IN THE MATTER OF AN ARBITRATION UNDER CHAPTER ELEVEN
OF THE NORTH AMERICAN FREE TRADE AGREEMENT AND THE
ICSID ARBITRATION (ADDITIONAL FACILITY) RULES

In the Matter of Arbitration

Between:

MOBIL INVESTMENTS CANADA, INC.,
and MURPHY OIL CORPORATION,

Claimants,

ICSID Case No.
and

ARB(AF)/07/4

GOVERNMENT OF CANADA, :

Respondent.

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# HEARING ON THE MERITS

Thursday, October 21, 2010

The World Bank 1818 H Street, N.W. Conference Room 4-800 Washington, D.C.

The hearing in the above-entitled matter came on, pursuant to notice, at 9:40 a.m. before:

PROF. HANS van HOUTTE, President

PROF. MERIT E. JANOW, Arbitrator

PROF. PHILIPPE SANDS, Q.C., Arbitrator

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Also Present:

MS. MARTINA POLASEK, Secretary to the Tribunal

Court Reporter:

MR. DAVID A. KASDAN, RDR-CRR B&B Reporters 529 14th Street, S.E. Washington, D.C. 20003 (202) 544-1903 APPEARANCES: (Continued)

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### APPEARANCES:

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MR. PAUL SCOTT,
Government Representative, Government of
Newfoundland and Labrador

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                                                                                            PROCEEDINGS
ALSO PRESENT:
                                                                                     PRESIDENT van HOUTTE: Good morning, ladies
     On behalf of the United States:
                                                                         3 and gentlemen. We are at the third day of our hearing
          MR. MARK E. FELDMAN
Chief, NAFTA/CAFTA-DR Arbitration
                                                                         4 today.
            Division, Office of International Claims
                                                                                     We will start with the examination of
            and Investment Disputes
          Office of the Legal Adviser
                                                                         6 Mr. Way; is that it?
          U.S. Department of State
          Suite 203, South Building
                                                                                     MR. RIVKIN: I think The Parties agreed we
          2430 E Street, N.W. Washington, D.C. 20037-2800
                                                                         8 would start with Mr. Davies, so that the two pricing
          (202) 776-8443
                                                                         9 Experts would be back-to-back in that manner, and then
     On behalf of the United Mexican States:
                                                                        10 we'll go to Mr. Way.
          SR. SALVADOR BEHAR.
            Legal Counsel for International Trade
                                                                                     PRESIDENT van HOUTTE: All right. Then,
          Embassy of Mexico
          Secretaria de Economia
Trade and NAFTA Office
                                                                        12 Mr. Davies before us. Thank you, good.
          1911 Pennsylvania Avenue, N.W.
                                                                        13
                                                                                     THE SECRETARY: We are open session now?
          Washington, D.C. 20006
(202) 728-1707
                                                                        14
                                                                                     MR. RIVKIN: No.
                                                                                     THE SECRETARY: Please remain closed.
                                                                        16
                                                                                PETER A. DAVIES, RESPONDENT'S WITNESS, CALLED
                                                                        17
                                                                                     PRESIDENT van HOUTTE: Mr. Davies, can you
                                                                        18 repeat, I hereby declare upon my conscience and honor.
                                                                                     THE WITNESS: I hereby declare upon my
                                                                        19
                                                                        20 conscience and honor.
                                                                                     PRESIDENT van HOUTTE: That I will make my
                                                                        22 statements to the best of my knowledge.
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PETER A. DAVIES		I 4	Then the floor goes to Mr. Luz.
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Cross-examination by Mr. Rivkin	696	) 5	MR. RIVKIN: Can Martina confirm it's now
Redirect examination by Mr. Luz Questions from the Tribunal	700 703	6	closed?
Further cross-exam. by Mr. Rivkin	703	· ·	
·		7	THE SECRETARY: I confirm it's now closed.
FREDERICK WAY		8	(End of open session. Confidential business
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RICHARD E. WALCK		21	
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SHEET 4 PAGE 689 689 09:41:38 1 CONFIDENTIAL SESSION 2 DIRECT EXAMINATION 3 BY MR. LUZ: Q. Good morning, Mr. Davies. A. Good morning. Q. Mr. Davies, do you have copies of the three 7 Expert Reports you have submitted in this arbitration 8 in front of you? A. I believe they're here. And do you reaffirm what you wrote in those 11 reports? A. I do.

Q. Mr. Davies, can you describe for the Tribunal

14 your background as an energy economist? A. I'm an international energy economist. I 16 have been a professional economist for almost 40

17 years. I worked for BP for over 20 years, including 18 19 17 years as chief economist.

I have been an international economist. I 21 worked in this building in the World Bank in the

22 1970s. I've worked for banks, and now, following my

09:43:32 1 price forecasts have tended to follow recent price 2 changes, and there is a bit more in the middle, and 3 the final sentence says, "future forecasts are likely

4 to reflect the prices that currently prevail.

Can you explain what you meant by that and 6 why it's important.

A. Yes. I think very briefly that, as oil 8 prices rise, forecasts tend to rise. As prices fall,

9 forecasts tend to fall. And I have evidence that in

10 the two graphs, Graph 1 and Graph 2, which show how 11 forecasts have evolved over time. So, I think,

12 whenever you look at any forecasts, you have to look

13 at context in which it's made. If it's made in a high

14 oil price time, it's probably going to be high and 15 vice versa.

Q. You referred to Graph 1 and Graph 2.

17 A. Yes.

Q. Just so that we don't skip over. Can we look

19 at Graph 2 on Page 15.

A. Yes. Graph 2 is based on some work done out

21 of the California Energy Commission, and it shows you,

22 for example, in 1981 when oil prices had just given to

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09:42:19 1 retirement from BP, I'm an independent economic

2 advisor, advising on international economics and

3 energy.

Q. Mr. Davies, while you worked at BP, did you

5 purchase oil price forecasts?

A. I did.

Q. Can you explain why you purchased them and

8 how you used them.

A. I was required to have access to the best 10 knowledge and best analysis of all energy markets in

11 the world; and therefore, I regularly purchased a

12 range of forecasts and studies in order to access that

13 information and analysis.

However, at no time did I believe the price

15 forecasts particularly were very valuable. I was

16 concerned about the detail of the analysis to make

17 sure it informed our company's analysis of those

19 Q. Okay. Can we take a look at your First

20 Expert Report at Paragraph 40 on Page 13.

Will you flip to the next page, actually.

22 And the first bullet point says that oil \_ PAGE 692 \_

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09:44:40 1 record levels price forecasts then were expecting it

2 to rise ever higher and ever higher. As the oil price

3 fell, you could see that the forecast also fell, and

4 that's a general tendency for forecasts to follow what 5 is going on in the short term.

Q. So, this graph shows that oil price

7 forecasters sometimes do overestimate the price of 8 oil?

A. Sometimes they overestimate, sometimes they 10 underestimate.

Q. Thank you. I don't have any other e 12 questions. I turn over the witness.

13 CROSS-EXAMINATION

14 BY MR. RIVKIN:

Q. Mr. Davies, you just said purchased forecasts

16 because you wanted access to the best knowledge

17 available; correct?

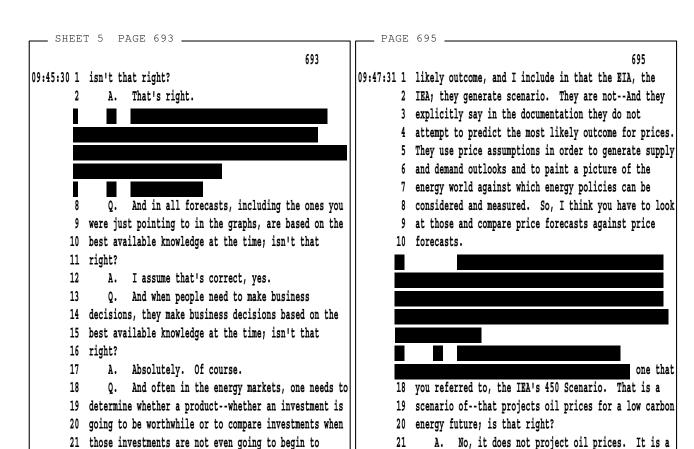
A. Correct. That's correct.

Q. And one of those forecasts that your

20 purchased was ESAI's forecasts; isn't that right?

A. That's correct.

Q. And you purchased that for their analysis;



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22 produce any revenue four, five, seven, ten years out; 22 scenario which attempts to outline the conditions \_ PAGE 694 \_ \_ PAGE 696 \_ 694 09:46:31 1 isn't that right? 09:48:42 1 under which a sustainable climate outcome may be A. Absolutely. In the energy business you make 2 obtained under the long term, whereas part of that 3 decisions in face of uncertainty and over very long 3 makes some assumptions about the levels oil prices 4 periods of time. 4 consistent with that world they're predicting. It is Q. So, it is important to make decisions in 5 not a forecast of the level of oil prices in that--in 6 light of -- in light of uncertainty? 6 a sustainable climate world. They were very explicit A. Absolutely. 7 about it. Q. And so, what you do is you make those Q. The--let me see if I can use your words. 9 decisions based on the best available knowledge at the The assumptions are based upon a low carbon 10 time? 10 energy future--isn't that right?--in that particular Correct. 11 forecast. A. They are saying we are more likely to get to 13 a level of sustainable carbon emissions with high 14 energy prices and high oil prices than with low; and, 15 therefore, their scenario--they have chosen to put in 16 oil prices, which are moderately high. They do not 17 consider the impact of the supply and demand outcomes A. Well, first of all, I think we should say the 18 over the long term on energy prices, which I suspect 19 term forecast seems to be used for two different 19 will, in fact, be substantial. 20 things. There are sets of price assumptions made in 21 scenario analysis, which are not forecasts, in the 22 sense that they do not attempt to project the most

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09:49:56

3 I would maintain that even if you have perfect

- 4 forecasts of supply and demand forecast, that does not
- 5 give you strong ability to predict prices. In fact,
- 6 many people have made good supply and demand forecasts
- 7 but have made very bad price forecasts from those
- 8 supply and demand numbers.
- Q. And you would agree with me, wouldn't you,
- 10 that, that given uncertain the necessary the world
- 11 there is a certain risk premium built into oil prices?
  - A. There has been a risk premium in oil prices
- 13 for a very long time. I suspect that would mean
- 14 prices are higher today than they otherwise would be.
- 15 That premium fluctuates over time as global political
- 16 conditions change.
- Q. In 2008, you said that certain recent events
- 18 have only accentuated the issue and increased what
- 19 some called the risk premium.
- A. I think that would be one reason why oil
- 21 prices rose to a record level at that time.
- Q. You would agree with me also, wouldn't you,

09:52:04 1 technologies have been developed and forecasts in a

- 2 very short period of time are very inaccurate. Five
- 3 years ago the forecasts were for U.S. natural gas to
- 4 be declining. For the last few years we have seen
- 5 significant growth in natural gas because of
- 6 technological developments which had emerged over the
- 7 last decade.
- Q. And people in business need to make decisions
- 9 based on their best knowledge?
- A. Absolutely.
- Q. Including their best assessment of how those 11
- 12 technological innovations may develop and over what
- 13 time period; isn't that right?
  - A. Absolutely.
- Q. And they make decisions today on
- 16 multi-billion dollar investments on the basis of that
- 17 information.
- A. Correct, correct. 18
- 19 MR. RIVKIN: I have no further questions.
- PRESIDENT van HOUTTE: Mr. Luz?
- MR. LUZ: I may have just a couple of
- 22 questions. Can I confer for just a moment with my

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09:50:59 1 that it would be really difficult for any

- 2 technological innovations to have significant impact
- 3 on energy prices over the next five to seven years?
- A. No, I believe that technological innovations
- 5 which are in the pipeline could well have impact on
- 6 oil prices.
- Q. Over the next five years?
- A. Yes.
- What the experience has been that often the
- 10 technological innovations which emerge have not always
- 11 been accounted for correctly.
- And if I may give you an example, in the
- 13 Eighties and early 90, horizontal drilling which is
- 14 now a commonplace technology, was known about as a
- 15 technology and has been developed. Its impact upon
- 16 oil and gas production was not accurately predicted,
- 17 so it is possible that forecasters have not foreseen
- 18 the impact of the technologies which are emerging
- 19 today.
- And again, another good example is
- 21 development of natural gas over the last few years
- 22 with the development of unconventional gas. The

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## 09:53:08 1 colleagues?

- 2 PRESIDENT van HOUTTE: Sure.
- 3 (Pause.)
- (Pause.)
- MR. LUZ: Thank you.
- REDIRECT EXAMINATION
- BY MR. LUZ:
- Q. Mr. Davies, there are two things that you
- 9 mentioned in your testimony that i wanted you to
- 10 elaborate a little more.
- You mentioned that prices are higher today
- 12 than they have been in recent history. Can you
- 13 explain a little bit more about that to give some
- 14 context and why that's important.
- A. Yes. I think, first of all, I think
- 16 historical context is important. History does matter
- 17 to allow us calibrate and understand where we are
- 18 within the energy cycle.
- 19 We heard yesterday that the average oil price
- 20 this year is likely to be somewhere between \$77 and
- 21 \$80 a barrel. If we look at 150 years of oil prices
- 22 which we have experienced, that would make it the -- I

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09:54:23 1 think the seventh highest year in history. So, in 2 other words, there would be 143 years out of 150 will 3 have been lower than the price we've seen today.

Equally, if we look over the last 10 years, 5 the average price has been about between \$50 to \$55. 6 The last 20 year, which is the life of most projects, 7 it's been around \$40.

And if we like since 1973 when OPEC really came on the scene, the average price has been \$45. So, just in terms of some context, today's

11 price is relatively high, and I think whenever one 12 takes decision about the future, one has to look at

13 some of that context and to test your investments

14 relative to the recent and longer-term experience in 15 the markets you operate in.

So, what does that mean with respect to 17 Ms. Emerson's forecast as compared to recent history?

A. Well, I think it says that we are still

19 within the high period of high oil prices

20 historically, and experiences that prices go and up

21 and down, so there will be times price will come down.

I think, also, if you're making decisions,

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09:56:43 1 order to make sound investments that we would not 2 regret.

> Q. So, you don't believe that oil price 4 forecasts are reason--reasonable predictors of the

6 MR. RIVKIN: It's a leading question.

7 MR. LUZ: I will withdraw the question.

I have no further questions.

9 PRESIDENT van HOUTTE: Probably my colleagues 10 also have some questions.

QUESTIONS FROM THE TRIBUNAL

12 PRESIDENT van HOUTTE: Mr. Davies, may I just

13 ask you for your comments on something which you can 14 read in some newspapers, and I'm really not saying

15 that's a very scientific statement, but nevertheless, 16 in some corners, it is said oil price cannot increase

17 because have you those new countries which consume

18 more and more oil and gas and so on. You have

19 countries that become richer and richer; China and so

20 on; on the other hand, oil is becoming more scarce.

What can you say against this very 21 22 unscientific popular belief?

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09:55:33 1 you would want to say, can I test my projects against 2 what the prices have been in the last 20 year, and you 3 would be looking at the viability of your investments 4 against historical experience.

I think today's prices are high in any of

Q. Just one final question on that point. You 8 said that when business people such as yourself at BP 9 looked at price forecasts as part of their 10 decision-making process, did that decision-making

11 process ever assume that oil price forecasts were 12 reasonably certain?

13 A. Absolutely never. I was never requested to 14 make an oil price forecast. The company adopted

15 various assumptions in order to assist with

16 decision-making, but never explicitly made a forecast,

17 whenever we were asked in public or otherwise, always

18 stated, no, we do not forecast, we cannot forecast, we

19 do not believe we can forecast, but we need to

20 understand the markets we operate in, and the range of

21 risks and uncertainties in order that we can test our

22 investments against those ranges of uncertainties in

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09:57:49 1 THE WITNESS: I could confirm it's a popular 2 belief, and it's been a popular belief for 150 years, 3 but so far it's been wrong in sense that there has

4 always been enough oil to meet demands of the world. I believe the immediate future consumption of

6 oil will continue to rise because of growth in Asia and China and elsewhere, but that doesn't necessarily 8 mean there is going to be a shortage of oil.

The world's available and proven economic 10 resource base continues to rise. Basically, 11 technology and exploration/discovery has kept pace

12 with the amount of natural depletion through

13 production. And so, the reserves to production ratio, 14 the world still has more than 40 years of proven oil

15 under the ground, which could be developed

16 economically. And that level has increased over time

17 and not decreased.

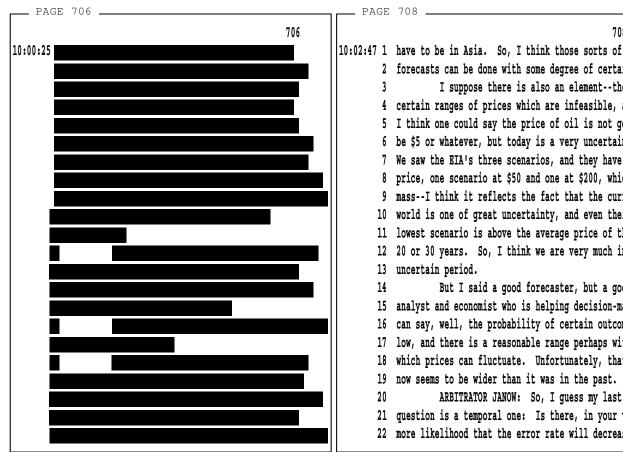
So, I think, while there is a common school 19 of thought that says it's all running out and it's

20 going to happen tomorrow, I think I quoted in one of

21 my papers, in fact, this has been wrong for a very 22 long period of time and we are not short of oil today. SHEET 8 PAGE 705

705 09:58:57 1 And at the same time now, there is a common 2 school of thought saying we will run out of demand 3 before we run out of resources. If you believe that 4 climate change policies will eventually lead to 5 sustainable climate, the world will then inevitably be 6 consuming less oil at some time in the future, and that's becoming a more popular view than it was a few years ago. ARBITRATOR JANOW: Thank you very much. I 10 have a few questions, but I think your testimony has 11 been very helpful for me to understand an important 12 distinction you're making between assumptions and 13 forecast. So, I guess my question has--I would like 14 you to say a little more about that. If there are 15 features -- of course, I have read your submission, but 16 if there are core features of Ms. Emerson's work that 17 were identified as the operating assumptions, which of 18 those would you say that you are comfortable with or 19 felt were appropriate points of emphasis or which 20 would you say clearly inappropriate or, from your 21 point of view, not useful elements?

707 10:01:33 ARBITRATOR JANOW: Thank you. Let me ask you a couple of questions further: 4 Do you think that--again, does the work of a 5 forecaster, is it possible that a forecaster could 6 reduce uncertainty to any extent, or do you believe that there is no impact, that they are--as you said, 8 oil forecasters have been unaware to generate a 9 forecast that is reasonably certain over the short or 10 the long term. So, there is no contribution of a 11 forecast that has some impact with respect to reducing 12 uncertainty? Is that your view? 13 THE WITNESS: Well, I think certain forecasts 14 can be done with a high degree of certainty. For 15 example, I think oil consumption growth and the 16 geography of that can be made with some certainty. 17 So, the sort of picture where Asia is growing and 18 energy consumption in Europe is falling is important 19 and can be made. So, if you're an oil refiner, you 20 would realize in Europe your market is declining so 21 you either have to close your refinery or export your 22 products. If you want to be a growth refinery, you



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2 forecasts can be done with some degree of certainty. I suppose there is also an element--there are 4 certain ranges of prices which are infeasible, and so, 5 I think one could say the price of oil is not going to 6 be \$5 or whatever, but today is a very uncertain time. 7 We saw the EIA's three scenarios, and they have the 8 price, one scenario at \$50 and one at \$200, which is a 9 mass--I think it reflects the fact that the current 10 world is one of great uncertainty, and even their 11 lowest scenario is above the average price of the last 12 20 or 30 years. So, I think we are very much in an 13 uncertain period. But I said a good forecaster, but a good 15 analyst and economist who is helping decision-making 16 can say, well, the probability of certain outcomes is low, and there is a reasonable range perhaps within 18 which prices can fluctuate. Unfortunately, that range 19 now seems to be wider than it was in the past. ARBITRATOR JANOW: So, I guess my last 21 question is a temporal one: Is there, in your view, 22 more likelihood that the error rate will decrease as

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10:04:04 1 one is closer in time to the target date? For example, I think your own work, if I'm 3 correct, had certain assumptions about 2009 prices 4 that were made in 2006. Is there a greater likelihood 5 in 1006 with respect to 2009 than 2005 with respect to 6 2009? What is the temporal dimension you consider 7 relevant for?

THE WITNESS: I think the energy world is 9 extremely uncertainty in the short, medium, and long 10 term. Working the geopolitics of, will Iraq bring 11 more oil on-stream; will there be Iranian political 12 change; what's going to happen to the world economy in 13 the rate of economic growth; the future of the banks? 14 I think we are at a particularly uncertain time at the 15 moment, so I don't think the short term is any less 16 uncertain than the long term. And short-term forecasts, I don't think, have

18 been any more accurate than long-term forecasts. In 19 fact, sometimes you can get the long term right, but 20 the world in between has been very wrong, so I don't 21 think the certainty factor is there.

We have been through periods of time when the

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10:06:24 1 particularly very valuable. I was concerned about the 2 detailed analysis to make sure to inform company's 3 analysis of those markets. I'm not sure that you said the word "particularly," actually, as I wrote 5 down, but it's neither here nor there. I'm interested to know, then, precisely why 7 you would have purchased price forecasts. Having made 8 that statement, I assume from your answer you did purchase them and you probably purchased them at a 10 considerable price. So, they must have had some 11 value. What was the value of those price forecasts? THE WITNESS: My role was to understand how 13 energy markets worked and were going to work in the 14 future; and, therefore, we were always testing what 15 other people were saying and trying to understand if 16 there are forces which were emerging which were not 17 the way we saw them. So, any forecast, we would 18 always check through and say, well, where is our view 19 different from somebody else's. So, we were looking 20 at the detail of oil demand growth in China or parts 21 of Africa or oil production out of Angola and try to 22 see if the numbers that we were using were different

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10:05:18 1 volatility has been lower. Actually, the last 12 2 months oil prices have been relatively stable. Oil 3 traders have not been doing very well. There was a 4 time in the Nineties when the range of oil prices was 5 fairly narrow, and the Sixties as well, but you go 6 through periods, but I don't think you can predict 7 when that's going to happen, unfortunately. The oil 8 business is one of a lot of risks and uncertainty, and 9 oil markets and oil prices are more uncertain than the 10 prices of other goods and commodities. ARBITRATOR JANOW: Thanks very much. Those 12 are my questions. 13 ARBITRATOR SANDS: Just really quickly,

14 LiveNote, Page 15, Line 2, quotes--you won't have it 15 in front of you. It's what you said--

16 MR. RIVKIN: Sorry, our LiveNote is showing pages in the 650s. 17

18 ARBITRATOR SANDS: Oh. Well, I'm on Day 3. 19 MR. RIVKIN: So are we.

20 Anyway, why don't you give us the quote. ARBITRATOR SANDS: The quote is, "However, at

22 no time did I believe the price forecasts were

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10:07:43 1 than somebody else's and identify the source of 2 difference, trying to understand how we might find one 3 forecast at a different number of Angola, but don't 4 worry, we operate the field and we know what's going 5 on, or maybe they had sources of information which is 6 better--always looking for the bests source of 7 information. So, always going to forecasts, picking 8 up where there were particular difference, different 9 views, and understanding those views. 10 So, price forecasts, you hope, were based on 11 sound analysis of supply and demand trends, so you

were always looking for those. 13 I was also interested in what price they were 14 assuming because the price the forecasters do affect 15 people's assumptions in the way markets work. So, it 16 was more interest. It was not going to affect the 17 decision-making of a company such as BP, but it is 18 also--we would like to inform the senior management 19 this is what people are saying, this is what the 20 market is saying, so you should know what's going on 21 out there because expectations affect reality as much 22 as some of the physical forces.

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10:08:44 1 ARBITRATOR SANDS: So, would I be right in
2 thinking that the value for you or for your company
3 was the underlying analysis rather than the
4 conclusions?
5 THE WITNESS: Absolutely.
6 ARBITRATOR SANDS: Would you have identified
7 criteria to determine circumstances in which the
8 underlying analysis was or was not reliable?
9 THE WITNESS: Well, we would go through it.

9 THE WITNESS: Well, we would go through it 10 and we would have a whole series of forecast, say, of 11 oil demand in China, and we would compare them. We

would try to look at the rationale behind them, try to look at the assumptions they were making, was it just

14 simply different economic growth assumptions

15 who--sometimes they were random, sometimes they were

16 sometimes well-informed, trying to work out who was

17 well-informed, and we would tend to find out who knew

18 most about what. And we would tend to rely on those
19 who are best informed about certain things in order to

20 inform our own opinion. And sometimes we would see

21 forecasts and say, well, that doesn't seem to be

22 well-informed; they've got their history wrong, never

715 10:10:48 1 could understand when the forecast comes out. How do

2 we understand the provenance of this number that we
3 are looking at when we have purchased? And that's

4 always important, to understand the provenance and the 5 rationale behind it.

6 ARBITRATOR SANDS: So, you would have a 7 number of these forecasts and a number of sets of

8 underlying assumption, and, over time, you described 9 you spent an extended period of time, for example,

10 with BP. Would some of the players producing

 $11\$  forecasts and their underlying analysis seem to be a

12 finite group to a certain extent? Over that period of 13 time would some of the underlying analyses emerge as

14 ones to which you would pay particular attention

15 because they were more reliable than others?

16 THE WITNESS: Yes.

17 ARBITRATOR SANDS: Was the consequence of 18 that, then, that you would also tend to rely more on

19 the forecasts of those who had provided more reliable

20 underlying assumptions?

21 THE WITNESS: Sometimes, you did find some 22 consultants who were very good at analyzing the

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10:09:50 1 mind the future, and things like that. So, we find we
2 would go through and try to find the best source and
3 best understanding, who has done the most detailed
4 analysis, who has got the best model, whose model fits
5 the past, for example, would be very important.
6 ARBITRATOR SANDS: So, could you then form a
7 view applying those criteria and that assessment to
8 the reliability of certain underlying analyses? Were
9 some treated as reliable and some treated as
10 unreliable?

11 THE WITNESS: Yes. Yes.

12 ARBITRATOR SANDS: And over time, to the best

13 of your recollection, would there be consistency, 14 whether some people who engaged or entities that

15 engaged in the underlying assessments that you tended,

16 then, to rely?

17 THE WITNESS: You would always find some 18 forecasters that would always have high numbers for

19 demand and then revise them down, other forecasters

20 would be other way, and we tended to try to identify
21 the biases to understand where they were. We compared

22 the, actual against the forecast over time, so we

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10:11:54 1 current situation and the past but their forecasts
2 were not very good, and sometimes vice versa, which

3 you would hope didn't happen, but in reality it did.

4 So, sometimes you found those that had the best

5 current information, then made wild forecasts.

6 ARBITRATOR SANDS: So, the question I'm
7 really getting at is: Is there any relationship--is

8 there any consistent relationship between the

9 reliability of underlying assumptions and the e 10 reliability of a forecast?

11 THE WITNESS: I think if you're going to put 12 one word, the answer is no.

But sometimes you found, for example, the International Energy Agency, when they changed their analyst, their forecasts changed, and we used to

16 plot--we knew when the analysts had changed, and we

17 could plot how they changed their forecast, and 18 sometimes they would have a forecaster who would

19 overestimate on supply, and they then were replaced

20 with somebody else who would underestimate.

So, it doesn't necessarily mean by entity there is a constant bias on performance, and it does SHEET 11 PAGE 717 \_\_\_\_\_

10:12:56 1 change over time.

And, of course, the world change, and so, the unexpected events sometimes were not anticipated by people who had done very good analysis but didn't see

5 the political change or the regulatory change coming.

6 ARBITRATOR SANDS: Thank you very much. I

7 have no more questions.

8 PRESIDENT van HOUTTE: Are there other 9 questions from the Parties?

10 MR. RIVKIN: Could I ask one short series of 11 questions to follow up--

12 PRESIDENT van HOUTTE: Follow up on one of 13 the questions, yes.

14 FURTHER CROSS-EXAMINATION

15 BY MR. RIVKIN:

Q. Mr. Davies, in your testimony, you said that the IEA 450 Scenario predicted higher prices in order

18 to assume lower demand; is that right?

19 A. I believe that's the case, yes.

10:14:59 1 A. Absolutely.

Q. And when the Obama Administration talked

3 about changing the CAFE, standards, the fuel emission 4 standards, it was change over a long period of time.

5 A. The vehicle stock takes a long time to 6 change.

7 Q. Exactly.

8 If you could take a look at--and then I want

9 to turn back to the IEA 450 Scenario just to clear up 10 the record here, if you take a look at Emerson

11 Exhibit 13, which Greg will hand--you might have that

12 there.

13 Do you have that there? Okay.

14 This should be in the Claimants' Core Bundle

15 for the Arbitrators.

16 A. That's the World Energy Outlook, 2009; is it?

17 Q. Yes, exactly. The IEA's World Energy Outlook

18 2009.

19 And if you look at Page 201, this is

20 the--Page 201 of the Exhibit describes the policy

21 framework involved in the 450 Scenario; is that right?

22 A. It says, we assume a plausible combination of

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10:13:52

6 Q. Okay. But you would also expect that policy

7 changes related to climate--change in climate policy 8 will not have any impact over the next five to seven

9 years. Those are policy changes that take a long time

10 to implement; isn't that right?

11 A. Some take a long time, some take a short

12 time. Whether there is a price of carbon already, as

13 in, for example, in parts of Europe, if the price of

14 carbon goes up, we can observe a shift in the impact

15 on the consumption of carbon and shifts in the

16 relative fuels over a short period of time.

17 So, there can be short period effects, but I

18 think the climate change issue is more likely, in

19 general, to be a longer term issue than the short term

20 issue. But there are many other policies.

21 Q. The Copenhagen conference was a failure, for

22 example?

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10:16:16 1 policy instruments. That's the section you mean?

Q. Page 201, headed, policy framework?

A. My 201 does not say policy framework.

Q. Are you looking at the IEA's World Energy 5 Outlook 2009?

A. Iam.

Occument handed to the witness.

8 There are two different versions of it.

9 Right, okay.

10 Q. Okay.

11 A. Yes, I think we just--I just lost the title,

12 that's all.

13 Q. Okay. All right.

14 No, not that. We are looking at Page 201.

5 What this shows is that emissions reductions

16 in the energy sector on the scale and at the pace

17 described in the 450 Scenario would require an

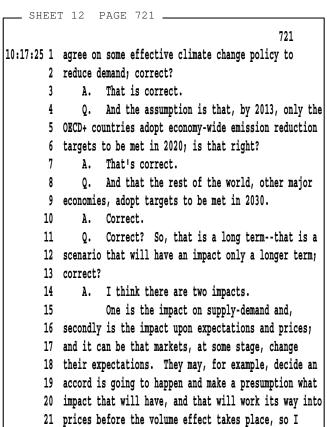
18 international agreement on a structured framework of

19 effective international policy mechanisms and their

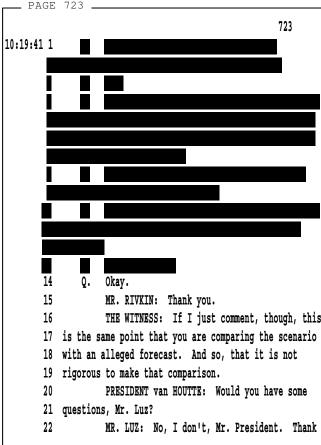
20 implementation; is that right?

21 A. Yes.

So, the 450 Scenario assumes Governments



22 think one has to remember that.



10:18:30 1 Q. And you had said that the 450 Scenario
2 increased prices in order to reduce demand. But if
3 you could take a look, please, at Page 15 of
4 Ms. Emerson's Second Report, her April 2010 report,
5 which should be in front of you there somewhere. If
6 not, Greg will hand it to you.
7 There it is.
8 A. On Page 15? Yes, indeed.
9 Q. Yes.

\_ PAGE 724 \_ 724 10:20:38 1 you. PRESIDENT van HOUTTE: Thank you very much, 3 Mr. Davies. That concludes your Expert testimony. I 4 assume that you will remain in the room for the rest 5 of the day? THE WITNESS: I was not intending to, if that's not a problem. PRESIDENT van HOUTTE: For me, 9 it's--Phillipe? 10 No, it's not necessary, then. You can follow 11 your intentions and your forecasts. THE WITNESS: Okay. Thank you. I don't make 13 price forecasts. PRESIDENT van HOUTTE: Your assumptions--your 15 assumptions with reasonable certainty. 16 (Laughter.) THE WITNESS: Thank you very much. 17 (Witness steps down.) 19 PRESIDENT van HOUTTE: Thank you. Now will we have a short break or--if Mr. 21 Frederick Way at the moment or--MR. RIVKIN: It's up to you. We can either

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10:21:03 1 take a break or we can proceed now with Mr. Way.

2 We're in your hands.

PRESIDENT van HOUTTE: Five minutes' break?

4 Thank you.

(Brief recess.)

FREDERICK WAY, RESPONDENT'S WITNESS, CALLED

PRESIDENT van HOUTTE: May we resume now with

8 the examination of factual witness. Mr. Frederick Way

9 is before us.

You are Mr. Frederick Way?

11 THE WITNESS: Yes, sir.

PRESIDENT van HOUTTE: Can you repeat: I

13 hereby confirm upon my conscience and honor...

THE WITNESS: I hereby confirm upon my

15 conscience and honor...

PRESIDENT van HOUTTE: ...that I will tell

17 the truth and nothing but the truth.

THE WITNESS: ...that I will tell the truth

19 and nothing but the truth.

PRESIDENT van HOUTTE: Thank you.

21 MR. GALLUS: Thank you.

DIRECT EXAMINATION

10:33:17 1 Benefits Plan an agreement?

A. No, it isn't.

Q. And is the Benefits Plan a result of a

4 negotiation?

A. No.

Q. How would you describe a Benefits Plan?

A. A Benefits Plan is one of two documents that

8 is to be submitted by an oil-and-gas operator for

9 approval by the Board. The Plan is submitted, it is

10 reviewed by the Board for completeness and relevance

11 and appropriateness. If it isn't acceptable on--as

12 being in accordance with the legislation and the

13 Guidelines, it is returned to the Operator with

14 reasons, and the Operator will then reformulate the

15 Plan and resubmit it.

O. And under what circumstances will the Board

17 accept a Benefits Plan?

A. The Board would accept a Benefits Plan if it

19 reviews the Plan and it's in accordance with the

20 Guidelines, in accordance with the legislation.

Q. Just that you mentioned Guidelines, and I

22 want you to put aside the Research and Development

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10:32:27 1 BY MR. GALLUS:

Q. Mr. Way, you're currently the Vice-Chairman

3 of the Board?

A. That's correct.

O. And at the time that the Guidelines were

issued, you were the Acting Chairman of the Board?

A. Yes.

Mr. Way, were you at this hearing earlier in

9 the week?

10 A. No.

You flew into Washington last night; is that

12 right?

13 A. Yes.

Earlier in the week, there has been some

15 uncertainty about how the Regulatory Framework works

16 and how the Guidelines actually operate. I thought it

17 might be helpful jut briefly to walk the Tribunal

18 through those two issues, starting first with the

19 Regulatory Framework.

Starting with the Benefits Plan, there was 21 some discussion earlier in the week as to whether a

22 Benefits Plan is an agreement. In your view, is a

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10:34:28 1 Guidelines for a moment, and we will come back to

2 them. But just talking about Guidelines generally,

3 could you explain to the Tribunal the role of

4 Guidelines in the work of the Tribunal--the work of

5 the Board?

A. Well, the legislative body--or the statutory

7 body for the Board consists of the legislation and the

8 regulations which are passed pursuant to the

9 legislation. In the legislation, it references areas

10 where the Board may issue Guidelines to provide

11 further clarity as to the intent and requirements of

12 the legislation and the regulations.

13 Q. And does the Board often rely on such

14 Guidelines?

A. Yes, the Board has a number of Guidelines.

Q. Let's move on to the specific Guidelines at

17 issue in this arbitration. Could you explain to the

18 Tribunal, when was the first public statement of the

19 Board that the Board would issue these Research and

20 Development Guidelines?

A. To the best of my recollection, the first

22 public reference of the Board to the necessity for

SHEET 14 PAGE 729 \_ PAGE 731 729 731 10:35:45 1 Research and Development Guidelines was when it issued 10:37:20 1 questions. To say that the Board was advised, at any 2 the decision approving the White Rose Project in the 2 point, whether it was in 1985 or in 2004 or any other 3 late fall of 2001. 3 time by lawyers, it has absolutely no probative value 4 for the case unless we know what that advice was. And THE SECRETARY: I apologize to interrupt, but 5 I forgot to ask if you want to open the session. 5 if they're willing to waive all of their MR. GALLUS: This can be open. 6 attorney-client privilege, then that's fine; but 7 otherwise, we don't know whether their actions were THE SECRETARY: Yes. Please open the consistent with or different from their advice. 8 session. (End of confidential session.) PRESIDENT van HOUTTE: The Tribunal agrees. 10 MR. GALLUS: I was simply trying to 11 11 perhaps--I was just raising the question in response 12 12 to--13 13 (Tribunal conferring.) 14 14 PRESIDENT van HOUTTE: This is a very 15 15 important issue. 16 MR. GALLUS: We are happy to move on. We 17 17 certainly have no more questions on this. We are 18 18 happy to move on. 19 PRESIDENT van HOUTTE: By absence of subject 20 matter, we agree. BY MR. GALLUS: Q. Let's move on to the--well, let me just ask:

PAGE 730 730 10:36:06 1 OPEN SESSION BY MR. GALLUS: Q. So, you're saying, Mr. Way, that the Board 4 issued its first public statement that it would issue 5 the Guidelines in late 2001. And at that stage was 6 the Board aware of the decline in expenditures on the 7 Hibernia and Terra Nova Projects? A. Yes. The Board, in my experience, first 9 became aware of the sort of declining expenditures in 10 the spring of 2001 when the Annual Reports were 11 submitted by Operators for their--essentially their 12 R&D reports in respect to the Year 2000 which were 13 submitted in the spring of 2001. Q. Okay. There was an issue that arose earlier 15 in the week regarding legal advice that the Board 16 obtained concerning the Guidelines, and I want you to 17 be careful here obviously not to disclose any of the 18 content of that legal advice. But did the Board 19 obtain legal advice when developing the Guidelines? MR. RIVKIN: Mr. President, I didn't want to

21 object when these questions were being raised by an

22 arbitrator, but I do have an objection to this line of

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10:39:29 1 Mr. Way, did the Board consult with the Operators with 2 regard to development of the Guidelines? A. The Board did begin the process of 4 consultation with the Operators, which, as I recall, 5 evolved into the Operators being represented by the 6 Canadian Association of Petroleum Producers, and essentially it was the East Coast committee of CAPP, 8 which, in essence involved the Operators from 9 Newfoundland. Q. So, you met with these Industry 10 11 Representatives? A. We market with them, and I think there may 13 have been some exchange of correspondence as well. Q. And did you talk with them about 15 possibilities to propose alternatives to the 16 Guidelines? A. The Operators, I think, probably raised with

18 us first the question of whether or not they could
19 come forward with some alternative to the Guideline,
20 to which we agreed, and then they asked for some time
21 to formulate an alternative.
22 Q. Did they come up with an alternative?

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10:40:48 1 A. They did not. They came to us as the

- 2 deadline which they had set approached and said they
- 3 hadn't reach a consensus and could they have more time
- 4 and we said of course.
- 5 And then before that time expired, they came
- 6 back to us and said we can't reach a consensus.
- 7 Q. And are they able to come up with an
- 8 alternative now?
- 9 A. Yes, there is a provision in the Guideline
- 10 that still affords the Operators that opportunity.
- 11 Q. During the discussions with the Operators at
- 12 this time, did the Operators ever challenge the
- 13 benchmark in the proposed Guidelines?
- 14 A. Not that I recall.
- 15 Q. Did they ever argue that the benchmark was
- 16 unfair?
- 17 A. Not that I recall.
- 18 Q. And do you think the benchmark is unfair?
- 19 A. No.
- Q. And why is that?
- 21 A. Well, I think the benchmark, if you look at
- 22 the definition and where it comes from in the

- 10:42:57 1 should say, if they spent \$20 million on a new
  - 2 building which would house a research and development
  - 3 facility.
  - 4 A. Yes. It was for research and development,
  - 5 yes. The bricks-and-mortar part of it would be
  - 6 eligible under our Guideline.
  - 7 Q. But would those expenditures go towards
  - 8 setting this benchmark under the Statistics Canada
  - 9 question?
  - 10 A. No.
  - 11 Q. And finally, if the Operators gave money to a
  - 12 subcontractor, a company like Halliburton, to say, if
  - 13 they give \$20 million to Halliburton to conduct
  - 14 research and development, would that expenditure
  - 15 qualify under the Guidelines?
  - 16 A. If the research and development was conducted
  - 17 in the Province as required by the legislation, then
  - 18 yes, it would be.
  - 19 Q. And would that expenditure qualify or go
  - 20 towards the benchmark under the Statistics Canada
  - 21 formulation?
  - 22 A. I don't think so because of the requirement

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- 10:41:40 1 Statistics Canada -- from Statistics Canada material,
  - 2 it's based on expenditures by upstream oil-and-gas
  - 3 extraction companies in Canada, and the definition of
  - 4 R&D was fairly rigid. Our Guideline, by contrast,
  - 5 accepts that definition and then adds to it other
  - 6 areas, most notably expenditures on education and
  - 7 training and some other areas, expenditures by
  - 8 subcontractors and so on. It's much broader than the
  - 9 definition that's in the benchmark.
  - 10 Q. And is one of those differences expenditures
  - 11 on buildings?
  - 12 A. It could be. It could be.
  - 13 Q. So, let's run through a couple of specific
  - 14 examples. If the Operators spend \$5 million on a
  - 15 scholarship, does that qualify under the Guidelines?
  - 16 A. Yes.
  - 17 Q. And would that, however, go towards the
  - 18 benchmark?
  - 19 A. No.
  - Q. And if the Operators spent \$20 million on a
  - 21 new building, would that sort of spending on the
  - 22 bricks and mortar qualify under the Guidelines? I

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- 10:43:53 1 is the Statistics Canada definition, it would be
  - 2 in-house expenditures--
    - Q. Okay.
    - A. --to get into that benchmark.
    - Q. I have one last question for you, Mr. Way,
  - 6 and I'm going to try to put to you a question that was
  - 7 put yesterday by the President of the Tribunal.
  - 8 MR. GALLUS: I apologize, Professor van
  - 9 Houtte, if I get this question wrong.
  - 10 BY MR. GALLUS:
  - 11 Q. But Professor van Houtte yesterday was
  - 12 talking about a situation where there are 10 companies
  - 13 all trying to find oil, and he talked about the
  - 14 situation--and again I apologize if I get this
  - 15 wrong--but a situation where only one of those
  - 16 companies actually finds oil and actually produces any
  - 17 oil and the other nine companies just continue to
  - 18 explore for oil. In that situation, the nine
  - 19 companies that are exploring for oil, are they obliged
  - 20 under the Guidelines to expend on research and
  - 21 development?
  - 22 A. No.

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10:44:49 1 Q. And this one company that moves into a
2 Development Phase, while it's in the Development
3 Phase, is it obliged to expend on research and
4 development?
5 A. We give them a Guideline, which suggests

5 A. We give them a Guideline, which suggests half
6 of 1 percent of capital should be spent on research
7 and development, education and training during the
8 Development Phase, but it's not necessary to spend it
9 in the Development Phase because the quantum of the
10 requirement is determined by production in the
11 Production Phase.

However, if they do spend money in the
Development Phase, and it could be half of 1 percent
of capital or it could be less or it could be more,
then that will be credited against the requirement in

16 the Production Phase when they entered a Production 17 Phase. But if there is no oil produced, there is no 18 requirement because the quantum is totally defined by

19 production.

20 PRESIDENT van HOUTTE: And just for the 21 record, my question was a little different. Because,

22 as a matter of fact, companies do research and

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10:47:07 1 money on research and development but never entered in

2 the Production Phase. Now, their research and

3 development is included in the statistics, and it is4 based on those statistics that the only one who

5 produces oil then has to spend money for research and

6 development.

7 And then my question was whether under this

8 scenario, as a matter of fact, the benchmark
9 is--whether it is relevant because the benchmark

10 obliges the tenth player to do a lot of research

11 development on the basis of the research and

12 development which effectively already has been carried

13 out by the nine previous players which were

14 unsuccessful. It is not whether the nine unsuccessful

15 players are obliged or not. The fact of my position

16 was that they indeed did a lot of research and

17 development, which that is included into the

18 statistics, and those statistics are then the basis

19 for the tenth player to reach the threshold in the

20 Production Phase.

21 THE WITNESS: I guess I would say in my 22 experience, there is very little research and

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10:45:56 1 development because they think it's necessary. I
2 guess that's the first reason and motive why they do
3 research and development, not because there is a
4 statute which obliges them to do research and
5 development.

6 Now, it was said that research and
7 development in the first stages is more important or
8 is more substantial than in the later phases. Now,
9 the question was not whether in the Exploration and
10 Development Phase companies are required to do
11 research and development. My question was that they

12 did, in fact, do research and development, and that

13 the amounts spent for research and development then

14 were included in the statistics, and it is on the 15 basis of the statistics that during the Production

16 Phase, one has to reach the threshold imposed by the

17 Guidelines.

Now, I fully understand that whatever you did
in the Exploration and Development Phase can be

20 deducted from the research and development amounts you

21 have to do in the Production Phase, but in my

22 hypothesis, there were nine players who spent a lot of

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10:48:17 1 development expenditure in the Exploration Phase. It

2 hasn't been our experience that Operators spend very

3 much money on research and development in the

 ${\bf 4}$   $\,$  Exploration Phase. There is no requirement for them

5 to spend any, but there is a voluntary date, they can.
6 That's not contained in the Guideline, but it's

7 contained in another part of the Board's documentation

 $\boldsymbol{8}$   $\,$  in their terms and conditions under which lands are

 $\ensuremath{\mathbf{9}}$  awarded. But in my experience there has been very

10 little expenditure by companies during the Exploration 11 Phase.

12 BY MR. GALLUS:

Q. I just have one follow-up question on that:
In your experience, do companies expend on research
and development in the Development Phase?

16 A. They tend to spend money on education and 17 training during the Development Phase, getting ready 18 for production; and when we used the 0.5 percent of 19 capital, we chose as a guide for spending during the

19 capital, we chose as a guide for spending during the 20 Development Phase, we took that based on experience in

21 the projects up to that point on the East Coast of

22 Canada. So, that 0.5 percent was based on experience.

\_ SHEET 17 PAGE 741 \_ \_ PAGE 743 741 743 10:49:47 1 Q. And my final question is: Do companies which 10:51:27 1 to time issued Guidelines in order to provide clarity 2 enter a Development Phase, do they then go on to 2 about what it--about how it applies the statutory 3 produce oil? Do they then go on to a Production 3 requirements for Benefits Plans and others; is that 4 right? 4 Phase? A. Yes, many aspects of the Accord legislation. A. Yes. MR. GALLUS: Thank you. I have no more Q. And it's fair to say, isn't it, Mr. Way, that 7 in every circumstance other than the 2004 Research and questions. 8 Development Guidelines the Guidelines issued by the PRESIDENT van HOUTTE: Thank you. 9 From Claimants' side? 9 Board were forward-looking? They were provided 10 guidance as to what Parties should include in their MR. RIVKIN: It will be me, Mr. President. 11 Thank you. 11 Benefits Plans in the future. 12 CROSS-EXAMINATION A. I would have to look at the list of 13 13 Guidelines, but--BY MR. RIVKIN: Q. Mr. Way, you were asked about a company Q. Well, let me show you some. 15 spending \$20 million to build an in-house research and MR. RIVKIN: Greg, if you could put the Core 16 development facility in Newfoundland. Do you recall 16 Bundle, the witness bundle in front of Mr. Way, 17 that guestion from Mr. Gallus? 17 particularly the first volume of the exhibits. A. I don't think it was an in-house. It was And, Members of the Tribunal, I will refer 19 just to build a facility. 19 you to our first Exhibit Core Bundle, starting with 20 Claimants' Exhibit 32. Q. Okay.

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10:50:30 1 the Hibernia owners.

2 A. Um-hmm.

Q. You said that \$20 million would receive

A. It wouldn't have to be in-house.

Q. Assume it was an in-house facility built by

4 credit against the Guidelines as a benchmark; is that

5 right?

A. If it was built for research and development,

7 yes, it would qualify under our Guideline.

8 Q. In order to build that in-house research and

9 development facility, of course, the Hibernia owners

10 would have to buy local goods in order to build the

11 facility; right?

A. I presume some local goods.

Q. And they would have to buy local services

14 because those are the people who are going to build

15 the facility; right?

16 A. Yes.

Q. And once that facility was up and running,

18 the services would be--the R&D in-house facility would

19 be providing research services in the Province of

20 Newfoundland; correct?

21 A. Yes.

Q. Now, you mentioned that the Board from time

10:53:05 1 for Benefits Plans approval; is that right? And these

BY MR. RIVKIN:

2 are Exploration Phase Guidelines?

3 A. What was the number again?

Q. Claimants' Exhibit 32.

5 A. Yes.

Q. Section 1.0.

7 It states there that: "This document is

Q. Section 1.0, these are the 1986 Guidelines

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8 designed to provide Operators with Guidelines for

9 Benefits Plan approval and reporting requirements for

10 exploration activities in offshore Newfoundland.

11 Do you see that?

12 A. Yes.

13 Q. So, this was designed to tell Operators what

14 they needed to put into their Benefits Plans for

15 Exploration Phase activities; correct?

16 A. I have very little familiarity with this

17 document. This document not only precedes my time by

18 many years, it also precedes the legislation under

19 which we're operating now.

Q. It followed the Accord Acts; isn't that

21 right?

22 A. I think the Accord Act, Federal Accord Act,

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10:54:20 1 was proclaimed in 1987.

- 2 Q. It was 1985, actually.
  - A. Well, the Atlantic Accord was 1985.
- Q. Do you know when the--do you know when the
- 5 provision allowing the Board to issue Guidelines with
- 6 respect to Section 45 was implemented?
- A. I've always operated using the Federal Act,
- 8 which was proclaimed in, I think, 1987.
- 9 Q. And do you know if Section 151 of the 1987
- 10 Act include the ability to issue Guidelines?
- 11 A. It did. It does.
- 12 Q. All right. Well, we can come back to that.
- 13 All right. So, you don't--the 1986 and 1987
- 14 and 1988 Guidelines were all before your time?
- 15 A. Very much so.
- 16 Q. If I told you it had similar language--they
- 17 had similar language to this, would that surprise you?
- 18 A. Maybe, maybe not. I don't know. I don't
- 19 have a view.
- 20 Q. Would you agree with me that this language is
- 21 forward-looking, it's designed to provide guidance for
- 22 future Benefits Plans?

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10:56:40 1 Guidelines in the context of the White Rose Project;

- 2 is that right?
- 3 A. Yes.
- 4 Q. And, in fact, the Board--and White Rose is a
- 5 separate project from Hibernia and Terra Nova;
- 6 correct?
- A. That's correct.
- 0. It has different owners?
- 9 A. Some of the owners are different.
- 10 Q. Some are the same, but all in different
- 11 ownership percentages; correct?
- 12 A. Yes.
- Q. It's a different Consortium. It operates a
- 14 different project.
- 15 A. That's correct.
- 16 Q. Just as the Hebron Project, again different
- 17 owners, different Consortium?
- .8 A. Some are the same.
- 19 Q. Different ownership interests, operates as a
- 20 separate project.
- 21 A. Yes.
- Q. And the Board issued its decision approving

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10:55:26 1 A. On the surface, that's what that first 2 paragraph says.

- Q. Okay. Let's take a look at the 2006
- 4 Exploration Benefits Plan Guidelines. That's
- 5 Claimants' Exhibit 34, which may be--hopefully be in
- 6 your binder.
- 7 A. Um-hmm.
- 8 Q. And look at Section 1.2. First paragraph.
- 9 Again, Section 1.2 of the two thousand--these
- 10 Guidelines were written while you were Vice-Chairman
- 11 of the Board; is that right?
- 12 A. Yes.
- 13 Q. And they state that "these Guidelines are
- 14 presented to assist Operators in the preparation of a
- 15 Benefits Plan. Do you see that?
- 16 A. Yes.
- 17 Q. And again that is meant to provide forward
- 18 looking guidance for future Benefits Plans; isn't that
- 19 right?
- 20 A. Yes.
- Q. Okay. You mentioned that the Board began to
- 22 consider promulgating Research and Development

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10:57:22 1 the White Rose Benefits Plan in November 2001; is that 2 right?

- A. I'm sorry?
  - Q. The Board issued its decision approving the
- 5 White Rose Benefits Plan in November 2001; is that
- 6 correct?
- 7 A. That's correct.
- 8 Q. And in that decision, the Board indicated
- 9 that the Operator of that project would eventually be
- 10 subject to a new R&D expenditure target to be
- 11 established by the Board at a later date; isn't that
- 12 right?
- 13 A. Yes.
- 14 Q. And if you could look at Claimants!
- 15 Exhibit 35, again, in your bundle.
- 16 This is the White Rose Decision; is that
- 17 right?
- A. That's correct.
- 19 Q. And if you take a look at Page EMM-422, down
- 20 at the bottom.
- 21 This is the Board's discussion of the
- 22 research and development and education and training

SHEET 19 PAGE 749 -PAGE 751

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10:58:39 1 requirements for the White Rose Project; is that

- 2 right?
- 3 A. Yes.
- Q. And in that section, the Board says at the
- 5 end of the first paragraph that "the Board believes
- 6 that establishing quantifiable expenditure
- 7 requirements in this regard is appropriate."
- Do you see that?
- 9
- And then it goes on to say in the next
- 11 paragraph that "the Board will issue Guidelines to
- 12 require a minimum level of expenditures"?
- A. What was your question again in respect to
- 14 that paragraph?
- Q. The Board states that it will be issuing
- 16 Guidelines with respect to the target amount of
- 17 research and development expenditures that it will
- 18 require for the White Rose Project; correct?
- A. You said the Board says it will be issuing a
- 20 target here?
- 21 Q. Yes.
- Take a look at the first paragraph, the third

11:01:21 1 A. I don't have intimate detail or detailed

- 2 knowledge or recollection of the Hibernia and Terra
- 3 Nova Benefits Plans. There was an expectation that 4 there would be research and development expenditures.
- 5 And part of the thinking, which the Board was
- 6 reflecting here, was the reports it had received from
- 7 Hibernia and Terra Nova in the spring of 2001, which
- 8 indicated significantly declining expenditures and
- 9 forecasting further declines in expenditures.
- Q. Mr. Way, with respect, that was not my
- 11 question. The question is: In the Board's Decisions
- 12 approving the Hibernia and Terra Nova Development
- 13 Plans, did the Board ever inform those project owners
- 14 that it would be establishing a target level of
- 15 research and development expenditures as it did in the
- 16 White Rose Decision?
- A. I don't have sufficient knowledge of those
- 18 Benefits Plans which were--preceded me by 10 years or
- 19 so to make a definitive statement.
- Q. Well, now, let's--let me test that a little
- 21 bit.
- You're Vice-Chairman of the Board; correct?

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11:00:17 1 sentence: "Accordingly, the Board will issue such

- 2 parameters and criteria and a target level of
- 3 expenditures."
- Do you see that?
- So the Board is informing the White Rose
- 7 Proponents at the beginning of their project, before
- 8 they move forward, that the Board will be establishing
- 9 a target level of expenditures; isn't that right?
- 10 A. Yes.
- Q. And, indeed, in Condition 3 down at the
- 12 bottom, the Board says that "it anticipates for this
- 13 White Rose Project the target will be not less than
- 14 \$12 million during the pre-production stage."
- A. Yes.
- 16 Q. Do you see that?
- Q. And so it informs -- now, you would agree with
- 19 me, wouldn't you, that there is no similar indication
- 20 that the Board will indicate--will create a target
- 21 level of expenditures in either the Hibernia or the
- 22 Terra Nova Benefits Plans? Correct?

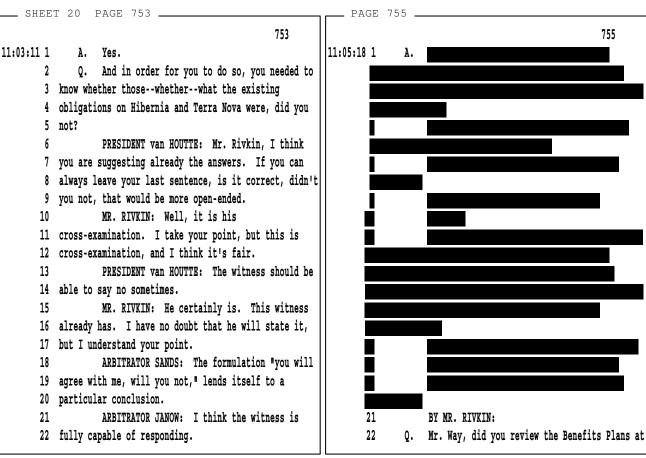
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- 11:02:29 1 A. Yes.
  - Q. You were Vice-Chairman of the Board in 2004;
  - 3 correct?
  - A. Yes.
  - Q. And in 2004 the Board adopted Guidelines that
  - 6 it imposed on the Hibernia and Terra Nova Projects;
  - 7 correct?
  - A. In 2004?
  - Q. The Board adopted the 2004 Research and
  - 10 Development Expenditure Guidelines; correct?

  - Q. And the Board informed the Hibernia and Terra
  - 13 Nova Project owners that those Guidelines would apply
  - 14 to them; isn't that right?
  - A. Yes, to provide them with parameters or
  - 16 guidance in respect to their obligations for research
  - 17 and development.
  - Q. Not parameters or guidance. The Board told
  - 19 them that they had to meet the Guidelines' targets--

  - 0. -- under the benchmarks created under the
  - 22 Guidelines; correct?



\_ PAGE 754 \_ 754 11:04:12 1 MR. RIVKIN: Yes, I do, too. They've been 2 asking cross-examinations of a similar nature. PRESIDENT van HOUTTE: Okay. MR. RIVKIN: But I wanted to be persuasive to 5 you, so I take your point. BY MR. RIVKIN: Q. Mr. Way, in--when the Board determined that 8 it was going to apply the 2004 Research and 9 Development Guidelines to Hibernia and Terra Nova, did 10 you review their Benefits Plans to determine whether 11 or not such an imposition was consistent with those 12 Benefits Plans? A. We regarded the Guideline as being an 14 articulation of what they were supposed to be doing; 15 and, based on their reports, which were received in 16 the spring of 2001, revealed they weren't. Q. I'm sorry, that doesn't answer my question. 18 Did you review the Benefits Plans and the Board's 19 Decision in approving their Benefits Plans to 20 determine whether you had the authority to impose

21 these Guidelines on the Hibernia and Terra Nova

22 Projects?

\_ PAGE 756 756 11:06:27 1 that time, as Vice-Chairman of the Board? A. I personally did not. Our staff would have 3 been familiar with them. Q. Were you familiar enough with them to know 5 whether or not the Benefits Plans included the 6 requirement of a target level of expenditures as was stated in the White Rose Decision? A. I was not advised that there was a target 9 level of expenditures in the Benefits Plans. 10 Q. I want to make sure your answer is clear. Did you know if at the time, in 2004, if the 12 Hibernia and Terra Nova Benefits Plans included a 13 target level of expenditures and the--sorry. It's an 14 important question, so let me restate it. Did you know at the time in 2004 if the 16 Hibernia and Terra Nova Benefits Plans and the Board's 17 Decisions approving those plans included a requirement 18 of a target level of expenditures as existed in the 19 White Rose Decision? A. No, they didn't require a target level of 21 expenditures. According to the advice that I

22 received, they did not--

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11:07:41 1 Q. And you knew that in 2004.

2 (Simultaneous conversation.)

- I think you said--correct me if I'm wrong,
- 4 Mr. Way. According to the advice I received, they did
- 5 not include such a target level.
- δ A. Yes.
- 7 Q. Did you look at the--
- 8 MR. GALLUS: Sorry, could we confer for just
- 9 one second? I'm sorry.
- 10 (Pause.)
- 11 MR. GALLUS: I'm sorry for interrupting.
- 12 Please continue.
- 13 BY MR. RIVKIN:
- 14 Q. Did you personally review the Benefits Plans
- 15 and the Board's decisions as--
- 16 A. The--
- 17 O. --Terra Nova and Hibernia?
- 18 A. No.
- 19 Q. The question of whether or not the 2004
- 20 Guidelines could be applied retroactively to the
- 21 Hibernia and Terra Nova Projects was an important
- 22 issue for the Board, was it not?

11:09:43 1 views.

- 2 MR. RIVKIN: And whether the Board discussed
- 3 it in the discussions among Board members which are
- 4 certainly not privileged.
- MR. GALLUS: Perhaps we could just warn
- 6 Mr. Way not to disclose any of the advice that you
- 7 received.
- BY MR. RIVKIN:
- Q. Do you want me restate the question, Mr. Way?
- 10 A. Please.
- Q. Did the Board understand in 2004 that because
- 12 the Hibernia and Terra Nova Benefits Plans and the
- 13 decisions adopting them did not include a target level
- 14 of expenditure, that it put those projects in a
- 15 different legal position from the White Rose
- 16 Proponents?
- 17 A. No, I don't think they did think it put them
- 18 in a different legal position.
- 19 PRESIDENT van HOUTTE: It's not the question
- 20 whether they did. It's the question of how you saw
- 21 it, and I would prefer--would it be possible to delete
- 22 the word "legal"?

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- 11:08:40 1 A. No, it was not an issue that received a lot
  - 2 of consideration internally because the Board felt it
  - 3 was simply articulating a practice and an expectation.
  - 4 Q. The Board understood--did the Board
  - 5 understand that because the Hibernia and Terra Nova
  - 6 Benefits Plans and the decisions adopting them did not
  - 7 include a target level of expenditure, that it put
  - 8 them in a different legal position from the White Rose
  - 9 Proponents?
  - 10 MR. GALLUS: Perhaps if we could interrupt at
  - 11 this point. I think if you're asking Mr. Way to talk
  - 12 about the legal position the Board thought it was in,
  - 13 that maybe this touches on areas that might be
  - 14 privileged.
  - 15 MR. RIVKIN: I'm asking him for his
  - 16 understanding as Vice-Chairman of the Board. I think
  - 17 that's a fair question.
  - 18 PRESIDENT van HOUTTE: That's how I
  - 19 understood it also.
  - 20 MR. GALLUS: I'm just ensuring we don't waive
  - 21 any privilege here.
  - 22 PRESIDENT van HOUTTE: It's your personal

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- 11:10:38 1 MR. RIVKIN: Yes.
  - 2 PRESIDENT van HOUTTE: Put in a different
    - 3 position, without any legal questions--
    - 4 BY MR. RIVKIN:
    - Q. Let me ask the question simply: Were the
    - 6 Hibernia and Terra Nova Project owners in a different
    - 7 position than the White Rose Project owners with
    - 8 respect to the Guidelines when they were adopted in
    - 9 2004?
  - 10 A. We didn't think so. We thought we were being
  - 11 helpful to these Operators by putting forward the
  - 12 Guideline that would give them some guidance to avoid
  - 13 the situation that had emerged from the reports in the
  - 14 spring of 2001.
    - Q. Let's turn to Claimants' Exhibit 134.
  - 6 Okay. Mr. Way, you're looking at Claimants'
  - 17 Exhibit 134, which again is in the Claimants' exhibit
  - 18 bundle?
  - 19 A. Um-hmm.
  - Q. Okay. And this is a memo that you drafted
  - 21 about a Board meeting that took place on December 12,
  - 22 2003; is that right?

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11:12:22 1 A. Um-hmm, yes.

- Q. And this Board meeting was devoted to
- 3 considering how to proceed with the R&D Guidelines; is
- 4 that right?
- A. Sorry, your question again?
  - Q. The December 12, 2003, meeting of the Board,
- 7 which your memorandum describes, was devoted to
- 8 consideration of the R&D Guidelines; correct?
- A. Yes, as to how we should proceed.
- And after describing consultations with the
- 12 Federal and Provincial Governments on Page 2, you
- 13 described the approach the Board discussed to the
- 14 different projects; is that right? If you look
- 15 underneath the redacted portion.
- 16 A. Um-hmm.
- 17 Q. You state there that "Given this
- 18 clarification, our approach to each of the projects
- 19 could be as follows."
- Do you see that?
- 21 A. Yes.
- Q. In fact, then, in the subsequent discussion,

11:15:56 1 conversation was that in order to apply the Guidelines

- 2 to the Hibernia and Terra Nova Projects, the Board
- 3 would have to use the POA process to impose the
- 4 Guidelines; correct?
- A. Yes.
- Q. And that was because the Hibernia and the
- 7 Terra Nova Projects did not have any requirements in
- 8 the decisions adopting their Benefits Plans that a
- target level of expenditures be reached; correct?
- MR. GALLUS: Sorry to interrupt again. I
- 11 just want to warn Mr. Way to be very careful not to
- 12 discuss any of the legal advice that he received in
- 13 anything that might be within whatever is obviously
- 14 privileged here.
- MR. RIVKIN: But he can discuss the Board's
- 16 rationale, which is what I'm asking him.
- MR. GALLUS: He can certainly discuss the
- 18 Board's rationale. As long as he doesn't discuss
- 19 anything that he was given in terms of legal advice,
- 20 anything that could be in that privileged part of the
- 21 document.
- PRESIDENT van HOUTTE: We understand that,

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11:14:03 1 as you describe it, is it fair to say that you

- 2 differentiated about the positions of the different
- 3 projects with respect to imposing the Guidelines on
- 4 them?
- Yes.
- Q. And with respect to Hebron, because that was
- 7 a new project, the Board felt comfortable applying the
- 8 Guideline throughout the life of the project; correct?
- 9 That's Subparagraph (i).
- 10 A. Um-hmm. Yes.
- Q. And in the case of White Rose, the Board felt
- 12 comfortable approving the Guideline because it
- 13 specifically stated in the section that we were just
- 14 looking at of its decision approving its Benefits
- 15 Plan, that the Board would establish a target level of
- 16 expenditures; correct?
- Q. And then Subparagraph 3 deals with the Terra
- 19 Nova and the Hibernia Projects; correct?
- A. Yes, it deals with these two projects.
- Q. And the Board received some legal advice
- 22 which we don't see, but the net of the -- the net of the

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11:17:00 1 and whatever legal assumptions are made will be 2 irrelevant.

- THE WITNESS: This is a discussion of
- 4 applying the Guideline, the requirement to the Terra
- 5 Nova Project and the Hibernia Project on a go-forward
- 6 basis.
- BY MR. RIVKIN: 7
- Q. And the basis of applying the Guidelines to
- 9 those two projects on a going-forward basis was going
- to be their POA renewal process; correct?
- A. The Production Operation Authorization.
- Q. Is that correct? Was my statement correct?
- 13 A. Yes.
- Q. And without the POAs, the Hibernia and Terra
- 15 Nova Projects could not produce any further oil;
- 16 correct?
- A. That's correct.
- Q. And the Board had to--and is it fair to say
- 19 that the Board had to use the POA process to impose
- 20 the Guidelines on those two projects because their
- 21 Benefits Plans and decisions approving those Benefits
- 22 Plans did not include a requirement of a target level

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#### 11:18:33 1 of expenditures?

- A. No. The POA is also used to apply the
- 3 Guideline to the White Rose Project, and to Production
- 4 Operations Authorization is really the only effective
- 5 tool which the Board has to require conformance with
- 6 any aspect of a Benefits Plan for any project, and
- that will be the case for the Hebron Project as well.
- Q. But the Hebron Project was a new project; 9 correct?
- A. Well, it's not a project yet.
- Q. Right. But at the time of its application,
- 12 the Board required the Hebron owners to agree that
- 13 they would apply the Guidelines going forward.
- A. The Board hasn't received an application from
- 15 the Hebron Project yet.
- Q. Okay. But--well, in this memo the Board
- 17 states that if you receive an application--
- A. Yes.
- Q. -- the Board will insist on acceptance of the
- 20 Guidelines; correct?
- A. The Guideline will apply.
- Q. Yes.

11:22:15 1 includes a condition requiring compliance with the

- 2 applicable Benefits Plan; isn't that right?

  - Q. And when the Board issued a POA, it--well,
- 5 strike that.
- In order to issue a POA, the Board had to be
- 7 comfortable that the Proponent was in compliance with
- 8 all applicable legislative and regulatory requirements
- 9 and their own Benefits Plan; correct?
- Q. And in 2000, the Vice-Chairman--when you were
- 12 Vice-Chairman of the Board, the Board approved the POA
- 13 for the Hibernia Project; correct?
- A. I assume. I can't recall the exact dates of
- 15 the issuance of POAs; but if there was a POA issued in
- 16 that period at that time, that would have been the
- 17 case.
- Q. And when the Board approved the POA in 2000, 18
- 19 it did not apply any target expenditure level to the
- 20 Hibernia Project, did it?
- 21 A. It did not.
- Q. The Terra Nova POA was the first one to come

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- 11:19:50 1 And you have informed the Hebron owners that
  - 2 you will not proceed without an explicit recognition
  - 3 by them that the Guidelines will apply; correct?
  - A. I don't recall that we've done that.
  - O. You don't recall that the Board has made that
  - 6 statement to the Board--to Hibernia--to the Hebron
  - 7 owners?
  - A. No, I don't recall that we had done that.
  - Q. Okay. Do you know if the Province required
  - 10 that agreement by the Hebron owners?
  - A. I don't know what the Province has required.
  - Q. And on the last page of this document, you
  - 13 told the Board--you advised the Board that we should
  - 14 be prepared to move application of the Guideline to
  - 15 the POA go-forward dates for Hibernia and Terra Nova;
  - 16 correct?
  - A. I'm sorry, where is this?
    - Q. On the very last page of the document,
  - 19 Page--either 222 or EMM-2248.
  - A. Yes.
  - Q. Okay. Now, we were talking about the POA
  - 22 process. In every POA that it issues, the Board

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- 11:24:11 1 up for renewal after the Guidelines were in place; is 2 that right?
  - A. Again, I don't recall the exact schedule, but 4 that was probably the case.
  - Q. Okay. Well, let me refer you to Claimants'
  - 6 Exhibit 107, again which should be in front of you,
  - and which is -- and which is in Claimants! Core Bundle.
  - This is a Production Operations Authorization 9 application; is that correct, Mr. Way?
  - 10 A. Yes.
  - Q. And when the Board granted its approval in
  - 12 January 2005, which is on the third page of this
  - 13 document, the Board appended some conditions to the
  - 14 continued operation of the Terra Nova Project; is that
  - 15 right?
  - 16 A. Yes.
  - O. And that was in addition to the standard
  - 18 condition that we discussed a moment ago, that the
  - 19 owners be in compliance with their Benefits Plan as
  - 20 approved by the decision, and that's Condition 11 on
  - 21 the prior page; is that right?
  - A. Which one on this page were you looking at?

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- 11:26:22 1 Q. Page--Condition 11 on Page 2.
  - 2 A. Yes, I see Condition 11.
  - 3 Yes.
  - Q. And the Board included 15, Condition 15, with
  - 5 respect to the Guidelines because that condition was
  - 6 not contained within Condition 11; in other words,
  - 7 these two conditions were not redundant, were they?
  - 8 A. I'm sorry?
  - 9 Q. Did each of these conditions have an
  - 10 independent meaning and basis?
  - 11 A. I think the purpose in Condition 15 was one
  - 12 of greater certainty.
  - 13 Q. The Guidelines were not part of the Benefits
  - 14 Plan as--or Development Plan as approved by the Board
  - 15 under Board Decision 9702, were they?
  - 16 A. These Guidelines?
  - 17 O. Yes.
  - 18 A. They weren't written then.
  - 19 Q. Right.
  - 20 And if the Operator had refused to accept
  - 21 Condition 15 or any of the other conditions, it could
  - 22 not have continued to operate the Terra Nova Project;

11:29:24 1 particular project that on a cost-benefit basis is

- ar i partitular project that on a cost benefit bas.
- 2 beneficial to that particular project?
- 3 A. I believe that they will do what makes sense
- 4 for them to do.
- Q. And they would do so on a cost-benefit basis;
- 6 correct?

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- 7 A. I presume.
  - Q. And is it your understanding that the Federal
- 9 Accord Act requires that services -- that a Benefits
- 10 Plan provide that services be accorded first
- 11 consideration to suppliers in Newfoundland?
- 12 A. Yes
- 13 Q. And research and development are services;
- 14 correct?
- 15 A. Sometimes it's a service, sometimes it's not.
- 16 A service is something you buy, I presume.
- 17 Q. It's something that you undertake, isn't it?
- 8 A. I regard a service as something I purchase.
- 19 Q. Okay. Something that you pay for, one way or
- 20 the other?
- 21 A. By "purchase a service," if I purchase a
- 22 legal service.

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#### 11:27:53 1 correct?

- A. They could not produce without a Production
- 3 Operations Authorization.
- Q. Okay. And do you recall that when the
- 5 Hibernia owners' POA came up for renewal and they
- 6 refused the condition with respect to compliance with
- 7 the Guidelines, the Board said it would not approve
- 8 the POA?
- 9 A. I don't recall it specifically.
- 10 Q. Okay. Do you recall that the Hibernia
- 11 Proponents noted their objection to the condition in a
- 12 cover letter and the Board said that it would not even
- 13 accept the objection in the cover letter?
- 14 A. I personally don't recall it.
- 15 Q. Okay.
- 16 MR. RIVKIN: I'll just--to save a little
- 17 time, Members of the Tribunal, I will just refer you
- 18 to Claimant Exhibits 101, 102, and 103 which sets out
- 19 that history.
- 20 BY MR. RIVKIN:
- Q. Mr. Way, do you believe that oil companies
- 22 would fail to do research and development for a

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- 11:31:14 1 Q. You can't--it doesn't have to be paying to a
  - 2 third Party; right? You could be paying it to
  - 3 somebody internal; that's still a service. They're
  - 4 still providing a service?
  - 5 A. In my definition, a service is something you
  - 6 purchase, not something you would undertake yourself.
  - 7 Q. Okay.
  - 8 A. And I think in the Accord legislation, it
  - 9 talks about the procurement of services.
  - 10 Q. And when--and what the Accord Act says is
  - 11 that when an Operator is procuring services, it shall
  - 12 give first consideration to local suppliers; correct?
  - 13 A. Yes, based on price, quality, and delivery.
  - 14 Q. Exactly.
  - 15 And if--and under the Accord Act, if the
  - 16 owner feels that the local suppliers cannot compete on
  - 17 the basis of price, quality, and delivery, they're
  - the pasts of bride, dustrill and deriveral cuel te
  - 18 entitled to procure those services elsewhere; correct?
  - 19 A. Yes.
  - 20 Q. And what the Guidelines do is require the
  - 21 owners of the projects to procure a certain level of
  - 22 research and development services or to pay for a

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11:32:40 1 certain amount of education and training in the

- 2 Province regardless of price, quality, and delivery;
- 3 isn't that so?
- A. It says clearly in the legislation "in the
- 5 Province.
- Q. When you say "in the legislation," you're 7 referring to the Guideline?
- A. No, I'm referring to the legislation.
- Q. Right. So--9
- A. The Act.
- Q. Okay. And the threshold created in the
- 12 Guidelines that owners must meet and that you make a
- 13 condition of their POAs, is that they spend a certain
- 14 level, a target level of expenditures on R&D; isn't
- 15 that correct?
- A. Yes.
- Q. And they must meet that level, regardless of
- 18 whether or not suppliers in--suppliers of R&D in the
- 19 Province can compete on the basis of price, quality,
- 20 and delivery for those same services; isn't that
- 21 right?
- A. The Board, in formulating the Guideline that

11:35:17 1 and development?

- PRESIDENT van HOUTTE: I don't think we
- should go too much into legal considerations.
  - MR. RIVKIN: Okay.
- PRESIDENT van HOUTTE: I don't know what
- 6 counsel for Respondent thinks.
  - MR. RIVKIN: I was asking for his view, but
- 8 I'm happy to withdraw the question. That's something
- 9 we can argue.
- PRESIDENT van HOUTTE: There are too many
- 11 legal arguments here.
- MR. RIVKIN: Okay, that's fine.
- 13 BY MR. RIVKIN:
- Q. Mr. Way, in adopting the Guidelines, did the
- 15 Board consider the problems that can occur when
- 16 project owners have to conduct research that is not
- 17 directly applicable to their project and the fact that
- 18 they will pay for that work to be done in their
- 19 different ownership percentages but then all have
- 20 access to whatever research results?
- A. No.
- Q. And you are aware, for example, that the

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- 11:33:47 1 we're discussing, looks specifically at the research
  - 2 and development/education and training provision in
  - 3 the act of Parliament in which was the phrase "in the
  - 4 Province." It was different than the other area of
  - 5 the legislation we were talking about procurement of

  - Q. But you just agreed with me that research and
  - 8 development is in many cases the procurement of a
  - 9 service; right?
  - 10 A. I don't think I did.
  - Q. Let me ask the question a different way.
  - If the project owners believe that for their
  - 13 project, for the particular research which is
  - 14 necessary, the service--the research and development
  - 15 is better undertaken elsewhere on the basis of price,
  - 16 quality, and delivery of service, do they--are they
  - 17 allowed to reduce their threshold requirement under
  - 18 the Guidelines?
  - 19 A. No. The law of Canada doesn't permit it.
  - Q. It's your testimony that Section 45(3)(d),
  - 21 which says that services are to be provided on a
  - 22 first-consideration basis, does not apply to research

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- 11:36:38 1 Hibernia and the Hibernia South owners have different 2 working interests; is that right?

  - A. Yes.
  - Q. And, for example, the Province of
  - 5 Newfoundland--sorry.
  - The Province of Newfoundland is a partial
  - 7 owner of Hibernia South; is that right? Through
  - 8 Alcor?

- A. I understand that to be the case, yes.
  - Q. And are you also aware that, to the extent
- 11 some of the research being conducted--sorry. Let me
- 12 ask the question more clearly.
- 13 Have you reviewed any of the Work Plans that
- 14 have been submitted to the Board by the Hibernia
- 15 Project owners in order to meet the shortfall in the
- 16 Research and Development Guidelines?
- A. I am aware of some of them, yes.
- Q. And are you aware that some of the work to be
- 19 undertaken under those Work Plans, even if successful,
- 20 would not have any application to the Hibernia Project
- 21 but could potentially have application to the Hibernia
- 22 South Extension?

SHEET 26 PAGE 777 -PAGE 779 777 779 11:40:43 1 any insinuation, how long will you continue? 11:38:18 1 A. I don't recall that detail. Q. Okay. If that were so, would you agree with MR. RIVKIN: I expect no more than five 3 me that the costs of the research and the benefits 3 minutes. 4 being received would not be equal because the working PRESIDENT van HOUTTE: Okay, because then I 5 interests in the two projects are not equivalent? 5 would suggest that you will have a break. A. That is not something I would concern myself MR. RIVKIN: That will be fine. I'm happy to take the break right now, if you 7 with. Q. Okay. Mr. Way, can you confirm that all 8 prefer. 9 expenditures incurred in connection with projects PRESIDENT van HOUTTE: No, that's fine. 10 approved in the Work Plan, pre-approved in the Work BY MR. RIVKIN: 11 Plan by the Board will, in fact, ultimately receive Q. Would you turn to Claimants' Exhibit 188, 11 12 Guidelines credit? 12 please, Mr. Way. A. I'm sorry, could you repeat that, please. 13 Α. Yes. 14 14 Do you recognize this document? Actually, we 15 should probably go into confidential mode at this You are--actually, let me--before I get to 16 that, let me ask a different short set of questions 16 point. 17 first. 17 THE SECRETARY: Please close the session. Would you agree with me--well, I will ask it 18 The session is closed. 18 19 a different way. 19 (End of open session. Confidential business Is research and development experimental? 20 information redacted.) A. Some of it is, certainly research. O. And it includes the -- it involves the

\_ PAGE 778 \_ \_ PAGE 780 \_ 778 11:39:22 1 development, testing and qualifying of new 2 technologies; correct? A. Some of that could be a part of development, 4 yes. Q. And it--research and development, therefore, 6 involves a level of technological uncertainty; isn't 7 that right? A. I presume. Q. And in deciding whether a piece of work 10 qualifies as R&D under the Guidelines, the Board 11 applies the criterion that the research and 12 development must be experimental; isn't that right? 13 A. Not that it must be. There's... Q. Well, are you--let me--are you aware that the 15 Board has declared ineligible expenses on the basis 16 that the project involves no scientific research or 17 experimental design and includes only the application 18 of standard engineering practices? A. Which project are you speaking of? Q. Well, let's take a look at Claimants'

PRESIDENT van HOUTTE: Mr. Rivkin, without

21 Exhibit 188.

780 11:41:27 1 CONFIDENTIAL SESSION 2 MR. RIVKIN: Okay. 3 BY MR. RIVKIN: Q. Do you recognize this document, Mr. Way? A. It appears to be a staff analysis of a Suncor 6 proposal. Q. Of Suncor--of an application by Suncor for 8 research and development for--and education and 9 training expenses to count against the guide--as 10 eligible expenditures; correct? A. Yes, it appears to be. Q. Okay. And so take a look at--on Page 5 of 13 the report, which is EMM-3295, the very bottom 14 paragraph, about A. Where on Page 5? Q. The very bottom paragraph. A. Um-hmm. Q. The Board denied these expenses as eligible 19 expenses because the project involved no scientific 20 research or experimental design and includes only the 21 application of standard engineering practices, the 22 project is -- and the project is, therefore, not

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11:42:50 1 eligible; right?

- 2 A. Yes.
  - Q. And if you could take a look at Claimants'
- 4 Exhibit 178. It's in the same binder. This is a
- 5 similar report for--and Board analysis for Hibernia;
- 6 is that right?
- A. Yes.
- Q. And if you take a look first to Page 3104,
- 9 you can see that, for example, with respect to

that's

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- 11 the second bullet point on the page...
- A. Yes.
- Q. ...that was deemed to be eligible because a
- 14 technological uncertainty exists?
- A. Yes, that's what it says.
- Q. And the item right below that, which is the 16
- 17
- 18 was also considered to be the development and testing
- 19 of new technology and, therefore, eligible?
- Q. But if you take a look at--two pages back, on
- 22 Page 3102, the

do you see that?

Q. You would agree with me, wouldn't you, that,

11:46:33 1 certainly no guarantee that it will result in any

A. Can you repeat that?

2 success or any useful application; correct?

- 5 if research is experimental, we don't know how it's
- 6 going to turn out?
- A. I guess so. No one knows how research is
- going to turn out.
- Q. And it may produce applicable technology and
- 10 it may not; right?
- A. Some of this is the application of known
- 12 technology.
- Q. It would not then be deemed either
- 14 experimental or technologically uncertain, would it?
- A. If it's the application of known technology,
- 16 I think our people would generally come to a
- 17 conclusion that it is not research and development.
- Q. Okay. And you're aware, Mr. Way--well, are
- 19 you aware, Mr. Way, of the Board's pre-approval
- 20 process required under the Guidelines for research and
- 21 development expenditures?
- A. Yes.

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11:44:51 1 A. Yes.

- Q. I'm sorry, the
- 3 There are two of them.
- It was deemed to be ineligible because they
- 5 were either operational studies or engineering studies
- 6 that did not involve any R&D? Do you see that?
- A. I see it.
- Q. So, the Board considered that there was not
- 9 sufficient technological uncertainty or
- 10 experimentation in that study; is that right?
- A. Yeah. It concludes that part of this work
- 12 was eligible and part of it was not.
- Q. And the standard being applied was whether or
- 14 not the work was sufficiently experimental and
- 15 involves sufficient technological uncertainty--isn't
- 16 that right? -- from the other items we've seen.
- A. It says here that they are either operational
- 18 studies or engineering studies that do not involve any
- 19 R&D.
- Q. Okay. And you would agree with me, wouldn't
- 21 you, Mr. Way, that when there is technological
- 22 uncertainty or when research is experimental, there is

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11:47:57 1 And that did not exist before the Guidelines,

- 2 did it?
- A. Operators did approach us, before the
- 4 Guidelines, with some expenditures that they were
- 5 contemplating to ask us if we thought it would apply
- 6 to the Guideline which was then under development.
- 7 So, I guess, strictly speaking, that did precede the
- 8 Guidelines.
- Q. It was--pre-approval of R&D expenses was not
- 10 required prior to the Guidelines, was it?
  - A. Not that I recall.
- Q. And before there was consultation about the
- 13 Guidelines, Proponents did not come to the Board and
- 14 ask for pre-approval of any research and development,
- 15 did they?
- A. They submitted their plans every year, which
- 17 talked about what they had done in the previous years
- 18 and what they were participating doing in the coming
- 19 year.
- 20 Q.
  - A. And while it may have been tacit, it would
- 22 have been an opportunity for the Board at that point

SHEET 28 PAGE 785 PAGE 787 785 787 12:09:40 1 11:49:32 1 to express a view. OPEN SESSION Q. Okay. Mr. Way, as Vice-Chairman of the 2 REDIRECT EXAMINATION 3 Board, can you confirm that all research and 3 BY MR. GALLUS: 4 development expenditures pre-approved by the Board Q. I have one quick question for you, Mr. Way, 5 will, in fact, be deemed as eligible for Guidelines 5 arising from the questions that were asked of you by 6 credit, once completed? 6 Mr. Rivkin, and that's with regard to an issue he was 7 addressing with regard to Guidelines and whether they A. No, I can't. 8 are forward-looking or backward-looking. Q. As Vice-Chairman of the Board, can you 9 confirm whether all of these expenditures will result I think his point was that previous 10 in royalty credits? 10 Guidelines before the Research and Development A. I don't know what a royalty regime--I have no 11 Guidelines were all forward-looking in the sense that 12 responsibility for the royalty regime, so I can't 12 they only apply to projects that would receive 13 address that question. 13 approval in the future, and I was just wondering if I Q. Can you confirm whether--again, as 14 could refer you to Paragraph 40 of your First Witness 15 Vice-Chairman of the Board, whether all of these 15 Statement, and if you could just highlight the second 16 expenditures will result in credit under the SR&ED 16 sentence there from in 2002--so, take your time. 17 program? You see Paragraph 40 there? A. No, I can't, and they're not required to. 18 18 A. Yes. 19 MR. RIVKIN: I have no further questions. 19 Q. You see the second sentence beginning in PRESIDENT van HOUTTE: Thank you, Mr. Rivkin. 20 2002? Then I suggest that we have 15 minutes' A. Paragraph 40? 22 break. Q. Yes.

\_ PAGE 786 \_ \_ PAGE 788 \_ 11:50:31 1 And Mr. Way you are still as a witness in 12:11:09 1 You see the second sentence, starting in 2 function; therefore, you are obliged not to speak to 2 2002? 3 anyone, either of the Canadian team or the other team. THE WITNESS: We're allowed 15 minutes. And you're referring to there to the 2002 PRESIDENT van HOUTTE: It will be 15 minutes 5 updated Offshore Waste Treatment Guidelines? of solitary confinement. Thank you. (Brief recess.) Q. And those updated Guidelines were issued in 8 THE SECRETARY: Are we now in open session? 8 2002? 9 MR. GALLUS: We are open. 10 THE SECRETARY: Please open the session. 10 And they applied to the Terra Nova Project? (End of confidential session.) A. They would have applied to all projects in 11 12 12 the area. 13 Q. So, they applied to the Terra Nova Project, 14 14 even though it was Benefits Plan was approved in 1997? 15 16 16 Q. And it applied to the Hibernia Project? 17 17 18 Q. Even though the Hibernia Benefits Plan was 19 19 approved in 1996? 20 A. Yes. 21 MR. RIVKIN: Mr. President, I have an 22 objection to the relevance. The Benefits Plan has 22

SHEET 29 PAGE 789 -\_ PAGE 791 789 791 12:11:50 1 nothing to do with Offshore Waste Treatment. 12:13:47 1 his, I guess, first statement, he says--now, it gives 2 the history of the Guidelines, and it says, PRESIDENT van HOUTTE: I don't know whether 3 it should be an objection or you should address this 3 Paragraph 9, that after January 2002 when you had the 4 issue when you are readdressing the witness. 4 specific consultant, Mr. Feehan or whatever, the Mr. Gallus. 5 Statistics Canada was discovered as a possible 6 MR. GALLUS: We have no further questions. 6 benchmark. MR. RIVKIN: May I ask a question along those 7 THE WITNESS: Yes. 8 lines? PRESIDENT van HOUTTE: Then, you proceeded on PRESIDENT van HOUTTE: Yes. those lines, then there were consultations with the 10 RECROSS-EXAMINATION 10 industry. And then I go to Paragraph 22, the 11 Operators made a further presentation, and then I 11 BY MR. RIVKIN: Q. Mr. Way, do Benefits Plans deal with Offshore 12 quote, "the Operators were not willing to provide 13 cumulative dollar figures or benchmarks." 13 Waste Treatment? A. No, that's dealt with by the Development And from that I concluded -- implied they -- that 15 they did not include any benchmark, including 15 Plan. 16 Statistics Canada, so am I wrong or am I right? In 16 Q. Thank you. MR. GALLUS: Could I have a follow-up 17 other words, they, in fact, opposed the notion of the 17 18 bench? 18 question? THE WITNESS: I think they certainly opposed 19 PRESIDENT van HOUTTE: Yes, you may. 20 FURTHER REDIRECT EXAMINATION 20 the notion of the Guideline. I don't recall any 21 specific criticism or rejection on their part of using BY MR. GALLUS: 22 Statistics Canada benchmark. Q. And the Hibernia Development Plan, when was

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12:15:02 1 PRESIDENT van HOUTTE: And my second question 2 is, then, I guess you also mentioned this morning that 3 there was a possibility to discuss alternatives, 4 alternative solutions, but I go back to Mr. Smyth's 5 statement, Paragraph 22, where it says, and I will say 6 it in a very simplistic way, the alternatives could 7 have been proposed as long as they yielded the same 8 result. In other words, and maybe I misunderstand it, 9 as long as the results, the monetary results, of the 10 proposal was the same as what was proposed by the 11 Board, it was fine, but it should have the same yield. Now, my impression when I read that was, was 13 it more a question of money, or was it more a question 14 of research and development? THE WITNESS: It was a question of money. We 16 were being motivated by the legislation, which talked 17 of requirement for research and development 18 expenditures, and what we were searching for was what 19 would be an appropriate expenditure. Clearly, zero 20 would not have been appropriate, clearly a penny or a 21 dollar would not have been appropriate, but where to 22 find an appropriate measure in there was what we were

12:12:37 1 that approved? A. First approved in 1986. Q. And the Terra Nova Development Plan was 4 approved in 1997? A. Yes. Q. Thank you. PRESIDENT van HOUTTE: No other questions? 8 MR. GALLUS: No. 9 OUESTIONS FROM THE TRIBUNAL PRESIDENT van HOUTTE: The Tribunal has a few 10 11 question, and Mr. Way, I'm sorry, but I have four 12 questions just to understand better the mechanisms 13 which have been followed. The first question is, yes, when yesterday, 15 Mr. Smyth was a witness here, we discussed this 16 statement, and today you said that the -- if I 17 understood it correctly--that the Operators did not 18 object to a benchmark. Did I understand it correctly? 19 THE WITNESS: They objected to the Guideline 20 but I don't recall any specific objections to the 21 benchmark that we were proposing.

PRESIDENT van HOUTTE: Because when I go to

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12:16:39 1 looking for. PRESIDENT van HOUTTE: And my third question

3 is--concerns the use of a benchmark. And let's say I 4 will make an analogy to the Stock Exchange because 5 that's a more innocent area, probably, I don't know, than oil.

7 Now, a benchmark is an average.

8 THE WITNESS: Yes.

PRESIDENT van HOUTTE: And average means that 10 you have companies which are above the average and 11 companies which are below the average. The same for 12 the research and development: Probably you will have 13 companies which are above the average and companies 14 which are below the average, and the average is the 15 benchmark.

Now, those companies are doing research and 16 17 development besides legal obligations because they 18 think research and development is necessary. You do 19 not do research and development to please your 20 Government. You do it just because you think it's 21 necessary. I would say that's a starting point. Companies which are doing more research and

12:19:06 1 cannot regulate groups of companies or an industry; we 2 can only regulate a company. So, we did not have the

3 luxury--on this, the industry came forward with their

4 own proposal, as we'd invited them to. Failing

5 that--and which the Operators still have the ability 6 to do in the Guideline, but if they leave it to us to 7 regulate, we can only have a regulatory relationship

8 with an individual Operator.

PRESIDENT van HOUTTE: And then, my last and 10 final question relates to this discussion about the 11 anecdote, if I may use that word, that some expenses, 12 research expenses, were not accepted because they, and 13 I quote on Page 100, "because the project involved no 14 scientific research or experimental design and 15 includes only the application of standard engineering 16 practices, and this was discussed this morning.

Now, we all know that the points of the 18 benchmark is the statistics--Statistics Canada, where 19 I assume research and development is a specific item 20 and they get information for the companies, and then 21 they make their statistics on the basis on what has

22 been qualified in their eyes as research and

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12:17:40 1 development than the average company, they know very 2 well why they are doing it, and they will not decrease 3 their research and development because there is a 4 statute which says that they are not obliged to do so 5 much research and development or they are not incited 6 or whatever, whatever word you use. On the other hand, the companies which are 8 doing less research on the development, because of the 9 legal rules or the Guidelines--you could call it the 10 way you want--are incited--I use that word--to do more 11 research and development. The final result will be 12 that the average increases, because those will do more 13 anyway, and those who did less than the average will 14 do more, which means that the average increases. Is that a correct perception, or where am I 16 mistaken here? THE WITNESS: So, you're not mistaken, and

> 19 number is an averaging process. Unfortunately, we are a regulator. As a 21 regulator, you are not enabled or entitled to do as 22 much free thinking even as governments are. So, we

18 benchmarks are surely averaged. The Statistics Canada

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12:20:40 1 development.

Yesterday, I asked your colleague whether it 3 was possible for the Board to apply the same criteria 4 as Statistics Canada so that when some amounts in 5 research and development have been included in the 6 statistics, that you can also deduct them yourself 7 from the amounts you have to invest in the research 8 and development. My question to you--and there the 9 answer was, no, we cannot do it because it's very 10 confidential and Statistics Canada do not--are not 11 transparent on the date that they are giving. I guess 12 that is how I understood it, and I accept that. 13 But my question is the following: It's a

14 question of methodology again. Apparently, Statistics 15 Canada has a specific methodology to qualify something 16 as research and development to enter as such in their statistics.

Now, did you, as a Board, make sure that your 19 notion of research and development was exactly the 20 same as the notion of research and development of 21 Statistics Canada, or didn't you care, or didn't you 22 think that important? Because, to some extent, you

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12:22:02 1 are using Statistics Canada to put the threshold, but

2 you are--that's my impression--using your own

3 definition of research and development to allow the

4 deductions from the threshold. But am I wrong, or am

5 I right?

6 THE WITNESS: That's a long question.

We purposely, in formulating a definition of what we would consider as research and development in

9 the Guideline, we were very conscious that this was

10 handen then the Obelights Constitution and

10 broader than the Statistics Canada definition, and we

11 were also aware that it was broader than the revenue

12 Canada--the Canada Revenue Agency, the tax

13 collector--it was broader than their definition of

14 scientific research and experimental development,

15 which is a specific term in their legislation. What

16 we did in the Guideline was, if something meets these

17 definitions, then it's automatically covered, we want

18 to make this broader so that it could look at things

19 like education, infrastructure, scholarships, funding

20 of chairs at the university and so on, which would not

21 have been included in the Canada Revenue Agency

22 definition or in the Statistics Canada definition.

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12:24:58 1 whatever. The Parliament of Canada had previously

2 just drafted a very similar piece of legislation for

3 application in another Canadian Province in which it

4 added a phrase "with respect to the offshore," or some

5 similar language, I am not entirely--but it did put

6 that requirement in the legislation for the other

7 Province, Nova Scotia. The same Government did not

8 put it in the legislation in Newfoundland so, it was

9 the same government; so therefore there was a

10 conscious difference.

11 There is no requirement in our legislation

12 that the research and development be for their

13 project, a project, or an industry. It just says,

 $14\,\,$  research and development, education and training, in

15 the Province.

16 ARBITRATOR JANOW: See, I think prior to the

17 introduction of Guidelines and--If I'm understanding,

18 it was a kind of case-by-case review in looking at the

19 expenditures that were being made for R&D and E&T in

the Province of the Project Operator.

And if I am understanding the evolution, there was a change, then, to the introduction of a

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12:23:38 1 PRESIDENT van HOUTTE: But that's another 2 category, it's E&T, but under R&D, it may be a

3 different notion than Statistics Canada?

THE WITNESS: Well, the chairs at the university could have been purely research meant these people may not be teaching. Some of these chairs are

7 purely research chairs.

8 PRESIDENT van HOUTTE: Thank you very much.

9 My colleagues?

10 ARBITRATOR JANOW: I just have a couple of 11 questions to understand how the Guidelines were

12 designed.

13 Could you just say a little bit more. Do the 14 Guidelines now take into consideration the actual R&D

15 and E&T needs of a particular Operator? Does that

16 come into the process at all now?

17 THE WITNESS: No, it doesn't, and the Board 18 was very deliberate about this. We focused on what

19 the legislative language was in the Act of Parliament.

In our legislation, it simply said, research and development, education and training in the

22 Province. It didn't say, in respect of a project or

12:26:16 1 benchmark.

So, what I'm trying to ask you to say a little bit more about is the extent to which

4 individual Operators are relevant to the establishment

5 of a benchmark or you're thinking of about whether to 6 establish a benchmark or how to establish a benchmark.

7 THE WITNESS: A lot of our--as I say, we

8 first addressed this in a structured thinking when we

9 were considering the White Rose Decision in the fall

10 of 2001.

11 We had received these reports, performance 12 reports, from the existing Operators in the spring of

13 2001 in which the expenditures were dropping and

14 projected to drop further.

And this, of course, was against the

 $16\,\,$  background, and we had gone through a fairly long

17 debate in Canada, in eastern Canada--it was called the 18 Atlantic Energy Roundtable, whereby the main key

19 mantra that was coming forward from industry to

20 Governments and regulators was, give us certainty;

21 give us benchmarks. We can't live with uncertainty.
22 Tell us what you want as regulators, and then we will

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12:27:38 1 do it.

So, industry was very much advocating certainty and benchmarks from Governments and from regulators in that period.

5 ARBITRATOR JANOW: Okay. Thank you. That's 6 a helpful comment.

7 I think, if I'm understanding properly, the 8 Stats Can benchmark was, in effect, one way of looking 9 at national norms for private sector investment in

10 R&D. I think that was a notion that was in your

11 submission. But in evaluating a national norm, is

12 the--sort of the age of a project, the production
13 capacity of a project, other attributes of a project

14 kind of relevant in evaluating whether that project's

15 R&D expenditures would naturally be in line with or

16 not in line with the national norm?

17 THE WITNESS: I'm not certain--I'm not 18 certain that I understand the question.

We were dealing with the offshore, which was a new area in Canada and our area only produces 3-,

21 400,000 barrels a day. Canada is a much larger

22 producer, but also Canada was entering a different era

12:30:42 1 relevant comparator for this the industry. ARBITRATOR JANOW: Let me ask you another 3 question. Did I understand you to say that the 4 Operators were asking for a benchmark, just give us a 5 benchmark, because I understand--THE WITNESS: They weren't asking for a 7 benchmark specifically in R&D, but in the old--there 8 was a large discussion in Canada which involved the 9 oil industry, particularly the offshore oil-and-gas 10 industry, governments, and regulators; and, in that, 11 it was a very familiar theme of the industry to say to 12 Governments and regulators, give us certainty, we need 13 benchmarks--if you're expecting us to operate in a 14 certain way, give us some certainty. So, they need 15 it. They were looking for benchmarks and performance 16 expectations. ARBITRATOR JANOW: So, just to be clear, so, 17 18 you felt that a benchmark was necessary to offer the Operators the answer to your question of certainty. THE WITNESS: We thought it would be helpful.

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12:29:20 1 of petroleum production as well with the oil sands and 2 so on, which were new areas.

So, I'm not sure that there was any
standardization, whether it was age or maturity of
project, but I think it might have been that the
country was going into new areas anyway in oil and gas
production. I'm not sure if that's helpful or...

8 ARBITRATOR JANOW: I guess it offers a
9 perspective about the extent to which there was such a
10 thing as a national norm.

11 THE WITNESS: There were no--this was the
12 closest we could find to a national norm. It
13 certainly applied to the industry we were looking, the
14 specific part of the industry was--I think the term in
15 the Statistics Canada catalog is the upstream oil and
16 gas extraction companies.

We looked up a lot of other norms, none of the which--we looked at other industries, for instance, the pharmaceutical industry, the chemical industry, it was all very high, much higher than the petroleum

21 industry. So, clearly that wasn't a relevant--even 22 though they were large corporations, but it wasn't a

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22 much.

31:51 1 ARBITRATOR SANDS: Just a number of 2 questions.

Just coming back to the question to

alternative methodologies as opposed to benchmark,

what consideration, if any, was given to alternative

approaches to setting in a predictable certain way the

amount that would have to be expended on R&D? Were

other options than the benchmark option considered?

ARBITRATOR JANOW: Okay. Thank you very

10 looking for alternatives, we spent some time looking
11 for what would be an appropriate benchmark, and the
12 language in the White Rose Decision probably reflected
13 that. We were looking at something that would

THE WITNESS: I think rather--rather than

14 represent reasonable national or industry norms.

15 ARBITRATOR SANDS: And what drove you to
16 that? I asked the question just because, if you read
17 Article 45(3)(c) of the relevant legislation, the
18 Acts, it doesn't obviously indicate, on its face, any
19 particular criteria. So, another option would be just
20 to take an annual amount for per project.

I am just curious to know what was the basis upon which you jumped, as you apparently say you did, SHEET 33 PAGE 805 \_\_\_\_\_\_ PAGE 807

805 12:33:14 1 to benchmark rather than consider other models. THE WITNESS: And this would probably come 3 from a reading of the Atlantic Accord, if you like, 4 more than the legislation; but, of course, the accord 5 is incorporated into the legislation by Section 17. And this concept behind the Atlantic Accord 7 was that this was a depleting resource which should be 8 developed in some way to leave some--when the resource 9 is depleted, to leave some lasting or legacy benefit 10 to the resource owners. ARBITRATOR SANDS: And so, as you--sorry. THE WITNESS: And I think that--just--and I 13 think we tried to reflect that in the Preamble to the 14 Guideline. ARBITRATOR SANDS: And so, as you were 16 looking to the alternative and jumping to benchmarks, 17 to what extent did you have in mind the benefit that 18 expenditure on R&D would bring either to the Project 19 Operator or to the region?

THE WITNESS: We focused on the region.

22 account at all, did you, the benefit to the Operator?

ARBITRATOR SANDS: So, you didn't take into

12:36:17 1 you, so to speak--and the new Operators are subject to 2 the Guidelines. I'm not expressing a view on the 3 merits or the demerits of the approach, but it was 4 another option. Why was that option not adopted? THE WITNESS: I think the piece you had to 6 look at in there was the reports that we were 7 receiving in the spring of 2001, which indicated a 8 significant decline and projected a continuing decline 9 by the existing Operators. So, that's why we felt 10 that this Guideline will would be helpful to them as 11 well on a going-forward basis. ARBITRATOR SANDS: Just a final 13 question--it's just a mechanics question--for those 14 pre-existing Operators, Hibernia and Terra Nova, who 15 got their Benefits Plans, Guidelines come in, a new 16 regime emerges, what exactly happens to the Benefits 17 Plans? Is there some formal process of amendment, or 18 does the system under the Guidelines operate 19 side-by-side and in addition to the Benefits Plan, 20 modalities for making that change. THE WITNESS: It operates side-by-side 22 with--I can't recall there being an amendment to a

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\_ PAGE 806 \_ 12:34:49 1 THE WITNESS: We certainly didn't want it to 2 be an unreasonable requirement on the Operator, but we 3 were certainly looking at the region and the 4 community, as was--we felt we were directed to by the 5 legislation. ARBITRATOR SANDS: Just moving on from that, 7 so, you find yourself in a situation in 2001-2002 8 where you have existing Operators and possible future 9 Operators. So, another scenario altogether would have 10 been a possibility that there would be different 11 regimes for different actors. The existing Operators 12 would operate by reference to the regime that applied 13 from the mid-Eighties onwards, and the new Operators 14 would apply by reference to a Guideline system. Why 15 was that possibility not adopted? 16 THE WITNESS: I'm sorry, I don't understand. ARBITRATOR SANDS: I mean, putting it another 18 way, you didn't have to decide that the Guidelines 19 applied in relation to Operators that already had a

20 Development Plan and a Benefits Plan, but that they

22 system--they decide how much they are going to give

21 could continue to operate on their pre-existing

12:37:49 1 Benefits Plan. There may have been, but I can't 2 recall there being one. There would have been lots of amendments to Development Plans. ARBITRATOR SANDS: Thank you. PRESIDENT van HOUTTE: Do the Counsel have 6 questions? MR. GALLUS: No questions from Canada. 7 MR. RIVKIN: I have a couple of short 9 questions, if I may, which I think might help 10 illustrate your questions. PRESIDENT van HOUTTE: (Off microphone.) 11 12 MR. RIVKIN: Absolutely. 13 FURTHER RECROSS-EXAMINATION 14 BY MR. RIVKIN: Q. I'm not sure if it's in the documents in 16 front of you, Mr. Way, but could you look and see if 17 Claimants' Exhibit 135 is there. If not, then Greg 18 will hand it to you. And if Greg is handing it to 19 you, that means it is not in your Common Bundle, 20 either. Do we have other copies? Yes, please. Mr. Way, these are notes from a meeting that 22 you and others from the Board had with members of

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12:38:54 1 industry in May 2004; is that right?

- 2 A. Yes.
  - Q. And-and this memo, Mr. MacDonald is with the
- 4 Board; is that right?
- 5 A. He was a worker with us, yes.
  - Q. Yes. So, he was reporting to you and others
- 7 on what happened at the meeting; right?
- 8 A. Um-hmm.
- 9 Q. He said there that the industry indicated, if
- 10 you look at the fourth paragraph from the bottom of
- 11 the first page, that the alternative was based on
- 12 needs and project requirements, not a specified dollar
- 13 level; is that right?
- 14 A. Yeah, that's what that sentence says, yes,
- 15 that's correct.
- 16 Q. And you asked for an individual dollar
- 17 figure, and industry said no, none was available, but
- 18 there were annual R&D spends; is that right?
- 19 A. Um-hmm.
  - Q. And in part, nothing--and you knew at this
- 21 point--
- 22 (Pause.)

12:41:46 1 paragraph.

- 2 Q. Okay.
  - A. The line.
- 4 Q. And Tim Cutt, he was also from Hibernia;
- 5 correct?
- 6 A. Yes.
- Q. And he informed you there wasn't much R&D
- 8 left to spend in Hibernia; isn't that right?
  - A. Where does Mr. Cutt say that?
- 10 Q. Immediately below Mr. O'Keefe's line that you
- 11 were just looking at.
- 12 A. Yes.
- 13 Q. Okay. And that's because Hibernia was in an
- 14 operations phase, and they had already solved the very
- 15 difficult design and construction problems associated
- 16 with operating in the offshore environment; isn't that
- 17 right?
- 18 A. Yes. We acknowledge Hibernia had spent a lot
- 19 of money up to that point.
- Q. And, for example, they already had a very
- 21 effective mechanism for controlling icebergs?
- 22 A. There had been considerable advances in ice

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12:40:11 1 Q. You asked for an individual dollar figure,

- 2 and the industry said none were available, but there
- 3 were annual R&D spends; correct?
- 4 A. Yes.
- 5 Q. And until 1998, the Board did not require
- 6 specific reporting on R&D expenditures, did it?
- 7 A. I don't know. I wasn't at the Board in '98.
- 8 Q. Were you aware in May 2004 that Hibernia had
- 9 already spent more than \$100 million on research and
- 10 development?
- 11 A. I was aware they spent a lot. I don't recall
- 12 what the number actually was.
- 13 Q. Well, let's look at Page 2.
- 14 On Page 2, Mr. O'Keefe, who used to be at
- 15 Board and has now--at ExxonMobil--at Hibernia; right?
- 16 Mr. O'Keefe told you that Hibernia had spent a \$100
- 17 million just on SR&ED, on research and development in
- 18 the Development Phase?
- 19 A. You're reading that here somewhere?
- 20 Q. It's the fourth paragraph down on the second
- 21 page. Do you see the statement by Ted O'Keefe?
- A. Oh, yes. Ted O'Keefe, yes. Yeah, I see the

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12:42:59 1 management technology in the area, yes.

- Q. And, in fact, some of those advancements were
- 3 by Hibernia, through their research; right?
- 4 A. Yes.
- 5 Q. And they already had them in place in 2004?
- λ. Yes.
- Q. Okay. And you state, then, through the rest
- 8 of this memo--you were recorded as saying, for
- 9 example, industry has a problem with targets. You're
- 10 willing to consult further, but not too much further,
- 11 maybe June, and then you said, industry has to present
- 12 something consistent with our 0.6, then we may
- Domething compilations with our vivy
- 13 consider it.
- 14 Do you see that?
- 15 A. Yes.
- .6 Q. So, essentially you wanted a fixed sum,
- 17 however that came about?
- 8 A. Yes.
- Q. And regardless of which project was involved,
- 20 regardless of which project--which phase each project
- 21 was in?
- 22 A. We weren't focusing on the needs of projects.

\_ SHEET 35 PAGE 813 \_ \_ PAGE 815 813 815 12:46:56 1 you shouted at Mr. Cutt or what the significance of 12:43:57 1 Q. Yes. Thank you. MR. RIVKIN: And Members of the Tribunal, 2 the exclamation point might be, but you did say, 3 because you asked some questions around this area, I 3 following that, present an alternative, then? 4 will refer you also to Claimants' Exhibit 130, 131, A. The industry had asked for a consultation. 5 131(a), 132. 5 Recall, this was 2004, and we had started this process ARBITRATOR SANDS: Would you slow down. 6 in 2001, 2002, and industry was asking for time to MR. RIVKIN: Sure. 130, 131, 131(a), 132, 7 present an alternative, and we said yes. I would 8 think that two years later we were probably running 8 133, 136, and 138. And also to Mr. Phelan's Witness Statement. 9 out of patience because industry hadn't presented 10 I believe it is his Second Witness Statement at 10 anything. 11 Paragraphs 29 and following in which he discusses Q. And Mr. Rivkin also referred you to your 11 12 these issues. 12 comment at the bottom of the page, "spending and 13 BY MR. RIVKIN: 13 outlook must be close to .6 percent, " if we could Q. Mr. Way, you were asked also by the Chairman 14 highlight that part. 15 some questions about what the research and development A. Yes. 16 that goes into the Stats Can report. Are you aware In this document or at any other time, did 17 that companies report R&D to Stats Can that is 17 the Operators challenge this specific benchmark? 18 subsequently disallowed by the CRA as eligible under A. No, I don't recall them challenging the

19 the SR&ED Guidelines? A. No, I'm not aware. It could be the case, but

22 exclamation manager mark. I'm not sure If that means

21 I'm not aware.

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MR. RIVKIN: Thank you.

\_ PAGE 816 \_ 814 816 12:48:19 1 statement. PRESIDENT van HOUTTE: Mr. Gallus? MR. GALLUS: Canada will just take one moment 2 FURTHER RECROSS-EXAMINATION 3 to consult. 3 BY MR. RIVKIN: PRESIDENT van HOUTTE: Yes. Q. Mr. Way, Mr. Smyth says, in Paragraph 12 of 5 his First Witness Statement, the consultation draft of (Pause.) MR. GALLUS: Canada just has two follow-up 6 the Guidelines was first sent to industry in questions to the document to which the Claimants July 2003; is that correct? 8 referred Mr. Way. A. If Mr. Smyth says it, then I guess it's FURTHER REDIRECT EXAMINATION 9 correct. There were discussions with industry before BY MR. GALLUS: 10 that, though. Q. Well, that's not actually what Mr. Smyth or Q. On the page to which you are referring, Mr. 12 Way, to the second page of this document, Mr. Rivkin 12 you state in your Witness Statements, and you would 13 referred you to the comment of Mr. Cutt--I think 13 agree with me that July 2003 to May 2004 is less than 14 that's the document. Yes, the second page, we have 14 two years, wouldn't you? 15 the quote from Tim Cutt, if we could find that on the A. I would think so. 16 second page. 16 Q. Okay. Thank you. PRESIDENT van HOUTTE: That puts an end on Q. Where Mr. Rivkin referred to the passage 18 the examination of Mr. Way. Thank you very much for 19 where Mr. Cutt says what it says on the screen there. 19 your testimony, and now we will have--of course you Then, have you a follow-up to that, where you 20 are released from the witness stand. 21 said, present an alternative there, and there is an 21 (Witness steps down.)

21

19 .6 percent or the Statistics Canadian piece. I don't

20 recall any specific objection on their part to that.

MR. RIVKIN: Just clarify to a factual

PRESIDENT van HOUTTE: We will reconvene at

MR. GALLUS: Thank you.

SHEET 36 PAGE 817 PAGE 819 817 819 12:49:15 1 2:00, but before, I would like--or the Tribunal would 02:10:50 1 information redacted.) 2 like to have a short conversation with the two 3 counsel. 3 THE SECRETARY: Please close the session. (Whereupon, at 12:49 p.m., the hearing was adjourned until 2:00 p.m., the same day.) 8 9 9 10 10 11 11 12 12 13 13 14 14 15 15 16 16 17 17 18 18 19 19 20 20

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PAGE 818 818 1 AFTERNOON SESSION PRESIDENT van HOUTTE: Good afternoon, 3 Mr. Robert Rosen. THE WITNESS: Howard Rosen. HOWARD N. ROSEN, CLAIMANTS' WITNESS, CALLED PRESIDENT van HOUTTE: Welcome. You have 7 been here. You know how it works. You are an expert 8 witness. And can you just repeat, I hereby declare upon my conscience and honor... 10 THE WITNESS: I hereby declare upon my 11 conscience and honor... PRESIDENT van HOUTTE: ...that I will make my 13 statements to the best of my knowledge. 14 THE WITNESS: ... I will make my statements to 15 the best my knowledge. 16 PRESIDENT van HOUTTE: Thank you. MR. DOUGLAS: Thank you, Mr. President. I 18 believe we are in a closed session. THE SECRETARY: Please close this session. 19 20 Confirmed? 21 Thank you. 22 (End of open session. Confidential business

820 02:10:50 1 CONFIDENTIAL SESSION 2 DIRECT EXAMINATION 3 BY MS. LAMB: Q. Mr. Rosen, you've provided three reports in 5 this arbitration. Do you confirm those reports and 6 the conclusions that you've arrived at? A. Based on the information available to me, at 8 the date of writing those reports, yes, I do. Q. Mr. Rosen, perhaps you'd like to say just a 10 few words about your credentials and experiences in 11 these types of matters. A. I am a Chartered Accountant, which is a 13 professional accounting designation in Canada. I'm also a Chartered Business Valuator. And 15 for the past 30 years, I have been providing analysis 16 of business valuation and damages claims in litigation cases in Canada and the U.S., and in international 18 arbitration cases around the world. 19 I have provided evidence in courts and 20 Tribunal hearings over 100 times over the last 30 21 years, and I'm in charge of a group of individuals at 22 FTI who specialize in doing damage analysis and

02:12:03 1 valuations in the context of treaty and commercial 2 arbitration work.

Q. Thank you.

By way of direct examination, I'm going to ask Mr. Rosen just to say a few words about his methodology, and also to explain where, in his view, the Experts have taken a consistent approach and, by contrast, where they diverge and the reasons for that.

9 Mr. Rosen has prepared some slides by way of 10 visual aid for some of those points. Before I hand 11 those to you, I would just like Mr. Rosen to confirm

12 where there is information in those slides, where does

13 it come from?

14 A. The information in the slides either comes 15 from either Mr. Walck's report, from one of my

16 reports, or from the exhibits that are before this

17 Tribunal. There's no new information in--

18 MS. LAMB: Thank you.

19 PRESIDENT van HOUTTE: Did you receive the

20 slides already?

21 MR. DOUGLAS: We have not, Mr. President.

22 PRESIDENT van HOUTTE: When you have any

02:14:48 1 price of oil which is equal to the U.S. dollar price

2 of oil multiplied by an exchange rate. That price is

3 multiplied by a volume of production, a Stats Can

4 factor is applied to that, and a Development Phase

5 credit which was allowed for the period 2004 through 6 2008 was applied to that number.

7 That gives us a total amount of spending.

8 From that there must be deducted ordinary course

9 spending in order to determine what would be ordinary 10 course spending in the future. I examined what was

11 ordinary course spending in the absence of incremental

12 spending, and normalized that spending, and I'll

13 discuss that in more detail, but I normalized that

14 spending to project what would be ordinary course

15 spending in the future. That produced an annual cost

or an annual excess incremental spending; and, in order to quantify that as a single number as a present

18 value, you're required to take the present value of

19 that sum at a discount rate; and then the question is

20 what should the appropriate discount rate; and for

21 that I used a Government of Canada Bond which is known

22 as a risk-free rate of return; and I also needed to be

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02:13:08 1 objection, then please indicate.

MS. LAMB: Thank you. So, can I please ask, then, that the handouts be distributed.

MR. DOUGLAS: Mr. President, we just want to reserve the right to review them and make comments on them later as well.

7 BY MS. LAMB:

8 Q. So, Mr. Rosen, perhaps you would like to 9 begin, then, by saying a few words about your general 10 approach to damages in this case.

11 A. Yes. The approach I took in valuing damages 12 in this case was consistent across my three reports.

13 I attempted to do a but-for damages calculation, but

14 for the alleged measure and assuming that the alleged 15 measure violated NAFTA and that the Claimant was

16 entitled to damages, how would you calculate monetary

17 damages to put the Claimant in the position they would

18 have been but for the alleged measure.

19 To do so, I started with a calculation of the

20 net research and development requirement. That is 21 calculated as a function of gross revenue, and the

22 gross revenue is a function of the Canadian dollar

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02:16:02 1 mindful of how Income Taxes would impact the award and

2 the amounts spent as incremental spending by the

3 Claimant--by the Claimant companies in Canada. And

 ${\bf 4}$   $\,$  that is the general methodology I used, the general

5 approach to quantify damages.

Q. Can you just talk us through this slide, and in particular there seems to be a sort of designation

8 of time period as we move across the top axis there.

9 Can you explain to the Tribunal what the chart

10 represents?

11 A. So, what I wanted the Tribunal to get an

12 appreciation for was some of the information that I'm 13 relying on and quantifying damages is historical, as

14 past, and some of it occurs in the future. And the

15 variables listed down the left column, the U.S. dollar

16 price of oil, the exchange rate, oil production

volumes, the statistics Canadian factor, theDevelopment Phase credit, and spending in the ordinary

19 course were the main variables, as I just identified

 $20\,\,$  in the approach, that go into the calculation of

21 damages.

So, for the initial period April 1, 2004, to

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02:17:16 1 the end of 2004, all of that information is 2 historically known and accepted by the Board, so that 3 is just a matter of fact that has happened in the past.

For the second period, which is the calendar 6 Year 2009--

Q. Sorry, Mr. Rosen, the LiveNotes reflects that 8 you said April 1st, 2004, to the end of 2004.

A. I'm sorry, to the end of 2008, as the slide 10 indicates. My mistake.

And that calculation, if you look at the top 12 of the column, is and it accounts for of the total damages 13 approximately 14 calculation.

I move across the columns now to the Calendar 16 Year 2009, and again I look at the first four

17 variables, the U.S. dollar price of oil, the Canadian

18 U.S. exchange rate, the oil volume produced, and the 19 Statistics Canada factor, and again those are all

20 historical amounts that are known and acknowledged by

21 the Board. The Development Phase credit for the

22 initial period April 2004 through December 2008 is

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02:19:49 1 normalization of what I expected would be ordinary 2 spending in the ordinary course, and I'll--I have a 3 later slide discussing that in a little bit more 4 detail.

> So, for the period, then, for the Calendar 6 Year 2009 up until May 2010, so up until essentially the current time, there is a calculation of damages of a further and it represents approximately of the total damages calculated.

When we get into the period June 1st, 2010, 11 again recognizing my report was written in 12 August 2010, we're into a period where the price of

13 oil, the exchange rate, and the actual oil production

14 were not a certainty, were not known, and so a 15 forecast was required. And that holds true for the

16 period from 2011 until the end of the period of

17 production, 2023; and so the U.S. dollar price of oil,

18 the Canadian-U.S. exchange rate, and oil production

19 volumes were required to be forecasted or estimated. The Stats Can factor to the end of 2010 is

21 known, so that's based on historical information, but

22 past that, it requires again a forecast. And spending

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02:18:29 1 applied at this point, so it no longer becomes 2 relevant to an estimation.

> And spending in the ordinary course, we know 4 what was spent in the Calendar Year 2004; however, we 5 don't know how much will be accepted by the Board, so 6 that was--that's a mixture of actual spending with an 7 estimate as to how much will be accepted as 8 qualifying, and that is based on the amount that was 9 qualified in the years preceding 2009--so from April,

10 1, 2004, to the end of 2008. For the balance--sorry, for the beginning of 12 2010, current year, from January until May, and my 13 last report was written in August and I had 14 information until the end of May, I had historical

15 information that was actual information but not

16 accepted yet by the Board for the first four variables

17 again: the price of oil, the exchange rate, the volume

18 of production and the Stats Can factor. However, the

19 spending in the ordinary course, I was required to 20 make a forecast or an estimate of what that would

21 likely be, and spending in the ordinary course was

22 forecast based on, as I indicated in my approach, a

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02:21:17 1 in the ordinary course, as I said, for the balance of 2 two thousand--or for the first part of 2010 was based

3 on a forecast from the initial period under the regime

4 and is also forecast to the end of the production

5 cycle. So, those items are noted with red boxes, and 6 those are forecasted based on methodologies that I

7 briefly introduced, but I will go into greater detail.

8 That equals approximately, broken into two periods to

9 the end of this end, or about 10 of the overall damages calculated.

So, from the beginning of the measure, 12 April 1st, 2004, until the end of this calendar year, 13 approximately of the total damages figure

14 relates to that period, and then approximately

relates to the Calendar Year 2011 and 16 beyond, and that number is

Q. Thank you, Mr. Rosen.

Why don't we talk about some of the areas of

20 agreement as you see it between yourself and

21 Mr. Walck.

17

A. All right. So, as I said, the information

02:22:34 1 from April 1st, 2004, to December 31st, 2008, the 2 shortfall in spending and as acknowledged by the 3 Board, that is a fairly obvious area of agreement. 4 There is nothing that we differ, between myself and 5 Mr. Walck, there.

We also agree on the January 2009 to 7 December 2009 shortfall in spending aside from two 8 issues. One is an allocation of some of the spending 9 to the AA Blocks and the Southern Extension unit, and 10 I'll go into more detail about that later on. And 11 then there is a letter from the Board to Suncor 12 regarding Terra Nova, approving expenditures, and different than I had estimated 13 that's about 14 under my methodology, and that was a letter that, 15 although dated prior to the date of my last report, 16 was not received by me, and so I agree with Mr. Walck 17 we have actual information, and I have incorporated

18 that in my summary, which will be one of my last

19 slides that I share with the Tribunal.

From January 1st, 2010, onwards, Mr. Walck in

21 his last report did provide one version of

22 calculations where he adopted the price forecast of

02:25:21 1 expropriated and we are valuing a business loss or a 2 loss of cash flows that have business risk that the

3 Claimant has lost or has offloaded. In that case, you 4 would use the Weighted Average Cost of Capital of the

5 business to value those expropriated cash flows

6 because the Claimant has actually given away those

cash flows and is no longer exposed to those risks.

The other type of case is typically what you see is a business loss; and, in a business loss case, 10 again, sometimes a Weighted Average Cost of Capital

11 approach is used for a discount rate because the

12 assumption is that the Claimant, when receiving the

13 award, can put the money to use in the business, and

14 that that money will generate a Weighted Average Cost

15 of Capital return and, thus, put the Claimant back in 16 the position they would have been but for the business

17 loss.

18 This case is quite different. In this case, 19 the Claimant has a business with all the risks and

20 benefits that go with that business; and, a day after

21 the measure, it has the identical business with all

22 the risks and benefits that go with that business. It

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02:23:59 1 Sarah Emerson. He accepted the exchange rate in The 2 Economist. He accepted the oil production profiles in

3 the two exhibits for Terra Nova and Hibernia, and he

4 adopted my Stats Can factor. Now, again I stress,

5 this is just one of the scenarios he presented, and I 6 believe he notes in his report he did it so that our

numbers would be comparable.

Q. So, let's move on, then, to the principle 9 areas of divergence between you and Mr. Walck: 10 discount rate.

A. Yes, first and foremost is the discount rate 12 I have adopted the use of a risk-free Government of

13 Canada Bond rate, and Mr. Walck uses something that is 14 a return on equity as opposed to a cost of equity.

So, let me just say a little bit about why I 16 used a risk-free approach in this case because it is quite unusual to value a damages claim using a

18 risk-free approach. 19 In the opening comments, opening remarks,

20 Mr. Gallus made a remark that this is not a fair 21 market value valuation, and I agree with that. This

22 is not a transaction where an item has been

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02:26:30 1 is not divested of any risks. It has not sold off any

2 risks. Nor--and this is the most important

3 point--does it have the opportunity to invest

4 additional capital in its business, and that's the 5 most important point, I think.

Q. And can you explain that, why is it? How 7 have you arrived at that conclusion?

A. Well, ExxonMobil, being the largest or one of 9 the largest oil companies in the world and presumably 10 a for-profit company, public company, maximizes its

11 returns. If it could spend more money to make more 12 money, it would. It has capital available. In fact,

13 the capitalization of ExxonMobil Canada is almost all 14 equity. There is very little debt; and, if it needed

15 to, it could easily go out and raise more debt and put

16 this capital to work in this project. It doesn't choose to because it's not profitable to do so.

As well, the measure calls for incremental

19 spending, and I think that's an important concept to 20 understand. If it wasn't incremental, ExxonMobil

21 would be spending it. The Claimants would be spending

22 the money because it made money. The fact that

02:29:56 1 why that is?

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02:27:43 1 they're not spending additional money means, in their 2 opinion, there is no additional money to be invested 3 in this project.

> 5 Weighted Average Cost of Capital on the Award, if any, 6 that they are awarded by this Tribunal; they simply 7 can't. And so in order not to have them shoulder the 8 additional burden of finding a different project 9 somewhere else to invest the money, some other risk to 10 find, it would be appropriate to put it into a fund 11 that invests in risk-free bonds in Canada, which are

Because of that, they cannot earn their

12 Government of Canada Bonds. And this is important for a couple of 14 reasons: One is the risk that I just mentioned, and 15 the other is, if we adopt the approach of a standard 16 business loss, where we use a Weighted Average Cost of 17 Capital, the Claimant is going to be required from 18 time to time in the future to spend cash, actual cash; 19 and, therefore, any investment it buys must have the 20 feature of returning either Mr. Walck's 15 percent or 21 the Weighted Average Cost of Capital, but must do so

A. The SR&ED credit, the SR&ED program has 3 specific requirements in order to meet the Canada 4 Revenue Agency Guidelines for credit, and we've seen 5 historically an actual rate that the company -- the 6 Claimant has enjoyed in generating SR&ED credits, and that's on spending that it deemed necessary.

And then to use that as a benchmark from which to judge incremental spending which it deems 10 unnecessary, noncommercial, is irrelevant, and so 11 there is no reasonable basis upon which someone in my 12 position can estimate what any potential value, if 13 any, would be received in SR&ED credits.

In fact, in this case, if the Claimant does 15 not find an opportunity to make any R&D incremental 16 spend, there is a Letter of Credit filed in favor of 17 the Government that will be drawn on, in which case 18 there will be absolutely no SR&ED credit because it 19 was never invested in R&D. So it's entirely unknown. 20 There is no basis upon which to judge how it might be 21 calculated.

Okay. In the interest of time, perhaps you'd

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02:28:47 1 whenever--whenever--the Claimant needs it, without 2 penalty for early withdrawal, without cost of 3 borrowing against it. The cash actually has to be 4 available whenever they need it.

22 in a manner that the cash is available

And so the only way to achieve that, to put 6 them in the exact same position they would have been 7 but for this measure, is to set up a fund that they 8 can set aside, and whenever there is a call for

9 incremental spending, they simply withdraw it from the 10 fund. They take no additional risk. It earns

11 interest at the rate of a Government of Canada Bond

12 because that is the safest investment in Canada. 13 And the reason we calculate the rate of

14 return after tax is because when--if there is an 15 award, for every dollar that's invested and every

16 interest rate it earns, it's going to pay tax on that

17 interest, and so you have to use an after-tax rate of

18 interest to keep it whole. And that's one element of 19 tax incorporated into the discount rate.

Q. So, the second item there on your list is 21 SR&ED credits. You haven't applied a deduction in

22 your model for SR&ED credit. Can you explain, please,

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02:31:18 1 just like to summarize the rest of the bullets on the 2 list on this page.

A. Certainly.

The third major area of disagreement is the 5 treatment of Income Taxes. And as I said in my 6 earlier reports at the time I was writing them, I don't know to the extent that the Claimant will be 8 taxed on the Award it receives or that the Canadian 9 entities will be able to deduct incremental 10 expenditures. And to the extent that they're 11 different, different amount, there may be a tax 12 impact.

14 had an opportunity to interview the people in the Tax 15 Department at ExxonMobil and discover that, in fact, 16 the Claimant is a U.S. entity and will be taxed in the 17 U.S. The companies incurring the expenditures are 18 Canadian and make expenditures in Canada; and, because 19 of that, they get to deduct those expenditures for tax purposes.

In fact, when I was making my Final Report, I

21 However, the two tax rates are different; 22 and, because the two tax rates are different, it

02:32:19 1 results in a gross-up, and I have a slide that

2 demonstrates that in more detail.

3 Mr. Walck's criticism, and actually there is 4 quite a number of pages devoted to this criticism in

5 his last report, acknowledges that if there was a

6 disparity in rates, you would have to make a tax

7 calculation. However, U.S. companies are taxed on

8 their worldwide income, which is--which is

9 academically correct if dividends are paid from a

10 Canadian entity to the U.S., but in this case they

11 aren't. The money is spent in Canada, so they can't

12 be. So factually it's just incorrect.

13 Q. Okay. Thank you.

14 A. I see there is a bit of a--

15 PRESIDENT van HOUTTE: I have a lot of

16 questions, but I wait for them.

17 THE WITNESS: Okay.

18 The fourth area of disagreement deals with an

19 allocation of some of the ordinary course spending to

20 the AA Blocks and the Southern Extension units. And

21 as Mr. Phelan noted, there was very little production

22 or no production--I think there was just a little bit

02:34:32 1 appropriate, and certainly in my business we look at

2 normalizing things and certainly in interviewing

3 management of ExxonMobil, that is something they do.

4 Mr. Walck uses a simple average in this case, and I

5 have a slide dedicated to that later on that explains

6 it in more detail.

7 And the last area of disagreement is that, as

8 the projects wind down, as they age, and volume

9 decreases, I've been advised by management that the

10 R&D expenditures will decline significantly, and so

11 I've tried to reflect that in my calculations. And

12 Mr. Walck has other information, so he's made no

13 reduction in that regard.

Q. Okay. So, looking, then, to the next slide,

15 you can see some figures there and percentage

16 deductions. Can you just briefly explain what you've

17 tried to do in this slide.

A. Right.

19 So, what I tried to do here is give the

20 Tribunal a sense of what are these differences really

21 worth.

MR. DOUGLAS: Mr. President--sorry,

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02:33:21 1 of production in 2009 for these two areas, but they're
2 part of the Hibernia field, but they're not part of
3 this arbitration and they're with separately and

3 this arbitration and they're with separately and 4 completely differently.

5 However, all of the research and development 6 that occurs in Hibernia benefits all of the wells in

7 Hibernia; and, therefore, what I've done is simply

8 allocate the amount of R&D that benefits all of the

9 wells, including the AA Blocks and the Southern
10 Extension units based on the volume, based on the same

11 methodology that the Board uses to measure the  ${\tt R\&D}$ 

12 requirement.

13 So, I've allocated based on the fact that 14 these two areas will benefit from the R&D, but require

15 no incremental R&D on their own.

16 BY MS. LAMB:

Q. And then if we click through to the next

18 slide, I think you talk here about how it is that

19 you've arrived at a conclusion with regard to the 20 ordinary course spending in future years. How does

21 that differ to the approach that Mr. Walck is taking?

A. I use a normalized average, which I think is

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02:35:31 1 Mr. Rosen, I do want to give you a chance to explain,

 ${\tt 2}\ {\tt but}\ {\tt I}\ {\tt just}\ {\tt want}\ {\tt to}\ {\tt note}\ {\tt Canada}\ {\tt has}\ {\tt not}\ {\tt seen}\ {\tt these}$ 

3 calculations. They're not a part of any report, so we 4 have no way of verifying the numbers at this stage.

BY MS. LAMB:

Q. Can you just explain, then, how you arrive at these numbers so that it's clear for Canada's benefit.

A. Certainly.

9 Mr. Walck and I both have an economic model,

10 an Excel spreadsheet. I know I do; I imagine he does

11 And so what I did was simply take my Excel spreadsheet

12 and where I had my discount rate, I simply substituted

13 his to determine the first number.

14 PRESIDENT van HOUTTE: I would say in view of

15 the fact that those calculations have not been

16 submitted to the other side, that if they do not

17 object at this moment, that it doesn't mean that they

18 agree with it.

19 MR. DOUGLAS: Correct, Mr. President, and we

20 can review them at a later date.

THE WITNESS: Yes, and just from a

22 methodological point of view, just trying to give the

- 11

02:36:21 1 Tribunal and the Respondent a sense of what the
2 differences are in magnitude--and these are each
3 stand-alone. It's not that you can add these together
4 because a lot of these variables are intertwined. So,
5 by changing one variable it could change another, and
6 I have a reconciliation at the end between our two
7 reports, but this sort of gives you an order of
8 magnitude.
9 For each of the six variables I talked about,
10 if I adopt Mr. Walck's calculation versus my own, this
11 is the change that would occur in my conclusions. So,
12 it just gives you an idea of sort of which ones are

15 Q. Okay. Let's talk about the discount rate 16 because that is an area where you do have a different 17 approach. Can you explain to us the discount rate

13 really important and which ones are less important.

BY MS. LAMB:

18 that you've understood Mr. Walck to be employing in

19 this case?

A. Mr. Walck, in his disagreement with my
 approach, cites the risks that are attached to the
 cash flows of this business, and that's sort of where

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02:38:37 1 called a return on equity, and he calls it an equity
2 rate of return, and he goes through several different

3 steps to indicate that he's been conservative in

4 choosing 15 percent. And this is where--one of the

5 mistakes I would say is a factual error occurs in

6 Mr. Walck's analysis, and it's quite a common mistake,

7 and if we flip to the next slide, I can could

8 demonstrate it.

9 Q. So, why don't you just confirm. We've got a 10 chart here, some data. Where does that data come 11 from?

12 A. This is Mr. Walck's Exhibit GFA-38.

And in his report he says he's observed equity returns of between 15 and 40 percent, and if we look at the analysts' document that he included in his report as GFA-38, I've highlighted the 15 and the 40,

17 just sort of tying in that that in fact a return on

18 Shareholder's equity, and that's what he's

19 interpreted, this to be the cost of equity. And it's

20 a little bit technical, and it's why it's such a

21 common mistake. This is not the cost of equity.

If we flip to the next page, we can see from

\_ PAGE 842 \_

22

14

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02:37:33 1 we're talking at cross-purposes. And as I explained
2 just before, you're not valuing a lost-profits claim
3 here. This is almost like an indemnity. You're
4 trying to put the Claimant back in the position they
5 would have been but-for, and without causing them any
6 additional risk to do so. And because of the nature
7 of the expenditure and the inability to invest an
8 award in the company to produce the average return the
9 company would generate or its Weighted Average Cost of
10 Capital, you have to use the approach I've used in
11 order to keep it whole.
12 Mr. Walck, in recognizing a different

approach, says no, the cash flows of the business
should be valued as if they're cash flows of the
business. Whether you've lost a dollar of profit or
incurred an extra dollar of expense, it doesn't
matter. They're the same, and they should be treated
the same.

So, therein lies our fundamental
disagreement, from an opinion point of view. He
believes he's right, and I believe I'm right.

But Mr. Walck purports to use something

\_ PAGE 844 \_

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02:39:52 1 the very same document how this cost of equity is 2 calculated.

Again, looking at the highlighted portions we can see \$27, which is the Book Value per share, and this is an accounting concept, Book Value. And what Book Value represents is the historic costs of a business. It has nothing to do with its Market Value--oh, especially in this case; in some businesses it might, but not in this case.

Just below that we see the number of common

Shares outstanding, and if we multiply those two

numbers \$27 by 4,575,000 Shares, we get to

Shareholder's equity of \$123 billion. Again, this is

Book Value, not Market Value.

If we flip to the next slide, we can see the net profits line, which is 25,950,000. We can see the Shareholders equity that was just calculated at Book Value on the prior slide. And the return on

19 Shareholders equity of 21 percent, and that's the line

20 that Mr. Walck picked up for his observation of return

21 on Shareholders equity. And it's--again, it's

22 just--it's an error. It's not a matter of opinion,

SHEET 43 PAGE 845 \_\_\_\_\_ PAGE 847

845 02:41:05 1 and it's quite a common error. And what you end up 2 with is a return on equity that he--he thinks he's 3 been conservative taking the low end at 15 percent. 4 If we go back to the first slide in this series of 5 slides, where it shows 14.8 to 40, he thinks he's 6 being conservative using that 14.8 around 15 percent, 7 but really that's based on the Book Value. That has 8 no relevance to the cost of equity. In fact, if you look at the same report, a 10 couple of slides back to where we were--sorry, if you 11 could flip ahead three or four slides--right there--we 12 can see the stock actually trades at \$65.5 at this 13 date. So the Market Value was \$65.5, not the \$27 that 14 Mr. Walck based his calculations on. So his cost of 15 equity is just wrong. The other benchmark he uses to test its 17 reasonableness is from the Royalty Agreement

2 books. That's the Book Value. However, real estate 3 going up since 1960, the current Market Value is 4 around 50 million. The annual cash flow from that 5 building is two-and-a-half million. According to 6 Mr. Walck's methodology to calculate return on equity, 7 which he equates to the cost of equity, he calculates 8 the two-and-a-half million revenue or income, rather, 9 divided by the Book Value of equity, which is a 10 million, which would give you 250 percent cost of 11 equity. 12 If the building were destroyed or 13 expropriated, Mr. Walck would value damages at a 14 million dollars or the income divided by the cost of 15 equity because real estate is valued in perpetuity 16 like this. The proper method would be to look at the 18 return on Market Value of equity. The annual cash 19 flow was still \$2.5 million, but the Market Value of 20 the building is 50 million, which is a 5 percent

02:43:29 1 years to \$1 million, so that's all that's left on the

That is a pre-tax,
22 pre-royalty measure, and equity returns are after-tax

02:42:22 1 measures.

2 So, again, it's just a mistake. It's a 3 common mistake, but it's just--it's not--it's not a 4 matter of opinion. This is just an error.

Q. Mr. Rosen, there is some text here, international valuation standards, where has that come from, and what--

8 A. This is from Mr. Walck's Rejoinder Report at 9 Paragraph 175, and he quotes from IVS what a discount 10 rate is, and this just confirms that discount rates

11 should reflect the opportunity cost of capital. So 12 it's a Market Value, not a Book Value approach.

So he's understood what he was supposed to do. He's just picked up the wrong numbers.

By way of example, because not everyone in the room is an accountant or an economist, just to make it crystal clear, I have an example, and it's an example I've used many times because, as I said, this is a pretty common mistake.

Assume we purchased an office building in 21 1960 for \$10 million. The building has been

22 maintained but it's been depreciated in the next 50

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02:44:28 1 building were destroyed or expropriated, damages would
2 be calculated at 2.5 million divided by 5 percent,
3 which gets you to your Market Value of 50 million. It
4 just proves that when you're using Market Values, you
5 get to Market Value of damages or Market Value,
6 period.
7 In this slide, though, I did consider that

21 return, which is the market return on equity, which is

22 the number you're supposed to measure. If the

In this slide, though, I did consider that
the Tribunal may not agree with me, even though I feel
the appropriate discount rate is the risk-free rate on
Government of Canada Bond portfolio. The Tribunal
may choose a cost of equity or a Weighted Average Cost
of Capital because it's more familiar with that
approach.

In this case, the cost of equity for
ExxonMobil is somewhere between 6.5 and 7 percent
based on the same type of report that Mr. Walck uses,
an analyst report. And again, it's a matter of fact;
it's not a matter of conjecture. And you can actually
see it from his own analysts report, if you take the
income right--right there--if you take the PE ratio,
the median of 14 gives you about a 7 percent cost of
equity.

SHEET 44 PAGE 849 - PAGE 851 849 851 02:45:40 1 And so I recalculated my numbers at a cost of 02:48:03 1 payable is because it's taxed at 2 equity in case the Tribunal was interested. And what 2 leaving as net after-tax receipt, so a shortfall 3 it does, and again subject to the Respondent verifying 4 that I've done the calculation correctly, it reduces If I look at my approach, I take the 5 after-tax cost of the incremental spending which is 5 my damages by about if I choose that 6 methodology, about I gross it up by which is the tax Q. So to be clear, if you were to use a discount 7 rate which gives me in my hands if I'm the U.S. 8 Claimant. 8 rate of 7 percent rather than Mr. Walck's 15 percent, 9 those are the deductions that you would make from your And if we go to the next slide, we can see 10 number. 10 the received by the U.S. Claimant gets taxed, A. Actually, if you use 7 percent instead of the 11 turns into goes north of the border, and provides 11 12 risk-free rate that I used, the bond rate, this would 12 the Canadian entity with its after-tax award on an 13 be the adjustment. 13 annual basis which it can fund the projects with on an Q. Yes. Thank you. 14 after-tax basis. So, it just proves that tax regimes A. The next slide is just a pictograph showing 15 in different countries with different tax rates result 16 the effect of Income Taxes, and Canada in red, U.S. in 16 in the necessity to gross up. 17 the blue. The Canadian entity being the entity that And I should point out this shows it as a 18 actually pays out the incremental spending. The U.S. 18 single transaction. My model actually shows the 19 parent being the Claimant that actually receives the 19 after-tax cash being deducted from the value of the 20 award of damages, so the investor and the investment. 20 Canadian entities on an annual basis and reflects the 21 There is no permanent establishment in the U.S. of the 21 timing of the Award being made in the present. So the

\_ PAGE 850 \_ 02:46:52 1 Canada--sorry, no permanent establishment in Canada of 02:49:22 1 analysis. This is just a simplification to show how 2 the Claimant and no permanent establishment in the 3 U.S. of the entities, and, therefore, there is no tax 4 in the U.S. parent on worldwide income. Only when 5 dividends are repatriated to the U.S. is there any 6 kind of integration in U.S. tax. So, the average tax rate changes in the 8 Canadian entities between over the 9 period of my calculation, and as Mr. Phelan pointed 10 out, that's the maximum it could be based on the 11 Newfoundland tax, and because of some special 12 concessions the actual tax rates are likely to be a 13 little bit lower, but I use the statutory rates at 14 maximum. And the U.S. parent receiving the Award 15 would pay tax at 16 If we turn to the next slide, we can follow 17 cash. So, the first line is there is incremental 18 spending in Canada of a hundred dollars, for example. 19 They get to deduct between as an average. So the after-tax cost of 21 incremental spending is We can see that if I've 22 calculated an award of \$100 in the U.S., the U.S. tax

22 Claimant, and there is no permanent establishment in

\_ PAGE 852 \_ 2 the cash would flow for a mythical hundred dollars. I promised to come back to the SR&ED credits, 4 to give a little bit more context to this. So, as I 5 said earlier in my presentation, I don't believe that 6 you can use history to value what SR&ED credit the 7 Claimant may receive in the future because it's a 8 different type of expenditure. But again if the 9 Tribunal disagrees with me and feels there is some 10 relation, how should it be calculated? Mr. Walck has valued this benefit of SR&ED for Hibernia and 12 credit at 13 for Terra Nova. And I'm sure when Mr. Walck gets to 14 address the Tribunal, he'll explain the 15 but it's based on a Work Plan that has extremely wide 16 margins of guesstimates. If you look at the actual SR&ED credits that 18 have been earned by the company as opposed to 19 projecting what might happen, you can look at 20 Claimants' Exhibit 144 for the historical acceptance 21 rate, and the historical acceptance rate multiplied by 22 the appropriate SR&ED claim of results in

22 present value of all this is incorporated in my

SHEET 45 PAGE 853. \_ PAGE 855 853 855 02:51:09 1 either a benefit of 02:53:40 1 from the beginning of time, normalized spending would or 2 depending on which normalization period you take. 2 be about And if I look from 1998, the Mr. Walck, in his Figure 4 of his last 3 Production Phase through 2008, so that 10-year 4 report, used a period, including '07 and '08 and '06, 4 Production Phase, it would actually be about 5 '05, '04. But '07 and '08 were not yet assessed by both numbers lower than my normalized 6 Canada Revenue Agency. They're just filed, so he 6 average. So, I found no reason after reviewing 7 Mr. Walck's criticism. I went back and--trying to 7 assumed they'd be at a hundred percent, which I think 8 is a fairly aggressive assumption given their history. 8 recognize, you know, he may have a valid point there. And he also takes out the which is 9 I go back there and I look at other data for 10 an interesting deduction because the Claimant actually 10 corroboration, and it seemed to corroborate my result. 11 filed for a SR&ED credit for the and was 11 So, I felt comfortable sticking with my normalized 12 denied. Excluding this severely distorts the numbers. 12 spending average. 13 If you make that correction, you get to a SR&ED Q. And just to be clear, if you had used the 14 benefit of 14 average from 1990 or the average from 1998, what If, instead, you do it for the whole history 15 impact would that have overall on your assessment? 16 of the Hibernia Project and look at its entire history 16 Would your damages assessment have been higher or 17 of SR&ED success, you would get to a benefit of about 17 lower? but it's drastically different than 18 A. If I'd used those other averages, it would 19 Mr. Walck's calculations and would decreases over--or 19 have been higher. 20 increases overall damage calculation by over And finally, the penultimate slide. And 21 21 again, Respondent would not have had a chance to Just a couple more things to discuss. One of 22 review these calculations, so they're take--they're

\_ PAGE 854 \_ 02:52:27 1 them is normalized spending. And again there was 2 quite a bit of criticism on normalizing spending as 3 being arbitrarily--excluding a very high number and 4 then a very tiny number. So, what I did was I looked at normalized 6 spending based on the period during which the measures 7 had been effective--2004 through 2009--that I had 8 actual information more, and it appeared to me and I 9 confirmed with management that 2006 was an outlier 10 year for Hibernia and that 2009 was an outlier year 11 for Terra Nova, just based on the R&D. And I 12 calculated my averages. 13 And as Mr. Walck notes in his report, this 14 reduced my--the normalized average by over 15 year for Hibernia, but he says it was a very small 16 number for Terra Nova. In fact, it was around a This is before looking at 18 the ownership interests of the Parties.

So, I felt it was reasonable. So, what I

20 also did was I went back with Mr. Phelan's assistance

21 and discussion and said, well, okay, let's look at a

22 couple of different periods. If we look from 1990,

19

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02:54:48 1 just offered for what it's worth. It's to assist the 2 Tribunal in reconciling my conclusion with 3 Mr. Walck's. So, in the gray area, what I've done is 5 I've--the first thing I've done is reflect the Terra 6 Nova July 23, 2010 letter on the 2009 expenditures. 7 So that is an actual fact, so my number must be 8 adjusted by that. So we see it doesn't have a 9 material impact, but it still must be adjusted. So it 10 takes from about down to about Then, if I used a weighted--or, sorry, 12 an equity rate of return based on market, it would 13 have reduced it further down to about And then this area in pink or red are 15 incorporating Mr. Walck's assumptions to get back to 16 his number of about And the order that 17 you do these in matters so that if Respondent is 18 trying to reconcile with this, the order that you do 19 them in matters because some of them are interrelated 20 calculations. So, if we, for instance, reordered 876543 the 22 other way, each individual item would have a different

7 to them.

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02:56:04 1 financial impact. I put them in this order because I 2 felt the first two were errors that the Tribunal could 3 be comfortable in assuming those would be the first 4 two things to fix, and then sort of in the order of 5 not necessarily magnitude but sort of common sense 6 that appealed to me, but there is no particular order

> 9 are done at a different date than mine, so I simply 10 try to bring his to my date to reconcile to the two 11 numbers. Mine are back in June because I did an 12 August report, and his was at a later date, so I just

And the last one is Mr. Walck's calculations

13 tried to make apples to apples.

Q. Mr. Rosen, just a couple of questions, and 15 then I'm sure the Tribunal and, of course, then Canada 16 will have some questions for you.

Were you here yesterday while Ms. Emerson was 18 giving her evidence?

19 A. Yes, I was.

Q. You will have heard Professor van Houtte ask

21 Ms. Emerson about reasonable certainty and what she

22 understands by that. So, what I want to ask you is to

02:58:24 1 similar to that prepared by Ms. Emerson for any other

2 purpose?

A. Yes, actually, in almost--I shouldn't say

4 almost. I think in every single resource case I've 5 worked on, whether it's oil and gas, minerals, timber,

6 any resource that requires some expectation with

7 respect to a future price line, you must rely on some

8 element of forecasting.

Q. And in what form would that price forecast be 10 presented to you?

A. Typically, in an oil-and-gas case or in a 12 mineral case, exactly the way Ms. Emerson presented 13 her information to me, a forecasted price line.

Q. You will have heard a discussion with

15 Mr. Davies about scenarios versus a price line or a

16 forecast. Is that something you've seen in the price

17 data that's been--that you have seen when you have

18 undertaken these types of tasks?

A. A scenario analysis is something quite

20 different. A scenario analysis is I'm a company and

21 I'm deciding whether to build a certain plant or a

22 certain machine, and at what price does it make sense

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02:57:07 1 what extent does, if at all, does a notion of 2 reasonable certainty inform the analyses that you

3 perform and the conclusions that you arrive at? A. Well, in order for me to get to a position of

5 reasonable certainty, first of all, by professional 6 standards, being a CAA and CBV, I'm required in my

7 reports if I express an opinion, if I have less than

8 reasonable certainty or words to that effect to

9 qualify my opinion. So I have not qualified my

10 opinion, so you can understand that I feel reasonably

11 certain about my results.

So, in order to gain that reasonable 13 certainty, you undertake a methodology that you 14 believe in, that is sound theoretically and sound

15 academically. And to that you examine actual

16 information and projected information and perform your

17 due diligence to ensure that from your professional

18 point of view it is sufficiently robust and correct 19 and worthy of reliance that you can arrive at an

20 unqualified opinion.

Q. And obviously you've used Ms. Emerson's

22 forecast in your model. Have you used forecasts

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02:59:47 1 economically for me to do that. And so I might look

2 at a forecast and say, are the forecasted prices

3 higher than I need to hit my benchmark so that I can 4 justify billing this from an economic point of view.

5 But they are two different things.

Q. Thank you. I have no further questions for 7 you, but I'm sure that others will.

A. Thank you.

PRESIDENT van HOUTTE: Thank you.

10 The floor is for Canada's counsel.

11 Mr. Douglas?

9

MR. DOUGLAS: I am of the firm view that

13 damages should always be discussed first in an

14 arbitration because they can tend to go on with a 15 bunch of numbers. We have gone on for about an hour.

16 Would it be possible to take a short break before

going on? 17

18 PRESIDENT van HOUTTE: Sure.

19 MR. DOUGLAS: Thank you.

20 (Brief recess.)

21 MR. DOUGLAS: Thank you.

CROSS-EXAMINATION

SHEET 47 PAGE 861 \_\_\_\_\_ PAGE 863

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03:10:23 1 BY MR. DOUGLAS:

- Q. Good afternoon, Mr. Rosen.
  - A. Good afternoon.
- Q. Just, if I understand your damages model
- 5 correctly on sort of the highest platform we have,
- 6 obligations under the Guidelines less what the
- 7 Claimants would have spent in the ordinary course or
- 8 in the absence of the Guidelines, and the difference
- 9 between those two creates a shortfall. Am I good so
- 10 far?
- 11 A. Yes.
- 12 Q. Okay. And that shortfall is what you refer
- 13 to as incremental spending?
- 14 A. Correct.
- 15 Q. Okay. And it's the incremental spending that
- 16 is the Claimants'--your assessment of the Claimants'
- 17 damages in this case.
- 18 A. That's a starting point, but yes.
- 19 Q. Starting point. Okay.
  - Until cash outlays are actually made, does
- 21 incremental spending--is it an actual economic loss to
- 22 the Claimants?

03:12:01 1 First Report, please.

2 And if we just look at the second sentence in

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- 3 that paragraph you state that "the incremental
- 4 spending does not represent an economic loss to the
- 5 Claimants until the cash outlays are ultimately made."
  - So, are you changing your view now?
  - A. No. If you look at Footnote 17, it says,
- 8 "irrespective of the cash outlay, the implementation
- 9 of the Guidelines has created a liability relating to
- 10 the incremental spending. The timing of the cash
- 11 flows is associated with discharging this liability
- 12 has been reflected in my analysis."
- 13 So, it still creates a liability.
  - Q. Okay. But is there a difference between a
- 15 liability and an economic loss?
- 16 A. It's semantics, really, I think.
- 17 Q. Okay. So, when you say the incremental
- 18 spending does not represent an economic loss, that it
- 19 does not represent an economic loss until a cash
- 20 outlay--what's a cash outlay?
- 21 A. Until they write the checks.
- Q. Okay. So until they spend the incremental

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- 03:11:11 1 A. It's an economic loss. It's not a cash loss 2 until it's spent.
  - Q. So, it is an economic loss even before
  - 4 they've spent the incremental spending?
  - 5 A. That's correct.
  - 6 Q. Okay. If I could just ask you to turn to--
    - MR. DOUGLAS: And I should maybe first of all
  - 8 make sure everybody has everything. There's two
  - 9 volumes of the Core Bundle as well as three Expert
  - 10 Reports. Sadly, we will be flipping through a number
  - 11 of things today, if we are having trouble following,
  - 12 then please just stop me and I will make sure you're
  - 13 following along appropriately.
  - 14 I'm also mindful, we will be looking at some
  - 15 models, and the Tribunal has some smaller versions, I
  - 16 think, so we'll try to get those up on these--they're
  - 17 Mr. Rosen's economic models, and because they're in
  - 18 the smaller books, they might be really small print.
  - 19 So, we'll get them up on the screen. And again if you
  - 20 have any question, please, by all means.
  - 21 BY MR. DOUGLAS:
  - Q. So, again, looking to Paragraph 43 of your

\_\_\_ PAGE 864 -

03:13:13 1 spending?

- A. Correct.
- Q. So, you do state here it does not represent
- 4 an economic loss?
- 5 A. Again, it's--I think you're splitting words
- 6 with me. It's a liability, so, in the sense it's an
- 7 economic obligation. But for the purpose of
- 8 calculating the cost of that obligation, so the
- 9 interest that might accrue on it or your cost of
- 10 capital on it, there is no economic sense on it until
- 11 it's actually spent.
- Q. Okay. Now, just referring back then to that
- 13 footnote, you skipped over a portion.
- 14 A. Yeah.
- 5 Q. Which states that--and if I'm correct, your
- 16 report was filed on August 4, 20009?
- 17 A. Correct.
  - Q. And you state that the Guidelines have
- 19 created a liability relating to incremental spending
- 20 for April 1st to June 30, 2009.
- 21 A. Correct.
- Q. And you don't mention any future dates past

SHEET 48 PAGE 865 -\_ PAGE 867

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03:14:02 1 2009. You just say the liability is June 30, 2009; is 03:16:05 1

- 2 that correct?
- A. In this section, yes.
- Q. Okay.
- A. The next section deals with the future.
  - Q. So, have the Claimants suffered an economic
- 7 loss with respect to future incremental spending?
- A. I'm going to have to--I'm not trying to be
- 9 difficult. I'm going to have to get to you define
- 10 what you mean by "economic loss."
- Q. I'm actually just trying to use your words
- 12 and the words you used in your report, so I'm not
- 13 quite sure what the definition is, which is why I'm
- 14 asking the question.
- A. Okay. From my point of view they've suffered
- 16 a loss. They will not feel the economic impact of the
- 17 loss until they start spending the money, so they
- 18 won't be out of pocket, out of cash, incurring
- 19 interest expense, other costs until they actually
- 20 spend it, but they have a loss, certainly, that has
- 21 been crystallized as an obligation.
- Q. Okay. And we heard from--you were in the

A. That's correct.

Q. Okay. And these figures were based on the

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- 4 most up-to-date information at the time?
- A. The most up to date information I had at the 6 time, yes.
- Q. Okay. And in your Third Report you updated 7
- 8 these figures; is that correct?
  - A. For actual numbers, yes.
- Q. For actual numbers, yes.
- And for Hibernia the new figure is 11

13 I believe that's also correct.

- Is and for Terra Nova it's
- A. I believe that is also correct.
- Q. Okay. So, these figures total, in your Third 16
- 17 Report,

12

14

- A. Correct. 18
- Q. So, if I'm just summarizing and trying to
- 20 understand between your First Report and your Third
- 21 Report, ordinary course spending between '04 and '08
- 22 only grew by

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03:16:47 1

03:15:12 1 room, I believe, when Mr. Phelan testified employ; is

- 2 that right?
- A. That's correct.
- Q. And Mr. Phelan took us through Hibernia
- 5 statement of joint account costs.
  - A. Correct.

2 was new information that would have been accepted 3 between the dates of the First Report and the Second

4 Report, that's correct.

A. That's what the Board had accepted. There

- Q. So, in your First Report you underestimated 6 ordinary course expenditure in that time by
- A. Simply because there was no indication that 9 the Board had accepted it, yes.
- 10 Q. Okay. And just so we are clear, in terms of 11 your model of obligations minus ordinary course,
- 12 higher ordinary course figures decrease incremental
- 13 spending?
- A. That is correct.
- Q. Okay. Now, the projects have filed with the
- 16 Board two Work Plans; is that right?
- A. That's correct.
- O. One for Hibernia?
- A. And one for Terra Nova, yes. 19
- 20 Q. One for Terra Nova.
- And you were present in the room also for
- 22 Mr. Ringvee's testimony; is that correct?

Q. Okay. In your First Report, you assessed the

- 13 project's ordinary course expenditures between 2004 14 and 2008; is that right?
- A. Correct.
- For Hibernia, that totaled
- A. I believe that's correct.
- Q. Okay. And for Terra Nova, that totaled

19

- A. I believe that's also correct.
- Q. Okay. So, in total, ordinary course spending
- 22 between '04 and '08 in your First Report was about

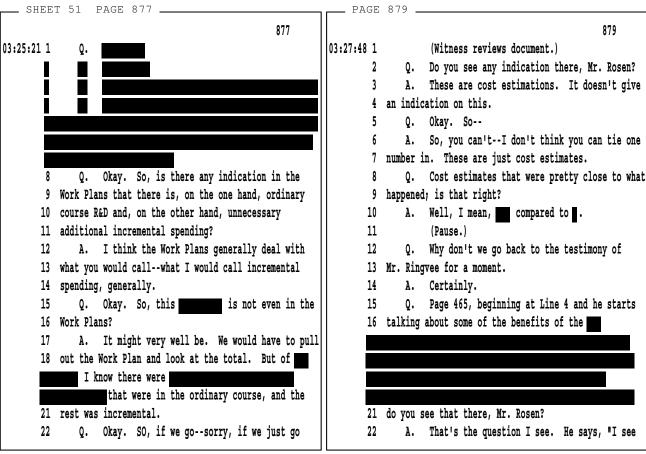
\_ SHEET 49 PAGE 869 \_ PAGE 871 869 871 03:19:07 1 Q. Okay. Does your quantification account for 03:17:27 1 A. For most of it, I believe, yes. Q. Okay. And if there is a portion that I refer 2 any benefits the Claimants might receive from these 3 to that you weren't in, just let me know and we could 3 expenditures? 4 refer to the transcript or whatnot. A. You're incapable of calculating those He gave testimony as to how the Work Plans 5 benefits, so no, they do not. Q. Okay. Why don't we review some of them 6 were reformed? A. That may have been the little bit I missed. 7 together. 8 I missed the first little bit of his testimony, I If I could turn you to Tab 7, please--9 believe. MR. DOUGLAS: This is Tab 7 of my Core Bundle Q. Okay. That's not that relevant, really. 10 of my cross-examination, of which there are two Do you recall that he said that the Claimants 11 volumes. 12 and the other owners in the projects have met since 12 BY MR. DOUGLAS: 13 2008? Q. --this is an 13 A. I don't recall that statement, but I'm sure 14 right? 15 you're reading from the transcript. A. The Q. Okay. And that they've met about 40 times 16 absolutely. Q. The 17 since 2008? Were you in the room when Mr. Ringvee 17 A. Okay. 18 testified about this expenditure? A. I don't recall specifically. O. That's also in his Second Witness Statement Q. Why don't we take a look at his--20 at Footnote 1. 20 The Claimants have a desire to spend A. Sure. 22 incremental spending in ways that are economically Q. If we could pull up 464, Line 6. \_ PAGE 872 \_

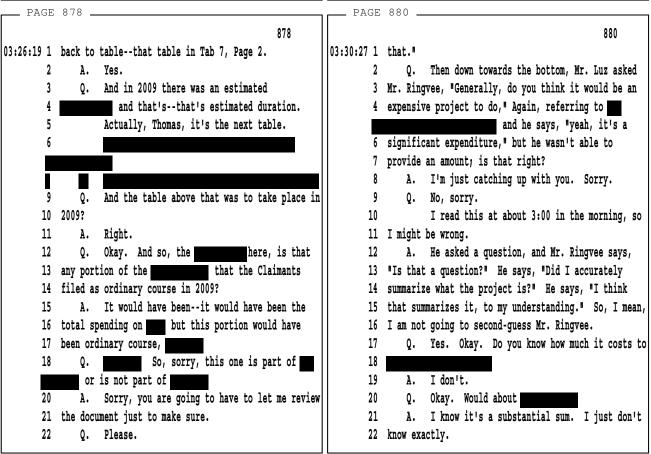
\_ PAGE 870 \_ 870 03:18:28 1 efficient? A. That should their desire, yes. Q. Okay. And that would provide them value? A. That would certainly be their motivation. Q. Okay. Have you reviewed the Work Plans in 6 their entirety? A. Yes, I have. Q. And the Work Plans address the Claimants' 9 incremental spending between 2004 and 2008? 10 A. Targets--with the intent, yes. O. Yes. And the Work Plans also address future 12 incremental spending, as well? 13 A. Again, planned. 0. Planned. 14 A. Yes. Q. So, the Work Plans are planned incremental 17 spending, is what you're saying? 18 A. Yes. 19 Q. Okay. Fair enough. And but for the Guidelines, these 21 expenditures would not have been undertaken? A. That is my understanding, yes.

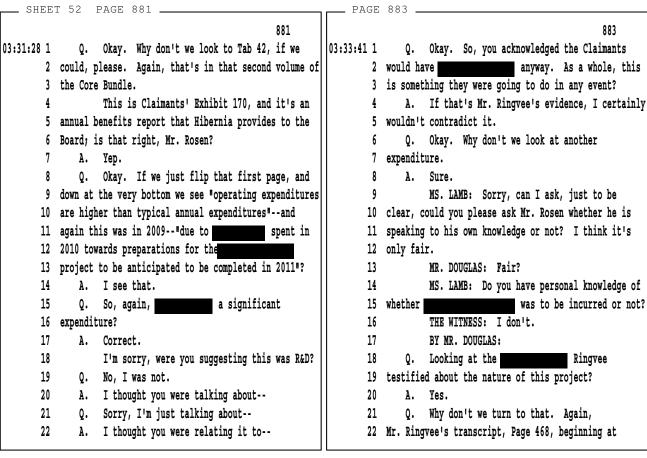
03:20:11 1 No need to highlight right now, Thomas. You see there at Line 6 that's on the screen? 2 A. Yes, I do. Q. And he was asked, and why is Hibernia Do you see that there? 15 A. Yes, I do. Okay. If you could turn to Page 2 of Tab 7, 17 and it's Page 2 of the document, as labeled on the 18 document, and you will see a project schedule for the 19 is that right? Under--A. Yeah, yep. Q. So, it's intended to take place in 2009, 22 2011, and completed in 2000--sorry, 2010 and completed

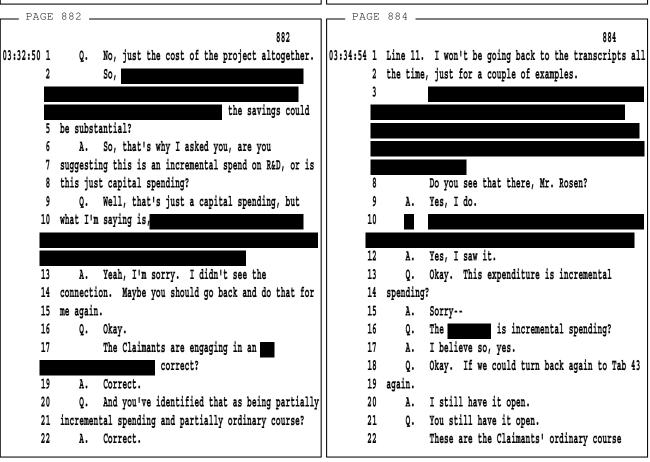
\_ PAGE 874 \_ 874 03:22:47 1 O. And there is a Footnote 9? A. Correct. Q. If we look down to footnote line, we will see 4 FTI UC-16? A. Correct. Q. So, that's their ordinary course submissions 7 to the Board; is that right? A. Correct. Q. Again, we have to flip to FTI UC-16, which is 10 going to be Tab 43 of the Core Bundle, so I believe 11 that's in Volume 2 of the Core Bundle. A. Yes, it is. Q. There are no pages on this document, but I 14 believe if you flip one, two--it should be on Page 4. 15 You see a project description? 16 A. Yes, I do. Q. And you see line item 12? A. Yes, I do. 19 Q. And that's the 20 A. Yes, I do see that. O. So, the Claimants submit to the Board an 22 ordinary course expenditure in 2009, which is the

03:24:39 1 taken--undertaken but for the Guidelines, that wasn't 2 entirely true? A. In a general sense, there were certainly part 4 of that was ordinary course, which is why it 5 was footnoted here. Q. Okay. Would you be able to let me know or 7 tell me--A. I think--Q. I don't want you to flip through your Work 10 Plans, but based on your reports that you'd filed, can 11 you let me know which expenditures in the Work Plans 12 are ordinary course expenditures and which ones are 13 incremental spending? A. I believe there's , and the others are not. So, are ordinary 17 course? A. Correct. 19 Q. And the rest are not? 20 A. Correct. O. Which









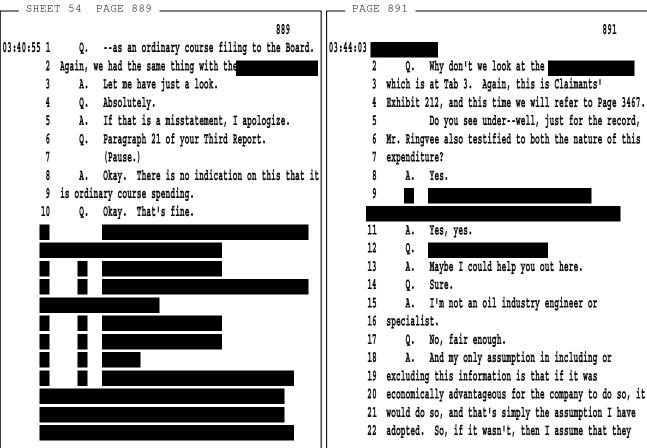
\_ SHEET 53 PAGE 885 \_ \_ PAGE 887 885 887 03:35:59 1 filings for 2009? 03:37:58 1 A. 13. That's why I didn't find it. 2 A. Correct. Yes, I have it now. Q. And line just below Q. And that was Bates number 3471, if you would, 4 does that say, Mr. Rosen? 4 please. A. Sorry, which? A. Yes. 6 Q. Thomas, back. Stop--no, forward, forward. Q. So, this is an expenditure, a part of the Stop there, please. Thank you. 7 Work Plans; is that right? A. Yes. 8 A. Before you--9 O. And the line--Q. I already asked you whether this was A. Oh, 43. So, I was on 42. 10 incremental spending, and I believe your answer was 0. Line 13. 11 A. That's correct. 12 12 Q. Okay. Again, it's a small amount, but one Q. But you've included a portion of the 14 that has been included as an ordinary course as ordinary course spending in 2009? 15 expenditure in 2009? A. Correct. A. Correct. 16 Q. Okay. So, which one is it, Mr. Rosen? Q. Okay. So, before when you stated that this 17 A. Well, the cost estimate for Phase I is 18 was incremental spending, that was a misstatement? 18 between A. Whether this particular was incremental O. Um-hmm. 19 20 spending? 20 A. So--O. Um-hmm. Q. Over a period of time? 21 A. No, I believe this is ordinary course A. Over a period of time, correct. \_ PAGE 888 \_

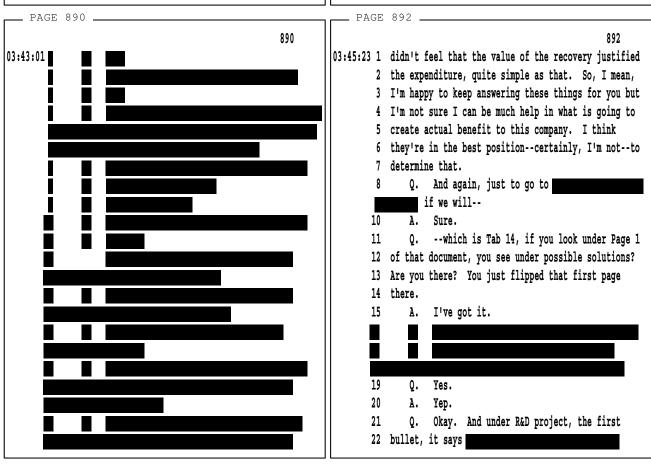
\_ PAGE 886 \_ 886 03:36:44 1 spending. Q. Yes. And so there is also a split between what is 4 ordinary course and incremental spending with respect 5 to the A. Well, all I see here is Q. And you see a reference to the 8 correct? A. Yes, yes. 10 Q. And the is an expenditure under the 11 Work Plans? Q. That is incremental spending? A. Can you take me to the Work Plan where that 15 is? Q. Absolutely. That would be Tab 212--it would 17 be Tab 3. A. Of Volume 1? Q. This is Claimants' Exhibit CE-212, and the 20 page is 34--it's Bates number 3471. A. So, this is at tab--Q. Three, I believe.

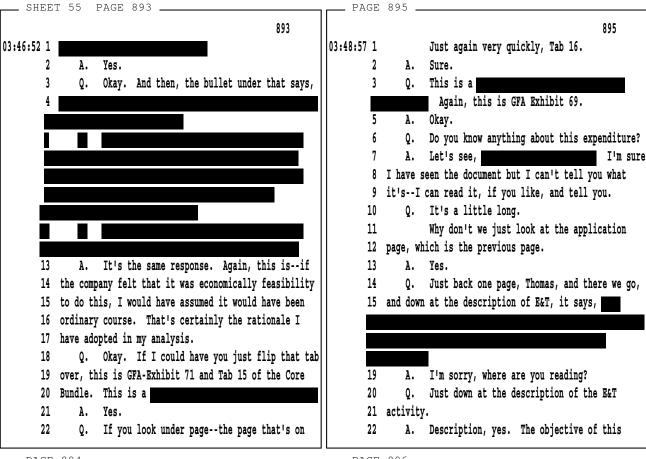
03:38:55 1 Q. So, are there portions that are incremental 2 spending and portions that aren't--that are ordinary 3 course? Is that how this works? You know what, Mr. Rosen, it's okay, we could 5 just move on, if you would like. A. No, I just want to make sure I give you the 7 correct answer. Sorry. Give me a moment with these dates. 9 (Pause.) 10 A. So, the Work Plan details the 11 the other example you gave me of and and on the 12 same day this letter that you have under Tab 43 sets 13 out expenditures for 2009 that are seeking approval 14 under the Guidelines. O. Um-hmm. A. So, there is no indication that they're not 17 incremental spending, so if I indicated before that 18 they were, I apologize. Q. Yeah, I believe that that document is 20 referred to under that Footnote 9 under Paragraph 21

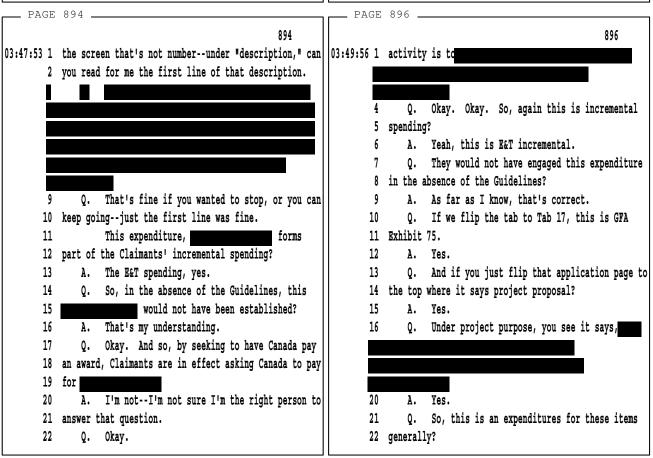
21 of your Third Report--

A. Yes.









\_ SHEET 56 PAGE 897 \_ \_ PAGE 899 897 899 03:50:44 1 03:52:45 1 pages that is numbered, and it's Page 13 of 14, the A. Yes. Q. Okay. This is also increment spending? 2 very back--the back looseleaf portion. A. Yes, this would be more E&T. Now, first of all, you saw what this document 4 is? Q. Okay. In your damages assessment, you don't make A. Yes, I do. 6 any deductions for SR&ED tax credits in the Work Plan Q. It's a funding for the--7 expenditures; is that right? A. Correct. Q. Yeah. The top paragraph, it says Q. And you don't make any deductions for savings 10 on royalty payments? A. Correct. 11 Q. All right. Is it possible that the Work Plan should be automatically SR&ED-eligible. 13 expenditures will result in SR&ED tax credits? A. Should be. A. Anything is possible. Okay. You don't make any deductions for Q. Okay. And it's possible they might resolve 15 SR&ED for this expenditure in your calculations? 16 in savings on their royalty payments? A. No. It's not--it hasn't been SR&ED-approved. A. It is possible, yes. 17 Q. Okay. If I could refer you to Tab 3 of the Q. But believe it is uncertain whether the Work 18 Core Bundle? 18 19 Plan will result in SR&ED tax credits? 19 A. I have two problems with the way it was 20 Q. My apologies, I actually meant Tab 4. 21 quantified or dealt with by your Expert. The first A. Okav. The Terra Nova Work Plan?

22 was the benchmark that was used, I thought, was--and I \_ PAGE 898 \_\_ 03:51:44 1 don't want to e repeat myself at length, but I didn't 2 think it was an appropriate benchmark, and the I found 3 that there was sort of an aggressive assumption that 4 led to an overvaluation of what the potential benefit

5 would be. So, I looked at it and said it might be a 6 small benefit, but there is certainly nothing I could 7 hang my hat on to arrive at a number. Q. Okay. And that's because the incremental 9 spending or the Work Plan expenditures, uncertain as 10 to whether they would be eligible under the SR&ED 11 regime? A. Whether they'll be eligible or whether 13 they'll actually be undertaken. Q. Okay. If we could look Tab 22, which is 15 GFA-62. 16 Why don't I address each of your concerns. 17 You mentioned two concerns; one, whether the 18 expenditure will be undertaken; and two, whether would

Q. Okay. Now, if I could have you turn to--this

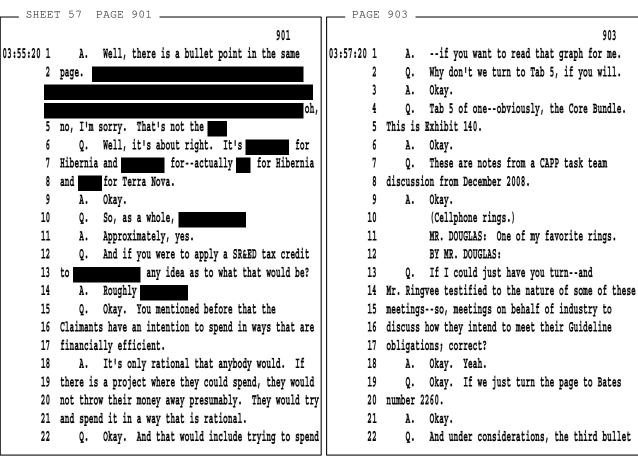
22 one is actually numbered, but it's one of the only

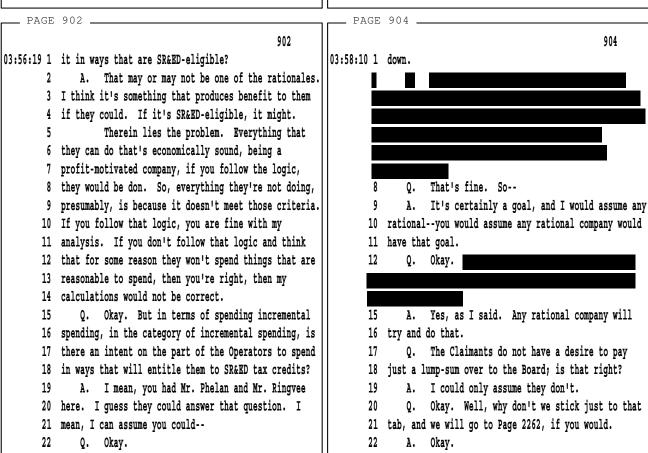
19 be eligible under SR&ED; is that right?

A. Correct.

\_ PAGE 900 \_ 03:54:04 1 Claimants' Exhibit 213. And we are looking at Bates 2 Page 3527. A. Yes. O. And the fourth bullet down? A. The Work Plan Q. Yes. A. About 9 A. -- will immediately reduce shortfall to about 10 Q. Okay. So, there is no uncertainty as to 12 whether or not this expenditure will occur? 13 A. If it's spent, it will reduce the shortfall. Q. Okay. If it's spent; right? A. Right. Okay. If you were to deduct the SR&ED tax 17 credits, it's approximately A. Correct. 19 Q. And so, the expenditure on the 21 A. Sorry, where is your coming from? Q. I have to take you back to the previous tab.

O. This is the Terra Nova Work Plan. This is





\_ SHEET 58 PAGE 905 \_ 905 03:59:01 Okay. So, they don't want to provide a 9 lump-sum to the Board, they would rather spend it 10 themselves because there are greater assurances of 11 industry value and financial efficiency; is that 12 correct? 13 A. If they can find the projects. 14 0. Okav. A. That's--that's the issue. Q. Today, the Claimants have not provided or 17 paid a lump-sum over to the Board; is that right? A. That's correct. Q. Okay. Historically, the Claimants have made 20 expenditures, R&D expenditures, that have been 21 eligible under the SR&ED regime; is that right? A. That's correct.

907 04:01:15 1 Q. See in the middle of the paragraph it says, 2 as did discussed above--sorry. A. Paragraph 37 of my Second Report. Q. I said 37 of your Second Report; yes? A. Oh, my Second Report. Actually, this one has notes in it. You 7 might not want me to have this one. Q. Oh, that would probably be good. I was 9 trying to send you messages. I don't know how that 10 got into your hands. My apologies. A. It's okay. I didn't peak. Q. Maybe if my assistant could arrange for a 13 clean copy to be provided to you. A. Just talking about the Maple leaves. Nothing 15 of value there. Q. Right, and the Rangers. MR. DOUGLAS: I am mindful of the time, 18 Mr. President, and I have a few more questions in a 19 certain category. I do have a continued 20 cross-examination, but perhaps a break--PRESIDENT van HOUTTE: I am also mindful of 22 the time, about you no, please proceed. How many--10

\_ PAGE 907

\_ PAGE 906 \_ 906 04:00:00 1 O. And there is no need to take it -- we have 2 actually referred to it several times, it's Claimants' 3 Exhibit 144, where we have the two columns--A. Exactly, exactly--yeah, from 1990. Q. So, and since 1990, it's about 6 that--of R&D in the past that has been eligible for 7 SR&ED? A. Yeah, out of about 9 Q. Okay. Yes. 10 A. If memory serves. About Q. Yes. In your damages assessment, you also 12 calculate what the Claimants will owe in the future 13 under the Guidelines; is that right? A. Correct. Q. And you would agree that damages calculations 16 of future losses are, by their nature, uncertain? A. Less certain, yes. Q. Sorry? 19 A. Less than certain, yes. Q. Why don't I open you up to your Second Report 21 at Paragraph 37, if you could, please. A. Yes.

\_ PAGE 908 \_ 908 04:02:17 1 minutes or so? 2 MR. DOUGLAS: For my remainder? I think I might have more than 10 minutes, so 4 I suggest we take a break at some point and then I can 5 conclude. PRESIDENT van HOUTTE: You just tell me when MR. DOUGLAS: Okay. I will finish this next 8 category, and then we will go on after that. THE WITNESS: I can actually see it on the 10 screen. 11 BY MR. DOUGLAS: Q. Sure. That also works as well, but if they 13 could still provide him with a copy, that would be 14 helpful. 15 Thank you very much, Jenn. 16 A. Thanks. O. Paragraph 37. A. Yeah, which is what I just said, it's less 19 than certain. Q. It says--so I asked you, I believe, if you 21 agree that all damages calculation of future losses 22 are by their nature uncertain?

\_ SHEET 59 PAGE 909 \_ PAGE 911 909 911 04:05:03 1 04:03:15 1 A. And I answered yes, less than certain. Q. Yes. And then, your Third Report, Q. You said less than certain. Okay. And here, 2 incremental spending is now 3 it says, as discussed above, all damages calculations A. Correct, because we have up-to-date 4 of future--I'm just really quoting from you. 4 information. A. Yes, and I agreed with you, they are less Q. Okay. So, in total, that's about 6 than certain. in incremental spending from your Q. Okay. And you agree that your quantification 7 First Report to your Third Report? 8 that you provide will be higher or lower than future A. Yes. I mean, the Board had not yet approved 9 actual results? 9 it, and we didn't have information. So, when the A. Correct. 10 Respondent approved it, we had the correct Q. Okay. And in your view, the role of an 11 information. 12 expert is to determine the most likely quantum of Q. So, in terms of mitigating future uncertainty 13 damages? 13 by relying on the most up-to-date information, did

14 A. Correct.

Q. The most likely quantum of damages in this 16 case is one that does not include SR&ED tax credits?

A. Correct. Q. And does not include savings on royalty 18

19 payments? A. Correct.

Q. And does not include operational benefits?

A. Correct.

14 that happen with your First Report? A. Between my first and my last report, yes. Q. Okay. MR. DOUGLAS: I think that's a good place to 18 take a break. PRESIDENT van HOUTTE: Then, a 15-minute 20 break. Mr. Rosen, you are as a witness here. Of 22 course you can walk around, but you should not speak \_\_ PAGE 912 \_

\_ PAGE 910 \_ 04:03:56 1 Q. Okay. Even though damages calculations of 2 future losses are, by their nature, uncertain. A. Yes, they're future-oriented. All future 4 information is uncertain. Q. Okay. You argue that, by using the most 6 up-to-date information, you can mitigate the 7 uncertainty associated with future events and gain 8 sufficient certainty to arrive at a conclusion on 9 damages? 10 A. Yes. Q. Okay. In your First Report, incremental

12 spending out of Hibernia between 2004 and 2008 was 13 about

A. That's about right.

Q. Okay. And if we look at your Third Report,

16 that would be

A. That's about right.

Q. For Terra Nova in your First Report,

19 incremental spending between '04 and '08 was

A. Yes, based on the preliminary information at 22 that time, yes.

04:05:54 1 with anyone of both sides. Thank you.

(Brief recess.)

PRESIDENT van HOUTTE: Please.

(Comments off microphone.)

MS. LAMB: That's fine, sir.

MR. DOUGLAS: And I assume we're still in a

912

7 closed session?

THE SECRETARY: Yes, we are.

9 BY MR. DOUGLAS:

10 Q. When you calculate what the Claimants will

11 owe under the Guidelines in the future, you adopt the

12 oil price forecast of Ms. Emerson.

13 A. That is correct.

O. And her forecast is in U.S. dollars.

A. Correct.

Q. And you convert her oil price forecast into

17 Canadian dollars.

A. Correct.

19 Q. To make that conversion, you project the

20 future Canada-U.S. exchange rate?

A. Excuse me, I adopt the projection of The

22 Economist.

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913

915

- 04:21:50 1 Q. Okay. In your First Report you relied on The
  - 2 Economist.
  - 3 A. Correct.
  - Q. But just for the years 2009 to 2013; is that
  - 5 right?
  - 6 A. Yes.
  - 7 Q. Okay. And that was the most up-to-date
  - 8 available information to you at that time.
  - 9 A. Correct.
  - 10 Q. Okay. In your First Report, the exchange
  - 11 rate was forecasted to be \$1.20 cents in 2009; is that
  - 12 right?
  - 13 A. Average for the year, yes.
  - 14 Q. Okay. And that would take \$1.20 cents
  - 15 Canadian to buy one U.S. dollar.
  - 16 A. Correct.
  - 17 Q. Okay. The actual exchange rate in 2009 was
  - 18 \$1.14.
  - 19 A. Correct, on average.
  - Q. On average.
  - 21 So, the Canadian dollar in 2009 was stronger
  - 22 in 2009 than The Economist predicted.

- 04:23:43 1 stable--so from 2014 for the future you predicted a
  - 2 stable exchange rate of \$1.04 cents; is that right.
    - A. I didn't--I didn't have information past
  - 4 that, so I just assumed it would remain constant past
  - 5 that date.

\_ PAGE 915

- Q. Okay.
- A. In my updated calculation, I had the more
- 8 complete analysis from The Economist magazine which
- 9 projected it more long time.
- 10 Q. Did The Economist not produce these long-term
- 11 forecasts at the time of your First Report?
- 12 A. It has to be purchased, and so it just wasn't
- 13 purchased for the First Report.
- 14 Q. But you decided to purchase it for your third
- 15 Report.
- 16 A. For the final Report, yes.
- Q. Okay. In The Economist forecast in your
- 18 Third Report for 2014 is not \$1.04 cents, as you
- 19 reflected in your First Report, but is actually 98
- 20 cents?
- 21 A. That is correct.
- Q. Such that 98 Canadian cents will buy one U.S.

\_\_ PAGE 914 \_\_

914

- 04:22:38 1 A. Correct. One of the principal reasons is
  - 2 because the price of oil appreciated. Canadian dollar
  - 3 and the price of oil tend to move in tandem.
  - 4 They refer to it as the petro buck.
  - 5 Q. "In tandem" meaning--
  - A. They're highly correlated. As you see
  - 7 increase in the price of oil, the Canadian dollar
  - 8 strengthens against the U.S. dollar.
  - 9 Q. Okay. Is the Canadian dollar strengthened in
  - 10 your updated calculation?
  - 11 A. Yes.

- Q. Okay. So, in your First Report, the exchange
- 16 rate was forecasted to be \$1.12 in 2010?
- 17 A. I believe that's correct.
- 18 Q. And the actual exchange rate is \$1.04.
- 19 A. I believe that's about right.
- Q. Okay. By about 8 cents.
- 21 A. Correct.
- Q. In your First Report you predicted a

\_\_ PAGE 916 \_\_

916

- 04:24:40 1 dollar.
  - 2 A. That is correct.
  - Q. Okay.
  - A. That is at the date of writing the report,
  - 5 that was the most up-to-date forecast of exchange
  - 6 rates.
  - 7 Q. And that's a six cent difference?
  - A. Yes.
  - 9 Q. Okay. And in 2015, again the Canadian dollar
  - 10 strengthens to 97 cents.
  - 11 A. That is the forecast at that date, yes.
  - .2 Q. Okay. And again compared to the \$1.04 in
  - 13 your First Report, that's a seven cent difference.
  - 14 A. Yes.
  - Q. And then 2018, new projection's 95 cents,
  - 16 again compared to a \$1.04?
  - 17 A. Yeah. The \$1.04 was constant from that last
  - 18 date.
  - 19 Q. It was constant.
  - 20 A. Yeah.
  - 21 Q. Okay.
  - 22 A. There was no forecast compared to.

PAGE 919

917

04:25:14 1 Q. Okay. And the Canadian--

- 2 A. Not really a fair comparison but...
  - Q. And the Canadian dollar, in your Third
- 4 Report, keeps strengthening.
- 5 A. That is--that is the current fore--well, that
- 6 is the forecast in August of The Economist.
- Q. Okay. At any point in the new forecast, does
- 8 the future exchange rate hit \$1.04 cents?
- 9 A. I don't believe so.
- 10 Q. Okay.
- 11 A. It's not really relevant but...
- 12 Q. Okay. If we kept your model in your First
- 13 Report, kept everything the exact same and put in the
- 14 new Economist forecast back into your first model,
- 15 just to change the exchange rate, do you have any idea
- 16 what impact on damages that might have?
- 17 A. It would be completely irrelevant because
- 18 you'd be mixing forecasts at different dates. And I
- 19 think listening to the evidence concerning future oil
- 20 price forecasts and now this line of questioning, you
- 21 have to understand that when economists and valuers
- 22 value anything, it's at a point in time. There

04:27:23 1 time of your First Report to the point in time in your

- 2 Third Report, the assessment--and that's a period of
- 3 one year, correct?
- A. Approximately, yes.
- Q. And assessment of the Claimants' future
- 6 obligations under the Guidelines has changed in that
- 7 period of time.
  - A. Principally because of what the Board has
- 9 approved by way of eligible expenditures, but
- 10 certainly there are other factors that have changed in
- 11 a material sense.
- 12 Q. Okay. You mentioned there are other factors
- 13 that changed in a material sense. Could you identify
- 14 those factors for me?
- A. You just did.
- 16 Q. Which were?
- 17 A. The price of oil and the exchange rate. You
- 18 said you showed me the differences between the
- 19 projections at the different dates.
- 20 Q. Okay. How much the Claimants owe under the
- 21 Guidelines in the future depends on the amount of oil
- 22 they produce in any given year; is that correct?

\_ PAGE 918 \_

918

04:26:20 1 is -- there is certainly no promise that the future on

- 2 any specific date will be that specific number. Value
- 3 only exists at a point in time. So, whenever you do a
- 4 damages calculation, whenever you value a business and
- 5 you determine a cost of capital, which Mr. Walck and
- 6 Mr.--I do every day of our lives, you're taking it at
- 7 a point in time.
- 8 If I looked at the value of General Motors
- 9 two years ago and what the analysts said about what
- 10 the price would be and then I you looked at General
- 11 Motors during the financial crisis and then I looked
- 12 at General Motors today, I would see completely
- 13 different value, markedly different values. But
- 14 you're looking at it at a point in time. Was the
- 15 market wrong? Was trillions of dollars invested
- 16 incorrect? That was the value at that point in time,
- 17 and that's all we do when we value future damages.
- 18 The awards are made at a particular point in time, and
- 19 those projections exist at a certain point in time,
- 20 and I think that's also what Ms. Emerson was saying
- 21 yesterday.
  - Q. And from your assessment and the point in

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04:28:21 1 A. Over the life of the project.

- 2 Q. But in terms of what they will owe under the
- 3 Guidelines for Year 2016, for example, you know, it
- 4 was a projection as to what they will produce in 2016;
- 5 is that right?
- 6 A. For an individual year, it is based on those
- 7 projections; but overall, it's based on the total
- 8 volume in the reservoir.
  - 0. Okav.
  - A. Which is fairly stable right now.
- 1 0. Okav.

10

- 12 A. The last few estimates.
- 13 0. Okav.
- 14 And so you use a production profile in your
- 15 Third Report for Hibernia; is that right?
- 16 A. Which is the most current production profile;
- 17 that's correct.
  - Q. And a production profile for Terra Nova.
- 19 A. Correct.
- Q. In your First Report you used two production
- 21 profiles from 2009?
  - A. Yes, from an earlier date.

\_ SHEET 62 PAGE 921 \_ \_ PAGE 923 923 04:29:15 1 Q. Okay. And in your Second Report you defended 04:31:00 1 15 percent. 2 these forecasts as reliable because the projects are Q. Okay. And the Board approved a Terra Nova 3 mature businesses? 3 Development Plan in 1987? A. I said as projects mature. They were 5 criticized by Mr. Walck, and he used a variety of Q. And as part of that Development Plan, the 6 benchmarks to criticize the production profile, saying 6 Board approved a production profile? 7 that they're not reliable because certain profiles in A. Yes. 8 a pre-Production Phase and an Exploration Phase were Q. In 2002, the Board approved an amendment to 9 markedly different than from a Production Phase. And 9 the Development Plan? 10 I simply said management, generally speaking, as a A. That's correct. 11 project goes from exploration to development to Q. With another production profile? 11 12 production gets better at estimating the total size of 12 13 the reserve and the production profiles increase in 13 Q. And in 2005, the Board approved another 14 reliability. 14 amendment? Q. Okay. A. I believe so, yes. A. And I think that was my point. Q. With another production profile? 16 16 Q. Okay. Your First Report predicted that Terra 17 A. They keep getting updated, yes. 17 18 Nova in 2009 would produce Okay. Historically, has Terra Nova 18 A. Both Hibernia and Terra Nova are both about 19 production matched what has been forecast? 19 A. In some years yes, some years no.

922
04:30:14 1 A. Correct. It was lower and Hibernia was 2 higher.
3 Q. Okay. So it was lower by about 5 A. Correct.
6 Q. Okay. Was it about less?

5 A. Correct.
6 Q. Okay. Was it about less?
7 A. Total reserve didn't change, but for that one
8 particular year, yes, that's correct.
9 Q. Okay.

So, they had some unanticipated problems in

Q. Okay. And actual production at Terra Nova

of oil?

12 the overall size of the reservoir did not change.
13 Q. So, what you're saying is total recoverable
14 oil don't reserve. Are you implying that oil will

11 that year that led to lower recoveries, but certainly

15 just then be produced, why it was short this year but

16 it'll just be made up in a future year?

17 A Vec

22 was

10

18 Q. Okay. Let's assume for the sake of argument

19 a 15 percent discount rate. If the oil being produced

20 is put off to a subsequent year, what impact would a

21 15 percent discount rate have on that?

A. It would reduce your calculations by

\_ PAGE 924 \_

21

924

We can go to the exhibit of the production.

04:31:57 1 Let's assume that on an historic basis
2 they've been 25 percent lower. Would that have any

Q. No, that's okay.

3 impact on your assessment of their future production?

4 A. It might mean these are the years they're

5 going to be catching up, so it might be higher than 6 projected. But again I'm not an engineer in the

7 petroleum field.

8 Q. No.

9 A. So I wouldn't hazard a guess there. I'd

stick with the Experts on their expectations.
11 Q. In your First Report, just turning to

12 Hibernia now, the production profile you used was

13 submitted to the Board?

14 A. Yes.

Q. And that production profile was determined by

16 the Board to be reasonable?

17 A. Yes.

Q. Okay. Do you have enough water?

19 A. I do. I'm just--for some reason the dryness

20 of the air, it just makes me cough.

21 Q. I know. And you updated that production

22 profile in your Third Report.

\_ SHEET 63 PAGE 925 \_ \_ PAGE 927 925 927 04:35:00 1 think. 04:32:50 1 A. Well, I didn't update it. The company did. 2 I adopted what the company updated. Okay. Q. Okay. And if we could open up to Tab 37 of See it's a letter? 4 your Core Bundle. This is Claimant Exhibit 238. Is this the production profile you used in Q. The Board sent a letter to HMC requesting 6 your Third Report? 6 clarification or further information? A. It's not labeled, but I believe this is it. A. Sorry, this is an HMC letter. Q. You're right. This is an HMC letter filed to Q. Okay. Has this production profile been 9 and provided to the Board because HMDC is providing 10 submitted to the Board? 10 the clarification to the Board. A. Submitted but not approved -- oh, actually I A. Correct. I thought you said this was a 12 don't think it's been submitted, no. But the Board's 12 letter to--13 only--I'm sorry, the Board's own estimation of the Q. Oh, you know, I won't lie. I probably did. 14 total reservoir is about the same number. 14 My apologies. Q. Okay. So, in total, it says there a -- I might A. Okay. 16 mix up my numbers. Is that Q. So, this is a letter from HMDC to the Board. 16 17 oil? 17 A. Correct. Q. Clarifying their Development Plan Amendment? 18 A. Yes, about 18 Q. Okay. But that would include Hibernia South 19 A. Correct. 20 and the AA Blocks; is that correct? 20 Q. Okay. If we just turn the page over. A. Correct. A. Yes. Q. Oil that you do not use as part of your Q. We see on the bottom of Page 2.

\_ PAGE 926 \_ 926 04:34:01 1 damages calculation; is that right? A. Correct. Q. So, Hibernia North figure is barrels of oil? Q. I think that's easier. Thank you. A. From this document, yes. Q. Okay. Since you filed your First Report, the 9 Claimants have sought to amend their Development Plan; 10 is that right? Q. Okay. And they submitted an application to 13 the Board in January 2010 for that amendment? A. I believe so. Q. Okay. Are you aware they clarified some 16 aspects of their application in April 2010? A. If you could show me the document, that might 18 be helpful. Q. Sure. This is GFA Exhibit 59. It's Tab 36 20 of your Core Bundle. So, if you just hold your finger there on

22 that production profile, that would be helpful, I

\_ PAGE 928 \_ 928 04:35:45 1 A. Yes. Q. Again, another production profile, some less 3 detailed than the one that you've provided. A. Yes. It says this is a corrected table. Q. And if we look at the most likely 6 recoverable, we see Hibernia B Pool non-HSE unit of oil? A. Yes. Q. Okay. Are you aware that last week the Board 10 approved this production profile? A. I was not aware of that. Q. Okay. So why don't we look to--and the 13 Claimants have filed this as their new materials, 14 Claimants' Exhibit 244. And that will be at Tab 44 of 15 your bundle. 16 Yes, sir. PRESIDENT van HOUTTE: Mr. Douglas, we 18 started with examining Mr. Rosen at 2:00. It's now 19 4:30. For me it's all fine, but Mr. Walck is also on 20 the schedule, and I had the feeling that he shall also 21 be examined by the two Parties extensively. Now how do you see -- how do both Parties see

\_ SHEET 64 PAGE 929 \_ \_ PAGE 931 931 04:39:26 1 04:37:13 1 the timing with regard to what we will have to do MR. RIVKIN: And then the hope would be what 2 Mr. Gallus and I talked about--he's not in the room 2 tomorrow? MR. DOUGLAS: I'm--and just--3 now--but what we talked about was along the lines that PRESIDENT van HOUTTE: And I don't want to 4 we discussed with the panel at the end of the day 5 cut you short--5 yesterday which is each day would do openings MR. DOUGLAS: No, fair enough. And just in 6 of--closings, rather, of about 90 minutes which we 7 fairness, Mr. President, the examination did start at 7 would then hopefully get done by lunch, including your 8 2:00, but the Claimants did examine their Expert for 8 questions, have a lunch break and then have time for 9 an hour until 3:00. So I'm just--9 short rebuttal, 20 to 30 minutes after lunch, and that PRESIDENT van HOUTTE: No, no, no. But it's 10 would still hopefully give you all some time to 11 deliberate before you take off. 11 just I speak about persons--PRESIDENT van HOUTTE: And I insist, my MR. DOUGLAS: Fair enough. PRESIDENT van HOUTTE: That's why I addressed 13 13 inquiry was not to cut short someone, but it was just 14 the question to both sides. And if you will do the 14 to try to get the most out of the hearing. 15 same with Mr. Walck, and you are entitled to do it, MR. DOUGLAS: I'll be mindful of the time as 16 and it will be 6:00 before we know it. 16 I proceed. Thank you. MR. DOUGLAS: Not quite--17 BY MR. DOUGLAS: PRESIDENT van HOUTTE: No, no, but I just Q. So, we've just looked at a production profile 18 19 raise the issue. 19 submitted by the Proponent of Hibernia to the Board; MR. DOUGLAS: Of course. 20 is that right, Mr. Rosen? PRESIDENT van HOUTTE: And I would like to A. Yes. 22 know the position of both sides, so not only from And, sorry, you were just taking me to Tab 40

930
04:37:55 1 Canada.

2 And of course I don't have to repeat. You
3 should absolutely have the feeling that did whatever
4 you had to do.
5 MR. DOUGLAS: Okay.

7 have? 8 MR. DOUGLAS: I think I might have another 30

MR. RIVKIN: How long do you think you might

9 to 40 minutes.

\_ PAGE 930 \_

10 (Discussion off microphone.)

11 MR. DOUGLAS: Probably about 30 minutes.

12 MR. RIVKIN: Perhaps we can try to finish up

13 with Mr. Rosen and get Mr. Walck's direct done, and we

14 could perhaps start a little bit earlier tomorrow than

15 planned.

16 PRESIDENT van HOUTTE: Are you planning to go

17 to 7:00?

MR. RIVKIN: Well, we had thought that we'd

19 start at 9:00 with the openings.

20 (Discussion off microphone.)

PRESIDENT van HOUTTE: Would that be possible

22 for the Court Reporter to start at 8:30?

\_ PAGE 932 \_

04:40:19 1 something?

10

Q. And I was just pointing you to the Board's

3 approval of that profile?

4 A. Was it tab 44, you said?

5 Q. I believe it was Tab--44, correct. That's

6 Claimant Exhibit 244.

7 A. Okay. This is staff analysis dated

8 September 2?

Q. Correct.

A. Yes, I got it.

1 Q. Would you go to Page 31 of that document?

.2 A. Okay

13 Q. Again, if you look down the B Pool, which

14 does not include the AA or the Hibernia itself, we see

15 that figure again?

16 A. Yes.

Q. Okay. So, if we take this figure and compare

18 is it to the forecasts you use...

19 A. Okay.

20 Q. Which again was Tab 37 of the Core Bundle.

1 A. Oh, sorry.

22 Yes.

## **B&B** Reporters

\_ SHEET 65 PAGE 933 \_\_ \_ PAGE 935 933 935 O. It's Claimant Exhibit 238. 04:41:12 1 04:44:16 1 Q. You will see in 2010 the figure there is Q. We see a total of 3 A. Correct. And the figure you use in your report is 4 Q. That's about 5 higher than 6 the forecast that was approved by the Board last week? Correct. A. If I could, I'd just like to follow that 7 Why is there a discrepancy? 8 production into my report. A. This is their share of that number. O. Whose share of what number? Q. Okay. 9 A. If that doesn't create a problem. A. The Claimants. 10 Okay, if we could go to Schedule 2 of my Q. Rather than the Operator as a whole. 11 12 Third Report, and so to determine what effect, if any, 12 A. Correct. 13 this would have on my numbers, you would have to 13 Q. I thought your methodology was to take 14 compare this development, amended Development Plan 14 incremental spending for the projects as a whole and 15 then at the end take the ownership interest. So, for 15 production schedule with that used in my Schedule 2. 16 So, if you look at net R&D requirement per the 16 example, if we look to Paragraph 4 of your Third 17 Guidelines, you'll see the annual production in 17 Report--you see that, Mr. Rosen? 18 millions of barrels? A. Yeah, I'm sorry. I'm just looking at O. Yes, I do. 19 the--I'm just looking at the schedule itself. Just 20 give me a minute to... A. Okay. And it says Footnote 1. And this is 21 off of the letter to the Board dated February 26, '09. (Witness reviews document.) 21 22 But if we insert these figures, for instance, if we A. Sorry, could you bring up my document FTI \_ PAGE 936 \_

\_ PAGE 934 \_\_ 934 04:43:19 1 start with 2011--Q. Which figures are you referring to? A. The figures that you've just shown me in the 4 recently approved. 0. Okav. A. So, for instance, starting next year in 2011, 7 it's showing the B Pool at Q. That's correct. A. My forecast has it at \_\_\_\_\_, so this is 10 considerably higher. And then 2012 would be compared to in 12 my forecast. And then 2013 would be which is 14 considerably higher than my forecast, Then in this new forecast compared to mine 16 of And so what it does is it accelerates a lot 18 of production closer and would actually increase the 19 calculation. Q. If I can turn you back to the production, 21 Claimants' Exhibit 238 at Tab 37.

A. Yes.

936 04:46:21 1 UC-3. Q. I believe it's the same as CE-38. CE-38 just 3 happens to be the one referred to by the witness Paul 4 Phelan but we can bring that up--A. I'm just trying to match up the numbers. Q. UC-3, please. A. I'm sorry. I need a few minutes with a 8 calculator to tie this stuff in. Q. Actually, I think I might be able to explain 10 if you follow with me. Q. If I can take you back to CE-238? 13 14 Q. You see at the top it says "kbd"? A. Ah, okay. Yeah. 15 16 Q. So these are in thousands. 17 A. Right. Q. So, if we look at the Board's approval, we 19 see it as -- oh, and that's again Tab 44? A. Right.

O. We see that's also in kbd?

A. Correct.

\_ SHEET 66 PAGE 937 \_ \_ PAGE 939 939 04:47:31 1 Q. Okay. So, it's not the fact that the oil 04:49:03 1 | out of the ground, it would have a very small 2 impact because it's so far in the future. 2 production in your model has been taken--you know, 3 accounted for, the ownership interests. Q. Why would it have a small impact if it's far A. No, no, no. It should be the raw--4 in the future? A. Because it's discounted back to present 0kav. A. --in millions of barrels. 6 value. Q. Okay. You just stated that there was--Q. What is your discount rate? A. Yeah, I'm sorry, I thought that was the--I A. It varies between one and one and a half, 9 thought that was the difference there. 9 two percent. Q. Did you prepare the spreadsheet we were Q. So it wouldn't actually have much of an 11 referring to? 11 impact. A. Did I actually type this in myself? No. A. Oh, sure it does. Q. Okay. Let's just say for the sake of 13 Someone working with me did. Q. Okay. So, turning back, then, to what the 14 argument a 15 Board approved--15 produced. A. Yes. A. Okay. 17 Q. --which is Q. At 75--a price of \$75. 18 revenue? 18 A. Yes. Q. And I should--also what--I see the BNA in , yes. 20 this line, and it--the BNA also is a part of Q. Okay. And if we took, say, a .4 percent 21 Hibernia--21 Stats Can factor. A. Hibernia, yes. A. Okay.

\_ PAGE 938 \_ \_ PAGE 940 \_ 938 04:49:42 1 04:48:13 1 Q. --part of your calculations. Q. Do you have any idea what the requirement A. Yes. 2 under the Guidelines would be? Q. So, that's III If we were to add those two A. You'd have to give me a calculator. Q. Okay. Would sound--4 together, we'd be about 5 of oil? A. I'd have to have a calculator to do it. A. Correct. Q. Okay. Do you have any reason to disagree Q. Okay. That's still lower than the you 7 with roughly? 8 use in your Third Report. A. Like I said, if you want me to do the 9 calculation, I'm happy to grab a calculator and do it. A. Correct. 10 Q. By about barrels of oil. 10 Q. Okay. So assuming it's A. Correct. A. Okay. Q. --that would be a Q. So again, let's assume for the sake of increase in 13 argument a \$75 barrel--sorry, oil price. Do you know 13 their obligations under the Guidelines under your 14 what the gross revenues would be of 14 production profile that you use against what the Board of oil? 15 approved last week. A. What you would have to do, though, I'm sorry, 16 A. Correct. Q. Okay. 17 is you'd have to go back and compare it year by year 17 18 because if it's in the later years, it will have a A. If you assume that's correct. 19 very small impact, and if it's in the earlier years it Q. Okay. In your First Report, the Claimants 20 will have a greater impact. So you can't just 20 ordinary course expenditures at Hibernia were 21 multiply it by the price of oil. A. I believe that's correct. I can pull out the So, if it was the last

\_ SHEET 67 PAGE 941 \_ \_ PAGE 943 . 941 943 04:50:39 1 First Report and--04:53:02 1 A. Correct, based on what was approved by the Q. Sure. That's for you. That would be 2 Board. 3 Schedule 2--Q. Decreasing your damages assessment by or your assessment of incremental A. Yeah. Q. --to the Experts' First Report. 5 spending. We see there the line item "R&D expenditures A. Incremental spending, yes, not damages. 7 in the ordinary course"? Q. Okay. At Terra Nova, you decrease the A. Yes. 8 Claimants' ordinary course projection going forward in 9 Q. That's 9 2016 by 50 percent; is that right? A. Correct. A. Correct. Q. Okay. So, every year after and including 11 Q. Okay. And at Terra Nova, Schedule 3, it was 12 2016, the ordinary course projection is decreased by 13 13 50 percent? Α. 14 14 A. Correct. Q. Okay. If you were not to make that And this was based on the most up-to-date 16 information you had at the time. 16 deduction, would the Claimants have any incremental A. Correct. 17 spending in 2016 and beyond? Q. And you update these figures in your Third A. I don't believe so. 18 18 0. Okay. 19 Report. 19 A. Correct. A. And again, when I say I deducted 50 percent, 21 this is on the advice of management that their Q. And for Hibernia, your Third Report says that 22 ordinary course expenditures are 22 ordinary course spending would decrease in that

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\_ PAGE 942 \_ \_ PAGE 944 \_ 942 04:51:42 1 If we can pull up the Third Report. Schedule 04:54:20 1 period. 2 2. Q. Okay. And as we discussed, when you take and 3 3 assess the Claimants' incremental spending, you assess Thank you. 4 incremental spending for the projects as a whole and A. 5 then take the ownership interests out to determine the O. Yeah. 6 Claimants' incremental spending; is that correct? A. Yeah. A. Correct. Q. And, Terra Nova, it's Q. And currently Murphy Oil's ownership interest Q. So, for adding those two together, it's a 9 at Terra Nova is 12 percent. 10 total of about Roughly 10 A. Correct. Q. And you assess their damages on a 12 percent A. Yeah, yep, yep, yep. Q. And that would be greater than 12 basis. 13 what you said in your First Report. 13 A. Correct. A. Yes, as I said, a lot more was approved in 14 Q. You are aware of the current redetermination 15 the meantime. 15 process? Q. Okay. So again, referring to your damages A. I am. 17 model of obligations under the Guidelines less O. That is to be concluded at the end of this 17 18 ordinary course expenditures creates incremental 18 year. 19 spending. That's your model? A. I believe it's the end of December, correct. A. Yes. Q. Okay. And Murphy, in its 10(k)--and 10(k) is Q. The ordinary course expenditures between your 21 an annual report? 22 First and your Third Reports climbed by A. Yes, it is.

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04:55:09 1 Q. In 2009 they filed one?

- A. I believe they did.
  - Q. And they filed it with the Securities
- 4 Exchange Commission of the United States?
- 5 A. Yes.
  - Q. Okay. And in that they state that they
- 7 anticipate their ownership interest will decrease to
- 8 10.5 percent?
- 9 A. I believe I've seen that document, yes.
- 10 Q. Now, in order to determine the present value
- 11 of the Claimant's future incremental spending, you
- 12 employ a discount rate.
- 13 A. Correct.
- 14 Q. Your discount rate starts at about 1 percent
- 15 and then by 2020 it goes up to 2.62 percent?
- 16 A. Yeah. What it does is it reflects the
- 17 returns on short-, medium- and long-term Government of
- 18 Canada Bonds.
- 19 Q. Okay.
  - A. So a portfolio of bonds that would allow the
- 21 Claimant to withdraw cash on an as-needed basis in the
- 22 future.

04:57:00 1 Q. Okay. And in that second portion you say a

- 2 dollar received today has greater value than a dollar
- 2 dollar received today has greater value than a dor
- 3 to be received in the future because there is 4 typically some risk that the dollar, future dollar
- 5 will not be received.
- 6 A. Correct.
- 7 Q. Okay.
- A. And that's what I was explaining: The higher
- 9 the risk, the higher the rate of return investors
- 10 demand.

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- 11 Q. Okay. It doesn't say anything about where
- 12 the monies are invested in that paragraph, though,
- 13 does it?
- 14 A. No, I mean it's common sense. If you invest
- 15 in a Government of Canada Bond versus a corporate
- 16 bond, you're going to get a lower rate of interest
- 17 reflecting a lower rate of risk inherent in the
- 18 guarantee of the Government of Canada.
- 19 Q. Okay. Your quantification, as you said, may
- 20 be higher or lower than the Claimants' actual future
- 21 incremental spending.
- 22 A. The risks of what the incremental spending in

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04:55:55 1 O. Okav.

- A. On a liquid basis.
- 3 Q. Discounting recognizes the fact that a dollar
- 4 today is worth more.
- 5 A. Yeah, it recognizes two things: the risk
- 6 inherent in the instrument it's invested in and the
- 7 time value of money, which is a dollar invested
- 8 tomorrow is worth less than a dollar invested--or a
- 9 dollar received tomorrow is worth less than a dollar
- 10 received today.
- 11 Q. Okay. So, you mentioned the risk inherent
- 12 where it is invested.
- 13 A. Correct. So, if you buy a municipal bond or
- 14 a corporate bond, you're likely to get a higher rate
- 15 of interest reflecting a higher rate of risk.
- 16 Q. Yes. If I could turn you to Paragraph 46 of
- 17 your First Report.
- 18 A. Sure.
- 19 Q. We're almost there.
- 20 And you state some of the principles of
- 21 discounting; correct?
- 22 A. Yes.

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04:57:48 1 the future are the same irrespective of the Award. So

- 2 they will actually incur incremental spending in the
- 3 future and it will be different than they expected.
- 4 It will be either higher or lower.
- Q. Higher or lower than you calculated.
- A. Correct
- Q. Okay. And you leave the risk of it being
- 8 higher or lower to the marketplace?
- 9 A. I leave it with the Claimant because there is
- 10 no other place to leave it. They can't--they can't
- 11 divest of that risk.
- 12 Q. In your Second Report you state that you
- 13 leave the risk of being higher or lower to the
- 14 marketplace.
- A. Well, the marketplace affects their outcome,
- 16 so the price of oil, exchange rate, the marketplace
- 17 affects what the company will actually end up owing
- 18 under the Guidelines.
- 19 Q. So, whatever happens in the world happens in
- 20 the world--
- 21 A. Irrespective of what we do here.
- 22 0. The risks are out there.

04:58:37 1 A. Correct.

- Q. Okay. So, the risk of your assessment of
- 3 future incremental spending being higher or lower is
- 4 not a component in your discount rate.
- Correct. It can't be.
- Okay.
- A. You would be double counting that risk.
- And you argue in your--that your discount
- 9 rate is appropriate because the Claimants are not
- 10 seeking lost profits; right?
- A. Well, in a typical lost profits case, as I
- 12 said in my introductory remarks, you would typically
- 13 expect the award received by the Claimant to be
- 14 reinvested in their business to reproduce the loss of
- 15 earnings or loss of profits that they are claiming;
- 16 and the assumption inherent in that is, in all
- 17 economic damage calculations, is that the Claimant can
- 18 actually take the award and invest it in his business
- 19 and earn that rate of return. It's inherent in that
- 20 type of calculation. If the Claimant can't, then they
- 21 are undercompensated other than using a risk-free rate
- 22 of return where they can draw from a fund. And this

05:00:41 1 as lump sums.

- Q. And the principle and the interest from the
- 3 investment in the Government bond would then meet
- 4 future--their future Guideline costs. Is that--
- A. Net of tax, that's correct.
- Q. Okay. Would you agree that the Claimants
- 7 will need to pay future operating costs for the
- projects over the remainder of the projects' lives?
- A. Future operating costs just in the ordinary
- 10 course?
- 11 ٥. Yes.
- 12 A. Yes.
- Okay. Do the Claimants have estimated
- 14 amounts of those future costs escrowed in a risk-free
- 15 account?
- A. No.
- 17 Q. You criticize Mr. Walck for failing to
- 18 recognize your theory behind the use of a risk-free
- 19 rate of return to create a fund to cover future
- 20 incremental spending?
- A. I don't criticism him for failing to agree
- 22 with it. My criticism is that he simply doesn't

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- 04:59:51 1 is a fairly unique situation, so you just don't see it||05:01:35 1 address it. He simply treats it as if it was a 2 that often.
  - Q. Okay. So, in a lost profits analysis, would
  - 4 the operational risks associated with the projects be
  - 5 factored into the discount rate?
  - A. In a typical lost profits case, yes.
  - Q. Okay. And those risks would include future
  - 8 oil production?
  - 9 A. Yes.
  - 10 Q. Future oil price?

  - Q. Future exchange rate?
  - A. Yes. If, for instance, if one of the wells
  - 14 went off-line due to someone's negligence and you were
  - 15 suing for the lost income from that well that you've
  - 16 lost, if you could deploy the capital received in an
  - 17 award into the project to do something else and
  - 18 receive the same rate of return, that would compensate
  - 19 you for that loss.
  - Q. Okay. And you argue that Claimants should be
  - 21 given a lump-sum that can be invested?
  - A. All awards are--monetary awards are received

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- - 2 traditional business loss case without attempting to
  - 3 answer the questions I've raised.
  - 4 Q. Okay.
  - A. And that's what I said: We're sort of like
  - 6 two ships passing each other.
  - Q. Yeah. In your reports, do you cite any 7
  - 8 journals to support your view?
  - 9 A. No.
  - 10 Q. Do you cite any textbooks?
  - 11
  - 12 Q. Any articles?
  - 13 A. No. No, it's just basic economic theory.
  - 14 There are some things you just don't need to cite.
  - Q. And you assume that future incremental
  - 16 spending will be--will take place in the year it is
  - 17 accumulated?
  - A. In the future, yes.
  - Q. Okay. And you apply the discount rate to
  - 20 each year incremental spending is spent?
  - A. Correct. 21
  - Q. Okay. So, assuming incremental spending

05:02:20 1 would actually be spent in a later year, a different

- 2 discount rate would be applied, or more discount rate,
- 3 more discounting would take place.
- A. It could be earlier, it could be later. So
- 5 it could be compounded less, it could be compounded
- Q. Okay?
- A. Works both ways.
- Q. Okay. Now, in your Third Report, your
- 10 quantification of the Claimants' loss is about
- 11 \$60 million?
- A. Correct.
- Q. To reach that figure, you gross up your
- 14 assessment to account for U.S. taxes?
- A. Correct.
- Q. You were advised by management that an award
- 17 would likely be taxable in the U.S.?
- A. The Claimant is a U.S. taxpayer, so yes.
- Q. Okay. I think in your words in your opening,
- 20 you happened to be talking to the tax advisors at
- 21 Exxon?
- A. I wasn't happened to be talking. It was

05:04:07 1 Q. Okay. So, that's just--because in your First

- - 2 Report, you don't deduct for Canadian taxes; is that
  - 3 right?
  - A. Right. And there's no benefit received and
  - 5 no cost incurred.
  - Q. And you don't perform the gross-up?
  - A. Right, so on both sides.
  - Q. And then you do both things in your Third
  - 9 Report.
  - A. Correct. Because Canadian taxes often add
  - 11 U.S. taxes on.
  - Q. So, reversing this new thing you do in your
  - 13 Third Report adds about
  - 14 dollars to the Claimants' damages?
  - A. It's not a new thing. I said taxes would
  - 16 have to be accounted for at some point if there were
  - 17 two different tax regimes, and this is the case.
  - 18 Taxes do have an effect here. It's a fairly
  - 19 black-and-white tax effect, but the result is about
  - It's not like they can avoid it. It's pretty
  - 22 black and white.

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05:03:08 1 something I need to do for the purposes of my Final

- 2 Report, so I talked to several tax advisors at Exxon
- 3 in their Canadian Tax Department and their U.S. Tax
- 4 Department.
- Q. Okay. Did you perform this gross-up in your
- 6 first report?
- A. No. And I believe I say in my Second Report
- 8 that there has been no effect to any taxes at this
- 9 point, and I don't know what the tax effect is, but I
- 10 will for my final determination include an element, if
- 11 it's appropriate.
- Q. How much of the Claimants' damages does not
- 13 gross-up account for?
- A. Well, it depends. If you're Mr. Walck, you
- 15 only look at the gross-up side without the cost
- 16 savings of the Canadian side, but the net is about
- Q. Okay. So, in total, just millions of
- 19 dollars?
- A. Well, actually there's a slide that shows it.
- 21 If I adopted Mr. Walck's no tax treatment, it's about

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- 05:04:55 1 Q. Okay. Why don't we turn to Paragraph 39 of 2 your Third Report.
  - A. Sure.
  - MR. DOUGLAS: And I am near completion here,
  - 5 so bear with me.
  - BY MR. DOUGLAS:
  - Q. You state at the first sentence, "In
  - 8 preparation of my updated calculation, I was advised
  - 9 by management that an award of damages would likely be
  - 10 taxable, in the United States, at an expected rate of

    - A. Correct.
  - Q. Okay. In doing a gross-up, would you need to
  - 14 know how the normal income from Hibernia or Terra Nova
  - 15 is taxed in Canada or the U.S.?
  - 16 A. Sure.
  - Q. Did you set that out in your Third Report?
    - A. How the ordinary is taxed?
  - 19 Q. Yeah.
  - 20 A. No.
    - Okay. Beyond this statement, did you provide
  - 22 any evidence as to how the tax--how the corporate tax

05:05:57 1 structure of the Claimants works?

- A. No. I think it's fairly obvious. We have
- 3 Canadian entities who are getting a tax deduction. We
- 4 have a U.S. company that is nonresident in Canada that
- 5 is paying taxes in the U.S. without a permanent
- 6 establishment in Canada. It's fairly obvious. They
- which is their rate of tax on 7 get taxed at
- 8 the Award; and the Canadian companies, when they make
- 9 the expenditure get to make the deduction, because
- 10 it's incremental spending. The only time a U.S.
- 11 company pays tax on a worldwide basis is when it
- 12 actually receives the cash under the Treaty, so it
- 13 can't be taxed under it. It's spent.
- Q. I think what is obvious to you might not be
- 15 for me, but that evidence that you provided in your
- 16 direct examination, I'm kind of referring blankly to
- 17 these screens, but I was more trying to point at these
- 18 slides you were referring to in your First Report.
- 19 And that explanation you provided, do you provide any
- 20 of that explanation here in your Third Report?
- A. What? The way the money goes around?
- Q. Yeah.

05:08:00 1 --is a tax gross-up required?

- A. No.
  - MR. DOUGLAS: Those are my questions.
- Oh, sorry, actually, I apologize. I think my
- 5 colleague, Mr. Luz, just had a couple of questions
- relating to oil prices, if he could.
- MR. LUZ: I won't take more than 30 seconds.
- BY MR. LUZ:
- Q. Mr. Rosen, you said in response to a question
- 10 from Ms. Lamb during direct that you were required by
- 11 your professional standards to qualify your opinion if
- 12 you have less than reasonable certainty with respect
- 13 to certain variables in your valuation?
  - A. With respect to the overall conclusion.
- Q. Okay. And you were here during Ms. Emerson's
- 16 testimony?

A. Yes.

17

- And you heard quotations from various
- 19 publications of the United States Energy Information
- 20 Administration that -- and I will quote from the IEA
- 21 Annual Energy Outlook 2008, which is Davies
- 22 Exhibit 17, Page 50: "Any long-term projection of

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05:06:55 1 A. I didn't think I needed to. I thought it was 05:08:53 1 world oil prices is highly uncertain. 2 pretty obvious.

- Q. Okay. That first line that you provided here 4 was sufficient--
- A. Well--
- --in your view.
  - A. No. And it's detailed. The detailed
- 8 calculations are set out in my schedules, where I
- 9 deduct the Income Tax. And Mr. Walck, in his Third
- 10 Report says -- and I'm sure he'll be able to defend what
- 11 he said--but he says, to the extent that it's taxed in
- 12 the U.S. and not in Canada, and it's not taxed in the
- 13 U.S., there would be a gross-up. But because that's
- 14 not the case, there is no gross-up. So your own
- 15 Expert just misunderstood the tax system, but he
- 16 acknowledges that if the income is not taxed in the
- 17 U.S., the Canadian side of it, that there would be a
- 18 need for a gross-up. It's in a footnote to his
- 19 report, his Third Report.
- Q. Okay. If an award is made payable to the
- 21 Canadian entity--
- 22 A. Yes.

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- 2 Did you hear those quotations?
- A. Yes, I did.
- And you were here during Mr. Davies'
- 5 testimony?
- A. Yes, I certainly was.
- Q. And his opinion, which is at--and you heard
- 8 his testimony and his opinion which I think is
- 9 surmised at Paragraph 66, that no forecaster can
- 10 predict the price of oil with any degree of certainty.
- A. Yes, yeah.
- Q. Do you want to qualify your opinion with
- 13 respect to Ms. Emerson's oil price forecast?
- A. Absolutely not. I think this misses the
- 15 point completely, and I think that's again where we
- 16 are talking at cross-purposes.
- Every valuation of damages that involves any
- 18 kind of future-looking information suffers from the
- 19 exact same uncertainty. We value these damages every
- 20 day. We value businesses on this basis every single
- 21 day.
- Valuation occurs at a point in time. It is

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05:09:44 1 not a crystal ball that says with certainty that I

2 know what the future price of this business is going 3 to be. I know what a price of a commodity is going to

 $4\,$  be. I know what the price of anything is going to be.

5 It can't. It's not meant to.

What we're meant to do, and what markets
around the world do every day is based on a single

8 valuation date make a decision on value, and that's

9 what Mr. Walck does when he values businesses and

10 values damages that have any kind of future component,

11 and it's what I do. It's what our whole profession

12 does. It's what commodity markets do. It's what the

13 NYMEX does. It's what the stock market does. It's

14 what we all do.

So, to say that someone buying in a pension fund buying a billions dollars worth of stock knows

17 with certainty that the stock is going to be worth 2X

18 five years from now is not the point. They don't.

19 They have an expectation at a point in time. That's

20 all it is.

21 PRESIDENT van HOUTTE: Anything else?

22 MR. DOUGLAS: I do not.

05:11:58 1 A. Yes, that is Line K.

Q. So, in each year going forward, the number we see at Line K, that is your E&T figure for that year.

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4 A. Correct.

5 So it's--the actual figures are reflected

6 there for the historical period and in the future,

7 it's about per year indexed in nominal

8 dollars to inflation.

Q. Thank you.

10 Can I ask you, please, to look at Exhibit

11 CE-233, and you'll find it in the exhibits to

12 Claimants' updated damages calculation file that

13 perhaps Greg can help you with that.

A. Thank you.

15 Okay, I have 233.

Q. What you won't have there, because you

17 haven't got the actual exhibit file, is the index.

18 The index reads: CE-233 Hibernia Research and

19 Development Expenditure Outlook.

O A. Yes.

21 Q. If you have a look on the second page, if you

22 would.

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05:10:51 1 MS. LAMB: Thank you. Just a couple of

2 questions by way of re-exam. Just a couple. Thank

3 you.

4 PRESIDENT van HOUTTE: Just a couple means

5 two? Please proceed.

REDIRECT EXAMINATION

7 BY MS. LAMB:

8 Q. Mr. Rosen, you were asked some questions

9 about the Work Plan and the work that is envisaged by

10 the Work Plan, and Mr. Douglas took you to some

11 examples of R&D and some examples of E&T.

12 Can you tell me, in your damages model for

13 future years, do you assume that the Claimants would

14 have made E&T expenditures in any event?

L5 A. Yes.

Q. Can you show me in your schedule, please,

17 where we can see that?

18 A. If we go to Schedule 2, it says "R&D

19 expenditures in the ordinary course. The first line

20 is R&D. The second line is noted as being E&T,

21 education and training.

O. Is that Line K?

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05:13:39 1 A. Yes.

Q. Can you just go down to Line 18, please?

A. "Previous Budgeted Projects and Studies."

Q. And if you have a look at the list of study

5 of projects there, so, what is Line 18 telling us

6 about the studies that are listed?

7 A. These were previously budgeted, so they would

8 have been ordinary course.

Q. And then can you go down to Line 26?

A. Line is: "New R&D Work Plan Initiatives."

Q. And so what is the description of projects

10 there?

10

13 A. These are things that are planned that are

14 incremental.

Q. Thank you.

In response to one of Mr. Douglas' questions,

17 you used the expression "petro buck."

A. Yes.

19 Q. I wondering if you would like to elaborate a

20 little more on what you mean by "petro buck."

A. It's a nickname the Canadian dollar has

22 earned historically because it tends to move in

SHEET 73 PAGE 965 \_ \_ PAGE 967 967 05:16:58 1 Monte Carlo simulation because it produces meaningless 05:14:48 1 lock-step with the price of oil. So, if you do a 2 statistical analysis of the movement in the Canadian 2 results. 3 dollar to the price of oil, you find a high degree of Q. Thank you. No further questions. 4 correlation. They're not independent of each other. MR. DOUGLAS: If I may, I did already ask 5 So, if you, for instance, try to count them as 5 this question at this time. 6 separate risks, you'd be double counting the risk. **RECROSS-EXAMINATION** Q. So, you will know that in Mr. Walck's report, 7 BY MR. DOUGLAS: 8 he describes sensitivity. He says that there are a Q. Between the First and Third Report, the 9 number of variables in your model and essentially that 9 exchange rate has strengthened; is that correct? 10 this sensitivity is compounded because there are That's correct. 11 multiple elements and they're all variable. With regard to the price of oil and the 13 exchange rate, do you share his view, therefore? A. I do not. If you look at the them 15 historically over the last, for instance, 10 years and 16 looked at a chart, you would see that the price of oil 17 and the price of the Canadian dollar and U.S. dollars 18 is almost perfectly correlated to the point where the 19 two lines almost merge. Q. So, just to be clear, if the price of oil was If you look at price of oil and the 21 to go up, what would happen to the Canadian dollar? 21 value of the Canadian dollar, they would have moved in

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05:15:53 1 the U.S. dollar.

Q. And if it goes down?

3 A. It would depreciate against the U.S. dollar.

4 Q. Mr. Rosen, in Mr. Walck's Second Report, he undertakes what's described as a Monte Carlo analysis.

6 Are you familiar broadly with this technique?

7 A. Yes. Actually, I believe he refers to in all three of his reports, Monte Carlo simulation analysis, which he suggests is a superior methodology of the examining multiple, potential outcomes rather than the doing the type of analysis that I did.

Q. And are you familiar with, if you like, the

Q. Can you please describe what those
prerequisites are with regard specifically to the
ingredients or inputs that are used.

A. One of the primary things you have to ensure
in a Monte Carlo simulation is that all variables that
are used are independent of each other. So, in the
case of a calculation including the Canadian dollar

22 and the price of oil, you statistically cannot use a

13 prerequisites for conducting a Monte Carlo analysis?

A. Yes, I am.

14

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22 the same direction.

968 05:17:46 1 Q. Thank you. QUESTIONS FROM THE TRIBUNAL PRESIDENT van HOUTTE: Thank you. I have a 4 few questions and my colleague probably also have some questions. First of all, just to help me out, and it's a small technical thing, in Slide 3, it is said that the 8 calculation of damages only goes to 2023, and in 9 Slide 6, Page 6, last line, you are speaking about 10 reduction on ordinary course of spending later years. 11 How are those two compatible with each other? THE WITNESS: The forecasts go out past that 13 period of time but because of the reduction, there are 14 no losses after that period of time. PRESIDENT van HOUTTE: Because of the 16 reduction there are no losses--THE WITNESS: Just because of the actual 18 volumes, the required spend, there is no loss after 19 that period of time. PRESIDENT van HOUTTE: But I have a more 21 substantial question and, first of all, I have a 22 remark or question to the legal counsel. I notice

\_ SHEET 74 PAGE 969 \_ PAGE 971 969 971 05:18:44 1 that in the Request for Arbitration the Claimants were 05:20:57 1 I explained myself wrongly. 2 claiming in their own name and on behalf of Canadian THE WITNESS: Yeah, yeah. 3 companies, while in the Claimants' Memorial, that on PRESIDENT van HOUTTE: But anyway you have 4 behalf of Canadian companies, it's not formally there 4 this but is--does it enter into the picture? 5 anymore. Maybe you should clarify sooner or later THE WITNESS: Yes, it does. So let me 6 what your position is, but it's not necessary to do it 6 explain--PRESIDENT van HOUTTE: Those are the two 7 now. But let's now assume that the Claimant--that 8 questions. 9 the Claimants, in plural, are American companies. And THE WITNESS: Thank you. So let me explain. 10 we know why it is because otherwise they could not 10 My goal is to put the companies back in the position, 11 invoke NAFTA. Anyway, but that's a fact of life. 11 the exact position they would have been but for this Now, then the damage compensation goes to the 12 measure. 13 American companies. 13 PRESIDENT van HOUTTE: Which companies? 14 THE WITNESS: Yes. 14 THE WITNESS: The Canadian entities. PRESIDENT van HOUTTE: No, because the PRESIDENT van HOUTTE: And I see two 16 questions. The first one is you're saying that the 16 Claimants are the American companies. 17 risk-free rate is based on the Canadian bonds, but we THE WITNESS: The Investor and the

18 are speaking about American companies which are
19 getting the money, and we are speaking about
20 multinational; that may be, but I don't know. Mobil
21 Canada gets more--there is a capital flow from--or
22 money flow from--or cash flow from Canada to the

18 investment, so both.
19 So, my goal is to put the Investor and the
20 investment back in the position they would be but for
21 the measure.
22 PRESIDENT van HOUTTE: And who is the

\_ PAGE 970 \_ 970 05:19:58 1 United States, and maybe not vice versa. Therefore, 2 is it really logical to say that an American company 3 which has gotten the compensation in its own name is 4 supposed to invest in Canadian bonds because that's 5 the only risk-free rate which they have and maybe in 6 multinational they are wise know to know exactly which 7 bonds to have to buy to--anyway--is it--THE WITNESS: Yes, so I can address it for 9 you. 10 PRESIDENT van HOUTTE: No, and that's the 11 second, because it's linked. The second thing is 12 exactly the same position is taken with, let's say the 13 gross-up of the money, because there your reasoning is 14 the money has to go first to the United States, it's 15 taxed, then it goes to Canada and it's taxed again, 16 and, therefore, the debtor has to pay for the two 17 taxes. But anyway, that depends on--THE WITNESS: Sorry, it's not two taxes. 20 It's a tax cost into the U.S. and it's a tax benefit

PRESIDENT van HOUTTE: Right. No, no, sorry,

21 back in Canada.

\_ PAGE 972 \_ 05:21:28 1 Investor we are speaking about? THE WITNESS: So, in this case, let's use 3 ExxonMobil as an investor. PRESIDENT van HOUTTE: ExxonMobil. Established where? THE WITNESS: MICI, in the U.S. So ExxonMobil U.S. is the Investor, and 8 ExxonMobil Canada. Okay. So I take the -- in my 9 example of the slide, I take the \$100--I could do it 10 without the slides--I take the hundred dollars that 11 they would have received, assuming that you make an 12 award for a hundred dollars, and they only get 13 So I have to gross it up by to give them 14 They take the and they ship it north. 15 They pay the tax on it, and they're left with 16 They take the They ship it north to Canada. 17 ExxonMobil U.S., exactly the same position it would 18 have been but for the measures. 19 PRESIDENT van HOUTTE: But in the beginning 20 you said that because it's Mobil, you do not take a 21 return on equity because they don't--anyway, they have

22 all the money they want and, therefore, they don't

\_ PAGE 975 SHEET 75 PAGE 973.

973 05:22:33 1 have to invest in a specific project, and therefore 2 they take the very safe, risk-free rate investments. THE WITNESS: Right. PRESIDENT van HOUTTE: Which means that there is really no need to export it to Canada anymore. THE WITNESS: Well, again but they -- so let me just finish my line of reasoning. So, they received They pay tax at They're left with They take the 9 They write a check up to Canada. Canada says my

11 after-tax cost of complying with this measure is

12 so I'm fine. I have no effect. All the dividends 13 that would have been paid, all the benefits that would 14 have flowed, north, south, east, west, wherever, are

15 exactly the same. So, if they have too much money, they have 17 too little money, whatever existed before is returned

18 to them, exactly the way it was but for the measure. 19 If they had too much money, they still have too much

20 money. If they had too little money, they still have

21 too little money. All I'm trying to do is restore 22 what was there absent the measure.

2 opinion as to what's appropriate. And then we have 3 some disagreements over what I would say are 4 black-and-white factual errors, and I've set those out

5 quite clearly, I think. So, I think you have a model, and you have some choices whether or not you are compelled by what

And then we have some disagreements of

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8 I have said on the opinions side and whether I have sufficiently explained myself on the errors.

ARBITRATOR JANOW: Okay. Thank you. That's 11 a helpful comment.

This second question may be unfair, so 13 counsel will tell me on both sides, I'm sure, but as 14 an expert, if Mr. Walck was your partner instead of 15 your adversary, are there any elements of his analysis

16 that you would perhaps wish to integrate to further

17 refine your analysis? You pointed out a number of

18 points that you think he's simply erroneous and others

19 where you think your points are better taken for

20 various reasons. But is there anything further you

21 think is worth reflection?

THE WITNESS: As my thinking and the modeling

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05:23:34 1 PRESIDENT van HOUTTE: Thank you.

> ARBITRATOR JANOW: Actually, this has covered 3 a lot of the specifics that I was trying to put my 4 mind around. Let me just ask a couple of general--I 5 mean, you have heard and responded to a variety of 6 criticisms and comments on your model, and reference 7 was just made to the Monte Carlo simulation analysis.

In your view, does the -- does this Tribunal 9 have before it an alternative model, or does it have 10 your model with several elements of which are in

11 dispute and offer alternative methodologies? THE WITNESS: One of my first criticisms of 13 Mr. Walck's response was that it did not offer an

14 alternative. It only offered criticisms. And in his

15 Third Report, he actually performs a calculation of

16 damages. And the calculation--and that's why I put 17 out areas where, based on that calculation

18 alone--because he still has many criticisms, but based

19 on that calculation alone, we have areas where we

20 agree. So, I would say we have a model based on the

21 methodology I set out, which is incremental spending

22 has an effect.

05:25:53 1 progressed through three different reports, I tried to 2 incorporate whatever I could learn, and it is my habit 3 about to listen to other Experts because seldom are

4 you the smartest person in the room and have all the 5 answers.

So, where I thought I could learn, I tried to incorporate that in my analysis, and I've updated the information as best I can.

I looked at the criticisms and took them 10 seriously and tried to respond to them. And if I 11 couldn't respond to them, I would have no choice but 12 to adopt them.

13 ARBITRATOR JANOW: Good. Thank you very 14 much.

PRESIDENT van HOUTTE: Just more to the 16 counsel than to you. Let's assume a hypothesis that 17 we have to enter into the compensation phase. We have

18 two Experts who have made very wise reports, but let's

19 now assume that we don't take one fully and the other

20 is an idiot, but that we recognize that both are 21 telling the truth to some extent. How can we poor

22 Arbitrators then reconstruct the middle between those

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05:27:02 1 two extremes? Do we have to do the calculations
        2 ourselves or--because to some extent you are not
        3 offering the tools to play with all your parameters.
                    MR. RIVKIN: Mr. President, may I answer that
          question?
                    PRESIDENT van HOUTTE: That was a question to
           both counsel.
                    MR. RIVKIN: I know what I have proposed in
           past cases where that situation has arisen is that if
       10 the Tribunal reaches that point and determines -- it
       11 determines what the inputs into the model should be,
       12 proper discount rate, what reserve levels, et cetera,
       13 then the Parties would be happy to have the
       14 Tribunal--and I'm speaking without authority down the
       15 line, I'm simply saying this is something I proposed
       16 in the past, but it works. If the panel in those
       17 circumstances said here are the inputs to both sides,
       18 both sides could input them into their model.
       19 Presumably the two numbers that would come back to you
       20 would be pretty close, and the Parties could try to
       21 figure out why there was a difference in the model, if
       22 at all. But the Tribunal would then be in a position
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05:29:11 1 parameters which you would consider relevant. Well
         2 anyway, I see this--
                    (Simultaneous speakers).
                    MR. RIVKIN: We could talk about it off-line
         5 but if you wish it wouldn't require that--
                    PRESIDENT van HOUTTE: Okay, but we do it
         7 off-line.
                    (Simultaneous speakers.)
                    MR. RIVKIN: -- you could--could simply
         9
       10 require the Tribunal informing the Parties that they
       11 are considering compensation and they would like to
       12 know what the inputs would be. That wouldn't have to
       13 be in the form of--
       14
                    PRESIDENT van HOUTTE: We will discuss it
       15 off-line.
                    MR. DOUGLAS: That works for Canada.
       17
                    PRESIDENT van HOUTTE: Fine.
                    I would really like to do as much as possible
       19 today. What will we achieve before the end of the
       20 day? Mr. Walck? But--
                    MR. DOUGLAS: I believe so. My examination,
       22 I believe, will be approximately a half an hour, and I
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\_ PAGE 978 \_ 05:28:12 1 to have the Experts calculate them based upon the 2 inputs that you decide are the proper ones. PRESIDENT van HOUTTE: Mr. Douglas? MR. DOUGLAS: Before we make any arrangements 5 to that effect, we should hear from Canada's Expert as 6 to what his actual opinion is on the valuation, and 7 then we can make a determination as to how far apart 8 we actually are, what the disagreements are, and 9 whether or not the proposed solution works. 10 I have spoken with our Expert about this 11 exact thing, and if the case may be, we are willing to 12 provide a model of some sort which the Tribunal would 13 be able to sort of plug in the figures and play with

14 the different figures in different ways and see how 15 the different elements interact. And should be 16 compensation find, you know, a reasonable--PRESIDENT van HOUTTE: Just in a more 18 abstract way, theoretically, Mr. Rivkin's solution 19 would imply that the Tribunal renders the first 20 Partial Award where they already have reached a

21 certain stage because you cannot before the Award is

22 rendered indicate to the Experts now all the

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05:29:53 1 don't want to speak for the Claimants, but I think 2 Ms. Lamb has indicated hers is about--half an hour? MR. RIVKIN: I think what we suggested, we 4 could see when it's done, would be perhaps she would 5 do her cross-examination first thing in the morning 6 tomorrow, before we do the openings. But before we call Mr. Walck, there was a 8 substantial factual error in Mr. Douglas' questions. 9 He may not have realized it, and I could either point 10 it out, but it might be better for the record if I ask 11 Paul Phelan to come to the stand for two questions 12 just so he could clarify that the sum of the numbers 13 that Mr. Douglas was using when he asked about the 14 production profile and what the Board approved last 15 week were erroneous. He was comparing the wrong 16 numbers in his questions to Mr. Rosen, which Mr. Rosen 17 being--having not seen those numbers and not being the 18 Expert in it, wouldn't have realized. And before 19 Mr. Walck testifies, it would be helpful to have--for 20 the Tribunal to know what the correct numbers are. PRESIDENT van HOUTTE: Could Mr. Phelan do 22 that in two minutes?

SHEET 77 PAGE 981 \_ PAGE 983 981 983 05:30:59 1 MR. RIVKIN: Yes. 05:39:56 1 there is the Ben Nevis Avalon Reservoir, which is in PRESIDENT van HOUTTE: One minute? 2 shallower depth beneath the platform. In essence, 3 Hibernia's license is to produce from both of those Good. Okay. Let's have a break, and 4 Mr. Phelan sits there, and then after five minutes we 4 reservoirs. So, when we look at the R&D Guidelines, 5 resume, if that's all right. 5 they are applicable to all of the Hibernia North. MR. RIVKIN: Okay. Thank you. So, if I could draw your attention to CE-238, 7 7 this was the most recent production profile. It came (Brief recess.) 8 PAUL PHELAN, CLAIMANTS! WITNESS, RECALLED 8 from our reservoir manager, Jamie Long, who passed it 9 DIRECT EXAMINATION 9 along to me, and I, in turn, passed it along to our 10 BY MR. RIVKIN: 10 Claims Expert. Q. And just so we are clear, this is the profile 11 Q. Mr. Phelan, you know you are still under 12 oath; correct? 12 that Mr. Rosen used in his updated damages 13 13 calculation; correct? A. Yes. Q. Mr. Phelan, can you turn to Claimants' A. It is. 15 Exhibit 244. And what Mr. Long had done is combined the A. I have that in front of me. 16 various areas, BNA, A Pool, Cataline and Cape Ireland Q. This is the recent Board approval of the 17 into Hibernia North for purposes of identifying this. 17 18 Hibernia Development Plan Amendment? 18 These are the amounts of production that would be A. Yes, it is. 19 required. Q. And if you could turn to Page 31, which is 20 The other distinction I will point--21 the production forecast that Mr. Douglas was showing Q. Wait, just so we are clear, so the

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\_ PAGE 982 \_ 982 05:38:35 1 A. Yes. Q. Mr. Douglas asked Mr. Rosen only about the figure at the bottom of the second column from 4 the left, the B Pool. Is that the correct production 5 figure for the Hibernia Block, absent the HSE and the 6 AA Blocks? A. No, it isn't. For clarity, and to stay within the short 9 time frame, that just represents the B Pool, 10 Hibernia North, which would be numbers that were 11 provided by myself to Mr. Rosen relative to production 12 profile, you have to take the B Pool plus the BNA, A 13 Pool, Catalina and Cape Island, all of those are 14 considered part of Hibernia North. If I could draw your attention to the BNA 16 column, from the Year 2000 through right to the end of 17 the field life, we have already been producing from 18 BNA. 19 And just to put it in perspective, there are

20 two reservoirs underneath the Hibernia platform.

22 Reservoir, which is typically the B Pool, and then

21 There is deeper reservoir called the Hibernia

22 Mr. Rosen.

05:41:03 1 what number on the production profile in Exhibit 244? A. So, it would be equivalent, if these were at 3 the same time--produced at the same time, it would be 4 the B Pool, the BNA, the A Pool, the Cataline and the 5 Cape Island. And those figures add up to is that Q. 7 right? A. Those figures add up to Q. So, the 244 profile is 10 less than the 238 profile, and is there, in fact, a 11 timing difference between the two profiles? A. Well, there is a timing difference, and I 13 will draw your attention to 2010. When you're looking 14 at the profile that's in the amendment to the 15 Development Plan, the one that was presented, the 16 Year 2010 has barrels per day. In 17 the most recent, we've updated it for all of the 18 latest reservoir information, and for 2010 you will 19 notice it is kbd.

ARBITRATOR SANDS: Could I come back half a

21 second. I'm trying to add up the numbers, and I have

22 got 244 in front of me. You are saying what we add up

22 total under the Hibernia North column is equivalent to

SHEET 78 PAGE 985 \_ PAGE 987 985 987 05:44:43 1 05:42:22 1 is ARBITRATOR SANDS: Could you just explain, 2 THE WITNESS: That's correct. 2 what is the relationship precisely between Table ARBITRATOR SANDS: And my math is not good, 3 4.2.5.2 and Table 4.3.4.1? 4 but I make that THE WITNESS: So, the relationship is if you THE WITNESS: That's about correct. 5 took the recoverable reserves, the HMDC column that's 6 ARBITRATOR SANDS: Okay. So, it's not 6 in Table 4.2.5.2, that will relate to Page 31 just--it's less. 7 directly. THE WITNESS: It is less. ARBITRATOR SANDS: When you say it will 9 ARBITRATOR SANDS: Just to be accurate. 9 relate to Page 31--THE WITNESS: To be accurate, the amendment THE WITNESS: I'm sorry. 11 to the Development Plan is less than our current 11 ARBITRATOR SANDS: For example, B Pool says 12 estimate that we have which is our most latest update and Hibernia and B Pool is 4.2.5.2 says 13 from our reservoir team. THE WITNESS: I can't comment what the Board ARBITRATOR SANDS: It's just 14 put into the report. I can tell you that HMDC's 15 numbers that were submitted is this table. The less; is that correct? To give Mr. Douglas 16 credit, I thought he did mention -- I thought he did 16 Board--it may be a transposition error. You look at 17 mention the BNA, but he did not mention the A Pool, if it's the same; is the same; is the 18 that's correct, when he corrected himself. same; is the same. THE WITNESS: That's correct. ARBITRATOR SANDS: Okay. I'm just trying to So, Mr. Long provided additional information 20 get my mind around it. 21 to the Board earlier this year, so my last comment, 21 THE WITNESS: But it's a good point. 22 because I anticipated there was going to be some HMDC submitted this. This was submitted

\_ PAGE 986 \_ \_ PAGE 988 \_ 986 05:43:20 1 question as the reconciliation, the latest information 05:45:50 1 earlier this year, additional information, but again 2 that was provided to the Board, taking into account 2 we also recognized in terms of coming to the Tribunal 3 that the Board had not even updated its 2010 number, that's over right there just in one year versus the two 6 profiles. So, Page 26 of the amendment to the 7 Development Plan--MR. RIVKIN: Exhibit 244. THE WITNESS: --compares the two numbers. 9 10 And if you actually look at the data that Mr. Long had 11 provided to the Board and look in the difference 12 column in that table for B Pool, the difference is 13 So, the Board's number, they would anticipate 15 we should have reported 16 reported. If you continued down not counting the AA 17 Block or the HSE unit but go to the BNA total, the A. That's correct. 18 Board indicated an additional versus what Q. And so if you plugged--if you had just 19 we reported at the time on the other submission of 19 received this, presumably you will create a new 20 \_\_\_\_, combine those two together, and in essence you 20 production profile using the grown or you could 21 have got about growth in the Hibernia 21 produce the additional barrels; is that right? 22 North Reservoir. A. That's right.

3 with the most recent information that the 2010 data 4 didn't reflect this year's production. BY MR. RIVKIN: Q. And just so I'm clear because I'm now 7 understanding this better, the right-hand--the middle 8 column of Table 4.2.5.2 was HMDC's estimate of 9 reserves, which is what corresponds to the production 10 profile on the table that Mr. Douglas originally 11 showed; correct? A. Yes, that's correct. O. But the Table 4.2.5.2 shows that the Board 14 actually believes that the recoverable reserves total 15 are barrels larger than what HMDC had 16 reported; is that correct?

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05:46:58 1 Q. So, the Board's estimate of reserves is 2 higher than the estimate that Mr. Rosen used in his 3 calculation of damages?

A. It is. The Board's estimate is higher.

Q. Thank you.

And when Mr. Douglas spoke about what the 7 Board approved, what the Board actually approved is

8 its own calculation of reserves.

A. The Board approved the amendment to the 10 Development Plan. The parameters of how much we can

11 produce, we can produce up to 12 which is a capacity approval.

Q. Right. But the Board found the total of total in the Hibernia field,

15 including the AA Block and the HSE which were not 16 included?

17 A. Yes.

18 Q. Thank you.

PRESIDENT van HOUTTE: The two minutes are 19

It's now Mr. Walck?

MR. DOUGLAS: May I ask a question?

05:48:50 1 this year our business plan for Hibernia was a day. We've updated it since then to reflect 3 what we are currently producing.

> Q. Do you know what date this production 5 forecast was made, the CE-238?

A. I believe we submitted this to Mr. Rosen in 7 the July--late July time frame, after our--we do an 8 annual planning and budgeting cycle each year, so this 9 basically would take into account what we expect to 10 produce for 2011-2012 time frame.

Q. And the clarification to the Development Plan 12 that HMDC submitted to the Board was April 2010?

A. That's correct, because it--and here is the 14 point--one of the points of clarification: If you 15 actually went back to CE-11, which was the first

16 witness production profile, we actually had

noted for Hibernia Southern 18 Extension. So, if you look at the most recent update

19 based on new data from the Hibernia Southern Extension

20 reservoir teams, the most likely case is now noted at

So, Mr. Long, our Reservoir Manager, was

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05:47:57 1 PRESIDENT van HOUTTE: Yes, please.

> 2 MR. DOUGLAS: Just very briefly.

3 CROSS-EXAMINATION

BY MR. DOUGLAS:

Q. Unfortunately, I believe all of my Board 6 members have left to explain, but the Table 4.3.4.1,

the heading of the table is "Hibernia Production

8 Forecast For Most Likely Case"; is that correct?

A. That is correct.

10 Q. Okay. And this is a part of a Development

11 Plan Application --

A. Yes, it is.

13 Q. --that was approved?

14 A. It was approved.

15 Last week?

A. Yes, within last week.

Q. And CE-238 at the top also says "most likely

18 oil production"?

19 A. This is a more recent production profile.

20 So, the answer to your question, it is most likely oil

21 production updated, so it's the 4.3.4.1 updated. The

22 4.3.4.1 would date back to earlier this year. Earlier

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05:50:05 1 providing updated information not only on Hibernia

2 Southern Extension, but updated information relative

3 to the Hibernia Reservoir as well.

Q. So, the on Page 31 of CE-44 and the 5 of CE-238, the difference between the time difference 6 was just a couple of months between these two?

A. Actually, this would have been tied back to 8 more than a couple of months. The date between when

9 the reservoir team provided me this, which was in late 10 July, versus when this was submitted to the Board, I

11 think the letter that you noted earlier to the Board 12 was April.

13 Q. April. April, May, June, July--three months?

A. Well, three months in date, but I could tell

15 you that in terms of the reservoir team, in terms of 16 updating, they probably updated in the March time

17 frame, but since March we've actually had--as I

18 mention in my opening comments, we've had quite a bit

19 of additional production as a result of accelerated

20 drilling.

21 So, the latest CE-238 is our reservoir team's

22 latest production profile life of fields.

SHEET 80 PAGE 993 -\_ PAGE 995 993 995 05:53:36 1 stage of a project rather than a later stage of the 05:51:28 1 Q. Okay. And the CE-244 is the one that was 2 project. And what I appear to read from this is that 2 approved by the Board last week? A. It's--this was in the amendment plan which 3 there is all that could be a continuing need for R&D 4 was approved by the Board. The Board doesn't approve 4 as one faces these kinds of situations. Would that be 5 an annual production profile for Hibernia. Q. Okay. THE WITNESS: I mean, what we have, for 7 MR. DOUGLAS: That's all my questions. I think, 7 example, 8 PRESIDENT van HOUTTE: Thank you. 8 2004-5 time frame, which was about 9 OUESTIONS FROM THE TRIBUNAL 10 ARBITRATOR SANDS: Since we have got you on, 11 when you get these documents and your eye is caught by 12 something, this is just to help me understand some of 13 the broader issues that arise. If I could take you 14 back to 244--15 THE WITNESS: Okay. ARBITRATOR SANDS: -- and Page 25, the 17 penultimate paragraph starting with the word "staff." 18 This is really just to help me understand some of the 19 broader issues in the case. You will see the fourth line up from the 21 bottom, it says, "The Proponent is continuing to 22 explore ways to best exploit the oil resources in the ARBITRATOR SANDS: So, relatedly, one is

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\_ PAGE 994 \_ 994 05:52:23 1 Ben Nevis Avalon Reservoir, and then it says, 2 "including the application of new technologies and 3 approaches to recovering these resources. Is that an accurate reflection of the views 5 of the Proponent which I view as Hibernia? THE WITNESS: Yes. Just on that point, ARBITRATOR SANDS: Again to help me, 12 including the application of new technologies and 13 approaches to recovering these resources, can that be 14 read to suggest that this is one area where R&D would 15 actually be practically useful for the Proponent? 16 THE WITNESS: The answer to that is yes, and 17 the fact is in our ordinary R&D spend, we have 18 incorporated the 19 ARBITRATOR SANDS: The reason I ask is I 20 recall at some point over the course of the week, what 21 stuck in my mind was this sense that R&D is 22 particularly useful and more extensive at an earlier

05:54:49 1 consciously aware, living in the United Kingdom, that 2 all of a sudden after years of being told a particular 3 field is being diminished down to nothing, a new seam 4 is located in some way to produce some wonderful new 5 windfall that nobody expected. Should we be excluding the possibility that 7 in relation to Hibernia, as this change suggests, the 8 development of new technologies or approaches could 9 actually lead to a further exploitation of the field 10 at some point in the future, or is that something we 11 should exclude from the range of possibilities? THE WITNESS: We--ExxonMobil have developed 13 technologies already which we've employed on a 14 first-time basis at Hibernia. So, on an ongoing 15 basis, we will use best practices worldwide to harness 16 what is beneath the Hibernia Platform. Again, that doesn't necessarily mean we are 18 spending R&D dollars. We are leveraging technologies 19 that are being used elsewhere on the Hibernia 20 Platform, and bringing those new technologies in 21 doesn't necessarily mean we were going to need R&D to

22 prove up additional reserves.

\_ SHEET 81 PAGE 997 \_ PAGE 999 997 999 05:56:16 1 ARBITRATOR SANDS: Thank you very much, 05:58:04 1 DIRECT EXAMINATION 2 Mr. Phelan. BY MR. DOUGLAS: 3 Good evening, Mr. Walck. Good evening. Q. You filed three Expert Reports in this 6 arbitration? PRESIDENT van HOUTTE: Thank you very much. A. Yes, I did. Q. Do you have any corrections you would like to 8 Mr. Phelan. (Witness steps down.) 9 make to those reports? A. Just one minor one. The final report PRESIDENT van HOUTTE: And now we can move to 10 11 mentioned a Terra Nova production profile as having 11 Mr. Walck? MR. DOUGLAS: We can. 12 been approved by the Board, and I have been told since 13 My one concern by doing direct and then going 13 by the Board that it has not been approved by them. 14 to bed for the night, well, Mr. Walck would then get Q. Okay. Could you tell us a little bit about 15 to go to bed because I wouldn't be able to speak with 15 your background as a Damages Expert. 16 him and I might need to this evening in preparation A. Yes. 17 for closings tomorrow, and I don't know if there is a I have 33 years of professional experience as 18 proposed solution to that. 18 a Certified Public Accountant, Certified Management 19 Accountant. I'm also certified in financial MR. RIVKIN: The problem is--well--we 20 management and certified in financial forensics, and 20 wouldn't mind if you spoke to him overnight. 21 I'm accredited in business valuation. And I have MR. DOUGLAS: So, we could do the direct and 22 practiced in litigation and arbitration specifically 22 then--

\_ PAGE 998 -998 05:57:07 1 MR. RIVKIN: Still talk to him. MR. DOUGLAS: Perfect. PRESIDENT van HOUTTE: Then we hear Mr. Walck 4 for, say, half an hour? MR. DOUGLAS: I think the direct would be half an hour, yes. PRESIDENT van HOUTTE: Mr. Walck, please. 8 RICHARD E. WALCK, RESPONDENT'S WITNESS, CALLED 9 PRESIDENT van HOUTTE: Good afternoon. 10 THE WITNESS: Good afternoon, Professor. PRESIDENT van HOUTTE: Can you just repeat, I 12 hereby declare upon my conscience and honor... 13 THE WITNESS: I hereby declare upon my conscience and honor... PRESIDENT van HOUTTE: ...that I will make my 16 statement according to the best my knowledge. THE WITNESS: ...that I will make my 18 statement according to the best of my knowledge. 19 PRESIDENT van HOUTTE: Thank you. Mr. Douglas, you have the floor. MR. DOUGLAS: Thank you very much,

22 Mr. President.

:55 1 in the financial analysis of dama

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05:58:55 1 in the financial analysis of damages and valuation for 2 33 years. Q. Thank you. Now, you had some concerns about Mr. Rosen's 5 First Report; is that correct? Would you tell us what some of your concerns 8 were. A. The principle concern was that I thought it 10 was premature. We didn't really have much data to 11 look at that point in time. We had some calculations 12 of what the required R&D spending was. We had 13 submissions by the project to the Board for 14 consideration as eligible expenditures that in the 15 case of Hibernia were far in excess of what the 16 required spending was, so it was not clear right from 17 the getgo whether there would, in fact, be any damage, 18 whether there would be any incremental spending at 19 all. Q. You had some concerns about Mr. Rosen's

21 assessment of future damages, as well?

A. I did. It seemed to me that he was required

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06:00:10 to make a number of assumptions. And unlike the profit and a expropriation, whatever the facts that might be, in 4 most cases, as the future evolves, you don't get much

5 new information to help you with the calculation.
6 Here, as the future unfolds, we get
7 considerable additional information to help with the
8 calculation. So, it seemed to me that there was no
9 need necessarily to try to estimate so many things
10 when, with the passage of time, they would become

10 when, with the passage of time, they would become 11 evident.

12 Q. Now, when it came to Mr. Rosen's Second 13 Report and your Second Report, did any of your views 14 change?

14 change?
15 A. Yes. We had more data to work with. By that
16 point in time, we had the Board's determination of
17 eligible expenditures. There had been a request by

18 Hibernia and the approval by the Board to apply more 19 than \$10 million of Development Phase credit against

20 its outstanding obligations. There had been the

21 successful appeal of certain determinations the Board

22 had made for eligibility under the Guidelines that

06:02:49 1 days of testimony. And so there was still
2 considerable uncertainty in my mind as to what the
3 real incremental effect on the Claimants will be.

Q. Did your view change in your Third Report?

5 A. Well, again we got some more data. We 6 started getting some data for 2009. We got some new 7 projections of production, new projections of prices, 8 new projections of ordinary course spending, exchange

9 rates and so forth, and we saw once again considerable

10 change in the calculations. When the target moves
11 that much in a short period of time, I get concerned.

12 Q. Whose calculations are you referring to?

13 A. Mr. Rosen's.

Q. And what sort of changes? Could you

elaborate just a bit.
A. Well, I think you took him through some of

17 the changes. In ordinary course spending, for

18 example, the change was very significant. The oil 19 production figures have changed significantly.

20 Ms. Emerson's predictions of future oil prices have

21 changed. The exchange rate forecast has changed.

22 So, all of the inputs that go into

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06:01:30 1 brought the required or the shortfall down by another

And there had been Work Plans proposed for how the Claimants expected to resolve the remaining shortfall.

All of that is favorable information to have, so I thought we had a much better sense at least as to the past calculations of required spending.

9 And we had some significant differences that 10 we were then able to observe between what Mr. Rosen 11 had initially calculated and what we now had data to 12 document.

Q. Okay. So, despite this better information, was it your view that the Claimants' fact of damage to was reasonably certain?

A. No. I thought there was still considerable uncertainty as to that because the Work Plans that were provided, as Professor Noreng testified in his Witness Statement or Expert Report, appeared to include things that might be ordinary course, they

21 appeared to be things that would generate benefits for

22 the Claimants, as we've heard over the past couple of

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06:04:16 1 calculating the required spending and the incremental
2 spending have changed significantly over the past
3 year.

At the same time we haven't really gotten
much additional information about what the benefits
and what the ordinary course aspects of the Work Plans
might be. It seems to me that that's just now sort of
being fleshed out.

9 Q. In your view, is the fact that the Claimants 10 will suffer any loss reasonably certain?

11 A. Here is where I struggle with that. When I 12 look at "reasonable certainty," I look at it as

13 Mr. Rosen does: Within the context of the

 $14\,\,$  professional standards of my profession. In my case,

15 the American Institute of Certified Public Accountants

16 has a standard that requires sufficient relevant

17 evidentiary support for an opinion. When I look at 18 the probabilities that are out there--think in terms

19 of the Chorzów Decision trying to establish a

20 situation that would in all probability have existed,

21 that I think is a similar kind of concept. We are

22 trying to construct from data, from documents, from

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06:05:38 1 reliable sources an expectation of what that future

- 2 will be, and I have conflicting information out there.
- 3 I have, on the one hand, Claimants saying this is all
- 4 incremental spending in the Work Plans. On the other
- 5 hand, I have things in the Work Plans that they are
- 6 saying they are going to have to do because of

And so it's not clear that I have sufficient 12 data with which to support an opinion with reasonable 13 certainty.

- Q. In Mr. Rosen's Third Report, he filed a new 15 head of damage; is that right?
- A. Yes.
- 17 0. What was that?
- A. That was his tax gross-up. 18
- Q. And in your response, your Third Report, you
- 20 attempted to respond to the gross-up; is that right?
- A. I did.
- Q. Did you have difficulties responding?

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06:08:29 1 number of slides and explained some areas of agreement

- 2 and disagreement. Would you be able to walk us
- 3 through some of your thoughts on Mr. Rosen's
- 4 examination?
- A. Yes, with the caveat that his something that 6 was done as sort of first impressions. Most of this 7 is brand new, obviously.
- Q. And again, just for brevity's sake and the 9 hour is late and the damages being the most riveting 10 of topics, as best as possible just to be concise,
- 11 that would be great.
- A. In his Slide 3, which is his nice
- 13 multi-colored chart, I would simply observe that I
- 14 think there is additional information that should be
- 15 on the chart that would go down at the bottom of the
- 16 chart, and that would be with respect to benefits that
- 17 the Claimants will obtain, whether they be SR&ED
- 18 credits, royalty credits, or operational benefits,
- 19 none of which show on his chart.
- Going over a couple more pages to where he
- 21 starts the areas of disagreement, with respect to the
- 22 discount rate, we have what I view as a fundamental

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06:06:53 1

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A. Absolutely. I didn't understand what it was

- 2 he was saying. It was just set out that there will be 3 tax in the U.S. on the award where it had appeared
- 4 initially that the claim was structured on behalf of
- 5 the Canadian entities. That's the way he had
- 6 calculated his first calculation. There was nothing
- 7 that I saw in his Second Report that caused me to
- 8 anticipate what we now see as a tax gross-up saying
- 9 the award really should be made to the U.S. entities.
- 10 That obviously complicates things a bit. I tried to
- 11 investigate that. I looked at the Tax Treaty between
- 12 Canada and the U.S. to see what the provisions were
- 13 for double taxation.

It struck me, as Mr. Rosen testified, that if

- 15 the award is made to the Canadian entities, there is
- 16 no need for a tax gross-up, so why would you want the
- 17 award to be made to the U.S. entities? Why not keep
- 18 it simple, make it to the Canadian entities, and avoid
- 19 the transfer of several million dollars additional
- 20 from the Canadian Treasury to the U.S. Treasury. It's
- 21 the same to the Claimants either way.
  - Q. Now, in Mr. Rosen's direct he provided a

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06:09:49 1 difference in approach. Mr. Rosen pulls a concept

- 2 from torte law, and namely the law for personal
- 3 injury, wrongful death kinds of actions, where public
- 4 policy concerns for the protection of an injured
- 5 person require deliberate overcompensation of the
- 6 plaintiff to take any risk that they might have to
- 7 invest and take investment risks, to take that away
- 8 from them and put all of that risk on the defendant.
- 9 That's not used in a business context that I've seen,
- 10 and I have been in practice for 33 years and done
- 11 several hundred litigation and arbitration
- 12 engagements. I have never seen it before.
- 13 I've researched that.
- Mark Kantor, in his book arbitration for
- 15 valuation, or Valuation for Arbitrators, confirmed
- 16 that, that it is, in fact, something specific to the
- personal injury world. It's not used in a business
- 18 context.
- 19 So, from my perspective, Mr. Rosen has gotten
- 20 that one wrong.
- Q. But did you cite Mr. Kantor in your reports?
- A. I did.

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06:11:04 1 Q. Okay.

A. With the SR&ED credit, Mr. Rosen acknowledged in more of his reports that there would likely be tax

4 benefits. While he uses historic data to help

5 establish damages, he backs away from it here.

And it's not clear to me that they're fundamentally all that different. We have

8 confirmation from the CRA, the Canadian Revenue

9 Authority, that the types of R&D that are proposed in

10 the Work Plans would likely include SR&ED-eligible

11 pieces. Granted, we don't know how much. I do not 12 have reasonable certainty as to that calculation. I

13 don't have reasonable certainty with respect to the

14 entire calculation, and I set that qualification out

15 in my report.

With the treatment of Income Taxes, as I mentioned a moment ago, it's essentially a new head of

18 damage that we just learned here at this hearing what

19 the basis for it is. The easier way to do things is

20 pay the award in Canada and avoid having the need for

21 a gross-up.

The adjustment for the Hibernia South and the

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06:14:17 1 adjustment. Nor have I made the adjustment that goes

2 the other way that actually reduces or that takes out

3 a low outlier, in Mr. Rosen's words, for Terra Nova.

4 I have kept the spending in place that was actually

6 And then finally, the reduction of ordinary

7 course spending in the later years of the project, in

8 one of Mr. Rosen's later slides, he compared average

9 spending for the most recent years versus average

10 spending if he had gone back further, and it shows

11 that the average spending has actually gone up 12 recently.

So, he made some, I think, arbitrary cuts at

14 reducing spending by 50 percent starting in certain 15 years. Again, I don't have any data, any documents

16 that I can go to to ascertain why that was done, to

17 ascertain that that's the right timing, the right

18 amount and so forth. And as we will come to at a

19 later slide, it looks like actually it might be the

20 reverse, spending might actually go up, which is

21 consistent with some of what Professor Noreng said as

22 fields become more difficult and you need new

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06:12:39 1 AA Blocks, which is not one of the larger

2 disagreements, the R&D and E&T historic spending from

3 which the projection was developed did not include

 $\boldsymbol{4}$   $\,$  anything related to those blocks. And so projecting

5 forward for a field that excludes those blocks on the 6 basis of production and spending that excludes those

blocks, which is the way I have done it, seems to me

8 appropriate.

9 With his normalized average, moving on to his 10 FTI Slide 6 now, we both made one major normalization

11 adjustment for 2006, and I think for 2007 as

12 well--maybe it's 2005--

Mr. Rosen took that

15 out. I took that out as well. He went beyond that,

16 though, and took everything from 2006 out, which,

17 according to the footnote in his report, was simply

18 because it was large. He assumed it was an outlier

19 and took it out.

20 I'd rather have sufficient relevant data to

21 support that adjustment. I haven't seen data that

22 would support that, so I have not made that

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06:15:42 1 technologies in order to extract additional

2 hydrocarbon.

3 Slide 7, my apologies, I simply have not had

4 time to delve into this sensitivity of calculations at 5 all, so that one will take some time before I can

6 respond to that, probably not over night either.

7 Slide 8 is more on the discount rate, but now 8 we are drilling specifically into his what he calls an

9 error on my part in looking at the return on equity as

10 opposed to a cost of equity. Well, cost of equity

11 would be fine if we were valuing a business. We're 12 not. What we are looking at is some additional

13 potential expenses that, in turn, reduce profits in

14 future years.

So, it's not fundamentally different from a

16 lost-profits calculation. It's pretty much the same 17 thing because profits are simply the difference

18 between revenue and expenses. If you increase

19 expenses because of additional R&D, you decrease the

20 profits, and that's what's being asked for here.

So, if you are discounting the project cash flows or project profits or the project expenses, the

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06:17:07 1 best starting point is what was the expectation for

- 2 that investment. And you will recall, Mr. Douglas, I
- 3 asked you can we get information about the expected
- 4 return on these projects, and we were not successful
- 5 in that, so now we have to look at some proxies.
- 6 The return on equity--
- Q. Sorry, before you go into that detail, have
- 8 you received this level of detail of criticism in
- 9 Mr. Rosen's previous reports?
- 10 A. Not at all.
- 11 Q. Okay.
- 12 A. All he did was say that I did not understand
- 13 the concept of a risk-free fund.
- 14 Q. Okay.
- 15 A. Which is wrong. I do. It's out of personal
- 16 injury.
- 17 Q. So, rather than committing ourselves to
- 18 anything on the transcript, why don't we perhaps
- 19 reserve for a later time to address some of these
- 20 concerns.
- 21 A. Okay.
- Q. We could do it now, but I'm just conscious of

06:19:21 1 A. No.

- 2 Q. Okay.
- 3 A. On his slide related to the detail on SR&ED
- 4 credits, which is Slide 19, I have done a calculation
- 5 that I have set out in my report, admittedly rough,
- 6 looking at the historic SR&ED eligibility, and using
- 7 that as a way to try to get some sense of what the
- 8 impact of the SR&ED credits on the R&D portion of any
- 9 future spending, which is broken out in the Work
- 10 Plans, what that would be. Mr. Rosen has now for the
- 11 first time said, "Well, a more appropriate way to do
- 12 that is now to as
- 13 something submitted for SR&ED that was denied and hold
- 14 that percentage way down." I disagree with that. I
- 15 think the should be out of the normalization
- 16 that we talked about earlier.

It should be out of the estimate for any 18 SR&ED credit.

- 19 Q. And again, did Mr. Rosen do any of this in
- 20 any of his reports?
- 21 A. No.
- 22 The normalized spending we've covered, I

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06:18:02 1 time. And discussing about the details of a discount 2 rate is not exactly exciting, unfortunately.

Now, is there anything--before we get to some of the agreements, is there anything you wanted to say before we got there?

- A. Well, if we jump through to the little model
  he had on the treatment of Income Taxes where he shows
- 8 that if--

10

- 9 Q. Which slide is that, sir?
- A. This is Slide 17 that I'm on.
- 11 Q. Okay.
- 12 A. Actually, it's 17 and 18 where he does his
- 13 modeling to show that if you award the money in the
- 14 U.S. and gross it up and allow the Claimants to pay
- 15 some tax to the U.S. Treasury, then that will still
- 16 replace the that the Canadian entities would be
- 17 out of pocket after their tax savings. And you could
- 18 just as easily award a hundred dollars instead of
- 19 but award it to the Canadian entities, let them pay
- 20 their \$30 in tax, and they would have their
- 21 Q. Again, was this level of detail provided in
- 22 any of Mr. Rosen's reports?

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06:20:44 1 think. But I would pause on Page 21 of his report,

- 2 and I noticed that -- I think the numbering at some
- 3 point got off on the paper copy versus the copy that
- 4 was up on the screen, so it's the one that starts with
- 5 number four "Normalized Spending" and has a table in
- 5 number rout normatized byending and has a capte in
- 6 it. You notice the figure in Rosen Report, the third
- 7 of the bullets, where he used 2004 through
- 8 2008, I believe, in calculating it. If he had
- 9 calculated using the earlier Production Phase from
- 10 1998 to 2008, that average is lower. So, it's showing
- 11 you that the more recent R&D spending has actually
- 12 been higher, not lower as he's suggesting when he
- 13 takes his 50 percent reductions at various points in 14 time.
- 15 And then finally, with respect to this
- 16 reconciliation, once again I apologize to the Tribunal
- 17 but I've not had anywhere near enough time to focus on
- 18 that.
- 19 Q. Nevertheless, you provided a quantification
- 20 of damages; is that right?
- A. I did provide calculations of a sort of rough
- 22 sizing of potential damages.

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06:22:27 1 Q. Why did you do that?

2 A. Because you dragged it out of me, kicking and 3 screaming.

You asked for it. I told you that I would prefer not to because I do not have sufficient data to give you a figure that I can say is my opinion of damage.

Q. Is your quantification reasonably certain?

9 A. No. I don't think either of our 10 quantifications is reasonably certain.

MR. DOUGLAS: I think these are my questions
PRESIDENT van HOUTTE: If I would suggest we

13 stop here today and then reconvene tomorrow at 8:30.

14 Mr. Rivkin, do you have any idea without

15 further commitment how long your cross-examination 16 will last, or Ms. Lamb?

17 MR. RIVKIN: (Off microphone) It's Ms. Lamb

18 who will be conducting it, and she think it's no

19 longer than 45 minutes.

20 PRESIDENT van HOUTTE: Fine. Thank you.

21 See you tomorrow, 8:30.

22 Mr. Walck, you know that you have been

## CERTIFICATE OF REPORTER

I, David A. Kasdan, RDR-CRR, Court Reporter, do hereby certify that the foregoing proceedings were stenographically recorded by me and thereafter reduced to typewritten form by computer-assisted transcription under my direction and supervision; and that the foregoing transcript is a true and accurate record of the proceedings.

I further certify that I am neither counsel for, related to, nor employed by any of the parties to this action in this proceeding, nor financially or otherwise interested in the outcome of this litigation.

DAVID A. KASDAN

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06:23:41 1 allowed to discuss with counsel things which are

2 useful for his oral submissions, but maybe not which

3 is useful for this specific testimony, although maybe

4 there it's very difficult to draw a line.

5 MR. DOUGLAS: It is very difficult. And if I 6 had understood the previous arrangement was that there 7 wouldn't be a restriction.

8 MR. RIVKIN: That's fine, but it is our 9 understanding that the direct examination is closed,

10 that they're not going to come back with additional

11 direct testimony, having spoken tonight.

MR. DOUGLAS: That's correct.

13 PRESIDENT van HOUTTE: Under those

 $14\,$  conditions, Mr. Walck, thank you very much, and see

15 you at 8:30.

16 THE SECRETARY: Just an update on the timing,

17 the Parties used roughly the same amount of time:

18 Claimants six hours and 47 minutes, and Respondent

19 seven hours and four minutes.

20 (Whereupon, at 6:24 p.m., the hearing was 21 adjourned until 8:30 a.m. the following day.)

22