. Every one of them has at  
11 least some production in it, and they are all -- they  
12 are not in pressure communication with one another. So  
13 they are distinct entities; it's not as if it's a single  
14 tank. So each one of these is distinct from one another  
15 and they have all been proven to be productive.

16 MR HAIGH: Okay.

17 A. (By MR NOWICKI) The other point is that they all have  
18 variability in them in terms of thickness and structural  
19 height, so there are good places and there are not so  
20 good places to make completions in those sands, and  
21 doing the geological analysis allows us to define where  
22 the good places are.

23 That's incorporated into our estimate of those  
24 behind-pipe reserves as well as James's analysis of well  
25 bore utility.

15:26 1 MR HAIGH: Alright. I interrupted you, Mr Latham; I'm not  
2 sure you'd finished.

3 A. (By MR LATHAM) I was going to mention to you, if you  
4 look at that slide, we can use that as a very  
5 instructive example.

6 THE CHAIRMAN: "That slide" being ... ?

7 A. (By MR LATHAM) This is the slide of that Jurassic  
8 reservoir where it showed the completion. It's my last  
9 slide.

10 MR HAIGH: Sorry, you are talking about the slides that were  
11 presented today?

12 A. (By MR LATHAM) It's the one that in the upper left says  
13 "J-1 C Completion".

14 MR HAIGH: Alright.

15 A. (By MR LATHAM) In this particular reservoir ... (Pause)

16 If you look at that reservoir, there's some very  
17 poor completions in that reservoir. You'll notice -18 are  
these green, Mike?

19 A. (By MR NOWICKI) I'd say they are light yellow to me, and  
20 this is a green one.

21 A. (By MR LATHAM) Alright, light yellow.

22 The light yellow or yellowish circles, you'll notice  
23 that those are actual completions that had existed in  
24 the reservoir. They have a dot in the middle and they  
25 have a round circle around them that's yellowish. You

15:27 1 will notice that many of these completions are right at  
2 the very fringes of the reservoir. There's really quite  
3 a few of them.

4 But the far left well, if you look at that well, for  
5 example, which is in a thicker portion of the reservoir,  
6 that well, in this very simplistic-looking reservoir,  
7 has made over 400,000 barrels.

8 Now, if you look back at the map, you'll see there  
9 are these little thick places all over the place, none  
10 of which have been produced. And we've done that in  
11 every single reservoir in the field.

12 MR HAIGH: Again, as with the other parts of your opinion,  
13 you have not, I take it, endeavoured to formulate what  
14 would be entailed in either the recompletion or  
15 reworking exercises that might be required to realise  
16 the potential that you speak of?

17 A. (By MR LATHAM) The reworking operation would be a very  
18 standard recompletion. They would probably pull tubing,  
19 perforate the interval, stimulate it, re-run tubing, set  
20 a packer and go back to producing it. It's a very  
21 routine oilfield operation.

22 MR HAIGH: Thank you, Mr Chairman. Those are my questions.

23 TH CHAIRMAN: I may have a couple of questions later on in  
E  
24 the conferencing part.

25 A. (By MR LATHAM) Sounds good.

15:29 1 TH CHAIRMAN: No more questions from the parties.  
E

2 Well, thank you very much. That concludes your  
3 testimony for the time being. Don't run away, but you  
4 may leave this place. Actually you have to leave this  
5 table because your colleagues will be coming. But first  
6 we have a coffee break of 15 minutes and then we come to  
7 Gaffney Cline.

8 (3 2 9 pm)

9 (A short break)

10 (3 4 8 pm)

11 GAFFNEY CLINE

12 DR STEPHEN WRIGHT (called)

13 MR MICHAEL WOOD (called)

14 MR TONY GOODEARL (called)

15 TH CHAIRMAN: Right, I suppose everybody is here who should  
E  
16 be here for this. Sorry for the three gentlemen; it is  
17 getting crowded there. But the good news is later on in  
18 the conferencing it will be even more complicated.

19 Alright. Welcome, gentlemen. We have Mr Wood,  
20 Mr Wright and Mr Goodearl. Is that the right  
21 pronunciation? Okay.

22 As you know from sitting here we would ask you to  
23 read out the very short declaration that you have in  
24 front of you.

25 MR GOODEARL: I solemnly declare upon my honour and

15:49 1 conscience that my statement will be in accordance with  
2 my sincere belief.

3 MR WOOD: I solemnly declare upon my honour and conscience  
4 that my statement will be in accordance with my sincere  
5 belief.

6 MR WRIGHT: I solemnly declare upon my honour and conscience  
7 that my statement will be in accordance with my sincere  
8 belief.

9 TH CHAIRMAN: Would you just be kind enough -- I know this  
E  
10 is Mr Goodearl -- okay, thank you.

11 We would again keep it that way that whoever feels  
12 best in a position to answer a question will do so,  
13 unless counsel says, "I want a specific answer by  
14 [somebody]."

15 Alright, introduction by respondent.

16 DR NACIMIENTO: Thank you. What I suggest to do, I have  
17 a first question addressed to all of them, and then  
18 I would like to introduce each of them separately.

19 (3 50 pm)

20 Direct examination by DR NACIMIENTO

21 Q. So the question to all of you is: you have submitted two  
22 reports in this arbitration. Is there anything that you  
23 would like to add or amend in those reports?

24 A. (By DR WRIGHT) There's one minor issue that I've  
25 realised. In my part of the report I state that only

15:50 1 two exploration wells have been drilled on the block 302  
2 area; it is in fact four exploration wells. The two  
3 wells I admitted were Tabyl 2 and 3. However I do use  
4 the data in my report and there is no other impact on  
5 the findings and conclusions of my part of that report.

6 MR HAIGH: Excuse me, Mr Wright -- oh, that was the  
7 block 302 area?

8 A. (By DR WRIGHT) That's correct.

9 A. (By MR GOODEARL) I have no changes to make that are  
10 material to the statements or the conclusions of our  
11 report. I only say that following the teleconference we  
12 had with Ryder Scott about two or three weeks ago,  
13 I have perhaps a better understanding of what they did.  
14 That may impact on some of the comments, but that does  
15 not, as I say, affect any of the conclusions.

16 TH CHAIRMAN: Thank you very much.

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17 DR NACIMIENTO: Dr Wright, could I ask you to briefly  
18 introduce yourself to describe your professional  
19 background and your current position.

20 A. (By DR WRIGHT) I am a petroleum geologist. I've worked  
21 as a petroleum geologist since I left the University of  
22 Oxford, where I completed my doctorate in 1985.

23 Subsequent to that, I've worked for a number of  
24 international oil companies, notably Texaco, BP and  
25 Shell; also independent companies, such as

15:52 1 Enterprise Oil.

2 I joined Gaffney, Cline & Associates in 2007, and

3 I am currently the technical director for geoscience.

4 Q. Dr Wright, could you please describe the difference  
5 between a 2D and a 3D seismic?

6 A. (By DR WRIGHT) 2D and 3D seismic, part of the difference  
7 is historical and part of it is in what you would use  
8 the dataset for.

9 The first seismic surveys -- and people have been  
10 doing this for probably almost 100 years now in some  
11 form -- were two-dimensional. There was a technology  
12 limitation. This means it's a single line, and it  
13 provides you with an image of the subsurface.

14 To get a better image, historically people have put  
15 more lines in, so they have reduced the line space  
16 between the 2D lines. And then some bright spark  
17 realised that you could process all of this data  
18 together to get a three-dimensional image, where you use  
19 data from all directions to improve the image.

20 Now, data for 3D surveys is routinely gathered with  
21 a very narrow line spacing, often as low as 25 metres,  
22 and therefore you end up with a dataset which has a very  
23 high resolution, and has a lot of data redundancy in the  
24 dataset, so that you can do a lot of data processing to  
25 improve the data quality and to obtain additional

15:53 1 information from it that you could not get from

2 2D seismic.

3 2D seismic data today is still acquired; it is used  
4 in an exploratory or reconnaissance method to get  
5 an understanding on a broad scale, before you then may  
6 focus in and acquire three-dimensional data over  
7 a smaller area. And this is partly because of the  
8 significantly increased costs associated with acquiring  
9 and processing 3D.

10 Q. In your experience, how long would it take to acquire,  
11 to process and to interpret the 3D seismic?

12 A. (By DR WRIGHT) It's a little bit of a difficult question  
13 because obviously the larger the area you acquire, there  
14 is a physical time to do that. But to acquire a -- and  
15 onshore and offshore are different again. But in  
16 an onshore environment where there are no significant  
17 logistical issues, with flat terrain, so a relatively  
18 flat piece of land, you may be able to acquire  
19 200-250 square kilometres in three/four months.

20 There are other issues with weather, of course;  
21 there are limits to when you can be actually physically  
22 acquiring data.

23 Q. How long would you estimate for the Interoil Reef?

24 A. (By DR WRIGHT) My understanding at the moment, and our  
25 understanding at the moment, is that the Interoil Reef



15:55 1 has partial 3D coverage on the sub-zone. That is shown  
2 on the map that we were discussing earlier.

3 The extent that additional data would be required in  
4 the north is not clear; the 2D data is somewhat  
5 ambiguous in that area. But it could be an area similar  
6 to the size that's already been acquired, and I would  
7 have thought three to four months to acquire that data.

8 Q. How long would you estimate the time to interpret that  
9 data?

10 A. (By DR WRIGHT) First, it would have to be processed once  
11 it had been acquired, and that again could take  
12 a similar length of time. One might be able to do it  
13 a bit shorter, but certainly two to four months would be  
14 an estimate. Then a similar length of time may be  
15 required after that to make a provisional  
16 interpretation. These types of datasets are routinely  
17 interpreted multiple times.

18 Q. When you say it needs to be processed first, what do you  
19 mean by this?

20 A. (By DR WRIGHT) When seismic data is acquired, a record  
21 is made, and this is a raw data record. Once you've  
22 finished acquiring the data, it is then processed to  
23 generate the image that the seismic interpreters use,  
24 and some of the images we have seen in one or two of the  
25 presentations.

15:56 1                   That takes time, because you are moving from  
2                   a series of time blips on a seismic record to an image  
3                   that is interpretable, and that takes time to be  
4                   processed in a seismic processing house, certain  
5                   specialist companies who it is their -- that's what they  
6                   do for a living.

7       Q.   So the overall time for acquiring, processing and  
8            interpreting 3D for the Interoil Reef, how long would  
9            that be?

10     A.   (By DR WRIGHT) I would have thought we're talking  
11            somewhere between nine months and a year at a minimum,  
12            with the planning that would be required prior to the  
13            start of acquisition.

14     Q.   Thank you. Based on the analogues and the debt  
15            prognosed by Ryder Scott with regard to the  
16            Interoil Reef, would you expect that there will be H2S?

17     A.   (By DR WRIGHT) I think the answer to that is I -- based  
18            on the work we've done using the dataset, the same  
19            dataset that Ryder Scott talked about, the 2D seismic on  
20            the Interoil Reef, we think that using that model that  
21            we have estimated volumes for, we believe it to be  
22            an analogue of the nearby Tengiz, or potentially  
23            an analogue of the nearby Tengiz and Kashagan fields.  
24            These are carboniferous aged cumulations, so similar in  
25            age to the reservoir to the ones that have been

15:58 1 prognosed for the Interoil Reef, and both of these  
2 fields are well known to contain hydrogen sulphide gas,  
3 acid gas.

4 So I would think that whilst you cannot say  
5 definitively, the most likely case is that if it has  
6 hydrocarbon gas in it, it would have acid gas associated  
7 with it.

8 Q. I would like to refer to some comments and criticisms  
9 that counsel for claimants made in his opening, and I am  
10 quoting from the transcript of Day 1. It's page 80  
11 line 12:

12 "In the initial Gaffney Cline report they estimated  
13 41 million barrels, and then they substantially reduced  
14 that estimate, notwithstanding dramatically increasing  
15 the number of wells, to almost 30 million barrels.

16 "Now, there again is no new data that Gaffney Cline  
17 apparently had in making that revision. It only appears  
18 to be a reassessment of the Munaibay 1 well; that was  
19 a test well that they conducted in their second report  
20 where they reduced the resource estimate by 29%,  
21 notwithstanding increasing the number of wells to  
22 recover these reduced resources by over 300%."

23 Do you have any comments on this criticism?

24 A. (By DR WRIGHT) I think I'd like to try and explain the  
25 rationale for the change that we made. It is reported

16:00 1 in our second report that this was because we reviewed  
2 the information following the rebuttal arguments from  
3 Ryder Scott, we did some comparisons and realised that  
4 we had perhaps overestimated the potential of individual  
5 wells that we were using in our estimate.

6 Also, at the same time, further investigation of  
7 some of the older Triassic oil reservoirs in -- and  
8 I check with my colleague -- the Tolkyn field?

9 A. (By MR GOODEARL) Yes.

10 A. (By DR WRIGHT) -- has recently been unsuccessful. The  
11 recent exploration or development drilling in the Tolkyn  
12 field to the Triassic has been less successful than it  
13 had been in the past.

14 Therefore we reviewed all that information and  
15 decided that we had been overoptimistic in our  
16 assessment. We therefore went back and considered the  
17 volumes and the potential recovery from the field. We  
18 did not change the oil-in-place estimates, but we looked  
19 at what would be recovered from individual wells and had  
20 to adjust our estimation to reflect increased numbers of  
21 wells that we put into the field. That also explains  
22 the increase in drilling capex.

23 Q. Thank you. I now have some questions for Mr Goodearl.

24 Mr Goodearl, could you please briefly describe your  
25 qualifications and your professional experience?

16:01 1 A. (By MR GOODEARL) Yes. My name is Tony Goodearl. I am  
2 a petroleum engineer specialising in reservoir  
3 engineering. I have 40 years' experience in total.

4 I have been with Gaffney Cline for the past  
5 15 years, and currently as a principal advisor. Prior  
6 to that, I have worked internationally with Texaco, in  
7 the UK with Hess, and with other consulting companies.

8 The kind of work that I've been doing since I've  
9 been with Gaffney Cline is principally reserves  
10 assessment, competent person's reports, asset valuations  
11 and acquisition and disposal of assets.

12 Q. Could you describe your role in GCA's expert report?

13 A. (By MR GOODEARL) Yes. My role was to review the first  
14 report of Ryder Scott, principally for Tolkyn and  
15 Borankol. So I have been on the project since the  
16 submission of the additional report. I am totally  
17 familiar with what had been done prior, and with GCA's  
18 position with regard to those two assets.

19 Q. I would like to ask a question regarding again  
20 claimants' opening presentation, and here on slide 39  
21 there is the following statement: mapping

22 "Gaffney Cline conducted a 'back of the envelope'  
23 evaluation, with little independent analysis."

24 Do you have any comments on that?

25 A. (By MR GOODEARL) Yes, I most certainly do.

16:03 1                    This comment is sort of consistent also with the  
2                    views expressed during Ryder Scott's testimony that  
3                    Gaffney Cline did not perform any independent assessment  
4                    of the assets.

5                    One thing I want to, I guess, clarify is there is  
6                    more than one way to be able to determine the resources  
7                    associated with oil and gasfields, and it is not  
8                    entirely related to doing an independent assessment.

9                    Ryder Scott have already taken you through the  
10                    methodologies associated with estimating oil and gas in  
11                    place in what we would call a volumetric process. In  
12                    other words, that's where you do seismic interpretation,  
13                    you develop a series of maps, you review the well logs,  
14                    you review the fluid properties, and from that you  
15                    construct sort of a geological model and map for each of  
16                    the reservoirs.

17                    That doesn't tell you the whole picture.  
18                    Ryder Scott have the advantage of having worked with  
19                    these assets for many years; we are aware they did the  
20                    reserves report back in 2006, and we are also mindful  
21                    that the volumes have actually changed since that time  
22                    as well. We are not sure whether their current mapping  
23                    is -- one would presume it goes back to the original  
24                    work that they had done in 2006 and has evolved from  
25                    that. So they have the advantage of having worked with

16:05 1 the assets a lot longer.

2 Coming back to this comment about the  
3 back-of-the-envelope assessment, there are indeed  
4 different ways of assessing reserves, and those have  
5 been discussed as well: material balance, decline  
6 analysis. What we haven't talked about is performing  
7 detailed geological static modelling or dynamic  
8 modelling, but that's beyond the scope of what we are  
9 here to discuss.

10 But as part of the overall process you also have to  
11 do what we call reality checks, and sometimes it is  
12 worth doing a back-of-the-envelope check. Fortunately,  
13 we haven't just done that; we have reviewed and we have  
14 audited the information that we have. Not just the  
15 Ryder Scott maps and data; we have also used also as  
16 a basis for our work the FDP or the field development  
17 plans provided by the reserve institutes in Kazakhstan  
18 and the monitoring reports associated with those.

19 Now, one could argue that these reports do not  
20 conform to the PRMS standards which we are all following  
21 here for this arbitration. We have commented in our  
22 second report how the Kazakh reserve system compares  
23 with the PRMS and situations under which one may be able  
24 to rely on our mapping.

25 So we have used all of this data, and as we go

16:07 1 through and talk about the various assets, we can see  
2 how Gaffney Cline has applied that, and we can also see  
3 where perhaps Ryder Scott has chosen to use one method  
4 as opposed to another, which may be more appropriate for  
5 the work that they are doing.

6 Now, I can sort of carry on and explain where I see  
7 the differences on a field-by-field basis, or I don't  
8 know whether you want to proceed.

9 Q. I think it's fine for now, thank you.

10 A question on compression. It is disputed between  
11 Gaffney Cline and Ryder Scott if and when compression on  
12 the Tolkyn field will be necessary. Could you explain  
13 why it is your position that compression is necessary?

14 A. (By MR GOODEARL) Yes. Again, we did explain this in our  
15 supplementary report.

16 There seems to have been this misconception that  
17 Gaffney Cline is asserting that compression is required  
18 because of the water production issue. It is not just  
19 to do with water, but it is primarily to do with the  
20 declining reservoir pressures and the declining wellhead  
21 pressures.

22 What we also need to understand is that there needs  
23 to be a certain pressure at the wellhead in the field to  
24 be able to deliver the gas through the pipeline to the  
25 gas treatment plant, and then through to the CAC line.



16:09 1           What drives that pressure is ultimately the operating  
2           pressure of the CAC line, which is around 45-50 bar or  
3           45-50 atmospheres. And even without the LPG plant, by  
4           the time you allow for pressure losses through the  
5           system, you would need about a 70 -- I'm trying to  
6           think; that's without compression -- you would need  
7           about a 70-bar pressure at the wellhead.

8           Now, we evaluated the wellhead pressures both at our  
9           effective date of July 2010 and at Ryder Scott's  
10          effective date of October 2008. Back in 2008, the  
11          flowing wellhead pressures were still about  
12          150-200 bars, so there was enough pressure for the gas  
13          to flow through the system. As at July 2010, the  
14          flowing wellhead pressures had dropped significantly and  
15          for a number, for about six wells or so, it was below  
16          100 bar. So already at that time there was a risk of  
17          a number of wells having to be shut in through lack of  
18          pressure.

19          While this problem may not have been evident back in  
20          2008, it should have been, because the wellhead  
21          pressures were already showing significant decline at  
22          the time.

23          With the addition of compression at Tolkyn -- and we  
24          have assumed that we can reduce the suction pressure  
25          down to about 20 bar; that enables the wells to produce

16:11 1 to a much lower pressure. So you won't have to shut the  
2 wells in; you can keep them producing for longer. That  
3 also enables the abandonment reservoir pressure to be  
4 reduced as well, thereby improving recovery.

5 Now, compression was also included in the field  
6 development plan, perhaps for slightly different  
7 reasons, because the field development plan was based on  
8 a much higher offtake rate; and it's coincidental that  
9 in the FDP, the compression was also going to be  
10 required in about 2011/2012.

11 So that's why we consider that compression is still  
12 required, if not now, in the very short term in order to  
13 be able to keep the wells producing.

14 Q. Thank you.

15 In your second report you have challenged the  
16 Ryder Scott production profile for Borankol. Could you  
17 elaborate on the reasons for your challenge?

18 A. (By MR GOODEARL) Well, a lot of it came down to the  
19 back-of-the-envelope check.

20 First of all, it just doesn't really look right. We  
21 understand, we hear what Ryder Scott have done and  
22 indeed we have also checked through the maps, we've  
23 checked through the FDP plan, so we are confident that  
24 there is a requirement for well recompletions and indeed  
25 we have included those.

16:13 1 But where we have a problem is on the volumes of oil  
2 that are attributed to each of those recompletions. The  
3 Ryder Scott report does not break down their forecast  
4 into what we would call a base decline for the existing  
5 wells that were on production as at the effective date,  
6 so that you could then work out what proportion of the  
7 total forecast oil is attributed to those new wells.

8 We tried to make that assessment on the basis of the  
9 oil recovery in the Ryder Scott spreadsheets provided to  
10 us. We are actually comfortable that their assessment  
11 of oil for the existing wells is very close to what we  
12 are forecasting; in fact, I think we are forecasting  
13 slightly more oil. But the difference is on the  
14 recompletions.

15 To try and put it succinctly, the average well  
16 completion to date on Borankol has produced on average,  
17 if you include the forward production for those wells,  
18 it would be about 200,000 barrels per well, which is  
19 more or less the same volume which is attributed to all  
20 the recompletions.

21 Now, Ryder Scott have done an individual  
22 well-by-well, reservoir-by-reservoir analysis, and they  
23 have presented a recompletion programme which looks  
24 reasonably impressive, but at the end of the day it's  
25 impossible to predict when wells will come up to be

16:14 1 recompleted and exactly where they will be recompleted.

2 It is also difficult to judge just from the maps  
3 alone how these wells are going to perform. You have to  
4 look at what the wells have done to date.

5 The main reservoir is the Jurassic U7, as  
6 Ryder Scott have pointed out. That reservoir is under  
7 pressure maintenance through water flood. It is the  
8 only one which has pressure maintenance. They have  
9 produced probably about 50% of the ultimate recoverable  
10 oil, and it's producing at a high water cuff of about  
11 70%.

12 If you look at the other reservoir units, there are  
13 two others that are quite significant; certainly the U1  
14 is one of the bigger ones. But all of these other  
15 reservoirs have also produced. It's not like they're  
16 virgin reservoirs just waiting, just there at their  
17 initial reservoir conditions; they have all been  
18 partially depleted.

19 So, regardless of how clever you might try and think  
20 you are in terms of where you can position your wells  
21 and where you may encounter the thickest oil, you have  
22 to acknowledge that this is a mature field. Your future  
23 wells are not going to produce as well as all the wells  
24 that have been completed to date, including the decline  
25 oil associated with those existing wells.

16:16 1 Q. Thank you. I have a few questions for Mr Wood.

2 Mr Wood, could you please also introduce very  
3 briefly your background and your experience, your  
4 current position?

5 A. (By MR WOOD) My name is Mike Wood. I'm a field  
6 development planning and cost estimating engineer. I've  
7 been doing this for about 35 years in the industry,  
8 working for contractors, consultants, and for periods  
9 with BP, Shell, Statoil. For the last ten years I have  
10 been working with Gaffney Cline, where I am now the  
11 technical director for field development planning.

12 In that period my work typically involves doing or  
13 auditing field development plans and cost estimates as  
14 part of our reserves work; or in valuing a field for  
15 acquisition or for project finance, where I contributed  
16 to the necessary development plans and costs and  
17 economics to bring a field into production.

18 In a previous employer, MAI, which became  
19 IHS Energy, I was responsible, I was the architect and  
20 project manager for development of the QUESTOR project  
21 cost estimating system, which is the industry leading  
22 system used by 200 or 300 oil companies worldwide for  
23 exactly the purpose that I've described: to  
24 conceptualise a field development plan and to estimate  
25 the costs of bringing that to production and

16:18 1 commercialising the field.

2 In the last few years, although I work pretty much  
3 internationally, I have worked for an international  
4 operator on design studies for the Kashagan field.  
5 I did a project for an international banking consortium  
6 valuing Kashagan for project finance. I advised KMG on  
7 their acquisition of 10% of Karachaganak. So I have  
8 a pretty thorough knowledge of developments and costs in  
9 Kazakhstan but throughout the Caspian region.

10 Q. And your role for the two reports submitted by  
11 Gaffney Cline in this arbitration?

12 A. (By MR WOOD) For all of the assets, I have been  
13 responsible for the cost estimates. For block 302 in  
14 particular, I have been involved in defining the  
15 possible development concepts to bring the fields into  
16 production, the cost estimates to do that and the  
17 development schedules to explore, appraise, again  
18 project-sanction and ultimately to develop, particularly  
19 in this case the Interoil Reef.

20 Q. And in terms of cost estimate, what is generally your  
21 basis for the cost estimate of a well?

22 A. (By MR WOOD) We try as a company to follow a process.  
23 What I do on any project is first of all to  
24 conceptualise how something might be achieved, whether  
25 that's a well or a full field development plan.

16:20 1                   The first step is to build what I consider

2                   a plausible cost estimate. It might have a high degree

3                   of uncertainty, but if you have a fixed plan and a cost

4                   associated with that, it's a starting point.

5                   We then endeavour to benchmark that cost, the

6                   estimated cost, against reality; either historical costs

7                   from the same field, or benchmark costs from other

8                   projects where we work.

9                   Of course, we, like Ryder Scott, as reserves

10                  auditors, we treat our clients' data with the utmost

11                  confidentiality, but of course you can't forget things.

12                  So if I learn the cost of a well on Tengiz, I don't

13                  forget it when I come to look at the cost of a well for

14                  a similar development only a few kilometres away.

15                  So we have built -- I have done it all my life; with

16                  GCA in the last ten years -- we've built a very

17                  compressive cost database of projects all over the

18                  world. We don't do this for fun; it is a professional

19                  part of our business. 10% of our staff work in this

20                  area, and we build a profession of knowing what are the

21                  costs either to drill a well or to build a facility or

22                  a pipeline or whatever is needed to bring a project to

23                  commercialisation.

24                  Q. Thank you.

25                  You were criticised in this arbitration by counsel

16:21 1 for claimants that the costs on Borankol changed between  
2 the first and the second report, and that they actually  
3 decreased. Could you explain that?

4 A. (By MR WOOD) It was explained purely in the second  
5 report. In fact, after the first report, when we  
6 received the rebuttals from FTI, we were advised by FTI  
7 that there was actually a sinking fund in place in  
8 administration costs for abandonment. This is pretty  
9 typical in mature fields in Kazakhstan or elsewhere in  
10 Russia. So instead of being faced with a huge amount of  
11 money at the end of a project, the user contributes into  
12 a fund, and that fund is used to abandon, clean up and  
13 make safe the facility at the end of the field life.

14 So, as a result of that, I reduced my cost estimate  
15 for Borankol -- and the other fields, in fact -- by  
16 removing that provision for abandonment costs from the  
17 capex. Therefore the capex went down, particularly on  
18 Borankol, where there was very little capex to start  
19 with, so it was noticeable that the costs had gone down.

20 Q. Thank you.

21 You were also criticised for the fact that the cost  
22 changed between the first and the second report with  
23 regard to the Munaibay Oil discovery. Can you explain  
24 this?

25 A. (By MR WOOD) A big part of that change in costs was, as



16:23 1 my colleague mentioned, we re-evaluated the number of  
2 wells needed to develop Munaibay, based on data  
3 available. So in the first round I did a development  
4 plan with, I think, 60 wells, based on what was actually  
5 a very good assumed well deliverability. On review, we  
6 reduced the well deliverability; that increased the  
7 number of as wells.

8 But I also took the opportunity to look again at the  
9 well costs. It's interesting to note in the FTI report  
10 they state they assume a cost of \$8 million for a well  
11 on Munaibay. I did a bottom-up cost estimate -- that is  
12 my normal way of doing it -- based on the depth of the  
13 reservoir, based on the drilling durations taken for the  
14 nearby Tolkyn fields, based on typical rig rates and  
15 material costs, and I came up with a nominal cost of  
16 about \$13 million for a well, as I said, compared to  
17 \$8 million assumed by FTI.

18 I needed then to benchmark that cost, and through  
19 a lot of research we were able to find in the FTI backup  
20 documents there disclosed the exploration costs for the  
21 Munaibay 1 well. That took over 18 months and amounted  
22 to over \$18 million for a well in the same field.

23 We fully accept FTI's argument that exploration  
24 wells cost more -- typically 25% more -- than  
25 a development well. So taking the \$18 million that was

16:24 1 spent on the Munaibay 1 exploration well, reducing it by  
2 25%, came to \$13-14 million, which was the number I had  
3 estimated using a bottom-up approach.

4 I therefore felt comfortable in using that estimate  
5 as the norm for the wells on the development of  
6 Munaibay Oil, and therefore the costs increased.

7 Q. Thank you.

8 You were also criticised for including \$50 million  
9 of costs for compression on Tolkyn. Can you explain  
10 that number?

11 A. (By MR WOOD) The actual cost of compression used was  
12 \$40 million. The rest of the capex was for  
13 recompletions, where we agreed with the numbers used by  
14 FTI .

15 The need for compression my colleague explained: we  
16 evaluated the declining reservoir pressure and  
17 determined that at around about 2 012 we would need  
18 compression. As Tony said, we needed the gas to be  
19 flowing away from the field at about 70 bar, so that it  
20 would access the CAC pipeline, which runs at about  
21 50 bar. So we came up with a concept of a gas  
22 compression unit which would take wellhead gas at  
23 25 bar, compress it up to 75 bar, and that would  
24 effectively run for the life of the field, allowing much  
25 better depletion of the gas resources down to a much

16:26 1 lower reservoir pressure.

2 Based on those pressures and the declining flow  
3 rate, I calculated the duty of the compressor needed.  
4 Based on that, I used vendor data where we have costs  
5 from compressor suppliers to determine the cost of  
6 purchasing the compressor and then used norms for  
7 Kazakhstan for transporting to the region, installing  
8 the compressor, connecting up with the necessary  
9 pipework, starting and commissioning.

10 So the \$40 million represents a pretty detailed  
11 estimate of what it would take to add this compressor to  
12 keep production at a reasonable level.

13 Q. Thank you.

14 A question on the Interoil Reef. Could you explain  
15 your approach and your findings regarding the  
16 development plan, the cost estimate and the schedule for  
17 the Interoil Reef?

18 A. (By MR WOOD) Certainly, yes. A big part of our business  
19 is to conceptualise how we would develop what is still  
20 a prospect, it hasn't been discovered, but in order to  
21 determine whether it's worth drilling, we conceptualise  
22 how that might be developed.

23 If I may use the sketch board?

24 THE CHAIRMAN: Don't use it too much because we have  
25 problems having that on the record.

16:27 1 A. (By MR WOOD) It will be very simple.

2 THE CHAIRMAN: Okay.

3 A. (By MR WOOD) (Approaches the whiteboard) We have  
4 conceptually the Interoil Reef located 30 kilometres  
5 from Borankol, which is 50 kilometres from the  
6 facilities at Tolkyn. On here we have 48 wells. We  
7 have possibly an 800-bar pressure, very high pressure.  
8 We want to get the gas between the two.

9 We also, based on a most-likely case, have to assume  
10 that there will be high concentrations of H<sub>2</sub>S. It is  
11 more likely that there will be H<sub>2</sub>S than not.

12 So what I assumed in the development plan is we have  
13 a gas plant with separation, gas sweetening and  
14 dehydration, a separate 20-inch gas line, and a separate  
15 10-inch condensate line to deliver the partially refined  
16 products to the existing facilities -- sorry, that's  
17 Borankol, Tolkyn (indicating) -- to the Tolkyn  
18 facilities which are located in Borankol.

19 So I have a development plan, I have a development  
20 concept. Based on that, I've calculated the size of the  
21 pipelines; I have calculated the size of the equipment  
22 for separation and dehydration; I calculated the size of  
23 the sulphur recovery plant. Using all of those and the  
24 estimated cost per well, I put together a total field  
25 development cost estimate.

16:29 1 We used the mid-case. Like any estimate, there is  
2 a range of uncertainty. I took the middle point in the  
3 cost estimate. It probably will have an accuracy in the  
4 order of minus 10 plus 20%; that is in the fullness of  
5 time it may be 10% lower, but it probably also could be  
6 10% higher.

7 That cost was profiled using the development  
8 schedule which I built up using this plan. The  
9 development schedule is presented in the second report.  
10 This assumes a start-up to exploration in 2011 with  
11 seismic acquisition, an exploration well the year after  
12 that, an appraisal well following that -- we need both,  
13 two wells -- then a year of design activities, economic  
14 project sanction and development of the field  
15 development plan which needs to go to the authorities  
16 for approval.

17 Thereafter, it will take about three years to go  
18 through detailed design and construction, both of the  
19 gathering system, the plant and the pipelines  
20 (indicating).

21 If I may, I didn't mention the gathering system. We  
22 have a field which is about 20 kilometres by  
23 10 kilometres. Each well needs a flow line to gather  
24 the gas. This gas is potentially highly corrosive, very  
25 hot, very high pressure.

16:31 1 Just as an example, we would use what is typically  
2 called CRA flow lines; this is corrosion-resistant  
3 alloy. That's an alloy of about 30% nickel and 70%  
4 steel. It costs 20 times more than conventional carbon  
5 steel, so a kilometre of this pipe to buy would cost  
6 half a million dollars. That is necessary. It is used  
7 on Tengiz and Kashagan just to gather this together.

8 The cost for that gathering system in the project  
9 was about \$250 million. My cost estimate for this plant  
10 was about \$400 million, and the pipelines in total were  
11 about \$150 million. This is all in addition to the  
12 estimate of around about \$1 billion for the wells, which  
13 is actually similar ultimately to the estimate that FTI  
14 did for the wells in their scenario.

15 So overall, using the schedule, using the cost  
16 estimate, that gives me the cashflow input which  
17 I provide for economic assessment.

18 So it's a pretty rigorous routine based on the level  
19 of information available. It's pretty well proven in  
20 terms of its functionality and accuracy, and we use it  
21 as a daily part of our business.

22 Q. Okay. You mentioned corrosion-resistant pipeline. Is  
23 that necessary because of H2S?

24 A. (By MR WOOD) It's necessary because of a combination of  
25 pressure, water and H2S; and carbon dioxide, which is

16:32 1           also likely to be present.

2       Q.   You also mentioned the need of an extra pipeline. Why  
3           is an extra pipeline needed?

4       A.   (By MR WOOD) Well, there is a pipeline at the minute  
5           from Tolkyn to Borankol, but it is still transporting  
6           Tolkyn gas. The design rate we have here -- and again,  
7           very similar to that estimated by Ryder Scott -- is  
8           about 10 million cubic metres per day. The Tolkyn  
9           facilities already built here have a capacity of  
10          10 million cubic metres per day, but they are still  
11          processing 3 or 4 million cubic metres per day of Tolkyn  
12          gas .

13                So the same applies for the pipelines. There is  
14                a pipeline here, but there isn't room in it for our new  
15                gas. Otherwise we'd have to shut in Tolkyn production.  
16                So we build a new pipeline.

17                We have to point out the Tolkyn facilities, although  
18                at 10 million cubic metres, are at a similar rate here.  
19                They are not designed for the same level of acid gas  
20                handling; they are not designed for the pressure or for  
21                the temperature that is likely to be prevalent in the  
22                Interoil Reef.

23                Just to put it in context, the Tolkyn facilities  
24                are, we believe, designed to handle 1,000 parts  
25                per million of hydrogen sulphide in the gas. The

16:34 1 production from the Interoil Reef is likely to be in the  
2 order of 100,000 parts per million. So it's a totally  
3 different animal.

4 This at the minute is a simple amine unit, where the  
5 hydrogen sulphide is recovered with an amine stream and  
6 then the pollutant toxic amine stream is disposed of.  
7 Here the quantities are so great that we need  
8 a dedicated system that recovers the hydrogen sulphide.  
9 It then converts it into sulphuric acid and then it  
10 converts it into blocks of sulphur, which you may have  
11 seen in the press that are being produced in Tengiz.

12 At the 10 million cubic metres per day and the 10%  
13 hydrogen sulphide, which is very low compared to Tengiz  
14 but a reasonable assessment, we'd be producing here  
15 about 1,000 tonnes of sulphur every day as a waste  
16 product that has to be disposed of.

17 An immensely complex project. In retrospect,  
18 I think the three years I estimated for construction are  
19 probably a little bit short when you consider the much  
20 simpler LPG plant being constructed took over three  
21 years and it isn't finished.

22 Q. Thank you.

23 A last question: how long would it take to drill  
24 an exploration well to the Interoil Reef?

25 A. (By MR WOOD) We are working on the data provided



16:35 1 initially by Ryder Scott and through our own analysis

2 that the Interoil Reef is situated very deeply.

3 Probably the bottom of the reservoir could be

4 10,000 metres, but actually that's undrillable. The top

5 of the reservoir could be 6,000 or 7,000 metres.

6 Typically an exploration well and a development well

7 will have to penetrate the top of the reservoir and come

8 about midway down. For convenience, if we said, let's

9 say, we were going to drill to 8,000 metres. The Tolkyn

10 wells to, let's say, the order of 4,000 metres are

11 taking about 100-120 days. With the best will in the

12 world, you would double that: let's say 240 days. Add

13 to the complexity of drilling to this sort of depth, the

14 cost of a well: you spend a quarter of the cost on

15 drilling half the well, then three-quarters of the cost

16 in drilling the bottom half.

17 So the first exploration well I would suggest would

18 take probably 11 months or 12 months to drill, including

19 setting the rig up.

20 DR NACIMIENTO: Thank you. I have no further questions.

21 TH CHAIRMAN: Alright. We come to cross.

E

22 (4 37 pm)

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23 Cross-examination by MR SMITH

24 Q. Mr Wood, you gave us a lot of detail that's not

25 reflected in any of the Gaffney Cline reports regarding

16:37 1           how you built cost estimates. Could you point the  
2           Tribunal to anywhere in the record any of the work that  
3           you say you have done is reflected? (Pause)  
4           Do you want me to re-ask the question? I did not  
5           intend to have that effect!  
6           Let me restate my question --  
7    A.    (By MR WOOD) No, I'm happy.  
8           In both reports we presented only summary-level cost  
9           estimates. In the first report, for example, we produce  
10          a table -- sorry, I'm looking at the first report --  
11          a table, appendix 3, table 3. Where for the prospects  
12          in block 302, I provide a breakdown of costs split into  
13          the main project components.  
14          So if we look to the right-hand column, we can see  
15          approximately the numbers I was referring to. That's  
16          appendix 3, table A3.3.  
17    Q.    My question for you is -- it's very nice to have the  
18          summary data -- can you point the Tribunal to where in  
19          this record in this proceeding there is any support for  
20          the numbers that you provided?  
21    A.    (By MR WOOD) I have the support; I haven't provided it.  
22          That's commercially confidential.  
23    Q.    How are we supposed to cross-examine you on whether your  
24          estimates are accurate or not if you've not provided one  
25          scrap of evidence to support any of the testimony you've

16:39 1 just given?

2 A. (By MR WOOD) I would suggest you provide your own  
3 estimate and we'll discuss it. I haven't seen anything  
4 either from either Ryder Scott or FTI as to their  
5 opinion on the cost.

6 Q. So the \$13 million cost estimate is just simply your  
7 statement; you have provided no support for that  
8 estimate. Correct?

9 A. (By MR WOOD) I have told you where I took the analogue  
10 from, which is FTI, and it is a cost estimate. It is  
11 a cost estimate routine, as I said, I use every day;  
12 it's a one-page spreadsheet that is an intrinsic part of  
13 our business, and it's an advantage that we have over  
14 our competitors.

15 Q. You indicated that you had vendor data to support your  
16 compression cost estimate. There is no evidence in the  
17 record of that; correct?

18 A. (By MR WOOD) That's correct. Such data from vendors we  
19 get regularly; it's confidential, I couldn't give that  
20 to anybody. But I do know what a 10-megawatt compressor  
21 costs because I've had a quotation from a vendor before.

22 Q. So you've provided a number, but you've provided no  
23 support for that; correct?

24 A. (By MR WOOD) That's correct.

25 Q. And that's true of all the cost estimates provide by

16:40 1 Gaffney Cline: the Tribunal is simply to take your word  
2 for it because you've refused to provide any backup as  
3 support for your opinions; correct?  
4 A. (By MR WOOD) Yes, take my word against the FTI assumed  
5 costs which they refer to.  
6 Q. Well, let's talk about the assumed costs.  
7 The assumed costs in the FTI report are in fact  
8 based on the historical costs of the operator in the  
9 field operating these fields; correct?  
10 A. (By MR WOOD) That is alleged by FTI. We haven't seen  
11 those original costs either.  
12 Q. Is it your testimony that counsel for the respondent has  
13 not provided you with the backup for the FTI report and  
14 the backup for all of the cost estimates contained in  
15 that report?  
16 A. (By MR WOOD) We have the FTI documentation, their  
17 exhibits and appendices which make reference to  
18 financial statements that were provided to them. We  
19 haven't seen the original financial statements.  
20 Q. Have you asked respondent's counsel to provide you with  
21 those statements?  
22 A. (By MR WOOD) We haven't. We took initially on face  
23 value the information provided by FTI. We assessed it  
24 as to whether we believed it was credible. As I said,  
25 we did an independent cost estimate. Where we agree

16:41 1 with FTI, we've said so; where we don't, we've provided  
2 an alternative version of our estimate.

3 Q. When you say you've done an independent cost estimate,  
4 you've provided the Tribunal with some numbers, but  
5 you've provided the Tribunal with no support whatsoever  
6 in the form of any form of document or evidence in  
7 support of that number; correct?

8 A. (By MR WOOD) There is some support. There is  
9 a description of the field development plan I assumed,  
10 in terms of flow rates, distances, pipeline lengths and  
11 diameters, and numbers of wells.

12 Also you can determine, for example, that we have  
13 quoted the number of wells we have used and we have  
14 quoted the total cost. So the cost per well would be  
15 readily apparent.

16 Q. This cost estimate that you drew on the board and  
17 described quite eloquently, there's no support for that;  
18 correct? There's nothing in the record to support that?

19 A. (By MR WOOD) There's nothing in the record. There is  
20 a very detailed amount of work that I did to arrive at  
21 it.

22 Q. But you've not shared that with -- have you shared that  
23 with respondent's counsel?

24 A. (By MR WOOD) No, I haven't. I've provided the summary  
25 results, just like we provide our summary report.

16:42 1 MR SMITH: Okay, thank you. We have some notebooks, before

2 we move on.

3 Mr Chairman, while we are doing that, I'll make  
4 an objection for the record. The Tribunal has very  
5 clearly ordered in its procedural order and reminded  
6 respondent -- because the respondent had not done it in  
7 the first instance -- to produce all materials relied  
8 upon by its experts in providing their opinions.

9 Clearly that's not been done with respect to  
10 Gaffney Cline's opinions, at least as it relates to  
11 costs, and therefore we are significantly hampered in  
12 our ability to cross-examine on those costs when the  
13 information is being withheld from us.

14 You have before you, gentlemen, two binders.  
15 Volume 1 includes tabs 1, 2 and 3: tabs 1 and 2 are the  
16 Gaffney Cline report and supplemental report; tab 3 is  
17 a field development plan. And then your second binder,  
18 which is the thicker binder, are the remainder of the  
19 materials that we might cover this afternoon.

20 I'd like to talk for just a moment about  
21 Munaibay Oil. Some of this was covered in the direct  
22 examination.

23 It is correct, is it not, that GCA, between its  
24 first and second reports, has reduced the volume  
25 estimates that would be produced from the Munaibay field

16:44 1 from 41.6 million barrels to 29.8 million barrels?

2 Correct?

3 A. (By DR WRIGHT) We've reduced the numbers, certainly.

4 I can't --

5 A. (By MR WOOD) Sorry, can you repeat that?

6 Q. Alright. Let me direct you to your first report and the

7 appendices, and we will be looking mostly at those

8 appendices for the next few minutes.

9 We are looking first at tab 1, GCA first report,

10 table AIII.9, which is near the end of that report.

11 It's entitled "Munaibay Contingent Oil Discovery". Tell

12 me when you have that in front of you.

13 It's the Gaffney Cline first report, which is behind

14 tab 1. It's [table] AIII.9 and in appendix III.

15 Unfortunately the pages are not numbered, or I would

16 direct you to a page number.

17 Gentlemen, while the Tribunal is looking for that

18 table, I will also refer you to your second report with

19 respect to Munaibay Oil, and that is table AIII.4, which

20 also appears in the appendix. It is tab 2 in your

21 binder.

22 I just simply want to confirm for the record that

23 between GCA's first report and second report, it has

24 reduced the volume of oil that is to be recovered from

25 41.6 million barrels to 29.8 million barrels. Is that

16:46 1 correct?

2 A. (By DR WRIGHT) That's correct.

3 Q. And the only basis that is stated by Gaffney Cline for  
4 providing that revision is in the Gaffney Cline second  
5 report at page 26, which is behind tab 2,  
6 paragraph 123 -- I'll ask if you will look to that for  
7 just a moment -- wherein you state in the first  
8 sentence:

9 "GCA has adjusted its assessment of the Munaibay Oil  
10 discovery based on further analysis of well  
11 performance."

12 Do you see that?

13 A. (By DR WRIGHT) Yes.

14 Q. Okay. And you are referring to the well performance  
15 data from the exploratory well that was drilled on the  
16 Munaibay Oil prospect; correct?

17 A. (By DR WRIGHT) That, and also additional understanding  
18 of the analogue reservoirs in the adjacent field.

19 MR HAIGH: Sorry, I can barely hear you.

20 A. (By DR WRIGHT) Sorry.

21 It's based on that and an improved understanding of  
22 the performance in the adjacent fields, especially in  
23 the Tolkyn Triassic reservoirs, that we did and we  
24 realised following review and comments of the rebuttal  
25 document from Ryder Scott.



16:48 1 MR SMITH: Okay. And that's all information that you had  
2 available to you when you prepared your first report;  
3 correct?

4 A. (By DR WRIGHT) Yes. As I say, we reviewed the data  
5 again, following some discussion, and we compared --  
6 looked at the results and the responses that came from  
7 Ryder Scott, we looked at everything, and we looked at  
8 that and realised that there may be some issue; that our  
9 numbers were significantly more optimistic than those  
10 prepared by Ryder Scott on a per-well basis, on  
11 a recovery-per-well basis.

12 So we reviewed and checked and found that we had  
13 been overly optimistic, and therefore we revised our  
14 estimate to reflect both the new understandings -- not  
15 new data, it's new understanding -- and a more detailed  
16 evaluation.

17 Q. Okay. But in fact Ryder Scott's estimate of total  
18 recoverable oil from Munaibay was higher than even your  
19 first estimate; correct?

20 A. (By DR WRIGHT) That may be the case, but it's on the  
21 basis of the number of wells and the volume recovered  
22 per well. This is again some of the checks that Tony  
23 talked about earlier. Unfortunately this is one that we  
24 failed to see on our first pass, but we have been  
25 through all of the subsequent work to check, and we

16:49 1 believe this is a more true reflection of what could be  
2 expected from this.

3 Part of the difference is that the initial well  
4 dataset that was chosen as analogues included more wells  
5 from the Borankol field, which is significantly  
6 shallower, and the well performance there is better than  
7 the more deeply buried reservoirs at both the Tolkyn  
8 field and at the Munaibay discovery.

9 Q. Thank you for that answer. Now, my question to you is:  
10 where in the record can you point the Tribunal to any of  
11 the analysis that you performed? Have you produced any  
12 written analysis of this, or is this just an opinion  
13 that's expressed in one or two sentences?

14 A. (By DR WRIGHT) It is reported here in our report only.

15 Q. You've produced no data, no written support, no  
16 modelling, no analyses whatsoever; is that correct?

17 A. (By DR WRIGHT) No.

18 Q. That's true for all of your reserve estimates. You  
19 produced nothing to support the estimates contained in  
20 this report; is that correct?

21 A. (By DR WRIGHT) That's correct.

22 A. (By MR GOODEARL) When you say "in the report", we had  
23 provided some data with respect to the Borankol.

24 THE CHAIRMAN: Could you speak up.

25 A. (By MR GOODEARL) We had provided some information at

16:50 1 least on Borankol, and I can't speak for what other  
2 assets we may or may not have provided information on.  
3 MR SMITH: Thank you. And we'll come back to Borankol.  
4 But with respect to all of the other production  
5 estimates that have been provided or reserve estimates,  
6 the Tribunal is left to take your word for it because  
7 there is no support that's been provided in any writing,  
8 no analysis that's been provided in any writing, and  
9 nothing upon which you can be cross-examined regarding  
10 your opinions; correct?  
11 A. (By DR WRIGHT) Would you like to answer that question?  
12 A. (By MR GOODEARL) Well, I don't agree with that. In  
13 terms of what we are able to be cross-examined on,  
14 I think you have to take a view on what you can and  
15 cannot cross-examine us on. We have provided in good  
16 faith what we consider to be appropriate information in  
17 the report to be able to substantiate the work that we  
18 have done and our professional opinions.  
19 Q. You've stated, for example, that you performed a decline  
20 curve analysis. Other than making that statement,  
21 you've produced no support to suggest that that decline  
22 curve analysis exists in any model or any document upon  
23 which you can be cross-examined; correct? And I am not  
24 questioning, sir, your good faith. My question to you  
25 is: you have provided no supporting materials for your

16:52 1 opinions; correct?

2 A. (By MR GOODEARL) I can only comment on what has been  
3 provided in support of the GCA supplemental report.

4 I cannot comment on what has been provided with respect  
5 to the GCA first report.

6 Q. With respect to Munaibay Oil, you've reduced your  
7 reserve estimate by 29% and you've increased your well  
8 count estimate by over 300%, from 12 wells to 52 wells;  
9 is that correct?

10 A. (By DR WRIGHT) Yes, I believe that to be correct.

11 Q. Then you assume per-well cost of \$13.8 million; is that  
12 correct.

13 A. (By MR WOOD) We estimated \$13.8 million.

14 THE CHAIRMAN: Speak up.

15 A. (By MR WOOD) We estimated \$13.8 million.

16 MR SMITH: And there's no backup in the record for that  
17 estimate; it's just a number that's been put on the  
18 page. Correct?

19 A. (By MR WOOD) That's correct.

20 Q. With respect to well allocation costs, if we can look at  
21 Gaffney Cline 2, which is behind tab 2 at page 27, and  
22 I will direct you to the chart that appears at the top.  
23 It's under the sentence:

24 "The revised Munaibay Oil Drilling Schedule is shown  
25 below."

16:53 1 Do you see that?

2 A. (By MR WOOD) Yes.

3 Q. You see that between 2019 and 2022, so the last four  
4 years of the licence, you project the drilling of  
5 16 wells; correct?

6 A. (By MR WOOD) Yes. That's ...

7 Q. At roughly \$13.8 million estimate per well, my  
8 calculation, that's roughly \$220 million; correct?

9 A. (By MR WOOD) Yes.

10 Q. Now, I'll ask you to look at Gaffney Cline 2,  
11 appendix AIII.4 which we were looking at a moment ago.  
12 This is "Munaibay Oil Discovery", oil in barrels, if  
13 you'll take a moment to flip back to that. Are you  
14 there?

15 A. (By MR WOOD) Yes.

16 Q. And if you look under capex -- and development well cost  
17 would be capital expenditure; correct?

18 A. (By MR WOOD) Yes.

19 Q. And you look at the years 2019-2022 where you have  
20 16 wells being drilled; do you see that?

21 A. (By MR WOOD) Yes.

22 Q. You see no capital cost; correct?

23 A. (By MR WOOD) Not at that time, no.

24 Q. So you've accelerated \$220 million plus of capital costs  
25 into the earlier years; correct?

16:55 1 A. (By MR WOOD) It does look on inspection that that is the  
2 case.

3 Q. Do you know the impact that the acceleration of capital  
4 cost has on a DCF model?

5 A. (By MR WOOD) I am very well aware of that, yes.

6 Q. So the DCF model prepared by Deloitte, depending upon  
7 your appendix to your second report, obviously  
8 overstates capital cost in earlier years and therefore  
9 deflates the value of my client's business; correct?

10 A. (By MR WOOD) Yes, it does appear that I have continued  
11 the cost profile at six wells per year rather than  
12 dropping to four, and have chopped it off four years  
13 early.

14 Q. Let's talk a moment about production from those Munaibay  
15 wells. At GCA -- let me just ask you this, and we can  
16 confirm it if need be. But it's the opinion of  
17 Gaffney Cline that Munaibay Oil was relatively easy to  
18 develop, similar to Borankol and Tolkyn; correct?

19 A. (By MR WOOD) In terms of development, yes, we have  
20 assumed the wells are tied back to existing facilities,  
21 so the capex is essentially for wells, with the  
22 exception of the gathering system and a pipeline.

23 Q. Then you project, if we look at Gaffney Cline 2 behind  
24 tab 2 at page 20, there's a table that is "Comparison of  
25 Block 302 Drilling Plans", and that's the drilling

16:57 1 schedule comparison for Ryder Scott and Gaffney Cline.

2 Do you see that? Are we on the same page? Are you with

3 me?

4 A. (By MR WOOD) This is table 1; yes?

5 Q. Yes, table 1 on page 20 of your second report. And

6 I will ask you if you will look at the years, under the

7 Gaffney Cline schedule, Munaibay Oil beginning year 2010

8 through 2013. You see that you project 1 plus 5 --

9 that's one appraisal well and five development wells;

10 correct? -- in 2010; is that correct?

11 A. (By MR WOOD) Yes.

12 Q. And then six wells in 2011, 2012 and 2013; correct?

13 A. (By MR WOOD) Yes.

14 Q. So you are projecting a total of 24 wells, 23 of those

15 development wells, by the end of 2013; correct?

16 A. (By MR WOOD) Yes.

17 Q. If you'll look back to your table in your report again

18 at table AIII.4 for Munaibay Oil. Tell me when you're

19 there.

20 A. (By MR WOOD) Yes.

21 Q. You see years 2010, 2011, 2012 and 2013. Would you tell

22 the Tribunal how much oil you are projecting will be

23 produced by these 24 development wells?

24 A. (By MR WOOD) There is none.

25 Q. So you've got 24 development wells and all of the cost

16:58 1 built into your programme, and you've got no oil coming  
2 out of the ground; correct?

3 A. (By MR WOOD) The cost you will see there in 2010 and  
4 2011 are essentially the exploration costs and the  
5 preparatory costs. The period 2012 and 2013 here is  
6 assumed to be the construction of the gathering system  
7 and the flow line. We are admittedly drilling wells or  
8 pre-drilling wells so that there is well collection  
9 available for when the facilities are complete.

10 So the time delay is nothing to do with the wells;  
11 there are wells available, but the pipeline isn't built  
12 and the gathering system isn't built.

13 Q. You said the project was relatively easy to develop;  
14 right?

15 A. (By MR WOOD) Indeed.

16 Q. That's right?

17 A. (By MR WOOD) Yes.

18 Q. Have you ever heard of an oil company actually trucking  
19 oil from wells while it builds its gathering system?

20 A. (By MR WOOD) It's potentially viable. I wouldn't like  
21 to comment in this terrain whether it is. But it is  
22 potentially viable.

23 Q. But you've got 24 wells of capital cost loaded into what  
24 has now become the DCF of Deloitte, and you've got my  
25 client getting no credit for oil production even though



17:00 1 it's not at all extraordinary in your experience, is it,  
2 that until you build your gathering system, you  
3 transport the oil by truck? You know that's done all  
4 over the world.

5 A. (By MR WOOD) At the acceptable volumes and in  
6 an acceptable terrain.

7 Q. Do you have any view -- I assume not -- as to whether  
8 this is acceptable terrain? It is relatively flat; you  
9 can drive a truck on it, can't you?

10 A. (By MR WOOD) Yes. Bear with me a second, please.

11 Q. Sure .

12 A. (By MR WOOD) As we mentioned in the possible development  
13 plan for the field, we have estimated a peak rate of  
14 about 7,000 barrels a day. That obviously doesn't come  
15 on immediately.

16 There is potential to truck small volumes; it would  
17 be nowhere near the volumes we've talked about here. We  
18 obviously need to consider the seasonal impact, where we  
19 are aware from reports by TNG of seasonal flooding; we  
20 obviously are aware of extremely harsh climate in the  
21 winter.

22 I would admit that it is possible, but it wouldn't  
23 be a chosen --

24 Q. If your assumption is correct --

25 A. -- development plan.

17:01 1 Q. I apologise.

2 If your assumption is correct, it would take longer  
3 to build the field gathering system for Munaibay Oil  
4 than it would to do the InterOil Reef system; correct?  
5 Because you've got four years of construction out there  
6 with 24 wells pumping away.

7 A. (By MR WOOD) No, here we have effectively two years of  
8 construction. What you will see on the table, in 2010  
9 and into 2011 we've made a provision for the additional  
10 Munaibay 2 well which has been discussed. Only at the  
11 end of that period would you actually make a decision  
12 whether the field was commercially viable and to go  
13 ahead with it.

14 We have allowed in that that therefore, starting  
15 early 2012, there is a period to design the facilities  
16 and then, taking that into account, a period of about  
17 18 months to build the flow lines, connecting the wells  
18 that are already drilled and building what is about  
19 a 15-20-kilometre production line.

20 So in that regard it's a reasonable estimate.

21 Q. Just so it's clear, you are assuming 2010 because that  
22 is your valuation date; in other words, our clients  
23 could have started this work in late 2008/early 2009 and  
24 that would accelerate that entire schedule by that  
25 period of time; correct?

17:03 1 A. (By MR WOOD) There's two parts to that. One is the  
2 application for an extension to the licensing period,  
3 where the Munaibay 2 well it is mentioned will not be  
4 completed until the first quarter of 2011, and therefore  
5 that has an impact. That is in the work plan and  
6 budget, where the Munaibay 2 well is started in 2010  
7 and, I believe, completed in the first quarter of 2011.

8 Q. Let me turn my attention for a moment to the  
9 Interoil Reef. You were asked some questions about that  
10 on your direct examination.

11 You were in the room, I believe, for the discussion  
12 of the 3D seismic. I wasn't going to come back to this,  
13 but counsel has asked you questions about it, so let me  
14 just cover a couple of things.

15 You acknowledge, do you not, that in the  
16 Gaffney Cline second report both at paragraph 89, which  
17 appears on page 20 --

18 DR NACIMIENTO: Counsel, I think we agreed to exclude this  
19 issue from this hearing. My question was a general  
20 question referring to the difference between 2D and 3D.  
21 I was not referring to the issues of the specific 3D  
22 that we objected to.

23 MR SMITH: Okay. Let me ask my questions and then if you  
24 think I've run afoul, we can talk about it. I thought  
25 your questions were fairly extensive on it.

17:04 1 On page 20 at paragraph 89, you indicate in the

2 second sentence:

3 "Part of the structure is covered by the northern  
4 fringe of the Munaibay 3D seismic survey; however, this  
5 is not optimally located for well planning purposes."

6 Do you see that?

7 A. (By DR WRIGHT) Sorry, could you repeat the number?

8 Q. Yes. The question is at paragraph 89 -- just tell me  
9 when you're there.

10 A. (By DR WRIGHT) Yes, I've got that.

11 Q. Okay. Second sentence, it says:

12 "Part of the structure is covered by the northern  
13 string of the Munaibay 3D seismic survey; however, this  
14 is not optimally located for well planning purposes."

15 Do you see that?

16 A. Yes .

17 Q. Okay. Then in paragraph 113 in your parenthetical, at  
18 page 24, you state:

19 "Partial 3D seismic coverage already exists over the  
20 southern flank of the InterOil Reef)."

21 Do you see that?

22 A. (By DR WRIGHT) Yes.

23 Q. And how did you become aware of the existence of that  
24 3D seismic for the InterOil Reef?

25 DR NACIMIENTO: Counsel, this is exactly what I referred to

17:05 1 this morning. I mentioned that there is a reference to  
2 3D in the report, I explained where this reference is  
3 from, and it was decided to exclude this issue from this  
4 hearing.

5 MR SMITH: I'm not asking --

6 DR NACIMIENTO: I object to your question.

7 MR SMITH: I'm not asking about interpretation of any

8 3D seismic. I am simply asking the witnesses when they  
9 became aware --

10 TH CHAIRMAN: I do agree that it is part of the dispute  
E  
11 that we had before. So I would ask you to just move on  
12 from there.

13 MR SMITH: Let's talk about 3D more generally then, based on  
14 the questions you were asked this morning. I just want  
15 to make sure that we understand the testimony.

16 You do give opinion testimony that you think,  
17 notwithstanding the existence of 3D seismic -- although,  
18 as counsel has said, you have not seen it -- you think  
19 that additional seismic data would be needed. Is that  
20 your opinion?

21 A. (By DR WRIGHT) I do, because the data that was used to  
22 evaluate the Interoil Reef as we have reported it, based  
23 on the 2D seismic dataset, that data consists of several  
24 legacy -- or several vintages of seismic data shot in  
25 a number of orientations, and the quality of the image

17:07 1 on that seismic data is variable. In fact, in some  
2 lines it's incredibly difficult to even see what the  
3 Interoil Reef may be.

4 Q. Can I --

5 A. (By DR WRIGHT) If I can continue. I was just going to  
6 say --

7 Q. I just want you to answer my question.

8 A. (By DR WRIGHT) Therefore, I do not believe that  
9 a prudent operator could identify the optimal location  
10 to drill on the Interoil Reef without 3D seismic  
11 coverage, to identify both the location but also to plan  
12 the safe execution, in the knowledge that these types of  
13 features in this area commonly contain high quantities  
14 of sour gas.

15 Q. I understand. But my question was: you acknowledge in  
16 your report the existence of 3D; you then give  
17 an opinion, having apparently not reviewed any of that  
18 3D, that you think additional 3D is needed. What's the  
19 basis for that opinion?

20 A. (By DR WRIGHT) That is --

21 Q. You've not seen the 3D.

22 A. (By DR WRIGHT) This is where I think we -- excuse me,  
23 Mr Chairman, I am struggling.

24 The image that was shown, and that counsel for the  
25 claimants has shown, was obtained by Gaffney Cline

17:08 1 during a site visit to the field where we were presented  
2 with that image. We have not seen the data. That image  
3 says, I think it says "3D, 270 square kilometres".  
4 There is perhaps, in my experience, only one inference  
5 for that, and that is that there is a survey there.

6 There is on that same map an outline of the  
7 Interoil Reef which is derived from the 2D  
8 interpretation geometries. That clearly shows that the  
9 2D interpretation extends beyond the outline of the 3D.  
10 Therefore, there is not full coverage of the  
11 2D geometry, and therefore it would be unwise to drill  
12 on there, and also to know whether you have a structure  
13 to drill.

14 That is the sole reason I have said 3D data should  
15 be acquired to full coverage: so you optimally know  
16 where to locate that well.

17 Q. Okay. But the fact --

18 THE CHAIRMAN: I suggest if you want to discuss 3D in  
19 general, that's okay, but as soon as we get into the  
20 sources, I would --

21 MR SMITH: I understand that, Mr Chairman. Just to be  
22 clear, the only reason for my question is we've learnt  
23 today that Gaffney Cline is aware of the existence of  
24 3D; we've learnt today that they've not seen the data;  
25 yet Gaffney Cline renders an opinion in their report

17:09 1 that additional 3D would be needed which is critical to  
2 their timeline to get us outside of the extension  
3 period.

4 But having never seen the 3D, how can you have that  
5 opinion? "We don't know" is the answer, until you  
6 review it correctly.

7 A. (By DR WRIGHT) My view is based solely on the geometric  
8 images shown upon the map that was presented earlier:  
9 that the area that both Gaffney Cline and Ryder Scott,  
10 in my opinion, have evaluated as the Interoil Reef  
11 extends beyond the area of the coverage. I have no idea  
12 of the quality of that 3D coverage.

13 But my experience over more than 25 years of  
14 exploration activity is that a prudent operator would  
15 not drill such a feature, with potentially extreme  
16 pressures and toxic gases, without acquiring the best  
17 possible dataset on which to make its assessment.

18 Q. I appreciate that. But the fact is that's for the  
19 operator to decide; correct? Yes or no?

20 A. (By DR WRIGHT) It is.

21 Q. Now, let me take you -- let's talk for a moment about  
22 the extension request as to contract 302 and the minimum  
23 work programme. Look at, if you would -- and I'm not  
24 sure who's appropriate to address this -- GCA 2, your second  
25 report,  
page 18, paragraph 79, where it states:



17:11 1 "GCA acknowledges that this may be a minimum work  
2 programme designed to obtain the licence extension,  
3 however, GCA believes that it more accurately reflects  
4 what could have been achieved in this time period."

5 When you state that "GCA acknowledges that this [is]  
6 a minimum work [plan] designed to obtain the licence  
7 extension", you mean that it may not reflect all of the  
8 work that the operator ultimately plans to do, but it is  
9 the bare minimum necessary to obtain the extension;  
10 correct?

11 A. (By DR WRIGHT) Absolutely. It's common, I think,  
12 amongst operators, to attempt to maximise the  
13 flexibility by obtaining the licence with a minimum work  
14 programme. That's why it's called such a feature.

15 However, we see what activity has been done  
16 historically, the time for wells to be drilled, and it  
17 was our evaluation that the work programme in the  
18 minimum work programme would have taken most of that  
19 time to achieve, and therefore additional activity would  
20 either have to run in parallel or delay the -- or  
21 require further time.

22 There has been limited -- I don't think there is any  
23 evidence of parallel exploration activity on the block  
24 in the history of the licence.

25 Q. Okay. You confirm, do you not, that work programmes for

17:12 1 exploration can be changed; correct? You state that in  
2 your first --  
3 A. (By DR WRIGHT) Yes.  
4 Q. You would agree, would you not, that if TNG in this case  
5 were interested in exploring the Interoil Reef before  
6 the expiration of contract 302 in 2011, it would have  
7 had an incentive to try to drill that well as soon as  
8 possible; correct?  
9 A. (By DR WRIGHT) Absolutely.  
10 Q. Now, you also know, do you not, that the minimum work  
11 plan that was provided for the contract 302 extension  
12 included a 6,000-metre well at the Munaibay 1 well;  
13 correct?  
14 A. (By DR WRIGHT) That was the completion of the Munaibay 1  
15 well to its planned TD, 6,000 metres.  
16 Q. But the Munaibay 1 well, the minimum work plan that was  
17 provided with the application contemplated completing  
18 the drilling of the Munaibay 1 well to a depth of  
19 6,000 metres; correct?  
20 A. (By DR WRIGHT) It did. I'm sorry, I can't remember the  
21 details of this, but I also believe within the  
22 programme, it was not going to reach that depth. I'd  
23 have to check.  
24 Q. What's the basis for that statement?  
25 A. (By DR WRIGHT) In the minimum work programme that was

17:14 1 submitted, there was an indication of the time and depth  
2 that they would reach the wells within those periods,  
3 and I can't remember that.

4 Q. Let's have a look at that. The second binder at tab 8;  
5 that's C-67. This is the October 14th 2008 application  
6 by Mr Cojin on behalf of TNG to the MEMR. Do you see  
7 that?

8 I would ask first that you look to the actual work  
9 programme; you will see the schedule, it's broken down  
10 by period. Just tell me when you're there.

11 A. (By DR WRIGHT) Yes.

12 Q. So from March 31st 2009 to December 31st 2009, do you  
13 see under the "physical terms" column: Munaibay 1,  
14 planned depth 6,000 metres? Do you see that?

15 A. (By DR WRIGHT) I do.

16 Q. You see that the plan is to drill 5,200-6,000 metres --

17 A. (By DR WRIGHT) Sorry, I was in error. It was the  
18 Munaibay 2 well that I was remembering.

19 Q. Okay. So under the minimum work programme that was  
20 provided by TNG in connection with its extension  
21 request, it specifically requested as part of that  
22 programme to complete the Munaibay 1 well to  
23 6,000 metres; correct?

24 A. (By DR WRIGHT) That's correct.

25 Q. Then if you will look at the cover explanatory note, two

17:15 1 pages before, that Mr Cojin signed, and I direct your  
2 attention to the third paragraph. Just tell me when you  
3 are there.

4 A. (By DR WRIGHT) Yes.

5 Q. You will look at the second sentence, about five lines  
6 down, it says:

7 "However, it is necessary to continue geological  
8 exploration operations since by 30.03.2009, 2 deep  
9 exploration wells, one of which -- well No. 1 Munaibay  
10 is ultradeep and also is the discoverer of Hydrocarbon  
11 reservoirs  
12 in oversaline Jurassic and Triassic deposits will be  
13 under construction."

14 Skip down to the third full paragraph, second  
15 sentence: it indicates that they will be drilling two  
16 deep exploration wells, including the Munaibay 1. Do  
17 you see that?

18 A. (By DR WRIGHT) Yes.

19 Q. And it's described as an "ultradeep" well; do you see  
20 that?

21 A. (By DR WRIGHT) Yes.

22 Q. Then in the sentence below it, it says:

23 "There is a high probability of discovering new deep  
24 subsalt horizons with oil-and-gas saturation."

25 Do you see that?

26 A. (By DR WRIGHT) Yes.

17:17 1 Q. If you go to the next full paragraph, it says:

2

3 "It should be mentioned that drilling of well No.1  
4 Munaibay has a huge scientific purpose for the study of  
5 high-perspective deep horizons in Pre-Caspian area of  
6 Western Kazakhstan which was interrupted about 20 years  
7 ago and may be resumed only now. Discovery of new HC  
8 deposits on depths of over 5-6 km will give a huge  
9 impetus for exploration works by other subsoil users in  
10 this area ..."

11 Then you will see in the last sentence it refers to:

12 "... discovery of large deeply submerged reef fields  
13 of the type Tengiz and Kashagan."

14 Do you see that?

15 A. (By DR WRIGHT) Yes.

16 Q. That is a reference to the Interoil Reef; correct?

17 A. (By DR WRIGHT) Yes, I believe so. No, actually, in the  
18 interpretation that I have, based on the 2D data -- and  
19 also, I believe, in the Ryder Scott reports and  
20 documentation that they provided -- deepening the  
21 Munaibay 1 well to 6,000 metres would still leave that  
22 well 3,000 metres above the top reservoir in the  
23 Interoil Reef, as they mapped in their evaluation based  
24 on the 2D data.

25 Q. Okay. Maybe we can cover that in the conference, and

I think Ryder Scott has a view on that. But my --

17:18 1 A. (By DR WRIGHT) So in my opinion, if that's correct, then  
2 drilling through that section would add, yes, interest,  
3 but would have no direct impact on the assessment of the  
4 potential of the Interoil Reef.

5 Q. If you look at the 3D seismic, there is every  
6 possibility you could be wrong; correct?

7 A. (By DR WRIGHT) I have not seen the 3D seismic; I cannot  
8 offer an opinion.

9 Q. Okay. Let me just ask this question, not about the  
10 3D seismic. But TNG clearly was of the view that by  
11 being granted exploration rights to drill to  
12 6,000 metres as part of this application, it would be  
13 penetrating the Interoil Reef. Whether it was right or  
14 not, that is very clearly described in the explanatory  
15 note we just saw; correct?

16 A. (By DR WRIGHT) Well, it doesn't mention the  
17 Interoil Reef by name; it talks about "pre-salt  
18 reservoirs". And yesterday we heard that the  
19 Munaibay 10 well, which is not far away, had drilled to  
20 almost 6,000 metres and had not encountered the  
21 Interoil Reef or anything approximating the  
22 Interoil Reef.

23 Q. Okay, I think we've done enough on that. Thank you.

24 Do you recall producing, only when requested by  
25 counsel for the claimants, but there were certain

17:20 1 support materials that were ultimately produced in late  
2 December, almost all of which were in the Russian  
3 language, much electronic data?

4 Do any of you read Russian?

5 A. (By DR WRIGHT) I don't read Russian. Well, I don't read  
6 or speak Russian. Working in Russian data allows me to  
7 have an appreciation. We have Russian colleagues, who  
8 assist us in the translation of key technical data.

9 Q. Did they do that in connection with this case?

10 A. (By DR WRIGHT) They did.

11 Q. Okay. Do you recall seeing in any of those materials or  
12 having translated for you in any of those materials  
13 a document entitled "Drilling and Testing Programme,  
14 Well Munaibay 1"?

15 THE CHAIRMAN: We have to make sure it is part of the file.

16 MR SMITH: It has been produced only in the Russian language  
17 as support for GCA's work. It has not been translated.  
18 It is not in the record, in the sense that the  
19 respondent has produced no supporting materials in the  
20 record for Gaffney Cline's work, but apparently it  
21 supports the opinions that they've given in the case.

22 I guess my only question -- perhaps this will be  
23 short -- is: do you recall ever seeing a document  
24 entitled "Individual Technical Project for Construction  
25 of Exploration Well No. 1 at Eastern Munaibay Plot",

17:21 1           dated in 2007?

2     A.   (By DR WRIGHT) Obviously I'm aware of all of the data we  
3        have received, and the title may get changed in  
4        translation or may not even have been translated.  
5        Without inspection, I would not be able to --

6     Q.   Well, let me ask this, and maybe we can short-circuit  
7        this: do you recall being informed by your translators  
8        that there were documents in the materials that you've  
9        now produced to the claimant with respect to the  
10       Munaibay 1 well that indicate an intention to drill to  
11       the reef structure with that well?

12    A.   (By DR WRIGHT) I'm not aware that it mentions the  
13        indication to drill to the reef structure. To  
14        6,000 metres, I believe it does. But that might be the  
15        certain parts of it I am not familiar with.

16    Q.   Would the reef structure be referred to as  
17        a "carboniferous carbonate formation"?

18    A.   (By DR WRIGHT) That is a very generic term that could  
19        imply a reef. It could also imply a stratiform body; in  
20        other words, a layer. So I don't believe it is  
21        necessarily strictly analogous.

22    Q.   Well, let me ask you this: of all of the  
23        Russian-language materials, the variety of materials  
24        that were provided to us electronically by counsel for  
25        the respondent, did Gaffney Cline have the benefit of



17:23 1 translations of any of those materials?

2 A. (By DR WRIGHT) As I said, my colleagues, we have  
3 Russian-speaking colleagues translate key parts of it.  
4 But as the translation is not -- they are not  
5 professional translators, we don't use that as a -- it's  
6 not something that we do as a profession.

7 Q. Okay. You've produced no English translations of those  
8 materials; correct?

9 A. (By DR WRIGHT) No.

10 Q. That's a "no"?

11 A. (By DR WRIGHT) Tables will have been transcribed and key  
12 intervals will have been translated, but we would not  
13 feel comfortable in guaranteeing the absolute vocabulary  
14 between the two.

15 Q. For example, you have included an opinion in your report  
16 that the minimum work plan that was provided by TNG was  
17 not designed to intersect the Interoil Reef; but, if I'm  
18 understanding your testimony correctly, the supporting  
19 materials that you provided in Russian language you've  
20 not reviewed, you don't know whether those materials  
21 would contradict that. Correct?

22 A. (By DR WRIGHT) In my understanding, mapping of the data  
23 provided, the 2D seismic, drilling to 6,000 metres at  
24 the Munaibay 1 location would not intersect or penetrate  
25 the Interoil Reef, as we have and as I believe

17:24 1           Ryder Scott have defined in our written testimonies.

2           Therefore I don't believe the results would have had

3           an impact on the Interoil Reef.

4    Q.   Let me ask you one last question, and that is: if you

5           are wrong about that -- and you may not be, but assuming

6           you're wrong about that -- and assuming that TNG had

7           been permitted to drill to the cap at the Interoil Reef

8           and had made a hydrocarbon discovery as part of the

9           extension, you would agree with me that if they had made

10          a hydrocarbon discovery, it would change your GCOS

11          assumption from 4% to 100%; correct?

12   A.   (By DR WRIGHT) That's correct.

13   Q.   On the LPG plant I just have a few questions --

14   THE CHAIRMAN: Mr Smith, let me just find out how long you

15          will still take, because we are at 5.30.

16   MR SMITH: I probably have 3 0 more minutes.

17   THE CHAIRMAN: It is probably better to continue today and

18          finish that. As far as the conferencing is concerned,

19          we will have to push that to tomorrow morning anyway.

20          But I think this half-hour, if our interpreters and the

21          court reporter are still available, it would be

22          preferable ... (Pause)

23   DR NACIMIENTO: Maybe we could also get the time remaining

24          for both parties, before the break or after the break.

25   THE CHAIRMAN: You have very little left, I tell you.

17:26 1 DR NACIMIENTO: I know, and I want to know how much.

2 TH CHAIRMAN: Okay. At the end of the break you will hear  
E  
3 that. So we have a five-minute break now and then  
4 continue.

5 (5 26 pm)

6 .  
(A short break)

7 (5 3 6 pm)

8 TH CHAIRMAN: I think we'll have to continue. They are  
E  
9 still negotiating [on the times], I don't know why; but  
10 they tell me it's not a few minutes but a larger period,  
11 which I don't understand. But I don't want everybody to  
12 wait simply because they don't reach a result. We will  
13 have a result by the end of this.

14 DR NACIMIENTO: Okay. It's just because I heard that you  
15 intend to have 30 minutes more, and I believe there is  
16 not a lot more left.

17 MR SMITH: I think we'll have to visit it at the end of the  
18 day - -

19 TH CHAIRMAN: I'm sorry, what?  
E

20 MR SMITH: I think both sides are going to need additional  
21 time tomorrow.

22 TH CHAIRMAN: I still don't understand.  
E

23 MR SMITH: I am predicting that both sides will need  
24 additional time to properly examine and cross-examine  
25 the valuation experts. We clearly have the time, so

17:38 1 I don't see --

2 DR NACIMIENTO: We saved our time today in order to have  
3 more time tomorrow, and I would object to you  
4 overrunning now, and I think you are doing this  
5 deliberately in order simply to have more time tomorrow.  
6 It happened last time at the hearing. We are not going  
7 to accept it this time.

8 TH CHAIRMAN: Well, they are not overrunning now.  
E

9 DR NACIMIENTO: I think they will be.

10 TH CHAIRMAN: We'll hear that in a minute. You are quite  
E  
11 right: we will have to be strict.

12 Yesterday I said: well, one hour -- was it yesterday  
13 or the day before? -- one hour definitely. We may have  
14 some flexibility tomorrow, but we'll see that.  
15 Obviously we all have an interest to get this done. But  
16 it must be announced early enough so that both parties  
17 can take that into account. So the latest I think will  
18 be this evening.

19 DR NACIMIENTO: Yes, unless the time is up. This is why  
20 I asked to have the time before the break, when I heard  
21 that you intended to continue for 30 minutes. I don't  
22 think that there is so much time left. That's my point.

23 MS SIMPSON: I can relieve the suspense. Would you like me  
24 to read it into the record? After discussion and math,  
25 the claimants have 45 minutes remaining, and respondent

17:39 1 has 1 hour 15 minutes.

2 THE CHAIRMAN: Alright, that's where we are. That to me,  
3 obviously, does not give much time for tomorrow's  
4 experts, not to mention -- witness-conferencing can  
5 count on the Tribunal's time, so that is perhaps out of  
6 the calculation.

7 But it leaves very little time for tomorrow for the  
8 procedure that the parties suggested, having traditional  
9 cross-examination of the experts first.

10 DR NACIMIENTO: That's right. But we had one hour more each  
11 and this is why I am raising this right now. 45 minutes  
12 minus 30 minutes means 15 minutes left tomorrow for the  
13 other experts. If claimants accept this, that's fine  
14 for me. But I'm just raising this now because I have  
15 the impression that counsel for claimant is deliberately  
16 overrunning, counting on getting additional time  
17 tomorrow; and we have been very careful with our time,  
18 remembering what you told us this morning.

19 THE CHAIRMAN: Alright. The one hour is included in the  
20 results that we just had. The only consideration is, of  
21 course, if we do have time tomorrow, is it helpful for  
22 both parties if we tell them by the end of today, after  
23 the half-hour that we still have -- or maybe less after  
24 our discussion -- that they can use some more time  
25 tomorrow? Because we will have that time, it looks like

17:41 1 right now.

2 MR SMITH: It would certainly be helpful to counsel for the  
3 claimants. I think that these are important issues;  
4 I don't think I have been inefficient in the  
5 examination. We have had to cross-examine more  
6 witnesses at this hearing, including two additional  
7 experts that we've asked to be struck.

8 So I believe we are behaving as reasonably as we can  
9 and still trying to have a thorough examination and  
10 cross-examination.

11 THE CHAIRMAN: No, but you understand that we have to treat  
12 the parties equally. Last time we were lenient, as you  
13 may recall, and I do understand that you object to being  
14 lenient to one side again.

15 DR NACIMIENTO: That's right.

16 Also I think there is an issue of when you raise  
17 this. This is when you are in the middle of your  
18 cross-examination and basically we have finished  
19 cross-examination. So if that had arisen earlier  
20 before, and we all knew about it before the geological  
21 experts came on, it's a different situation. But right  
22 now it's beneficial for claimants, and I believe that  
23 you are doing this deliberately.

24 THE CHAIRMAN: Alright. I think for the time being I will  
25 discuss it with my colleagues. For the time being, you

17:43 1 continue. It may be -- hopefully -- that your half-hour  
2 burns down to less than you now take, after what you  
3 heard and what we just discussed.

4 MR SMITH: Okay.

5 TH CHAIRMAN: Let me also say, of course, as we all know,  
E  
6 you will have two rounds of post-hearing briefs and  
7 there will be plenty of opportunity to react. We will  
8 send you a draft procedural order on what should and can  
9 be in there. That will certainly give you plenty of  
10 opportunity not only on the 3D matter but also on what  
11 has come at a later stage of this procedure, to comment  
12 on that.

13 We have an interest, of course, that the parties  
14 have an opportunity to discuss everything as much as  
15 necessary, and that's why we included two rounds right  
16 away. Please keep that in mind. Which also means that  
17 certain things which you might perhaps want to raise at  
18 the hearing orally, you can raise in the post-hearing  
19 briefs.

20 Okay, go ahead.

21 MR SMITH: Thank you, Mr Chairman, and I will try to  
22 abbreviate my examination.

23 I would like to turn to the LPG facility. I have  
24 two topic questions. One is, gentlemen, you refer in  
25 your first report at page 8, paragraph 49, that you

17:44 1 considered third-party sources of gas. Is that correct?

2 Paragraph 49. Let me quote it for you. You say:

3 "The ... Plant is designed to utilise gas from the  
4 Tolkyn and Borankol fields, to use any gas produced ...  
5 from Block 302 ... and possibly gas from third part[y]  
6 sources ..."

7 You consider gas from third parties; correct?

8 A. (By MR WOOD) This statement is a repeat of the  
9 information of the design basis, or let's say the  
10 intention for the plant.

11 Q. Okay.

12 A. (By MR WOOD) We ...

13 Q. Okay. So it was intended potentially to use third-party  
14 gas?

15 A. (By MR WOOD) It was intended by the owner in his various  
16 reports.

17 Q. Okay. Then you state at paragraph 67 that you  
18 considered the possibility of gas supply from the CAC  
19 pipeline; correct?

20 A. (By MR WOOD) Yes. This was a response to various  
21 documentation we were presented with that was almost  
22 said: well, as a last resort the plant could technically  
23 take gas from the CAC line.

24 Q. Okay. Who asked you to look at CAC as a potential  
25 source?



17:46 1 A. (By MR WOOD) From memory, we were asked to do it

2 directly by the financial advisor at the time.

3 Q. Okay. Deloitte?

4 A. (By MR WOOD) Deloitte. That request was based on their  
5 interpretation of some documents they referred to  
6 whereby they said, and we were asked technically to  
7 say: would it be technically viable?

8 Q. Understood. Then you also indicate in paragraph 67 that  
9 you considered information that had been provided to you  
10 regarding the characteristics of CAC gas, that it is  
11 half as rich as Tolkyn gas; correct?

12 A. (By MR WOOD) That is correct.

13 Q. And you have not produced any of the source data for  
14 that statement; correct?

15 A. (By MR WOOD) That source data, as directed, we tried to  
16 find out what the actual specification of the gas was,  
17 and found that was impossible to get.

18 We considered the opinions. We asked people in KMG  
19 and also in Turkmenistan. In Turkmenistan, half of the  
20 gas produced they recover the LPG themselves; the other  
21 half, roughly, they don't recover the LPG. So what is  
22 put into the CAC line principally from Turkmenistan as  
23 a mixture of what we would consider rich gas and lean  
24 gas .

25 Q. Okay. There's no evidentiary support in the record

17:47 1 other than what you've just testified to; correct?

2 A. (By MR WOOD) That is correct.

3 Q. Okay. And you say you consulted with KMG. So did you

4 consult with KMG regarding your opinions in this matter?

5 A. (By MR WOOD) No. We asked KMG if they had information

6 on the technical specification of the gas in the CAC

7 line .

8 Q. And KMG is the state oil company; correct?

9 A. (By MR WOOD) That's correct.

10 Q. And they're a client of your firm; correct?

11 A. (By MR WOOD) That's correct.

12 Q. They're your firm's largest in Kazakhstan; correct?

13 A. (By MR WOOD) In Kazakhstan, yes.

14 Q. And in fact one of the signatories to your first report,

15 Drew Powell, who was the executive who reviewed and

16 endorsed the report in this case, he also signs the

17 audit reports for KMG; correct?

18 A. (By MR WOOD) He's our chief executive; effectively he

19 signs all of our audit reports.

20 Q. Okay. Did you ask KMG to provide you with a copy of our

21 clients' assets which is in their possession?

22 A. (By DR WRIGHT) No.

23 Q. Were you aware that they conducted a valuation?

24 A. (By DR WRIGHT) We were not aware of that document.

25 Q. Back to the LPG facility just for a moment. There is

17:48 1 a \$100 million cost estimate to complete at GCA 1,

2 paragraph 63 on page 9; do you recall that?

3 A. (By MR WOOD) Yes.

4 Q. And that cost estimate -- again, there is no support in  
5 the record for that; correct?

6 A. (By MR WOOD) That's correct.

7 Q. And that cost estimate at paragraph 63 states:

8 "Given the unknown condition of the facilities and  
9 the costs associated with surveys, re-engagement of the  
10 contractor and equipment refurbishment or replacement,  
11 costs are expected to be significantly higher."

12 The costs are expected to be significantly higher  
13 because the plant has sat fallow for a number of years;  
14 correct?

15 A. (By MR WOOD) We carried out a site visit, and one of our  
16 engineers visited the plant and the warehouse, gathered  
17 information from both TNG and KPM as to the percentage  
18 complete, inspected visually the mothballing and the  
19 looking after the equipment, and on that basis I carried  
20 out an estimate of what I believed it would cost to  
21 complete the plant.

22 Q. But much of the \$100 million estimate is because the  
23 plant has to be refurbished and equipment has to be  
24 replaced, contractors have to be re-engaged because  
25 plant construction had ceased; correct?

17:50 1 A. (By MR WOOD) I think the issue is partly the effective  
2 dates. Because at our effective date, the plant had  
3 ceased, and therefore it would be necessary to restart  
4 construction --

5 Q. Okay -- I'm sorry, go ahead.

6 A. (By MR WOOD) Sorry. My understanding is the FTI  
7 estimate was that reasonably, if construction had  
8 continued, then it would have been completed on the  
9 current budget, although based on my experience of  
10 completing LPG plants, I have my doubts that it could be  
11 done.

12 Q. But it would have been far less than \$100 million?

13 A. (By MR WOOD) That is reasonable.

14 Q. Do you know how much -- since we don't have anything in  
15 writing to suggest your math, do you know how much less?

16 A. (By MR WOOD) I worked on an LNG project in Tunisia where  
17 it cost \$25 million after mechanical completion to  
18 finish it. So potentially, if we believe the remaining  
19 budget of \$25 million to mechanically complete the  
20 plant, I would estimate a reasonable further \$25 million  
21 of commissioning and de-bottlenecking to get the plant  
22 up and running.

23 Q. So your cost estimate as of claimants' valuation date of  
24 2008 would be \$50 million; correct?

25 A. (By MR WOOD) I would say that's an approximation,

17:51 1 because I haven't worked it up.

2 Q. You indicate that you -- and I don't know who did this,  
3 but -- performed a decline curve analysis; do you recall  
4 that testimony? You state in your report you performed  
5 a decline curve analysis?

6 A. (By MR GOODEARL) As part of our overall review, we have  
7 performed decline curve analyses, yes.

8 Q. When you perform a decline curve analysis, if there were  
9 factors other than reservoir performance, you know,  
10 pressure drop and those type of things, but factors such  
11 as political factors, factors such as absence of  
12 an offtake contract that would require a reduction of  
13 production, all of that is factored into the decline  
14 curve analysis, correct; isn't that correct?

15 A. (By MR GOODEARL) Yes.

16 Q. Okay. And have you --

17 A. (By MR GOODEARL) In general, that's right.

18 Q. And have you made any effort to differentiate within  
19 your decline curve analysis between the effects of  
20 reservoir performance from other things that may have  
21 impacted performance, such as absence of gas contract,  
22 such as interference of the state, such as decisions not  
23 to complete or recomplete wells because of actions of  
24 the state? Have you made any effort to factor those out  
25 of your decline curve analysis?

17:52 1 A. (By MR GOODEARL) We are talking about Tolkyn here,

2 I presume?

3 Q. Both Borankol and Tolkyn.

4 A. (By MR GOODEARL) Well, the decline curve analysis on  
5 Tolkyn, if we take that as a starter, it was based  
6 primarily on the individual well rates; mindful that as  
7 at the GCA July 2010 effective date, these wells were  
8 individually exhibiting decline, which in our opinion  
9 was not due to any constraints or political factors.  
10 And we are also mindful of the declining wellhead  
11 pressures at that time in the analysis. So it wasn't  
12 just a straight simple decline analysis, because it did  
13 involve a review of the pressure data on the wells.

14 Q. But if, for example, in 2009 well production was  
15 suspended because of the absence of gas contracts, the  
16 effect of that suspension would also be in your decline  
17 curve analysis? It would be a non-reservoir-related  
18 factor; correct?

19 A. (By MR GOODEARL) I'm not sure I understand what you're  
20 driving at.

21 Q. Let's move on.

22 With respect to compression, you base your  
23 compression requirement, your opinion on compression, on  
24 the 2007 field development plan; is that correct?

25 A. (By MR GOODEARL) Not entirely, no. As I said earlier,

17:54 1 the compression is driven very much by the declining  
2 pressures on the wellhead and the declining rates in the  
3 field. So in order to maintain even the rates at that  
4 level would have required compression by about  
5 2011/2012.

6 Q. Well, the requirement in the field development plan  
7 which is cited in your report where it predicts the need  
8 for compression in 2007 assumes reservoir production for  
9 the years 2008-2012 of 2,500 million cubic metres;  
10 correct?

11 A. (By MR GOODEARL) That's right. It's based on a much  
12 higher rate.

13 Q. And it's been nowhere close to that?

14 A. (By MR GOODEARL) That's correct.

15 Q. One of the reasons why pressure declines on a field is  
16 higher production rates on that field; correct?

17 A. Can you repeat that?

18 Q. Yes. One of the reasons why pressure may drop on  
19 a field is because you were producing a significant  
20 amount of volume in that field?

21 A. (By MR GOODEARL) Yes.

22 Q. By reducing the volume, you can prolong the pressure at  
23 the wellhead in the field; correct?

24 A. (By MR GOODEARL) Sorry, can you repeat that last part  
25 again?

17:55 1 Q. Yes. If you predicate a prediction of a need for  
2 compression on 2,500 million cubic metres per year, but  
3 you in fact only produce 1,700 or 1,800 million  
4 cubic metres per year, that will have a positive effect  
5 on pressure, will it not, in the sense that your  
6 pressure will be maintained for longer?

7 A. (By MR GOODEARL) Yes. But we weren't predicating it on  
8 the basis of the 2.5 bcm a year.

9 Q. Where is that stated? Is that stated in your report?  
10 Have you produced any modelling or other pressure  
11 analyses?

12 A. (By MR GOODEARL) Well, the -- as I've already stated, by  
13 July 2010 the wellhead pressures were already at a level  
14 at which compression was going to be required.

15 Now, whilst in the FDP the compression -- and you  
16 can almost say it was coincidentally at the same date to  
17 some extent, because that was predicated against  
18 a higher offtake rate, as you say, of the 2.5 bcm  
19 a year, which didn't physically happen. But from the  
20 review of the wellhead pressures and the reservoir  
21 pressures, the actual pressure decline in the reservoir  
22 and the well bore through to the surface was higher than  
23 what was being predicted in the FDP. So there was  
24 a function of poorer than expected reservoir quality as  
25 well.



17:57 1 Q. Okay. You indicated, I believe, in your direct  
2 testimony that compression may be required in the Tolkyn  
3 field, and I wrote down "if not now, in the short-term".  
4 Do you recall testifying to that, or one of you  
5 testifying to that?

6 A. (By MR GOODEARL) I don't recall saying that, but I may  
7 have done.

8 Q. The fact is there is no compression on the field now?

9 A. (By MR GOODEARL) Yes, there is no compression on the  
10 field.

11 Q. We are in 2013 and there's been no need by the trust  
12 management to install compression; correct?

13 A. (By MR GOODEARL) I'm not aware of what the situation is  
14 in the field at the moment. So I can't comment on what  
15 is happening in the field.

16 Q. But in Deloitte's modelling work, predicated on the work  
17 that Gaffney Cline has done, you have put \$40 million of  
18 compression costs in the year 2011?

19 A. (By MR GOODEARL) 2011, yes.

20 Q. Even though we are in 2013 and there is no compression  
21 on the field; correct?

22 A. (By MR WOOD) If I may, Tony, what I said when we were  
23 questioned earlier was we estimated a requirement by  
24 2012 largely to maintain production or decline at its  
25 current level.

17:58 1                   What we understand -- and I'm sure Mr Khalelov

2                   mentioned it -- they haven't installed compression in

3                   the field; they don't believe they have a mandate to do

4                   that. But as a result, production is declining

5                   significantly.

6           Q.    You referred to the work in the field development plans,

7                   the work of the Kazakh Institute; do you recall that?

8           A.    (By MR GOODEARL) Yes.

9           Q.    And you've relied on that work, at least in part, in

10                   connection with the appending issue; right? Correct?

11          A.    (By MR GOODEARL) We have used that, yes, in part, in

12                   terms of monitoring the field development plan. We have

13                   also benchmarked the volumes in those reports; that's

14                   right.

15          Q.    And these are official state estimates, right? They are

16                   prepared by the Kazakh Institute in conjunction with the

17                   operator, and then they are signed off on by the State

18                   Reserves Committee; correct?

19          A.    (By MR GOODEARL) That's correct.

20          Q.    Then at paragraph 62 of your second report, you include

21                   a chart for percentage of C1 plus C2 ultimate recovery

22                   for Borankol; do you recall that?

23          A.    (By MR GOODEARL) I do.

24          Q.    Was that drawn from information that had been approved

25                   by the state institute?

17:59 1 A. (By MR GOODEARL) Yes, that would have been based on the  
2 ultimate recovery as presented in the FDP.

3 Q. So, for example, if you look at the Jurassic VII, it  
4 indicates that 1,617 million tonnes have been produced  
5 from the Jurassic VII, which is 52% of the ultimate  
6 recovery from the field; is that correct?

7 A. (By MR GOODEARL) That's correct.

8 Q. So 48% remain to be recovered; correct?

9 A. (By MR GOODEARL) On the basis of the FDP C1 plus C2,  
10 that's right, if you accept all the parameters and the  
11 recovery factors associated with that.

12 MR SMITH: Okay. I have no further questions.

13 THE CHAIRMAN: Thank you. Respondent.

14 DR NACIMIENTO: I have one question to Mr Wood.

15 (6.00 pm)

16 Re-direct examination by DR NACIMIENTO

17 Q. If you could look, please, at Exhibit R-349. It's the  
18 Miller and Lents report for 2009. And could you please  
19 open attachment 5. 2 0 A. (By MR WOOD) Okay.

21 Q. Here you see the forecast for capex, excluding drilling?

22 A. (By MR WOOD) Yes.

23 Q. And you see the capex for Tolkyn?

24 A. (By MR WOOD) Yes.

25 Q. How would you interpret these numbers?

18:01 1 A. (By MR WOOD) It's very difficult to interpret because  
2 there is no information. But looking at the magnitude  
3 of the numbers, it suggests there is in the period  
4 2010-2012 a significant expenditure anticipated on  
5 facilities to maintain production at its current level.  
6 That is not to add facilities, just to maintain it,  
7 because it is under the classification under the  
8 reserves category.

9 It is not dissimilar to the \$40 billion we've  
10 estimated for compression, but other than that, I can't  
11 say whether that is definitively for compression.

12 I can't imagine what else it could be for.

13 DR NACIMIENTO: Thank you. I have no further questions.

14 THE CHAIRMAN: Alright. Questions from my colleagues?

15 MR HAIGH: Mr Chairman, in light of the time of night, I am  
16 going to forego putting any questions to the  
17 Gaffney Cline panel at the moment, although I anticipate  
18 that I would like to give them an equal opportunity on  
19 a couple of the things I raised with the Ryder Scott  
20 group. I will do that during the conferencing session.

21 Thank you very much.

22 THE CHAIRMAN: Sergey?

23 PROFESSOR LEBEDEV: No.

24 THE CHAIRMAN: Alright. That brings us to the end of the  
25 discussion right now.

18:03 1                   We will have the conferencing tomorrow. I must  
2                   admit that having heard the examination which the  
3                   parties wanted that way today, I think it would have  
4                   been more efficient to do it in conferencing, because  
5                   the major issues were discussed twice and they probably  
6                   could have been condensed. But this is on the side  
7                   really. It has been very helpful to have the  
8                   examination that we heard, and therefore I could  
9                   imagine -- I will look at my own points for the  
10                  conferencing, so will my colleagues, and then we'll see  
11                  what remaining points we may have tomorrow morning.

12                  Regarding the logistics for tomorrow morning,  
13                  because we'll start with that, obviously we cannot seat  
14                  five people there. Looking at the setup right now,  
15                  I wonder whether it might be the relatively easiest  
16                  solution to have two persons from the other group seated  
17                  right next to you three on that side of the table; then  
18                  we have one row -- I'm sure it will suggest that some of  
19                  you may have to move for a short period, but that to me  
20                  seems logistically the easiest way to do that. So if  
21                  that could be arranged for tomorrow, then we would have  
22                  a five-person panel in front of us which we could ask  
23                  tomorrow morning.

24                  We are still aware of the timing issue. I would  
25                  suggest that you stay here, give us a couple of minutes

18:05 1 to go to our room, discuss that matter and see where we  
2 are right now, and then we will come back to you to tell  
3 you what we feel might be the best solution.

4 (6 05 pm)

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5

(A short break)

6 (6 2 0 pm)

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7 TH CHAIRMAN: Alright. We are in a difficult situation, as  
8 E

we all know, but there are limits of what we can do.

9 I don't have to get into the reasoning again of what  
10 counts for this timing decision which we have to take.

11 The good part of it is that what we are talking  
12 about now is really a testimony from experts, and from  
13 experts we consider that the written reports are very  
14 important, and therefore it can more easily be accepted  
15 that the parties have to rely more on their post-hearing  
16 briefs in that regard than on the oral examination.

17 The question of equal treatment of the parties is  
18 very important to us, and I'm sure you are all aware; we  
19 don't want challenges to that basis. On the other hand,  
20 when we decided that each party has one hour more -- I'm  
21 pretty sure it's in the transcript -- I said we may  
22 still have some flexibility beyond that, and we would  
23 know today. Now is today.

24 Now, considering all that, the bottom line is that  
25 we have agreed that each party gets half an hour more

18:22 1 tomorrow, which means that the claimant has 2 9 minutes  
2 plus 30 minutes, which is 59, one hour; and the  
3 respondent has 1 hour 14 plus 30 minutes, which is  
4 1 hour 44 minutes for tomorrow.

5 The other aspect is that the conferencing of the  
6 experts does not count for the parties; that is kept out  
7 of that. That counts on us, so to speak. So that does  
8 not count and you don't have to calculate that.

9 We are quite aware that this is very short for both  
10 sides, but as long as the parties can't agree on  
11 a general extension -- we do recall that at one stage  
12 both parties wanted two more hours, and as I said then,  
13 we said: one plus some flexibility. But of course we  
14 also understand that a party, on the basis of our  
15 decision, then said: well, we have to calculate the time  
16 we used in the earlier examination. So that's where we  
17 are.

18 So that is what we feel is the relatively best  
19 compromise. Half an hour is not a lot, and we would  
20 urge the parties to make sure that you don't go beyond  
21 that. But as I say, we will have post-hearing briefs,  
22 two rounds, and we will discuss with you tomorrow what  
23 can be included in that as well.

24 Any comments on that?

25

18:24 1

Procedural objection by DR NACIMIENTO

2 DR NACIMIENTO: I have a comment, and with all due respect,

3 I have to raise a formal objection for the record.

4 It's right you mentioned that both parties requested  
5 an extension, but that was both parties and that was at  
6 the beginning of the hearing. When I raised this issue  
7 today, the situation was different because respondent  
8 had finished its cross-examination, and actually the  
9 result of the decision is simply that claimants have  
10 more time for cross-examination of respondent's  
11 witnesses.

12 If you say that the written reports of the experts  
13 are more important, I wouldn't agree more. And we have  
14 been surprised on Friday with the revised report from  
15 FTI, and we have been surprised today with a revised  
16 report from Ryder Scott, and I think that also this  
17 needs to be taken into consideration.

18 We had requested, based on new documents submitted  
19 again by surprise by claimants shortly before the  
20 hearing, we had requested on that basis a postponement  
21 of the hearing, and I think also as of now that would  
22 have been reasonable, because seeing now what claimants  
23 had obviously in store -- because this is nothing that  
24 they came up with yesterday; this has been planned  
25 before -- it would have been reasonable to postpone the



18:26 1

hearing.

2 I understand, of course, the Tribunal couldn't know  
3 that; we couldn't either. But I think this should be  
4 taken into consideration, and I am compelled to raise  
5 this as a formal objection.

6 THE CHAIRMAN: Okay. Any comments from your side?

7 MR SMITH: No, other than just to deny the accusation. We  
8 have been obviously prejudiced by the fact of open  
9 defiance of the procedural orders regarding the  
10 production of expert support materials as well, which  
11 has lengthened the cross-examination.

12 I think in light of the time limitations tomorrow,  
13 we will pass on the cross-examination of Mr Seitinger;  
14 we simply don't have adequate time. So we will pass on  
15 that.

16 THE CHAIRMAN: Alright. I know Mr Seitinger has come from  
17 Pakistan.

18 DR NACIMIENTO: That's right, and he is on the plane right  
19 now and he should be here in a few hours.

20 THE CHAIRMAN: You can still do your --

21 DR NACIMIENTO: Yes, but it would have been good to know  
22 that before.

23 MR SMITH: This is potentially a situation of your creating.  
24 So we are where we are.

25 THE CHAIRMAN: I hope you appreciate that we are also in

18:27 1 a difficult position here, and try to come to the  
2 relatively best solution, and therefore we feel this  
3 half-hour is a possible compromise as far as we can go.

4 Alright. Of course we will discuss the further  
5 procedure tomorrow as well, what can be in the  
6 post-hearing briefs. Some of that has already been  
7 discussed and basically decided here. But again,  
8 I think we will have time for that tomorrow, in view of  
9 the short time that we have on examination.

10 One way of dealing with -- I mean, obviously you  
11 will have very little time. You will use your one hour  
12 then on the examination of the two experts, in any way  
13 you like; the same here, but you have more time for  
14 that. Again, any conferencing after that will go on the  
15 Tribunal's time, so you don't have to worry about that.

16 Alright, that's as far as we can go. Have a good  
17 evening.

18 (6.28 pm)

19 (The hearing adjourned until 9.30 am the following day)

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<b>A</b>					
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