

**OFFSHORE HELICOPTER SAFETY INQUIRY**

*January 11, 2010*

*Tara Place, Suite 213, 31 Peet Street*

*St. John's, NL*

January 11, 2010

**PRESENT:**

**John F. Roil, Q.C./**

**Anne Fagan.....Inquiry Counsel**

**John Andrews/..... Canada-Newfoundland and Labrador Offshore**

**Amy Crosbie ..... Petroleum Board (C-NLOPB)**

**Ian Wallace/ ..... Hibernia Management and**

**Cecily Strickland..... Development Company (HMDC)**

**Denis Mahoney/D. Blair Pritchett.....Suncor (Petro-Canada)**

**Alexander C. MacDonald, Q.C./**

**Stephanie Hickman. .... Husky Oil Operations Ltd.**

**Lewis Manning/**

**Nick Schultz ..... Canadian Association of Petroleum Producers (CAPP)**

**Rolf Pritchard/**

**Laura Brown Laengle ..... Government of Newfoundland and Labrador**

**Norman J. Whalen, Q.C.....Cougar Helicopters Inc.**

**Jamie Martin/Allison Battcock .....Families of Deceased Passengers**

**Kate O'Brien.....Davis Estate (Pilot) and**

**..... agent on behalf of Douglas A. Latto for Lanouette Estate (Co-pilot)**

**David F. Hurley, Q.C. Offshore Safety and Survival Centre, Marine Institute, MUN**

**V. Randell J. Earle, Q.C. .... Communications, Energy and Paperworkers Union**

**..... Local 2121**

TABLE OF CONTENTS  
January 11, 2010

Discussion ..... Pgs. 1 – 18

MR GARY VOKEY (SWORN) ..... Pg. 18

MR. TREVOR PRITCHARD (AFFIRMED) ..... Pg. 19

MR. PAUL SACUTA (AFFIRMED) ..... Pg. 19

Examination-in-chief by John Roil, Q.C. .... Pgs. 19 – 270

Certificate..... Pg. 271

Page 1

1 January 11, 2010  
 2 COMMISSIONER:  
 3 Q. Good morning, ladies and gentlemen, and good  
 4 morning members of the panel. Now, Mr. Roil,  
 5 you're ready.  
 6 ROIL, Q.C.:  
 7 Q. Mr. Commissioner, thank you very much. I have  
 8 a few opening comments that I'd like to make,  
 9 and in addition Mr. Earle has indicated to me,  
 10 Mr. Earle represents CEP, that he has a  
 11 preliminary issue that he'd like to bring up  
 12 before we get into the evidence.  
 13 COMMISSIONER:  
 14 Q. Oh, yes, to deal with that now, is that the --  
 15 ROIL, Q.C.:  
 16 Q. Do you want to deal with that now or we can  
 17 deal with it after my --  
 18 COMMISSIONER:  
 19 Q. We may as well deal with it now.  
 20 EARLE, Q.C.:  
 21 Q. Good morning, Mr. Commissioner.  
 22 COMMISSIONER:  
 23 Q. Good morning, Mr. Earle.  
 24 EARLE, Q.C.:  
 25 Q. You will recall that when the Canadian

Page 2

1 Association of Petroleum Producers, Mr.  
 2 Barnes, was on the stand, we asked that a  
 3 number of matters be provided on undertaking,  
 4 and on December 12th of this year those items  
 5 were provided. At a meeting of counsel about  
 6 the same time, we were advised that counsel,  
 7 at least, and I presume he was speaking for  
 8 the inquiry, anticipated limitations on the  
 9 capacity of the parties to ask questions on  
 10 matters produced in undertakings, and it  
 11 appears to me that, in fact, it's a bit more  
 12 than that now because I'm looking at the  
 13 latest schedule for this inquiry, and I note  
 14 that the inquiry is to proceed through to the  
 15 18th of February at this Phase 1A, and nowhere  
 16 is there within the schedule any indication of  
 17 time allotted for the examination of parties  
 18 who have given undertakings on those documents  
 19 which have been provided. Now it is not only  
 20 the CEP which has requested documents by  
 21 undertaking, but the families of the survivors  
 22 requested documentation from C-NLOPB, and that  
 23 similarly has been provided. There is no  
 24 indication of any time in the schedule when  
 25 these will be dealt with. Now as I understand

Page 3

1 the manner of proceeding in this matter,  
 2 documents are provided on the website of the  
 3 inquiry for access by parties with standing to  
 4 have passwords and this, that, and the other  
 5 thing, but they do not form a part of the  
 6 evidence before the inquiry unless they are  
 7 entered as an exhibit.  
 8 COMMISSIONER:  
 9 Q. That is true, yes.  
 10 EARLE, Q.C.:  
 11 Q. So we are faced not only with the proposition  
 12 that there does not appear to be any  
 13 opportunity provided in the current schedule  
 14 for the asking of questions on these  
 15 documents, the express intent that this is  
 16 going to be a limited area of inquiry, which I  
 17 find quite surprising in the context that the  
 18 inquiry itself ruled as to whether the matter  
 19 was an appropriate matter for an undertaking  
 20 in the first instance, and you will recall we  
 21 were given an opportunity and did take an  
 22 opportunity to explain to the inquiry why we  
 23 thought it was important for the inquiry to  
 24 have these documents. So we find ourselves in  
 25 a situation at this point in time where these

Page 4

1 documents have been produced, the schedule as  
 2 it appears does not provide any consideration  
 3 of either CAPP or C-NLOPB returning to the  
 4 stand, and that the documentation received is  
 5 not now even a part of the evidence of the  
 6 inquiry, and we are now proceeding into the  
 7 evidence and presentations by the operators,  
 8 and I don't think it will come as any surprise  
 9 to you, Mr. Commissioner, that the matters  
 10 which we sought undertakings from CAPP on are  
 11 matters which we think are appropriate to ask  
 12 questions of the operators on as well because  
 13 CAPP is just an umbrella organization, and  
 14 anyone who's followed our line of questioning  
 15 knows that we feel that the process involved  
 16 in the, if you will, commitment to the HUEBA  
 17 is an important matter for consideration by  
 18 this inquiry because it illustrates how long  
 19 it has taken to put in place something which  
 20 is described in one of the letters by C-NLOPB  
 21 as a mature and tested technology, and we  
 22 think this is an important inquiry, if you  
 23 will, as to the nimbleness of this industry  
 24 when it comes to making modifications related  
 25 to safety as they pertain to helicopters and

Page 5

1 transportation in helicopters. So I raise  
 2 these matters with you because quite frankly  
 3 CEP 2121, which as I keep reminding you,  
 4 represents an awful lot of the people who get  
 5 on these helicopters feels quite stymied in  
 6 its efforts to bring forward those things  
 7 which are important in the minds of our  
 8 members as to helicopter safety, and I would  
 9 ask you to consider and advise how we are in  
 10 the present context to have these documents  
 11 which were undertakings become part of the  
 12 evidence, and how we are to have an  
 13 opportunity to ask questions, and I say that  
 14 knowing that there's a backdrop to all of  
 15 this, if you will, the elephant in the closet  
 16 in all this, is that everybody is concerned  
 17 about the fact that these inquiries somehow  
 18 develop a life of their own, and it is not my  
 19 desire to have this inquiry go on any longer  
 20 than it should, but as a party we are here to  
 21 be heard, we're not here to be a decoration,  
 22 and we have matters that we feel should be  
 23 looked into and it seems at this point in time  
 24 that the schedule doesn't contemplate that,  
 25 and the manner of proceeding doesn't

Page 6

1 contemplate that.  
 2 COMMISSIONER:  
 3 Q. Thank you. Just one or two comments --  
 4 ROIL, Q.C.:  
 5 Q. Before we do that, before you make comments,  
 6 could I respond to my learned friend because I  
 7 feel I have to.  
 8 COMMISSIONER:  
 9 Q. Yes. I don't want this mornings session,  
 10 which we're prepared to move forward, to end  
 11 up in a debate, but by all means, Mr. Roil.  
 12 ROIL, Q.C.:  
 13 Q. I think I need the opportunity. Mr. Earle  
 14 referred to Inquiry Counsel and he referred to  
 15 him, and since Ms. Fagan would not be a him,  
 16 it is me that was referred to clearly, and I  
 17 want to put some context around this. First  
 18 of all, you will remember our comments about  
 19 the collaborative approach. I'm a little bit  
 20 stymied by the fact that I was not given a  
 21 heads up from Mr. Earle about his concerns. I  
 22 thought in our collaborative approach we would  
 23 have done that. First of all, he said that  
 24 I'd made comments about the limited ability to  
 25 probe on this. What I did say to all of the

Page 7

1 parties, Mr. Earle included, is that simply  
 2 because something was asked for in an  
 3 undertaking did not mean that it was  
 4 necessarily something that would have to be  
 5 questioned about, it might be no questions  
 6 would arise, in which case we would not put it  
 7 into evidence. The second is that he says  
 8 there's no spot, and we have always talked  
 9 about on the tentative schedule that we've  
 10 developed from time to time that the response  
 11 opportunity would be down in the February 15th  
 12 to the 18th time period, and that was where I  
 13 understood, and I thought all counsel  
 14 understood, that these issues would be dealt  
 15 with, and if need more time, then we need more  
 16 time. In addition, I sent an e-mail to all  
 17 counsel recently where we talked about, or I  
 18 talked about how these documents could be put  
 19 in, either by consent if everybody agreed,  
 20 we'd simply put them in, or if necessary, we  
 21 would call back a witness. So I'm a little  
 22 bit stymied by all of that, but let me say  
 23 that the HUEBA example that he gives is  
 24 perhaps a bit of a troubling one. Remember  
 25 that in Phase 1, we are identifying issues,

Page 8

1 and we have always said that in Phase 2 we  
 2 would look at how we would solve those issues.  
 3 It would seem to me at this point in time that  
 4 the timeliness or responsiveness of the  
 5 industry has become an issue already, so if  
 6 his objective is to simply ask more questions  
 7 about the timeliness, I wonder whether that  
 8 wouldn't be something that we could look at or  
 9 should look at in Part 2 rather than in Part  
 10 1, or in Phase 2 rather -- sorry, the next  
 11 part of Phase 1, which is called 1B. As I  
 12 say, you know, Ms. Fagan and I constantly have  
 13 kept in touch with parties and advised them as  
 14 to how things were developing. As I say, I'm  
 15 surprised at the way in which the question has  
 16 come up. I understand his concern, and  
 17 certainly there is no attempt to make sure  
 18 that issues wouldn't get explored adequately  
 19 in this phase, but the question of adequately  
 20 and whether there's other issues that might  
 21 come out of those undertakings, if there are,  
 22 then certainly they can come in and you would  
 23 be the Judge, sir, of that. So those are the  
 24 only comments I wanted to make in response to  
 25 what he said.

Page 9

1 COMMISSIONER:  
 2 Q. I'm not going to invite anybody else to  
 3 comment on it now. My understanding was at  
 4 the time that documents would be provided, and  
 5 I take it from what Mr. Earle has said, that  
 6 they have been provided. The question of how  
 7 they would be dealt with after they were  
 8 provided is really a matter for counsel who  
 9 may wish to ask questions. So it's not an  
 10 emergency thing, it's something that is to be  
 11 expected. I think the proper way to address  
 12 this is for counsel to meet you, Mr. Earle,  
 13 and any other counsel who might be involved,  
 14 or Mr. Barnes, if he's here, to talk about the  
 15 extent of the questioning that's required or  
 16 that you want to do, and what should be  
 17 possibly admitted. Whether it will be  
 18 admitted or not would have to be a matter that  
 19 would come before me at the hearing, unless it  
 20 could be decided before the hearing, but all  
 21 these things are there for consideration. So  
 22 I would suggest that counsel at the earliest  
 23 opportunity, perhaps at the close of  
 24 proceedings on any day, today, tomorrow, the  
 25 next day, sit and talk about these things. It

Page 10

1 may not be a problem. If it is a problem,  
 2 we'll solve it, but it's not my wish that  
 3 people who want to ask questions that are  
 4 legitimate and relevant shouldn't be able to  
 5 ask them. So I think we need not delay the  
 6 proceedings this morning further, but  
 7 certainly I would suggest a meeting between  
 8 counsel within the next two or three days.  
 9 Okay, thank you.  
 10 ROIL, Q.C.:  
 11 Q. Thank you, Commissioner. I did have a number  
 12 of opening comments to put context into the  
 13 next few weeks of evidence, and so if you  
 14 would give me a moment, I would like to make  
 15 those comments now.  
 16 COMMISSIONER:  
 17 Q. Yes.  
 18 ROIL, Q.C.:  
 19 Q. These are as much for the public as they are  
 20 for those within the room. Just to remind us  
 21 all where we have come from and where we are  
 22 going, you will recall that we heard first  
 23 from the C-NLOPB, and their evidence was about  
 24 the regime that they have created that  
 25 regulates the oil operators. Their evidence

Page 11

1 seemed to indicate that they did not directly  
 2 regulate the helicopter provider. We also  
 3 heard from representatives of the Transport  
 4 Canada and the TSB about what their areas of  
 5 responsibility were. We heard from our  
 6 consultant at Aerosafe, and, of course, we did  
 7 hear from Mr. Decker, the survivor, some very  
 8 useful and compelling evidence. We also heard  
 9 from CAPP, the Association of Oil Operators,  
 10 from Helly Hansen, and from Memorial  
 11 University, who was a trainer. So we now move  
 12 on to the oil industry itself, and I make  
 13 these comments to make sure that everybody is  
 14 aware that the issue here is not about any  
 15 particular company, but about how the industry  
 16 itself responds to and deals with safety and  
 17 helicopter transit in the offshore. We have  
 18 chosen three operators as examples, but there  
 19 are obviously many more who have been in the  
 20 offshore and who will be in the offshore in  
 21 the future. The three operators that we have  
 22 are HMDC, who operate Hibernia; Suncor, and  
 23 Husky Energy, and these three operators are  
 24 being brought forward as examples. When we  
 25 started the inquiry there was a fourth company

Page 12

1 out there called Statoil. They were then  
 2 called, I think, Statoil Hydro. They have now  
 3 left. They were doing a drilling program. A  
 4 new company has come in called Conoco-  
 5 Phillips. They are now doing a drilling  
 6 program. Whether and how long they will stay  
 7 remains to be seen. These three companies  
 8 have been here for some period of time, so we  
 9 have chosen them, but the evidence is not  
 10 being brought to show who is the best or who  
 11 is better than the other, it is about three  
 12 examples of how the industry, the individual  
 13 companies, the entities, how they operate with  
 14 respect to safety and helicopter transit in  
 15 the offshore. Ultimately, the whole inquiry  
 16 is about how the C-NLOPB regulates the affairs  
 17 of these operators and how these companies  
 18 interpret and apply the rules and regulations  
 19 of the C-NLOPB. Now the evidence that we will  
 20 have over the next few days, and, in fact, the  
 21 next few weeks, will really comprise four  
 22 separation presentations. First of all, we  
 23 will have, as we do today, a panel of  
 24 representatives of all three of those  
 25 companies, and they will give some evidence

Page 13

1 about the things they do together, and the  
 2 things that they share in, and that they work  
 3 together on, and they will also give some  
 4 evidence on what they did working together  
 5 following the incident on March 12th, because  
 6 I think that there's a lesson for us in the  
 7 work that was done at that time. After that -  
 8 - that will take probably most of this week.  
 9 We will then have each of these three  
 10 companies talk individually about what they do  
 11 because although they are working together,  
 12 they are companies that are competing in the  
 13 international oil industry, and so they have  
 14 their own separate documentation, they each  
 15 have their own separate contracts, their own  
 16 separate safety plans, and they each contract  
 17 separately for helicopter services, and they  
 18 each are able to do audits and inspections.  
 19 So we'll have some evidence from them on that.  
 20 Remembering our focus, the purpose is not to  
 21 criticize the past, but rather to look for  
 22 opportunities for improvement into the future.  
 23 There will be very few documents that will  
 24 come forward in the joint panel that we're  
 25 hearing from today because, of course, most of

Page 14

1 the documents are individual to the companies,  
 2 so they will come out in the following panels  
 3 of the individual oil companies as we come out  
 4 later this month. A little bit more about  
 5 confidential documents and what not, and  
 6 exhibits, because we are now moving into an  
 7 area where there will be more use of this  
 8 process of redaction that we have talked  
 9 about, and more use of what we call  
 10 confidential exhibits. First of all, there  
 11 are two types of exhibits that we have. There  
 12 are the public exhibits which go under our  
 13 website and are freely accessible by all.  
 14 There are some documents which are being  
 15 designated as confidential documents. Those  
 16 documents are documents that generally a  
 17 company or an entity has a proprietary  
 18 interest in, and so they would not want the  
 19 world to be able to look at these confidential  
 20 documents. The parties in the room and their  
 21 counsel will all have full access to them, but  
 22 they may not be available on our website for  
 23 public access. Within both of those types of  
 24 documents or exhibits, there is a process that  
 25 we have used called redaction, and redaction

Page 15

1 is simply a word to indicate that something  
 2 has been eliminated, either whited out or  
 3 blacked out of a document, and the process of  
 4 redaction takes place for a number of  
 5 different reasons, principally because  
 6 something is highly sensitive. For example,  
 7 the price that a company would pay for the  
 8 rental of an helicopter on an hourly basis, as  
 9 between the three companies, they might be  
 10 very different, so they would not want to  
 11 share with one another the price. The price  
 12 has no relevance to us, so something like that  
 13 would be redacted. Some individual people's  
 14 names would be redacted because of privacy  
 15 concerns, where they're not relevant to -- who  
 16 the person is is not relevant to our  
 17 undertakings. The third, and perhaps the  
 18 larger place where you will now begin to see  
 19 redactions, is where things come up that are  
 20 clearly within the jurisdiction of some other  
 21 agency or entity like the Transportation  
 22 Safety Board or Transport Canada. In that  
 23 case, we have taken the opportunity to take  
 24 out of documents extracts that would clearly  
 25 indicate that the issue was an issue that is

Page 16

1 not before us, but is one that is actually  
 2 before the Transportation Safety Board. So  
 3 with that little preview, I have a list of  
 4 documents for exhibits for today. I said that  
 5 there wouldn't be very many, and those in the  
 6 room who have received the list and have seen  
 7 the list will say there is a large number,  
 8 however, the way that we download them onto  
 9 our electronic database means that one of the  
 10 documents have been broken into many small  
 11 parts. So the three individual documents just  
 12 by way of description are the Joint Operator  
 13 Panel Presentation, which they will go through  
 14 today with the PowerPoint presentation. We've  
 15 had those before. Then there are a series of  
 16 documents that go to making up part of what  
 17 the oil industry has called the Helicopter  
 18 Operations Taskforce Report. It's a document  
 19 of this sort of size and it has a number of  
 20 tabs. Each of the tabs in it are a separate  
 21 exhibit for our purposes. It allows us to be  
 22 able to designate some confidential, some as  
 23 public, and finally the third document is a  
 24 document which is called a Pooling Charter.  
 25 The panel presentation is a public document.

Page 17

1 Some of what is in the Operations Taskforce  
 2 final report is public, some of it is  
 3 confidential, and we'll see why as we go  
 4 through it, and some of it has been redacted  
 5 out. The third document is the Pooling  
 6 Charter, and that is a confidential exhibit.  
 7 So what I would ask you to do today is to --  
 8 there have been some changes, I would caution  
 9 the parties in the room, some of the exhibits  
 10 that were originally set as "P" documents, or  
 11 as public, are now "C" documents or  
 12 confidential, and the explanation of that will  
 13 come in due course. We won't get to that  
 14 document in today's evidence, that will be in  
 15 tomorrow. I would ask that you admit as  
 16 exhibits, Exhibit P-116, and that is the Panel  
 17 Presentation for today, and Exhibit P- 117  
 18 through -- and that starts at 117-100 through  
 19 206. Those are public documents. The 117- 207  
 20 and 208 are confidential documents. Sorry,  
 21 117-209 is a public document. 210, 11, 12,  
 22 and 13 are confidential exhibits, and then 14,  
 23 15, 16, and 17, right through to 20, 300, and  
 24 401 and 402 are public exhibits, and finally  
 25 C-118, the Pooling Charter, is a confidential

Page 18

1 exhibit. The Registrar has a revised list of  
 2 the status of these documents available and  
 3 the pages that would have to be changed. As I  
 4 say, this exhibit will not, I don't think,  
 5 find its way into discussion today. It will  
 6 tomorrow, and the parties will have an  
 7 opportunity to meet with me and discuss those  
 8 changes, or to have a look at them themselves  
 9 overnight.  
 10 COMMISSIONER:  
 11 Q. So at any rate, these exhibits should be  
 12 marked as such.  
 13 ROIL, Q.C.:  
 14 Q. Commissioner, the three gentlemen seated  
 15 before you today are as follows. Paul Sacuta  
 16 seated on your left. Mr. Sacuta is the  
 17 President of Hibernia Management and  
 18 Development Corporation. Seated next to him  
 19 is Mr. Trevor Pritchard, who is the General  
 20 Manager Operations for Husky Energy, and  
 21 seated on the right is Mr. Gary Vokey, Asset  
 22 Manager for Terra Nova with Suncor Energy.  
 23 I'd ask that the witnesses be sworn or  
 24 affirmed as appropriate.  
 25 GARY VOKEY (SWORN)

Page 19

1 TREVOR PRITCHARD (AFFIRMED)  
 2 PAUL SACUTA (AFFIRMED)  
 3 ROIL, Q.C.:  
 4 Q. Commissioner, in preparation with the oil  
 5 operators for this, the presentation has been  
 6 divided into various sections and each of the  
 7 three presenters will deal with individual  
 8 sections. When I ask questions of them, I  
 9 would offer that all three could be entitled  
 10 to answer if they feel that they are in a  
 11 better position or wish to answer a question,  
 12 but in terms of the actual presentation, it  
 13 has been divided up so that one person will  
 14 speak on various of the subjects that are  
 15 before us, and I understand that Mr. Sacuta is  
 16 to begin.  
 17 MR. SACUTA:  
 18 A. I think Mr. Pritchard will begin.  
 19 ROIL, Q.C.:  
 20 Q. Mr. Pritchard is going to make a couple of  
 21 comments ahead of time.  
 22 MR. PRITCHARD:  
 23 A. Mr. Commissioner, we're here today on behalf  
 24 of the three operators currently conducting  
 25 producing and drilling operations in the

Page 20

1 offshore Newfoundland, Grand Banks area. We  
 2 were greatly saddened by the events on March  
 3 12th. We know there are family members  
 4 watching here today and perhaps on television.  
 5 First of all, we'd like to say that our  
 6 thoughts are never far from them. The  
 7 accident was devastating for all the families,  
 8 and indeed life changed on that particular  
 9 day. It affected many people, including the  
 10 three of us here today, our offshore  
 11 workforce, and indeed the entire province was  
 12 affected. It seems no one was left untouched.  
 13 There's nothing more important than safety of  
 14 our workforce, and this includes the safe and  
 15 reliable transportation of our employees to  
 16 and from the offshore industry. We require  
 17 the helicopter operations to run our oil and  
 18 gas business. This is based on the  
 19 environment in which we work in and the safety  
 20 of our offshore workforce. We do recognize  
 21 there are risks involved with travel to and  
 22 from the offshore workforce -- workplace,  
 23 rather. The industry is committed to reducing  
 24 risk, and on a continuous improvement basis.  
 25 We recognise there is tremendous interest from



Page 21

1 the public as well as many of the stakeholders  
 2 in our offshore safety, and the work of this  
 3 inquiry, we will have an opportunity to  
 4 discuss our industry as it works, our safety  
 5 culture, our safety knowledge, and give  
 6 information to assist the inquiry on a  
 7 continuous improvement basis, of course. This  
 8 allows us to in a go forward position to  
 9 improve the safety of the industry so that we  
 10 can travel to and from the offshore facilities  
 11 safely. We'll now give you some background  
 12 and context to ourselves, as individuals, as  
 13 to why we represent our companies here today.  
 14 I have been in the oil production and  
 15 transportation business for 36 years. I  
 16 joined the Merchant Navy in 1973 as an  
 17 engineering cadet with BP Shipping. I worked  
 18 at sea on many types of crude oil tankers and  
 19 product carriers. I worked through the ranks  
 20 to Chief Engineer. When I became involved  
 21 with a project with BP in 1986, this was one  
 22 of the first FPSOs. Now FPSO, Mr.  
 23 Commissioner, is a floating production storage  
 24 and offloading system. This is one of the  
 25 very first ones in 1986. It was at that time

Page 22

1 that I started to be introduced to actual oil  
 2 production. Previously, I was always involved  
 3 with the transportation and ships of the crude  
 4 oil and products. I joined that project in  
 5 1986 and worked in the Belfast Shipyard  
 6 Harland & Wolff, and during that time I held  
 7 positions both in the project, and ultimately  
 8 offshore as an offshore worker, becoming Chief  
 9 Engineer on board that particular project in  
 10 1993. At that time, I was responsible for the  
 11 oil production facility on the marine  
 12 engineering aspect of that site. So the  
 13 project sailed away in 1990, and I left that  
 14 project in 1996. Throughout the course of  
 15 that time, I travelled to and from the  
 16 installation by helicopter. In 1996, I joined  
 17 a company called Blue Water Services. They  
 18 provide FPSOs to the oil industry, and at that  
 19 time, I became Offshore Installation Manager,  
 20 so I worked offshore, responsible for all  
 21 aspects of safety and helicopter  
 22 transportation on board. In 1999, I became  
 23 the Project Manager for an FPSO date  
 24 commissioning, bring that vessel to a safe  
 25 location in preparation for its next work.

Page 23

1 Then in 2000, I became the General Manager for  
 2 Blue Water Services in Aberdeen. At that  
 3 time, I was responsible for three FPSOs  
 4 working in the North Sea, and one FPSO in  
 5 South Africa, all of which required  
 6 transportation by helicopter. During my time  
 7 in the North Sea, I was involved in a number  
 8 of initiatives with UKOOA, which is the United  
 9 Kingdom Offshore Operators Association, and  
 10 typically that would be -- one would be safety  
 11 was an initiative undertaking, and other FPSO  
 12 working groups. I also had regular interfaces  
 13 with the certifying authorities which we'll  
 14 hear about on the regulators there. I then  
 15 joined Husky Energy in June, 2005, as the  
 16 Operations Manager. That was just a few  
 17 months prior to sail away of the Sea Rose to  
 18 the White Rose Field. In August last year, I  
 19 was appointed as General Manager Operations,  
 20 Husky Energy. My responsibilities now are for  
 21 the production facilities, the drilling  
 22 operations, the marine, and the logistics,  
 23 which includes the helicopter operations.  
 24 Although I have not worked on a regular  
 25 rotation offshore for many years, I still do

Page 24

1 travel offshore approximately six times per  
 2 year. I would estimate that throughout the  
 3 course of my career, I've travelled more than  
 4 100 times offshore, to and from offshore on  
 5 helicopters. As it happens, my son now works  
 6 -- followed in my footsteps and he works  
 7 offshore in the North Sea too. I've been in  
 8 St. John's for more than four and a half  
 9 years. I find it somewhat similar to Aberdeen  
 10 in many ways, with an oil industry and a  
 11 fishing industry working together. I enjoy  
 12 living in St. John's for the people's attitude  
 13 and work ethics. I enjoy the outdoors,  
 14 walking, and golfing. Mr. Commissioner, at  
 15 the time of the accident, I was the senior  
 16 representative for Husky Energy, and that's  
 17 why I represent my company today. I'll now  
 18 pass on to Mr. Vokey, who will give us some  
 19 background.  
 20 MR. VOKEY:  
 21 A. Mr. Commissioner, Mr. Roil, my name is Gary  
 22 Vokey. I am the Asset Manager for the Terra  
 23 Nova Project, and I've been in the oil and gas  
 24 industry for some 29 years. I was born and  
 25 raised in Newfoundland, with a Bachelor -- I

Page 25

1 attended Memorial University for my formal  
 2 education, and I graduated with a Bachelor of  
 3 Engineering, specializing in civil  
 4 engineering. I began my career in 1981 with  
 5 Petro Canada, or as we now know it as Suncor  
 6 Energy in their Drilling Department. My  
 7 offshore drilling career included working  
 8 offshore Nova Scotia, the Grand Banks,  
 9 Labrador, and the east coast of Africa. I'm  
 10 pleased to say that I was working offshore in  
 11 1984 when the Terra Nova discovery was made.  
 12 The early part of my career included a number  
 13 of moves between Alberta and Newfoundland,  
 14 with two out of my three children being born  
 15 in St. John's. In 1988, I moved into the  
 16 production side of our business, and spent the  
 17 next eight years working at various oil and  
 18 gas facilities in Alberta. In 1996, I moved  
 19 back into the offshore world, this time on the  
 20 production side of our business, and some of  
 21 the highlights of my career since then  
 22 included a one year secondment to Norsk Hydro,  
 23 a company you will now recognize as Statoil in  
 24 Norway, during the mechanical completion, the  
 25 commissioning and the start up of an offshore

Page 26

1 production platform. I've also had a one year  
 2 secondment to the Hibernia Management  
 3 Development Company in the role of Production  
 4 Supervisor on the Hibernia Platform, and, in  
 5 fact, myself and Mr. Sacuta were back to back  
 6 Production Supervisors on that facility some  
 7 ten years ago. I was also one of the first  
 8 offshore installation managers on the Terra  
 9 Nova FPSO through the mechanical completion,  
 10 commissioning, hook up, and first oil on the  
 11 Terra Nova in early 2002. This was certainly  
 12 one of the highlights of my career. Since  
 13 2002, I've been working onshore, first in the  
 14 role of Operations Manager, then in the role  
 15 of Operations and Engineering Manager, and my  
 16 current role as Terra Nova Asset Manager,  
 17 where I'm accountable for all aspects of  
 18 production, drilling, reservoir, and  
 19 engineering for the Terra Nova asset. As a  
 20 Newfoundlander, it creates pride in me to see  
 21 what our industry has created over the course  
 22 of the last 30 odd years. When I graduated in  
 23 1981, this was a dream that many would not  
 24 have felt would have been possible in their  
 25 careers. I sit here today knowing that I and

Page 27

1 my co-workers, both offshore and onshore, have  
 2 helped make a dream for a lot of  
 3 Newfoundlanders come true. I've spent a  
 4 number of years working offshore in various  
 5 places, and have flown numerous times of  
 6 helicopters in several jurisdictions. I have  
 7 flown offshore in excess of 75 times. I also  
 8 have a family member that continues to work a  
 9 regular rotation off the Grand Banks. There's  
 10 no question the loss of our colleagues on 491,  
 11 March 12th, has changed the way people view  
 12 our industry, and indeed it was a tragedy. I  
 13 hope through this inquiry that we learn and we  
 14 continue to assure ourselves, our co-workers,  
 15 and our families, that we are committed to  
 16 safety and the offshore is a safe place to  
 17 work. Thank you.  
 18 COMMISSIONER:  
 19 Q. Thank you.  
 20 MR. SACUTA:  
 21 A. Mr. Commissioner, my name is Paul Sacuta. I'm  
 22 currently the President of the Hibernia  
 23 Management and Development Company. I have  
 24 over 25 years experience in the oil and gas  
 25 business. After graduating from the

Page 28

1 University of Alberta with a Degree in  
 2 Chemical Engineering, I started my career in  
 3 Western Canada where I worked as a drilling  
 4 engineer and a facilities engineer at a number  
 5 of locations in Alberta. After seven years in  
 6 Western Canada, myself and my family moved to  
 7 the Island of Sumatra in the country of  
 8 Indonesia, where I spent five years working at  
 9 one of the world's largest onshore LUK  
 10 (phonetic) gas producing facilities.  
 11 Thereafter, my family and I moved to Doha,  
 12 Qatar, where I worked in various supervisory  
 13 level positions at a newly constructed LUK  
 14 Financial gas facility. In late 1998, my  
 15 family and I moved to St. John's to begin an  
 16 assignment on the Hibernia Platform. To say I  
 17 was thrilled would be an understatement. My  
 18 wife was born and raised in St. John's, so it  
 19 was a homecoming from my family's perspective,  
 20 and working on the Hibernia Platform was a  
 21 great opportunity from a career perspective.  
 22 I spent four and a half years working offshore  
 23 as a Production Supervisor, and lastly as the  
 24 Offshore Installation Manager. I worked a 21  
 25 day on and 21 day off rotation and stood

Page 29

1 beside a large number of personnel who  
 2 continue to work offshore today. In the  
 3 summer of 2003, I moved to an onshore  
 4 supervisory engineering position with  
 5 Hibernia. In 2005, I moved -- I was asked to  
 6 take a rotational assignment working in  
 7 Equatorial Guinea, West Africa, supervising  
 8 the operations of three offshore producing  
 9 facilities. During my time rotating back and  
 10 forth to West Africa, my family stayed in St.  
 11 John's, which was very important to me. In  
 12 2007, October of 2007, I returned to Hibernia  
 13 in my current position. In my career I've  
 14 flown on helicopters in Western Canada,  
 15 offshore California, the UK sector of the  
 16 North Sea, the Gulf of Mexico, West Africa,  
 17 Sable in Nova Scotia, and obviously I continue  
 18 to fly offshore today to the Hibernia  
 19 Platform. I would estimate I've taken well  
 20 over 100 helicopter flights during my career.  
 21 In my current role, I usually try to travel  
 22 offshore approximately 10 times per year, so I  
 23 have a personal interest in helicopter safety.  
 24 As the President of HMDC, I am responsible for  
 25 the safety of the entire Hibernia workforce,

Page 30

1 so I also have a professional interest in  
 2 helicopter safety. In the spirit of  
 3 continuous improvement, I'm here today to  
 4 support the work of the inquiry as we  
 5 collaborate to ensure we have reduced the risk  
 6 of helicopter transportation to as low as  
 7 reasonable practicable. Regardless of where  
 8 my career takes me in the future, this will  
 9 always be home for my family, and I have a  
 10 very high desire to see Newfoundland and  
 11 Labrador continue to prosper and grow. I  
 12 believe safe operations are critical to the  
 13 success of our industry.  
 14 COMMISSIONER:  
 15 Q. Thank you, gentlemen.  
 16 MR. SACUTA:  
 17 A. I'm going to do the presentation outline, if I  
 18 could, Mr. Roil.  
 19 ROIL, Q.C.:  
 20 Q. Yes, before that, I'm just going to say,  
 21 gentlemen, from time to time I may call upon  
 22 you to give us your opinion on something in  
 23 relation to your experience, so I'm glad that  
 24 we have that before us. Mr. Sacuta, I would  
 25 say just for the public and for the media,

Page 31

1 there is a glossary at the very back of your  
 2 presentation, which we perhaps won't go to and  
 3 spend any time with, but this industry, like  
 4 many in the world, are replete with acronyms,  
 5 so we'll try as much as possible to avoid  
 6 using them --  
 7 MR. SACUTA:  
 8 A. Absolutely, we'll try to use the full term  
 9 where we can. We may jump back to the acronym  
 10 at some points.  
 11 COMMISSIONER:  
 12 Q. One of the more difficult things when I  
 13 started to read about all this were the  
 14 acronyms everywhere.  
 15 MR. SACUTA:  
 16 A. Yes. As Mr. Roil mentioned, we've broken up  
 17 the presentation into 14 sections today, and  
 18 we will be splitting the responsibility to  
 19 discuss those sections throughout the next two  
 20 days. Section 1 will provide an introduction  
 21 to the concept of joint ventures, as well as  
 22 introduce us, the operators of the three  
 23 offshore Newfoundland producing facilities.  
 24 Section 2 will provide a brief overview of the  
 25 petroleum industry, discuss our unique

Page 32

1 environmental operating environment, and  
 2 provides a description of the offshore  
 3 producing facilities, a very brief  
 4 description. Section 3 will describe the  
 5 regulatory environment under which we operate,  
 6 as well as Cougar Helicopters. Sections 4 and  
 7 5 will describe the concept of safety  
 8 management systems which all of the operators  
 9 utilize, as well as safety participation and  
 10 communications, and how important they are to  
 11 us. Section 6 discusses the importance  
 12 operators place on contracted services. We  
 13 all use extensive contract personnel in our  
 14 facilities. Section 7 will discuss helicopter  
 15 operations in the Newfoundland area. Section  
 16 8 will discuss the personal protective  
 17 equipment related specifically to helicopter  
 18 transportation. Section 9 will review the  
 19 specific qualifications and training required  
 20 to work offshore. Section 10 discusses each  
 21 of the operator's emergency preparedness and  
 22 how it does interface with the Department of  
 23 National Defence. Section 11 discusses the  
 24 Department of National Defence search and  
 25 rescue capabilities and responsibilities.

Page 33

1 Section 12 discusses the work of a  
 2 Helicopter Operations Task Force which was put  
 3 in place by the area operators immediately  
 4 after the events of March 12th.  
 5 Section 13 will discuss the current  
 6 status of the follow-up recommendations which  
 7 were identified in the Helicopter Operations  
 8 Task Force Report. And lastly, we will have  
 9 some closing remarks.  
 10 ROIL, Q.C.:  
 11 Q. Good, thank you. Okay. Perhaps then you can  
 12 take us to slide number four.  
 13 MR. SACUTA:  
 14 A. As the introduction today, I will discuss the  
 15 concept of joint ventures, as well as identify  
 16 the operators of the three projects in the  
 17 Newfoundland area. Based on the financial  
 18 commitment required to obtain acreage, explore  
 19 and develop this acreage in an offshore  
 20 environment, companies frequently form joint  
 21 ventures. The companies participating in a  
 22 joint venture are often referred to as co-  
 23 venturers or partners. The term is  
 24 interchangeable. Each co-venturer's  
 25 respective ownership interest in the joint

Page 34

1 venture is based on the percentage of the  
 2 assets and liabilities each co-venturer holds  
 3 in the particular project. The rights and  
 4 obligations of the co-venturers are usually  
 5 governed by a joint operating agreement or a  
 6 JOA. Hibernia, Terra Nova and White Rose all  
 7 have joint operating agreements, the terms of  
 8 which are specific to each individual project.  
 9 As previously mentioned, Hibernia is  
 10 operated by the Hibernia Management and  
 11 Development Company or HMDC, which is a  
 12 separately incorporated company, the shares of  
 13 which are owned by the Hibernia co-venturers  
 14 or partners.  
 15 ROIL, Q.C.:  
 16 Q. Okay. So I take it that HMDC was a company  
 17 formed for the purpose of managing this  
 18 project?  
 19 MR. SACUTA:  
 20 A. Absolutely.  
 21 ROIL, Q.C.:  
 22 Q. Okay.  
 23 MR. SACUTA:  
 24 A. Terra Nova is operated by one of the project  
 25 co-venturers, Suncor, which at the time was

Page 35

1 PetroCanada and is now Suncor. The White Rose  
 2 is operated also by one of the project co-  
 3 venturers, Husky Energy.  
 4 ROIL, Q.C.:  
 5 Q. I take it we'll look at each project in a  
 6 little more detail a little later on?  
 7 MR. SACUTA:  
 8 A. Yes, we will.  
 9 ROIL, Q.C.:  
 10 Q. Good, okay.  
 11 MR. SACUTA:  
 12 A. We now have a short overview of the offshore  
 13 petroleum industry in the Newfoundland and  
 14 Labrador area.  
 15 Operations on the Grand Banks are exposed  
 16 to: wind speeds in excess of 100 knots, which  
 17 is approximately 190 kilometres per hour;  
 18 waves as high as 24 metres or approximately 75  
 19 feet; air temperatures as cold as minus 17  
 20 degrees Celsius; and sea water temperatures as  
 21 low as minus 2.4 degrees Celsius. It is one  
 22 of the harshest operating environments in the  
 23 world.  
 24 ROIL, Q.C.:  
 25 Q. I would actually stop you there and ask each

Page 36

1 one of you, in your own experience, either  
 2 personally or what you're aware of because of  
 3 your professional responsibilities, are you  
 4 aware of an environment anywhere in the world  
 5 where oil is extracted or explored that has  
 6 harsher environment than this particular one?  
 7 MR. SACUTA:  
 8 A. I think the combination of environmental  
 9 conditions under which we operate is one of  
 10 the most unique in the world. There are areas  
 11 that have certain aspects, but the combination  
 12 of the seas, the temperatures, and in the next  
 13 slide I'll talk a little bit about ice and  
 14 icebergs. It is very much a unique operating  
 15 environment.  
 16 ROIL, Q.C.:  
 17 Q. Either one of you other Gentlemen?  
 18 COMMISSIONER:  
 19 Q. If I may?  
 20 ROIL, Q.C.:  
 21 Q. Yes, absolutely.  
 22 COMMISSIONER:  
 23 Q. Just a question on that. What area of the  
 24 world would be closest to our offshore area,  
 25 in terms of harshness?

Page 37

1 MR. SACUTA:  
 2 A. I think two areas come to mind and I'll ask  
 3 the others, but I think Sokland Island in  
 4 Russia, similar environmental conditions, cold  
 5 weather and snow and ice, and then the North  
 6 Sea. Although the North Sea doesn't have the  
 7 same ice and iceberg issues to deal with, I  
 8 think the North Sea would be the other one.  
 9 COMMISSIONER:  
 10 Q. I see, and my understanding is that conditions  
 11 are somewhat different in the northern North  
 12 Sea than the southern part.  
 13 MR. SACUTA:  
 14 A. Yes, absolutely.  
 15 MR. VOKEY:  
 16 A. Off the Shetland Islands would probably be the  
 17 closest marine type of environment, in terms  
 18 of wind and wave. As Mr. Sacuta indicated,  
 19 they do not have the iceberg challenges that  
 20 we have.  
 21 MR. PRITCHARD:  
 22 A. I think the other important aspect is the  
 23 distance that we travel between -  
 24 COMMISSIONER:  
 25 Q. Yes.

Page 38

1 MR. PRITCHARD:  
 2 A. The kilometres over sea. Some areas will  
 3 travel that kind of distance, would have the  
 4 capability of going over land before going  
 5 over sea, so a unique combination here.  
 6 ROIL, Q.C.:  
 7 Q. Thank you. Okay, Mr. Sacuta.  
 8 MR. SACUTA:  
 9 A. As I mentioned, ice is a significant hazard  
 10 for the Grand Banks operators. The Jeanne  
 11 D'Arc Basin is located on the southern edge of  
 12 the marginal ice zone. Both sea ice and  
 13 icebergs are prevalent between March and May.  
 14 Ice and icebergs are considered in both the  
 15 design and operating strategies of all three  
 16 operators. Each operator does have an ice  
 17 management protocol in place. This includes  
 18 surveillance by aircraft and vessels. It  
 19 includes towing of icebergs using wire ropes  
 20 and nets. It also includes deflection using  
 21 our vessels using water cannons or prop wash.  
 22 That's really only effective on the smaller  
 23 icebergs, as opposed to the big ones. As I  
 24 mentioned, I think the combination of ice and  
 25 weather makes our operating environment

Page 39

1 unique.  
 2 ROIL, Q.C.:  
 3 Q. Okay. Is there anything about the individual  
 4 types of facilities, the GBS versus the FPSO,  
 5 and we'll learn a bit more about them, is  
 6 there anything about them that is impacted  
 7 differently because of ice?  
 8 MR. SACUTA:  
 9 A. I mean, we'll talk about it a little bit on  
 10 subsequent slides, but for example, the  
 11 Hibernia GBS was designed to withstand sea ice  
 12 and impact of icebergs, whereas the Terra Nova  
 13 and Sea Rose facilities aren't designed for an  
 14 impact.  
 15 ROIL, Q.C.:  
 16 Q. So they move in the event of ice?  
 17 MR. SACUTA:  
 18 A. They have different actions that they would  
 19 take based on the threat of prevailing ice or  
 20 icebergs.  
 21 ROIL, Q.C.:  
 22 Q. Perhaps we can get into that when we get onto  
 23 those particular slides.  
 24 MR. SACUTA:  
 25 A. In the offshore Newfoundland and Labrador

Page 40

1 area, there are currently three world class  
 2 producing facilities: Hibernia, Terra Nova and  
 3 the White Rose field. The Hebron oilfield is  
 4 in its early design phase, with an expected  
 5 start up of between 2016 and 2017. We  
 6 collectively employ over 3400 people between  
 7 offshore and onshore, and currently,  
 8 approximately 700 people are based on our  
 9 offshore facilities on any given day. This  
 10 does not include the Conoco rig which is  
 11 currently drilling offshore Newfoundland which  
 12 can have personnel on board as high as 180.  
 13 ROIL, Q.C.:  
 14 Q. Okay. Just getting to that again and to  
 15 remind ourselves, I see by the slide that you  
 16 have and by the grouping of the oilfields, the  
 17 little red dots, that they're actually  
 18 relatively close to one another, the three  
 19 facilities that you operate. In relation to  
 20 the three of you, whereabouts is the  
 21 ConocoPhillips process?  
 22 MR. SACUTA:  
 23 A. Conoco is not in the same direction at all.  
 24 It's on the southern --  
 25 MR. PRITCHARD:

Page 41

1 A. Southwest of Newfoundland.  
 2 ROIL, Q.C.:  
 3 Q. I think we have this diagram forward which  
 4 shows the Laurentian Basin being marked.  
 5 MR. SACUTA:  
 6 A. Yes, that's correct.  
 7 ROIL, Q.C.:  
 8 Q. And they're in that area?  
 9 MR. SACUTA:  
 10 A. Yes, that's correct, so opposite direction to  
 11 our flight path.  
 12 ROIL, Q.C.:  
 13 Q. Right, okay. You also heard me mention in  
 14 opening comments about StatoilHydro when they  
 15 were here earlier, or Statoil, I think they're  
 16 called now.  
 17 MR. SACUTA:  
 18 A. Right.  
 19 ROIL, Q.C.:  
 20 Q. When they were -- when they had their drilling  
 21 program, were they close to you or were they  
 22 somewhere else again?  
 23 MR. SACUTA:  
 24 A. They were farther out. Same direction, but  
 25 much farther out than where we were located.

Page 42

1 ROIL, Q.C.:  
 2 Q. Okay.  
 3 MR. SACUTA:  
 4 A. Hibernia was the first field to begin  
 5 production in the offshore Newfoundland area.  
 6 As discussed earlier, it is operated by the  
 7 Hibernia Management Development Company, which  
 8 is made up of six co-venturers, ExxonMobil,  
 9 Chevron, Suncor, Canada Hibernia Holding  
 10 Corporation, which is actually the Federal  
 11 Government. The Federal Government got  
 12 involved in the early '90s when Gulf Oil  
 13 backed out of the project. It includes Murphy  
 14 Oil and Statoil. The platform is located 315  
 15 kilometres offshore in a water depth of 80  
 16 metres and it was discovered in 1979 and  
 17 achieved first oil in November of 1997. So  
 18 you can see the length of time it took from  
 19 the initial discovery until the first oil was  
 20 approximately 18 years.  
 21 ROIL, Q.C.:  
 22 Q. That actual facility, as we show it there in  
 23 that diagram, that actually sits on the bottom  
 24 of the ocean floor, does it?  
 25 MR. SACUTA:

Page 43

1 A. That's correct. It's a gravity base structure  
 2 which is set on the ocean floor.  
 3 ROIL, Q.C.:  
 4 Q. Okay, and the depth in that area is  
 5 approximately 80 metres of water?  
 6 MR. SACUTA:  
 7 A. 80 metres of water.  
 8 ROIL, Q.C.:  
 9 Q. Yeah, okay.  
 10 MR. SACUTA:  
 11 A. The Hibernia platform, from the bottom of the  
 12 GBS to its highest point, the platform is  
 13 approximately 224 metres high. This is  
 14 equivalent to a 60-storey office building, to  
 15 put it in perspective. The platform weighs  
 16 approximately 1.2 million tons and has three  
 17 main components. The topsides, which includes  
 18 two drilling rigs, utility systems which  
 19 generate power and other essential services,  
 20 water, oil and gas handling facilities and  
 21 living accommodations for up to 280 personnel.  
 22 You can see the helideck on the southwest part  
 23 of the platform, just above the accommodations  
 24 module.  
 25 ROIL, Q.C.:

Page 44

1 Q. That's the green area with the circle on it?  
 2 MR. SACUTA:  
 3 A. The green area with the circle on it. The  
 4 second component is the gravity based concrete  
 5 structure. It's 85 metres high. It contains  
 6 two drilling shafts, one for each of the  
 7 individual drilling rigs. It also contains  
 8 the storage for the Hibernia platform,  
 9 approximately 1.3 million barrels of storage  
 10 capacity, and as I've mentioned, it's designed  
 11 to withstand the impact of sea ice and  
 12 icebergs.  
 13 Lastly, we have an offshore loading  
 14 system which we use to transfer oil from the  
 15 GBS to tankers for shipment to market or to  
 16 the Newfoundland Transshipment Terminal.  
 17 ROIL, Q.C.:  
 18 Q. Okay.  
 19 MR. SACUTA:  
 20 A. I'll be talking further about some of the  
 21 safety related features of the Hibernia  
 22 platform during the individual panel  
 23 presentations next week. I'd like now to hand  
 24 over to Mr. Vokey, if I could.  
 25 ROIL, Q.C.:

Page 45

1 Q. Before you do, you've indicated that there are  
 2 drilling rigs, two drilling rigs -  
 3 MR. SACUTA:  
 4 A. Yes.  
 5 ROIL, Q.C.:  
 6 Q. - that are a part of this particular facility.  
 7 MR. SACUTA:  
 8 A. That's correct.  
 9 ROIL, Q.C.:  
 10 Q. So drilling and production of oil both take  
 11 place from the same one facility?  
 12 MR. SACUTA:  
 13 A. That's correct. The design included two  
 14 drilling rigs. We currently operate one  
 15 drilling rig, but we jump back and forth  
 16 between the rigs as slots become available.  
 17 One of the rigs, the west rig, actually all  
 18 the slots, 32 drilling slots have been fully  
 19 drilled and in order for us to drill again  
 20 from that side of the rig, we actually have to  
 21 deplete a well and then we're able to reclaim  
 22 the well to then drill again from that rig.  
 23 So right now, we jump back and forth with a  
 24 single drilling through -- between the two  
 25 drilling rigs.

Page 46

1 ROIL, Q.C.:  
 2 Q. Okay. With those two activities, does that  
 3 mean that you would generally have more  
 4 persons on board at any one time?  
 5 MR. SACUTA:  
 6 A. Yes, our POB right now would average anywhere  
 7 between 220 and 250, depending on the activity  
 8 that's underway at the time.  
 9 ROIL, Q.C.:  
 10 Q. Okay. I think we're next going to go to Mr.  
 11 Vokey with respect to the Terra Nova facility.  
 12 MR. VOKEY:  
 13 A. I'll talk, Mr. Commissioner, a little bit  
 14 about Terra Nova. Terra Nova was the second  
 15 producing field in the Jeanne D'Arc Basin. It  
 16 was discovered in 1984 and work to bring this  
 17 into develop was formally sanctioned in 1997  
 18 and first oil was in 2002. PetroCanada, now  
 19 Suncor Energy, is the largest interest holder  
 20 in the field and is the operator. Partners in  
 21 the develop includes, you can see them there,  
 22 ExxonMobil, Statoil, Husky Energy, Murphy,  
 23 Mosbacher and Chevron Texaco.  
 24 The field is developed using a floating  
 25 storage and offloading vessel, which we call

Page 47

1 an FPSO. The FPSO is located in the centre of  
 2 our production field and is connected to the  
 3 subsea wellheads that are drilled, in the case  
 4 of Terra Nova, by a separate drilling unit.  
 5 The majority of the Terra Nova wells were  
 6 actually drilled by the MODU Henry Goodrich  
 7 from 2000 to 2007.  
 8 ROIL, Q.C.:  
 9 Q. Okay. Now you've just used a MODU. What's a  
 10 MODU?  
 11 MR. VOKEY:  
 12 A. Sorry. It's a mobile offshore drilling unit,  
 13 in this case, a semisubmersible, the Henry  
 14 Goodrich. So our wells are drilled by a  
 15 separate facility and then the wells are  
 16 actually tied back into the FPSO for  
 17 production.  
 18 The field, similar to Hibernia, is in  
 19 relatively shallow water. In the case of  
 20 Terra Nova, it's 90 to 100 metres, and our  
 21 subsea wellheads, because of the shallow water  
 22 depth, and it doesn't have the protection of  
 23 an ice wall, similar to Hibernia, they're in -  
 24 - those wellheads are in large excavations and  
 25 it's approximately 15 feet below the surface

Page 48

1 of the water and that's to protect the  
 2 wellheads in the event of icebergs, if they  
 3 come in and ground in that water depth, if  
 4 they do become mobile again, they won't drop  
 5 down and hit the wellhead. So it's a  
 6 mechanism for producing and protecting the  
 7 subsea wellheads.  
 8 Product on the FPSO is obtained from the  
 9 reservoir and is generally a mixture of oil,  
 10 gas and water and it comes onto the FPSO  
 11 through a series of flow lines. Once on  
 12 board, the products are separated. The oil is  
 13 cleaned. The gas is dried and reinjected and  
 14 any water that is produced is cleaned, all the  
 15 oil is taken out and it's discharged  
 16 overboard.  
 17 ROIL, Q.C.:  
 18 Q. So you say the gas is injected back into the  
 19 earth?  
 20 MR. VOKEY:  
 21 A. The gas is reinjected back into dedicated  
 22 wells and that is to help us keep pressure  
 23 maintenance in the wells, and there's also  
 24 water, seawater is injected also to keep the  
 25 pressure up so the oil will freely flow.

Page 49

1 The produced crude is offloaded, similar  
 2 to Hibernia and White Rose. It's offloaded to  
 3 purpose-built tankers. In the case of Terra  
 4 Nova, the oil goes directly, for the most  
 5 part, to Whiffen Head and then there's second  
 6 leg tankers that take it from there to various  
 7 markets on the Eastern Seaboard.  
 8 Like our counterparts at Hibernia and  
 9 White Rose, that diagram also shows a standby  
 10 or supply vessel and it shows a helicopter  
 11 there. As Mr. Pritchard indicated,  
 12 helicopters are the primary means of our  
 13 transportation for people offshore.  
 14 Terra Nova was the first purpose-built  
 15 FPSO for the east coast basin, and it's the  
 16 largest fully disconnectible FPSO in the world  
 17 today. In terms of dimensions, the vessel is  
 18 approximately 1,000 feet long or the  
 19 equivalent size of three football fields.  
 20 It's about 150 feet wide and from the bottom  
 21 of the vessel to the helideck, it's  
 22 approximately eight storeys. The additional  
 23 facility features, the vessel is ice classed.  
 24 Just -- the helideck is on the forward part of  
 25 the vessel and just about a third of the way

Page 50

1 back -- it's not a good depiction there.  
 2 We'll show it better in the Suncor -- but it's  
 3 what we refer to as the turret and that part  
 4 of the vessel is actually linked to the sea  
 5 floor and the vessel will rotate around it,  
 6 depending on wind and current. So that part  
 7 of the vessel is linked right to the sea  
 8 floor. Other features of the FPSO is we have  
 9 our own power generation. We can store  
 10 upwards just under a million barrels of oil,  
 11 and in terms of the facilities, the  
 12 accommodations, Terra Nova was originally  
 13 designed with 80 beds. During a major  
 14 maintenance outage in 2006, an additional 40  
 15 beds were added. So during normal operations,  
 16 we have capacity upwards of 120 beds for use.  
 17 Approximately 75 percent of the people  
 18 that work on the Terra Nova FPSO work a  
 19 regular 21-day-on and 21-day-off rotation.  
 20 The rest are what we refer to as ad-hoc  
 21 personnel who come out for various periods of  
 22 time, depending on what their work scope is.  
 23 ROIL, Q.C.:  
 24 Q. Okay. That's fine, thank you.  
 25 MR. VOKEY:

Page 51

1 A. If there's no questions, I'll turn it over to  
 2 Mr. Pritchard.  
 3 ROIL, Q.C.:  
 4 Q. Yeah.  
 5 MR. PRITCHARD:  
 6 A. Husky has been involved on the east coast of  
 7 Canada for over 25 years and the original  
 8 White Rose field was discovered in 1984 and  
 9 Husky and Suncor, they're the joint venture  
 10 partners in the core White Rose. Now Nalcor  
 11 Energy is a partner with us in the North  
 12 Amethyst, which is a new area and a new  
 13 tieback to the FPSO. So Nalcor Energy has a  
 14 five percent stake in this new development.  
 15 We currently have four glory holes and  
 16 these glory holes are the excavations that Mr.  
 17 Vokey spoke to regarding protection of the  
 18 subsea equipment. So we operate with four,  
 19 three of which are associated with oil  
 20 production, water injection and gas lift and  
 21 the northern drill centre is for the gas  
 22 reinjection.  
 23 Very much like the Terra Nova facility,  
 24 Mr. Vokey has described how it operates and  
 25 how it works. The Sea Rose facility is very,

Page 52

1 very similar. So I'll go through some of the  
 2 subtle differences, rather than go across  
 3 where its similar.  
 4 ROIL, Q.C.:  
 5 Q. Yeah, I think particularly the differences,  
 6 particularly as they relate to helicopters  
 7 would be important.  
 8 MR. PRITCHARD:  
 9 A. Absolutely.  
 10 ROIL, Q.C.:  
 11 Q. Thank you.  
 12 MR. PRITCHARD:  
 13 A. So one of the differences, the accommodation  
 14 is at the stern of the vessel, very much like  
 15 a tanker orientated vessel, and we have the  
 16 helideck above the accommodation and slightly  
 17 off to the port side, the left side.  
 18 ROIL, Q.C.:  
 19 Q. Okay. So as we look at that photograph there,  
 20 you see the -- actually, you see a photograph  
 21 I guess of a helicopter either standing or  
 22 about to land.  
 23 MR. PRITCHARD:  
 24 A. It's just about to land, I believe, and you  
 25 can see that there's a little bit of an



Page 53

1 overhang of the helideck on the installation  
 2 to the port side.  
 3 ROIL, Q.C.:  
 4 Q. So it's to the rear of the ship, as opposed to  
 5 on the bow, and it's slightly set off to the  
 6 port side?  
 7 MR. PRITCHARD:  
 8 A. That's correct.  
 9 ROIL, Q.C.:  
 10 Q. Okay.  
 11 MR. PRITCHARD:  
 12 A. We also offload to the offload tankers from  
 13 the stern of the vessel. You can see a large  
 14 reel on the back end. That's how we offload  
 15 our oil. We also have a disconnectible turret  
 16 system, similar to the Terra Nova. So in the  
 17 event of icebergs that we are unable to  
 18 manage, we have the facilities to move away.  
 19 The Sea Rose is also different in respect  
 20 of it is a weather vaning FPSO.  
 21 ROIL, Q.C.:  
 22 Q. What does weather vaning mean?  
 23 MR. PRITCHARD:  
 24 A. The weather vaning is such that we will move  
 25 and turn wherever the wind and the current

Page 54

1 would take the vessel. So we end up as a big  
 2 sail and we'll simply revolve around. The  
 3 Terra Nova asset has thrusters that would  
 4 assist them to do heading control. So if they  
 5 wish to orientate themselves in a particular  
 6 way, they have that facility.  
 7 We have a maximum person on board, POB,  
 8 of 90 and they generally work a three-and-  
 9 three rotation.  
 10 Some of our development wells were  
 11 predrilled prior to the arrival of the Sea  
 12 Rose on site. So very similar in the Terra  
 13 Nova asset, predrills in the glory holes prior  
 14 to the Sea Rose coming and getting hooked up  
 15 with the flow lines to start production.  
 16 ROIL, Q.C.:  
 17 Q. Okay, and that drilling is done by other  
 18 facilities, other semisubmersibles or other  
 19 drill ships?  
 20 MR. PRITCHARD:  
 21 A. That's correct, and my next section actually  
 22 just describes a little bit about the various  
 23 styles and types of drilling activities.  
 24 So along with the production operations  
 25 from the three mentioned producing assets,

Page 55

1 there's also a drilling program that would be  
 2 executed from a variety of vessels and  
 3 structures. The drilling programs are  
 4 associated with exploration, initial finding  
 5 of oil, delineation and appraisal of those  
 6 finds and any water injection or gas injection  
 7 or gas lift that we need to be associated  
 8 with. So we see on the slides there, the  
 9 variety. There's four different types there  
 10 and we see the jack-up rig to the left, and  
 11 that attaches itself to the seabed with legs  
 12 and is a fixed structure there. It has  
 13 limited capabilities in the Newfoundland land  
 14 because of the ice and the iceberg situation,  
 15 so it has a limited period, around from June  
 16 to November time, that that type of facility  
 17 can be used.  
 18 ROIL, Q.C.:  
 19 Q. Okay. Do jack-up or have jack-up rigs ever  
 20 been used in Newfoundland?  
 21 MR. PRITCHARD:  
 22 A. Yes, indeed. We used the Rowan Gorilla 6 in  
 23 2006.  
 24 ROIL, Q.C.:  
 25 Q. And would that have a helideck or a facility

Page 56

1 for landing helicopters on board?  
 2 MR. PRITCHARD:  
 3 A. Absolutely. All of these drilling  
 4 arrangements have helidecks associated with  
 5 them. All these activities require people and  
 6 therefore people require transportation, hence  
 7 the slide deck here for the different types.  
 8 So the next picture there shows us a  
 9 semisubmersible or a mobile offshore drilling  
 10 unit, a MODU we would describe it. The next  
 11 picture is shown to be a drill ship and that's  
 12 currently the style of vessel that  
 13 ConocoPhillips are using down in the  
 14 Laurentian Basin. And of course, the Hibernia  
 15 is a fixed structure. Mr. Sacuta has  
 16 indicated how their drilling program works.  
 17 So all of these activities require  
 18 people, generally purpose-built for drilling  
 19 activities and therefore we need helicopter  
 20 transportation for these facilities.  
 21 ROIL, Q.C.:  
 22 Q. And I take it that because these rigs travel  
 23 all over the world that generally helicopters  
 24 are the preferred means of transport to  
 25 offshore facilities in other places in the

Page 57

1 world?

2 MR. PRITCHARD:

3 A. Yes, indeed. So in support of the production

4 operations and drilling activities and any

5 project-related vessels, because we do also

6 bring in, from time to time, project-related

7 vessels that do have helidecks as well, to get

8 those project personnel to and fro, there's a

9 suite of logistical support craft and offload

10 tankers. This slide shows the resources that

11 we have and later we'll be discussing a little

12 bit about the sharing activities that we have.

13 It should be noted that it appears as if

14 Husky Energy operates quite a number of the

15 resources and assets and that's simply because

16 we are currently the operators of the GSF

17 Grand Banks and the Henry Goodrich as the two

18 drilling operations that would be underway

19 currently.

20 ROIL, Q.C.:

21 Q. So that is in support of three separate

22 facilities?

23 MR. PRITCHARD:

24 A. That's in support of three separate

25 facilities, that's correct. Each, of course,

Page 58

1 have a dedicated standby vessel. We've

2 indicated that each facility should have a

3 dedicated standby vessel, so you see the

4 number of standby vessels there. The shuttle

5 tankers that we see is that Husky Energy

6 utilizes the two shuttle tankers that we have

7 to go direct to market, and not necessarily

8 using the NTL terminal. So our shuttle

9 tankers would be more directed to market.

10 ROIL, Q.C.:

11 Q. So the two Knutson named vessels go to market.

12 The other three go to the -

13 MR. PRITCHARD:

14 A. Generally speaking, that is the arrangement.

15 MR. SACUTA:

16 A. The other three do have the opportunity,

17 depending on the time and inventories, we do

18 occasionally send one of our tankers direct to

19 market as well, but the majority of them do go

20 to the Newfoundland Transshipment terminal.

21 MR. PRITCHARD:

22 A. Okay. That's the end of this particular

23 section.

24 ROIL, Q.C.:

25 Q. And the three helicopters and how they are

Page 59

1 used and shared, we'll get onto in a lot more

2 detail as we go through. Okay, Mr. Sacuta,

3 we'll continue, I think, for the next little

4 while. We'll have a break about quarter to

5 11.

6 MR. SACUTA:

7 A. Okay. Operators in the Newfoundland and

8 Labrador area work in one of the most highly

9 regulated regions in the world. In all the

10 areas of the world that I've worked, I would

11 say it's the most regulated. I can't say it's

12 the most regulated everywhere, but certainly

13 in any of the areas that I've ever worked,

14 it's the most regulated. So on the next

15 section of slides, I'll be talking a little

16 bit about some of the regulatory requirements.

17 The operator of each offshore project is,

18 as previously discussed, either one of the co-

19 venturers, such as Suncor or Husky, or a

20 separately incorporated company, such as HMDC.

21 They are appointed by the co-venturers to

22 conduct the project operations within the

23 scope of the authority conferred by the joint

24 operating agreement. They're provided with

25 oversight and direction by a management

Page 60

1 committee, usually made up of the

2 representatives of the individual co-

3 venturers. They're responsible for the health

4 and safety of personnel and also for

5 legislative and regulatory compliance on

6 behalf of the co-venturers.

7 ROIL, Q.C.:

8 Q. When you refer to management committee, would

9 that be akin to a board of directors, if it

10 was a single company operation? Is that the

11 nature -

12 MR. SACUTA:

13 A. Akin, in Hibernia's case, responsible to

14 Hibernia Executive Committee, which is made up

15 of representatives from each of the co-

16 venturers, for example.

17 ROIL, Q.C.:

18 Q. Again, I think we can hear more about the

19 details of that in the individual

20 presentations.

21 MR. SACUTA:

22 A. In the individual panels, that's correct.

23 ROIL, Q.C.:

24 Q. Okay, good.

25 MR. SACUTA:

Page 61

1 A. This slide outlines that the C-NLOPB has  
 2 jurisdiction over petroleum operations in the  
 3 Newfoundland and Labrador offshore area. The  
 4 guidelines respecting drilling programs  
 5 contains specific references related to  
 6 helicopter operations. However, helicopter  
 7 operations are under the jurisdiction of  
 8 Transport Canada, which has been previously  
 9 testified at this Inquiry. The interface  
 10 between the two regulatory regimes occurs  
 11 between the operators and Cougar Helicopters.  
 12 ROIL, Q.C.:  
 13 Q. Although the C-NLOPB actually has, as we'll  
 14 see I think later, statements about what  
 15 things should be on a helicopter and how a  
 16 helicopter should be equipped?  
 17 MR. SACUTA:  
 18 A. That's correct.  
 19 ROIL, Q.C.:  
 20 Q. Okay. So how does that work in terms of  
 21 Transport Canada?  
 22 MR. SACUTA:  
 23 A. The requirements are regulatory in nature. So  
 24 it's up to the operators to meet those  
 25 requirements.

Page 62

1 ROIL, Q.C.:  
 2 Q. Okay.  
 3 MR. SACUTA:  
 4 A. But Cougar Helicopters is basically regulated  
 5 by Transport Canada and receive all their  
 6 approvals through Transport Canada, not  
 7 through the C-NLOPB.  
 8 ROIL, Q.C.:  
 9 Q. Okay. So they get -- I see, so go back to  
 10 your slide then.  
 11 MR. SACUTA:  
 12 A. Yeah.  
 13 ROIL, Q.C.:  
 14 Q. They get their direction, in terms of  
 15 operations, from Transport Canada?  
 16 MR. SACUTA:  
 17 A. Correct.  
 18 ROIL, Q.C.:  
 19 Q. You get yours from the C-NLOPB?  
 20 MR. SACUTA:  
 21 A. Correct.  
 22 ROIL, Q.C.:  
 23 Q. And then how you interact with them is how it  
 24 gets -  
 25 MR. SACUTA:

Page 63

1 A. That's right. We have regulatory requirements  
 2 that we'll expect Cougar to meet, and Cougar  
 3 has regulatory requirements to Transport  
 4 Canada in them providing services to the  
 5 operators.  
 6 ROIL, Q.C.:  
 7 Q. Right, okay, thank you.  
 8 MR. SACUTA:  
 9 A. Under the Canada Newfoundland Atlantic Accord  
 10 Implementation Act, no one can carry out work  
 11 or activity related to the exploration or  
 12 drilling for the production and conservation,  
 13 processing or transportation of any petroleum  
 14 in the offshore area unless they hold an  
 15 operating license which has been issued by the  
 16 C-NLOPB and they hold a work authorization  
 17 issued by the C-NLOPB. The Board shall,  
 18 before issuing an authorization for work or  
 19 activity, consider the safety of that work or  
 20 activity. It's important to note that the  
 21 Board may suspend or revoke any operating  
 22 license or work authorization for non-  
 23 compliance of the regulations.  
 24 ROIL, Q.C.:  
 25 Q. Okay, just stop you there. You talked

Page 64

1 earlier, all three of you, about drilling and  
 2 production. So do I take it that before you  
 3 drill, you have to get a license. Before you  
 4 produce, you have to get a license. You might  
 5 get two at the same time, but there are  
 6 licenses all over the place.  
 7 MR. SACUTA:  
 8 A. Absolutely. There's a slide further on that  
 9 talks about the various operations,  
 10 authorizations and various authorizations that  
 11 you're expected to obtain prior to doing those  
 12 activities.  
 13 ROIL, Q.C.:  
 14 Q. Good, okay.  
 15 MR. SACUTA:  
 16 A. It's also important to mention that a non-  
 17 compliance is considered an offense.  
 18 ROIL, Q.C.:  
 19 Q. What happens in terms of breach of an offence  
 20 or -  
 21 MR. SACUTA:  
 22 A. There is -  
 23 ROIL, Q.C.:  
 24 Q. - if there is even an offence?  
 25 MR. SACUTA:

Page 65

1 A. There is a possibility you could be fined, for  
 2 example.  
 3 ROIL, Q.C.:  
 4 Q. Are there possible personal consequences on  
 5 senior management representatives?  
 6 MR. SACUTA:  
 7 A. Absolutely.  
 8 ROIL, Q.C.:  
 9 Q. Okay.  
 10 MR. SACUTA:  
 11 A. There are numerous active regulations that the  
 12 Board has jurisdiction over. They include:  
 13 the certificate of fitness regulations;  
 14 petroleum installation regulations; drilling  
 15 regulations; the production and conservation  
 16 regulations; in order to complete any diving  
 17 activities in the area, you have to have --  
 18 follow the diving regulations; the  
 19 Occupational Health and Safety regulations,  
 20 which are in draft currently; and then the  
 21 geophysical operations. Access to all of  
 22 these regulations can be found on the Board's  
 23 website.  
 24 ROIL, Q.C.:  
 25 Q. Okay. Just as an item that has come up

Page 66

1 before, and I'm sure it will come up again,  
 2 does the fact that the occupational health and  
 3 safety regulations, does the fact that they  
 4 are only in draft have any real impact on you  
 5 or your company -- I'd ask all three of you to  
 6 answer -- in terms of your operations?  
 7 MR. SACUTA:  
 8 A. Absolutely not. We're still expected to meet  
 9 the regulations. The fact that they're in  
 10 draft does not have any impact on how we treat  
 11 them or the fact that we are measured against  
 12 those that are identified in the draft  
 13 regulations.  
 14 ROIL, Q.C.:  
 15 Q. Mr. Pritchard?  
 16 MR. PRITCHARD:  
 17 A. It's on the certification that we get from the  
 18 Board.  
 19 ROIL, Q.C.:  
 20 Q. I'm sorry?  
 21 MR. PRITCHARD:  
 22 A. They're enforceable because they're on the  
 23 license that we get from the Board.  
 24 ROIL, Q.C.:  
 25 Q. Yes.

Page 67

1 MR. PRITCHARD:  
 2 A. So they apply them in that manner.  
 3 ROIL, Q.C.:  
 4 Q. So if you don't comply with them -  
 5 MR. PRITCHARD:  
 6 A. There's an authorization that comes along with  
 7 the guidelines.  
 8 ROIL, Q.C.:  
 9 Q. Yes, okay. Mr. Vokey?  
 10 MR. VOKEY:  
 11 A. Same for Suncor.  
 12 ROIL, Q.C.:  
 13 Q. Same for Suncor.  
 14 MR. VOKEY:  
 15 A. Whether it's a draft, whether it's a  
 16 regulation or a guideline, all is applicable.  
 17 To us, they're the rules.  
 18 ROIL, Q.C.:  
 19 Q. Okay, and they're made the rules by virtue of  
 20 being a condition of your licenses?  
 21 MR. PRITCHARD:  
 22 A. Correct.  
 23 ROIL, Q.C.:  
 24 Q. Or authorizations.  
 25 MR. SACUTA:

Page 68

1 A. Yeah. As a matter of fact, if you didn't  
 2 comply with the guidelines, you wouldn't get  
 3 your authorization.  
 4 ROIL, Q.C.:  
 5 Q. And you need your authorization before you can  
 6 do any work?  
 7 MR. SACUTA:  
 8 A. Before you can do any work.  
 9 ROIL, Q.C.:  
 10 Q. Right, okay.  
 11 MR. SACUTA:  
 12 A. There are also a number of other guidelines  
 13 which include the safety plan guidelines,  
 14 drilling program guidelines, reporting and  
 15 investigation of safety related incidents,  
 16 physical environmental programs, expectations  
 17 guidelines and the geophysical geological  
 18 environmental and geotechnical guidelines.  
 19 Mr. Commissioner, I'd like to take this  
 20 opportunity to inform you that effective  
 21 December 31st, 2009, the Board has introduced  
 22 new goal-based, new goal-oriented offshore  
 23 petroleum drilling and production regulations.  
 24 The Board has also posted the following  
 25 documents to eight operators in understanding

Page 69

1 the new regulatory requirements, which  
 2 includes a draft drilling and production  
 3 guideline, a draft safety plan guideline, a  
 4 draft environmental protection plan guideline,  
 5 and a draft data acquisition and reporting  
 6 guideline. The draft guidelines will be  
 7 issued for a one-year trial basis and will be  
 8 revised as necessary during this period, based  
 9 on the feedback and experience gained from  
 10 their use. Any of us that already have  
 11 current authorizations do not have to meet the  
 12 new guidelines, but during the next renewal  
 13 process, we will have to meet the new goal-  
 14 oriented guidelines.  
 15 ROIL, Q.C.:  
 16 Q. And I think in their evidence, they indicated  
 17 that there was some move in that direction.  
 18 So I guess what you're telling us is it has  
 19 now happened?  
 20 MR. SACUTA:  
 21 A. It has now happened. We received a letter  
 22 dated December 23rd identifying that it would  
 23 be in place December 31st of last year.  
 24 ROIL, Q.C.:  
 25 Q. Okay. Well, we'll certainly get copies of

Page 70

1 that from the C-NLOPB representatives. Thank  
 2 you.  
 3 MR. SACUTA:  
 4 A. There's also other guidance that's related to  
 5 helicopter operations which operators are  
 6 exposed to when operating in the Newfoundland  
 7 area. These include: the helicopter passenger  
 8 transportation suit system guidelines;  
 9 Transport Canada's guidelines respecting  
 10 helicopter facilities on ships; TP, which  
 11 stands for Transport Publication 4414, which  
 12 the offshore helidecks are designed to, and  
 13 I'll talk a little further about the  
 14 regulatory requirements for inspection of  
 15 helidecks; the UK Civil Aviation Authority's  
 16 offshore helicopter landing areas, which  
 17 provides guidance on standards which is  
 18 CAP437. CAP stands for Civil Aviation  
 19 Publication. There is quite an interface  
 20 between the North Sea and ourselves and we do  
 21 quite often reference and look at that CAP437  
 22 guideline if there's changes made.  
 23 ROIL, Q.C.:  
 24 Q. Okay, and that CAP437 has nothing to do with  
 25 the organization called CAPP?

Page 71

1 MR. SACUTA:  
 2 A. That's correct. It's Civil Aviation Authority  
 3 and it's the Civil Aviation publication.  
 4 ROIL, Q.C.:  
 5 Q. In the UK?  
 6 MR. SACUTA:  
 7 A. In the UK.  
 8 ROIL, Q.C.:  
 9 Q. Yes, okay.  
 10 MR. SACUTA:  
 11 A. And then lastly, the Atlantic Canada Offshore  
 12 Petroleum Industry, the standard practice for  
 13 training and qualifications of personnel, and  
 14 this was produced by CAPP, the CAPP, Canadian  
 15 Association of Petroleum Producers.  
 16 ROIL, Q.C.:  
 17 Q. Okay. We're going to take a break at this  
 18 point, but before we do, you've used the  
 19 expression guidance and guidelines and  
 20 regulations.  
 21 MR. SACUTA:  
 22 A. Yes.  
 23 ROIL, Q.C.:  
 24 Q. To an oil operator, to a senior executive of  
 25 an oil company, are these guidances simply

Page 72

1 hints and suggestions that what you should do  
 2 or do they have really a higher level of  
 3 direction to you?  
 4 MR. SACUTA:  
 5 A. They have a higher level of direction because  
 6 quite often when we're issued an operations  
 7 authorization or any authorization, there are  
 8 expectations the Board places on us that we  
 9 meet the guidelines and when the authorization  
 10 is issued, it's very specific that you shall  
 11 meet these guidelines. Although they're  
 12 called a guideline, the Board enforces them  
 13 through their authorization process.  
 14 ROIL, Q.C.:  
 15 Q. And then they become a requirement?  
 16 MR. SACUTA:  
 17 A. They become a requirement, as a term for you  
 18 receiving whatever authorization you've  
 19 requested.  
 20 ROIL, Q.C.:  
 21 Q. Okay. That might be as good a place as any  
 22 for us to take our morning break, Mr.  
 23 Commissioner.  
 24 COMMISSIONER:  
 25 Q. Yes, okay then. Take 15 minutes.

Page 73

1 (BREAK)

2 ROIL, Q.C.:

3 Q. Thank you, Commissioner. Mr. Sacuta, I think

4 you're still responsible for the next few

5 pages, so keep going, please.

6 MR. SACUTA:

7 A. Okay. Work authorizations issued by the C-

8 NLOPB or the Board specify: the type of

9 operation which is permitted; the vessels or

10 installations authorized to conduct that work;

11 the time period for the work to be completed;

12 and the conditions pertaining to the

13 authorization.

14 ROIL, Q.C.:

15 Q. Okay. So what happens if you do something

16 different, bring a different facility in, take

17 longer or do something differently?

18 MR. SACUTA:

19 A. Each time you do that, you would have to get

20 an authorization from the Board. If you were

21 to bring in a new drilling rig to do a

22 drilling activity, you would have to get an

23 authorization for that activity.

24 ROIL, Q.C.:

25 Q. Okay. And even though you're doing the same

Page 74

1 drilling but with a different ship or

2 different drill ship -

3 MR. SACUTA:

4 A. That's correct.

5 ROIL, Q.C.:

6 Q. - you have to go back again?

7 MR. SACUTA:

8 A. Correct.

9 ROIL, Q.C.:

10 Q. Okay.

11 MR. SACUTA:

12 A. The production operations authorization or the

13 operations authorization and other required

14 authorizations are issued by the Board to each

15 operator prior to commencement of the said

16 operations and they are normally renewed every

17 three years.

18 ROIL, Q.C.:

19 Q. Okay. Would some authorizations be for a

20 shorter period?

21 MR. SACUTA:

22 A. You may have a short term drilling program

23 that only requires an authorization for a

24 shorter period than three years, for example.

25 ROIL, Q.C.:

Page 75

1 Q. Yes. So if you said you were doing -

2 MR. SACUTA:

3 A. Or a diving program.

4 ROIL, Q.C.:

5 Q. If you said you were -

6 MR. SACUTA:

7 A. Diving is another good example.

8 ROIL, Q.C.:

9 Q. Yeah, diving. If you were doing diving for

10 three months, you would only ask for the three

11 months, would you?

12 MR. SACUTA:

13 A. Yes, that's correct.

14 ROIL, Q.C.:

15 Q. Okay.

16 MR. SACUTA:

17 A. So this slide shows various work activities

18 which require authorizations. I'm not going

19 to step through them all, but you can see on

20 the left-hand side, there's a number of

21 activities that would require an

22 authorization. On the right-hand side of the

23 graph or of the slide are any of the

24 requirements associated with actually

25 obtaining the authorization, the types of

Page 76

1 things you would have to submit to get the

2 authorization. The safety plan box has been

3 highlighted because I'm going to discuss it a

4 little bit further in the next set of slides,

5 because the safety plan is one of the specific

6 things that is related to helicopter

7 transportation.

8 ROIL, Q.C.:

9 Q. So if you're doing a diving program, you need

10 a safety plan?

11 MR. SACUTA:

12 A. Correct.

13 ROIL, Q.C.:

14 Q. If you're doing a construction and

15 installation program, you need a safety plan?

16 MR. SACUTA:

17 A. That's correct.

18 ROIL, Q.C.:

19 Q. So each time you do one of these things -

20 MR. SACUTA:

21 A. Each time you do any of the activities on the

22 left side of this slide, you require a safety

23 plan.

24 ROIL, Q.C.:

25 Q. Okay, thank you.

Page 77

1 MR. SACUTA:  
 2 A. So the Board's Chief Safety Officer shall  
 3 approve the safety plan and authorization is  
 4 only granted to an operator if the safety plan  
 5 is deemed acceptable by the Board. The  
 6 operator must demonstrate to the Board that  
 7 the approved management system and safety plan  
 8 effectively identifies, assesses and controls  
 9 risk posed to a worker or to worker health and  
 10 safety, including the safe transport to and  
 11 from the installation. The safety plan which  
 12 is re-submitted and revalidated every three  
 13 years evolves as an integral component of a  
 14 continuously improving safety management  
 15 system. So for the three operators on a  
 16 three-yearly basis, and sometimes more  
 17 frequently than that if we make changes to our  
 18 safety plan, but at a minimum every three  
 19 years, we have to reissue the safety plan to  
 20 the Board for their approval.  
 21 ROIL, Q.C.:  
 22 Q. Mr. Sacuta, and to the others, my question. I  
 23 think all three of you, I hope all three of  
 24 you were here when the C-NLOPB gave its  
 25 evidence, when Mr. Andrews particularly said

Page 78

1 "the Board is not primarily responsible for  
 2 the safety of offshore workers. The operators  
 3 are." Do you accept that as the  
 4 responsibility?  
 5 MR. SACUTA:  
 6 A. Absolutely. We are responsible for the safety  
 7 of our workforce.  
 8 ROIL, Q.C.:  
 9 Q. All three of you agree with that?  
 10 MR. VOKEY:  
 11 A. That's correct.  
 12 MR. PRITCHARD:  
 13 A. Absolutely.  
 14 MR. SACUTA:  
 15 A. As a direct quote out of the safety plan  
 16 guidelines, the safety plan guidelines state  
 17 "the safety plan must clearly show how safety  
 18 management fits within the overall system of  
 19 management. It should define the roles of and  
 20 relationships between the operator's executive  
 21 level management personnel and the various  
 22 line and staff functions in achieving safety  
 23 related goals and objectives." This is a  
 24 direct quote out of the safety plan  
 25 guidelines.

Page 79

1 ROIL, Q.C.:  
 2 Q. Okay. So when we look at the safety plans for  
 3 each of you in your individual presentations  
 4 later this week and month, or this month  
 5 really, we should be looking to see that it  
 6 complies with this?  
 7 MR. SACUTA:  
 8 A. Correct.  
 9 ROIL, Q.C.:  
 10 Q. Okay.  
 11 MR. SACUTA:  
 12 A. So the safety plan highlights the management  
 13 systems and processes for safe operations in  
 14 the offshore area which includes helicopter  
 15 operations. The components of a safety plan  
 16 include written policies, programs and  
 17 procedures in the following items: safety  
 18 management, a basis of safe operations and the  
 19 design, your organizational structure, the  
 20 authorities and the command structure, hazard  
 21 and risk identification and assessment,  
 22 facilities and equipment on board your  
 23 installation, how you operate and maintain  
 24 those facilities, the training and  
 25 qualifications required, the command structure

Page 80

1 and any contingency planning, and it also has  
 2 a requirement on physical environmental  
 3 monitoring, weather monitoring, for example.  
 4 There are multiple references specific to  
 5 helicopter operations under the work  
 6 authorizations issued by the Board. They  
 7 include the following: the safety plan  
 8 guidelines references contingency planning,  
 9 the need for a standby helicopter, the need  
 10 for flight following and vessel watch, and  
 11 mutual aid agreements between operators.  
 12 ROIL, Q.C.:  
 13 Q. What are mutual aid agreements?  
 14 MR. SACUTA:  
 15 A. Mutual aid agreements would be an agreement  
 16 between the three operators that we would  
 17 share resources as required during an  
 18 emergency situation, for example.  
 19 ROIL, Q.C.:  
 20 Q. And do you have such agreements?  
 21 MR. SACUTA:  
 22 A. We do.  
 23 ROIL, Q.C.:  
 24 Q. Okay, and have they ever been called into  
 25 play?

Page 81

1 MR. SACUTA:  
 2 A. We have called them into play. Whenever we've  
 3 had situations that require one of us to  
 4 support the other, one of the operators can  
 5 contact the other and request assistance,  
 6 whether it's vessels or any other resources  
 7 that they have available.  
 8 Next, the petroleum installation  
 9 regulations has specific references to  
 10 immersion suits and the helideck design  
 11 requirements. Petroleum geophysical  
 12 regulations also has references to the  
 13 helideck design and transportation suits. The  
 14 draft OSH regulations, helicopter  
 15 transportation suits specifically referenced,  
 16 and in the drilling regulations, the drilling  
 17 program guidelines, helicopter passenger  
 18 transportation suits. So you can see that  
 19 there are a number of references in the  
 20 various regulations and guidelines associated  
 21 with helicopter transportation and the  
 22 requirements for transportation suits.  
 23 ROIL, Q.C.:  
 24 Q. Okay. The fact that helicopter transportation  
 25 suits, for example, or helideck design, as

Page 82

1 another example, fits within more than one of  
 2 the regulations, does that create any  
 3 duplicity or any operational challenges for  
 4 you?  
 5 MR. SACUTA:  
 6 A. Not from my perspective.  
 7 MR. PRITCHARD:  
 8 A. No, we just assess each individual  
 9 requirement.  
 10 ROIL, Q.C.:  
 11 Q. So where, for example, petroleum installation  
 12 regulations don't make specific reference to a  
 13 helicopter passenger transportation suit,  
 14 would there still be -- if you were simply  
 15 looking for a permit under the -- well, could  
 16 you look for a permit under the petroleum  
 17 installation regulations that would not  
 18 involve the use of helicopters?  
 19 MR. SACUTA:  
 20 A. The Board would hold you to the standards in  
 21 the other regulations. You would not be able  
 22 to say "well, we're making an application  
 23 under the installation regulations, so we  
 24 don't need to have helicopter transportation  
 25 suits."

Page 83

1 ROIL, Q.C.:  
 2 Q. No.  
 3 MR. SACUTA:  
 4 A. That would never be allowed by the Board.  
 5 ROIL, Q.C.:  
 6 Q. Okay, and that's what I was looking for. Are  
 7 there any cracks there that need to be filled?  
 8 MR. SACUTA:  
 9 A. Absolutely not.  
 10 ROIL, Q.C.:  
 11 Q. Okay, thank you.  
 12 MR. SACUTA:  
 13 A. The Board conducts an annual audit and three  
 14 quarterly inspections per year. They can also  
 15 complete ad-hoc inspections, if required. An  
 16 example could be after an incident offshore.  
 17 The Board may determine an ad-hoc visit may be  
 18 required or appropriate to evaluate the  
 19 operator's response and follow up. During  
 20 these visits, the Board has full access to all  
 21 personnel on board the facility.  
 22 ROIL, Q.C.:  
 23 Q. Now these audits you're talking about are not  
 24 focused entirely on helicopter operations, are  
 25 they?

Page 84

1 MR. SACUTA:  
 2 A. No. They're an audit to measure you against  
 3 your commitments in your safety plans, to  
 4 measure you against the regulations, that  
 5 you're meeting all the regulations that the  
 6 Board governs. So it's an audit of your  
 7 compliance with the regulations and the  
 8 commitments in your safety plan. But the  
 9 Board also has the opportunity, as I  
 10 mentioned, to do these independent or ad-hoc  
 11 if there's a situation that would warrant them  
 12 coming offshore. So there's just not four  
 13 visits a year when the Board -- the Board can  
 14 come out as many times as they deem fit to  
 15 come to our installations.  
 16 ROIL, Q.C.:  
 17 Q. And in your experience, do they come out on an  
 18 ad-hoc basis?  
 19 MR. SACUTA:  
 20 A. Absolutely. The scope of the Board's audit,  
 21 as I mentioned, and inspections is to monitor  
 22 compliance with the regulations, any  
 23 commitments or requirements at the time you  
 24 receive your authorization or your approval,  
 25 any conditions of that approval. They may put



Page 85

1 conditions for compliance. They'll certainly  
 2 monitor you against your own safety plan and  
 3 your environmental plan commitments, as well  
 4 as monitoring that you have an incident  
 5 management process.  
 6 Transport Canada surveys are normally  
 7 delegated to the certifying authority.  
 8 ROIL, Q.C.:  
 9 Q. Now stop, sorry.  
 10 MR. SACUTA:  
 11 A. Yes.  
 12 ROIL, Q.C.:  
 13 Q. Transport Canada surveys of what?  
 14 MR. SACUTA:  
 15 A. Transport Canada surveys of the helideck.  
 16 ROIL, Q.C.:  
 17 Q. Ah, okay.  
 18 MR. SACUTA:  
 19 A. Are designated under the delegated statutory  
 20 inspection program. They will periodically  
 21 conduct monitoring surveys of the certifying  
 22 authority. So they do do a cross check to  
 23 make sure that the certifying authority is  
 24 doing what they're supposed to do as part of  
 25 that delegation.

Page 86

1 ROIL, Q.C.:  
 2 Q. Okay, and I think your next slide talks about  
 3 who the certifying authorities are.  
 4 MR. SACUTA:  
 5 A. That's correct. So the Atlantic Accord Act  
 6 requires that each production, drilling,  
 7 diving and accommodations installation have a  
 8 valid certificate of fitness, which has been  
 9 issued by a recognized certifying authority  
 10 before the Board can authorize an activity in  
 11 the offshore area. Each of the three offshore  
 12 installations has a certifying authority  
 13 involved in their respective business. Both  
 14 Hibernia and Terra Nova use Lloyd's Register  
 15 out of the UK and White Rose uses DNV. Each  
 16 certifying authority certifies, inspects and  
 17 audits each facility. Audits inspections are  
 18 scheduled quarterly and if required, special  
 19 visits can occur. If there's a situation  
 20 where you've had some issue that's occurred on  
 21 your facility that requires the certifying  
 22 authority to make a special visit to ensure  
 23 that your certificate of fitness still remains  
 24 valid, they will do that.  
 25 ROIL, Q.C.:

Page 87

1 Q. Okay. So the Hibernia gravity base structure  
 2 has been certified by Lloyd's Register?  
 3 MR. SACUTA:  
 4 A. They are our certifying authority and they  
 5 have granted us our certificate of fitness.  
 6 That's correct.  
 7 ROIL, Q.C.:  
 8 Q. And they are a worldwide certifying authority?  
 9 MR. SACUTA:  
 10 A. They are worldwide, that certifies very many  
 11 offshore petroleum installations.  
 12 ROIL, Q.C.:  
 13 Q. Okay, and by way of another example then, the  
 14 White Rose facility is a DNV facility?  
 15 MR. SACUTA:  
 16 A. That's correct, another certifying authority,  
 17 just -  
 18 ROIL, Q.C.:  
 19 Q. Yes.  
 20 MR. SACUTA:  
 21 A. Yeah, that's correct.  
 22 ROIL, Q.C.:  
 23 Q. Okay. If there was a drill ship that was --  
 24 are there any other certifying authorities in  
 25 the world that might certify a GBS, an FPSO or

Page 88

1 a MODU or some sort of a drill ship? Is there  
 2 any other possible -  
 3 MR. SACUTA:  
 4 A. There is ABS.  
 5 MR. VOKEY:  
 6 A. The American Bureau of Shipping.  
 7 MR. SACUTA:  
 8 A. American Bureau of Shipping.  
 9 ROIL, Q.C.:  
 10 Q. American Bureau of Shipping. So if a ship  
 11 came in that was certified by the American  
 12 Bureau of Shipping, that would be another  
 13 delegated authority, would it?  
 14 MR. SACUTA:  
 15 A. Correct. So the role of the certifying  
 16 authority is to provide certification of a  
 17 unit in accordance with the Board's  
 18 regulations. The certifying authority  
 19 provides an independent third party evaluation  
 20 of regulatory compliance and fitness for  
 21 purpose. The intent of the certification is  
 22 to provide assurance that the installation  
 23 during the term of the certificate is fit for  
 24 purpose and remains in compliance with the  
 25 regulations. Before issuing a certificate of

Page 89

1 fitness, the certifying authority must be  
 2 satisfied that the installation is designed  
 3 and constructed in accordance with the  
 4 regulations, is fit for the intended purpose  
 5 and can be safely operated without polluting  
 6 the environment and will remain fit when  
 7 maintained in accordance with the approved  
 8 inspection and monitoring maintenance and  
 9 weight control programs.  
 10 ROIL, Q.C.:  
 11 Q. Now, as I take it, Mr. Sacuta, the certifying  
 12 authority actually certifies the entire  
 13 installation.  
 14 MR. SACUTA:  
 15 A. That's correct.  
 16 ROIL, Q.C.:  
 17 Q. But for our purposes, it is -- in terms of its  
 18 totality of the installation, it is  
 19 responsible for the helideck portion as well?  
 20 MR. SACUTA:  
 21 A. That's correct.  
 22 ROIL, Q.C.:  
 23 Q. Okay.  
 24 MR. SACUTA:  
 25 A. Based on the delegation from Transport Canada.

Page 90

1 ROIL, Q.C.:  
 2 Q. Other aspects of its work are important to  
 3 other people, but not perhaps our focus here.  
 4 MR. SACUTA:  
 5 A. Absolutely. So I'd like to talk a little bit  
 6 about the delegated statutory inspection  
 7 program I mentioned earlier. Transport Canada  
 8 has signed formal agreements covering the  
 9 delegation of statutory inspection and  
 10 certification functions under the Canada  
 11 Shipping Act to specific recognized  
 12 organizations or ROs. For the FPSOs, both  
 13 Lloyds and DNV are identified as ROs and have  
 14 been delegated by Transport Canada to perform  
 15 surveys and issue certificates. Lloyd's  
 16 Register of Shipping was delegated on December  
 17 4th, 2000 and DNV on April 22nd of 2002. The  
 18 certifying authority is involved in ensuring  
 19 that the helidecks on each installation  
 20 conform to Transport Canada Transport  
 21 Publication 4414. It is important to note  
 22 that this delegation does not cover marine  
 23 occupational safe and health, the safety  
 24 manning levels, radio installation, the  
 25 requirements for radio installation, the

Page 91

1 shipboard oil pollution emergency plan, and  
 2 accident investigations, which are still  
 3 maintained by Transport Canada.  
 4 ROIL, Q.C.:  
 5 Q. Okay. So Transport Canada delegates out some  
 6 but continues to do personally or accept  
 7 within itself responsibility for others?  
 8 MR. SACUTA:  
 9 A. Correct.  
 10 ROIL, Q.C.:  
 11 Q. Okay, we're now moving -  
 12 MR. SACUTA:  
 13 A. At this point, we're going to move on.  
 14 ROIL, Q.C.:  
 15 Q. - to safety management, and I think Mr.  
 16 Pritchard is going to take over.  
 17 MR. PRITCHARD:  
 18 A. I am, indeed. Safety offshore is the  
 19 responsibility of the operators. You may hear  
 20 me use the phrase line management  
 21 responsibility. Safety is line management  
 22 responsibility. This takes the intent of the  
 23 CEO and the top executives through to everyone  
 24 working at tasks at the work site, and I will  
 25 go through a structure in future slides to

Page 92

1 show how that works. It just shows that  
 2 everyone has a role to play in safety.  
 3 I'll be discussing three key areas of  
 4 people, processes and equipment, by which we  
 5 can create barriers to prevent incidents and  
 6 continuously look for improvements in all  
 7 three areas. There are various means of  
 8 feedback that allows us to progress  
 9 improvements. That might be maintenance  
 10 reviews, process document reviews, safety  
 11 alerts that would improve people's  
 12 understanding and potentially add that into  
 13 the training. So we look for that continuous  
 14 improvement via that level of feedback or  
 15 perhaps the JOHS recommendations.  
 16 Industry has been developing its  
 17 management hazards and risk management for  
 18 many years and uses a state of the art risk  
 19 management system. They're not all identical,  
 20 however, the principles remain the same, and  
 21 whilst we only have three producing assets  
 22 working on the Grand Banks, we do have major  
 23 world players involved at that management  
 24 committee level that we discussed a little bit  
 25 earlier. So we have many operating companies

Page 93

1 with many years experience being able to give  
 2 feedback and input to how our operations work,  
 3 bringing best practices from around the world  
 4 to our operations.  
 5 Our safety focus is about people and  
 6 commitment. It's about commitment to your  
 7 spouse, your partner, children or  
 8 grandchildren and your team members. It's all  
 9 about behaviours and reactions to those  
 10 responsibilities that we have. People must  
 11 work as a team and remain vigilant as we  
 12 progress through our day-to-day activities and  
 13 just understand how things are moving and  
 14 changing, and I'll move on with that a little  
 15 bit later when I talk to the Swiss cheese  
 16 slice model that we used previously in  
 17 testimony here. So people need to know what  
 18 they are accountable for. It's really about  
 19 what we are doing today, here at the Inquiry,  
 20 and what we plan for tomorrow that's going to  
 21 make a difference to safety in the future.  
 22 Now this, I've introduced the equipment,  
 23 processes and people. These are the areas  
 24 that we can create barriers with. So during  
 25 any large project, you know, a large or small

Page 94

1 type of project, they're three categories that  
 2 we can manage risk with and reduce the risk.  
 3 It's the people that play a significant  
 4 role in all areas of that equipment, processes  
 5 and people. So from an equipment point of  
 6 view, it's the people that do the design.  
 7 It's the people that produce the processes and  
 8 have input and feedback to that, and from the  
 9 people's point of view, in this slide here,  
 10 it's about leadership and accountability,  
 11 attitudes and behaviours that all contributes  
 12 to the reduction of the risk.  
 13 ROIL, Q.C.:  
 14 Q. Okay. So I take it that while you've got  
 15 people, processes and equipment separated,  
 16 they are, in fact, interconnected because  
 17 people are involved with all aspects of  
 18 designing equipment, designing processes?  
 19 MR. PRITCHARD:  
 20 A. Absolutely, and I'd like to kind of step  
 21 through a bit of example there to give an  
 22 understanding of how that integration works.  
 23 ROIL, Q.C.:  
 24 Q. Yeah, please do.  
 25 MR. PRITCHARD:

Page 95

1 A. So I want to discuss helideck operations and  
 2 perhaps fuelling of helicopters. So at a  
 3 project concept, you need to select that  
 4 you're going to, you know, have a helideck,  
 5 what type of operation it's going to be.  
 6 Whether it be a GBS or an FPSO, we need a  
 7 helideck to transport people to and from.  
 8 There's many factors that would influence that  
 9 decision, whether it's at the front end of an  
 10 FPSO or at the stern of the FPSO, but no  
 11 matter, we need a helideck. Once decided, we  
 12 need to consider the operational aspects of  
 13 the location, and then we work with the  
 14 engineering designs, the standards, and the  
 15 legislation in order to engineer the correct  
 16 helideck facilities. So during that time, we  
 17 need to use our engineering capabilities and  
 18 we usually work with eliminating hazards,  
 19 controlling hazards, mitigating hazards and  
 20 have a measure of recovery should be if the  
 21 mitigations fail.  
 22 So in the context of this, we need to  
 23 consider the helideck and we need to refuel.  
 24 So if we have a bulk fuel storage system  
 25 located close to the helideck, that will

Page 96

1 create a potential hazard if a hard landing of  
 2 a helicopter should occur. So we should  
 3 eliminate that bulk fuel storage area and move  
 4 it somewhere else. We would then, of course,  
 5 need to assess if the movement of that storage  
 6 creates another hazard somewhere else, but  
 7 nonetheless, we should move it away from the  
 8 helideck area.  
 9 In terms of control, we should control  
 10 that heli-refuelling system by having the  
 11 correct standards of pipe work and equipment  
 12 and fit-for-purpose equipment to manage that  
 13 fuel to the helideck. And in terms of  
 14 mitigations, we should be able to mitigate by  
 15 having the appropriate trained people on the  
 16 maintenance issues applied to the systems to  
 17 ensure fit for purpose.  
 18 So where we've got to there, and then, of  
 19 course, we should have a means of recovery.  
 20 Should all of those elements fail in some way,  
 21 we should have a means of recovery, and so  
 22 even in engineering design, we have a means of  
 23 recovery by funding around the area. We have  
 24 firefighting systems. We have trained,  
 25 competent people working the helideck and

Page 97

1 therefore we have a means of recovery.  
 2 The training and competence of the  
 3 people. So a special ingredient to safety  
 4 management is, of course, measuring and  
 5 monitoring. So the measuring and monitoring  
 6 of the people is compliance to the training  
 7 matrix. We also look at the maintenance  
 8 issues and we look for compliance against  
 9 maintenance to ensure our equipment is fit for  
 10 purpose and we also have our documentation  
 11 reviews to make sure our processes are  
 12 controlled correctly.  
 13 So to reduce the risk to an acceptable  
 14 level, we have well-designed equipment,  
 15 correct procedures, operated by motivated  
 16 people with the right attitude and the  
 17 training competence. So we can see there the  
 18 integration of how the equipment design, the  
 19 processes that we use, both in terms of  
 20 maintenance and operations, and the attitude  
 21 of the people all need to come together there  
 22 from concept selection at the very front end  
 23 and operational use, as we use it on a day-to-  
 24 day basis.  
 25 So each operator's management system may

Page 98

1 look slightly different. However, they all  
 2 have goal setting, planning and performance  
 3 measures, have a systematic method of ensuring  
 4 work is conducted in a safe, environmentally  
 5 responsible manner. The structure of the  
 6 safety management system starts with a high  
 7 level policy that sets out the intent of the  
 8 company and the chief executive officers and  
 9 top level executives and it cascades in a more  
 10 comprehensive and explicit terms as it reaches  
 11 the workforce where the work is carried out.  
 12 So from the intent of the policy, which make a  
 13 statement that, you know, work should be  
 14 performed safely, the procedures are developed  
 15 and for this analogy, I'd like to use the  
 16 entry into a bulk fuel system, so the helideck  
 17 bulk fuel system that I had previously  
 18 described we should move away from the  
 19 helideck area. We still have maintenance and  
 20 inspection to carry out there.  
 21 So looking to the policy, the high level  
 22 policy stating that we should work safely, we  
 23 have procedures, and I'll talk to the permit-  
 24 to-work procedure as being this particular  
 25 procedure in the cascade effect.

Page 99

1 ROIL, Q.C.:  
 2 Q. So yeah, just slow us down a little bit here,  
 3 so that we all follow with you. So this is a  
 4 descending responsibility, starting at the  
 5 highest of management, in terms of setting  
 6 policies, and then we cascade down to  
 7 procedures that must comply with the policies.  
 8 Is that the way it works?  
 9 MR. PRITCHARD:  
 10 A. That's exactly the way it works. So we've got  
 11 a high level statement from the CEO, and all  
 12 companies would have that high level policy  
 13 statement, and now we'll work to a procedure  
 14 that would apply the intent of the policy  
 15 statement. So to work safely is an intent  
 16 from the CEO. We have, just one I'm going to  
 17 choose here is the permit-to-work procedure,  
 18 and I'll follow that through in an analogy  
 19 shortly as well.  
 20 ROIL, Q.C.:  
 21 Q. Okay.  
 22 MR. PRITCHARD:  
 23 A. So the permit-to-work procedure is in support  
 24 of the policy statement of safe work. The  
 25 permit is a procedure to ensure hazards for

Page 100

1 the entire scope have been identified and  
 2 controls are in place to manage all the  
 3 associated risks. The system experts and  
 4 workers involved in the task and sometimes not  
 5 necessarily workers involved in the task, but  
 6 some other individual can be associated with  
 7 the review of the hazard identification and  
 8 mitigations. This review is -- once that  
 9 review is completed, it's also reviewed by the  
 10 on board supervision. So one part of the  
 11 scope is obviously to enter the tank and  
 12 there's a generic safe work practice now, so  
 13 narrowed down to a practice or a generic tank  
 14 entry. So the permit would recognize that we  
 15 have to enter the tank and now we work to the  
 16 generic safe confined space entry. There will  
 17 be more specific work instructions that  
 18 describe the specific nature of inspection and  
 19 requirements of this specific tank and it  
 20 would identify any further requirements  
 21 associated with that tank entry. So we're now  
 22 at the work instruction level.  
 23 There would also be a checklist to ensure  
 24 that all of the mitigations that apply to this  
 25 particular tank entry are in fact completed.

Page 101

1 So once you identify it, we need to ensure  
 2 that it's complied with and we need a  
 3 checklist to do that. Then we work with any  
 4 special arrangements that are identified and  
 5 controlled accordingly and we might find this  
 6 from the drawings that are associated with  
 7 this particular vessel. So we'll get more  
 8 information from the drawings and forms and  
 9 the forms issue is regarding the recording of  
 10 the thickness measurement, if that was what  
 11 the requirement was, the scope to enter the  
 12 tank and make a thickness measurement, for  
 13 instance. So we're now into the forms and  
 14 we've discussed there the drawings.  
 15 So we can see there the hierarchial  
 16 structure from policy intent, procedures that  
 17 we work with, I'll say generic practices,  
 18 specific work instructions, the checklist that  
 19 we would use to perform the work, and any  
 20 forms that we need to make, any recordings,  
 21 and of course, the drawings that are  
 22 associated with the specific work, and that's  
 23 what we see in the right-hand slide of this  
 24 slide.  
 25 ROIL, Q.C.:

Page 102

1 Q. So can we conclude then, if we looked at any  
 2 one of your individual safety management  
 3 systems and we looked at any particular  
 4 activity, we should be able to see this kind  
 5 of cascading going on. Perhaps not all of it  
 6 would get down to the level of drawings, but -  
 7 MR. PRITCHARD:  
 8 A. Generally drawings would be probably there,  
 9 but not necessarily the forms, for instance.  
 10 You know, if it's not recordings, if you don't  
 11 have it purely down to that level for whatever  
 12 the work scope would be, but in a general  
 13 sense, you would see all of those principles  
 14 applied.  
 15 So the next slide is regarding hazard  
 16 identification and mitigations and hazard  
 17 identification is a very important step in  
 18 ensuring safety at the workplace. If you do  
 19 not identify the hazards and associated risk  
 20 then you are unable to mitigate against the  
 21 effect of that. Effective hazard  
 22 identification and mitigation requires the  
 23 involvement, not only of the subject matter  
 24 experts, but also a diverse group that is  
 25 brought together to discuss the full scope and

Page 103

1 understand what the hazards and potential  
 2 mitigation measures would be. There's no such  
 3 thing as don't question it in this group here  
 4 because any question stimulates conversation  
 5 and it's conversation and discussion around  
 6 what the work scope is about and the hazards  
 7 involved and the mitigations that we look  
 8 towards.  
 9 So this slide shows us some of the tools  
 10 that we might use for hazard identification.  
 11 Now this is not the full suite of tools, but  
 12 just an example of the types of tools that we  
 13 might use.  
 14 ROIL, Q.C.:  
 15 Q. Okay, but would each of these tools be used  
 16 every time or only some in certain fact  
 17 situations?  
 18 MR. PRITCHARD:  
 19 A. Only some in certain situations, and once  
 20 again, if I could just potentially step you  
 21 through an analogy to how we might use some of  
 22 these tools and who would use the tools in  
 23 certain situations.  
 24 So a typical scope of work using some of  
 25 the tools, let's say we're going to change out

Page 104

1 the jet fuel pumps. So once again, we're at  
 2 the helideck and the fuel transfer system and  
 3 we want to change out this particular pump. A  
 4 permit to work would be raised and that would  
 5 identify the full scope of the work.  
 6 ROIL, Q.C.:  
 7 Q. Who raises the permit to work? Is that  
 8 somebody in management?  
 9 MR. PRITCHARD:  
 10 A. It would come up on a maintenance card. Then  
 11 the, I'll call the area authority might raise  
 12 that scope or it might be the lead mechanic.  
 13 Many people can raise permit to works  
 14 associated with the planned work of the day or  
 15 in fact, we would plan that work beforehand,  
 16 so the permit to work would actually start  
 17 potentially a few days before the scope would  
 18 actually be executed.  
 19 ROIL, Q.C.:  
 20 Q. Yeah. So the answer would be that the  
 21 appropriate person might be at different  
 22 levels of the organization, depending on what  
 23 it was you were going to do?  
 24 MR. PRITCHARD:  
 25 A. Correct.

Page 105

1 ROIL, Q.C.:

2 Q. Okay.

3 MR. PRITCHARD:

4 A. So the scope of the work would identify the

5 pump itself. So we have tag numbers so we can

6 physically identify the pump itself and the

7 location that it's at, and the safe job

8 analysis would then step through the scope,

9 identifying the hazards. So we've got the top

10 one there, the safe job analysis, and we would

11 look there towards the hazards of, say,

12 electricity, jet fuel, the weight of the pump,

13 perhaps an exposed location or working at

14 height. All of those hazards are reviewed and

15 identified and then we mitigate against those

16 hazards. I should rather say here that it's

17 the -- we mitigate against the hazardous

18 event. Height might be recognized as a

19 hazard, but it's actually fall from height

20 which is the event that you should need to

21 associate with.

22 ROIL, Q.C.:

23 Q. Okay. And who does the safe job analysis?

24 Again, what persons or levels of persons are

25 involved in that process?

Page 106

1 MR. PRITCHARD:

2 A. It pretty much depends on the complexity of

3 the work scope itself. So if we have a very

4 complex operation, we may actually perform a

5 process hazardous analysis or analysis onshore

6 and we may feed that to the offshore group to

7 get their input and there would be a combined

8 effect there for a large scope job to ensure

9 that the full scope is identified, all the

10 hazards are identified and the correct

11 mitigations are in place to allow us to go

12 forward with that scope. But in general, day-

13 to-day activities, the offshore workforce deal

14 with the safe job analysis at site. Certainly

15 the onshore group cannot stand alone produce a

16 risk assessment that would be applied

17 offshore. There's local conditions and local

18 knowledge that needs to be applied on each

19 occasion. So bigger scope supported by

20 onshore. The day-to-day activities are more

21 associated with the offshore workforce.

22 So the permit would be issued. Having

23 identified all the hazards and put in place

24 all the mitigations, we issue the permit, and

25 before the job starts, we would have a toolbox

Page 107

1 talk and that toolbox talk is associated with

2 the group of workers that are about to perform

3 the task and we review all of the hazards that

4 have been identified and what the mitigation

5 factors are during the toolbox talk. So we

6 usually have a leader of the work team that

7 would perform that duty.

8 ROIL, Q.C.:

9 Q. Again, would that be at the rank and file

10 offshore worker or is it up at management?

11 What's the level of engagement here?

12 MR. PRITCHARD:

13 A. Normally the team leaders can be the

14 discipline leads or it can indeed just be one

15 of the workforce themselves. Usually somebody

16 who's, you know, very familiar with the

17 systems, comfortable with the scope and the

18 supervision on board and comfortable that he

19 will be the lead for that scope.

20 So during the year, the course of the

21 work scope and perhaps an audit of the permit-

22 to-work system would be applied. Now not all

23 tasks will have an audit performed on them, so

24 we monitor our permit-to-work system by doing

25 audits, but not every -- every task is not

Page 108

1 audited. This will determine compliance to

2 the permit-to-work procedures, the practices

3 and work instructions. So the permit will

4 look at those activities and ensure that they

5 are in compliance. Also through the course of

6 this work, perhaps a behavioural observation

7 may be made by anyone. In our individual

8 operator's panel, we will go into each

9 individual operator's ways and means of doing

10 behavioural observations, but this is just an

11 opportunity for someone to reflect on how the

12 operation is going, perhaps look for areas of

13 improvement or indeed just say, you know, this

14 job is going extremely well and give the work

15 team a pat on the back for a job well done.

16 So that's the type of feedback that the

17 workforce get from the behavioural observation

18 program.

19 So the next slide continues with risk

20 management. Effective risk management

21 requires that persistent application and

22 continuous improvement of the safety

23 management processes to reduce risk to as low

24 as may be practical. The philosophy of how

25 projects develop has already been discussed in

Page 109

1 terms of eliminating any hazards, controlling  
 2 the hazards, mitigate against hazards and  
 3 provide a means of recovery if situations  
 4 develop. To do this, hazards need to be  
 5 identified for all situations and evaluated  
 6 with consideration as to the likelihood of  
 7 such hazards becoming a reality and the  
 8 associated consequence, what can be done to  
 9 reduce the risk by either reducing the  
 10 likelihood or the consequence. So this can be  
 11 in the form of the equipment design, the  
 12 procedures or the people. So we see once  
 13 again those three categories that I described  
 14 earlier.  
 15 We also need to determine how practical  
 16 the new measures may be and if they are  
 17 reasonable, efficient, then we need to track  
 18 the implementation of that plan to a  
 19 conclusion. So we need to establish the  
 20 hazards, the mitigations, and then plan to  
 21 ensure they are installed.  
 22 So the next slide is a typical risk  
 23 matrix and it's used for the process of  
 24 determining risk. We do it initially without  
 25 any mitigations and then we look to what the

Page 110

1 mitigation effect would be. So when we  
 2 identify a hazard, we say what would the  
 3 effect of that and the likelihood and then  
 4 when we apply our mitigations, we also look  
 5 towards the matrix to see what improvements we  
 6 have made by virtue of the risk matrix. So  
 7 the likelihood and consequence axis.  
 8 ROIL, Q.C.:  
 9 Q. I think we saw a similar risk matrix in the  
 10 Aerosafe presentation.  
 11 MR. PRITCHARD:  
 12 A. I'm pretty sure, yes, that's correct. It's  
 13 very widely used in the -- certainly our  
 14 industry and I believe the aviation industry.  
 15 ROIL, Q.C.:  
 16 Q. This isn't a new invention of the offshore of  
 17 Newfoundland or the offshore industry anywhere  
 18 in the world?  
 19 MR. PRITCHARD:  
 20 A. No, not at all.  
 21 ROIL, Q.C.:  
 22 Q. And I gather the objective is to plot your  
 23 risks and then take steps to bring those risks  
 24 out of the red and into the green as much as  
 25 possible?

Page 111

1 MR. PRITCHARD:  
 2 A. Absolutely. That's the intent of it. So we  
 3 can apply some mitigations in some places and  
 4 then recognize that the job still needs to  
 5 have further mitigations or to do the job a  
 6 different way, if we consider that the risk  
 7 which is the consequence and likelihood  
 8 elements are not suitable.  
 9 ROIL, Q.C.:  
 10 Q. What do you do when you have an activity that  
 11 presents a likelihood of being frequent and a  
 12 consequence of being high? In other words,  
 13 it's going to happen and the consequences are  
 14 going to be dramatic and you can't move it,  
 15 what do you do?  
 16 MR. PRITCHARD:  
 17 A. We have to do something different and we  
 18 either engineer something different or take a  
 19 totally different approach, if we can't  
 20 achieve, through various means of mitigations  
 21 to bring that back into the green or yellow  
 22 sectors.  
 23 ROIL, Q.C.:  
 24 Q. Have you ever -- I don't know if you've ever  
 25 run into a situation where you plan to do a

Page 112

1 certain activity and then just found we can't  
 2 do it because it's too risky and we're going  
 3 to have to do something different entirely?  
 4 MR. PRITCHARD:  
 5 A. Yes, we have, and I can't give you that great  
 6 example, but I do know from time to time when  
 7 we would do the risk assessments, we say no,  
 8 we've got to stop here, pull back, reassess  
 9 and potentially do something different.  
 10 ROIL, Q.C.:  
 11 Q. Okay. Perhaps during the lunch break, if you  
 12 want to have another reflection on an example  
 13 of that, where that's happened to either one  
 14 of you, that would be fine.  
 15 MR. PRITCHARD:  
 16 A. I will do.  
 17 ROIL, Q.C.:  
 18 Q. Yeah, okay.  
 19 MR. PRITCHARD:  
 20 A. So once this is a five, five, five risk matrix  
 21 square -- it could be a seven by seven, people  
 22 can expand this type of risk matrix tool to  
 23 their own use, but what it does do is it  
 24 allows for a consistent approach that is  
 25 documented that would allow people to

Page 113

1 understand why the risk has been reduced, how  
 2 it's been reduced and why the job would be  
 3 allowed to go ahead or not, as the case may  
 4 be. The hazard is identified, the likelihood  
 5 of that hazardous event occurring and the  
 6 consequence of that event is what we are  
 7 looking for.

8 So we've seen from the previous slides  
 9 that it's the people, process and equipment  
 10 that have the potential to create the barriers  
 11 from hazardous events. So we see once again  
 12 here the Swiss cheese slice model with  
 13 equipment, process and people. Now we've  
 14 shown two slices of cheese per kind of  
 15 category there, but obviously we can have many  
 16 more barriers in each of the categories and  
 17 the more barriers you have, that should be  
 18 applied.

19 ROIL, Q.C.:

20 Q. So the best example would see many equipment  
 21 defences, many process defences, and many  
 22 people defences?

23 MR. PRITCHARD:

24 A. That's exactly right, yes. We would look to  
 25 have as many, but for this model, we looked at

Page 114

1 this. So this slide takes us back to the  
 2 potential barriers we can create and what  
 3 happens if the barriers are not robust and an  
 4 incident occurs or we come through the holes  
 5 in the cheese slices.

6 It should be noted that the holes in the  
 7 cheese are constantly moving, both in relative  
 8 terms to each other and in physical size, and  
 9 I'll give you some examples as to why that  
 10 happens and what we should be vigilant about.

11 ROIL, Q.C.:

12 Q. Okay. So Swiss cheese is not an ideal analogy  
 13 because Swiss cheese, the holes are always the  
 14 same once you have the piece of cheese. What  
 15 you're saying is here everything is dynamic,  
 16 is it?

17 MR. PRITCHARD:

18 A. Yes, the holes in the cheese when they're  
 19 lined up, people can get a concept that you  
 20 have a barrier and if you have the barrier,  
 21 the incident arrow doesn't pass through. But  
 22 when you put the barrier in place or the hole  
 23 is lined up that something can physically move  
 24 through. But in real terms, those holes are  
 25 moving in dimensions both relative to each

Page 115

1 other and in physical size.

2 So as an analogy for this, I'd like to  
 3 consider the performance of the installation  
 4 fire foam system on the helideck. So for foam  
 5 to be discharged on the helideck should we  
 6 have an incident, we need fire water from the  
 7 fire pumps. So the fire pumps are designed to  
 8 discharge a certain volume of water and by  
 9 maintenance routines, we measure and monitor  
 10 on a regular basis how much the pumps  
 11 discharge. So if a pump is brand new and we  
 12 get a good consistence, perhaps a little bit  
 13 more than manufacturer's expectations from the  
 14 pumps, perhaps the hole in the cheese would be  
 15 relatively small. As time goes on and the  
 16 pump wears a little, then perhaps the hole in  
 17 the cheese grows a little bit more, and if we  
 18 get to the point of having less water from the  
 19 pump than the expected requirements for the  
 20 foam, making of the foam, then certainly the  
 21 hole in the cheese gets a lot wider.

22 The fire pumps have, by design, certain  
 23 features that would protect the fire system,  
 24 because we need the availability of the pumps.  
 25 So we need to do maintenance on the pump, so

Page 116

1 we have maintenance processes that would  
 2 ensure availability and also, by design, we  
 3 have multiple number of fire pumps to give us  
 4 that availability and redundancy built in.

5 The quality of the foam dispensed is also  
 6 checked on a regular basis and so therefore  
 7 there's a tolerance to the quality of the  
 8 foam. So once again, we can see if the foam  
 9 quality is not quite there. If it's good,  
 10 then the hole in the cheese would be  
 11 relatively small. If it's getting to the edge  
 12 of the tolerance, perhaps opening up, and if  
 13 it's beyond tolerance, then the hole in the  
 14 cheese opens a little bit wider.

15 The helideck team, so this is the people  
 16 side of it now, the helideck team have trained  
 17 for events through refresher courses and, you  
 18 know, perhaps if we have a well-trained  
 19 helideck team that have just been for  
 20 refresher and have worked as a team for many  
 21 years together, we could consider the hole in  
 22 the cheese a little bit smaller. However, if  
 23 we've got a relatively new team awaiting that  
 24 refresher course, then perhaps the hole in the  
 25 cheese could open up slightly more.



Page 117

1 So as you can see, there's a myriad of  
 2 ways and means that the holes in the cheese  
 3 can open and close and in relative terms  
 4 together, they have some movement. So it's  
 5 only when the barriers all break down that we  
 6 would have an incident.  
 7 At all junctures, you would recognize  
 8 that if it's perhaps people, and they are the  
 9 most important aspect to this, they are  
 10 looking after the equipment and doing that  
 11 maintenance programs. They're the ones that  
 12 are going through the process of checking the  
 13 quality of the foam and indeed, they are the  
 14 people on the helideck who would be trained  
 15 and have to be used in the event of an  
 16 incident.  
 17 ROIL, Q.C.:  
 18 Q. So I think as you said in one of your earlier  
 19 slides, the people aren't segregated just to  
 20 that side of the line up of cheese. People  
 21 are involved with putting the equipment in  
 22 place, putting the processes in place.  
 23 MR. PRITCHARD:  
 24 A. Correct.  
 25 ROIL, Q.C.:

Page 118

1 Q. So it's a very people oriented focus, I would  
 2 think?  
 3 MR. PRITCHARD:  
 4 A. We have an influence over each and every  
 5 barrier that we can create, whether it be  
 6 equipment or processes. So it's really about  
 7 the attitude and leadership of everyone to  
 8 ensure that we have that level of compliance  
 9 with those pieces of equipment and the  
 10 processes. I want to move on now to a little  
 11 bit about the safety participation, so I want  
 12 to establish there that people are very  
 13 important to all aspects of creating barriers.  
 14 It's the level of communications that we have  
 15 with people as well that is so important. So  
 16 I'll start with the CAPP side of things here.  
 17 So industry participates at all CAPP levels on  
 18 the east coast, and CAPP is a national  
 19 recognized organization, and for this I will  
 20 be speaking more in specific terms to the east  
 21 coast operations. Whilst Husky has deferred  
 22 its membership, we are still at the table at  
 23 the committee and task force levels. I  
 24 believe Mr. Paul Barnes described the workings  
 25 of the committees and task force, so I'll not

Page 119

1 describe that in too much detail, but there  
 2 are communications from the safety and  
 3 environment and various other sub-committees  
 4 and task forces that report back to the  
 5 Executive Committee, who are the responsible  
 6 decision makers at CAPP.  
 7 ROIL, Q.C.:  
 8 Q. Have either or all of you sat personally on  
 9 CAPP committees?  
 10 MR. PRITCHARD:  
 11 A. I've attended the CAPP meetings.  
 12 ROIL, Q.C.:  
 13 Q. The regular CAPP meetings, but have you sat on  
 14 any of the sub-committees?  
 15 MR. PRITCHARD:  
 16 A. Not on the sub-committees, no.  
 17 ROIL, Q.C.:  
 18 Q. Okay.  
 19 MR. PRITCHARD:  
 20 A. The committees and task forces typically have  
 21 input to regulations and guidelines and  
 22 prepare standard practises and training  
 23 qualification guidelines for considerations to  
 24 be adopted on basin-wide approach. The  
 25 committees and task forces can comprise of

Page 120

1 subject matter experts, HSC professionals, and  
 2 potentially offshore workers seconded onshore,  
 3 or indeed people who have worked offshore and  
 4 are now in an onshore role. So the committees  
 5 are kind of a diverse group of people,  
 6 generally in the health and safety and  
 7 environmental side. So there's a well  
 8 established communication in the JOHS  
 9 Committees offshore, so the Joint Occupational  
 10 Health and Safety Committees which are  
 11 established offshore, there's a good  
 12 communication route to them.  
 13 ROIL, Q.C.:  
 14 Q. Okay, let me stop you there because I know  
 15 that others in the room would want to pursue  
 16 that as well, how and in what way is the Joint  
 17 Occupational Health and Safety Committees, how  
 18 do they get engaged in CAPP?  
 19 MR. PRITCHARD:  
 20 A. They can be given reviews of -- say, typically  
 21 the Rigging and Slings Guidelines, which was  
 22 a documentation that CAPP are going to  
 23 coordinate --  
 24 ROIL, Q.C.:  
 25 Q. Yes.

Page 121

1 MR. PRITCHARD:  
 2 A. Those guidelines in preparation would be  
 3 issued offshore to get feedback from the JOHS  
 4 Group and indeed the subject matter experts  
 5 offshore as well, those people that would use  
 6 that particular guideline. So we get feedback  
 7 from that guideline through the JOHS Committee  
 8 back to the level of -- CAPP Committee level.  
 9 ROIL, Q.C.:  
 10 Q. Okay.  
 11 MR. PRITCHARD:  
 12 A. So CAPP related issues such as Training and  
 13 Qualification Standards or the Rigging and  
 14 Slings Guidelines are typical of  
 15 communications with the JOHS Committees.  
 16 There's also a communication with the Board at  
 17 twice yearly meetings. There would be topics  
 18 during the quarterly Board meetings that the  
 19 operators have with the Board, and indeed if  
 20 required, we can have ad hoc meetings with the  
 21 Board regarding CAPP issues. So during recent  
 22 times there's been very frequent updates on  
 23 helicopter transportation with reference to  
 24 such items as the HUEBA, flight suits, and  
 25 general helicopter operations.

Page 122

1 ROIL, Q.C.:  
 2 Q. Have that actually increased since the  
 3 incident of March 12th, or had it increased  
 4 before then?  
 5 MR. PRITCHARD:  
 6 A. Substantially increased in terms of helicopter  
 7 transportation.  
 8 ROIL, Q.C.:  
 9 Q. Since the March 12th incident?  
 10 MR. PRITCHARD:  
 11 A. Absolutely.  
 12 ROIL, Q.C.:  
 13 Q. You mentioned one of the bullets, helicopter  
 14 flight suit water ingress testing. I take it  
 15 this is the testing that took place after the  
 16 suits were in place and in use, or was this  
 17 before they were put into place?  
 18 MR. PRITCHARD:  
 19 A. No, this was after the incident, and when the  
 20 helicopter flight suit water ingress became an  
 21 issue, we did some extensive training or some  
 22 additional training -- not training, testing  
 23 in Halifax with respect to the E452 suit and a  
 24 new suit that we'll hear more about in future  
 25 testimony. So we have got some slides on that

Page 123

1 particular aspect.  
 2 MR. SACUTA:  
 3 A. And we did have JOHS Committee members attend  
 4 that water ingress testing.  
 5 ROIL, Q.C.:  
 6 Q. Were the ones jumping in the water or were  
 7 they observers?  
 8 MR. SACUTA:  
 9 A. Some of them were the ones jumping in the  
 10 water, yes.  
 11 ROIL, Q.C.:  
 12 Q. They became the guinea pigs for the testing,  
 13 did they?  
 14 MR. SACUTA:  
 15 A. Yes.  
 16 MR. PRITCHARD:  
 17 A. So on the occupational health and safety  
 18 regulations, the C-NLOPB, or the Board, is  
 19 joint provincial and federal and does not have  
 20 legislation covering the following; employer  
 21 and employee duties, right to refuse dangerous  
 22 work, health and safety program policy, and  
 23 OSH committees. The Newfoundland Offshore  
 24 Health and Safety Act describes those four  
 25 requirements, as does the Canadian Labour

Page 124

1 Code, Part II, which is a federal  
 2 jurisdiction. So we have the Newfoundland  
 3 Offshore Health and Safety Act, the provincial  
 4 jurisdiction, and the Canadian Labour Code,  
 5 Part II, is a federal jurisdiction. Both of  
 6 those actually mention those four areas I've  
 7 just described, and the way that the Board  
 8 picks that up is by describing that as other  
 9 requirements for our work authorizations, and  
 10 that's how they become applied.  
 11 ROIL, Q.C.:  
 12 Q. Is there a conflict between the Newfoundland  
 13 Occupational Health and Safety Act and the  
 14 Canada Labour Code, or does one apply to  
 15 certain workers and the other apply to other  
 16 workers or other situations?  
 17 MR. PRITCHARD:  
 18 A. I think they all apply very similar, and  
 19 indeed there's a planned amendment to the  
 20 Atlantic Accord which would allow the Board to  
 21 actually prescribe those four areas by  
 22 regulation. I'll discuss a little more about  
 23 the Offshore Health and Safety Committees  
 24 offshore. The Committee is comprised of both  
 25 management workers and have a co-chair system,

Page 125

1 so that they both work the chair.  
 2 ROIL, Q.C.:  
 3 Q. Before you go into that, we heard from earlier  
 4 witnesses about the fact that the committees  
 5 offshore transcend the various contractors and  
 6 employers that are out there, and there's one  
 7 committee that represents all of the workers  
 8 of the different employers?  
 9 MR. PRITCHARD:  
 10 A. That's correct.  
 11 ROIL, Q.C.:  
 12 Q. You're familiar with that?  
 13 MR. PRITCHARD:  
 14 A. This all comes together under JOHS, the Joint  
 15 Occupational Health and Safety.  
 16 ROIL, Q.C.:  
 17 Q. Again does that create any problems for you as  
 18 operators of the system, the fact that there  
 19 are different employers that are a part of the  
 20 one committee?  
 21 MR. PRITCHARD:  
 22 A. Not at all.  
 23 ROIL, Q.C.:  
 24 Q. Different employers and different employees  
 25 from different employers that are all

Page 126

1 represented on the one?  
 2 MR. PRITCHARD:  
 3 A. Not at all. We're all have a mind for safety  
 4 as our top priority, so we all come together  
 5 collectively, and companies and where you work  
 6 is no matter to us.  
 7 ROIL, Q.C.:  
 8 Q. Does every company get a representative? If  
 9 you have five contractors on board the  
 10 facility that you have, and the JOHS Committee  
 11 on that facility, would all five of those  
 12 contractors have a representative necessarily  
 13 or does it move back and forth at different  
 14 times to different people?  
 15 MR. PRITCHARD:  
 16 A. It works in general terms, that it becomes  
 17 more departmental. So if you are related to  
 18 the marine group, the maintenance group, or  
 19 indeed if you come on as a construction group,  
 20 if there is sufficient numbers within that  
 21 construction group, you would create a new  
 22 constituency, and, therefore, an elected  
 23 member from that new constituency would be  
 24 applied to the JOHS Committee. So depending  
 25 on the size -- if it's one specific group

Page 127

1 coming offshore, it would create that one  
 2 constituency if they were of sufficient size,  
 3 but the drilling group --  
 4 ROIL, Q.C.:  
 5 Q. This is perhaps something we should look at in  
 6 more detail in the individual presentations,  
 7 but just to set up that issue so that having  
 8 different employers -- because you know that  
 9 onshore an employer will have its own -- each  
 10 employer will have its own JOHS Committee.  
 11 Out on the offshore, all the employers work  
 12 together to have one joint, if you will, using  
 13 the word joint in a different way --  
 14 MR. PRITCHARD:  
 15 A. Yes, yeah.  
 16 ROIL, Q.C.:  
 17 Q. One joint committee. So operationally that  
 18 works for you, you're satisfied with the way  
 19 it works?  
 20 MR. PRITCHARD:  
 21 A. It works for us because safety does not  
 22 transcend any of the boundaries. We're all  
 23 going to work together as one to the safety of  
 24 everybody offshore.  
 25 ROIL, Q.C.:

Page 128

1 Q. And representation doesn't depend on the size  
 2 of my work force, it's more done by work area,  
 3 is it?  
 4 MR. PRITCHARD:  
 5 A. It's by departmental, but the size of the work  
 6 force suggests that if a large group were to  
 7 come on board as construction group, you know,  
 8 on a new project to install something, they  
 9 could in their own right create a new  
 10 constituency and elect a member to sit on the  
 11 JOHS Committee.  
 12 ROIL, Q.C.:  
 13 Q. And then if they withdraw their services and  
 14 they're finished their job, they would just go  
 15 away again?  
 16 MR. PRITCHARD:  
 17 A. Correct.  
 18 ROIL, Q.C.:  
 19 Q. Okay, thank you.  
 20 MR. PRITCHARD:  
 21 A. So the members of the committee are elected  
 22 and represented for a two year term, and all  
 23 departments are represented. The meetings are  
 24 held once every three weeks, or once every  
 25 rotation, and the Minutes of the meetings are

Page 129

1 issued to management and the C-NLOPB. The  
 2 Occupational Health and Safety Committee  
 3 members receive training in the organization  
 4 and function of the company, company specific  
 5 health and safety programs, and the company  
 6 specific investigation techniques. So they  
 7 can assist in any investigations that may be  
 8 required on board.  
 9 ROIL, Q.C.:  
 10 Q. I have another question arising out of the  
 11 work regime which we've heard about and the  
 12 way, if at all, that impacts the operation of  
 13 the Occupational Health and Safety Committees  
 14 on board. We understand that workers work on  
 15 a three week rotation, but that they all don't  
 16 go out on the 1st of January and come back on  
 17 the 21st, that there are people moving all the  
 18 time. You know, groups go out on the 1st, and  
 19 another group might start their 21 day  
 20 rotation on the 7th, and some more might start  
 21 on the 14th, and so on.  
 22 MR. PRITCHARD:  
 23 A. By virtue of the fact that there is that  
 24 rotation and people change out every week, the  
 25 JOHS Committee members can see each other and

Page 130

1 can communicate with each other such that  
 2 there isn't a Group "A" and a Group "B".  
 3 Group "A" mingles and converses with Group  
 4 "B", so that there's not two distinct groups  
 5 there, they are but one committee and they can  
 6 converse.  
 7 ROIL, Q.C.:  
 8 Q. So if you have a meeting now and a meeting in  
 9 three weeks time, would there be different  
 10 people attending the first and the second  
 11 meeting?  
 12 MR. PRITCHARD:  
 13 A. There will be different people by virtue of  
 14 the rotation, but in the subsequent three  
 15 weeks if there's issues arising from the first  
 16 meeting, that can be discussed and worked with  
 17 the new group that are going to be joining,  
 18 that would actually sit to the second meeting.  
 19 ROIL, Q.C.:  
 20 Q. Okay, so the first group, the second group,  
 21 the third group, are they the same people as  
 22 the first group, more or less?  
 23 MR. PRITCHARD:  
 24 A. Correct.  
 25 ROIL, Q.C.:

Page 131

1 Q. The same bodies, the same individuals?  
 2 MR. PRITCHARD:  
 3 A. Yes.  
 4 ROIL, Q.C.:  
 5 Q. So how do they know what the second group has  
 6 done?  
 7 MR. PRITCHARD:  
 8 A. There's Minutes of the meeting, and as I can,  
 9 they can converse with the people from the  
 10 first group, the first meeting. There will be  
 11 new people arriving offshore that will  
 12 actually take part in the second meeting, so  
 13 there's time there for communications and they  
 14 can have their own meetings, if they so wish.  
 15 If there's some real burning issues, then the  
 16 JOHS people can get together at any time.  
 17 ROIL, Q.C.:  
 18 Q. Okay, so the first group will have Minutes of  
 19 their meeting?  
 20 MR. PRITCHARD:  
 21 A. Correct.  
 22 ROIL, Q.C.:  
 23 Q. Those Minutes, will they go back to the same  
 24 group six weeks later, or will those Minutes  
 25 go to the next group that were three weeks

Page 132

1 later?  
 2 MR. PRITCHARD:  
 3 A. They're just consecutive Minutes of the JOHS  
 4 meetings.  
 5 ROIL, Q.C.:  
 6 Q. So each group knows what the other group is  
 7 going?  
 8 MR. PRITCHARD:  
 9 A. Correct.  
 10 MR. SACUTA:  
 11 A. One of the agenda items in the standard  
 12 meeting is to review the previous JOHS  
 13 meeting, so the crew that comes on board will  
 14 review all the issues that were raised by the  
 15 previous meeting as part of the standard  
 16 meeting agenda.  
 17 ROIL, Q.C.:  
 18 Q. Right, okay, thank you.  
 19 MR. PRITCHARD:  
 20 A. Part of the employee rights is the employees  
 21 have the right to participate and become  
 22 elected members if they so wish, or just  
 23 simply participate in safety departmental  
 24 meetings. The right to know means that they  
 25 should be aware of the hazards and mitigations

Page 133

1 associated with the tasks on board, as well as  
 2 the knowledge of the company specific safety  
 3 systems and the safety culture of that  
 4 organization. The right to refuse dangerous  
 5 work is if the worker considers the task  
 6 assigned to that person or team is considered  
 7 dangerous, then there's a process that follows  
 8 until the dangerous aspects of the work are  
 9 either changed or is deemed safe to complete  
 10 the task. The right to refuse process  
 11 involves the workers and supervision, and the  
 12 JOHS Committee, and then ultimately the Board  
 13 if it cannot be resolved on board. So there's  
 14 a process of understanding the risks of  
 15 dangerous work and whether the workers are  
 16 willing to go ahead and proceed, kind of an  
 17 elevation of that.

18 ROIL, Q.C.:

19 Q. Have either one of you or all of you ever  
 20 known a situation where a worker has refused  
 21 to do work in the offshore because he or she  
 22 believed that it was unsafe?

23 MR. SACUTA:

24 A. I've been involved yes, and most recently we  
 25 had three late last year.

Page 134

1 ROIL, Q.C.:

2 Q. Any of those in relation to helicopter  
 3 transportation?

4 MR. SACUTA:

5 A. All three.

6 ROIL, Q.C.:

7 Q. All three were helicopter transportation  
 8 related, and all since March?

9 MR. SACUTA:

10 A. Yes, all three of them occurred after Robbie  
 11 Decker's testimony.

12 MR. PRITCHARD:

13 A. As mentioned, communications is so important  
 14 and we have people we need to be able to  
 15 communicate to ensure the integrity of the  
 16 systems. So along with the company  
 17 orientations that reflect the company's safety  
 18 culture and understanding of the safety  
 19 management tools and processes to ensure the  
 20 hazards are controlled and mitigated, there's  
 21 also continuous orientation for helicopter  
 22 transportation every time someone travels.  
 23 Every time you go to the heliport, you will  
 24 see an induction video and get instructions.  
 25 Conversely from the offshore to onshore, you

Page 135

1 will also be given that level of instruction  
 2 and orientation for helicopter transportation.  
 3 So open communication is constantly encouraged  
 4 between the workers and the management. This  
 5 slide show is a number of meeting types, by no  
 6 means all, whereby safety is discussed in  
 7 terms of proactive mitigation type, as well  
 8 as, I'll say, historical safety trends, but  
 9 typically town hall meetings with senior  
 10 management or indeed for Husky themselves, the  
 11 OIM discusses safety statistics with the  
 12 workforce. The permit to work and toolbox  
 13 talk, we've discussed that a little bit in the  
 14 previous testimony. The workforce and  
 15 supervision and potentially the onshore group,  
 16 engineering group, can get involved in that?

17 ROIL, Q.C.:

18 Q. And how often would those kinds of things  
 19 happen, are they once a day, once a week, once  
 20 a month, once a year, what sort of frequency  
 21 can you assign to that kind of communication?

22 MR. PRITCHARD:

23 A. Certainly the permit to work is going to be on  
 24 a daily basis. If we've got tasks, we will  
 25 have a permit to work. Once you have a permit

Page 136

1 to work, you will by virtue of that have a  
 2 toolbox talk because you're going to talk  
 3 about the mitigations against any hazards  
 4 identified. Departmental safety meetings,  
 5 they can be requested at any time, but  
 6 generally for Husky here, we have departmental  
 7 meetings every three weeks. So that three  
 8 weekly departmental meetings --

9 ROIL, Q.C.:

10 Q. These are on board departmental meetings?

11 MR. PRITCHARD:

12 A. Yes, they'll roll up -- departmental safety  
 13 meeting can roll up to the JOHS Committee  
 14 level. So there's a departmental individual  
 15 there that's usually an elected member for the  
 16 JOHS meeting, and, therefore, any issues  
 17 arising from the departmental meeting that  
 18 cannot be satisfied at that level -- there  
 19 will be some supervision at that departmental  
 20 meeting, so if they cannot be satisfied at  
 21 that, they would rise to the JOHS level, and  
 22 if the JOHS themselves can't come up with a  
 23 conclusion to any issues, it will be raised to  
 24 the onshore management to aid in resolving  
 25 issues. Town hall meetings with management,

Page 137

1 certainly for the Husky again, our Offshore  
 2 Installation Manager has a meeting every trip,  
 3 so every three weeks there's a town hall  
 4 presentation.  
 5 ROIL, Q.C.:  
 6 Q. That expression "town hall presentation" is  
 7 probably one that you're very familiar with,  
 8 and the one that I know from other work that  
 9 I've done in life, what is a town hall meeting  
 10 when you don't have a town hall?  
 11 MR. PRITCHARD:  
 12 A. We get into the biggest area we can to  
 13 facilitate as many people, and everyone on  
 14 board is invited to come along to the town  
 15 hall to listen to whatever the news is.  
 16 Generally it's, you know, new topics, maybe  
 17 safety statistics, and it may be any issues  
 18 that are burning for the group themselves.  
 19 ROIL, Q.C.:  
 20 Q. Okay, so these are community meetings, the  
 21 community being those people that are no the  
 22 facilities?  
 23 MR. PRITCHARD:  
 24 A. Correct.  
 25 ROIL, Q.C.:

Page 138

1 Q. Okay.  
 2 MR. PRITCHARD:  
 3 A. And shift handovers, we do a 12 hour shift  
 4 rotation, so they occur twice daily as the  
 5 shift handover occurs. Safety is also a  
 6 discussion point at the daily meetings that  
 7 occur between onshore and offshore, under the  
 8 departmental meetings as well.  
 9 ROIL, Q.C.:  
 10 Q. So onshore/offshore have daily meetings.  
 11 Would they be done electronically or how are  
 12 they --  
 13 MR. PRITCHARD:  
 14 A. Just telephone conference. We dial in, we  
 15 review reports, and any issues of the day.  
 16 ROIL, Q.C.:  
 17 Q. Uh-hm.  
 18 MR. PRITCHARD:  
 19 A. I'll now hand over to Mr. Vokey to step us  
 20 through the contracted services.  
 21 MR. VOKEY:  
 22 A. As an earlier part of our presentation, we  
 23 described a number of services, like supply  
 24 vessels and helicopters. In this section,  
 25 I'll describe a few of these services and

Page 139

1 explain the way in which each of these  
 2 contractors integrate and help us deliver our  
 3 business. The section is not intended to  
 4 provide a comprehensive list of contracted  
 5 services. I think it's fair to say each  
 6 company represented here would probably have  
 7 over 100 different contracts in support of our  
 8 business, but to give you an example of one  
 9 that we use independently, and some more  
 10 collaboratively. Contractors are a  
 11 significant part of our business, and as such  
 12 are part of our safety culture. Contractors  
 13 are expected to have their own safety  
 14 management systems, but those systems must be  
 15 aligned with the safety management systems of  
 16 the respective operator. While working on our  
 17 offshore facilities, the contractors must  
 18 adhere to all the operator policies while on  
 19 board their installations.  
 20 ROIL, Q.C.:  
 21 Q. So who's responsible to ensure that their  
 22 safety systems mesh with yours? Is it C-NLOPB  
 23 or is it yours, or who's responsible for that  
 24 governance, if you will?  
 25 MR. VOKEY:

Page 140

1 A. From Suncor's perspective, it would be Suncor.  
 2 I know the other companies do it too. We all  
 3 do independent and sometimes collaborative  
 4 audits of our suppliers and contractors, and  
 5 in the case of Suncor, we will probably do 12  
 6 to 15 a year and they are typically of the  
 7 contractor management systems. Contract  
 8 services are audited by the operators, as I've  
 9 indicated, through our respective supplier  
 10 audit programs.  
 11 ROIL, Q.C.:  
 12 Q. So you say there in your slide, "are subject  
 13 to audit", and I think your evidence what  
 14 you're telling me is that not only are they  
 15 subject to it, those audits are actually done?  
 16 MR. VOKEY:  
 17 A. That's correct.  
 18 ROIL, Q.C.:  
 19 Q. So if we look, we should find some audits of  
 20 the helicopter provider by somebody prior to  
 21 March 12th?  
 22 MR. VOKEY:  
 23 A. Yes.  
 24 ROIL, Q.C.:  
 25 Q. Okay.

Page 141

1 MR. VOKEY:  
 2 A. Both of a technical and both of a management  
 3 system nature. As each development is  
 4 planned, the operator will determine the  
 5 aspects of its business which are part of its  
 6 core competency or area of expertise. The  
 7 areas which are a core area of expertise to  
 8 the company, the operator will typically hire  
 9 those people directly to perform the work.  
 10 ROIL, Q.C.:  
 11 Q. Okay, what kind of people would be core, for  
 12 example?  
 13 MR. VOKEY:  
 14 A. As an example, production operators. You're  
 15 going to need production operators through the  
 16 life of the field while you're producing.  
 17 It's highly technical, it's a safety critical  
 18 position.  
 19 ROIL, Q.C.:  
 20 Q. The Offshore Installation Manager, that kind  
 21 of person?  
 22 MR. VOKEY:  
 23 A. Typically supervisory now. As I indicated  
 24 earlier in testimony in the bio, there are  
 25 occasions where supervision can be seconded,

Page 142

1 but typically they will be company people.  
 2 For those areas that are not within the  
 3 operator's expertise, these types of services  
 4 are contracted. While each of the operators  
 5 may contract for the same service from a  
 6 common supplier, most are done through  
 7 separate contracts directly between the  
 8 service provider and the operator. When a  
 9 contract for service isn't entered into, the  
 10 operator is responsible for ensuring that the  
 11 contractors are in compliance with all  
 12 applicable legislative requirements, including  
 13 those of the C-NLOPB and Transport Canada.  
 14 ROIL, Q.C.:  
 15 Q. So if they're your contractor, you have the  
 16 responsibility to supervise them, direct them,  
 17 and audit them, not necessarily the C-NLOPB?  
 18 MR. VOKEY:  
 19 A. Say that again, please?  
 20 ROIL, Q.C.:  
 21 Q. Yes. If it's a contractor that you've hired,  
 22 then the responsibility to do the auditing of  
 23 them, to check on them, to make sure that they  
 24 have safety policies and safety practices, is  
 25 your responsibility primarily?

Page 143

1 MR. VOKEY:  
 2 A. That's correct, and quite often it's done in  
 3 the pre-qualification phase of the bid, and  
 4 then through the invitation to tender, you dig  
 5 further into it, and then for ongoing  
 6 compliance, you would do that through our  
 7 audits.  
 8 ROIL, Q.C.:  
 9 Q. What you're telling us is that each company  
 10 has its own way of doing that, but all of you  
 11 do it in that manner?  
 12 MR. PRITCHARD:  
 13 A. Notwithstanding that, Mr. Roil, as the C-NLOPB  
 14 audit the operators, they can recognize the  
 15 function that we go out and audit our  
 16 contracting services.  
 17 MR. VOKEY:  
 18 A. That's correct.  
 19 ROIL, Q.C.:  
 20 Q. So in the audit of you, they are effectively  
 21 auditing your contractors?  
 22 MR. PRITCHARD:  
 23 A. That's correct.  
 24 ROIL, Q.C.:  
 25 Q. Okay, thank you.

Page 144

1 MR. VOKEY:  
 2 A. On the east coast, there's a number of common  
 3 services for which all the operators contract,  
 4 and I'll just read off a few of them there.  
 5 Shore-based services, marine offshore service  
 6 and support vessels, drilling, catering, ice  
 7 and weather observation and forecasting, and  
 8 one that I will talk in more detail in a later  
 9 session, helicopter services or helicopter  
 10 operations.  
 11 ROIL, Q.C.:  
 12 Q. I think we actually -- of course, part of  
 13 working this program out, this presentation, I  
 14 think we actually deal with shore-based marine  
 15 and helicopter, but just take for the moment  
 16 the other three; drilling, catering, and more  
 17 particularly interesting to us, I guess, is  
 18 ice and weather observation. So drilling, do  
 19 you share that, or does each company tend to  
 20 have its own drilling expertise, or a drilling  
 21 contractor?  
 22 MR. VOKEY:  
 23 A. In the case of drilling, there's two ways of  
 24 doing it. There is the traditional way to do  
 25 it. In particular, in the early development

Page 145

1 stages of a project where an operator, as an  
 2 example, has ten of fifteen wells to drill,  
 3 they will contract directly with a drilling  
 4 rig service provider, and in the case of  
 5 Husky, the Glomar Grand Banks would be one  
 6 that they contracted for, White Rose or Sea  
 7 Rose type of work support. Having said that,  
 8 three operators; Statoil, Husky, and Petro  
 9 Canada, now Suncor, a couple of years ago  
 10 contracted as a rig-share agreement between  
 11 the three operators to bring the Henry  
 12 Goodrich back into the basin because none of  
 13 the operators had a large enough scope of work  
 14 to bring it in independently, so we brought it  
 15 in on a more collaborative basis. Husky  
 16 requested so many days, as did Suncor, as did  
 17 Statoil.  
 18 ROIL, Q.C.:  
 19 Q. The short answer is sometimes it's individual  
 20 contracting, sometimes you share and try to  
 21 use resources efficiently between you?  
 22 MR. SACUTA:  
 23 A. As far as Hibernia is concerned, HMDC actually  
 24 owns both of the drilling rigs on the Hibernia  
 25 Platform, and they contract the operations and

Page 146

1 maintenance of those drilling rigs to Noble  
 2 Drilling Canada.  
 3 ROIL, Q.C.:  
 4 Q. Okay. Again we don't want to spend too much  
 5 time on it, but catering is done --  
 6 MR. VOKEY:  
 7 A. Catering is typically done individually.  
 8 ROIL, Q.C.:  
 9 Q. Individually, okay. Ice and weather  
 10 observation and forecasting?  
 11 MR. VOKEY:  
 12 A. To the best of my knowledge, we all utilize  
 13 the same service provider for that.  
 14 ROIL, Q.C.:  
 15 Q. But you each have your own contracts?  
 16 MR. VOKEY:  
 17 A. We each -- it's like with Cougar Helicopters,  
 18 we use the same service provider, but we each  
 19 have our own individual contracts.  
 20 ROIL, Q.C.:  
 21 Q. Does ice and weather observation and  
 22 forecasting, does that service have any  
 23 particular impact on the provision of  
 24 helicopter services?  
 25 MR. VOKEY:

Page 147

1 A. Yes, it does, particularly the weather  
 2 forecasting piece in terms of, you know, what  
 3 the weather is going to look like between,  
 4 say, St. John's and the offshore, but we also  
 5 provide weather information, real time weather  
 6 information, through each installation to the  
 7 pilots while they're in route, whether it's  
 8 wind speed, fog, or otherwise, sea states,  
 9 vessel movement.  
 10 ROIL, Q.C.:  
 11 Q. So these ice and weather observers, and I  
 12 think Mr. Decker indicated that he was one of  
 13 those persons, they provide information that  
 14 is relied upon by Cougar Helicopters in terms  
 15 of the provision of their service to the  
 16 offshore facilities?  
 17 MR. VOKEY:  
 18 A. That's correct, and just a point of note, we  
 19 don't always have weather observers on board  
 20 the installations. Typically that would be  
 21 contracted for the winter months in  
 22 conjunction with the ice, but we do have  
 23 individuals on each of the installations that  
 24 are qualified in meteorology, such that they  
 25 can report weather conditions.

Page 148

1 ROIL, Q.C.:  
 2 Q. So they report to the base that is your  
 3 weather contracted provider?  
 4 MR. VOKEY:  
 5 A. That's correct.  
 6 ROIL, Q.C.:  
 7 Q. And they use that information in creating  
 8 their weather forecasts and their predictions?  
 9 MR. VOKEY:  
 10 A. It's a data point for their weather forecast.  
 11 ROIL, Q.C.:  
 12 Q. Yeah.  
 13 MR. VOKEY:  
 14 A. The service providers we're talking about,  
 15 they have, you know, Transport Canada  
 16 certified meteorologists.  
 17 ROIL, Q.C.:  
 18 Q. Each of them has their own meteorologist and  
 19 they get data from various sources?  
 20 MR. VOKEY:  
 21 A. That's correct.  
 22 ROIL, Q.C.:  
 23 Q. Including whatever facilities or whatever  
 24 resources you have on board the three or  
 25 whatever facilities are out there?



Page 149

1 MR. VOKEY:  
 2 A. That's correct.  
 3 ROIL, Q.C.:  
 4 Q. Okay, thank you.  
 5 MR. VOKEY:  
 6 A. I just want to talk a little bit about shore-  
 7 based services and some of the support  
 8 operations would be shore-based facilities,  
 9 cargo vessel coordination, provision of local  
 10 road transport, things of that nature, and A.  
 11 Harvey and Company is under a contract to  
 12 provide that. Marine support services is a  
 13 significant portion of our business.  
 14 ROIL, Q.C.:  
 15 Q. Okay, that's those supply boats that we see  
 16 down at the A. Harvey facility in St. John's  
 17 Harbour?  
 18 MR. VOKEY:  
 19 A. Yes, some of them, I guess -- each of the  
 20 companies here, we contract individually for  
 21 our supply vessels, but in the case of Suncor,  
 22 we use ATL primarily and Secunda; Hibernia  
 23 uses Maersk, and Husky would use for the most  
 24 part, ATL and Maersk. So a significant  
 25 portion of our business relates to, as I

Page 150

1 indicated, our marine operations. Whether  
 2 it's a standby requirement associated with the  
 3 offshore facilities, or the need for vessels  
 4 to support anchor handling or towing, or the  
 5 requirement for ice monitoring, and that is,  
 6 as I indicated, that would be certain times of  
 7 the year. Each of the operators contract for  
 8 the provision of marine support services. We  
 9 talked earlier about mutual aid agreements,  
 10 and as Mr. Pritchard indicated, right now  
 11 Husky, because of the type of operation  
 12 they're into with two drill rigs, they do have  
 13 the bulk of the vessels, but I think it is  
 14 fair to say that the three operators on an  
 15 ongoing basis, while we've contracted for "x"  
 16 particular vessels, we do share vessels for a  
 17 number of things. We'll use it for personal  
 18 transport in the event that we can't fly. If  
 19 we've got some extra beds on board, we'll give  
 20 it up to Hibernia or White Rose, and likewise  
 21 if there's equipment to be gotten offshore and  
 22 we don't have a vessel onshore, whereas  
 23 Hibernia do, we'll use space on their vessel  
 24 to get our equipment offshore, so -- and  
 25 that's primarily on an ad hoc basis, but it

Page 151

1 does work very well.  
 2 ROIL, Q.C.:  
 3 Q. So when we hear in the -- or see in the C-  
 4 NLOPB guidance that a standby vessel must  
 5 standby when a helicopter is landing or taking  
 6 off from an installation, these are the  
 7 vessels that provide that service?  
 8 MR. VOKEY:  
 9 A. I guess there's -- vessels are used for two  
 10 things in our core business. They're used for  
 11 support supply. We call those supply vessels  
 12 or support vessels, but there's always a  
 13 dedicated standby vessel at each of the  
 14 operated assets. So Hibernia always has a  
 15 standby vessel in attendance, as does the Sea  
 16 Rose, and as does the Terra Nova FPSO.  
 17 ROIL, Q.C.:  
 18 Q. So while we see them going back and forth, we  
 19 know that there's always one that is stationed  
 20 out at each platform?  
 21 MR. VOKEY:  
 22 A. Yes, if you see them, they're not on standby  
 23 duty. Let's talk a little bit more about  
 24 standby vessel. We use boats for a variety of  
 25 purposes in the offshore environment, as I

Page 152

1 indicated, including the transport of cargo  
 2 and people, and from March, I guess, until  
 3 June, ice management. The guidelines  
 4 respecting drilling programs require operators  
 5 to provide the C-NLOPB with a letter of  
 6 compliance from Transport Canada's Marine  
 7 Safety Group indicating that the vessels that  
 8 are in use by the operators meet the standard  
 9 for standby vessels, and that's TP-7920, and  
 10 for a standby complaint vessel, they'd have  
 11 the following requirements. They need  
 12 emergency response capabilities, including  
 13 fast rescue craft, and these are essentially  
 14 crafts that are launched and recovered from  
 15 the standby vessels. Personnel recovery  
 16 equipment to assist standby vessels in  
 17 retrieving individuals from the water.  
 18 ROIL, Q.C.:  
 19 Q. The word "recovery" means to get them out of  
 20 the water, is it?  
 21 MR. VOKEY:  
 22 A. To get them out of the water in the event that  
 23 they're in the water. They're also required  
 24 to have firefighting and medical first aid  
 25 support capability on board, and they need

Page 153

1 passenger carrying capabilities. However, as  
 2 I indicated previously, not all the vessels  
 3 are the same and passenger carrying capability  
 4 may range probably anywhere from 12 to 30, 12  
 5 to 32, in that range. These vessels are also  
 6 designed to operate in our offshore  
 7 environment similar to our installations, and  
 8 because they do operate on a year around  
 9 basis, they do have ice strengths in hulls,  
 10 and the vessels are also equipped with what we  
 11 refer to as DP, or dynamic positioning, so  
 12 that allows it to come in alongside  
 13 installations and to hold a position without  
 14 being affected by wind, wave, or current.  
 15 ROIL, Q.C.:  
 16 Q. Okay, I think that's probably as good a place  
 17 as any for us to take our lunch break. It's  
 18 now 12:30.  
 19 COMMISSIONER:  
 20 Q. Two o'clock then.  
 21 (RECESS)  
 22 COMMISSIONER:  
 23 Q. Okay, Mr. Roil.  
 24 ROIL, Q.C.:  
 25 Q. Thank you, Commissioner. Before we go ahead,

Page 154

1 I think that two of our panellists want to go  
 2 back to items that we dealt with already. One  
 3 was Mr. Pritchard, who I understand wanted to  
 4 speak to the Risk Matrix example that was here  
 5 at slide number 42. So we have that up, and  
 6 soon as I get it there and running, we'll be  
 7 ready to go.  
 8 MR. PRITCHARD:  
 9 A. I've been reminded of a scope of work that we  
 10 were trying to perform on the FPSO Sea Rose,  
 11 and this was the removal of a very large spool  
 12 from the turret area. The turret area is  
 13 quite a congested area and the analysis for  
 14 that job and the work part, the preparation  
 15 for that, was completed onshore. So we have a  
 16 work part that understands the equipment. We  
 17 do that from the two day drawings that we have  
 18 and try to work out the work plan that would  
 19 be associated with the removal of that spool.  
 20 That work part was then issued to offshore and  
 21 prior to any even permit to work being raised,  
 22 the crane driver who would be the operator of  
 23 the crane, and the area authority, went out to  
 24 review the job. Now when they went out to  
 25 review the job, they identified some areas

Page 155

1 that were concerning for them, and that would  
 2 be the clearance to remove this spool in the  
 3 congested area that we had, the stops that  
 4 were physically on the crane itself, so this  
 5 is a crane that would lift up and go along a  
 6 crane wheel and some physical stops that were  
 7 perhaps inadequate, and the weather conditions  
 8 that were prevailing for the rest of the  
 9 course of that time. So they reported back to  
 10 the supervision, who also then visited the  
 11 site and agreed, as they reviewed that, that  
 12 looking at the Risk Matrix, it would be an  
 13 area that would be considered between a kind  
 14 of remote and occasional for the pipe work to  
 15 be physically dropped as a dropped object, how  
 16 often does that occur, you know, within Husky  
 17 or within the industry, so there are occasions  
 18 within the industry where there are dropped  
 19 objects. So that would be between occasional  
 20 and remote, and the consequence of the  
 21 physical pipe work, where it was a three ton  
 22 weight dropping in that area would be quite  
 23 significant in terms of consequence. So to  
 24 date we have not completed that scope of work,  
 25 and we are looking at different ways and

Page 156

1 means, of course, to go back to the crane,  
 2 review the crane arrangement, and see what  
 3 else we can do to mitigate against that. So  
 4 we've had that work on our books, I would  
 5 think, for around a year awaiting kind of  
 6 further assessment. It's a piece of pipe work  
 7 that gives us flexibility, it doesn't restrict  
 8 us in any way in general operations. We would  
 9 like to get it replaced and changed out for  
 10 flexibility purposes and usage there. So  
 11 that's just an example whereby the work part  
 12 was created onshore and reviewed there. Not  
 13 everything can be fully assessed, it needs to  
 14 go offshore. The workforce were involved and  
 15 the subject matter experts, and they  
 16 determined that, you know, we're too close to  
 17 the likelihood and the consequence  
 18 arrangements prevent us from going ahead with  
 19 that job as we currently stand today.  
 20 COMMISSIONER:  
 21 Q. Just on that point then, I take it production  
 22 is not held up?  
 23 MR. PRITCHARD:  
 24 A. No.  
 25 COMMISSIONER:

Page 157

1 Q. So you can take the time to study this?  
 2 MR. PRITCHARD:  
 3 A. That's correct.  
 4 COMMISSIONER:  
 5 Q. Another questions, if you don't mind, Mr.  
 6 Roil, while we're on the subject, we talked  
 7 this morning about individuals doing  
 8 particular work and having responsibility for  
 9 a certain thing. Let's say, to pull an example  
 10 out of the air, the refuelling of helicopters.  
 11 If "x" is refuelling helicopters, he's not  
 12 doing that all day long, or she. Do people do  
 13 multiple jobs? I presume they do, do they?  
 14 MR. PRITCHARD:  
 15 A. They do, yes.  
 16 COMMISSIONER:  
 17 Q. And they're trained in the multiple functions?  
 18 MR. PRITCHARD:  
 19 A. Indeed. They vary from installation to  
 20 installation as to who you take on board as  
 21 your helicopter landing officer and refuelling  
 22 team or whatever, depending on what their  
 23 other duties on board may be.  
 24 MR. VOKEY:  
 25 A. Mr. Vokey, Commissioner, on behalf of Terra

Page 158

1 Nova, we use our vessel crews as part of the  
 2 helicopter landing, and the crane operator  
 3 would be the helicopter landing officer, and  
 4 he would have a support team of firefighters  
 5 and baggage handlers during helicopter  
 6 operations. So they wouldn't be doing  
 7 concurrent tasks while a helicopter is down.  
 8 That would be their primary task.  
 9 COMMISSIONER:  
 10 Q. Because I heard of that principle before that  
 11 a crane operator --  
 12 MR. VOKEY:  
 13 A. That is fairly standard.  
 14 COMMISSIONER:  
 15 Q. He won't be operating the crane when a  
 16 helicopter comes along?  
 17 MR. PRITCHARD:  
 18 A. The crane needs to be actually in its cradle  
 19 by procedure, so consequent it's a good fit  
 20 that the crane driver becomes the helicopter  
 21 landing officer for that very reason.  
 22 COMMISSIONER:  
 23 Q. One other question that occurred to me this  
 24 morning, when tasks like that, fairly routine  
 25 tasks, but tasks nevertheless, have some

Page 159

1 degree of risk attached to them should  
 2 something go wrong, is there a safety person  
 3 in the area, or are the actual workers the  
 4 safety people, as well as doing the job?  
 5 MR. PRITCHARD:  
 6 A. In general, the people doing the jobs  
 7 recognize the hazards and the mitigations that  
 8 are there, so they are all encompassing  
 9 themselves. We do, however, have a safety  
 10 advisor on board who will monitor jobs and  
 11 understand the operations at hand, and will go  
 12 to the sites, the work sites, to review the  
 13 team physically working.  
 14 COMMISSIONER:  
 15 Q. I see, so the actual worker gets some support  
 16 from the safety person?  
 17 MR. PRITCHARD:  
 18 A. Correct.  
 19 COMMISSIONER:  
 20 Q. When necessary.  
 21 MR. PRITCHARD:  
 22 A. When necessary, and when selected by the  
 23 safety advisor to go to specific sites.  
 24 MR. VOKEY:  
 25 A. We generally have, and I think for all

Page 160

1 installations, we have two types of tasks. We  
 2 have routine type of tasks and we have  
 3 critical tasks or critical procedures.  
 4 Something like refuelling a helicopter would  
 5 be a critical task, and that means there's a  
 6 set sequence for doing everything. So the  
 7 knowledge required is different than if it was  
 8 a routine task. In addition to that,  
 9 everybody that's on the helideck or supports  
 10 those type of operations during helicopter  
 11 landings or takeoff, they actually undergo  
 12 every three year training, which is a two day  
 13 training course, for helicopter operations.  
 14 So they are trained specifically in how to  
 15 handle and refuel helicopters.  
 16 COMMISSIONER:  
 17 Q. Okay, thank you for that, because I didn't  
 18 realize that a distinction was made like that  
 19 between critical tasks and not so critical  
 20 tasks, routine tasks.  
 21 MR. VOKEY:  
 22 A. I can speak on behalf of Terra Nova,  
 23 approximately one-third of all our tasks we  
 24 consider critical tasks, and by critical, it  
 25 means there has to be a set sequence and

Page 161

1 protocol of how that job is done.  
 2 COMMISSIONER:  
 3 Q. Does that apply to the your installations as  
 4 well?  
 5 MR. PRITCHARD:  
 6 A. We have routine tasks, what's considered low  
 7 risk tasks, and some critical tasks.  
 8 MR. SACUTA:  
 9 A. We have what's considered integrity critical,  
 10 and in those situations we have specific  
 11 procedures that have to be followed step by  
 12 step and initialled off as you complete each  
 13 step to identify the task is a critical task  
 14 and you need to follow the procedures step by  
 15 step as part of that process.  
 16 COMMISSIONER:  
 17 Q. Okay, thank you. Mr. Roil.  
 18 ROIL, Q.C.:  
 19 Q. Thank you. Thank you, Mr. Pritchard, and Mr.  
 20 Sacuta, I believe that you had something you  
 21 wanted to clarify from what you said this  
 22 morning.  
 23 MR. SACUTA:  
 24 A. Yes. This morning we talked a little bit  
 25 about the three refusals that we had on

Page 162

1 Hibernia, and although I intended to discuss  
 2 them tomorrow as part of the Helicopter  
 3 Operation Task Force section, I thought it was  
 4 appropriate that maybe I give a little summary  
 5 on those three refusals.  
 6 COMMISSIONER:  
 7 Q. By all means, yes.  
 8 MR. SACUTA:  
 9 A. Yes, the process that you follow when anybody  
 10 refuses work is that the individual raises  
 11 concern with his immediate supervisor. They  
 12 have a discussion and they attempt to resolve  
 13 the issue. If it's not resolved to the  
 14 employee's satisfaction, he then has the  
 15 option to take it to the JOHS Committee. He's  
 16 supposed to discuss it with the safety rep and  
 17 it would go to the JOHS Committee. At that  
 18 point in the process, the offshore  
 19 installation manager must contact the on duty  
 20 board safety officer to let them know that we  
 21 have a right to refuse dangerous work being  
 22 reviewed and it's going to the JOHS Committee.  
 23 The individual would then present his case to  
 24 the JOHS Committee and the JOHS Committee  
 25 would evaluate and try to determine whether or

Page 163

1 not it was a valid right to refuse dangerous  
 2 work or whether it wasn't. At that point, if  
 3 it's not satisfied to the satisfaction of the  
 4 individual or to any kind of the JOHS  
 5 Committee, it would then get referred to the  
 6 Board. At that point in time, the Board would  
 7 normally involve two of their safety officers  
 8 to do an investigation. As I mentioned, we  
 9 had three refusals shortly after Mr. Decker's  
 10 testimony. Two were associated with the  
 11 auxiliary fuel tank, and one was associated  
 12 with the cracks on the main gear box mounting  
 13 feet, which was a known issue with Sikorsky.  
 14 So the Board investigated all three of those  
 15 and when the Board does their investigation,  
 16 they interview the individual to make sure  
 17 they understand exactly what the individual's  
 18 issues are. They interview the JOHS Committee  
 19 to make sure that they understand the  
 20 discussion that was held of the JOHS Committee  
 21 and the opinion of the JOHS Committee. They  
 22 interview the individual's supervisor. They  
 23 also gather information from an other sources.  
 24 In these three situations, they gathered  
 25 information from Cougar, they gathered

Page 164

1 information from Sikorsky through Cougar on  
 2 all of these issues. In all three cases, the  
 3 Board issued a very detailed summary report  
 4 with the process and the steps that they took  
 5 to evaluate whether or not it was a valid  
 6 right to refuse dangerous work, and in all  
 7 three cases they indicated that the auxiliary  
 8 fuel tank and the main gear box feet cracks  
 9 did not result in an unacceptable increase in  
 10 risk for helicopter transportation. That was  
 11 their opinion. After that ruling was provided  
 12 by the Board, all three individuals then  
 13 subsequently transited offshore by helicopter  
 14 and the item was considered closed based on  
 15 that fact. It went through the entire  
 16 process, the Board issued its opinion or its  
 17 decision, and then in this case the three  
 18 individuals have now returned to their normal  
 19 helicopter operations.  
 20 COMMISSIONER:  
 21 Q. Okay, thank you.  
 22 ROIL, Q.C.:  
 23 Q. Unless there are any other follow up items  
 24 from this morning, Mr. Vokey, I think you had  
 25 taken us to approximately 59, slide 59.

Page 165

1 MR. VOKEY:  
 2 A. Yes.  
 3 ROIL, Q.C.:  
 4 Q. And we are now going to focus a little more on  
 5 helicopter operations.  
 6 MR. VOKEY:  
 7 A. That's correct, sir. The next heading is  
 8 helicopter services or helicopter operations.  
 9 In this section of the presentation, I'll  
 10 speak in a little more detail about helicopter  
 11 operations, including the following; the oil  
 12 and gas related regulatory references, the  
 13 helicopter operations, the general types of  
 14 services provided, the selection of Cougar as  
 15 the helicopter service provider by each of the  
 16 operators, the activity that Cougar led in the  
 17 selection of the S-92 airframe, and the  
 18 decision process by each of the operators to  
 19 move to using the S-92 airframe for respective  
 20 operations, and some of the key features of  
 21 the S-92 which made it an appropriate airframe  
 22 for use in our operating environment. In his  
 23 testimony last fall, Mr. Pike, the Chief  
 24 Safety Officer with the Board, provided  
 25 excerpts from several places in the Board's

Page 166

1 guidelines where helicopter operations are  
 2 referenced. The guidelines respecting  
 3 drilling operations contain specific  
 4 expectations. All operators must meet these  
 5 expectations in order to hold a valid work  
 6 authorization. All operators are in  
 7 compliance with these expectations. This  
 8 slide and the next will provide a list of  
 9 specific references for helicopter operations.  
 10 I'm just taking a look at some of them there.  
 11 Helicopter operations or helicopters must be  
 12 certified by Transport Canada, the pilots must  
 13 be licensed by Transport Canada, training and  
 14 experience of crews and first response  
 15 technicians are required, and provision of  
 16 flight time for first response practice and  
 17 drills. It also goes on to talk in general  
 18 about what aircraft should have. They should  
 19 have multiple engine designs, be capable of  
 20 landing on the water in at least moderate sea  
 21 states, have upper torso passenger restraints,  
 22 externally mounted life rafts, and be  
 23 configured to allow emergency egress of  
 24 passengers. In addition, they must be able to  
 25 communicate with shore-based and other

Page 167

1 installations and vessels in the field.  
 2 ROIL, Q.C.:  
 3 Q. Okay. Mr. Vokey, you slipped there from the  
 4 word "should" to the word "must", and that was  
 5 leading to my question, and I think we went on  
 6 this this morning, but I just want to be  
 7 clear. These "shoulds", I take it become  
 8 "musts" by virtue of the fact that these are  
 9 conditions for your work authorizations?  
 10 MR. VOKEY:  
 11 A. That's correct. If it is included there, the  
 12 "shoulds" in essence for us would become a  
 13 "must". There are -- there are some isolated  
 14 instances, and I'll give you an example.  
 15 Where do I find it here; be equipped with  
 16 externally mounted life rafts. There are  
 17 helicopters that we have used here, the  
 18 Sikorsky S-61, for example, does not have  
 19 externally mounted life rafts, but it does  
 20 have internally mounted life rafts right at  
 21 the main entrances and exits from the  
 22 helicopter. So in a case like that, if the  
 23 operator can demonstrate an equivalency, they  
 24 may be granted that equivalent standard, but  
 25 for the most part, where it says "should" it's

Page 168

1 in essence a "must".  
 2 ROIL, Q.C.:  
 3 Q. And you don't change from "must" to a  
 4 "should", I take it, unless you have approval  
 5 from the C-NLOPB to make that deviation?  
 6 MR. VOKEY:  
 7 A. Yeah. The other way is a lot more difficult  
 8 to go.  
 9 ROIL, Q.C.:  
 10 Q. Yeah, because I think the word "should" sounds  
 11 to most of those of us that use English in its  
 12 ordinary parlance, it's, oh, well, you know,  
 13 you try to do it nine times out of ten, that  
 14 sort of thing.  
 15 MR. VOKEY:  
 16 A. No, for the most part, where it says "should",  
 17 I mean, the Board, if you don't, you have to  
 18 demonstrate an equivalency.  
 19 ROIL, Q.C.:  
 20 Q. Okay.  
 21 MR. VOKEY:  
 22 A. So the next slide, I believe, is slide 62 in  
 23 the pack. It talks about some other things;  
 24 passengers must receive helicopter underwater  
 25 escape training, suitably briefed prior to

Page 169

1 transport, don't normally carry freight and  
 2 passengers in the same aircraft or in the same  
 3 compartment, flying at night should be avoided  
 4 to the extent possible, reserve helicopter  
 5 fuel to be kept in the field, consideration  
 6 given to providing goggles and appropriate  
 7 breathing devices to assist underwater escape,  
 8 and proven automated usage and monitoring  
 9 systems should be used where practicable.  
 10 ROIL, Q.C.:  
 11 Q. Again I just want to slow us down a little bit  
 12 and focus on some of these because there are  
 13 some words like "normally" and "should be  
 14 avoided", that I want to focus on. First of  
 15 all, all passengers must receive HUET  
 16 training. I think we've got a lot of evidence  
 17 about how that's done, so we won't spend any  
 18 time on that. Passengers must be suitable  
 19 briefed prior to transport, and wear approved  
 20 helicopter transportation suits. We know  
 21 about the transportation safety suits. Where  
 22 does the briefing take place?  
 23 MR. VOKEY:  
 24 A. The briefing for helicopter transport would  
 25 take place at Cougar's facilities out adjacent

Page 170

1 to the airport.  
 2 ROIL, Q.C.:  
 3 Q. Okay, and we'll hear from them specifically as  
 4 to the details of that. Passengers and  
 5 freight should not normally be carried on the  
 6 same aircraft. I don't know what "normally"  
 7 means. Does that mean you can do it once a  
 8 week, once a month, once a year? Explain to  
 9 the Commissioner and to those of us in the  
 10 room what -- how that's interpreted and how's  
 11 that worked and applied over the past number  
 12 of years?  
 13 MR. VOKEY:  
 14 A. Okay. On occasion in the past, and I'll speak  
 15 in more recent years in a minute, but in the  
 16 past, depending on the type of aircraft, we  
 17 did have latitude in terms of physical  
 18 dimensions, the size of doors and what not,  
 19 there was an ability to carry equipment and  
 20 people concurrently. Since we've had the S-  
 21 92s, I know of no instance where we've carried  
 22 both equipment and people in the same  
 23 compartment, and the reason the Board would  
 24 say it shouldn't normally be carried there,  
 25 because it does have the potential of being an

Page 171

1 egress issue, or in the event of a helicopter  
 2 impact, something becoming dislodged and  
 3 becoming more of a projectile, but in recent  
 4 times none of the operators, to my knowledge,  
 5 and I've gotten that from Cougar, with the new  
 6 airframes, have carried both cargo and  
 7 passengers in the same.  
 8 ROIL, Q.C.:  
 9 Q. Does that mean they can't take a mail bag with  
 10 some mail in it or are we talking --  
 11 MR. VOKEY:  
 12 A. No, that would be in the cargo compartment.  
 13 I'm talking specifically in the passenger  
 14 compartment.  
 15 ROIL, Q.C.:  
 16 Q. Okay, so the airframe does have the capacity  
 17 to have a portion --  
 18 MR. VOKEY:  
 19 A. For luggage.  
 20 ROIL, Q.C.:  
 21 Q. For luggage.  
 22 MR. VOKEY:  
 23 A. For luggage and that type of cargo, yes.  
 24 ROIL, Q.C.:  
 25 Q. Consideration of weather and helicopter loads

Page 172

1 when planning flights, what does that mean?  
 2 MR. VOKEY:  
 3 A. I think when the question was asked this  
 4 morning, Mr. Sacuta said, you know, our  
 5 operating environment is unique because of the  
 6 weather potential and the harshness of it. In  
 7 terms of -- in terms of the weather and the  
 8 load limits, any helicopter that's going  
 9 offshore must carry enough fuel to not only  
 10 get to the offshore location, but it needs to  
 11 anticipate what the maximum head winds would  
 12 be, for an example. They would also need to  
 13 have enough fuel to hold a holding pattern,  
 14 and in the event that they weren't able to  
 15 land offshore, that they would have enough  
 16 fuel to come back, not only to St. John's, but  
 17 its closest alternate, and that could be Long  
 18 Pond, it could be Gander, it could be any  
 19 other known area where you're known to have  
 20 adequate weather.  
 21 ROIL, Q.C.:  
 22 Q. So the business of how the helicopter works on  
 23 a daily basis has to take into consideration  
 24 the weather that is prevailing at that time?  
 25 MR. VOKEY:

1 A. That's correct, sir.  
 2 ROIL, Q.C.:  
 3 Q. Flying at night should be avoided to the  
 4 extent possible. So there's two wiggle room  
 5 places there. What does that mean practically  
 6 in terms of how -- in the world of  
 7 Newfoundland we have now, I come to work and  
 8 it's fairly dark and I go home and it's fairly  
 9 dark. What's a night flight and when do you  
 10 fly in the night, and again all of your  
 11 answers here obviously can be ultimately asked  
 12 of Cougar, who are perhaps the better people,  
 13 but I need to know what your understanding is  
 14 of what that caveat means to you?  
 15 MR. VOKEY:  
 16 A. For us, a night flight is any night that  
 17 either starts or terminates in darkness. So  
 18 it doesn't have to be fully in darkness, but  
 19 if a helicopter, say, leaves St. John's this  
 20 time of the year at 3 o'clock, gets to the  
 21 offshore installation at 4:30, it's still  
 22 daylight.  
 23 ROIL, Q.C.:  
 24 Q. This is in the afternoon we're talking?  
 25 MR. VOKEY:

1 Gander doesn't have any limitations, your  
 2 weather to and from offshore in terms of  
 3 winds, sea states, is adequate, and you don't  
 4 reasonably have a good chance of mitigating  
 5 your backlog over the next day or so because  
 6 of weather forecast. So in cases like that,  
 7 the operator will elect to fly at night.  
 8 ROIL, Q.C.:  
 9 Q. At this time of the year on the coast of  
 10 Newfoundland, what number of flights or  
 11 percentage of flights, or how much flying  
 12 happens either in the early morning before  
 13 it's light, or in the late afternoon, early  
 14 evening, when it's dark?  
 15 MR. VOKEY:  
 16 A. I don't have the exact numbers, but I know  
 17 statistically you're probably looking in the 5  
 18 percent.  
 19 ROIL, Q.C.:  
 20 Q. As opposed to 25 or 30 percent?  
 21 MR. VOKEY:  
 22 A. Yes.  
 23 ROIL, Q.C.:  
 24 Q. Yes, okay.  
 25 MR. VOKEY:

1 A. In the afternoon, sorry, but the return  
 2 flight, a portion or all of that flight would  
 3 be in darkness. So that's one example.  
 4 Another example could be the total, the whole  
 5 of the flight would be in darkness. So it  
 6 includes either total darkness or partial  
 7 darkness. I think it's fair to say from all  
 8 operators that are operating here, it is  
 9 certainly our business objectives and  
 10 operational objectives to complete all our  
 11 flying in daylight hours. The challenge is  
 12 because of the weather, the inclement weather  
 13 that we do experience from time to time, we do  
 14 have the potential for creating what we refer  
 15 to as a backlog of people to be transported to  
 16 and from the offshore installations, and in  
 17 cases like that to clear it up, we are  
 18 required to get rid of the backlog by flying  
 19 into the evening, and it's not an issue that's  
 20 taken lightly with the operators. We do have  
 21 a number of criteria or check sheets that we  
 22 go through, and as an example, you would need  
 23 to verify that, you know, your own first  
 24 response capability is not inhibited in any  
 25 way, that the 103 Cormorant, 103 Squadron in

1 A. Five percent range, and I wouldn't be off more  
 2 than a percent there.  
 3 ROIL, Q.C.:  
 4 Q. Okay, reserve helicopter fuel to be kept on  
 5 the facility, including rationale. I  
 6 understand the first part of that. What's the  
 7 rationale about?  
 8 MR. VOKEY:  
 9 A. I think that goes -- they go back to some  
 10 outdated regulations, but --  
 11 ROIL, Q.C.:  
 12 Q. Outdated wording?  
 13 MR. VOKEY:  
 14 A. Outdated -- well, outdated wording, and the  
 15 specific reference was the MODUS, which is  
 16 Mobile Offshore Drilling Units, but what it  
 17 takes into account is you need to be able to  
 18 justify the amount of fuel you keep on board  
 19 by the type of operations you're conducting.  
 20 So if you're flying three helicopters a day,  
 21 don't sit there with a tow tank of one cube on  
 22 board because that wouldn't be adequate for  
 23 the type of operation that you have.  
 24 ROIL, Q.C.:  
 25 Q. Okay, so it isn't to minimize the amount, it's

Page 177

1 to rationalize the amount?

2 MR. VOKEY:

3 A. It's to ensure that you've got adequate in the

4 event you need it.

5 ROIL, Q.C.:

6 Q. And these helicopters do refuel at the various

7 installations that they land at?

8 MR. VOKEY:

9 A. Yes.

10 ROIL, Q.C.:

11 Q. At all of them?

12 MR. VOKEY:

13 A. Yes.

14 ROIL, Q.C.:

15 Q. Consideration be given to goggles. I think

16 we've come across goggles, and appropriate

17 breathing devices, we've dealt with that

18 fairly extensively. Proven automated usage

19 and monitoring systems. I recall with one of

20 the earlier witnesses some colourful exchange

21 between he and I about HUMS, and what HUMS

22 meant. I take it, that's what you're talking

23 about there?

24 MR. VOKEY:

25 A. For the S-92, that's what the system is

Page 178

1 called. HUMS is Health Usage Monitoring

2 System.

3 ROIL, Q.C.:

4 Q. Right.

5 MR. VOKEY:

6 A. And it just monitors all the critical aspects

7 of the helicopter, and after every flight,

8 Cougar actually takes the information and

9 downloads it into their software, and it gets

10 sent to Sikorsky's headquarters.

11 ROIL, Q.C.:

12 Q. Do I take it that other airframes at different

13 times may or may not have the same level of

14 monitoring and usage information?

15 MR. VOKEY:

16 A. That's correct. I mean, it is a later

17 technology and that is one of the -- I guess,

18 one of the aspects of the S-92 that makes it

19 attractive. It does have the ability to

20 monitor some of the critical aspects of the

21 airframe.

22 ROIL, Q.C.:

23 Q. Okay, I think that's all the questions I had

24 for this page. Thank you, we can move on.

25 MR. VOKEY:

Page 179

1 A. Each of the operators have a contract with

2 Cougar Helicopters for the provision of

3 helicopter services. The types of services

4 that Cougar has been contracted to provide

5 would include; supply, operation, and

6 maintenance of helicopters, specialized

7 personnel. That would include pilots, flight

8 dispatch, mechanics, maintenance personnel,

9 terminal services, things like baggage

10 handling, security, and screening. Passenger

11 and cargo administration. Every person and

12 piece of cargo that travels to the offshore by

13 helicopter has to be included in a flight

14 manifest, and like I say, both individuals and

15 baggage goes through a security screening.

16 Even down to individual's weight. So in the

17 case of passengers, there's an administrative

18 process when an individual checks in, it talks

19 about their latest identification of their

20 next of kin, their BST certification, their

21 medical certification, and like I say, right

22 down to their weight. Like I said earlier,

23 while the primary means of transport of cargo

24 would be by supply boats, periodically smaller

25 parts will be flown on a helicopter, but not

Page 180

1 in the same compartment as individuals.

2 Cougar also provides air ambulance services,

3 and that's to ensure the timely evacuation of

4 anyone who has to be evacuated from an

5 offshore facility for medical reasons. They

6 also have to provide first response services,

7 and that'll be described later in the

8 presentation in more detail by one of my

9 colleagues. Some other specialized services,

10 some of the helicopter operators or users of

11 helicopters use the helicopters for things

12 like changing out flare tips offshore. I know

13 in the past Terra Nova has done it a couple of

14 times, and I believe Hibernia and Sea Rose

15 likewise.

16 ROIL, Q.C.:

17 Q. This is a heavy lift function?

18 MR. VOKEY:

19 A. This would be a heavy lift function of the

20 helicopters. In order to ensure the most

21 effective use of helicopters that Cougar

22 operates, the operators pool the helicopters.

23 That way, there's a specific -- if there's a

24 specific airframe out of service, that no one

25 operator is penalized for that. So it is an



Page 181

1 agreement between the operators saying that  
 2 we'll each contribute a helicopter, and any  
 3 day one is out for maintenance, that we'll  
 4 each share the remaining helicopters.  
 5 ROIL, Q.C.:  
 6 Q. Okay, before we go on there, I'd like to  
 7 explore a little bit how the system works  
 8 because ultimately the individual contracts  
 9 are individual to the companies, and we'll  
 10 have to bring those contracts out in that  
 11 phase of this inquiry, but we understand that  
 12 there is a pooling arrangement, we understand  
 13 that there are airframes. So let me just take  
 14 it in baby steps. Each of the three major  
 15 companies that are out there has an airframe  
 16 that is assigned to it, that's it's contracted  
 17 for?  
 18 MR. VOKEY:  
 19 A. We each contract one helicopter.  
 20 ROIL, Q.C.:  
 21 Q. One helicopter, so that gives us three. We  
 22 now have a new operator out there called  
 23 ConocoPhillips. Do they share in that third  
 24 one or is there a fourth one?  
 25 MR. VOKEY:

Page 182

1 A. Not as such, but they're flying program takes  
 2 them into somewhere around 1 o'clock in the  
 3 day, and when their helicopter -- when they're  
 4 finished with their helicopter, they do make  
 5 their helicopter available to us.  
 6 ROIL, Q.C.:  
 7 Q. So there are now out at the, call it Torbay  
 8 Airport, giving away my age, St. John's  
 9 Airport, there are four airframes?  
 10 MR. VOKEY:  
 11 A. There's four available, that's correct.  
 12 ROIL, Q.C.:  
 13 Q. On March 11th and 12th, how many were there  
 14 then? I'm trying to establish the size of the  
 15 pool. Is it always three, has it been four,  
 16 does it go down to two, does it go up to five?  
 17 Just give us some understanding of that.  
 18 MR. VOKEY:  
 19 A. I stand to be corrected on this, but I believe  
 20 there was four. Maybe Mr. Sacuta can just  
 21 comment.  
 22 MR. SACUTA:  
 23 A. There was four. Statoil was drilling at the  
 24 time. Statoil brought in an helicopter for  
 25 their operation, so each of the operators had

Page 183

1 theirs and Statoil had a S-92 as well.  
 2 ROIL, Q.C.:  
 3 Q. Okay. So the pooling arrangement can involve  
 4 three or four helicopters?  
 5 MR. SACUTA:  
 6 A. If you elect to participate in the pooling  
 7 arrangement, yes.  
 8 ROIL, Q.C.:  
 9 Q. Yes, okay. We have as an exhibit -- I don't  
 10 want to take it out and talk about it line for  
 11 line, other people may, but we do have the  
 12 helicopter pooling charter. Mr. Vokey, if you  
 13 can just explain to us -- because again  
 14 probably a lot of people don't understand, on  
 15 any given day, does -- do all three  
 16 helicopters fly out, is there always one left  
 17 behind? How does the flight thing work in a  
 18 practical sort of way?  
 19 MR. VOKEY:  
 20 A. Well, these helicopters, I mean, like any  
 21 piece of machinery, require maintenances, but  
 22 let's assume there's a day when none of the  
 23 helicopters are US or unserviceable, there's  
 24 always that one helicopter on the ground and  
 25 that would help satisfy the first response

Page 184

1 requirements for one hour wheels up. So the  
 2 other two helicopters on a pre-set agreement  
 3 between the operators would be flying out to  
 4 each of the installations. So Hibernia would  
 5 not necessarily fly the helicopter that they  
 6 contracted, that helicopter might, in fact, be  
 7 going to Terra Nova, but in the event of  
 8 backlog or weather, the pooling agreement sets  
 9 out the structure for when we'll resume  
 10 helicopter operations, how you get rid of  
 11 backlog, and what constitutes priority, you  
 12 know, where technical emergencies would fit in  
 13 there, where medivacs would fit in there, and  
 14 it's just -- it's not real tightly worded, I  
 15 think, if you read it, but it's the spirit of  
 16 there's three operators here, we have three  
 17 aircrafts, let's use them to the mutual  
 18 advantage.  
 19 MR. PRITCHARD:  
 20 A. Just for clarity there, Mr. Roil, to sort of  
 21 make a point that the three aircraft do rotate  
 22 in operational duties on any one day.  
 23 ROIL, Q.C.:  
 24 Q. Yes.  
 25 MR. PRITCHARD:

Page 185

1 A. So the three helicopters are operationally in  
 2 use, but any one time we always maintain since  
 3 March 12th, and back to service, one airframe  
 4 on the ground designated for SAR duties.  
 5 ROIL, Q.C.:  
 6 Q. So three are able to fly. Two could be taking  
 7 people back and forth?  
 8 MR. PRITCHARD:  
 9 A. Correct.  
 10 ROIL, Q.C.:  
 11 Q. The third one would be there.  
 12 MR. PRITCHARD:  
 13 A. Yes.  
 14 ROIL, Q.C.:  
 15 Q. That third one might be a different airframe  
 16 in the afternoon than it was in the morning?  
 17 MR. PRITCHARD:  
 18 A. In three hours time that airframe that's on  
 19 the ground may well be an operational  
 20 helicopter, just to make sure --  
 21 MR. VOKEY:  
 22 A. Yeah. I guess -- no, for clarity, probably  
 23 what I should have said, the one that's on the  
 24 ground can't leave until one of the other two  
 25 helicopters are back.

Page 186

1 ROIL, Q.C.:  
 2 Q. Yeah. So it's not that there is a helicopter  
 3 marked number one that goes to Hibernia every  
 4 day, and marked number two that goes to Terra  
 5 Nova, or three that goes to White Rose. This  
 6 pooling and sharing arrangement happens on a  
 7 daily basis?  
 8 MR. VOKEY:  
 9 A. That's correct, it's an ongoing basis. The  
 10 next slide I'll talk a little bit about  
 11 selection of Cougar as the helicopter service  
 12 provider.  
 13 ROIL, Q.C.:  
 14 Q. Before you go on, there was a line there again  
 15 that we didn't deal with. It says, "Operators  
 16 conduct independent formal audits of Cougar".  
 17 This is something that I gather we will deal  
 18 with in more detail in the individual  
 19 presentations?  
 20 MR. VOKEY:  
 21 A. That's correct. On slide 64, as the Hibernia  
 22 Development was the first of the offshore  
 23 producing assets, HMDC led the first bidding  
 24 process for the selection of the helicopter  
 25 service provider. HMDC's competitive bid

Page 187

1 process is similar to that of the other  
 2 operators, and included a pre-qualification of  
 3 the potential bidders, and that's a process  
 4 that ensures that each potential service  
 5 provider is qualified to perform the work.  
 6 Cougar was one of three qualified bidders.  
 7 The competitive bid process included a  
 8 detailed scope of work, the submission of a  
 9 formal bid proposal from the three qualified  
 10 bidders, a detailed analysis of the bidders by  
 11 a multidisciplinary team, and they assessed  
 12 the safety and environmental performance of  
 13 the bidders, technical capabilities of the  
 14 bidders, the commercial proposal from each of  
 15 the bidders, and to the extent to which in the  
 16 delivery of the service contract the bidder  
 17 met the Canada and Newfoundland and Labrador  
 18 benefits commitments. Cougar was awarded the  
 19 contract for Hibernia's helicopter service  
 20 provision in 1995. As a normal component of  
 21 any major contract service bid, the  
 22 recommendations of the operator are shared by  
 23 the operator with the regulator, in this case  
 24 the C-NLOPB, in advance of the contract award.  
 25 If the regulator has specific issues or

Page 188

1 concerns with a contract recommendation at  
 2 this stage, they may direct the operator to do  
 3 additional contract analysis. In this case,  
 4 the recommendation was reviewed and validated  
 5 by the Board.  
 6 ROIL, Q.C.:  
 7 Q. Now prior to 1995, I take it from all of your  
 8 evidence, or at least a couple of you, that  
 9 you might have been here prior to that time,  
 10 was Cougar or was there another company or  
 11 companies providing the service prior to that  
 12 time?  
 13 MR. VOKEY:  
 14 A. There were other companies. I believe CHC was  
 15 here at one point, a company called Sealand  
 16 Helicopters.  
 17 ROIL, Q.C.:  
 18 Q. But from 1995, the only provider has been --  
 19 MR. VOKEY:  
 20 A. That would have been the only -- because the  
 21 drilling programs would have finished up in  
 22 the mid to late 80s.  
 23 ROIL, Q.C.:  
 24 Q. Right.  
 25 MR. VOKEY:

Page 189

1 A. So during that period there wasn't any  
 2 offshore activity.  
 3 ROIL, Q.C.:  
 4 Q. Right.  
 5 MR. VOKEY:  
 6 A. So other operator selection of Cougar  
 7 Helicopters. For Petro Canada, in preparation  
 8 for the development of the Terra Nova Project,  
 9 Petro Canada also initiated a competitive bid  
 10 process for helicopter services. The  
 11 requirements outlined in Petro Canada's scope  
 12 of work included those noted in the  
 13 description of helicopter services in the  
 14 first slide of this section, and also the full  
 15 time -- the requirement for a full deicing  
 16 capabilities. The bid analysis process for  
 17 Petro Canada followed essentially the same  
 18 process that HMDC conducted. Petro Canada  
 19 also used a multidisciplinary team to review  
 20 its bid and contracted an aviation consultant  
 21 to participate in the bid review process.  
 22 This was not a core skill for Petro Canada at  
 23 the time. Cougar was recommended as a service  
 24 provider and the contract between Terra Nova  
 25 or Petro Canada and Cougar was established in

Page 190

1 the fourth quarter of 1998.  
 2 ROIL, Q.C.:  
 3 Q. Can I just stop you there. Can I take it from  
 4 that, that there was -- there may have been  
 5 good commercial reasons to use Cougar, but  
 6 there was no requirement as a term of your  
 7 licence that you use the same provider that  
 8 was being used by HMDC?  
 9 MR. VOKEY:  
 10 A. There was absolutely no requirement. I guess,  
 11 one of the things when you are working in a  
 12 basin, though, as small as the Grand Banks  
 13 that we are operating in, there are economies  
 14 of scale. So the fact that Cougar was here,  
 15 was set up, had the facilities, had the space,  
 16 whether or not you could argue they had a  
 17 competitive advantage or not, I mean, it's up  
 18 to the individual, but for some of those  
 19 companies when they're here first, it does  
 20 give them an advantage because the money has  
 21 been invested and now it's just a matter of it  
 22 being shared among the participants.  
 23 ROIL, Q.C.:  
 24 Q. Uh-hm. Okay, thank you.  
 25 MR. VOKEY:

Page 191

1 A. In preparation for the White Rose Project,  
 2 Husky also initiated a competitive billing  
 3 process for helicopter services, and they too  
 4 selected Cougar, and their contract was  
 5 established in 2003. Contracts between the  
 6 operators and Cougar are for specified periods  
 7 with extension options, and all operators  
 8 revisit their helicopter contracts  
 9 periodically to determine if extensions and/or  
 10 a rebid is required. I'm just going to talk a  
 11 little bit about the selection of the S-92A  
 12 now, the Sikorsky S-92A. At the time Cougar  
 13 was selected by each of the operators, they  
 14 were using Super Puma as their primary  
 15 airframe. As their base of operations  
 16 expanded, Cougar added the Sikorsky S-61 to  
 17 the fleet, and they --  
 18 ROIL, Q.C.:  
 19 Q. I'm sorry, before you go on, people don't  
 20 necessarily understand, is Eurocopter a piece  
 21 of equipment manufactured by Sikorsky, or is  
 22 that --  
 23 MR. VOKEY:  
 24 A. Eurocopter Super Puma is manufactured by  
 25 Eurocopter.

Page 192

1 ROIL, Q.C.:  
 2 Q. It's an entirely separate company?  
 3 MR. VOKEY:  
 4 A. It's a competitor, but --  
 5 ROIL, Q.C.:  
 6 Q. Okay, I was trying to avoid that word, but,  
 7 yes, exactly.  
 8 MR. VOKEY:  
 9 A. And the S-61, S-92 is Sikorsky.  
 10 ROIL, Q.C.:  
 11 Q. So Sikorsky have various airframes?  
 12 MR. VOKEY:  
 13 A. That's correct.  
 14 ROIL, Q.C.:  
 15 Q. And they're all designated as "S" something.  
 16 MR. VOKEY:  
 17 A. And Eurocopter in terms of Super Pumas, they  
 18 have a couple of different models. We had the  
 19 model 332L here. They do have a new  
 20 competitor now for the S-92, which is the  
 21 Eurocopter 225.  
 22 ROIL, Q.C.:  
 23 Q. Okay.  
 24 MR. VOKEY:  
 25 A. So as I mentioned, as their base of operations

Page 193

1 expanded, Cougar added the Sikorsky S-61 to  
 2 the fleet, and at that time they also began to  
 3 assess new helicopter technology. The  
 4 analysis was conducted over a number of years  
 5 beginning back in 2000. Cougar's analysis  
 6 began to centre on two leading contenders; the  
 7 Sikorsky S-92A, and the Eurocopter E-225.  
 8 Cougar eliminated the Agusta Westland EH-101  
 9 from a detailed consideration due to  
 10 maintenance support limitations and weight  
 11 considerations. The EH-101 is a significant  
 12 heavier helicopter, and it may have been a  
 13 limitation for a number of vessels or rigs  
 14 operating on the Grand Banks if they weren't  
 15 designed for those heavier loads for their  
 16 helidecks. So that would have been one of the  
 17 reasons.

18 ROIL, Q.C.:

19 Q. If I can stop you there, you mentioned Agusta  
 20 Westland, which I take it is another  
 21 manufacturer. Are there any other  
 22 manufacturers in the world, and you may not be  
 23 the expert, so if you can't answer it clearly,  
 24 then answer it with, "I don't know", or "I'm  
 25 not sure", but is it essentially a choice of

Page 194

1 three heavy lift helicopters, or are there 27  
 2 or 50 or 100? Is it like buying a car or is  
 3 it like buying a particular vehicle for a  
 4 particular purpose?

5 MR. VOKEY:

6 A. You're right, I'm not the one to ask. The  
 7 only other one that I am familiar with that we  
 8 have used here in the past is the Bell  
 9 Helicopters.

10 ROIL, Q.C.:

11 Q. So there are other manufacturers. Whether  
 12 they make anything that is appropriate, you  
 13 wouldn't be best to ask that?

14 MR. VOKEY:

15 A. That's correct. Cougar would certainly be  
 16 able to shed some light, though.

17 ROIL, Q.C.:

18 Q. Okay, thank you.

19 MR. VOKEY:

20 A. Cougar determined that the S-92A and the  
 21 Eurocopter 225 were the two airframes most  
 22 suitable for east coast offshore operating  
 23 environment. Cougar conducted a detailed  
 24 analysis of the leading contenders, which  
 25 included an analysis of Sikorsky's

Page 195

1 certification process through the Federal  
 2 Aviation Authority, or as we know, the FAA,  
 3 and their production program for the 92, and  
 4 also a detailed technical analysis of the  
 5 Eurocopter and Sikorsky airframes,  
 6 particularly in terms of their respective  
 7 size, fuel capacity, range, and availability  
 8 of simulators for each of the respective  
 9 airframes. This process led Cougar to  
 10 recommending the Sikorsky S-92 to Petro  
 11 Canada. Petro Canada had been working jointly  
 12 with Cougar through this analysis and  
 13 ultimately agreed to proceed with the  
 14 selection of the S-92A. This recommendation  
 15 again was brought forward to the C-NLOPB for  
 16 endorsement in accordance with the guidelines  
 17 that I referenced earlier in this section.  
 18 Petro Canada took delivery and put the first  
 19 of Cougar's S-92 in service in April of 2005.  
 20 Ultimately, Cougar worked with HMDC and Husky,  
 21 who conducted independent reviews and  
 22 ultimately adopted the S-92A. I just want to  
 23 talk about some of the considerations. When  
 24 Cougar conducted its review of the airframe  
 25 options, there were several key considerations

Page 196

1 for the east coast offshore basin. One was  
 2 the overall safety features of the S-92.  
 3 Another was passenger capacity. The S-92 had  
 4 greater passenger capacity than that of the  
 5 Super Pumas, and the S-61, that's previously  
 6 been used by Cougar. Speed and range was a  
 7 factor. Range is a critical consideration for  
 8 offshore producing fields because they are in  
 9 excess of 300 kilometres offshore. Cargo  
 10 capacity and flexibility was another  
 11 consideration, maintenance requirements and  
 12 support capability, and the overall track  
 13 record of the manufacturer. Ultimately,  
 14 Cougar's recommendation to the operators was  
 15 that the S-92 was configured best for  
 16 Newfoundland offshore basin. To speak a  
 17 little bit about the transition from the 61  
 18 Super Puma to a full fleet, as noted  
 19 previously, Petro Canada took delivery of the  
 20 first S-92 in April of 2005. Cougar's pool of  
 21 helicopters at that point expanded to include  
 22 Super Pumas, S-61s, and then S-92As. From  
 23 2005 to 2007, HMDC and Husky independently  
 24 completed their assessment of the S- 92  
 25 airframe and executed their respective

Page 197

1 agreements with Cougar. By mid 2007, Cougar  
 2 completed its transition to a full S-92A fleet  
 3 as it is today. Some of the features of the  
 4 S-92, and we did talk about the HUMS, but the  
 5 S-92, like the Eurocopter, the newer  
 6 helicopters do use newer technology. Anti-  
 7 deicing would be more of a standard, the  
 8 Health Usage Monitoring System, the S-92 has  
 9 bird strike protection, and some of the older  
 10 aircraft didn't have those types of features.  
 11 Another reason, I guess, why Cougar back in  
 12 2000 took a look at their fleet, I mean, the  
 13 Super Pumas have been around for in excess of  
 14 25 years, the S-61s, they had been around  
 15 since the 60s, and given the maturity of the  
 16 field, given that Hibernia was just on stream,  
 17 Terra Nova was coming next, and White Rose was  
 18 next to become the third, Cougar took it upon  
 19 themselves to say, okay, you know, this basin  
 20 is going to be here for the next 15, 20, 25  
 21 years as a minimum, what do we have to do in  
 22 order to secure airframes for the greater part  
 23 of the life of the field, and take advantage  
 24 of some of the new technologies. So that was,  
 25 in essence, the driver for that, and I believe

Page 198

1 that concludes the section. I don't know if  
 2 you've got any questions.  
 3 ROIL, Q.C.:  
 4 Q. Before you leave, let me just ask you one  
 5 question, and that is -- and this is really  
 6 for all three of you -- prior to the incident  
 7 on March the 12th, 2009, did any of your  
 8 companies have any reason to believe that  
 9 there were concerns with respect to the S-92,  
 10 in terms of its safety and its performance  
 11 generally?  
 12 MR. VOKEY:  
 13 A. I will just speak on behalf of Suncor first.  
 14 The answer to that is no. We did have, I  
 15 guess, indications from our workforce. The  
 16 issue of chip lights came up more prevalent  
 17 with the S-92.  
 18 ROIL, Q.C.:  
 19 Q. Chip lights, what are those?  
 20 MR. VOKEY:  
 21 A. Chip lights, that's where you pick up magnetic  
 22 particles in the gearbox and it may or may not  
 23 be indicative of a premature or an impending  
 24 failure. The S-92, in terms of what it  
 25 measures and the number of chip lights or chip

Page 199

1 pickup points far surpassed any of the older  
 2 vintage helicopters. So in the early days  
 3 when we were improving on that technology and  
 4 trying to perfect it, we did have some bogus  
 5 or, you know, false chip lights, but that  
 6 didn't help our workforce and you know, in  
 7 some ways, justifiably so. I mean, the chip  
 8 lights were supposed to work and if you got a  
 9 light indication, you know, there must be  
 10 something wrong. So Cougar's procedure was  
 11 any time there was a chip light, you know, you  
 12 don't try and wait to get to an installation  
 13 or analyze it when you get back to town.  
 14 Their protocol was to return to town. So we  
 15 did have more what we refer to as boomerang  
 16 flights due to early chip indications and I  
 17 think anybody that's flown offshore for any  
 18 period of time, they've all got their  
 19 preferences on the types of airframes and it's  
 20 no different than, you know, somebody likes a  
 21 Ford or a Chev or you know, even down to a  
 22 particular model. A lot of our people like  
 23 the S61. Most of them have flown in Super  
 24 Pumas for a long time, but some of the motion  
 25 or vibration characteristics of the S-92 which

Page 200

1 is inherent in the design -- it's not a  
 2 substandard design, but it's just different,  
 3 we did have feedback from some of our  
 4 employees that, you know, they felt there was  
 5 more vibration than previous. But that was  
 6 the only indicators that I can recall right  
 7 now.  
 8 ROIL, Q.C.:  
 9 Q. Either of the other gentlemen have anything to  
 10 offer on that?  
 11 MR. PRITCHARD:  
 12 A. From Husky's point of view, we took our due  
 13 diligence with our aviation expert and we had  
 14 no safety concerns from that point of view  
 15 with the S-92.  
 16 MR. SACUTA:  
 17 A. Also from HMDC's perspective, we did do annual  
 18 audits using an aviation specialist of  
 19 ExxonMobil's corporate aviation group and no  
 20 issues were raised at any point in time before  
 21 the March 12th incident.  
 22 ROIL, Q.C.:  
 23 Q. So I take it that by these chips, there was  
 24 more information being given to the pilots  
 25 which enabled them to make decisions about

Page 201

1 turning around, but that was interpreted by  
 2 the consumers, by the users, by the workers,  
 3 as being that these machines were perhaps less  
 4 reliable?  
 5 MR. VOKEY:  
 6 A. Your chips are your early warning system.  
 7 ROIL, Q.C.:  
 8 Q. Okay. I think we're ready to move on now to  
 9 the next section, which Mr. Sacuta is going to  
 10 take us through.  
 11 MR. SACUTA:  
 12 A. The next section is to discuss personal  
 13 protective equipment for helicopter  
 14 transportation and it's specific to passenger  
 15 safety.  
 16 As I discussed this morning, there are a  
 17 number of regulations that require or outline  
 18 the requirements for passenger transportation  
 19 suits and I'm not planning to go through them  
 20 all again, but they're all shown on this  
 21 slide. So it was talked this morning in my  
 22 regulatory overview section on that item,  
 23 unless you have any questions.  
 24 ROIL, Q.C.:  
 25 Q. No, that's fine. I think we've had some

Page 202

1 evidence before about that and nice to refresh  
 2 us, but we don't need to take it line for  
 3 line, absolutely. Thank you.  
 4 MR. SACUTA:  
 5 A. Prior -- initially, the operators used the  
 6 Mustang flight commander suit and MS2000 suit  
 7 until the fall of 2007. It was recognized  
 8 that the suits were coming to the end of their  
 9 useful life, so as a continuous improvement  
 10 initiative in the mid to late 2006, the  
 11 operators undertook a joint bidding exercise  
 12 to replace the existing Mustang suits.  
 13 ROIL, Q.C.:  
 14 Q. Okay. Now the Mustang suit, in terms of  
 15 photographs that you see that are taken a few  
 16 years ago, is that the yellow suit?  
 17 MR. SACUTA:  
 18 A. That is the yellow suit. It did also have a  
 19 neck seal, a different design to the suit that  
 20 we've got today.  
 21 ROIL, Q.C.:  
 22 Q. Okay.  
 23 MR. SACUTA:  
 24 A. The basic scope of work was for the supply of  
 25 helicopter passenger suits compliant with the

Page 203

1 latest Transport Canada standard, which is the  
 2 CGSB standard, which also includes the  
 3 requirement for life vests and PLBs. The  
 4 suits were also required to be HUEBA capable.  
 5 It was identified in 2006, when we started  
 6 this process, that we were going to implement  
 7 HUEBA and they wanted to make sure that  
 8 whatever suit we got had to be capable of  
 9 using the HUEBA.  
 10 Any replacement suit was also required to  
 11 meet both the helicopter passenger  
 12 transportation suit system that was adopted by  
 13 Transport Canada and the marine abandonment  
 14 immersion suit standard, which is also a CGSB  
 15 standard which was adopted by Transport Canada  
 16 Marine.  
 17 ROIL, Q.C.:  
 18 Q. Okay, and I think the next slide deals with a  
 19 question that I have and I'm sure other people  
 20 have had as well, and that is why was there a  
 21 decision made to combine them?  
 22 MR. SACUTA:  
 23 A. Right.  
 24 ROIL, Q.C.:  
 25 Q. Because it's hard to understand what the

Page 204

1 rationale was for that.  
 2 MR. SACUTA:  
 3 A. I understand that. For operational  
 4 flexibility, the operators also specified the  
 5 suits to be compliant with the marine  
 6 abandonment immersion suit standard. This was  
 7 not a cost saving exercise. As a matter of  
 8 fact, the suits were more expensive to be dual  
 9 standard compliant.  
 10 ROIL, Q.C.:  
 11 Q. So the suit to be dual standard would have  
 12 cost you more per unit than simply to one  
 13 standard?  
 14 MR. SACUTA:  
 15 A. That's correct, and it was not the intent that  
 16 this suit was ever going to replace the  
 17 requirement we have offshore to maintain 200  
 18 percent abandonment suits. There's a  
 19 regulated requirement that if you've got a POB  
 20 of 280, like we do at Hibernia, you have to  
 21 have -  
 22 ROIL, Q.C.:  
 23 Q. A POB, what's a POB?  
 24 MR. SACUTA:  
 25 A. If you've got personnel on board, sorry,

Page 205

1 that's 280, you need to have 200 percent of  
 2 those, of that number in abandonment suits.  
 3 ROIL, Q.C.:  
 4 Q. So if you have 280 personnel working on board,  
 5 you have to have 560 of those suits?  
 6 MR. SACUTA:  
 7 A. Right.  
 8 ROIL, Q.C.:  
 9 Q. And so this was not meant to be part of that  
 10 complement?  
 11 MR. SACUTA:  
 12 A. This was not meant to eliminate the -- what we  
 13 currently in place on board the facilities.  
 14 ROIL, Q.C.:  
 15 Q. Okay.  
 16 MR. SACUTA:  
 17 A. What it did recognize is that we would have  
 18 the ability to use this suit during both  
 19 helicopter transportation and during  
 20 situations where we crew changed by vessel, if  
 21 there was weather that would not allow  
 22 helicopter transportation. Then we were able  
 23 to take the suit and use a suit that was  
 24 already certified for marine evacuation or  
 25 marine abandonment as well as part of your

Page 206

1 voyage on the supply vessel when you were  
 2 transiting to the facility.  
 3 ROIL, Q.C.:  
 4 Q. Okay. So if I was going out by supply boat  
 5 but I might be coming back by helicopter, the  
 6 helicopter alone suit would not be permitted  
 7 for me to transport on the vessel?  
 8 MR. SACUTA:  
 9 A. That's correct.  
 10 ROIL, Q.C.:  
 11 Q. If it was a single standard?  
 12 MR. SACUTA:  
 13 A. That's correct.  
 14 ROIL, Q.C.:  
 15 Q. And then I'd have to have an aviation standard  
 16 one to fly back?  
 17 MR. SACUTA:  
 18 A. Correct.  
 19 ROIL, Q.C.:  
 20 Q. My marine one would not work?  
 21 MR. SACUTA:  
 22 A. Correct.  
 23 ROIL, Q.C.:  
 24 Q. Okay. So this was what, to just provide  
 25 additional -

Page 207

1 MR. SACUTA:  
 2 A. Flexibility.  
 3 ROIL, Q.C.:  
 4 Q. Flexibility.  
 5 MR. SACUTA:  
 6 A. Flexibility during crew changes.  
 7 ROIL, Q.C.:  
 8 Q. An expensive flexibility, I take it.  
 9 MR. SACUTA:  
 10 A. Yes.  
 11 ROIL, Q.C.:  
 12 Q. Okay.  
 13 MR. SACUTA:  
 14 A. So as far as the process -  
 15 ROIL, Q.C.:  
 16 Q. Sorry, just one other thing. There was some -  
 17 - not some, there's been a lot of talk about  
 18 the thermal qualities and Mr. Decker, I think,  
 19 in this evidence indicated that he would have  
 20 preferred to have the immersion suit because  
 21 he felt it had higher thermal standards. Do  
 22 you know anything about the thermal standard  
 23 issue?  
 24 MR. SACUTA:  
 25 A. Both comply with the same standard, so they

Page 208

1 meet the same standard.  
 2 ROIL, Q.C.:  
 3 Q. So if it's properly fitting -  
 4 MR. SACUTA:  
 5 A. Yes.  
 6 ROIL, Q.C.:  
 7 Q. - they should both provide the same amount of  
 8 thermal capacity?  
 9 MR. SACUTA:  
 10 A. Yes, that's correct.  
 11 ROIL, Q.C.:  
 12 Q. To a user.  
 13 MR. SACUTA:  
 14 A. That's correct. I think the key statement  
 15 there is if the suit fits properly, yes,  
 16 that's true, and we'll talk about that a  
 17 little bit further.  
 18 ROIL, Q.C.:  
 19 Q. Yeah, okay, thank you.  
 20 MR. SACUTA:  
 21 A. The selection of the new suit, we did issue an  
 22 expression of interest in early 2006 and the  
 23 evaluation included that there would be  
 24 Transport Canada certification requirements,  
 25 i.e. the suit design, the weight, the need for

Page 209

1 a lifejacket, the location of that lifejacket,  
 2 the durability, thermal protection, et cetera.  
 3 We wanted to make sure the manufacturer had a  
 4 quality control processes in place and there  
 5 was a requirement for the turnaround time to  
 6 transition to the new suit for the suit  
 7 implementation. There were four potential  
 8 suppliers who bid. There was a detailed  
 9 technical evaluation completed on each of the  
 10 bidders and Helly Hansen was awarded the --  
 11 the E452 suit obtained the highest technical  
 12 score and Helly Hansen was recommended as the  
 13 preferred supplier for our new helicopter  
 14 transportation suits.  
 15 ROIL, Q.C.:  
 16 Q. Okay. Now often during bidding processes,  
 17 there are bidders meetings and there's an  
 18 exchange of information or concerns and that  
 19 sort of thing. During the stage from the  
 20 issuing of the expression of interest until  
 21 when Helly Hansen was chosen to supply the  
 22 E452, did anybody explain or say to either one  
 23 of you, I guess, -- and who led this? Was  
 24 there one company that led or did -  
 25 MR. SACUTA:

Page 210

1 A. It was a joint effort.  
 2 ROIL, Q.C.:  
 3 Q. It was done by a committee, was it, of -  
 4 MR. SACUTA:  
 5 A. Yes.  
 6 ROIL, Q.C.:  
 7 Q. Okay. Was there any expression of concern  
 8 about the fact that the two standards would  
 9 create a problem or an issue or a concern for  
 10 the manufacturer?  
 11 MR. SACUTA:  
 12 A. I'm not aware of any concern that was raised.  
 13 I'm not sure if either of the other panel  
 14 members were.  
 15 MR. PRITCHARD:  
 16 A. I'm not aware of anything.  
 17 MR. VOKEY:  
 18 A. No.  
 19 ROIL, Q.C.:  
 20 Q. I'm not suggesting there is, but I'm just  
 21 wondering, you know, it's often been said that  
 22 a camel is a horse designed by a committee,  
 23 and sort of if somebody felt that marrying the  
 24 two standards was not a good thing, then I  
 25 suppose there was -- but would there have been

Page 211

1 an opportunity for them to say that?  
 2 MR. PRITCHARD:  
 3 A. Yes.  
 4 MR. SACUTA:  
 5 A. I'm sure there would have been an opportunity,  
 6 but I'm not aware that that was raised at any  
 7 point in this process.  
 8 ROIL, Q.C.:  
 9 Q. Okay, thank you.  
 10 MR. SACUTA:  
 11 A. After the contract was awarded, there was an  
 12 implementation plan put in place. They were -  
 13 - Helly Hansen was awarded the contract in May  
 14 of 2007 and they were to supply approximately  
 15 1400 suits to meet the needs of the existing  
 16 operators and any ad-hoc supply for short term  
 17 programs. A transition plan was developed as  
 18 the new suits were manufactured. Helly Hansen  
 19 worked in parallel with the Marine Institute's  
 20 east coast training programs, in other words  
 21 the basic survival training. There was a  
 22 transition strategy developed to introduce the  
 23 E452 suit to the offshore workforce and the  
 24 new suits were introduced on November 1st,  
 25 2007. I'd also like to comment, Mr.

Page 212

1 Commissioner, that although the Marine  
 2 Institute was not involved in the bidding and  
 3 selection process, they were informed of the  
 4 transition plan well in advance of November  
 5 1st, 2007.  
 6 I know that Helly Hansen was actually  
 7 here and had a suit during testimony. I'm  
 8 just going to highlight a couple of the key  
 9 components of the E452 suit. It does have an  
 10 integral hood with a zipper that creates a  
 11 face seal, as opposed to the old suit that had  
 12 a neck seal assembly. It has a PLB, a  
 13 personal locator beacon. You can see this --  
 14 also the HUEBA, how the HUEBA sits onto the  
 15 suit. Also included is a splash guard and an  
 16 integrated carbon dioxide inflated lifejacket  
 17 is all part of the suit. I wasn't planning to  
 18 go through it any further because I know that  
 19 Helly Hansen did testify.  
 20 ROIL, Q.C.:  
 21 Q. Yes, indeed. You have to wear or have had to  
 22 wear one of these, I presume, Mr. Sacuta?  
 23 MR. SACUTA:  
 24 A. Every time I fly offshore I wear one.  
 25 ROIL, Q.C.:



Page 213

1 Q. Yes, exactly. You know, there's been a lot of  
 2 talk about it now in hindsight and a lot of  
 3 criticism of it. When it was first introduced  
 4 to the workforce, was there general acceptance  
 5 of the concept of a new suit or was that  
 6 resistant right from the beginning?  
 7 MR. SACUTA:  
 8 A. I don't think -- I'm not aware of any  
 9 resistance. Of course, I didn't come back  
 10 until October of 2007, but I know that we had  
 11 a communication plan which included developing  
 12 -- I'm speaking for Hibernia now -- a  
 13 PowerPoint package which was sent offshore to  
 14 be used for the JOHS committees. It was also  
 15 used by each of the individual departments at  
 16 their department safety meetings. The  
 17 presentation was also posted on the offshore  
 18 bulletin board so that all personnel could  
 19 have access to the whole transition plan and  
 20 the fact that we were introducing a new suit.  
 21 I think most people understood that  
 22 transportation suits don't last forever, that  
 23 the Mustang suits we'd had in place for a  
 24 number of years, since initial oil production  
 25 for Hibernia. It was time for a new suit. So

Page 214

1 I think most people understand that process.  
 2 ROIL, Q.C.:  
 3 Q. And the whole issue of the fit, which we now  
 4 know was a concern or has turned out to be a  
 5 concern, was there any flags went up to you to  
 6 say to you right from the beginning, you know,  
 7 there's problems with this suit because  
 8 they're not fitting properly?  
 9 MR. SACUTA:  
 10 A. I think the issues with the suit fitting came  
 11 after March 12th. We did have, during this  
 12 transition, during the transition to the new  
 13 suit, Helly Hansen personnel at Cougar to make  
 14 sure that everybody put on, had an appropriate  
 15 sized suit. There may not have been the  
 16 appropriate focus on the face seal of that  
 17 suit. I think we've discovered after the  
 18 fact, based on -- and we'll talk about this a  
 19 little bit later in the package -- that there  
 20 were some concerns with making sure that the  
 21 face seal was proper when you wore your suit,  
 22 and I think there were also some other issues  
 23 with personnel that were actually requesting  
 24 different sizes of suits based on comfort, as  
 25 opposed to paying attention to the sealing of

Page 215

1 the face in the face area.  
 2 ROIL, Q.C.:  
 3 Q. Were you able to choose your own size? When  
 4 you were fitted, do you recall whether you  
 5 actually just went in and tried one on and  
 6 said "no, I want a bigger or smaller one" or  
 7 was there somebody that helped you choose a  
 8 size?  
 9 MR. SACUTA:  
 10 A. There was a Helly Hansen person there that  
 11 helped me, you know, made sure that the suit  
 12 seemed to fit properly. On that first flight  
 13 that I went offshore after I returned, there  
 14 was a Helly Hansen representative there to  
 15 check the suit size for me. Although I can  
 16 say that it would have been easy for me, I  
 17 think, to say "this suit doesn't fit quite  
 18 right. Can I have a different suit?" after  
 19 this transition period, and I think that's one  
 20 of the issues that came up as part of our  
 21 follow up after March 12th.  
 22 ROIL, Q.C.:  
 23 Q. Okay. We'll perhaps get onto that when we get  
 24 to that slide.  
 25 MR. SACUTA:

Page 216

1 A. Personal locator beacons, all E452 suits are  
 2 fitted with a personal locator beacon. It's a  
 3 -- Sea Marshall is the manufacturer. It  
 4 automatically activates on contact with water.  
 5 Should you enter the water, it activates. The  
 6 signal facilitates rescue of personnel on the  
 7 water surface, but it's important to note that  
 8 these PLBs are not designed to operate at  
 9 submerged water depths. They're designed to  
 10 indicate the location of an individual who's  
 11 at the surface. Should you be submerged, you  
 12 will not receive the signal.  
 13 ROIL, Q.C.:  
 14 Q. Okay. If the vehicle is submerged and a  
 15 person is in it, how would the vehicle be  
 16 found?  
 17 MR. SACUTA:  
 18 A. The helicopter itself has -- also has locator  
 19 beacons. So you can locate the helicopter  
 20 itself, and that was done on subsequent follow  
 21 up to locate the helicopter after March 12th.  
 22 ROIL, Q.C.:  
 23 Q. Right.  
 24 MR. SACUTA:  
 25 A. There was a lot of talk early on in the days

Page 217

1 after the crash that the PLBs did not work on  
 2 the suits, but Cougar has verified and  
 3 confirmed that the PLBs functioned properly  
 4 for those that were at the surface.  
 5 ROIL, Q.C.:  
 6 Q. Okay. There was also some evidence about the  
 7 locator beacon being a little different one  
 8 here than it is in Nova Scotia. Do you have  
 9 anything to offer on that? Different  
 10 frequencies or something. I'm not sure if  
 11 much turns on it, but -  
 12 MR. SACUTA:  
 13 A. Different frequencies. Yeah, they do have a  
 14 different PLB being in use in Nova Scotia  
 15 waters. It is a satellite tracked PLB. There  
 16 are some differences. One of the differences,  
 17 it actually requires the individual to  
 18 activate it, as opposed to automatic  
 19 activation when it enters the water. So that  
 20 does raise some concerns for, I think, the  
 21 operators in the Newfoundland area that if a  
 22 person is unconscious, he won't be able to  
 23 activate the beacon itself. So we've decided  
 24 to stay with the beacon that we have now. We  
 25 know that eventually we'll have to get another

Page 218

1 beacon, as these beacons age, and then we'll  
 2 look at the available technology the next time  
 3 we go through the process of determining the  
 4 best PLB for our service.  
 5 ROIL, Q.C.:  
 6 Q. Right. Okay, that's, I think, all we need to  
 7 have on personal beacons today.  
 8 MR. SACUTA:  
 9 A. Okay. Next, helicopter underwater emergency  
 10 breathing apparatus or the HUEBA. The HUEBA  
 11 provides the user with an additional supply of  
 12 breathable air. Depending on the individual,  
 13 you could get 25 or 30 breaths. It depends on  
 14 how excited you are. The process has been  
 15 under way since 2000. The implementation plan  
 16 was in the final stages as when the helicopter  
 17 crashed on March 12th. As of October 1st, all  
 18 personnel travelling to and from offshore via  
 19 helicopter are required to have both HUEBA  
 20 training and they're required to wear a HUEBA  
 21 device on their E452 suit.  
 22 As far as the implementation goes, the  
 23 operators acknowledge that the decision to  
 24 implement the HUEBA did take a long period of  
 25 time. Mr. Commissioner, it took too long.

Page 219

1 The overall process of evaluating an  
 2 appropriate breathing device and the eventual  
 3 selection of HUEBA was a very complex process.  
 4 This included engagement of a CAPP led  
 5 committee, complete with representatives from  
 6 the industry. The process also included  
 7 evaluating both the compressed air and a  
 8 rebreather device and making the  
 9 recommendation on the style to be used in the  
 10 Newfoundland basin. There were associated  
 11 risks that were reviewed against the  
 12 following: the operational performance of the  
 13 units; the training requirements, whether you  
 14 needed to train under one metre or over one  
 15 metre of depth; there were medical  
 16 requirements to consider for both under one  
 17 metre and over one metre and a medical  
 18 screening that needed to be complete. Safety  
 19 was our main concern throughout this process.  
 20 In 2006, it was determined that the compressed  
 21 air device, the HUEBA, was the best available  
 22 technology. It is my understanding that the  
 23 Newfoundland basin operators are the first  
 24 civilian use of the HUEBA device.  
 25 ROIL, Q.C.:

Page 220

1 Q. In the what, in the world or -  
 2 MR. SACUTA:  
 3 A. In the world, my understanding. The military  
 4 has used the device, but my understanding is  
 5 we are the first civilian use of the HUEBA.  
 6 After the HUEBA was selected, the committee  
 7 had to identify and address the specific  
 8 medical concerns associated with completing  
 9 training and needed to determine a mitigation  
 10 plan to lower the risk to the workforce. We  
 11 did not want to introduce a new piece of  
 12 safety related equipment without fully  
 13 determining the risks and identifying the  
 14 required mitigation plan. Quite simply, we  
 15 wanted to do it once and we wanted to do it  
 16 right.  
 17 Based on the length of time it took to  
 18 implement the HUEBA, CAPP is developing the  
 19 terms of reference for a review to identify  
 20 the lessons learned from the assessment,  
 21 decision making and implementation process.  
 22 It is anticipated this review will include a  
 23 final report complete with recommendations for  
 24 improvement and we expect the target date for  
 25 completion will be in the second quarter of

Page 221

1 2010.  
 2 ROIL, Q.C.:  
 3 Q. Can I take it that you would undertake to  
 4 provide that document to us once it is  
 5 complete?  
 6 MR. SACUTA:  
 7 A. I'll take it with legal counsel, but I would  
 8 expect we would, yes.  
 9 ROIL, Q.C.:  
 10 Q. Yeah. My objective here is not to criticize  
 11 the past, but to make sure that we all learn  
 12 from what's gone on in the past so that we can  
 13 avoid -  
 14 MR. SACUTA:  
 15 A. And that is our desire as well. As I've  
 16 mentioned, it took too long and we need to do  
 17 a lessons learned review of that to make sure  
 18 that it doesn't happen again.  
 19 ROIL, Q.C.:  
 20 Q. And again, I think if we had access to that,  
 21 it would be very helpful in our objectives and  
 22 I'm sure that we can work with your counsel on  
 23 that.  
 24 MR. SACUTA:  
 25 A. So the next section is qualifications and

Page 222

1 training required to work offshore.  
 2 ROIL, Q.C.:  
 3 Q. Okay. Now I've been cautioned that we should  
 4 never run over time for various reasons,  
 5 including the commitment of our broadcasters,  
 6 so we'll go on for a little bit longer and  
 7 then when we find a convenient place to stop  
 8 for our afternoon break, we should.  
 9 MR. SACUTA:  
 10 A. Okay. You just let me know.  
 11 ROIL, Q.C.:  
 12 Q. Yeah. I'm the policeman on that and I've been  
 13 told to watch the clock, so I will.  
 14 MR. SACUTA:  
 15 A. Okay. All the training which is completed as  
 16 part of the basic survival training program is  
 17 tailored to a controlled ditching situation.  
 18 It's purpose is to provide the individual with  
 19 the basic requirements to aid in the  
 20 successful egress from a ditched helicopter.  
 21 It is not intended to be applicable to a high  
 22 speed impact or crash situation. During  
 23 training, personnel are exposed to a level of  
 24 risk. The desire is to provide an acceptable  
 25 level of training without introducing an

Page 223

1 unacceptable level of risk to complete the  
 2 training. The main benefit of the training is  
 3 to provide the passenger with an understanding  
 4 of the steps they must consider in order to  
 5 prepare for an escape situation. At this  
 6 time, it is not intended to provide aircraft  
 7 specific training in all egress situations  
 8 which may occur.  
 9 ROIL, Q.C.:  
 10 Q. What does that mean?  
 11 MR. SACUTA:  
 12 A. That means that the training that we have in  
 13 Newfoundland, through the Marine Institute, is  
 14 not aircraft specific. It hasn't been for  
 15 years, whether it was the Super Puma or now  
 16 the S-92. The overall training was to provide  
 17 the individual with the basic steps that he  
 18 needs to take for a successful egress. It was  
 19 not to train for the inclusion of the  
 20 auxiliary fuel tank, for windows the same size  
 21 as the S-92, for stroking seats. It has been  
 22 a high level training program.  
 23 ROIL, Q.C.:  
 24 Q. So the objective, I take it, from the oil  
 25 companies' concern at least, is not so much

Page 224

1 fidelity, which I think was a word that we  
 2 used before, but rather learning the processes  
 3 and steps that one should go through?  
 4 MR. SACUTA:  
 5 A. That's correct.  
 6 ROIL, Q.C.:  
 7 Q. And so whether you had a Super Puma at the  
 8 airport or a Eurocopter or a -- not the  
 9 Eurocopter, but if you had a Super Puma or a  
 10 61 or a 92 -  
 11 MR. SACUTA:  
 12 A. Right.  
 13 ROIL, Q.C.:  
 14 Q. - you were not focused on trying to make the  
 15 training -  
 16 MR. SACUTA:  
 17 A. That's correct.  
 18 ROIL, Q.C.:  
 19 Q. Having learned what you've learned after the  
 20 incident, is there any -- at this point in  
 21 time, is there any intention to change that?  
 22 MR. SACUTA:  
 23 A. We'll certainly discuss that later in the  
 24 presentation. So if I could defer to a  
 25 further -- a later section in the

Page 225

1 presentation?

2 ROIL, Q.C.:

3 Q. Absolutely. Excuse me, I just wonder if the

4 vibrating thing in the back of the room could

5 be encouraged to stop. Somebody's got a

6 Blackberry there that's just going and going.

7 Okay, go ahead.

8 MR. SACUTA:

9 A. All operators ensure that the training and

10 qualifications of personnel in their

11 operations comply with the requirements of the

12 CAPP training and qualifications guidelines

13 and operators specific requirements for

14 offshore training. The industry, regulators

15 and the training institutions continually

16 review training requirements for offshore

17 workers through the CAPP Training and

18 Qualifications Committee.

19 ROIL, Q.C.:

20 Q. Is that the best place for this work to be

21 done, in your view?

22 MR. SACUTA:

23 A. In my opinion, the Training and Qualifications

24 Committee is an example of how working with

25 CAPP works. They've put together a very

Page 226

1 comprehensive document. So I think this is an

2 example where CAPP has effectively facilitated

3 an excellent piece of work.

4 ROIL, Q.C.:

5 Q. It has served the industry and the workers

6 well in your view?

7 MR. SACUTA:

8 A. In my view, it has, yes.

9 ROIL, Q.C.:

10 Q. Okay.

11 MR. SACUTA:

12 A. So the Standard Practice for Training and

13 Qualifications of Personnel provides guidance

14 on the appropriate level of training required

15 for the offshore workforce, is a joint

16 committee effort by the operators, the CAODC,

17 which is the Canadian Association of Oilwell

18 Drilling Contractors, CAPP, the regulatory

19 bodies and the training institutions. It

20 outlines the required qualifications and

21 certified safety training for east coast

22 offshore workers, including offshore travel.

23 It outlines the approved training institutions

24 for a course as deemed necessary by the

25 committee. It has been in effect since March

Page 227

1 1st -- since March of 2001 and it was revised

2 in 2008.

3 ROIL, Q.C.:

4 Q. We talked earlier about engagement of the

5 workforce. Is there any level or place where

6 engagement of the workforce happens in the

7 process of setting forth this training and

8 qualifications standard?

9 MR. SACUTA:

10 A. I mean, representatives from the operators

11 would include users of the system.

12 ROIL, Q.C.:

13 Q. Yes.

14 MR. SACUTA:

15 A. So workforce can be anyone who in any way has

16 to travel offshore. So there were people that

17 were -- people that would be required to

18 complete the complaining (sic) that were part

19 of the committees. They might not necessarily

20 have been the offshore workforce, but they

21 were people that would have had to have gone

22 through the training in order for them to

23 travel offshore, like some of our safety

24 health and environmental professionals.

25 ROIL, Q.C.:

Page 228

1 Q. Yeah, I think the concern would be that, you

2 know, you don't get the opportunity to have

3 somebody who has actually travelled. So are

4 you saying to me that there is an opportunity

5 there for at least some of those

6 representatives to be people who have actually

7 travelled?

8 MR. SACUTA:

9 A. Well, I say a number of those representatives

10 do travel offshore with a regular frequency.

11 ROIL, Q.C.:

12 Q. Okay. This might be the place where we should

13 take our break for the afternoon, Mr.

14 Commissioner.

15 COMMISSIONER:

16 Q. Okay.

17 (BREAK)

18 ROIL, Q.C.:

19 Q. Mr. Sacuta when you're ready, I think we're at

20 slide No. 84?

21 MR. SACUTA:

22 A. That's correct. The offshore work site in

23 Newfoundland and Labrador area existed in a

24 remote and potentially hostile environment.

25 Adverse weather may cause delays in medical

Page 229

1 evacuation and convert a minor medical problem  
 2 into a major emergency. As such, medical  
 3 assessments are conducted for all personnel  
 4 prior to their travel to an offshore work  
 5 site. The objectives of a medical assessment  
 6 are to ensure that designated offshore  
 7 personnel are medically fit to work safely at  
 8 an isolated location with job accommodation  
 9 where possible, to anticipate and where  
 10 possible prevent the avoidable occurrence of  
 11 ill health offshore which would place the  
 12 individual, his or her colleagues and the  
 13 emergency rescue service at risk, to provide  
 14 occupational health surveillance; that is  
 15 monitoring for specific job demands and to  
 16 meet any regulatory requirements for hazard  
 17 monitoring. Mr. Commissioner, the operators  
 18 have contracted Atlantic Offshore Medical  
 19 Services to complete work or medical  
 20 assessments and determine fitness to work  
 21 offshore. AOMS is a specialized medical  
 22 service provider who is familiar with the  
 23 expectations of working in an offshore  
 24 environment and all three of us use Atlantic  
 25 Offshore Medical Services, as in our medical

Page 230

1 assessment process.  
 2 ROIL, Q.C.:  
 3 Q. Mr. Sacuta, how many--you mentioned earlier or  
 4 one of the other panellists did, talked about  
 5 doing medical evacuations from the various  
 6 facilities, approximately how many of those  
 7 are done a year? Is it two or twenty or 200,  
 8 we have no idea, so -  
 9 MR. SACUTA:  
 10 A. I would say somewhere between 2 and 20 in a  
 11 year, speaking for Hibernia.  
 12 ROIL, Q.C.:  
 13 Q. Each of you have approximately the same  
 14 experience?  
 15 MR. PRITCHARD:  
 16 A. Yes, somewhat less for us, Hibernia some doing  
 17 it, they're out more, we have a maximum of 90  
 18 POB.  
 19 ROIL, Q.C.:  
 20 Q. Yes, okay.  
 21 MR. VOKEY:  
 22 A. For Suncore, it would definitely be less than  
 23 one a month.  
 24 ROIL, Q.C.:  
 25 Q. Little less than one a month, okay. And so

Page 231

1 this is a person who is on board a facility  
 2 who needs to be evacuated because of their  
 3 medical condition at that time?  
 4 MR. SACUTA:  
 5 A. Yes, we do have a nurse on board our  
 6 facilities to provide medical services, they  
 7 are in direct consultation with AOMS on shore  
 8 and in that review, they may decide that it is  
 9 best suited to medivac the individual if the  
 10 medical service provided offshore isn't  
 11 sufficient.  
 12 ROIL, Q.C.:  
 13 Q. Right. You've indicated that the primary  
 14 purpose of AOMS is to determine whether the  
 15 person is fit medically to work offshore.  
 16 Have you ever in, again the three of your  
 17 experience, come across a person who was  
 18 medically unfit to travel by helicopter? I  
 19 don't know if you see the subtle difference  
 20 there, I don't know whether it would be a  
 21 higher or a lower or a different challenge,  
 22 but I'm just wondering have you ever had a  
 23 situation where a person was able to work but  
 24 not able to travel by helicopter for medical  
 25 reasons?

Page 232

1 MR. SACUTA:  
 2 A. There are examples, for example if I was to  
 3 break my wrist and had a cast on, I certainly  
 4 wouldn't be able to wear the helicopter  
 5 transportation suit, I wouldn't be able to  
 6 ensure a proper seal. So in those situations,  
 7 somebody would be determined medically unfit  
 8 for offshore work and we would accommodate the  
 9 individual or his employer would make every  
 10 effort to accommodate as per the regulations  
 11 in terms of the duty to accommodate. Medical  
 12 frequency is dependant on the age of a worker.  
 13 As you get older, the medical requirements  
 14 become more frequent.  
 15 ROIL, Q.C.:  
 16 Q. That's not good news for some of us.  
 17 MR. SACUTA:  
 18 A. Yes, I am intimately familiar with that. For  
 19 anybody less than 39 years old, it's every  
 20 three years, between 40 and 49, it's every two  
 21 years; and once you reach the big 50, it's  
 22 every year. First time offshore workers are  
 23 required to complete the five-day basic  
 24 survival training program. This must be  
 25 renewed every three years. The renewal is

Page 233

1 completed using a basic survival training  
 2 recurrent, BSTR program which is a two-day  
 3 course. In situations where the full BST is  
 4 not justified, a one-day offshore survival  
 5 introduction is allowed. This provides for  
 6 six days offshore during a one-year period and  
 7 I believe Mr. Commissioner, that's what you  
 8 completed when you travelled offshore to the  
 9 Hibernia platform. It should be noted that  
 10 BST equivalent certificates issued by OPITO  
 11 and OLF who are North Sea standards, will be  
 12 considered valid to travel to offshore  
 13 facilities on the east coast, although they  
 14 may be valid for four years in their own  
 15 jurisdiction, they will only be recognized for  
 16 three years in eastern Canada.

17 ROIL, Q.C.:

18 Q. And I presume that you're aware that there's a  
 19 debate amongst workers as to whether or not  
 20 this training should be done more often or  
 21 less often?

22 MR. SACUTA:

23 A. Yes, I know that during my time working  
 24 offshore as the offshore installation manager,  
 25 I was involved in numerous discussions, should

Page 234

1 it be more frequent, should it be less  
 2 frequent, should we have the sea day, should  
 3 we not have the sea day. There was a lot of  
 4 issues that were brought up over time and I  
 5 think that March 12th has refocused everybody  
 6 about the importance of the basic survival  
 7 training program.

8 ROIL, Q.C.:

9 Q. Okay, but at this point in time, to your  
 10 knowledge there has been no change in these  
 11 protocols or these timeframes?

12 MR. SACUTA:

13 A. That's correct. There are additional training  
 14 requirements related to helicopter operations  
 15 and safety. We talked earlier about  
 16 helicopter safety briefings which are  
 17 completed both on shore and offshore prior to  
 18 getting on the helicopter for all personnel.  
 19 There is regulatory awareness training that's  
 20 completed; transportation of dangerous goods  
 21 for any situation where we may be transporting  
 22 dangerous goods in the cargo hold of the  
 23 helicopter; work place hazard materials  
 24 information systems or WHMIS. Anyone who  
 25 fulfils the role of the helicopter landing

Page 235

1 officer has detailed training to be completed,  
 2 as well as anyone who works on the helideck  
 3 teams and any of our offshore fire teams also  
 4 have detailed training which must be completed  
 5 to them fulfilling those roles.

6 ROIL, Q.C.:

7 Q. Okay, we've talked a bit about the helicopter  
 8 landing officer before and about the offshore  
 9 fire team, what does the helideck team do?

10 MR. SACUTA:

11 A. Helideck teams would be the people that would  
 12 remove baggage from the helicopter baggage  
 13 compartment, put baggage in, put baggage out.  
 14 Sometimes, depending on circumstances they may  
 15 accompany individuals to the edge of the  
 16 helicopter door if needed, so basically they  
 17 work on the helideck, mainly to get baggage  
 18 and cargo on and off the compartment itself.

19 ROIL, Q.C.:

20 Q. So they're associated with the loading and  
 21 unloading in the offshore.

22 MR. SACUTA:

23 A. And they also are responsible for the  
 24 refuelling of the helicopter.

25 ROIL, Q.C.:

Page 236

1 Q. Okay.

2 MR. SACUTA:

3 A. So operators and their respective contractors  
 4 are responsible for maintaining employee  
 5 qualifications and certification records and  
 6 compliance with the CAPP training and  
 7 qualification standard practice. The Board  
 8 does monitor operator compliance with those  
 9 standards. As Cougar represents the final  
 10 gateway to offshore, operators have worked  
 11 with Cougar to implement electronic personal  
 12 tracking systems which maintain records of all  
 13 mandatory training and medical certifications  
 14 and their expiry dates, to ensure that all  
 15 personnel travelling offshore are either  
 16 eligible to travel offshore or have the  
 17 appropriate exemption. And I'll talk about  
 18 exemptions on my next slide.

19 ROIL, Q.C.:

20 Q. Okay, before we leave, electronic personnel  
 21 tracking systems tracks the information about  
 22 these people, not the people themselves, I  
 23 take it?

24 MR. SACUTA:

25 A. That's correct. Under Chapter 7 of the

Page 237

1 Standard Practice for Training and  
 2 Qualifications of Personnel, which is the  
 3 exemption procedures, because of the  
 4 intermittent nature of employment, course  
 5 scheduling and other factors, it may not  
 6 always be possible for an individual to fulfil  
 7 all the qualification and training  
 8 requirements set out in this document prior to  
 9 travelling offshore. Exemptions may be  
 10 granted on a case by case basis with the  
 11 approval of the operator senior offshore  
 12 representative and the offshore installation  
 13 manager. As identified in Mr. Decker's  
 14 testimony, he did travel offshore on March  
 15 12th under one of these exemptions because he  
 16 had not completed the sea day component of his  
 17 BSTR program. The Board monitors all  
 18 exemptions and will notify the operator of any  
 19 questions or concerns and reserves the right  
 20 to deny any exemption or to issue an order to  
 21 an operator relating to exemptions if the  
 22 process is abused. Every exemption that we  
 23 approve goes to the Board, the Board sees them  
 24 all.  
 25 ROIL, Q.C.:

Page 238

1 Q. Have you ever had a situation where the Board  
 2 has said we are not prepared to allow this  
 3 exemption to continue?  
 4 MR. SACUTA:  
 5 A. Speaking for Hibernia, I am not aware of any  
 6 situation where that's occurred.  
 7 MR. PRITCHARD:  
 8 A. No, nothing from Husky either.  
 9 MR. VOKEY:  
 10 A. None that I am aware of from Suncore.  
 11 MR. SACUTA:  
 12 A. We have been questioned quite often about the  
 13 specific exemptions.  
 14 ROIL, Q.C.:  
 15 Q. What about the nature of the questions as to  
 16 why it's gone on so long or -  
 17 MR. SACUTA:  
 18 A. Circumstances around why the individual wasn't  
 19 able to complete the training. In some cases  
 20 they've asked, you know, what are you plans  
 21 for follow up, which is normally included on  
 22 the exemption form, there's a section around  
 23 making sure that you identify what the next  
 24 steps will be so that the person doesn't have  
 25 to continue to fly offshore on exemption.

Page 239

1 ROIL, Q.C.:  
 2 Q. And how long can an exemption apply? Is it  
 3 two days, two weeks, two years, two months?  
 4 MR. SACUTA:  
 5 A. Each time an individual travels offshore, you  
 6 would have to fill a new exemption, but I  
 7 think one of the expectations of the Board is  
 8 that you will close the need for that  
 9 exemption as soon as you possibly can.  
 10 ROIL, Q.C.:  
 11 Q. So each time the person wants to travel, if  
 12 there's a reason for an exemption, it has to  
 13 be granted for that travel?  
 14 MR. SACUTA:  
 15 A. Each time they travel, that's correct.  
 16 ROIL, Q.C.:  
 17 Q. Thank you.  
 18 MR. SACUTA:  
 19 A. Although I expect that Cougar may provide a  
 20 more detailed summary of their check-in  
 21 process, we've prepared a summary slide based  
 22 on our knowledge and I'm just going to step  
 23 you through it because I know the Commissioner  
 24 did have some questions around some of the  
 25 steps in the sequence offshore, so -

Page 240

1 ROIL, Q.C.:  
 2 Q. Yeah, and I take it again from earlier  
 3 evidence that a person who is ultimately going  
 4 to travel on a vessel would also go through  
 5 the Cougar facility first?  
 6 MR. SACUTA:  
 7 A. Absolutely.  
 8 ROIL, Q.C.:  
 9 Q. Yes.  
 10 MR. SACUTA:  
 11 A. Cougar Helicopters has a standard check-in  
 12 process which is utilized by all the  
 13 operators. Individuals arrive at the heliport  
 14 at least one hour prior to their schedule  
 15 departure. During their check-in process,  
 16 identification and training is verified. Any  
 17 personnel who have gaps in the required  
 18 training are not checked in unless the  
 19 required exemptions and approvals are in  
 20 place. Individuals and baggage weights are  
 21 measured, medications are collected and sealed  
 22 for transport. They are delivered to the  
 23 nurse offshore and he or she distributes them  
 24 to the individual when they get on board.  
 25 It's a twofold purpose: we want the nurse to

Page 241

1 be aware of any medications that people are  
 2 taking when they get offshore in case he has  
 3 to treat the individual and the individual is  
 4 unconscious, he needs to know what medications  
 5 they're on. Passengers then travel through a  
 6 security check which includes a baggage search  
 7 and an x-ray inspection, as well as all  
 8 individuals pass through a metal detector.  
 9 Personnel are then issued a flight suit. The  
 10 flight suit includes the personal locator  
 11 beacon and a HUEBA. Their individual size is  
 12 documented in the Cougar flight suit database.  
 13 If an employee wishes to use another size,  
 14 they must be refitted by a qualified Cougar  
 15 personnel. Helly Hansen has trained Cougar  
 16 personnel in the proper suit fitting process,  
 17 so if an individual shows up and says, you  
 18 know, I ate a lot of turkey over Christmas and  
 19 I gained a new pounds, I'd like a new suit, he  
 20 has to be refitted as part of that process.  
 21 ROIL, Q.C.:  
 22 Q. So the individual cannot now change his suit  
 23 size.  
 24 MR. SACUTA:  
 25 A. The individuals don't choose their suit size.

Page 242

1 All personnel are shown a video briefing. Any  
 2 other information which may be relevant at the  
 3 time may also be discussed during this  
 4 briefing situation. As an example, during the  
 5 period that we had the right to refuses being  
 6 analyzed by the Board, all the boarding  
 7 passengers were informed that there was a  
 8 right to refuse in process, just so that they  
 9 were aware that that was being followed  
 10 through through the C-NLOPB. The flight suit  
 11 is donned and all passengers must demonstrate  
 12 the ability to fully zip up their suit while  
 13 in a seated position. Air muffs and air plugs  
 14 are donned and personnel are escorted to the  
 15 helicopter for boarding. Individuals put on  
 16 their seatbelt and a Cougar representative  
 17 checks the seatbelt to ensure it is on  
 18 properly, it does not interfere with the HUEBA  
 19 or any other component of the flight suit. So  
 20 each individual passenger will be checked by a  
 21 Cougar person to make sure his seatbelt is  
 22 positioned correctly and it is not interfering  
 23 with any of the components of the flight suit  
 24 itself. From an offshore check-in  
 25 perspective, there may be small differences in

Page 243

1 the offshore check-in process utilized by the  
 2 three operators. The summary on this slide is  
 3 a typical departure process. Individuals  
 4 arrive at the Heli-Admin approximately one  
 5 hour prior to the scheduled departure. Each  
 6 facility has a designated helicopter admin  
 7 area for departing passengers.  
 8 ROIL, Q.C.:  
 9 Q. And that's the expression "Heli-Admin"  
 10 referred to earlier, Helly Hansen referred to  
 11 it, it doesn't have to do with Helly from  
 12 Helly Hansen.  
 13 MR. SACUTA:  
 14 A. No, it's helicopter administration.  
 15 ROIL, Q.C.:  
 16 Q. Helicopter administration, okay.  
 17 MR. SACUTA:  
 18 A. T cards, which are the cards that individuals  
 19 use when they go offshore to say they're there  
 20 and put them in their slot when they first  
 21 arrive and they're used during emergency  
 22 situations so we can account for all personnel  
 23 are returned and individuals and baggage  
 24 weights are confirmed. Passengers normally  
 25 bringing their flight suit from their room to

Page 244

1 Heli-Admin and are issued a PLB and a HUEBA  
 2 which they fit to their suit. All personnel  
 3 are shown a video briefing. Any other  
 4 information which may be relevant at the time  
 5 may also be discussed during that briefing.  
 6 The flight suit is donned and all passengers  
 7 must once again demonstrate the ability to  
 8 fully zip up their suit while in a seated  
 9 position. The helicopter arrives at the  
 10 facility and the arriving passengers  
 11 disembark. If required, the helicopter is  
 12 refuelled. The helicopter is not normally  
 13 refuelled with passengers in the passenger  
 14 cabin. Air muffs and air plugs are donned and  
 15 personnel are escorted to the helicopter for  
 16 boarding. An individual puts on his seatbelt  
 17 and a heli-deck team member checks the  
 18 seatbelt to ensure it is on properly and does  
 19 not interfere with the HUEBA or any other  
 20 component of the flight suit. You will  
 21 notice, Mr. Commissioner, that there is no  
 22 formal security check implemented offshore.  
 23 Each departing passenger signs a departure  
 24 sheet which clearly articulates expectations  
 25 for luggage. Furthermore, the platform is



Page 245

1 considered to be a secure environment, we  
 2 would equate it to the interflight departure  
 3 area at an airport where a security check is  
 4 not required unless you leave the secure area,  
 5 that's why there's no security check offshore.

6 ROIL, Q.C.:  
 7 Q. Now I've heard it said that some workers are  
 8 concerned that by not going through a security  
 9 check then, that there is less interest in or  
 10 focus on their personal security on the flight  
 11 back.

12 MR. SACUTA:  
 13 A. All I can say is that the platform is a  
 14 secured site and each individual does sign a  
 15 form saying that, you know, they're not taking  
 16 any inappropriate material on the flight,  
 17 returning flight to town, so there is some  
 18 personal accountability for your own security  
 19 as well.

20 ROIL, Q.C.:  
 21 Q. Okay, thank you. And I think we now move on  
 22 to Mr. Pritchard again, now we move into  
 23 operator emergency preparedness.

24 MR. PRITCHARD:  
 25 A. That's correct. Operators have recognized a

Page 246

1 great importance of emergency preparedness and  
 2 strive to identify the critical scenarios and  
 3 prepare all necessary actions to be taken to  
 4 protect people, the environment and the  
 5 property in event of an emergency or security  
 6 threat. The emergency response plan has an  
 7 understanding of the resources available and  
 8 potential escalation of events, what  
 9 mitigations are available and what control  
 10 would control the situations. Typically  
 11 perhaps in an evacuation and the use of  
 12 helicopters would be identified in that  
 13 emergency response plan. The plans also  
 14 reference organizational structure and  
 15 training recruitments. The emergency response  
 16 plan to continuously update it, both at a high  
 17 level document in terms of the overall plan,  
 18 but also from feedback from the training  
 19 exercises that occur offshore. So on a weekly  
 20 basis we have emergency response type training  
 21 exercises and feedback from that just  
 22 continues to improve our courses and  
 23 procedures in the event of emergencies.

24 ROIL, Q.C.:  
 25 Q. Now these, again, we don't have those actual

Page 247

1 documents now, those will come out in the  
 2 individual presentations.

3 MR. PRITCHARD:  
 4 A. We can certainly have that feedback type forms  
 5 from training on board.

6 ROIL, Q.C.:  
 7 Q. I was speaking about the actual emergency  
 8 response plans, each company--it's an  
 9 individual plan, is it?

10 MR. PRITCHARD:  
 11 A. Yes.

12 ROIL, Q.C.:  
 13 Q. Yes, that's right and we'll deal with the  
 14 details of them in your original or your  
 15 individual presentations.

16 MR. PRITCHARD:  
 17 A. Well, this slide just shows a typical day of  
 18 the resources available in terms of the  
 19 operator's resources of vessels and  
 20 helicopters. There may be other merchant  
 21 vessels, coast guards or other aircraft in the  
 22 area. Cougar's blue sky tracking system gives  
 23 details of the helicopter locations and the  
 24 AIS system, which is an automated information  
 25 system, gives details of the vessels. This

Page 248

1 gives us -

2 ROIL, Q.C.:  
 3 Q. So the vessels and the helicopters can be  
 4 plotted for a precise location at any time?

5 MR. PRITCHARD:  
 6 A. So we can see them on the blue sky tracking  
 7 system and on the automated information  
 8 system, correct.

9 ROIL, Q.C.:  
 10 Q. Who maintains those systems?

11 MR. PRITCHARD:  
 12 A. Certainly Cougar maintain the blue sky systems  
 13 and I brought a little bit of information on  
 14 the automated information system, so all  
 15 merchant vessels over 300 tonnes have this  
 16 system, it gives information regarding the  
 17 vessel's identification number, its direction  
 18 and heading and speed. So that's a  
 19 requirement of vessels over 300 tonnes, some  
 20 of them actually use GPS and satellite to  
 21 transfer the information, other more coastal  
 22 vessels would use VHF.

23 ROIL, Q.C.:  
 24 Q. Right.

25 MR. PRITCHARD:

Page 249

1 A. So the operators contract Cougar to supply an  
 2 operational service of transportation to and  
 3 from the offshore and also maintain the  
 4 standby helicopter for SAR, the first response  
 5 duties on a 24-hour 7-day-a-week basis. We've  
 6 discussed a little bit earlier in the  
 7 testimony about the posture for the SAR duty  
 8 helicopter is maintained by ensuring one of  
 9 the three operational helicopters is  
 10 physically on the ground in a serviceable  
 11 condition for that SAR service.

12 ROIL, Q.C.:

13 Q. Okay. Do I take it that sometime ago, and I  
 14 don't think this is tied or I don't know if  
 15 it's tied to the March the 12th incident, but  
 16 there was some additional flexibility that you  
 17 were allowed to have with respect to that  
 18 third particular piece of equipment?

19 MR. PRITCHARD:

20 A. Yes, we utilized -- as the helicopters --  
 21 before March the 12th, or return to service  
 22 rather, the inbound helicopter, when it was 30  
 23 minutes from St. John's, we were allowing the  
 24 outward bound to be dispatched, on the  
 25 understanding that 30 minutes running time for

Page 250

1 the one helicopter, if a SAR requirement was  
 2 required, we could actually gear up within  
 3 that final 30 minutes to be wheels up within  
 4 one hour to get that aircraft outbound.

5 ROIL, Q.C.:

6 Q. Okay. So the expectation was even though it  
 7 was in the air, it would be able to get up in  
 8 the one hour?

9 MR. PRITCHARD:

10 A. That's correct.

11 ROIL, Q.C.:

12 Q. Okay.

13 MR. PRITCHARD:

14 A. So now we don't utilize that. We've changed  
 15 our scheduling such that we now operate a  
 16 schedule one hour earlier in the daylight  
 17 time. So we start flying operations now at  
 18 7:00 in the morning to gain daylight hours and  
 19 we're allowing ourselves now to have that  
 20 helicopter dedicated on the ground, rather  
 21 than using that 30-minute running time. So it  
 22 is a change since March the 12th.

23 In alignment with the regulations and  
 24 described in detail in the safety plan  
 25 guidelines, the SAR helicopter has certain

Page 251

1 specialist SAR equipment and trained  
 2 personnel. Another little bit of detail on  
 3 that on the next slide. The SAR helicopter is  
 4 available all year round, 24 hours a day, with  
 5 a wheels up maximum time of one hour. The SAR  
 6 S-92 is fully equipped with the necessary  
 7 search and rescue equipment, such as hoists,  
 8 life rafts, emergency locator transmitters and  
 9 receivers. There is now a dedicated group of  
 10 SAR technicians or SAR techs as they're  
 11 described and SAR pilots. So since -- this is  
 12 another change since March the 12th. We've  
 13 got a more dedicated group of SAR specialists  
 14 and that gives us the ability to train a more  
 15 concentrated group with the time allocated for  
 16 the training side of it, of SAR duties.

17 ROIL, Q.C.:

18 Q. So the pilots that are responsible to conduct  
 19 SAR missions or first response missions and  
 20 the technicians that accompany them are now a  
 21 dedicated group rather than what, the entire  
 22 workforce?

23 MR. PRITCHARD:

24 A. I am unsure if it was the entire workforce,  
 25 but certainly when you have a number of hours

Page 252

1 for training, spreading those hours too thin  
 2 over too many pilots would mean that the  
 3 pilots weren't getting perhaps the best  
 4 training and now we're looking for them to get  
 5 more dedicated training in the SAR duties.

6 ROIL, Q.C.:

7 Q. Actually, I suspect we should be asking Cougar  
 8 for the particular details on that, but your  
 9 understanding is that there is a -

10 MR. PRITCHARD:

11 A. That, in essence, is where we've -

12 ROIL, Q.C.:

13 Q. - an increased focus.

14 MR. PRITCHARD:

15 A. - moved to, yes. So I've mentioned response  
 16 efforts are also supported by the Blue Sky  
 17 Tracking System and the automated information  
 18 system as previously described.

19 ROIL, Q.C.:

20 Q. Okay. Now before you move on, there's a  
 21 question that I have that arises from the  
 22 safety planning guideline, which says that it  
 23 is expected that a helicopter would be  
 24 maintained on standby and dedicated to search  
 25 and rescue on a 24-hour per day basis.

Page 253

1 Nowhere in there or anywhere else that I can  
 2 see is there an indication that the one-hour  
 3 wheels up requirement. How did that get  
 4 established? By whom? And what does it mean?  
 5 MR. PRITCHARD:  
 6 A. In our safety plan, we commit to a one-hour  
 7 wheels up, and that's how we contract Cougar,  
 8 and through the submission of our safety plan  
 9 to the Board is how we established that one-  
 10 hour wheels up commitment.  
 11 ROIL, Q.C.:  
 12 Q. I'm sorry, the last part? How was the one  
 13 hour chosen?  
 14 MR. PRITCHARD:  
 15 A. It was chosen by the operators to put in the  
 16 safety plan.  
 17 ROIL, Q.C.:  
 18 Q. Yes.  
 19 MR. PRITCHARD:  
 20 A. And the safety plan is acknowledged by the  
 21 Board and that we give our one-hour commitment  
 22 wheels up to the Board and that is accepted by  
 23 the Board.  
 24 ROIL, Q.C.:  
 25 Q. And one-hour wheels up means what? From the

Page 254

1 moment that an incident is reported? How is  
 2 that time measured? That's what I'm curious  
 3 as to where the hour is.  
 4 MR. PRITCHARD:  
 5 A. The time would be measured from the request  
 6 for a SAR requirement to the point of wheels  
 7 up and on the mission.  
 8 ROIL, Q.C.:  
 9 Q. Okay. So incident happens. At that point in  
 10 time, the burden is on somebody to say to  
 11 Cougar, "we need to have a helicopter in a SAR  
 12 mode now" and the one hour is measured from  
 13 then?  
 14 MR. PRITCHARD:  
 15 A. Correct. It may be response to a Cougar  
 16 helicopter. It could also be a response to  
 17 the OIM offshore saying that he has a  
 18 situation with people in the water.  
 19 ROIL, Q.C.:  
 20 Q. Yes, exactly.  
 21 MR. PRITCHARD:  
 22 A. So not just necessarily Cougar, but, you know,  
 23 any SAR mission.  
 24 ROIL, Q.C.:  
 25 Q. Yeah, okay. I think I understand. I just

Page 255

1 wanted to make sure when the one hour was  
 2 measured from. So it's not from the incident.  
 3 It's from when Cougar are notified that there  
 4 has been -  
 5 MR. PRITCHARD:  
 6 A. From the request.  
 7 ROIL, Q.C.:  
 8 Q. Yes, okay. And the equipment, I know that  
 9 we've seen it in other places. There's a list  
 10 of things like a hoist and, you know, a basket  
 11 and other things. Who determines what the  
 12 equipment is? Is that dictated by the C-NLOPB  
 13 or do the companies, in consultation with  
 14 somebody, determine what should be in the  
 15 equipment list?  
 16 MR. PRITCHARD:  
 17 A. We find that in the guidelines from the C-  
 18 NLOPB. There's a dedicated list of equipment.  
 19 I think slide 94, guidelines 71.2 starts to go  
 20 into some of the actual requirements.  
 21 ROIL, Q.C.:  
 22 Q. Okay. So, yeah, those are generic things.  
 23 Not generic, but with a hoist. So there's no  
 24 particular specification on the hoist, but it  
 25 at least has to be capable of lifting -

Page 256

1 MR. PRITCHARD:  
 2 A. Well, it says that it's got to be capable of  
 3 lifting one or multiple people, so a dual  
 4 tandem type of hoist.  
 5 ROIL, Q.C.:  
 6 Q. Okay.  
 7 MR. PRITCHARD:  
 8 A. Proceed?  
 9 ROIL, Q.C.:  
 10 Q. Yes. Thank you, sir.  
 11 MR. PRITCHARD:  
 12 A. Canada is party to the International  
 13 Convention on Marine Search and Rescue and  
 14 maintains responsibility for the preservation  
 15 of search and rescue services based in its  
 16 geographical profile. I have a map a little  
 17 bit later which will outline the area of  
 18 responsibility.  
 19 ROIL, Q.C.:  
 20 Q. Yes. Just so that we're clear now, I take it  
 21 that you're going to explain to us what the  
 22 operators understand that SAR, the Government  
 23 SAR does in the offshore?  
 24 MR. PRITCHARD:  
 25 A. This is still the interface of DND and the

Page 257

1 operators. I'll move on a little bit later in  
 2 the presentation here to what we perceive to  
 3 be DND's responsibilities.  
 4 ROIL, Q.C.:  
 5 Q. Okay. So this is at the operator level.  
 6 MR. PRITCHARD:  
 7 A. This is still the operator DND, I'm moving  
 8 into that interface.  
 9 ROIL, Q.C.:  
 10 Q. Okay.  
 11 MR. PRITCHARD:  
 12 A. So it's more than likely that the operators  
 13 dedicated SAR helicopter will be the first  
 14 response to an offshore emergency. However,  
 15 it should be noted that DND has the authority  
 16 to command vessels or aircraft of opportunity  
 17 to help in a SAR mission, as was the case on  
 18 March the 12th when the PAL flight was the  
 19 first flight over, and that was just by  
 20 opportune that that flight was going over.  
 21 ROIL, Q.C.:  
 22 Q. Okay. So you're saying that that flight was  
 23 directed by DND?  
 24 MR. PRITCHARD:  
 25 A. No, I'm not saying that. That just so

Page 258

1 happened. I'm saying in the normal course of  
 2 events, we have a SAR helicopter available for  
 3 response. As it happened on March the 12th,  
 4 the PAL flight was in the air and was first on  
 5 the scene.  
 6 ROIL, Q.C.:  
 7 Q. Okay.  
 8 MR. PRITCHARD:  
 9 A. The practical response with the SAR technician  
 10 was from the Cougar SAR helicopter. DND will  
 11 control the Cougar helicopter during an  
 12 offshore SAR mission, or once launched, JRCC,  
 13 Joint Rescue Coordination Centre, is informed  
 14 and would control the mission from thereafter.  
 15 DND's assets, a single purpose full-time  
 16 search and rescue specialists with significant  
 17 training. So DND have dedicated resources and  
 18 all the specialist equipment that facilitates  
 19 successful search and rescue missions. They  
 20 have a high level of training and have  
 21 completed many successful missions. In the  
 22 event of an event escalating, emergency DND  
 23 can call upon resources from Federal or  
 24 others, and I'll detail in what we consider to  
 25 be the responsibilities and resources of DND

Page 259

1 in the next section. So we'll leave it at  
 2 that.  
 3 So DND has established joint coordination  
 4 centres in various regions of Canada, which  
 5 are responsible for the coordination of  
 6 aeronautical and marine SAR operations within  
 7 a prescribed region. Upon the initial  
 8 notification of any event occurring offshore,  
 9 the emergency response procedure calls for the  
 10 JRCC to be informed. This is on the basis  
 11 that early notification is good rather than to  
 12 gear up when it is realized that the actual  
 13 requirement is required. In other words, it's  
 14 easy to stand down a resource than gear it up  
 15 for when it's -- we know it's needed.  
 16 Whenever the standby helicopter is mobilized,  
 17 which may be for a medical evacuation or non-  
 18 occupational, for instance, we've heard we  
 19 used a helicopter for that, then JRCC are  
 20 notified. So they then understand that we are  
 21 utilizing that SAR resource for a medical  
 22 repatriation perhaps.  
 23 If there's an emergency requiring  
 24 specific search and rescue, then JRCC will  
 25 assume command of the situation, including

Page 260

1 deployment of the dedicated SAR first response  
 2 helicopters, as well as any of the other  
 3 resources, such as the other S-92 aircraft  
 4 that are available in St. John's, and of  
 5 course, any of the DND resources, such as the  
 6 Cormorants and the Hercules. So they would  
 7 have a vast array of resources available for  
 8 DND, as I say including the first response S-  
 9 92 out of St. John's and thereafter, any other  
 10 of the helicopters that would be either coming  
 11 back or be on the ground at that time.  
 12 So I'll now move into what we consider as  
 13 the responsibilities of DND, recognizing that  
 14 the Department of National Defence will be  
 15 coming and testifying as to what they actually  
 16 do. This is our understanding of what DND do  
 17 for us.  
 18 ROIL, Q.C.:  
 19 Q. Before you move there, Mr. Pritchard, let me  
 20 just put to you a comment, I guess, that came  
 21 from Mr. Decker that I'd like you to reflect  
 22 on. In his evidence, I recall him saying that  
 23 he had expected to see a search and rescue, an  
 24 orange or a yellow or whatever colour  
 25 helicopter.

Page 261

1 MR. PRITCHARD:  
 2 A. Yeah.  
 3 ROIL, Q.C.:  
 4 Q. And he saw a grey and blue Cougar one. If the  
 5 operator is normally first response, if the  
 6 Cougar helicopter is normally first response,  
 7 how can that message get out to the workforce?  
 8 Because it appears that the expectation was  
 9 something different than that.  
 10 MR. PRITCHARD:  
 11 A. I'm not sure. It's kind of speculation, how  
 12 we can get that message out, because if we do  
 13 have repatriations or first response, it is  
 14 the Cougar helicopter that we use, in general  
 15 terms.  
 16 ROIL, Q.C.:  
 17 Q. So you're saying that you can't be certain on  
 18 every day and every moment it will be a Cougar  
 19 first response. It depends on what's  
 20 happening with the other.  
 21 MR. PRITCHARD:  
 22 A. I can't really speculate as to how we can do  
 23 that, but you know, what circumstances would  
 24 the yellow helicopter come along? They would  
 25 have to be almost in the vicinity, perhaps on

Page 262

1 a training mission 60 miles off, when an  
 2 incident occurs for them to be first on the  
 3 scene. We are the closest by nature in St.  
 4 John's, rather than Gander.  
 5 MR. SACUTA:  
 6 A. If I could add, Mr. Roil, I think one of the  
 7 things that all the operators have done is to  
 8 make sure that we clarify with our workforce  
 9 what our commitments are from a first response  
 10 search and rescue capability. So I think  
 11 we've recently all had an update provided to  
 12 the workforce to make sure that there's no  
 13 confusion about what we supply from a first  
 14 response search and rescue capability. So  
 15 that was done just before Christmas.  
 16 ROIL, Q.C.:  
 17 Q. So I take it that that might have been another  
 18 small lessons learned from that incident, is  
 19 that informing the workforce as to what to  
 20 expect is a part of being an informed worker  
 21 and a more comfortable worker.  
 22 MR. SACUTA:  
 23 A. I mean, I think our workforce has been told in  
 24 the past what our commitments are, but it was  
 25 an opportunity for us to remind them what our

Page 263

1 commitments are.  
 2 ROIL, Q.C.:  
 3 Q. Okay. Okay, thank you.  
 4 MR. PRITCHARD:  
 5 A. So we know Canada is obliged by International  
 6 Convention to maintain the provision of SAR  
 7 coverage in a geographical location and this  
 8 comes with an agreement of the Minister of  
 9 National Defence, supported by the National  
 10 Search and Rescue Secretariat, of which there  
 11 is a number of components there. So the  
 12 Transport Canada, RCMP, Coast Guard, Parks  
 13 Canada, MET Services Canada and Environment  
 14 Canada are all part of that National Search  
 15 and Rescue Secretariat as a support service  
 16 and group there.  
 17 Marine Aeronautical SAR is carried out  
 18 principally by DND and the Coast Guard. DND  
 19 has overall responsibility for the  
 20 coordination and operation of SAR missions.  
 21 DND has established Joint Rescue Coordination  
 22 Centres in various regions of Canada, which  
 23 are responsible for the coordinations of a SAR  
 24 operation within that region, and for our  
 25 region, Halifax is the JRCC.

Page 264

1 ROIL, Q.C.:  
 2 Q. So a JRCC exists in Halifax and covers the  
 3 region that we are in?  
 4 MR. PRITCHARD:  
 5 A. Correct.  
 6 ROIL, Q.C.:  
 7 Q. Yes, okay, and that's Joint Rescue -  
 8 MR. PRITCHARD:  
 9 A. Coordination Centre.  
 10 ROIL, Q.C.:  
 11 Q. - Coordination Centre, where comes the acronym  
 12 JRCC.  
 13 MR. PRITCHARD:  
 14 A. Yeah.  
 15 ROIL, Q.C.:  
 16 Q. Okay, thank you.  
 17 MR. PRITCHARD:  
 18 A. Some regions also have marine rescue  
 19 subcentres, or MRSC, which is manned by the  
 20 Coast Guard and the centre in St. John's is  
 21 actually one of these marine subcentres, and  
 22 part of our emergency response training  
 23 actually takes place at the Coast Guard Centre  
 24 in St. John's, to give us an understanding of  
 25 the overall response and the management and

Page 265

1 coordinations of SAR events.  
 2 So a JRCC has direct tasking authority  
 3 over primary SAR resources, such as the DND  
 4 aircraft, the fixed wing and the helicopters  
 5 and the Coast Guard vessels. The secondary  
 6 Federal resources, such as the Navy vessels,  
 7 can also be deployed. Under the Canadian  
 8 Shipping Act, JRCC and the Coast Guard have  
 9 the authority to direct all of the civilian  
 10 vessels and aircraft to render assistance to a  
 11 nearby vessel or aircraft in distress. So  
 12 there's a level of authority there that DND  
 13 and the Coast Guard have over civilian  
 14 facilities. Additionally, both JRCC and Coast  
 15 Guard can (unintelligible) aviation and marine  
 16 civilian resources to assist with a SAR  
 17 operation, such as the Canadian Coast Guard  
 18 Auxiliary.  
 19 During a mission, it is likely DND will  
 20 set up command and communications from a fixed  
 21 wing plane, such as a Hercules. This allows  
 22 distinct individual resources to concentrate  
 23 on a designated task and allow the overhead  
 24 aircraft to keep the full picture and keep  
 25 with the communications aspects.

Page 266

1 So this slide now is the map of the  
 2 JRCC's region. So the JRCC in Halifax has the  
 3 responsibility for the area outlined in red.  
 4 This is a vast area of some 4.7 million square  
 5 kilometres, 29,000 kilometres of coast line  
 6 and 80 percent of its responsibilities lies  
 7 over water. The Grand Banks is part of this  
 8 vast area and like any other user of the ocean  
 9 within this geographical boundary, we look to  
 10 DND to utilize our resources of Cougar SAR  
 11 first response and any other Cougar  
 12 helicopters and our fleet of vessels, along  
 13 with the DND resources of helicopters and  
 14 fixed wing aircraft, Coast Guard vessels, Navy  
 15 vessels, et cetera, and their authority to  
 16 command other resources in the area in support  
 17 of a well coordinated search and rescue  
 18 mission.  
 19 So the next slide is the level of  
 20 resources and response times. So JRCC have  
 21 two distinct response times. Monday to  
 22 Friday, 8 a.m. until 4 p.m., they are 30  
 23 minute wheels up as a maximum. After these  
 24 hours and at weekend, they are at two hours  
 25 wheels up maximum. The resources at Gander

Page 267

1 are Cormorants and at Greenwood in Halifax,  
 2 there are four Cormorants and one Hercules.  
 3 The Cougar resources, we have a one-hour  
 4 wheels up on a continuous basis 365 days a  
 5 year and we have three S-92s currently  
 6 available, one of course which is on permanent  
 7 SAR duty. There are occasions when other  
 8 airframes are available, such as the  
 9 ConocoPhillips airframe, which is the other S-  
 10 92 that's in the picture now, so that gives us  
 11 four. I prescribed three here from the three  
 12 operators, but now, I guess, we have four.  
 13 ROIL, Q.C.:  
 14 Q. And I take it that the supply and support  
 15 vessels that you operate would also be  
 16 resources that could be and would be called  
 17 upon in the event of an emergency?  
 18 MR. PRITCHARD:  
 19 A. Absolutely. All our resources and the DND  
 20 have the authority to command those other  
 21 merchant vessels and other aircraft, civilian  
 22 aircraft.  
 23 On March the 12th, Cougar 491 was bound  
 24 for Sea Rose and Hibernia Platform with 16  
 25 passengers and two pilots when it crashed into

Page 268

1 the sea. All operators mobilized their  
 2 respective emergency response teams and all  
 3 assistance was offered between the operators  
 4 in respect of both physical resources and  
 5 human resources. I very much appreciated the  
 6 response by DND and was only too pleased to  
 7 have Major Dennis McQuire taking an active  
 8 role in St. John's while his coordination  
 9 centre in Halifax worked its (unintelligible).  
 10 Operators will discuss in detail their  
 11 own emergency response in the next testimony  
 12 in the coming weeks. After this tragic  
 13 accident has happened and it was discovered  
 14 there had been a ball failure in the oil  
 15 filter housing, all S-92s worldwide were  
 16 grounded, and that will lead us into the  
 17 discussion by Mr. Vokey tomorrow on the  
 18 Helicopter Operations Task Force which was  
 19 raised as post March the 12th.  
 20 ROIL, Q.C.:  
 21 Q. Commissioner, I had indicated to the witnesses  
 22 just after lunch that we would take the  
 23 evidence to this point today and that I would  
 24 prefer to leave all the dealings with the  
 25 Helicopter Operations Task Force for the

1 morning. That's a separate and another  
 2 document. It is a document that we have made  
 3 some minor changes to in the past 24 hours and  
 4 I wanted to take the time now to have a  
 5 meeting with legal counsel for all of the  
 6 parties to simply alert them to the changes,  
 7 why they were made and then we would take this  
 8 on tomorrow. We're pretty much, in terms of  
 9 progress, going at the rate that I had hoped  
 10 and expected and we will certainly -- although  
 11 there's a significant amount of material  
 12 there, I think we will have it easily covered  
 13 by the end of the morning, and we could move  
 14 into the examination by other counsel in the  
 15 afternoon tomorrow.

16 COMMISSIONER:

17 Q. All right then. Well, we'll adjourn now and  
 18 you can go into this other process that you  
 19 have described.

20 ROIL, Q.C.:

21 Q. Yeah, I'd simply ask other counsel, just the  
 22 legal counsel, to remain and we'll have a  
 23 meeting here.

24 COMMISSIONER:

25 Q. Yes. Will counsel remain for a discussion

1 with Mr. Roil after we disperse? Okay, thank  
 2 you.  
 3 UPON CONCLUSION AT 4:15 P.M.

1 CERTIFICATE  
 2 We, the undersigned, do hereby certify that  
 3 the foregoing is a true and correct transcript of a  
 4 hearing heard on the 11th day of January, 2010 at  
 5 Tara Place, 31 Peet Street, Suite 213, St. John's  
 6 Newfoundland and Labrador and was transcribed by us  
 7 to the best of our ability by means of a sound  
 8 apparatus.  
 9 Dated at St. John's, NL this  
 10 11th day of January, 2010  
 11 Cindy Sooley  
 12 Discoveries Unlimited Inc.  
 13 Judy Moss  
 14 Discoveries Unlimited Inc.

<p style="text-align: center;"><b>-&amp;-</b></p> <hr/> <p><b>&amp;</b> [1] 22:6</p> <hr/> <p style="text-align: center;"><b>-?-</b></p> <hr/> <p><b>'90s</b> [1] 42:12</p> <hr/> <p style="text-align: center;"><b>-1-</b></p> <hr/> <p><b>1</b> [5] 7:25 8:10,11 31:20 182:2  <b>1,000</b> [1] 49:18  <b>1.2</b> [1] 43:16  <b>1.3</b> [1] 44:9  <b>10</b> [2] 29:22 32:20  <b>100</b> [6] 24:4 29:20 35:16 47:20 139:7 194:2  <b>103</b> [2] 174:25,25  <b>11</b> [4] 1:1 17:21 32:23 59:5  <b>117-100</b> [1] 17:18  <b>117-207</b> [1] 17:19  <b>117-209</b> [1] 17:21  <b>11th</b> [3] 182:13 271:4,10  <b>12</b> [6] 17:21 33:1 138:3 140:5 153:4,4  <b>120</b> [1] 50:16  <b>12:30</b> [1] 153:18  <b>12th</b> [26] 2:4 13:5 20:3 27:11 33:4 122:3,9 140:21 182:13 185:3 198:7 200:21 214:11 215:21 216:21 218:17 234:5 237:15 249:15,21 250:22 251:12 257:18 258:3 267:23 268:19  <b>13</b> [2] 17:22 33:5  <b>14</b> [2] 17:22 31:17  <b>1400</b> [1] 211:15  <b>14th</b> [1] 129:21  <b>15</b> [5] 17:23 47:25 72:25 140:6 197:20  <b>150</b> [1] 49:20  <b>15th</b> [1] 7:11  <b>16</b> [2] 17:23 267:24  <b>17</b> [2] 17:23 35:19  <b>18</b> [1] 42:20  <b>180</b> [1] 40:12  <b>18th</b> [2] 2:15 7:12  <b>190</b> [1] 35:17  <b>1973</b> [1] 21:16  <b>1979</b> [1] 42:16  <b>1981</b> [2] 25:4 26:23  <b>1984</b> [3] 25:11 46:16 51:8  <b>1986</b> [3] 21:21,25 22:5  <b>1988</b> [1] 25:15  <b>1990</b> [1] 22:13  <b>1993</b> [1] 22:10  <b>1995</b> [3] 187:20 188:7,18  <b>1996</b> [3] 22:14,16 25:18  <b>1997</b> [2] 42:17 46:17</p>	<p><b>1998</b> [2] 28:14 190:1  <b>1999</b> [1] 22:22  <b>1A</b> [1] 2:15  <b>1B</b> [1] 8:11  <b>1st</b> [6] 129:16,18 211:24 212:5 218:17 227:1</p> <hr/> <p style="text-align: center;"><b>-2-</b></p> <hr/> <p><b>2</b> [5] 8:1,9,10 31:24 230:10  <b>2.4</b> [1] 35:21  <b>20</b> [3] 17:23 197:20 230:10  <b>200</b> [3] 204:17 205:1 230:7  <b>2000</b> [6] 23:1 47:7 90:17 193:5 197:12 218:15  <b>2001</b> [1] 227:1  <b>2002</b> [4] 26:11,13 46:18 90:17  <b>2003</b> [2] 29:3 191:5  <b>2005</b> [5] 23:15 29:5 195:19 196:20,23  <b>2006</b> [6] 50:14 55:23 202:10 203:5 208:22 219:20  <b>2007</b> [10] 29:12,12 47:7 196:23 197:1 202:7 211:14,25 212:5 213:10  <b>2008</b> [1] 227:2  <b>2009</b> [2] 68:21 198:7  <b>2010</b> [4] 1:1 221:1 271:4 271:10  <b>2016</b> [1] 40:5  <b>2017</b> [1] 40:5  <b>206</b> [1] 17:19  <b>208</b> [1] 17:20  <b>21</b> [3] 28:24,25 129:19  <b>21-day-off</b> [1] 50:19  <b>21-day-on</b> [1] 50:19  <b>210</b> [1] 17:21  <b>2121</b> [1] 5:3  <b>213</b> [1] 271:5  <b>21st</b> [1] 129:17  <b>220</b> [1] 46:7  <b>224</b> [1] 43:13  <b>225</b> [2] 192:21 194:21  <b>22nd</b> [1] 90:17  <b>23rd</b> [1] 69:22  <b>24</b> [3] 35:18 251:4 269:3  <b>24-hour</b> [2] 249:5 252:25  <b>25</b> [6] 27:24 51:7 175:20 197:14,20 218:13  <b>250</b> [1] 46:7  <b>27</b> [1] 194:1  <b>280</b> [4] 43:21 204:20 205:1,4  <b>29</b> [1] 24:24  <b>29,000</b> [1] 266:5</p> <hr/> <p style="text-align: center;"><b>-3-</b></p>	<p><b>3</b> [2] 32:4 173:20  <b>30</b> [8] 26:22 153:4 175:20 218:13 249:22,25 250:3 266:22  <b>30-minute</b> [1] 250:21  <b>300</b> [4] 17:23 196:9 248:15,19  <b>31</b> [1] 271:5  <b>315</b> [1] 42:14  <b>31st</b> [2] 68:21 69:23  <b>32</b> [2] 45:18 153:5  <b>332L</b> [1] 192:19  <b>3400</b> [1] 40:6  <b>36</b> [1] 21:15  <b>365</b> [1] 267:4  <b>39</b> [1] 232:19</p> <hr/> <p style="text-align: center;"><b>-4-</b></p> <hr/> <p><b>4</b> [2] 32:6 266:22  <b>4.7</b> [1] 266:4  <b>40</b> [2] 50:14 232:20  <b>401</b> [1] 17:24  <b>402</b> [1] 17:24  <b>42</b> [1] 154:5  <b>4414</b> [2] 70:11 90:21  <b>49</b> [1] 232:20  <b>491</b> [2] 27:10 267:23  <b>4:15</b> [1] 270:3  <b>4:30</b> [1] 173:21  <b>4th</b> [1] 90:17</p> <hr/> <p style="text-align: center;"><b>-5-</b></p> <hr/> <p><b>5</b> [2] 32:7 175:17  <b>50</b> [2] 194:2 232:21  <b>560</b> [1] 205:5  <b>59</b> [2] 164:25,25</p> <hr/> <p style="text-align: center;"><b>-6-</b></p> <hr/> <p><b>6</b> [2] 32:11 55:22  <b>60</b> [1] 262:1  <b>60-storey</b> [1] 43:14  <b>60s</b> [1] 197:15  <b>61</b> [2] 196:17 224:10  <b>62</b> [1] 168:22  <b>64</b> [1] 186:21</p> <hr/> <p style="text-align: center;"><b>-7-</b></p> <hr/> <p><b>7</b> [2] 32:14 236:25  <b>7-day-a-week</b> [1] 249:5  <b>700</b> [1] 40:8  <b>71.2</b> [1] 255:19  <b>75</b> [3] 27:7 35:18 50:17  <b>7:00</b> [1] 250:18  <b>7th</b> [1] 129:20</p> <hr/> <p style="text-align: center;"><b>-8-</b></p> <hr/> <p><b>8</b> [2] 32:16 266:22  <b>80</b> [5] 42:15 43:5,7 50:13</p>	<p>266:6  <b>80s</b> [1] 188:22  <b>84</b> [1] 228:20  <b>85</b> [1] 44:5</p> <hr/> <p style="text-align: center;"><b>-9-</b></p> <hr/> <p><b>9</b> [1] 32:18  <b>90</b> [3] 47:20 54:8 230:17  <b>92</b> [4] 195:3 224:10 260:9 267:10  <b>92s</b> [1] 170:21  <b>94</b> [1] 255:19</p> <hr/> <p style="text-align: center;"><b>-A-</b></p> <hr/> <p><b>a.m</b> [1] 266:22  <b>abandonment</b> [5] 203:13 204:6,18 205:2 205:25  <b>Aberdeen</b> [2] 23:2 24:9  <b>ability</b> [8] 6:24 170:19 178:19 205:18 242:12 244:7 251:14 271:7  <b>able</b> [24] 10:4 13:18 14:19 16:22 45:21 82:21 93:1 96:14 102:4 134:14 166:24 172:14 176:17 185:6 194:16 205:22 215:3 217:22 231:23,24 232:4,5 238:19 250:7  <b>above</b> [2] 43:23 52:16  <b>ABS</b> [1] 88:4  <b>absolutely</b> [22] 31:8 34:20 36:21 37:14 52:9 56:3 64:8 65:7 66:8 78:6 78:13 83:9 84:20 90:5 94:20 111:2 122:11 190:10 202:3 225:3 240:7 267:19  <b>abused</b> [1] 237:22  <b>accept</b> [2] 78:3 91:6  <b>acceptable</b> [3] 77:5 97:13 222:24  <b>acceptance</b> [1] 213:4  <b>accepted</b> [1] 253:22  <b>access</b> [7] 3:3 14:21,23 65:21 83:20 213:19 221:20  <b>accessible</b> [1] 14:13  <b>accident</b> [4] 20:7 24:15 91:2 268:13  <b>accommodate</b> [3] 232:8 232:10,11  <b>accommodation</b> [3] 52:13,16 229:8  <b>accommodations</b> [4] 43:21,23 50:12 86:7  <b>accompany</b> [2] 235:15 251:20  <b>Accord</b> [3] 63:9 86:5 124:20  <b>accordance</b> [4] 88:17 89:3,7 195:16  <b>accordingly</b> [1] 101:5</p>	<p><b>account</b> [2] 176:17 243:22  <b>accountability</b> [2] 94:10 245:18  <b>accountable</b> [2] 26:17 93:18  <b>achieve</b> [1] 111:20  <b>achieved</b> [1] 42:17  <b>achieving</b> [1] 78:22  <b>acknowledge</b> [1] 218:23  <b>acknowledged</b> [1] 253:20  <b>acquisition</b> [1] 69:5  <b>acreage</b> [2] 33:18,19  <b>acronym</b> [2] 31:9 264:11  <b>acronyms</b> [2] 31:4,14  <b>Act</b> [7] 63:10 86:5 90:11 123:24 124:3,13 265:8  <b>actions</b> [2] 39:18 246:3  <b>activate</b> [2] 217:18,23  <b>activates</b> [2] 216:4,5  <b>activation</b> [1] 217:19  <b>active</b> [2] 65:11 268:7  <b>activities</b> [16] 46:2 54:23 56:5,17,19 57:4,12 64:12 65:17 75:17,21 76:21 93:12 106:13,20 108:4  <b>activity</b> [12] 46:7 63:11 63:19,20 73:22,23 86:10 102:4 111:10 112:1 165:16 189:2  <b>actual</b> [9] 19:12 22:1 42:22 159:3,15 246:25 247:7 255:20 259:12  <b>ad</b> [2] 121:20 150:25  <b>ad-hoc</b> [6] 50:20 83:15 83:17 84:10,18 211:16  <b>add</b> [2] 92:12 262:6  <b>added</b> [3] 50:15 191:16 193:1  <b>addition</b> [4] 1:9 7:16 160:8 166:24  <b>additional</b> [8] 49:22 50:14 122:22 188:3 206:25 218:11 234:13 249:16  <b>Additionally</b> [1] 265:14  <b>address</b> [2] 9:11 220:7  <b>adequate</b> [4] 172:20 175:3 176:22 177:3  <b>adequately</b> [2] 8:18,19  <b>adhere</b> [1] 139:18  <b>adjacent</b> [1] 169:25  <b>adjourn</b> [1] 269:17  <b>admin</b> [1] 243:6  <b>administration</b> [3] 179:11 243:14,16  <b>administrative</b> [1] 179:17  <b>admit</b> [1] 17:15  <b>admitted</b> [2] 9:17,18  <b>adopted</b> [4] 119:24 195:22 203:12,15</p>
---	---	---	---	---



<p><b>advance</b> [2] 187:24 212:4</p> <p><b>advantage</b> [4] 184:18 190:17,20 197:23</p> <p><b>Adverse</b> [1] 228:25</p> <p><b>advise</b> [1] 5:9</p> <p><b>advised</b> [2] 2:6 8:13</p> <p><b>advisor</b> [2] 159:10,23</p> <p><b>aeronautical</b> [2] 259:6 263:17</p> <p><b>Aerosafe</b> [2] 11:6 110:10</p> <p><b>affairs</b> [1] 12:16</p> <p><b>affected</b> [3] 20:9,12 153:14</p> <p><b>affirmed</b> [3] 18:24 19:1 19:2</p> <p><b>Africa</b> [5] 23:5 25:9 29:7 29:10,16</p> <p><b>afternoon</b> [7] 173:24 174:1 175:13 185:16 222:8 228:13 269:15</p> <p><b>again</b> [33] 40:14 41:22 45:19,22 48:4 60:18 66:1 74:6 103:20 104:1 105:24 107:9 109:13 113:11 116:8 125:17 128:15 137:1 142:19 146:4 169:11 173:10 183:13 186:14 195:15 201:20 221:18,20 231:16 240:2 244:7 245:22 246:25</p> <p><b>against</b> [12] 66:11 84:2 84:4 85:2 97:8 102:20 105:15,17 109:2 136:3 156:3 219:11</p> <p><b>age</b> [3] 182:8 218:1 232:12</p> <p><b>agency</b> [1] 15:21</p> <p><b>agenda</b> [2] 132:11,16</p> <p><b>ago</b> [4] 26:7 145:9 202:16 249:13</p> <p><b>agree</b> [1] 78:9</p> <p><b>agreed</b> [3] 7:19 155:11 195:13</p> <p><b>agreement</b> [8] 34:5 59:24 80:15 145:10 181:1 184:2,8 263:8</p> <p><b>agreements</b> [8] 34:7 80:11,13,15,20 90:8 150:9 197:1</p> <p><b>Agusta</b> [2] 193:8,19</p> <p><b>ahead</b> [6] 19:21 113:3 133:16 153:25 156:18 225:7</p> <p><b>aid</b> [7] 80:11,13,15 136:24 150:9 152:24 222:19</p> <p><b>air</b> [12] 35:19 157:10 180:2 218:12 219:7,21 242:13,13 244:14,14 250:7 258:4</p> <p><b>aircraft</b> [20] 38:18 166:18 169:2 170:6,16 184:21 197:10 223:6,14 247:21 250:4 257:16 260:3 265:4,10,11,24</p> <p>266:14 267:21,22</p> <p><b>aircrafts</b> [1] 184:17</p> <p><b>airframe</b> [14] 165:17,19 165:21 171:16 178:21 180:24 181:15 185:3,15 185:18 191:15 195:24 196:25 267:9</p> <p><b>airframes</b> [11] 171:6 178:12 181:13 182:9 192:11 194:21 195:5,9 197:22 199:19 267:8</p> <p><b>airport</b> [5] 170:1 182:8 182:9 224:8 245:3</p> <p><b>AIS</b> [1] 247:24</p> <p><b>akin</b> [2] 60:9,13</p> <p><b>Alberta</b> [4] 25:13,18 28:1,5</p> <p><b>alert</b> [1] 269:6</p> <p><b>alerts</b> [1] 92:11</p> <p><b>aligned</b> [1] 139:15</p> <p><b>alignment</b> [1] 250:23</p> <p><b>allocated</b> [1] 251:15</p> <p><b>allotted</b> [1] 2:17</p> <p><b>allow</b> [7] 106:11 112:25 124:20 166:23 205:21 238:2 265:23</p> <p><b>allowed</b> [4] 83:4 113:3 233:5 249:17</p> <p><b>allowing</b> [2] 249:23 250:19</p> <p><b>allows</b> [6] 16:21 21:8 92:8 112:24 153:12 265:21</p> <p><b>almost</b> [1] 261:25</p> <p><b>alone</b> [2] 106:15 206:6</p> <p><b>along</b> [8] 54:24 67:6 134:16 137:14 155:5 158:16 261:24 266:12</p> <p><b>alongside</b> [1] 153:12</p> <p><b>alternate</b> [1] 172:17</p> <p><b>always</b> [14] 7:8 8:1 22:2 30:9 114:13 147:19 151:12,14,19 182:15 183:16,24 185:2 237:6</p> <p><b>ambulance</b> [1] 180:2</p> <p><b>amendment</b> [1] 124:19</p> <p><b>American</b> [4] 88:6,8,10 88:11</p> <p><b>Amethyst</b> [1] 51:12</p> <p><b>among</b> [1] 190:22</p> <p><b>amongst</b> [1] 233:19</p> <p><b>amount</b> [5] 176:18,25 177:1 208:7 269:11</p> <p><b>analogy</b> [5] 98:15 99:18 103:21 114:12 115:2</p> <p><b>analysis</b> [16] 105:8,10 105:23 106:5,5,14 154:13 187:10 188:3 189:16 193:4,5 194:24,25 195:4 195:12</p> <p><b>analyze</b> [1] 199:13</p> <p><b>analyzed</b> [1] 242:6</p> <p><b>anchor</b> [1] 150:4</p> <p><b>Andrews</b> [1] 77:25</p>	<p><b>annual</b> [2] 83:13 200:17</p> <p><b>answer</b> [8] 19:10,11 66:6 104:20 145:19 193:23,24 198:14</p> <p><b>answers</b> [1] 173:11</p> <p><b>Anti</b> [1] 197:6</p> <p><b>anticipate</b> [2] 172:11 229:9</p> <p><b>anticipated</b> [2] 2:8 220:22</p> <p><b>AOMS</b> [3] 229:21 231:7 231:14</p> <p><b>apparatus</b> [2] 218:10 271:8</p> <p><b>appear</b> [1] 3:12</p> <p><b>applicable</b> [3] 67:16 142:12 222:21</p> <p><b>application</b> [2] 82:22 108:21</p> <p><b>applied</b> [9] 96:16 102:14 106:16,18 107:22 113:18 124:10 126:24 170:11</p> <p><b>apply</b> [11] 12:18 67:2 99:14 100:24 110:4 111:3 124:14,15,18 161:3 239:2</p> <p><b>appointed</b> [2] 23:19 59:21</p> <p><b>appraisal</b> [1] 55:5</p> <p><b>appreciated</b> [1] 268:5</p> <p><b>approach</b> [5] 6:19,22 111:19 112:24 119:24</p> <p><b>appropriate</b> [16] 3:19 4:11 18:24 83:18 96:15 104:21 162:4 165:21 169:6 177:16 194:12 214:14,16 219:2 226:14 236:17</p> <p><b>approval</b> [5] 77:20 84:24 84:25 168:4 237:11</p> <p><b>approvals</b> [2] 62:6 240:19</p> <p><b>approve</b> [2] 77:3 237:23 30:9 114:13 147:19</p> <p><b>approved</b> [4] 77:7 89:7 169:19 226:23</p> <p><b>April</b> [3] 90:17 195:19 196:20</p> <p><b>area</b> [53] 3:16 14:7 20:1 32:15 33:3,17 35:14 36:23,24 40:1 41:8 42:5 43:4 44:1,3 51:12 59:8 61:3 63:14 65:17 70:7 79:14 86:11 96:3,8,23 98:19 104:11 128:2 137:12 141:6,7 154:12 154:12,13,23 155:3,13 155:22 159:3 172:19 215:1 217:21 228:23 243:7 245:3,4 247:22 256:17 266:3,4,8,16</p> <p><b>areas</b> [17] 11:4 36:10 37:2 38:2 59:10,13 70:16 92:3,7 93:23 94:4 108:12 124:6,21 141:7 142:2 154:25</p> <p><b>argue</b> [1] 190:16</p> <p><b>arise</b> [1] 7:6</p>	<p><b>arises</b> [1] 252:21</p> <p><b>arising</b> [3] 129:10 130:15 136:17</p> <p><b>arrangement</b> [6] 58:14 156:2 181:12 183:3,7 186:6</p> <p><b>arrangements</b> [3] 56:4 101:4 156:18</p> <p><b>array</b> [1] 260:7</p> <p><b>arrival</b> [1] 54:11</p> <p><b>arrive</b> [3] 240:13 243:4 243:21</p> <p><b>arrives</b> [1] 244:9</p> <p><b>arriving</b> [2] 131:11 244:10</p> <p><b>arrow</b> [1] 114:21</p> <p><b>art</b> [1] 92:18</p> <p><b>articulates</b> [1] 244:24</p> <p><b>aspect</b> [4] 22:12 37:22 117:9 123:1</p> <p><b>aspects</b> [13] 22:21 26:17 36:11 90:2 94:17 95:12 118:13 133:8 141:5 178:6 178:18,20 265:25</p> <p><b>assembly</b> [1] 212:12</p> <p><b>assess</b> [3] 82:8 96:5 193:3</p> <p><b>assessed</b> [2] 156:13 187:11</p> <p><b>assesses</b> [1] 77:8</p> <p><b>assessment</b> [7] 79:21 106:16 156:6 196:24 220:20 229:5 230:1</p> <p><b>assessments</b> [3] 112:7 229:3,20</p> <p><b>asset</b> [6] 18:21 24:22 26:16,19 54:3,13</p> <p><b>assets</b> [7] 34:2 54:25 57:15 92:21 151:14 186:23 258:15</p> <p><b>assign</b> [1] 135:21</p> <p><b>assigned</b> [2] 133:6 181:16</p> <p><b>assignment</b> [2] 28:16 29:6</p> <p><b>assist</b> [6] 21:6 54:4 129:7 152:16 169:7 265:16</p> <p><b>assistance</b> [3] 81:5 265:10 268:3</p> <p><b>associate</b> [1] 105:21</p> <p><b>associated</b> [24] 51:19 55:4,7 56:4 75:24 81:20 100:3,6,21 101:6,22 102:19 104:14 106:21 107:1 109:8 133:1 150:2 154:19 163:10,11 219:10 220:8 235:20</p> <p><b>Association</b> [5] 2:1 11:9 23:9 71:15 226:17</p> <p><b>assume</b> [2] 183:22 259:25</p> <p><b>assurance</b> [1] 88:22</p> <p><b>assure</b> [1] 27:14</p> <p><b>ate</b> [1] 241:18</p> <p><b>ATL</b> [2] 149:22,24</p>	<p><b>Atlantic</b> [6] 63:9 71:11 86:5 124:20 229:18,24</p> <p><b>attached</b> [1] 159:1</p> <p><b>attaches</b> [1] 55:11</p> <p><b>attempt</b> [2] 8:17 162:12</p> <p><b>attend</b> [1] 123:3</p> <p><b>attendance</b> [1] 151:15</p> <p><b>attended</b> [2] 25:1 119:11</p> <p><b>attending</b> [1] 130:10</p> <p><b>attention</b> [1] 214:25</p> <p><b>attitude</b> [4] 24:12 97:16 97:20 118:7</p> <p><b>attitudes</b> [1] 94:11</p> <p><b>attractive</b> [1] 178:19</p> <p><b>audit</b> [12] 83:13 84:2,6 84:20 107:21,23 140:10 140:13 142:17 143:14,15 143:20</p> <p><b>audited</b> [2] 108:1 140:8</p> <p><b>auditing</b> [2] 142:22 143:21</p> <p><b>audits</b> [11] 13:18 83:23 86:17,17 107:25 140:4 140:15,19 143:7 186:16 200:18</p> <p><b>August</b> [1] 23:18</p> <p><b>authorities</b> [4] 23:13 79:20 86:3 87:24</p> <p><b>authority</b> [27] 59:23 71:2 85:7,22,23 86:9,12 86:16,22 87:4,8,16 88:13 88:16,18 89:1,12 90:18 104:11 154:23 195:2 257:15 265:2,9,12 266:15 267:20</p> <p><b>Authority's</b> [1] 70:15</p> <p><b>authorization</b> [23] 63:16,18,22 67:6 68:3,5 72:7,9,13,18 73:13,20 73:23 74:12,13,23 75:22 75:25 76:2 77:3 84:24 166:6</p> <p><b>authorizations</b> [11] 64:10,10 67:24 69:11 73:7 74:14,19 75:18 80:6 124:9 167:9</p> <p><b>authorize</b> [1] 86:10</p> <p><b>authorized</b> [1] 73:10</p> <p><b>automated</b> [6] 169:8 177:18 247:24 248:7,14 252:17</p> <p><b>automatic</b> [1] 217:18</p> <p><b>automatically</b> [1] 216:4</p> <p><b>auxiliary</b> [4] 163:11 164:7 223:20 265:18</p> <p><b>availability</b> [4] 115:24 116:2,4 195:7</p> <p><b>available</b> [17] 14:22 18:2 45:16 81:7 182:5,11 218:2 219:21 246:7,9 247:18 251:4 258:2 260:4 260:7 267:6,8</p> <p><b>average</b> [1] 46:6</p> <p><b>aviation</b> [12] 70:15,18 71:2,3 110:14 189:20</p>
---	---	---	---

<p>195:2 200:13,18,19 206:15 265:15 <b>avoid</b> [3] 31:5 192:6 221:13 <b>avoidable</b> [1] 229:10 <b>avoided</b> [3] 169:3,14 173:3 <b>awaiting</b> [2] 116:23 156:5 <b>award</b> [1] 187:24 <b>awarded</b> [4] 187:18 209:10 211:11,13 <b>aware</b> [13] 11:14 36:2,4 132:25 210:12,16 211:6 213:8 233:18 238:5,10 241:1 242:9 <b>awareness</b> [1] 234:19 <b>away</b> [7] 22:13 23:17 53:18 96:7 98:18 128:15 182:8 <b>awful</b> [1] 5:4 <b>axis</b> [1] 110:7</p>	<p><b>basin-wide</b> [1] 119:24 <b>basis</b> [24] 15:8 20:24 21:7 69:7 77:16 79:18 84:18 97:24 115:10 116:6 135:24 145:15 150:15,25 153:9 172:23 186:7,9 237:10 246:20 249:5 252:25 259:10 267:4 <b>basket</b> [1] 255:10 <b>beacon</b> [7] 212:13 216:2 217:7,23,24 218:1 241:11 <b>beacons</b> [4] 216:1,19 218:1,7 <b>became</b> [6] 21:20 22:19 22:22 23:1 122:20 123:12 <b>become</b> [12] 5:11 8:5 45:16 48:4 72:15,17 124:10 132:21 167:7,12 197:18 232:14 <b>becomes</b> [2] 126:16 158:20 <b>becoming</b> [4] 22:8 109:7 171:2,3 <b>beds</b> [4] 50:13,15,16 150:19 <b>beforehand</b> [1] 104:15 <b>began</b> [3] 25:4 193:2,6 <b>begin</b> [5] 15:18 19:16,18 28:15 42:4 <b>beginning</b> [3] 193:5 213:6 214:6 <b>behalf</b> [5] 19:23 60:6 157:25 160:22 198:13 <b>behavioural</b> [3] 108:6 108:10,17 <b>behaviours</b> [2] 93:9 94:11 <b>behind</b> [1] 183:17 <b>Belfast</b> [1] 22:5 <b>Bell</b> [1] 194:8 <b>below</b> [1] 47:25 <b>benefit</b> [1] 223:2 <b>benefits</b> [1] 187:18 <b>beside</b> [1] 29:1 <b>best</b> [12] 12:10 93:3 113:20 146:12 194:13 196:15 218:4 219:21 225:20 231:9 252:3 271:7 <b>better</b> [4] 12:11 19:11 50:2 173:12 <b>between</b> [34] 10:7 15:9 25:13 37:23 38:13 40:5 40:6 45:16,24 46:7 61:10 61:11 70:20 78:20 80:11 80:16 124:12 135:4 138:7 142:7 145:10,21 147:3 155:13,19 160:19 177:21 181:1 184:3 189:24 191:5 230:10 232:20 268:3 <b>beyond</b> [1] 116:13 <b>bid</b> [10] 143:3 186:25 187:7,9,21 189:9,16,20 189:21 209:8 <b>bidder</b> [1] 187:16 <b>bidders</b> [9] 187:3,6,10</p>	<p>187:10,13,14,15 209:10 209:17 <b>bidding</b> [4] 186:23 202:11 209:16 212:2 <b>big</b> [3] 38:23 54:1 232:21 <b>bigger</b> [2] 106:19 215:6 <b>biggest</b> [1] 137:12 <b>billing</b> [1] 191:2 <b>bio</b> [1] 141:24 <b>bird</b> [1] 197:9 <b>bit</b> [42] 2:11 6:19 7:22,24 14:4 36:13 39:5,9 46:13 52:25 54:22 57:12 59:16 76:4 90:5 92:24 93:15 94:21 99:2 115:12,17 116:14,22 118:11 135:13 149:6 151:23 161:24 169:11 181:7 186:10 191:11 196:17 208:17 214:19 222:6 235:7 248:13 249:6 251:2 256:17 257:1 <b>Blackberry</b> [1] 225:6 <b>blacked</b> [1] 15:3 <b>blue</b> [7] 22:17 23:2 247:22 248:6,12 252:16 261:4 <b>board</b> [99] 15:22 16:2 22:9,22 40:12 46:4 48:12 54:7 56:1 60:9 63:17,21 65:12 66:18,23 68:21,24 72:8,12 73:8,20 74:14 77:5,6,20 78:1 79:22 80:6 82:20 83:4,13,17 83:20,21 84:6,9,13,13 86:10 100:10 107:18 121:16,18,19,21 123:18 124:7,20 126:9 128:7 129:8,14 132:13 133:1 133:12,13 136:10 137:14 139:19 147:19 148:24 150:19 152:25 157:20,23 159:10 162:20 163:6,6 163:14,15 164:3,12,16 165:24 168:17 170:23 176:18,22 188:5 204:25 205:4,13 213:18 231:1,5 236:7 237:17,23,23 238:1 239:7 240:24 242:6 247:5 253:9,21,22,23 <b>Board's</b> [5] 65:22 77:2 84:20 88:17 165:25 <b>boarding</b> [3] 242:6,15 244:16 <b>boat</b> [1] 206:4 <b>boats</b> [3] 149:15 151:24 179:24 <b>bodies</b> [2] 131:1 226:19 <b>bogus</b> [1] 199:4 <b>books</b> [1] 156:4 <b>boomerang</b> [1] 199:15 <b>born</b> [3] 24:24 25:14 28:18 <b>bottom</b> [3] 42:23 43:11 49:20 <b>bound</b> [2] 249:24 267:23 <b>boundaries</b> [1] 127:22</p>	<p><b>boundary</b> [1] 266:9 <b>bow</b> [1] 53:5 <b>box</b> [3] 76:2 163:12 164:8 <b>BP</b> [2] 21:17,21 <b>brand</b> [1] 115:11 <b>breach</b> [1] 64:19 <b>break</b> [11] 59:4 71:17 72:22 73:1 112:11 117:5 153:17 222:8 228:13,17 232:3 <b>breathable</b> [1] 218:12 <b>breathing</b> [4] 169:7 177:17 218:10 219:2 <b>breaths</b> [1] 218:13 <b>brief</b> [2] 31:24 32:3 <b>briefed</b> [2] 168:25 169:19 <b>briefing</b> [6] 169:22,24 242:1,4 244:3,5 <b>briefings</b> [1] 234:16 <b>bring</b> [12] 1:11 5:6 22:24 46:16 57:6 73:16,21 110:23 111:21 145:11,14 181:10 <b>bringing</b> [2] 93:3 243:25 <b>broadcasters</b> [1] 222:5 <b>broken</b> [2] 16:10 31:16 <b>brought</b> [8] 11:24 12:10 102:25 145:14 182:24 195:15 234:4 248:13 <b>BST</b> [3] 179:20 233:3,10 <b>BSTR</b> [2] 233:2 237:17 <b>building</b> [1] 43:14 <b>built</b> [1] 116:4 <b>bulk</b> [5] 95:24 96:3 98:16 98:17 150:13 <b>bulletin</b> [1] 213:18 <b>bullets</b> [1] 122:13 <b>burden</b> [1] 254:10 <b>Bureau</b> [4] 88:6,8,10,12 <b>burning</b> [2] 131:15 137:18 <b>business</b> [15] 20:18 21:15 25:16,20 27:25 86:13 139:3,8,11 141:5 149:13,25 151:10 172:22 174:9 <b>buying</b> [2] 194:2,3</p>	<p><b>calls</b> [1] 259:9 <b>camel</b> [1] 210:22 <b>Canada</b> [57] 11:4 15:22 25:5 28:3,6 29:14 42:9 51:7 61:8,21 62:5,6,15 63:4,9 71:11 85:6,13,15 89:25 90:7,10,14,20 91:3 91:5 124:14 142:13 145:9 146:2 148:15 166:12,13 187:17 189:7,9,17,18,22 189:25 195:11,11,18 196:19 203:1,13,15 208:24 233:16 256:12 259:4 263:5,12,13,14 263:22 <b>Canada's</b> [3] 70:9 152:6 189:11 <b>Canadian</b> [7] 1:25 71:14 123:25 124:4 226:17 265:7,17 <b>cannons</b> [1] 38:21 <b>cannot</b> [5] 106:15 133:13 136:18,20 241:22 <b>CAODC</b> [1] 226:16 <b>CAP</b> [1] 70:18 <b>CAP437</b> [3] 70:18,21,24 <b>capabilities</b> [7] 32:25 55:13 95:17 152:12 153:1 187:13 189:16 <b>capability</b> [7] 38:4 152:25 153:3 174:24 196:12 262:10,14 <b>capable</b> [5] 166:19 203:4 203:8 255:25 256:2 <b>capacity</b> [9] 2:9 44:10 50:16 171:16 195:7 196:3 196:4,10 208:8 <b>CAPP</b> [27] 4:3,10,13 11:9 70:25 71:14,14 118:16,17,18 119:6,9,11 119:13 120:18,22 121:8 121:12,21 219:4 220:18 225:12,17,25 226:2,18 236:6 <b>car</b> [1] 194:2 <b>carbon</b> [1] 212:16 <b>card</b> [1] 104:10 <b>cards</b> [2] 243:18,18 <b>career</b> [11] 24:3 25:4,7 25:12,21 26:12 28:2,21 29:13,20 30:8 <b>careers</b> [1] 26:25 <b>cargo</b> [11] 149:9 152:1 171:6,12,23 179:11,12 179:23 196:9 234:22 235:18 <b>carried</b> [6] 98:11 170:5 170:21,24 171:6 263:17 <b>carriers</b> [1] 21:19 <b>carry</b> [5] 63:10 98:20 169:1 170:19 172:9 <b>carrying</b> [2] 153:1,3 <b>cascade</b> [2] 98:25 99:6 <b>cascades</b> [1] 98:9 <b>cascading</b> [1] 102:5 <b>case</b> [22] 7:6 15:23 47:3</p>
<p><b>-B-</b></p>		<p><b>-C-</b></p>		
<p><b>B</b> [2] 130:2,4 <b>baby</b> [1] 181:14 <b>Bachelor</b> [2] 24:25 25:2 <b>backdrop</b> [1] 5:14 <b>backed</b> [1] 42:13 <b>background</b> [2] 21:11 24:19 <b>backlog</b> [5] 174:15,18 175:5 184:8,11 <b>bag</b> [1] 171:9 <b>baggage</b> [11] 158:5 179:9 179:15 235:12,12,13,13 235:17 240:20 241:6 243:23 <b>ball</b> [1] 268:14 <b>Banks</b> [11] 20:1 25:8 27:9 35:15 38:10 57:17 92:22 145:5 190:12 193:14 266:7 <b>Barnes</b> [3] 2:2 9:14 118:24 <b>barrels</b> [2] 44:9 50:10 <b>barrier</b> [4] 114:20,20,22 118:5 <b>barriers</b> [9] 92:5 93:24 113:10,16,17 114:2,3 117:5 118:13 <b>base</b> [5] 43:1 87:1 148:2 191:15 192:25 <b>based</b> [15] 20:18 33:17 34:1 39:19 40:8 44:4 69:8 89:25 149:7 164:14 214:18,24 220:17 239:21 256:15 <b>basic</b> [8] 202:24 211:21 222:16,19 223:17 232:23 233:1 234:6 <b>basin</b> [12] 38:11 41:4 46:15 49:15 56:14 145:12 190:12 196:1,16 197:19 219:10,23</p>	<p><b>beds</b> [4] 50:13,15,16 150:19 <b>beforehand</b> [1] 104:15 <b>began</b> [3] 25:4 193:2,6 <b>begin</b> [5] 15:18 19:16,18 28:15 42:4 <b>beginning</b> [3] 193:5 213:6 214:6 <b>behalf</b> [5] 19:23 60:6 157:25 160:22 198:13 <b>behavioural</b> [3] 108:6 108:10,17 <b>behaviours</b> [2] 93:9 94:11 <b>behind</b> [1] 183:17 <b>Belfast</b> [1] 22:5 <b>Bell</b> [1] 194:8 <b>below</b> [1] 47:25 <b>benefit</b> [1] 223:2 <b>benefits</b> [1] 187:18 <b>beside</b> [1] 29:1 <b>best</b> [12] 12:10 93:3 113:20 146:12 194:13 196:15 218:4 219:21 225:20 231:9 252:3 271:7 <b>better</b> [4] 12:11 19:11 50:2 173:12 <b>between</b> [34] 10:7 15:9 25:13 37:23 38:13 40:5 40:6 45:16,24 46:7 61:10 61:11 70:20 78:20 80:11 80:16 124:12 135:4 138:7 142:7 145:10,21 147:3 155:13,19 160:19 177:21 181:1 184:3 189:24 191:5 230:10 232:20 268:3 <b>beyond</b> [1] 116:13 <b>bid</b> [10] 143:3 186:25 187:7,9,21 189:9,16,20 189:21 209:8 <b>bidder</b> [1] 187:16 <b>bidders</b> [9] 187:3,6,10</p>	<p><b>board</b> [99] 15:22 16:2 22:9,22 40:12 46:4 48:12 54:7 56:1 60:9 63:17,21 65:12 66:18,23 68:21,24 72:8,12 73:8,20 74:14 77:5,6,20 78:1 79:22 80:6 82:20 83:4,13,17 83:20,21 84:6,9,13,13 86:10 100:10 107:18 121:16,18,19,21 123:18 124:7,20 126:9 128:7 129:8,14 132:13 133:1 133:12,13 136:10 137:14 139:19 147:19 148:24 150:19 152:25 157:20,23 159:10 162:20 163:6,6 163:14,15 164:3,12,16 165:24 168:17 170:23 176:18,22 188:5 204:25 205:4,13 213:18 231:1,5 236:7 237:17,23,23 238:1 239:7 240:24 242:6 247:5 253:9,21,22,23 <b>Board's</b> [5] 65:22 77:2 84:20 88:17 165:25 <b>boarding</b> [3] 242:6,15 244:16 <b>boat</b> [1] 206:4 <b>boats</b> [3] 149:15 151:24 179:24 <b>bodies</b> [2] 131:1 226:19 <b>bogus</b> [1] 199:4 <b>books</b> [1] 156:4 <b>boomerang</b> [1] 199:15 <b>born</b> [3] 24:24 25:14 28:18 <b>bottom</b> [3] 42:23 43:11 49:20 <b>bound</b> [2] 249:24 267:23 <b>boundaries</b> [1] 127:22</p>	<p><b>C</b> [4] 17:11 73:7 151:3 255:17 <b>C-118</b> [1] 17:25 <b>C-NLOPB</b> [26] 2:22 4:3 4:20 10:23 12:16,19 61:1 61:13 62:7,19 63:16,17 70:1 77:24 123:18 129:1 139:22 142:13,17 143:13 152:5 168:5 187:24 195:15 242:10 255:12 <b>cabin</b> [1] 244:14 <b>cadet</b> [1] 21:17 <b>California</b> [1] 29:15</p>	

<p>47:13,19 49:3 60:13 113:3 140:5 144:23 145:4 149:21 162:23 164:17 167:22 179:17 187:23 188:3 237:10,10 241:2 257:17 <b>cases</b> [5] 164:2,7 174:17 175:6 238:19 <b>cast</b> [1] 232:3 <b>categories</b> [3] 94:1 109:13 113:16 <b>category</b> [1] 113:15 <b>catering</b> [4] 144:6,16 146:5,7 <b>caution</b> [1] 17:8 <b>cautioned</b> [1] 222:3 <b>caveat</b> [1] 173:14 <b>Celsius</b> [2] 35:20,21 <b>centre</b> [9] 47:1 51:21 193:6 258:13 264:9,11 264:20,23 268:9 <b>centres</b> [2] 259:4 263:22 <b>CEO</b> [3] 91:23 99:11,16 <b>CEP</b> [3] 1:10 2:20 5:3 <b>certain</b> [12] 36:11 103:16 103:19,23 112:1 115:8 115:22 124:15 150:6 157:9 250:25 261:17 <b>certainly</b> [20] 8:17,22 10:7 26:11 59:12 69:25 85:1 106:14 110:13 115:20 135:23 137:1 174:9 194:15 224:23 232:3 247:4 248:12 251:25 269:10 <b>certificate</b> [7] 65:13 86:8 86:23 87:5 88:23,25 271:1 <b>certificates</b> [2] 90:15 233:10 <b>certification</b> [9] 66:17 88:16,21 90:10 179:20 179:21 195:1 208:24 236:5 <b>certifications</b> [1] 236:13 <b>certified</b> [6] 87:2 88:11 148:16 166:12 205:24 226:21 <b>certifies</b> [3] 86:16 87:10 89:12 <b>certify</b> [2] 87:25 271:2 <b>certifying</b> [18] 23:13 85:7,21,23 86:3,9,12,16 86:21 87:4,8,16,24 88:15 88:18 89:1,11 90:18 <b>cetera</b> [2] 209:2 266:15 <b>CGSB</b> [2] 203:2,14 <b>chair</b> [1] 125:1 <b>challenge</b> [2] 174:11 231:21 <b>challenges</b> [2] 37:19 82:3 <b>chance</b> [1] 175:4 <b>change</b> [9] 103:25 104:3 129:24 168:3 224:21</p>	<p>234:10 241:22 250:22 251:12 <b>changed</b> [7] 18:3 20:8 27:11 133:9 156:9 205:20 250:14 <b>changes</b> [7] 17:8 18:8 70:22 77:17 207:6 269:3 269:6 <b>changing</b> [2] 93:14 180:12 <b>Chapter</b> [1] 236:25 <b>characteristics</b> [1] 199:25 <b>charter</b> [4] 16:24 17:6 17:25 183:12 <b>CHC</b> [1] 188:14 <b>check</b> [9] 85:22 142:23 174:21 215:15 241:6 244:22 245:3,5,9 <b>check-in</b> [5] 239:20 240:11,15 242:24 243:1 <b>checked</b> [3] 116:6 240:18 242:20 <b>checking</b> [1] 117:12 <b>checklist</b> [3] 100:23 101:3,18 <b>checks</b> [3] 179:18 242:17 244:17 <b>cheese</b> [18] 93:15 113:12 113:14 114:5,7,12,13,14 114:18 115:14,17,21 116:10,14,22,25 117:2 117:20 <b>Chemical</b> [1] 28:2 <b>Chev</b> [1] 199:21 <b>Chevron</b> [2] 42:9 46:23 <b>chief</b> [5] 21:20 22:8 77:2 98:8 165:23 <b>children</b> [2] 25:14 93:7 <b>chip</b> [9] 198:16,19,21,25 198:25 199:5,7,11,16 <b>chips</b> [2] 200:23 201:6 <b>choice</b> [1] 193:25 <b>choose</b> [4] 99:17 215:3,7 241:25 <b>chosen</b> [5] 11:18 12:9 209:21 253:13,15 <b>Christmas</b> [2] 241:18 262:15 <b>Cindy</b> [1] 271:11 <b>circle</b> [2] 44:1,3 <b>circumstances</b> [3] 235:14 238:18 261:23 <b>civil</b> [5] 25:3 70:15,18 71:2,3 <b>civilian</b> [6] 219:24 220:5 265:9,13,16 267:21 <b>clarify</b> [2] 161:21 262:8 <b>clarity</b> [2] 184:20 185:22 <b>class</b> [1] 40:1 <b>classed</b> [1] 49:23 <b>cleaned</b> [2] 48:13,14 <b>clear</b> [3] 167:7 174:17 256:20</p>	<p><b>clearance</b> [1] 155:2 <b>clearly</b> [6] 6:16 15:20,24 78:17 193:23 244:24 <b>clock</b> [1] 222:13 <b>close</b> [7] 9:23 40:18 41:21 95:25 117:3 156:16 239:8 <b>closed</b> [1] 164:14 <b>closest</b> [4] 36:24 37:17 172:17 262:3 <b>closet</b> [1] 5:15 <b>closing</b> [1] 33:9 <b>co</b> [5] 33:22 35:2 59:18 60:2,15 <b>co-chair</b> [1] 124:25 <b>co-venturer</b> [1] 34:2 <b>co-venturer's</b> [1] 33:24 <b>co-venturers</b> [6] 34:4 34:13,25 42:8 59:21 60:6 <b>co-workers</b> [2] 27:1,14 <b>coast</b> [24] 25:9 49:15 51:6 118:18,21 144:2 175:9 194:22 196:1 211:20 226:21 233:13 247:21 263:12,18 264:20,23 265:5,8,13,14,17 266:5 266:14 <b>coastal</b> [1] 248:21 <b>Code</b> [3] 124:1,4,14 <b>cold</b> [2] 35:19 37:4 <b>collaborate</b> [1] 30:5 <b>collaborative</b> [4] 6:19 6:22 140:3 145:15 <b>collaboratively</b> [1] 139:10 <b>colleagues</b> [3] 27:10 180:9 229:12 <b>collected</b> [1] 240:21 <b>collectively</b> [2] 40:6 126:5 <b>colour</b> [1] 260:24 <b>colourful</b> [1] 177:20 <b>combination</b> [4] 36:8 36:11 38:5,24 <b>combine</b> [1] 203:21 <b>combined</b> [1] 106:7 <b>comfort</b> [1] 214:24 <b>comfortable</b> [3] 107:17 107:18 262:21 <b>coming</b> [9] 54:14 84:12 127:1 197:17 202:8 206:5 260:10,15 268:12 <b>command</b> [7] 79:20,25 257:16 259:25 265:20 266:16 267:20 <b>commander</b> [1] 202:6 <b>commencement</b> [1] 74:15 <b>comment</b> [4] 9:3 182:21 211:25 260:20 <b>comments</b> [11] 1:8 6:3 6:5,18,24 8:24 10:12,15 11:13 19:21 41:14 <b>commercial</b> [2] 187:14 190:5</p>	<p><b>Commissioner</b> [63] 1:2 1:7,13,18,21,22 3:8 4:9 6:2,8 9:1 10:11,16 18:10 18:14 19:4,23 21:23 24:14,21 27:18,21 30:14 31:11 36:18,22 37:9,24 46:13 68:19 72:23,24 73:3 153:19,22,25 156:20 156:25 157:4,16,25 158:9 158:14,22 159:14,19 160:16 161:2,16 162:6 164:20 170:9 212:1 218:25 228:14,15 229:17 233:7 239:23 244:21 268:21 269:16,24 <b>commissioning</b> [3] 22:24 25:25 26:10 <b>commit</b> [1] 253:6 <b>commitment</b> [7] 4:16 33:18 93:6,6 222:5 253:10,21 <b>commitments</b> [8] 84:3 84:8,23 85:3 187:18 262:9,24 263:1 <b>committed</b> [2] 20:23 27:15 <b>committee</b> [40] 60:1,8 60:14 92:24 118:23 119:5 121:7,8 123:3 124:24 125:7,20 126:10,24 127:10,17 128:11,21 129:2,25 130:5 133:12 136:13 162:15,17,22,24 162:24 163:5,18,20,21 210:3,22 219:5 220:6 225:18,24 226:16,25 <b>committees</b> [15] 118:25 119:9,20,25 120:4,9,10 120:17 121:15 123:23 124:23 125:4 129:13 213:14 227:19 <b>common</b> [2] 142:6 144:2 <b>communicate</b> [3] 130:1 134:15 166:25 <b>communication</b> [6] 120:8,12 121:16 135:3 135:21 213:11 <b>communications</b> [8] 32:10 118:14 119:2 121:15 131:13 134:13 265:20,25 <b>community</b> [2] 137:20 137:21 <b>companies</b> [24] 12:7,13 12:17,25 13:10,12 14:1 14:3 15:9 21:13 33:20 33:21 92:25 99:12 126:5 140:2 149:20 181:9,15 188:11,14 190:19 198:8 255:13 <b>companies'</b> [1] 223:25 <b>company</b> [36] 11:15,25 12:4 14:17 15:7 22:17 24:17 25:23 26:3 27:23 34:11,12,16 42:7 59:20 60:10 66:5 71:25 98:8 126:8 129:4,4,5 133:2 134:16 139:6 141:8 142:1 143:9 144:19 149:11</p>	<p>188:10,15 192:2 209:24 247:8 <b>company's</b> [1] 134:17 <b>compartment</b> [7] 169:3 170:23 171:12,14 180:1 235:13,18 <b>compelling</b> [1] 11:8 <b>competence</b> [2] 97:2,17 <b>competency</b> [1] 141:6 <b>competent</b> [1] 96:25 <b>competing</b> [1] 13:12 <b>competitive</b> [5] 186:25 187:7 189:9 190:17 191:2 <b>competitor</b> [2] 192:4,20 <b>complaining</b> [1] 227:18 <b>complaint</b> [1] 152:10 <b>complement</b> [1] 205:10 <b>complete</b> [14] 65:16 83:15 133:9 161:12 174:10 219:5,18 220:23 221:5 223:1 227:18 229:19 232:23 238:19 <b>completed</b> [17] 73:11 100:9,25 154:15 155:24 196:24 197:2 209:9 222:15 233:1,8 234:17 234:20 235:1,4 237:16 258:21 <b>completing</b> [1] 220:8 <b>completion</b> [3] 25:24 26:9 220:25 <b>complex</b> [2] 106:4 219:3 <b>complexity</b> [1] 106:2 <b>compliance</b> [19] 60:5 63:23 64:17 84:7,22 85:1 88:20,24 97:6,8 108:1,5 118:8 142:11 143:6 152:6 166:7 236:6,8 <b>compliant</b> [3] 202:25 204:5,9 <b>complied</b> [1] 101:2 <b>complies</b> [1] 79:6 <b>comply</b> [5] 67:4 68:2 99:7 207:25 225:11 <b>component</b> [6] 44:4 77:13 187:20 237:16 242:19 244:20 <b>components</b> [5] 43:17 79:15 212:9 242:23 263:11 <b>comprehensive</b> [3] 98:10 139:4 226:1 <b>compressed</b> [2] 219:7 219:20 <b>comprise</b> [2] 12:21 119:25 <b>comprised</b> [1] 124:24 <b>concentrate</b> [1] 265:22 <b>concentrated</b> [1] 251:15 <b>concept</b> [7] 31:21 32:7 33:15 95:3 97:22 114:19 213:5 <b>concern</b> [10] 8:16 162:11 210:7,9,12 214:4,5 219:19 223:25 228:1</p>
---	--	--	--	---

<p><b>concerned</b> [3] 5:16 145:23 245:8 <b>concerning</b> [1] 155:1 <b>concerns</b> [10] 6:21 15:15 188:1 198:9 200:14 209:18 214:20 217:20 220:8 237:19 <b>conclude</b> [1] 102:1 <b>concludes</b> [1] 198:1 <b>conclusion</b> [3] 109:19 136:23 270:3 <b>concrete</b> [1] 44:4 <b>concurrent</b> [1] 158:7 <b>concurrently</b> [1] 170:20 <b>condition</b> [3] 67:20 231:3 249:11 <b>conditions</b> [10] 36:9 37:4,10 73:12 84:25 85:1 106:17 147:25 155:7 167:9 <b>conduct</b> [5] 59:22 73:10 85:21 186:16 251:18 <b>conducted</b> [7] 98:4 189:18 193:4 194:23 195:21,24 229:3 <b>conducting</b> [2] 19:24 176:19 <b>conducts</b> [1] 83:13 <b>conference</b> [1] 138:14 <b>conferred</b> [1] 59:23 <b>confidential</b> [11] 14:5 14:10,15,19 16:22 17:3 17:6,12,20,22,25 <b>configured</b> [2] 166:23 196:15 <b>confined</b> [1] 100:16 <b>confirmed</b> [2] 217:3 243:24 <b>conflict</b> [1] 124:12 <b>conform</b> [1] 90:20 <b>confusion</b> [1] 262:13 <b>congested</b> [2] 154:13 155:3 <b>conjunction</b> [1] 147:22 <b>connected</b> [1] 47:2 <b>Conoco</b> [3] 12:4 40:10 40:23 <b>ConocoPhillips</b> [4] 40:21 56:13 181:23 267:9 <b>consecutive</b> [1] 132:3 <b>consent</b> [1] 7:19 <b>consequence</b> [9] 109:8 109:10 110:7 111:7,12 113:6 155:20,23 156:17 <b>consequences</b> [2] 65:4 111:13 <b>consequent</b> [1] 158:19 <b>conservation</b> [2] 63:12 65:15 <b>consider</b> [12] 5:9 63:19 95:12,23 111:6 115:3 116:21 160:24 219:16 223:4 258:24 260:12 <b>consideration</b> [11] 4:2</p>	<p>4:17 9:21 109:6 169:5 171:25 172:23 177:15 193:9 196:7,11 <b>considerations</b> [4] 119:23 193:11 195:23,25 <b>considered</b> [9] 38:14 64:17 133:6 155:13 161:6 161:9 164:14 233:12 245:1 <b>considers</b> [1] 133:5 <b>consistence</b> [1] 115:12 <b>consistent</b> [1] 112:24 <b>constantly</b> [3] 8:12 114:7 135:3 <b>constituency</b> [4] 126:22 126:23 127:2 128:10 <b>constitutes</b> [1] 184:11 <b>constructed</b> [2] 28:13 89:3 <b>construction</b> [4] 76:14 126:19,21 128:7 <b>consultant</b> [2] 11:6 189:20 <b>consultation</b> [2] 231:7 255:13 <b>consumers</b> [1] 201:2 <b>contact</b> [3] 81:5 162:19 216:4 <b>contain</b> [1] 166:3 <b>contains</b> [3] 44:5,7 61:5 <b>contemplate</b> [2] 5:24 6:1 <b>contenders</b> [2] 193:6 194:24 <b>context</b> [6] 3:17 5:10 6:17 10:12 21:12 95:22 <b>contingency</b> [2] 80:1,8 <b>continually</b> [1] 225:15 <b>continue</b> [7] 27:14 29:2 29:17 30:11 59:3 238:3 238:25 <b>continues</b> [4] 27:8 91:6 108:19 246:22 <b>continuous</b> [8] 20:24 21:7 30:3 92:13 108:22 134:21 202:9 267:4 <b>continuously</b> [3] 77:14 92:6 246:16 <b>contract</b> [25] 13:16 32:13 140:7 142:5,9 144:3 145:3,25 149:11,20 150:7 179:1 181:19 187:16,19 187:21,24 188:1,3 189:24 191:4 211:11,13 249:1 253:7 <b>contracted</b> [14] 32:12 138:20 139:4 142:4 145:6 145:10 147:21 148:3 150:15 179:4 181:16 184:6 189:20 229:18 <b>contracting</b> [2] 143:16 145:20 <b>contractor</b> [4] 140:7 142:15,21 144:21 <b>contractors</b> [12] 125:5</p>	<p>126:9,12 139:2,10,12,17 140:4 142:11 143:21 226:18 236:3 <b>contracts</b> [9] 13:15 139:7 142:7 146:15,19 181:8,10 191:5,8 <b>contribute</b> [1] 181:2 <b>contributes</b> [1] 94:11 <b>control</b> [9] 54:4 89:9 96:9,9 209:4 246:9,10 258:11,14 <b>controlled</b> [4] 97:12 101:5 134:20 222:17 <b>controlling</b> [2] 95:19 109:1 <b>controls</b> [2] 77:8 100:2 <b>convenient</b> [1] 222:7 <b>Convention</b> [2] 256:13 263:6 <b>conversation</b> [2] 103:4 103:5 <b>converse</b> [2] 130:6 131:9 <b>Conversely</b> [1] 134:25 <b>converses</b> [1] 130:3 <b>convert</b> [1] 229:1 <b>coordinate</b> [1] 120:23 <b>coordinated</b> [1] 266:17 <b>coordination</b> [9] 149:9 258:13 259:3,5 263:20 263:21 264:9,11 268:8 <b>coordinations</b> [2] 263:23 265:1 <b>copies</b> [1] 69:25 <b>core</b> [6] 51:10 141:6,7,11 151:10 189:22 <b>Cormorant</b> [1] 174:25 <b>Cormorants</b> [3] 260:6 267:1,2 <b>corporate</b> [1] 200:19 <b>Corporation</b> [2] 18:18 42:10 <b>correct</b> [81] 41:6,10 43:1 45:8,13 53:8 54:21 57:25 60:22 61:18 62:17,21 67:22 71:2 74:4,8 75:13 76:12,17 78:11 79:8 86:5 87:6,16,21 88:15 89:15 89:21 91:9 95:15 96:11 97:15 104:25 106:10 110:12 117:24 125:10 128:17 130:24 131:21 132:9 137:24 140:17 143:2,18,23 147:18 148:5 148:21 149:2 157:3 159:18 165:7 167:11 173:1 178:16 182:11 185:9 186:9,21 192:13 194:15 204:15 206:9,13 206:18,22 208:10,14 224:5,17 228:22 234:13 236:25 239:15 245:25 248:8 250:10 254:15 264:5 271:3 <b>corrected</b> [1] 182:19 <b>correctly</b> [2] 97:12 242:22</p>	<p><b>cost</b> [2] 204:7,12 <b>Cougar</b> [76] 32:6 61:11 62:4 63:2,2 146:17 147:14 163:25 164:1 165:14,16 171:5 173:12 178:8 179:2,4 180:2,21 186:11,16 187:6,18 188:10 189:6,23,25 190:5 190:14 191:4,6,12,16 193:1,8 194:15,20,23 195:9,12,20,24 196:6 197:1,1,11,18 214:13 217:2 236:9,11 239:19 240:5,11 241:12,14,15 242:16,21 248:12 249:1 252:7 253:7 254:11,15 254:22 255:3 258:10,11 261:4,6,14,18 266:10,11 267:3,23 <b>Cougar's</b> [7] 169:25 193:5 195:19 196:14,20 199:10 247:22 <b>counsel</b> [18] 2:5,6 6:14 7:13,17 9:8,12,13,22 10:8 14:21 221:7,22 269:5,14,21,22,25 <b>counterparts</b> [1] 49:8 <b>country</b> [1] 28:7 <b>couple</b> [6] 19:20 145:9 180:13 188:8 192:18 212:8 <b>course</b> [27] 11:6 13:25 17:13 21:7 22:14 24:3 26:21 56:14 57:25 96:4 96:19 97:4 101:21 107:20 108:5 116:24 144:12 155:9 156:1 160:13 213:9 226:24 233:3 237:4 258:1 260:5 267:6 <b>courses</b> [2] 116:17 246:22 <b>cover</b> [1] 90:22 <b>coverage</b> [1] 263:7 <b>covered</b> [1] 269:12 <b>covering</b> [2] 90:8 123:20 <b>covers</b> [1] 264:2 <b>cracks</b> [3] 83:7 163:12 164:8 <b>cradle</b> [1] 158:18 <b>craft</b> [2] 57:9 152:13 <b>crafts</b> [1] 152:14 <b>crane</b> [12] 154:22,23 155:4,5,6 156:1,2 158:2 158:11,15,18,20 <b>crash</b> [2] 217:1 222:22 <b>crashed</b> [2] 218:17 267:25 <b>create</b> [12] 82:2 92:5 93:24 96:1 113:10 114:2 118:5 125:17 126:21 127:1 128:9 210:9 <b>created</b> [3] 10:24 26:21 156:12 <b>creates</b> [3] 26:20 96:6 212:10 <b>creating</b> [3] 118:13 148:7 174:14</p>	<p><b>crew</b> [3] 132:13 205:20 207:6 <b>crews</b> [2] 158:1 166:14 <b>criteria</b> [1] 174:21 <b>critical</b> [16] 30:12 141:17 160:3,3,5,19,19,24,24 161:7,9,13 178:6,20 196:7 246:2 <b>criticism</b> [1] 213:3 <b>criticize</b> [2] 13:21 221:10 <b>cross</b> [1] 85:22 <b>crude</b> [3] 21:18 22:3 49:1 <b>cube</b> [1] 176:21 <b>culture</b> [4] 21:5 133:3 134:18 139:12 <b>curious</b> [1] 254:2 <b>current</b> [9] 3:13 26:16 29:13,21 33:5 50:6 53:25 69:11 153:14</p> <hr/> <p style="text-align: center;"><b>-D-</b></p> <p><b>D'Arc</b> [2] 38:11 46:15 <b>daily</b> [6] 135:24 138:4,6 138:10 172:23 186:7 <b>dangerous</b> [10] 123:21 133:4,7,8,15 162:21 163:1 164:6 234:20,22 <b>dark</b> [3] 173:8,9 175:14 <b>darkness</b> [6] 173:17,18 174:3,5,6,7 <b>data</b> [3] 69:5 148:10,19 <b>database</b> [2] 16:9 241:12 <b>date</b> [3] 22:23 155:24 220:24 <b>dated</b> [2] 69:22 271:9 <b>dates</b> [1] 236:14 <b>day-to</b> [1] 97:23 <b>day-to-day</b> [2] 93:12 106:20 <b>daylight</b> [4] 173:22 174:11 250:16,18 <b>days</b> [10] 10:8 12:20 31:20 104:17 145:16 199:2 216:25 233:6 239:3 267:4 <b>deal</b> [11] 1:14,16,17,19 19:7 37:7 106:13 144:14 186:15,17 247:13 <b>dealings</b> [1] 268:24 <b>deals</b> [2] 11:16 203:18 <b>dealt</b> [5] 2:25 7:14 9:7 154:2 177:17 <b>debate</b> [2] 6:11 233:19 <b>December</b> [5] 2:4 68:21 69:22,23 90:16 <b>decide</b> [1] 231:8 <b>decided</b> [3] 9:20 95:11 217:23 <b>decision</b> [7] 95:9 119:6 164:17 165:18 203:21 218:23 220:21 <b>decisions</b> [1] 200:25 <b>deck</b> [1] 56:7</p>
--	--	---	--	--

<p><b>Decker</b> [4] 11:7 147:12 207:18 260:21</p> <p><b>Decker's</b> [3] 134:11 163:9 237:13</p> <p><b>decoration</b> [1] 5:21</p> <p><b>dedicated</b> [14] 48:21 58:1,3 151:13 250:20 251:9,13,21 252:5,24 255:18 257:13 258:17 260:1</p> <p><b>deem</b> [1] 84:14</p> <p><b>deemed</b> [3] 77:5 133:9 226:24</p> <p><b>Defence</b> [4] 32:23,24 260:14 263:9</p> <p><b>defences</b> [3] 113:21,21 113:22</p> <p><b>defer</b> [1] 224:24</p> <p><b>deferred</b> [1] 118:21</p> <p><b>define</b> [1] 78:19</p> <p><b>definitely</b> [1] 230:22</p> <p><b>deflection</b> [1] 38:20</p> <p><b>degree</b> [2] 28:1 159:1</p> <p><b>degrees</b> [2] 35:20,21</p> <p><b>deicing</b> [2] 189:15 197:7</p> <p><b>delay</b> [1] 10:5</p> <p><b>delays</b> [1] 228:25</p> <p><b>delegated</b> [6] 85:7,19 88:13 90:6,14,16</p> <p><b>delegates</b> [1] 91:5</p> <p><b>delegation</b> [4] 85:25 89:25 90:9,22</p> <p><b>delineation</b> [1] 55:5</p> <p><b>deliver</b> [1] 139:2</p> <p><b>delivered</b> [1] 240:22</p> <p><b>delivery</b> [3] 187:16 195:18 196:19</p> <p><b>demands</b> [1] 229:15</p> <p><b>demonstrate</b> [5] 77:6 167:23 168:18 242:11 244:7</p> <p><b>Dennis</b> [1] 268:7</p> <p><b>deny</b> [1] 237:20</p> <p><b>departing</b> [2] 243:7 244:23</p> <p><b>department</b> [5] 25:6 32:22,24 213:16 260:14</p> <p><b>departmental</b> [12] 126:17 128:5 132:23 136:4,6,8,10,12,14,17 136:19 138:8</p> <p><b>departments</b> [2] 128:23 213:15</p> <p><b>departure</b> [5] 240:15 243:3,5 244:23 245:2</p> <p><b>depend</b> [1] 128:1</p> <p><b>dependant</b> [1] 232:12</p> <p><b>depending</b> [10] 46:7 50:6,22 58:17 104:22 126:24 157:22 170:16 218:12 235:14</p> <p><b>depiction</b> [1] 50:1</p> <p><b>deplete</b> [1] 45:21</p>	<p><b>deployed</b> [1] 265:7</p> <p><b>deployment</b> [1] 260:1</p> <p><b>depth</b> [5] 42:15 43:4 47:22 48:3 219:15</p> <p><b>depths</b> [1] 216:9</p> <p><b>descending</b> [1] 99:4</p> <p><b>describe</b> [6] 32:4,7 56:10 100:18 119:1 138:25</p> <p><b>described</b> [12] 4:20 51:24 98:18 109:13 118:24 124:7 138:23 180:7 250:24 251:11 252:18 269:19</p> <p><b>describes</b> [2] 54:22 123:24</p> <p><b>describing</b> [1] 124:8</p> <p><b>description</b> [4] 16:12 32:2,4 189:13</p> <p><b>design</b> [17] 38:15 40:4 45:13 79:19 81:10,13,25 94:6 96:22 97:18 109:11 115:22 116:2 200:1,2 202:19 208:25</p> <p><b>designate</b> [1] 16:22</p> <p><b>designated</b> [7] 14:15 85:19 185:4 192:15 229:6 243:6 265:23</p> <p><b>designed</b> [12] 39:11,13 44:10 50:13 70:12 89:2 115:7 153:6 193:15 210:22 216:8,9</p> <p><b>designing</b> [2] 94:18,18</p> <p><b>designs</b> [2] 95:14 166:19</p> <p><b>desire</b> [4] 5:19 30:10 221:15 222:24</p> <p><b>detail</b> [12] 35:6 59:2 119:1 127:6 144:8 165:10 180:8 186:18 250:24 251:2 258:24 268:10</p> <p><b>detailed</b> [10] 164:3 187:8 187:10 193:9 194:23 195:4 209:8 235:1,4 239:20</p> <p><b>details</b> [6] 60:19 170:4 247:14,23,25 252:8</p> <p><b>detector</b> [1] 241:8</p> <p><b>determine</b> [10] 83:17 108:1 109:15 141:4 162:25 191:9 220:9 229:20 231:14 255:14</p> <p><b>determined</b> [4] 156:16 194:20 219:20 232:7</p> <p><b>determines</b> [1] 255:11</p> <p><b>determining</b> [3] 109:24 218:3 220:13</p> <p><b>devastating</b> [1] 20:7</p> <p><b>develop</b> [6] 5:18 33:19 46:17,21 108:25 109:4</p> <p><b>developed</b> [5] 7:10 46:24 98:14 211:17,22</p> <p><b>developing</b> [4] 8:14 92:16 213:11 220:18</p> <p><b>development</b> [11] 18:18 26:3 27:23 34:11 42:7 51:14 54:10 141:3 144:25 186:22 189:8</p>	<p><b>deviation</b> [1] 168:5</p> <p><b>device</b> [6] 218:21 219:2 219:8,21,24 220:4</p> <p><b>devices</b> [2] 169:7 177:17</p> <p><b>diagram</b> [3] 41:3 42:23 49:9</p> <p><b>dial</b> [1] 138:14</p> <p><b>dictated</b> [1] 255:12</p> <p><b>difference</b> [2] 93:21 231:19</p> <p><b>differences</b> [6] 52:2,5 52:13 217:16,16 242:25</p> <p><b>different</b> [47] 15:5,10 37:11 39:18 53:19 55:9 56:7 73:16,16 74:1,2 98:1 104:21 111:6,17,18 111:19 112:3,9 125:8,19 125:24,24,25 126:13,14 127:8,13 130:9,13 139:7 155:25 160:7 178:12 185:15 192:18 199:20 200:2 202:19 214:24 215:18 217:7,9,13,14 231:21 261:9</p> <p><b>differently</b> [2] 39:7 73:17</p> <p><b>difficult</b> [2] 31:12 168:7</p> <p><b>dig</b> [1] 143:4</p> <p><b>diligence</b> [1] 200:13</p> <p><b>dimensions</b> [3] 49:17 114:25 170:18</p> <p><b>dioxide</b> [1] 212:16</p> <p><b>direct</b> [9] 58:7,18 78:15 78:24 142:16 188:2 231:7 265:2,9</p> <p><b>directed</b> [2] 58:9 257:23</p> <p><b>direction</b> [9] 40:23 41:10 41:24 59:25 62:14 69:17 72:3,5 248:17</p> <p><b>directly</b> [5] 11:1 49:4 141:9 142:7 145:3</p> <p><b>directors</b> [1] 60:9</p> <p><b>discharge</b> [2] 115:8,11</p> <p><b>discharged</b> [2] 48:15 115:5</p> <p><b>discipline</b> [1] 107:14</p> <p><b>disconnectible</b> [2] 49:16 53:15</p> <p><b>discovered</b> [5] 42:16 46:16 51:8 214:17 268:13</p> <p><b>Discoveries</b> [2] 271:12 271:14</p> <p><b>discovery</b> [2] 25:11 42:19</p> <p><b>discuss</b> [17] 18:7 21:4 31:19,25 32:14,16 33:5 33:14 76:3 95:1 102:25 124:22 162:1,16 201:12 224:23 268:10</p> <p><b>discussed</b> [12] 42:6 59:18 92:24 101:14 108:25 130:16 135:6,13 201:16 242:3 244:5 249:6</p> <p><b>discusses</b> [5] 32:11,20 32:23 33:1 135:11</p>	<p><b>discussing</b> [2] 57:11 92:3</p> <p><b>discussion</b> [7] 18:5 103:5 138:6 162:12 163:20 268:17 269:25</p> <p><b>discussions</b> [1] 233:25</p> <p><b>disembark</b> [1] 244:11</p> <p><b>dislodged</b> [1] 171:2</p> <p><b>dispatch</b> [1] 179:8</p> <p><b>dispatched</b> [1] 249:24</p> <p><b>dispensed</b> [1] 116:5</p> <p><b>disperse</b> [1] 270:1</p> <p><b>distance</b> [2] 37:23 38:3</p> <p><b>distinct</b> [3] 130:4 265:22 266:21</p> <p><b>distinction</b> [1] 160:18</p> <p><b>distress</b> [1] 265:11</p> <p><b>distributes</b> [1] 240:23</p> <p><b>ditched</b> [1] 222:20</p> <p><b>ditching</b> [1] 222:17</p> <p><b>diverse</b> [2] 102:24 120:5</p> <p><b>divided</b> [2] 19:6,13</p> <p><b>diving</b> [8] 65:16,18 75:3 75:7,9,9 76:9 86:7</p> <p><b>DND</b> [23] 256:25 257:7 257:15,23 258:10,17,22 258:25 259:3 260:5,8,13 260:16 263:18,18,21 265:3,12,19 266:10,13 267:19 268:6</p> <p><b>DND's</b> [2] 257:3 258:15</p> <p><b>DNV</b> [4] 86:15 87:14 90:13,17</p> <p><b>document</b> [15] 15:3 16:18,23,24,25 17:5,14 17:21 92:10 221:4 226:1 237:8 246:17 269:2,2</p> <p><b>documentation</b> [5] 2:22 4:4 13:14 97:10 120:22</p> <p><b>documented</b> [2] 112:25 241:12</p> <p><b>documents</b> [30] 2:18,20 3:2,15,24 4:1 5:10 7:18 9:4 13:23 14:1,5,14,15 14:16,16,20,24 15:24 16:4,10,11,16 17:10,11 17:19,20 18:2 68:25 247:1</p> <p><b>doesn't</b> [13] 5:24,25 37:6 47:22 114:21 128:1 156:7 173:18 175:1 215:17 221:18 238:24 243:11</p> <p><b>Doha</b> [1] 28:11</p> <p><b>done</b> [24] 6:23 13:7 54:17 108:15 109:8 128:2 131:6 137:9 138:11 140:15 142:6 143:2 146:5,7 161:1 169:17 180:13 210:3 216:20 225:21 230:7 233:20 262:7,15</p> <p><b>donned</b> [4] 242:11,14 244:6,14</p> <p><b>door</b> [1] 235:16</p> <p><b>doors</b> [1] 170:18</p> <p><b>dots</b> [1] 40:17</p>	<p><b>down</b> [17] 7:11 48:5 56:13 99:2,6 100:13 102:6,11 117:5 149:16 158:7 169:11 179:16,22 182:16 199:21 259:14</p> <p><b>download</b> [1] 16:8</p> <p><b>downloads</b> [1] 178:9</p> <p><b>DP</b> [1] 153:11</p> <p><b>draft</b> [11] 65:20 66:4,10 66:12 67:15 69:2,3,4,5,6 81:14</p> <p><b>dramatic</b> [1] 111:14</p> <p><b>drawings</b> [7] 101:6,8,14 101:21 102:6,8 154:17</p> <p><b>dream</b> [2] 26:23 27:2</p> <p><b>dried</b> [1] 48:13</p> <p><b>drill</b> [11] 45:19,22 51:21 54:19 56:11 64:3 74:2 87:23 88:1 145:2 150:12</p> <p><b>drilled</b> [4] 45:19 47:3,6 47:14</p> <p><b>drilling</b> [64] 12:3,5 19:25 23:21 25:6,7 26:18 28:3 40:11 41:20 43:18 44:6 44:7 45:2,2,10,14,15,18 45:24,25 47:4,12 54:17 54:23 55:1,3 56:3,9,16 56:18 57:4,18 61:4 63:12 64:1 65:14 68:14,23 69:2 73:21,22 74:1,22 81:16 81:16 86:6 127:3 144:6 144:16,18,20,20,23 145:3 145:24 146:1,2 152:4 166:3 176:16 182:23 188:21 226:18</p> <p><b>drills</b> [1] 166:17</p> <p><b>driver</b> [3] 154:22 158:20 197:25</p> <p><b>drop</b> [1] 48:4</p> <p><b>dropped</b> [3] 155:15,15 155:18</p> <p><b>dropping</b> [1] 155:22</p> <p><b>dual</b> [3] 204:8,11 256:3</p> <p><b>due</b> [4] 17:13 193:9 199:16 200:12</p> <p><b>duplicity</b> [1] 82:3</p> <p><b>durability</b> [1] 209:2</p> <p><b>during</b> [41] 22:6 23:6 25:24 29:9,20 44:22 50:13,15 69:8,12 80:17 83:19 88:23 93:24 95:16 107:5,20 112:11 121:18 121:21 158:5 160:10 189:1 205:18,19 207:6 209:16,19 212:7 214:11 214:12 222:22 233:6,23 240:15 242:3,4 243:21 244:5 258:11 265:19</p> <p><b>duties</b> [7] 123:21 157:23 184:22 185:4 249:5 251:16 252:5</p> <p><b>duty</b> [6] 107:7 151:23 162:19 232:11 249:7 267:7</p> <p><b>dynamic</b> [2] 114:15 153:11</p>
--	---	---	--	---

<p style="text-align: center;"><b>-E-</b></p> <p><b>E-225</b> [1] 193:7  <b>e-mail</b> [1] 7:16  <b>E452</b> [7] 122:23 209:11  209:22 211:23 212:9  216:1 218:21  <b>Earle</b> [11] 1:9,10,20,23  1:24 3:10 6:13,21 7:1 9:5  9:12  <b>earliest</b> [1] 9:22  <b>early</b> [13] 25:12 26:11  40:4 42:12 144:25 175:12  175:13 199:2,16 201:6  208:22 216:25 259:11  <b>earth</b> [1] 48:19  <b>easily</b> [1] 269:12  <b>east</b> [11] 25:9 49:15 51:6  118:18,20 144:2 194:22  196:1 211:20 226:21  233:13  <b>eastern</b> [2] 49:7 233:16  <b>easy</b> [2] 215:16 259:14  <b>economies</b> [1] 190:13  <b>edge</b> [3] 38:11 116:11  235:15  <b>education</b> [1] 25:2  <b>effect</b> [6] 98:25 102:21  106:8 110:1,3 226:25  <b>effective</b> [5] 38:22 68:20  102:21 108:20 180:21  <b>effectively</b> [3] 77:8  143:20 226:2  <b>efficient</b> [1] 109:17  <b>efficiently</b> [1] 145:21  <b>effort</b> [3] 210:1 226:16  232:10  <b>efforts</b> [2] 5:6 252:16  <b>egress</b> [5] 166:23 171:1  222:20 223:7,18  <b>EH-101</b> [2] 193:8,11  <b>eight</b> [3] 25:17 49:22  68:25  <b>either</b> [22] 4:3 7:19 15:2  36:1,17 52:21 59:18  109:9 111:18 112:13  119:8 133:9,19 173:17  174:6 175:12 200:9  209:22 210:13 236:15  238:8 260:10  <b>elect</b> [3] 128:10 175:7  183:6  <b>elected</b> [4] 126:22 128:21  132:22 136:15  <b>electricity</b> [1] 105:12  <b>electronic</b> [3] 16:9  236:11,20  <b>electronically</b> [1]  138:11  <b>elements</b> [2] 96:20 111:8  <b>elephant</b> [1] 5:15  <b>elevation</b> [1] 133:17  <b>eligible</b> [1] 236:16  <b>eliminate</b> [2] 96:3</p>	<p>205:12  <b>eliminated</b> [2] 15:2  193:8  <b>eliminating</b> [2] 95:18  109:1  <b>emergencies</b> [2] 184:12  246:23  <b>emergency</b> [27] 9:10  32:21 80:18 91:1 152:12  166:23 218:9 229:2,13  243:21 245:23 246:1,5,6  246:13,15,20 247:7 251:8  257:14 258:22 259:9,23  264:22 267:17 268:2,11  <b>employ</b> [1] 40:6  <b>employee</b> [4] 123:21  132:20 236:4 241:13  <b>employee's</b> [1] 162:14  <b>employees</b> [4] 20:15  125:24 132:20 200:4  <b>employer</b> [4] 123:20  127:9,10 232:9  <b>employers</b> [7] 125:6,8  125:19,24,25 127:8,11  <b>employment</b> [1] 237:4  <b>enabled</b> [1] 200:25  <b>encompassing</b> [1] 159:8  <b>encouraged</b> [2] 135:3  225:5  <b>end</b> [8] 6:10 53:14 54:1  58:22 95:9 97:22 202:8  269:13  <b>endorsement</b> [1] 195:16  <b>Energy</b> [14] 11:23 18:20  18:22 23:15,20 24:16  25:6 35:3 46:19,22 51:11  51:13 57:14 58:5  <b>enforceable</b> [1] 66:22  <b>enforces</b> [1] 72:12  <b>engaged</b> [1] 120:18  <b>engagement</b> [4] 107:11  219:4 227:4,6  <b>engine</b> [1] 166:19  <b>engineer</b> [6] 21:20 22:9  28:4,4 95:15 111:18  <b>engineering</b> [12] 21:17  22:12 25:3,4 26:15,19  28:2 29:4 95:14,17 96:22  135:16  <b>English</b> [1] 168:11  <b>enjoy</b> [2] 24:11,13  <b>ensure</b> [24] 30:5 86:22  96:17 97:9 99:25 100:23  101:1 106:8 108:4 109:21  116:2 118:8 134:15,19  139:21 177:3 180:3,20  225:9 229:6 232:6 236:14  242:17 244:18  <b>ensures</b> [1] 187:4  <b>ensuring</b> [5] 90:18 98:3  102:18 142:10 249:8  <b>enter</b> [4] 100:11,15  101:11 216:5  <b>entered</b> [2] 3:7 142:9  <b>enters</b> [1] 217:19</p>	<p><b>entire</b> [7] 20:11 29:25  89:12 100:1 164:15  251:21,24  <b>entirely</b> [3] 83:24 112:3  192:2  <b>entities</b> [1] 12:13  <b>entitled</b> [1] 19:9  <b>entity</b> [2] 14:17 15:21  <b>entrances</b> [1] 167:21  <b>entry</b> [5] 98:16 100:14  100:16,21,25  <b>environment</b> [21] 20:19  32:1,5 33:20 36:4,6,15  37:17 38:25 89:6 119:3  151:25 153:7 165:22  172:5 194:23 228:24  229:24 245:1 246:4  263:13  <b>environmental</b> [11]  32:1 36:8 37:4 68:16,18  69:4 80:2 85:3 120:7  187:12 227:24  <b>environmentally</b> [1]  98:4  <b>environments</b> [1] 35:22  <b>equate</b> [1] 245:2  <b>Equatorial</b> [1] 29:7  <b>equipment</b> [39] 32:17  51:18 79:22 92:4 93:22  94:4,5,15,18 96:11,12  97:9,14,18 109:11 113:9  113:13,20 117:10,21  118:6,9 150:21,24 152:16  154:16 170:19,22 191:21  201:13 220:12 249:18  251:1,7 255:8,12,15,18  258:18  <b>equipped</b> [4] 61:16  153:10 167:15 251:6  <b>equivalency</b> [2] 167:23  168:18  <b>equivalent</b> [4] 43:14  49:19 167:24 233:10  <b>escalating</b> [1] 258:22  <b>escalation</b> [1] 246:8  <b>escape</b> [3] 168:25 169:7  223:5  <b>escorted</b> [2] 242:14  244:15  <b>essence</b> [4] 167:12 168:1  197:25 252:11  <b>essential</b> [1] 43:19  <b>essentially</b> [3] 152:13  189:17 193:25  <b>establish</b> [3] 109:19  118:12 182:14  <b>established</b> [8] 120:8  120:11 189:25 191:5  253:4,9 259:3 263:21  <b>estimate</b> [2] 24:2 29:19  <b>et</b> [2] 209:2 266:15  <b>ethics</b> [1] 24:13  <b>Eurocopter</b> [11] 191:20  191:24,25 192:17,21  193:7 194:21 195:5 197:5  224:8,9</p>	<p><b>evacuated</b> [2] 180:4  231:2  <b>evacuation</b> [5] 180:3  205:24 229:1 246:11  259:17  <b>evacuations</b> [1] 230:5  <b>evaluate</b> [3] 83:18  162:25 164:5  <b>evaluated</b> [1] 109:5  <b>evaluating</b> [2] 219:1,7  <b>evaluation</b> [3] 88:19  208:23 209:9  <b>evening</b> [2] 174:19  175:14  <b>event</b> [20] 39:16 48:2  53:17 105:18,20 113:5,6  117:15 150:18 152:22  171:1 172:14 177:4 184:7  246:5,23 258:22,22 259:8  267:17  <b>events</b> [7] 20:2 33:4  113:11 116:17 246:8  258:2 265:1  <b>eventual</b> [1] 219:2  <b>eventually</b> [1] 217:25  <b>everybody</b> [7] 5:16 7:19  11:13 127:24 160:9  214:14 234:5  <b>everywhere</b> [2] 31:14  59:12  <b>evidence</b> [27] 1:12 3:6  4:5,7 5:12 7:7 10:13,23  10:25 11:8 12:9,19,25  13:4,19 17:14 69:16  77:25 140:13 169:16  188:8 202:1 207:19 217:6  240:3 260:22 268:23  <b>evolves</b> [1] 77:13  <b>exact</b> [1] 175:16  <b>exactly</b> [6] 99:10 113:24  163:17 192:7 213:1  254:20  <b>examination</b> [2] 2:17  269:14  <b>example</b> [36] 7:23 15:6  39:10 60:16 65:2 74:24  75:7 80:3,18 81:25 82:1  82:11 83:16 87:13 94:21  103:12 112:6,12 113:20  139:8 141:12,14 145:2  154:4 156:11 157:9  167:14,18 172:12 174:3  174:4,22 225:24 226:2  232:2 242:4  <b>examples</b> [5] 11:18,24  12:12 114:9 232:2  <b>excavations</b> [2] 47:24  51:16  <b>excellent</b> [1] 226:3  <b>excerpts</b> [1] 165:25  <b>excess</b> [4] 27:7 35:16  196:9 197:13  <b>exchange</b> [2] 177:20  209:18  <b>excited</b> [1] 218:14  <b>Excuse</b> [1] 225:3</p>	<p><b>executed</b> [3] 55:2 104:18  196:25  <b>executive</b> [5] 60:14  71:24 78:20 98:8 119:5  <b>executives</b> [2] 91:23  98:9  <b>exemption</b> [11] 236:17  237:3,20,22 238:3,22,25  239:2,6,9,12  <b>exemptions</b> [7] 236:18  237:9,15,18,21 238:13  240:19  <b>exercise</b> [2] 202:11 204:7  <b>exercises</b> [2] 246:19,21  <b>exhibit</b> [8] 3:7 16:21 17:6  17:16,17 18:1,4 183:9  <b>exhibits</b> [11] 14:6,10,11  14:12,24 16:4 17:9,16  17:22,24 18:11  <b>existed</b> [1] 228:23  <b>existing</b> [2] 202:12  211:15  <b>exists</b> [1] 264:2  <b>exits</b> [1] 167:21  <b>expand</b> [1] 112:22  <b>expanded</b> [3] 191:16  193:1 196:21  <b>expect</b> [5] 63:2 220:24  221:8 239:19 262:20  <b>expectation</b> [2] 250:6  261:8  <b>expectations</b> [9] 68:16  72:8 115:13 166:4,5,7  229:23 239:7 244:24  <b>expected</b> [9] 9:11 40:4  64:11 66:8 115:19 139:13  252:23 260:23 269:10  <b>expensive</b> [2] 204:8  207:8  <b>experience</b> [10] 27:24  30:23 36:1 69:9 84:17  93:1 166:14 174:13  230:14 231:17  <b>expert</b> [2] 193:23 200:13  <b>expertise</b> [4] 141:6,7  142:3 144:20  <b>experts</b> [5] 100:3 102:24  120:1 121:4 156:15  <b>expiry</b> [1] 236:14  <b>explain</b> [6] 3:22 139:1  170:8 183:13 209:22  256:21  <b>explanation</b> [1] 17:12  <b>explicit</b> [1] 98:10  <b>exploration</b> [2] 55:4  63:11  <b>explore</b> [2] 33:18 181:7  <b>explored</b> [2] 8:18 36:5  <b>exposed</b> [4] 35:15 70:6  105:13 222:23  <b>express</b> [1] 3:15  <b>expression</b> [6] 71:19  137:6 208:22 209:20  210:7 243:9</p>
--	--	--	--	--

<p><b>extension</b> [1] 191:7  <b>extensions</b> [1] 191:9  <b>extensive</b> [2] 32:13  122:21  <b>extensively</b> [1] 177:18  <b>extent</b> [4] 9:15 169:4  173:4 187:15  <b>externally</b> [3] 166:22  167:16,19  <b>extra</b> [1] 150:19  <b>extracted</b> [1] 36:5  <b>extracts</b> [1] 15:24  <b>extremely</b> [1] 108:14  <b>ExxonMobil</b> [2] 42:8  46:22  <b>ExxonMobil's</b> [1]  200:19</p>	<p><b>false</b> [1] 199:5  <b>familiar</b> [6] 107:16  125:12 137:7 194:7  229:22 232:18  <b>families</b> [3] 2:21 20:7  27:15  <b>family</b> [7] 20:3 27:8 28:6  28:11,15 29:10 30:9  <b>family's</b> [1] 28:19  <b>far</b> [5] 20:6 145:23 199:1  207:14 218:22  <b>farther</b> [2] 41:24,25  <b>fast</b> [1] 152:13  <b>features</b> [8] 44:21 49:23  50:8 115:23 165:20 196:2  197:3,10  <b>February</b> [2] 2:15 7:11  <b>federal</b> [8] 42:10,11  123:19 124:1,5 195:1  258:23 265:6</p>	<p>42:17,19 46:18 49:14  130:10,15,20,22 131:10  131:10,18 152:24 166:14  166:16 169:14 174:23  176:6 180:6 183:25  186:22,23 189:14 190:19  195:18 196:20 198:13  213:3 215:12 219:23  220:5 232:22 240:5  243:20 249:4 251:19  257:13,19 258:4 260:1,8  261:5,6,13,19 262:2,9  262:13 266:11  <b>fishing</b> [1] 24:11  <b>fit</b> [15] 84:14 88:23 89:4  89:6 96:17 97:9 158:19  184:12,13 214:3 215:12  215:17 229:7 231:15  244:2  <b>fit-for-purpose</b> [1]  96:12  <b>fitness</b> [7] 65:13 86:8,23  87:5 88:20 89:1 229:20  <b>fits</b> [3] 78:18 82:1 208:15  <b>fitted</b> [2] 215:4 216:2  <b>fitting</b> [4] 208:3 214:8  214:10 241:16  <b>five</b> [9] 28:8 51:14 112:20  112:20,20 126:9,11 176:1  182:16  <b>five-day</b> [1] 232:23  <b>fixed</b> [5] 55:12 56:15  265:4,20 266:14  <b>flags</b> [1] 214:5  <b>flare</b> [1] 180:12  <b>fleet</b> [6] 191:17 193:2  196:18 197:2,12 266:12  <b>flexibility</b> [9] 156:7,10  196:10 204:4 207:2,4,6  207:8 249:16  <b>flight</b> [34] 41:11 80:10  121:24 122:14,20 166:16  173:9,16 174:2,2,5 178:7  179:7,13 183:17 202:6  215:12 241:9,10,12  242:10,19,23 243:25  244:6,20 245:10,16,17  257:18,19,20,22 258:4  <b>flights</b> [5] 29:20 172:1  175:10,11 199:16  <b>floating</b> [2] 21:23 46:24  <b>floor</b> [4] 42:24 43:2 50:5  50:8  <b>flow</b> [3] 48:11,25 54:15  <b>flown</b> [6] 27:5,7 29:14  179:25 199:17,23  <b>fly</b> [10] 29:18 150:18  173:10 175:7 183:16  184:5 185:6 206:16  212:24 238:25  <b>flying</b> [9] 169:3 173:3  174:11,18 175:11 176:20  182:1 184:3 250:17  <b>foam</b> [8] 115:4,4,20,20  116:5,8,8 117:13  <b>focus</b> [10] 13:20 90:3  93:5 118:1 165:4 169:12</p>	<p>169:14 214:16 245:10  252:13  <b>focused</b> [2] 83:24 224:14  <b>fog</b> [1] 147:8  <b>follow</b> [10] 65:18 83:19  99:3,18 161:14 162:9  164:23 215:21 216:20  238:21  <b>follow-up</b> [1] 33:6  <b>followed</b> [5] 4:14 24:6  161:11 189:17 242:9  <b>following</b> [10] 13:5 14:2  68:24 79:17 80:7,10  123:20 152:11 165:11  219:12  <b>follows</b> [2] 18:15 133:7  <b>football</b> [1] 49:19  <b>footsteps</b> [1] 24:6  <b>force</b> [9] 33:2,8 118:23  118:25 128:2,6 162:3  268:18,25  <b>forces</b> [3] 119:4,20,25  <b>Ford</b> [1] 199:21  <b>forecast</b> [2] 148:10 175:6  <b>forecasting</b> [4] 144:7  146:10,22 147:2  <b>forecasts</b> [1] 148:8  <b>foregoing</b> [1] 271:3  <b>forever</b> [1] 213:22  <b>form</b> [5] 3:5 33:20  109:11 238:22 245:15  <b>formal</b> [5] 25:1 90:8  186:16 187:9 244:22  <b>formally</b> [1] 46:17  <b>formed</b> [1] 34:17  <b>forms</b> [6] 101:8,9,13,20  102:9 247:4  <b>forth</b> [7] 29:10 45:15,23  126:13 151:18 185:7  227:7  <b>forward</b> [9] 5:6 6:10  11:24 13:24 21:8 41:3  49:24 106:12 195:15  <b>found</b> [3] 65:22 112:1  216:16  <b>four</b> [22] 12:21 24:8  28:22 33:12 51:15,18  55:9 84:12 123:24 124:6  124:21 182:9,11,15,20  182:23 183:4 209:7  233:14 267:2,11,12  <b>fourth</b> [3] 11:25 181:24  190:1  <b>FPSO</b> [23] 21:22 22:23  23:4,11 26:9 39:4 47:1,1  47:16 48:8,10 49:15,16  50:8,18 51:13 53:20  87:25 95:6,10,10 151:16  154:10  <b>FPSOs</b> [4] 21:22 22:18  23:3 90:12  <b>frankly</b> [1] 5:2  <b>freely</b> [2] 14:13 48:25  <b>freight</b> [2] 169:1 170:5  <b>frequencies</b> [2] 217:10</p>	<p>217:13  <b>frequency</b> [3] 135:20  228:10 232:12  <b>frequent</b> [5] 111:11  121:22 232:14 234:1,2  <b>frequently</b> [2] 33:20  77:17  <b>Friday</b> [1] 266:22  <b>friend</b> [1] 6:6  <b>fro</b> [1] 57:8  <b>front</b> [2] 95:9 97:22  <b>fuel</b> [18] 95:24 96:3,13  98:16,17 104:1,2 105:12  163:11 164:8 169:5 172:9  172:13,16 176:4,18 195:7  223:20  <b>fueling</b> [1] 95:2  <b>fulfil</b> [1] 237:6  <b>fulfilling</b> [1] 235:5  <b>fulfils</b> [1] 234:25  <b>full</b> [13] 14:21 31:8 83:20  102:25 103:11 104:5  106:9 189:14,15 196:18  197:2 233:3 265:24  <b>full-time</b> [1] 258:15  <b>fully</b> [8] 45:18 49:16  156:13 173:18 220:12  242:12 244:8 251:6  <b>function</b> [4] 129:4  143:15 180:17,19  <b>functioned</b> [1] 217:3  <b>functions</b> [3] 78:22  90:10 157:17  <b>funding</b> [1] 96:23  <b>Furthermore</b> [1] 244:25  <b>future</b> [6] 11:21 13:22  30:8 91:25 93:21 122:24</p>
<b>-F-</b>				
<p><b>FAA</b> [1] 195:2  <b>face</b> [5] 212:11 214:16  214:21 215:1,1  <b>faced</b> [1] 3:11  <b>facilitate</b> [1] 137:13  <b>facilitated</b> [1] 226:2  <b>facilitates</b> [2] 216:6  258:18  <b>facilities</b> [40] 21:10  23:21 25:18 28:4,10 29:9  31:23 32:3,14 39:4,13  40:2,9,19 43:20 50:11  53:18 54:18 56:20,25  57:22,25 70:10 79:22,24  95:16 137:22 139:17  147:16 148:23,25 149:8  150:3 169:25 190:15  205:13 230:6 231:6  233:13 265:14  <b>facility</b> [31] 22:11 26:6  28:14 42:22 45:6,11  46:11 47:15 49:23 51:23  51:25 54:6 55:16,25 58:2  73:16 83:21 86:17,21  87:14,14 126:10,11  149:16 176:5 180:5 206:2  231:1 240:5 243:6 244:10  <b>fact</b> [26] 2:11 5:17 6:20  12:20 26:5 66:2,3,9,11  68:1 81:24 94:16 100:25  103:16 104:15 125:4,18  129:23 164:15 167:8  184:6 190:14 204:8 210:8  213:20 214:18  <b>factor</b> [1] 196:7  <b>factors</b> [3] 95:8 107:5  237:5  <b>Fagan</b> [2] 6:15 8:12  <b>fail</b> [2] 95:21 96:20  <b>failure</b> [2] 198:24 268:14  <b>fair</b> [3] 139:5 150:14  174:7  <b>fairly</b> [5] 158:13,24  173:8,8 177:18  <b>fall</b> [3] 105:19 165:23  202:7</p>	<p><b>feed</b> [1] 106:6  <b>feedback</b> [12] 69:9 92:8  92:14 93:2 94:8 108:16  121:3,6 200:3 246:18,21  247:4  <b>feels</b> [1] 5:5  <b>feet</b> [6] 35:19 47:25 49:18  49:20 163:13 164:8  <b>felt</b> [4] 26:24 200:4  207:21 210:23  <b>few</b> [11] 1:8 10:13 12:20  12:21 13:23 23:16 73:4  104:17 138:25 144:4  202:15  <b>fidelity</b> [1] 224:1  <b>field</b> [14] 23:18 40:3 42:4  46:15,20,24 47:2,18 51:8  141:16 167:1 169:5  197:16,23  <b>fields</b> [2] 49:19 196:8  <b>fifteen</b> [1] 145:2  <b>file</b> [1] 107:9  <b>fill</b> [1] 239:6  <b>filled</b> [1] 83:7  <b>filter</b> [1] 268:15  <b>final</b> [5] 17:2 218:16  220:23 236:9 250:3  <b>finally</b> [2] 16:23 17:24  <b>financial</b> [2] 28:14 33:17  <b>finding</b> [1] 55:4  <b>finds</b> [1] 55:6  <b>fine</b> [3] 50:24 112:14  201:25  <b>fined</b> [1] 65:1  <b>finished</b> [3] 128:14 182:4  188:21  <b>fire</b> [9] 115:4,6,7,7,22,23  116:3 235:3,9  <b>firefighters</b> [1] 158:4  <b>firefighting</b> [2] 96:24  152:24  <b>first</b> [61] 3:20 6:17,23  10:22 12:22 14:10 20:5  21:22,25 26:7,10,13 42:4</p>	<p>42:17,19 46:18 49:14  130:10,15,20,22 131:10  131:10,18 152:24 166:14  166:16 169:14 174:23  176:6 180:6 183:25  186:22,23 189:14 190:19  195:18 196:20 198:13  213:3 215:12 219:23  220:5 232:22 240:5  243:20 249:4 251:19  257:13,19 258:4 260:1,8  261:5,6,13,19 262:2,9  262:13 266:11  <b>fishing</b> [1] 24:11  <b>fit</b> [15] 84:14 88:23 89:4  89:6 96:17 97:9 158:19  184:12,13 214:3 215:12  215:17 229:7 231:15  244:2  <b>fit-for-purpose</b> [1]  96:12  <b>fitness</b> [7] 65:13 86:8,23  87:5 88:20 89:1 229:20  <b>fits</b> [3] 78:18 82:1 208:15  <b>fitted</b> [2] 215:4 216:2  <b>fitting</b> [4] 208:3 214:8  214:10 241:16  <b>five</b> [9] 28:8 51:14 112:20  112:20,20 126:9,11 176:1  182:16  <b>five-day</b> [1] 232:23  <b>fixed</b> [5] 55:12 56:15  265:4,20 266:14  <b>flags</b> [1] 214:5  <b>flare</b> [1] 180:12  <b>fleet</b> [6] 191:17 193:2  196:18 197:2,12 266:12  <b>flexibility</b> [9] 156:7,10  196:10 204:4 207:2,4,6  207:8 249:16  <b>flight</b> [34] 41:11 80:10  121:24 122:14,20 166:16  173:9,16 174:2,2,5 178:7  179:7,13 183:17 202:6  215:12 241:9,10,12  242:10,19,23 243:25  244:6,20 245:10,16,17  257:18,19,20,22 258:4  <b>flights</b> [5] 29:20 172:1  175:10,11 199:16  <b>floating</b> [2] 21:23 46:24  <b>floor</b> [4] 42:24 43:2 50:5  50:8  <b>flow</b> [3] 48:11,25 54:15  <b>flown</b> [6] 27:5,7 29:14  179:25 199:17,23  <b>fly</b> [10] 29:18 150:18  173:10 175:7 183:16  184:5 185:6 206:16  212:24 238:25  <b>flying</b> [9] 169:3 173:3  174:11,18 175:11 176:20  182:1 184:3 250:17  <b>foam</b> [8] 115:4,4,20,20  116:5,8,8 117:13  <b>focus</b> [10] 13:20 90:3  93:5 118:1 165:4 169:12</p>	<p>169:14 214:16 245:10  252:13  <b>focused</b> [2] 83:24 224:14  <b>fog</b> [1] 147:8  <b>follow</b> [10] 65:18 83:19  99:3,18 161:14 162:9  164:23 215:21 216:20  238:21  <b>follow-up</b> [1] 33:6  <b>followed</b> [5] 4:14 24:6  161:11 189:17 242:9  <b>following</b> [10] 13:5 14:2  68:24 79:17 80:7,10  123:20 152:11 165:11  219:12  <b>follows</b> [2] 18:15 133:7  <b>football</b> [1] 49:19  <b>footsteps</b> [1] 24:6  <b>force</b> [9] 33:2,8 118:23  118:25 128:2,6 162:3  268:18,25  <b>forces</b> [3] 119:4,20,25  <b>Ford</b> [1] 199:21  <b>forecast</b> [2] 148:10 175:6  <b>forecasting</b> [4] 144:7  146:10,22 147:2  <b>forecasts</b> [1] 148:8  <b>foregoing</b> [1] 271:3  <b>forever</b> [1] 213:22  <b>form</b> [5] 3:5 33:20  109:11 238:22 245:15  <b>formal</b> [5] 25:1 90:8  186:16 187:9 244:22  <b>formally</b> [1] 46:17  <b>formed</b> [1] 34:17  <b>forms</b> [6] 101:8,9,13,20  102:9 247:4  <b>forth</b> [7] 29:10 45:15,23  126:13 151:18 185:7  227:7  <b>forward</b> [9] 5:6 6:10  11:24 13:24 21:8 41:3  49:24 106:12 195:15  <b>found</b> [3] 65:22 112:1  216:16  <b>four</b> [22] 12:21 24:8  28:22 33:12 51:15,18  55:9 84:12 123:24 124:6  124:21 182:9,11,15,20  182:23 183:4 209:7  233:14 267:2,11,12  <b>fourth</b> [3] 11:25 181:24  190:1  <b>FPSO</b> [23] 21:22 22:23  23:4,11 26:9 39:4 47:1,1  47:16 48:8,10 49:15,16  50:8,18 51:13 53:20  87:25 95:6,10,10 151:16  154:10  <b>FPSOs</b> [4] 21:22 22:18  23:3 90:12  <b>frankly</b> [1] 5:2  <b>freely</b> [2] 14:13 48:25  <b>freight</b> [2] 169:1 170:5  <b>frequencies</b> [2] 217:10</p>	<p>217:13  <b>frequency</b> [3] 135:20  228:10 232:12  <b>frequent</b> [5] 111:11  121:22 232:14 234:1,2  <b>frequently</b> [2] 33:20  77:17  <b>Friday</b> [1] 266:22  <b>friend</b> [1] 6:6  <b>fro</b> [1] 57:8  <b>front</b> [2] 95:9 97:22  <b>fuel</b> [18] 95:24 96:3,13  98:16,17 104:1,2 105:12  163:11 164:8 169:5 172:9  172:13,16 176:4,18 195:7  223:20  <b>fueling</b> [1] 95:2  <b>fulfil</b> [1] 237:6  <b>fulfilling</b> [1] 235:5  <b>fulfils</b> [1] 234:25  <b>full</b> [13] 14:21 31:8 83:20  102:25 103:11 104:5  106:9 189:14,15 196:18  197:2 233:3 265:24  <b>full-time</b> [1] 258:15  <b>fully</b> [8] 45:18 49:16  156:13 173:18 220:12  242:12 244:8 251:6  <b>function</b> [4] 129:4  143:15 180:17,19  <b>functioned</b> [1] 217:3  <b>functions</b> [3] 78:22  90:10 157:17  <b>funding</b> [1] 96:23  <b>Furthermore</b> [1] 244:25  <b>future</b> [6] 11:21 13:22  30:8 91:25 93:21 122:24</p>
<b>-G-</b>				
<p><b>gain</b> [1] 250:18  <b>gained</b> [2] 69:9 241:19  <b>Gander</b> [4] 172:18 175:1  262:4 266:25  <b>gaps</b> [1] 240:17  <b>Gary</b> [3] 18:21,25 24:21  <b>gas</b> [16] 20:18 24:23  25:18 27:24 28:10,14  43:20 48:10,13,18,21  51:20,21 55:6,7 165:12  <b>gateway</b> [1] 236:10  <b>gather</b> [3] 110:22 163:23  186:17  <b>gathered</b> [2] 163:24,25  <b>GBS</b> [6] 39:4,11 43:12  44:15 87:25 95:6  <b>gear</b> [5] 163:12 164:8  250:2 259:12,14  <b>gearbox</b> [1] 198:22  <b>general</b> [13] 18:19 23:1  23:19 102:12 106:12  121:25 126:16 156:8  159:6 165:13 166:17  213:4 261:14</p>	<p><b>gain</b> [1] 250:18  <b>gained</b> [2] 69:9 241:19  <b>Gander</b> [4] 172:18 175:1  262:4 266:25  <b>gaps</b> [1] 240:17  <b>Gary</b> [3] 18:21,25 24:21  <b>gas</b> [16] 20:18 24:23  25:18 27:24 28:10,14  43:20 48:10,13,18,21  51:20,21 55:6,7 165:12  <b>gateway</b> [1] 236:10  <b>gather</b> [3] 110:22 163:23  186:17  <b>gathered</b> [2] 163:24,25  <b>GBS</b> [6] 39:4,11 43:12  44:15 87:25 95:6  <b>gear</b> [5] 163:12 164:8  250:2 259:12,14  <b>gearbox</b> [1] 198:22  <b>general</b> [13] 18:19 23:1  23:19 102:12 106:12  121:25 126:16 156:8  159:6 165:13 166:17  213:4 261:14</p>	<p><b>gain</b> [1] 250:18  <b>gained</b> [2] 69:9 241:19  <b>Gander</b> [4] 172:18 175:1  262:4 266:25  <b>gaps</b> [1] 240:17  <b>Gary</b> [3] 18:21,25 24:21  <b>gas</b> [16] 20:18 24:23  25:18 27:24 28:10,14  43:20 48:10,13,18,21  51:20,21 55:6,7 165:12  <b>gateway</b> [1] 236:10  <b>gather</b> [3] 110:22 163:23  186:17  <b>gathered</b> [2] 163:24,25  <b>GBS</b> [6] 39:4,11 43:12  44:15 87:25 95:6  <b>gear</b> [5] 163:12 164:8  250:2 259:12,14  <b>gearbox</b> [1] 198:22  <b>general</b> [13] 18:19 23:1  23:19 102:12 106:12  121:25 126:16 156:8  159:6 165:13 166:17  213:4 261:14</p>	<p><b>gain</b> [1] 250:18  <b>gained</b> [2] 69:9 241:19  <b>Gander</b> [4] 172:18 175:1  262:4 266:25  <b>gaps</b> [1] 240:17  <b>Gary</b> [3] 18:21,25 24:21  <b>gas</b> [16] 20:18 24:23  25:18 27:24 28:10,14  43:20 48:10,13,18,21  51:20,21 55:6,7 165:12  <b>gateway</b> [1] 236:10  <b>gather</b> [3] 110:22 163:23  186:17  <b>gathered</b> [2] 163:24,25  <b>GBS</b> [6] 39:4,11 43:12  44:15 87:25 95:6  <b>gear</b> [5] 163:12 164:8  250:2 259:12,14  <b>gearbox</b> [1] 198:22  <b>general</b> [13] 18:19 23:1  23:19 102:12 106:12  121:25 126:16 </p>	

<p><b>generally</b> [13] 14:16 46:3 48:9 54:8 56:18,23 58:14 102:8 120:6 136:6 137:16 159:25 198:11</p> <p><b>generate</b> [1] 43:19</p> <p><b>generation</b> [1] 50:9</p> <p><b>generic</b> [6] 100:12,13,16 101:17 255:22,23</p> <p><b>gentlemen</b> [6] 1:3 18:14 30:15,21 36:17 200:9</p> <p><b>geographical</b> [3] 256:16 263:7 266:9</p> <p><b>geological</b> [1] 68:17</p> <p><b>geophysical</b> [3] 65:21 68:17 81:11</p> <p><b>geotechnical</b> [1] 68:18</p> <p><b>given</b> [12] 2:18 3:21 6:20 40:9 120:20 135:1 169:6 177:15 183:15 197:15,16 200:24</p> <p><b>giving</b> [1] 182:8</p> <p><b>glad</b> [1] 30:23</p> <p><b>Glomar</b> [1] 145:5</p> <p><b>glory</b> [3] 51:15,16 54:13</p> <p><b>glossary</b> [1] 31:1</p> <p><b>goal</b> [2] 69:13 98:2</p> <p><b>goal-based</b> [1] 68:22</p> <p><b>goal-oriented</b> [1] 68:22</p> <p><b>goals</b> [1] 78:23</p> <p><b>goes</b> [10] 49:4 115:15 166:17 176:9 179:15 186:3,4,5 218:22 237:23</p> <p><b>goggles</b> [3] 169:6 177:15 177:16</p> <p><b>golfing</b> [1] 24:14</p> <p><b>gone</b> [3] 221:12 227:21 238:16</p> <p><b>good</b> [21] 1:3,3,21,23 33:11 35:10 50:1 60:24 64:14 72:21 75:7 115:12 116:9 120:11 153:16 158:19 175:4 190:5 210:24 232:16 259:11</p> <p><b>Goodrich</b> [4] 47:6,14 57:17 145:12</p> <p><b>goods</b> [2] 234:20,22</p> <p><b>Gorilla</b> [1] 55:22</p> <p><b>governance</b> [1] 139:24</p> <p><b>governed</b> [1] 34:5</p> <p><b>Government</b> [3] 42:11 42:11 256:22</p> <p><b>governs</b> [1] 84:6</p> <p><b>GPS</b> [1] 248:20</p> <p><b>graduated</b> [2] 25:2 26:22</p> <p><b>graduating</b> [1] 27:25</p> <p><b>Grand</b> [11] 20:1 25:8 27:9 35:15 38:10 57:17 92:22 145:5 190:12 193:14 266:7</p> <p><b>grandchildren</b> [1] 93:8</p> <p><b>granted</b> [5] 77:4 87:5 167:24 237:10 239:13</p> <p><b>graph</b> [1] 75:23</p>	<p><b>gravity</b> [3] 43:1 44:4 87:1</p> <p><b>great</b> [3] 28:21 112:5 246:1</p> <p><b>greater</b> [2] 196:4 197:22</p> <p><b>greatly</b> [1] 20:2</p> <p><b>green</b> [4] 44:1,3 110:24 111:21</p> <p><b>Greenwood</b> [1] 267:1</p> <p><b>grey</b> [1] 261:4</p> <p><b>ground</b> [8] 48:3 183:24 185:4,19,24 249:10 250:20 260:11</p> <p><b>grounded</b> [1] 268:16</p> <p><b>group</b> [42] 102:24 103:3 106:6,15 107:2 120:5 121:4 126:18,18,19,21 126:25 127:3 128:6,7 129:19 130:2,2,3,3,17 130:20,20,21,22 131:5 131:10,18,24,25 132:6,6 135:15,16 137:18 152:7 200:19 251:9,13,15,21 263:16</p> <p><b>grouping</b> [1] 40:16</p> <p><b>groups</b> [3] 23:12 129:18 130:4</p> <p><b>grow</b> [1] 30:11</p> <p><b>grows</b> [1] 115:17</p> <p><b>GSF</b> [1] 57:16</p> <p><b>guard</b> [11] 212:15 263:12 263:18 264:20,23 265:5 265:8,13,15,17 266:14</p> <p><b>guards</b> [1] 247:21</p> <p><b>guess</b> [14] 52:21 69:18 144:17 149:19 151:9 152:2 178:17 185:22 190:10 197:11 198:15 209:23 260:20 267:12</p> <p><b>guidance</b> [5] 70:4,17 71:19 151:4 226:13</p> <p><b>guidances</b> [1] 71:25</p> <p><b>guideline</b> [10] 67:16 69:3 69:3,4,6 70:22 72:12 121:6,7 252:22</p> <p><b>guidelines</b> [35] 61:4 67:7 68:2,12,13,14,17,18 69:6 69:12,14 70:8,9 71:19 72:9,11 78:16,16,25 80:8 81:17,20 119:21,23 120:21 121:2,14 152:3 166:1,2 195:16 225:12 250:25 255:17,19</p> <p><b>guinea</b> [2] 29:7 123:12</p> <p><b>Gulf</b> [2] 29:16 42:12</p> <hr/> <p style="text-align: center;"><b>-H-</b></p> <hr/> <p><b>half</b> [2] 24:8 28:22</p> <p><b>Halifax</b> [6] 122:23 263:25 264:2 266:2 267:1 268:9</p> <p><b>hall</b> [7] 135:9 136:25 137:3,6,9,10,15</p> <p><b>hand</b> [3] 44:23 138:19 159:11</p>	<p><b>handle</b> [1] 160:15</p> <p><b>handlers</b> [1] 158:5</p> <p><b>handling</b> [3] 43:20 150:4 179:10</p> <p><b>handover</b> [1] 138:5</p> <p><b>handovers</b> [1] 138:3</p> <p><b>Hansen</b> [14] 11:10 209:10,12,21 211:13,18 212:6,19 214:13 215:10 215:14 241:15 243:10,12</p> <p><b>happening</b> [1] 261:20</p> <p><b>Harbour</b> [1] 149:17</p> <p><b>hard</b> [2] 96:1 203:25</p> <p><b>Harland</b> [1] 22:6</p> <p><b>harsher</b> [1] 36:6</p> <p><b>harshes</b> [1] 35:22</p> <p><b>harshness</b> [2] 36:25 172:6</p> <p><b>Harvey</b> [2] 149:11,16</p> <p><b>hazard</b> [14] 38:9 79:20 96:1,6 100:7 102:15,16 102:21 103:10 105:19 110:2 113:4 229:16 234:23</p> <p><b>hazardous</b> [4] 105:17 106:5 113:5,11</p> <p><b>hazards</b> [25] 92:17 95:18 95:19,19 99:25 102:19 103:1,6 105:9,11,14,16 106:10,23 107:3 109:1,2 109:2,4,7,20 132:25 134:20 136:3 159:7</p> <p><b>he'd</b> [1] 1:11</p> <p><b>head</b> [2] 49:5 172:11</p> <p><b>heading</b> [3] 54:4 165:7 248:18</p> <p><b>headquarters</b> [1] 178:10</p> <p><b>heads</b> [1] 6:21</p> <p><b>health</b> [23] 60:3 65:19 66:2 77:9 90:23 120:6 120:10,17 123:17,22,24 124:3,13,23 125:15 129:2 129:5,13 178:1 197:8 227:24 229:11,14</p> <p><b>hear</b> [7] 11:7 23:14 60:18 91:19 122:24 151:3 170:3</p> <p><b>heard</b> [12] 5:21 10:22 11:3,5,8 41:13 125:3 129:11 158:10 245:7 259:18 271:4</p> <p><b>hearing</b> [4] 9:19,20 13:25 271:4</p> <p><b>heavier</b> [2] 193:12,15</p> <p><b>heavy</b> [3] 180:17,19 194:1</p> <p><b>Hebron</b> [1] 40:3</p> <p><b>height</b> [3] 105:14,18,19</p> <p><b>held</b> [4] 22:6 128:24 156:22 163:20</p> <p><b>Heli-Admin</b> [3] 243:4,9 244:1</p> <p><b>heli-deck</b> [1] 244:17</p> <p><b>heli-refuelling</b> [1] 96:10</p>	<p><b>helicopter</b> [178] 5:8 11:2 11:17 12:14 13:17 15:8 16:17 20:17 22:16,21 23:6,23 29:20,23 30:2,6 32:14,17 33:2,7 49:10 52:21 56:19 61:6,6,15 61:16 70:5,7,10,16 76:6 79:14 80:5,9 81:14,17 81:21,24 82:13,24 83:24 96:2 121:23,25 122:6,13 122:20 134:2,7,21 135:2 140:20 144:9,9,15 146:24 151:5 157:21 158:2,3,5 158:7,16,20 160:4,10,13 162:2 164:10,13,19 165:5 165:8,8,10,13,15 166:1 166:9,11 167:22 168:24 169:4,20,24 171:1,25 172:8,22 173:19 176:4 178:7 179:3,13,25 180:10 181:2,19,21 182:3,4,5 182:24 183:12,24 184:5 184:6,10 185:20 186:2 186:11,24 187:19 189:10 189:13 191:3,8 193:3,12 201:13 202:25 203:11 205:19,22 206:5,6 209:13 216:18,19,21 218:9,16 218:19 222:20 231:18,24 232:4 234:14,16,18,23 234:25 235:7,12,16,24 242:15 243:6,14,16 244:9 244:11,12,15 247:23 249:4,8,22 250:1,20,25 251:3 252:23 254:11,16 257:13 258:2,10,11 259:16,19 260:25 261:6 261:14,24 268:18,25</p> <p><b>helicopters</b> [59] 4:25 5:1 5:5 24:5 27:6 29:14 32:6 49:12 52:6 56:1,23 58:25 61:11 62:4 82:18 95:2 138:24 146:17 147:14 157:10,11 160:15 166:11 167:17 176:20 177:6 179:2,6 180:11,11,20,21 180:22 181:4 183:4,16 183:20,23 184:2 185:1 185:25 188:16 189:7 194:1,9 196:21 197:6 199:2 240:11 246:12 247:20 248:3 249:9,20 260:2,10 265:4 266:12 266:13</p> <p><b>helideck</b> [35] 43:22 49:21 49:24 52:16 53:1 55:25 81:10,13,25 85:15 89:19 95:1,4,7,11,16,23,25 96:8,13,25 98:16,19 104:2 115:4,5 116:15,16 116:19 117:14 160:9 235:2,9,11,17</p> <p><b>helidecks</b> [6] 56:4 57:7 70:12,15 90:19 193:16</p> <p><b>heliport</b> [2] 134:23 240:13</p> <p><b>Helly</b> [15] 11:10 209:10 209:12,21 211:13,18 212:6,19 214:13 215:10 215:14 241:15 243:10,11 243:12</p>	<p><b>help</b> [5] 48:22 139:2 183:25 199:6 257:17</p> <p><b>helped</b> [3] 27:2 215:7,11</p> <p><b>helpful</b> [1] 221:21</p> <p><b>hence</b> [1] 56:6</p> <p><b>Henry</b> [4] 47:6,13 57:17 145:11</p> <p><b>Hercules</b> [3] 260:6 265:21 267:2</p> <p><b>hereby</b> [1] 271:2</p> <p><b>Hibernia</b> [51] 11:22 18:17 26:2,4 27:22 28:16 28:20 29:5,12,18,25 34:6 34:9,10,13 39:11 40:2 42:4,7,9 43:11 44:8,21 47:18,23 49:2,8 56:14 60:14 86:14 87:1 145:23 145:24 149:22 150:20,23 151:14 162:1 180:14 184:4 186:3,21 197:16 204:20 213:12,25 230:11 230:16 233:9 238:5 267:24</p> <p><b>Hibernia's</b> [2] 60:13 187:19</p> <p><b>hierarchial</b> [1] 101:15</p> <p><b>high</b> [14] 30:10 35:18 40:12 43:13 44:5 98:6 98:21 99:11,12 111:12 222:21 223:22 246:16 258:20</p> <p><b>higher</b> [4] 72:2,5 207:21 231:21</p> <p><b>highest</b> [3] 43:12 99:5 209:11</p> <p><b>highlight</b> [1] 212:8</p> <p><b>highlighted</b> [1] 76:3</p> <p><b>highlights</b> [3] 25:21 26:12 79:12</p> <p><b>highly</b> [3] 15:6 59:8 141:17</p> <p><b>hindsight</b> [1] 213:2</p> <p><b>hints</b> [1] 72:1</p> <p><b>hire</b> [1] 141:8</p> <p><b>hired</b> [1] 142:21</p> <p><b>historical</b> [1] 135:8</p> <p><b>hit</b> [1] 48:5</p> <p><b>HMDC</b> [11] 11:22 29:24 34:11,16 59:20 145:23 186:23 189:18 190:8 195:20 196:23</p> <p><b>HMDC's</b> [2] 186:25 200:17</p> <p><b>hoc</b> [2] 121:20 150:25</p> <p><b>hoist</b> [4] 255:10,23,24 256:4</p> <p><b>hoists</b> [1] 251:7</p> <p><b>hold</b> [7] 63:14,16 82:20 153:13 166:5 172:13 234:22</p> <p><b>holder</b> [1] 46:19</p> <p><b>holding</b> [2] 42:9 172:13</p> <p><b>holds</b> [1] 34:2</p> <p><b>hole</b> [8] 114:22 115:14 115:16,21 116:10,13,21</p>
--	---	--	--	--



<p>116:24 <b>holes</b> [9] 51:15,16 54:13 114:4,6,13,18,24 117:2 <b>home</b> [2] 30:9 173:8 <b>homecoming</b> [1] 28:19 <b>hood</b> [1] 212:10 <b>hook</b> [1] 26:10 <b>hooked</b> [1] 54:14 <b>hope</b> [2] 27:13 77:23 <b>hoped</b> [1] 269:9 <b>horse</b> [1] 210:22 <b>hostile</b> [1] 228:24 <b>hour</b> [14] 35:17 138:3 184:1 240:14 243:5 250:4 250:8,16 251:5 253:10 253:13 254:3,12 255:1 <b>hourly</b> [1] 15:8 <b>hours</b> [9] 174:11 185:18 250:18 251:4,25 252:1 266:24,24 269:3 <b>housing</b> [1] 268:15 <b>HSC</b> [1] 120:1 <b>HUEBA</b> [23] 4:16 7:23 121:24 203:4,7,9 212:14 212:14 218:10,10,19,20 218:24 219:3,21,24 220:5 220:6,18 241:11 242:18 244:1,19 <b>HUET</b> [1] 169:15 <b>hulls</b> [1] 153:9 <b>human</b> [1] 268:5 <b>HUMS</b> [4] 177:21,21 178:1 197:4 <b>Husky</b> [26] 11:23 18:20 23:15,20 24:16 35:3 46:22 51:6,9 57:14 58:5 59:19 118:21 135:10 136:6 137:1 145:5,8,15 149:23 150:11 155:16 191:2 195:20 196:23 238:8 <b>Husky's</b> [1] 200:12 <b>Hydro</b> [2] 12:2 25:22</p>	<p>66:12 90:13 100:1 101:4 105:15 106:9,10,23 107:4 109:5 113:4 136:4 154:25 203:5 237:13 246:12 <b>identifies</b> [1] 77:8 <b>identify</b> [13] 33:15 100:20 101:1 102:19 104:5 105:4,6 110:2 161:13 220:7,19 238:23 246:2 <b>identifying</b> [4] 7:25 69:22 105:9 220:13 <b>II</b> [2] 124:1,5 <b>ill</b> [1] 229:11 <b>illustrates</b> [1] 4:18 <b>immediate</b> [1] 162:11 <b>immediately</b> [1] 33:3 <b>immersion</b> [4] 81:10 203:14 204:6 207:20 <b>impact</b> [8] 39:12,14 44:11 66:4,10 146:23 171:2 222:22 <b>impacted</b> [1] 39:6 <b>impacts</b> [1] 129:12 <b>impending</b> [1] 198:23 <b>implement</b> [4] 203:6 218:24 220:18 236:11 <b>implementation</b> [7] 63:10 109:18 209:7 211:12 218:15,22 220:21 <b>implemented</b> [1] 244:22 <b>importance</b> [3] 32:11 234:6 246:1 <b>important</b> [19] 3:23 4:17 4:22 5:7 20:13 29:11 32:10 37:22 52:7 63:20 64:16 90:2,21 102:17 117:9 118:13,15 134:13 216:7 <b>improve</b> [3] 21:9 92:11 246:22 <b>improvement</b> [9] 13:22 20:24 21:7 30:3 92:14 108:13,22 202:9 220:24 <b>improvements</b> [3] 92:6 92:9 110:5 <b>improving</b> [2] 77:14 199:3 <b>inadequate</b> [1] 155:7 <b>inappropriate</b> [1] 245:16 <b>inbound</b> [1] 249:22 <b>Inc</b> [2] 271:12,14 <b>incident</b> [20] 13:5 83:16 85:4 114:4,21 115:6 117:6,16 122:3,9,19 198:6 200:21 224:20 249:15 254:1,9 255:2 262:2,18 <b>incidents</b> [2] 68:15 92:5 <b>inclement</b> [1] 174:12 <b>include</b> [11] 40:10 65:12 68:13 70:7 79:16 80:7 179:5,7 196:21 220:22 227:11</p>	<p><b>included</b> [17] 7:1 25:7 25:12,22 45:13 167:11 179:13 187:2,7 189:12 194:25 208:23 212:15 213:11 219:4,6 238:21 <b>includes</b> [14] 20:14 23:23 38:17,19,20 42:13 43:17 46:21 69:2 79:14 174:6 203:2 241:6,10 <b>including</b> [12] 20:9 77:10 142:12 148:23 152:1,12 165:11 176:5 222:5 226:22 259:25 260:8 <b>inclusion</b> [1] 223:19 <b>incorporated</b> [2] 34:12 59:20 <b>increase</b> [1] 164:9 <b>increased</b> [4] 122:2,3,6 252:13 <b>indeed</b> [17] 20:8,11 27:12 55:22 57:3 91:18 107:14 108:13 117:13 120:3 121:4,19 124:19 126:19 135:10 157:19 212:21 <b>independent</b> [5] 84:10 88:19 140:3 186:16 195:21 <b>independently</b> [3] 139:9 145:14 196:23 <b>indicate</b> [4] 11:1 15:1 15:25 216:10 <b>indicated</b> [19] 1:9 37:18 45:1 49:11 56:16 58:2 69:16 140:9 141:23 147:12 150:1,6,10 152:1 153:2 164:7 207:19 231:13 268:21 <b>indicating</b> [1] 152:7 <b>indication</b> [4] 2:16,24 199:9 253:2 <b>indications</b> [2] 198:15 199:16 <b>indicative</b> [1] 198:23 <b>indicators</b> [1] 200:6 <b>individual</b> [57] 12:12 14:1,3 15:13 16:11 19:7 34:8 39:3 44:7,22 60:2 60:19,22 79:3 82:8 100:6 102:2 108:7,9 127:6 136:14 145:19 146:19 162:10,23 163:4,16 179:18 181:8,9 186:18 190:18 213:15 216:10 217:17 218:12 222:18 223:17 229:12 231:9 232:9 237:6 238:18 239:5 240:24 241:3,3,11,17,22 242:20 244:16 245:14 247:2,9,15 265:22 <b>individual's</b> [3] 163:17 163:22 179:16 <b>individually</b> [4] 13:10 146:7,9 149:20 <b>individuals</b> [18] 21:12 131:1 147:23 152:17 157:7 164:12,18 179:14 180:1 235:15 240:13,20</p>	<p>241:8,25 242:15 243:3 243:18,23 <b>Indonesia</b> [1] 28:8 <b>induction</b> [1] 134:24 <b>industry</b> [32] 4:23 8:5 11:12,15 12:12 13:13 16:17 20:16,23 21:4,9 22:18 24:10,11,24 26:21 27:12 30:13 31:3,25 35:13 71:12 92:16 110:14 110:14,17 118:17 155:17 155:18 219:6 225:14 226:5 <b>inflated</b> [1] 212:16 <b>influence</b> [2] 95:8 118:4 <b>inform</b> [1] 68:20 <b>information</b> [24] 21:6 101:8 147:5,6,13 148:7 163:23,25 164:1 178:8 178:14 200:24 209:18 234:24 236:21 242:2 244:4 247:24 248:7,13 248:14,16,21 252:17 <b>informed</b> [5] 212:3 242:7 258:13 259:10 262:20 <b>informing</b> [1] 262:19 <b>ingredient</b> [1] 97:3 <b>ingress</b> [3] 122:14,20 123:4 <b>inherent</b> [1] 200:1 <b>inhibited</b> [1] 174:24 <b>initial</b> [4] 42:19 55:4 213:24 259:7 <b>initialled</b> [1] 161:12 <b>initiated</b> [2] 189:9 191:2 <b>initiative</b> [2] 23:11 202:10 <b>initiatives</b> [1] 23:8 <b>injected</b> [2] 48:18,24 <b>injection</b> [3] 51:20 55:6 55:6 <b>input</b> [4] 93:2 94:8 106:7 119:21 <b>inquiries</b> [1] 5:17 <b>inquiry</b> [23] 2:8,13,14 3:3,6,16,18,22,23 4:6,18 4:22 5:19 6:14 11:25 12:15 21:3,6 27:13 30:4 61:9 93:19 181:11 <b>inspection</b> [8] 70:14 85:20 89:8 90:6,9 98:20 100:18 241:7 <b>inspections</b> [5] 13:18 83:14,15 84:21 86:17 <b>inspects</b> [1] 86:16 <b>install</b> [1] 128:8 <b>installation</b> [33] 22:16 22:19 26:8 28:24 53:1 65:14 76:15 77:11 79:23 81:8 82:11,17,23 86:7 88:22 89:2,13,18 90:19 90:24,25 115:3 137:2 141:20 147:6 151:6 157:19,20 162:19 173:21 199:12 233:24 237:12</p>	<p><b>installations</b> [15] 73:10 84:15 86:12 87:11 139:19 147:20,23 153:7,13 160:1 161:3 167:1 174:16 177:7 184:4 <b>installed</b> [1] 109:21 <b>instance</b> [5] 3:20 101:13 102:9 170:21 259:18 <b>instances</b> [1] 167:14 <b>Institute</b> [2] 212:2 223:13 <b>Institute's</b> [1] 211:19 <b>institutions</b> [3] 225:15 226:19,23 <b>instruction</b> [2] 100:22 135:1 <b>instructions</b> [4] 100:17 101:18 108:3 134:24 <b>integral</b> [2] 77:13 212:10 <b>integrate</b> [1] 139:2 <b>integrated</b> [1] 212:16 <b>integration</b> [2] 94:22 97:18 <b>integrity</b> [2] 134:15 161:9 <b>intended</b> [5] 89:4 139:3 162:1 222:21 223:6 <b>intent</b> [10] 3:15 88:21 91:22 98:7,12 99:14,15 101:16 111:2 204:15 <b>intention</b> [1] 224:21 <b>interact</b> [1] 62:23 <b>interchangeable</b> [1] 33:24 <b>interconnected</b> [1] 94:16 <b>interest</b> [9] 14:18 20:25 29:23 30:1 33:25 46:19 208:22 209:20 245:9 <b>interesting</b> [1] 144:17 <b>interface</b> [5] 32:22 61:9 70:19 256:25 257:8 <b>interfaces</b> [1] 23:12 <b>interfere</b> [2] 242:18 244:19 <b>interfering</b> [1] 242:22 <b>interflight</b> [1] 245:2 <b>intermittent</b> [1] 237:4 <b>internally</b> [1] 167:20 <b>international</b> [3] 13:13 256:12 263:5 <b>interpret</b> [1] 12:18 <b>interpreted</b> [2] 170:10 201:1 <b>interview</b> [3] 163:16,18 163:22 <b>intimately</b> [1] 232:18 <b>introduce</b> [3] 31:22 211:22 220:11 <b>introduced</b> [5] 22:1 68:21 93:22 211:24 213:3 <b>introducing</b> [2] 213:20 222:25 <b>introduction</b> [3] 31:20</p>
<p><b>-I-</b></p>				
<p><b>i.e</b> [1] 208:25 <b>ice</b> [26] 36:13 37:5,7 38:9 38:12,12,14,16,24 39:7 39:11,16,19 44:11 47:23 49:23 55:14 144:6,18 146:9,21 147:11,22 150:5 152:3 153:9 <b>iceberg</b> [3] 37:7,19 55:14 <b>icebergs</b> [10] 36:14 38:13 38:14,19,23 39:12,20 44:12 48:2 53:17 <b>idea</b> [1] 230:8 <b>ideal</b> [1] 114:12 <b>identical</b> [1] 92:19 <b>identification</b> [9] 79:21 100:7 102:16,17,22 103:10 179:19 240:16 248:17 <b>identified</b> [17] 33:7</p>				

<p>33:14 233:5 <b>invention</b> [1] 110:16 <b>inventories</b> [1] 58:17 <b>invested</b> [1] 190:21 <b>investigated</b> [1] 163:14 <b>investigation</b> [4] 68:15 129:6 163:8,15 <b>investigations</b> [2] 91:2 129:7 <b>invitation</b> [1] 143:4 <b>invite</b> [1] 9:2 <b>invited</b> [1] 137:14 <b>involve</b> [3] 82:18 163:7 183:3 <b>involved</b> [22] 4:15 9:13 20:21 21:20 22:2 23:7 42:12 51:6 86:13 90:18 92:23 94:17 100:4,5 103:7 105:25 117:21 133:24 135:16 156:14 212:2 233:25 <b>involvement</b> [1] 102:23 <b>involves</b> [1] 133:11 <b>Island</b> [2] 28:7 37:3 <b>Islands</b> [1] 37:16 <b>isolated</b> [2] 167:13 229:8 <b>issue</b> [21] 1:11 8:5 11:14 15:25,25 86:20 90:15 101:9 106:24 122:21 127:7 162:13 163:13 171:1 174:19 198:16 207:23 208:21 210:9 214:3 237:20 <b>issued</b> [18] 63:15,17 69:7 72:6,10 73:7 74:14 80:6 86:9 106:22 121:3 129:1 154:20 164:3,16 233:10 241:9 244:1 <b>issues</b> [26] 7:14,25 8:2 8:18,20 37:7 96:16 97:8 121:12,21 130:15 131:15 132:14 136:16,23,25 137:17 138:15 163:18 164:2 187:25 200:20 214:10,22 215:20 234:4 <b>issuing</b> [3] 63:18 88:25 209:20 <b>item</b> [3] 65:25 164:14 201:22 <b>items</b> [6] 2:4 79:17 121:24 132:11 154:2 164:23 <b>itself</b> [14] 3:18 11:12,16 55:11 91:7 105:5,6 106:3 155:4 216:18,20 217:23 235:18 242:24</p>	<p>106:8,14,25 108:14,15 111:4,5 113:2 128:14 154:14,24,25 156:19 159:4 161:1 229:8,15 <b>jobs</b> [3] 157:13 159:6,10 <b>John's</b> [20] 24:8,12 25:15 28:15,18 29:11 147:4 149:16 172:16 173:19 182:8 249:23 260:4,9 262:4 264:20,24 268:8 271:5,9 <b>JOHS</b> [30] 92:15 120:8 121:3,7,15 123:3 125:14 126:10,24 127:10 128:11 129:25 131:16 132:3,12 133:12 136:13,16,21,22 162:15,17,22,24,24 163:4 163:18,20,21 213:14 <b>join</b> [1] 31:21 <b>joined</b> [4] 21:16 22:4,16 23:15 <b>joining</b> [1] 130:17 <b>joint</b> [24] 13:24 16:12 33:15,20,22,25 34:5,7 51:9 59:23 120:9,16 123:19 125:14 127:12,13 127:17 202:11 210:1 226:15 258:13 259:3 263:21 264:7 <b>jointly</b> [1] 195:11 <b>JRCC</b> [12] 258:12 259:10 259:19,24 263:25 264:2 264:12 265:2,8,14 266:2 266:20 <b>JRCC's</b> [1] 266:2 <b>Judge</b> [1] 8:23 <b>Judy</b> [1] 271:13 <b>jump</b> [3] 31:9 45:15,23 <b>jumping</b> [2] 123:6,9 <b>junctures</b> [1] 117:7 <b>June</b> [3] 23:15 55:15 152:3 <b>jurisdiction</b> [8] 15:20 61:2,7 65:12 124:2,4,5 233:15 <b>jurisdictions</b> [1] 27:6 <b>justifiably</b> [1] 199:7 <b>justified</b> [1] 233:4 <b>justify</b> [1] 176:18</p>	<p><b>kinds</b> [1] 135:18 <b>Kingdom</b> [1] 23:9 <b>knots</b> [1] 35:16 <b>knowing</b> [2] 5:14 26:25 <b>knowledge</b> [8] 21:5 106:18 133:2 146:12 160:7 171:4 234:10 239:22 <b>known</b> [4] 133:20 163:13 172:19,19 <b>knows</b> [2] 4:15 132:6 <b>Knutson</b> [1] 58:11</p> <hr/> <p style="text-align: center;"><b>-L-</b></p> <p><b>Labour</b> [3] 123:25 124:4 124:14 <b>Labrador</b> [9] 25:9 30:11 35:14 39:25 59:8 61:3 187:17 228:23 271:6 <b>ladies</b> [1] 1:3 <b>land</b> [6] 38:4 52:22,24 55:13 172:15 177:7 <b>landing</b> [11] 56:1 70:16 96:1 151:5 157:21 158:2 158:3,21 166:20 234:25 235:8 <b>landings</b> [1] 160:11 <b>large</b> [10] 16:7 29:1 47:24 53:13 93:25,25 106:8 128:6 145:13 154:11 <b>larger</b> [1] 15:18 <b>largest</b> [3] 28:9 46:19 49:16 <b>last</b> [7] 23:18 26:22 69:23 133:25 165:23 213:22 253:12 <b>lastly</b> [4] 28:23 33:8 44:13 71:11 <b>late</b> [5] 28:14 133:25 175:13 188:22 202:10 <b>latest</b> [3] 2:13 179:19 203:1 <b>latitude</b> [1] 170:17 <b>launched</b> [2] 152:14 258:12 <b>Laurentian</b> [2] 41:4 56:14 <b>lead</b> [3] 104:12 107:19 268:16 <b>leader</b> [1] 107:6 <b>leaders</b> [1] 107:13 <b>leadership</b> [2] 94:10 118:7 <b>leading</b> [3] 167:5 193:6 194:24 <b>leads</b> [1] 107:14 <b>learn</b> [3] 27:13 39:5 221:11 <b>learned</b> [6] 6:6 220:20 221:17 224:19,19 262:18 <b>learning</b> [1] 224:2 <b>least</b> [7] 2:7 166:20 188:8 223:25 228:5 240:14 255:25</p>	<p><b>leave</b> [6] 185:24 198:4 236:20 245:4 259:1 268:24 <b>leaves</b> [1] 173:19 <b>led</b> [6] 165:16 186:23 195:9 209:23,24 219:4 <b>left</b> [8] 12:3 18:16 20:12 22:13 52:17 55:10 76:22 183:16 <b>left-hand</b> [1] 75:20 <b>leg</b> [1] 49:6 <b>legal</b> [3] 221:7 269:5,22 <b>legislation</b> [2] 95:15 123:20 <b>legislative</b> [2] 60:5 142:12 <b>legitimate</b> [1] 10:4 <b>legs</b> [1] 55:11 <b>length</b> [2] 42:18 220:17 <b>less</b> [10] 115:18 130:22 201:3 230:16,22,25 232:19 233:21 234:1 245:9 <b>lesson</b> [1] 13:6 <b>lessons</b> [3] 220:20 221:17 262:18 <b>letter</b> [2] 69:21 152:5 <b>letters</b> [1] 4:20 <b>level</b> [36] 28:13 72:2,5 78:21 92:14,24 97:14 98:7,9,21 99:11,12 100:22 102:6,11 107:11 118:8,14 121:8,8 135:1 136:14,18,21 178:13 222:23,25 223:1,22 226:14 227:5 246:17 257:5 258:20 265:12 266:19 <b>levels</b> [5] 90:24 104:22 105:24 118:17,23 <b>liabilities</b> [1] 34:2 <b>licence</b> [1] 190:7 <b>license</b> [5] 63:15,22 64:3 64:4 66:23 <b>licensed</b> [1] 166:13 <b>licenses</b> [2] 64:6 67:20 <b>lies</b> [1] 266:6 <b>life</b> [12] 5:18 20:8 137:9 141:16 166:22 167:16,19 167:20 197:23 202:9 203:3 251:8 <b>lifejacket</b> [3] 209:1,1 212:16 <b>lift</b> [6] 51:20 55:7 155:5 180:17,19 194:1 <b>lifting</b> [2] 255:25 256:3 <b>light</b> [4] 175:13 194:16 199:9,11 <b>lightly</b> [1] 174:20 <b>lights</b> [6] 198:16,19,21 198:25 199:5,8 <b>likelihood</b> [8] 109:6,10 110:3,7 111:7,11 113:4 156:17 <b>likely</b> [2] 257:12 265:19</p>	<p><b>likes</b> [1] 199:20 <b>likewise</b> [2] 150:20 180:15 <b>limitation</b> [1] 193:13 <b>limitations</b> [3] 2:8 175:1 193:10 <b>limited</b> [4] 3:16 6:24 55:13,15 <b>limits</b> [1] 172:8 <b>line</b> [11] 4:14 78:22 91:20 91:21 117:20 183:10,11 186:14 202:2,3 266:5 <b>lined</b> [2] 114:19,23 <b>lines</b> [2] 48:11 54:15 <b>linked</b> [2] 50:4,7 <b>list</b> [9] 16:3,6,7 18:1 139:4 166:8 255:9,15,18 <b>listen</b> [1] 137:15 <b>living</b> [2] 24:12 43:21 <b>Lloyd's</b> [3] 86:14 87:2 90:15 <b>Lloyds</b> [1] 90:13 <b>load</b> [1] 172:8 <b>loading</b> [2] 44:13 235:20 <b>loads</b> [2] 171:25 193:15 <b>local</b> [3] 106:17,17 149:9 <b>locate</b> [2] 216:19,21 <b>located</b> [5] 38:11 41:25 42:14 47:1 95:25 <b>location</b> [10] 22:25 95:13 105:7,13 172:10 209:1 216:10 229:8 248:4 263:7 <b>locations</b> [2] 28:5 247:23 <b>locator</b> [7] 212:13 216:1 216:2,18 217:7 241:10 251:8 <b>logistical</b> [1] 57:9 <b>logistics</b> [1] 23:22 <b>longer</b> [3] 5:19 73:17 222:6 <b>look</b> [30] 8:2,8,9 13:21 14:19 18:8 35:5 52:19 70:21 79:2 82:16 92:6 92:13 97:7,8 98:1 103:7 105:11 108:4,12 109:25 110:4 113:24 127:5 140:19 147:3 166:10 197:12 218:2 266:9 <b>looked</b> [4] 5:23 102:1,3 113:25 <b>looking</b> [11] 2:12 79:5 82:15 83:6 98:21 113:7 117:10 155:12,25 175:17 252:4 <b>loss</b> [1] 27:10 <b>low</b> [4] 30:6 35:21 108:23 161:6 <b>lower</b> [2] 220:10 231:21 <b>luggage</b> [4] 171:19,21 171:23 244:25 <b>LUK</b> [2] 28:9,13 <b>lunch</b> [3] 112:11 153:17 268:22</p>
<hr/> <p style="text-align: center;"><b>-J-</b></p> <p><b>jack-up</b> [3] 55:10,19,19 <b>January</b> [4] 1:1 129:16 271:4,10 <b>Jeanne</b> [2] 38:10 46:15 <b>jet</b> [2] 104:1 105:12 <b>JOA</b> [1] 34:6 <b>job</b> [20] 105:7,10,23</p>	<hr/> <p style="text-align: center;"><b>-K-</b></p> <p><b>keep</b> [7] 5:3 48:22,24 73:5 176:18 265:24,24 <b>kept</b> [3] 8:13 169:5 176:4 <b>key</b> [5] 92:3 165:20 195:25 208:14 212:8 <b>kilometres</b> [6] 35:17 38:2 42:15 196:9 266:5 266:5 <b>kin</b> [1] 179:20 <b>kind</b> [13] 38:3 94:20 102:4 113:14 120:5 133:16 135:21 141:11,20 155:13 156:5 163:4 261:11</p>			

<p style="text-align: center;"><b>-M-</b></p> <p><b>machinery</b> [1] 183:21  <b>machines</b> [1] 201:3  <b>Maersk</b> [2] 149:23,24  <b>magnetic</b> [1] 198:21  <b>mail</b> [2] 171:9,10  <b>main</b> [6] 43:17 163:12  164:8 167:21 219:19  223:2  <b>maintain</b> [7] 79:23 185:2  204:17 236:12 248:12  249:3 263:6  <b>maintained</b> [4] 89:7  91:3 249:8 252:24  <b>maintaining</b> [1] 236:4  <b>maintains</b> [2] 248:10  256:14  <b>maintenance</b> [21] 48:23  50:14 89:8 92:9 96:16  97:7,9,20 98:19 104:10  115:9,25 116:1 117:11  126:18 146:1 179:6,8  181:3 193:10 196:11  <b>maintenances</b> [1]  183:21  <b>major</b> [6] 50:13 92:22  181:14 187:21 229:2  268:7  <b>majority</b> [2] 47:5 58:19  <b>makers</b> [1] 119:6  <b>makes</b> [2] 38:25 178:18  <b>manage</b> [4] 53:18 94:2  96:12 100:2  <b>management</b> [48] 18:17  26:2 27:23 32:8 34:10  38:17 42:7 59:25 60:8  65:5 77:7,14 78:18,19  78:21 79:12,18 85:5  91:15,20,21 92:17,17,19  92:23 97:4,25 98:6 99:5  102:2 104:8 107:10  108:20,20,23 124:25  129:1 134:19 135:4,10  136:24,25 139:14,15  140:7 141:2 152:3 264:25  <b>manager</b> [17] 18:20,22  22:19,23 23:1,16,19  24:22 26:14,15,16 28:24  137:2 141:20 162:19  233:24 237:13  <b>managers</b> [1] 26:8  <b>managing</b> [1] 34:17  <b>mandatory</b> [1] 236:13  <b>manifest</b> [1] 179:14  <b>manned</b> [1] 264:19  <b>manner</b> [5] 3:1 5:25 67:2  98:5 143:11  <b>manning</b> [1] 90:24  <b>manufactured</b> [3]  191:21,24 211:18  <b>manufacturer</b> [5]  193:21 196:13 209:3  210:10 216:3  <b>manufacturer's</b> [1]</p>	<p>115:13  <b>manufacturers</b> [2]  193:22 194:11  <b>map</b> [2] 256:16 266:1  <b>March</b> [30] 13:5 20:2  27:11 33:4 38:13 122:3  122:9 134:8 140:21 152:2  182:13 185:3 198:7  200:21 214:11 215:21  216:21 218:17 226:25  227:1 234:5 237:14  249:15,21 250:22 251:12  257:18 258:3 267:23  268:19  <b>marginal</b> [1] 38:12  <b>marine</b> [26] 22:11 23:22  37:17 90:22 126:18 144:5  144:14 149:12 150:1,8  152:6 203:13,16 204:5  205:24,25 206:20 211:19  212:1 223:13 256:13  259:6 263:17 264:18,21  265:15  <b>marked</b> [4] 18:12 41:4  186:3,4  <b>market</b> [5] 44:15 58:7,9  58:11,19  <b>markets</b> [1] 49:7  <b>marrying</b> [1] 210:23  <b>Marshall</b> [1] 216:3  <b>material</b> [2] 245:16  269:11  <b>materials</b> [1] 234:23  <b>matrix</b> [9] 97:7 109:23  110:5,6,9 112:20,22  154:4 155:12  <b>matter</b> [15] 3:1,18,19  4:17 9:8,18 68:1 95:11  102:23 120:1 121:4 126:6  156:15 190:21 204:7  <b>matters</b> [6] 2:3,10 4:9  4:11 5:2,22  <b>mature</b> [1] 4:21  <b>maturity</b> [1] 197:15  <b>maximum</b> [6] 54:7  172:11 230:17 251:5  266:23,25  <b>may</b> [56] 1:19 9:9 10:1  14:22 30:21 31:9 36:19  38:13 63:21 74:22 83:17  83:17 84:25 91:19 97:25  106:4,6 108:7,24 109:16  113:3 129:7 137:17 142:5  153:4 157:23 167:24  178:13,13 183:11 185:19  188:2 190:4 193:12,22  198:22,22 211:13 214:15  223:8 228:25 231:8  233:14 234:21 235:14  237:5,9 239:19 242:2,3  242:25 244:4,5 247:20  254:15 259:17  <b>McQuire</b> [1] 268:7  <b>mean</b> [19] 7:3 39:9 46:3  53:22 168:17 170:7 171:9  172:1 173:5 178:16  183:20 190:17 197:12  199:7 223:10 227:10</p>	<p>252:2 253:4 262:23  <b>means</b> [26] 6:11 16:9  49:12 56:24 92:7 96:19  96:21,22 97:1 108:9  109:3 111:20 117:2  132:24 135:6 152:19  156:1 160:5,25 162:7  170:7 173:14 179:23  223:12 253:25 271:7  <b>meant</b> [3] 177:22 205:9  205:12  <b>measure</b> [4] 84:2,4 95:20  115:9  <b>measured</b> [6] 66:11  240:21 254:2,5,12 255:2  <b>measurement</b> [2]  101:10,12  <b>measures</b> [4] 98:3 103:2  109:16 198:25  <b>measuring</b> [2] 97:4,5  <b>mechanic</b> [1] 104:12  <b>mechanical</b> [2] 25:24  26:9  <b>mechanics</b> [1] 179:8  <b>mechanism</b> [1] 48:6  <b>media</b> [1] 30:25  <b>medical</b> [25] 152:24  179:21 180:5 219:15,17  220:8 228:25 229:1,2,5  229:18,19,21,25,25 230:5  231:3,6,10,24 232:11,13  236:13 259:17,21  <b>medically</b> [4] 229:7  231:15,18 232:7  <b>medications</b> [3] 240:21  241:1,4  <b>medivac</b> [1] 231:9  <b>medivacs</b> [1] 184:13  <b>meet</b> [15] 9:12 18:7 61:24  63:2 66:8 69:11,13 72:9  72:11 152:8 166:4 203:11  208:1 211:15 229:16  <b>meeting</b> [25] 2:5 10:7  84:5 130:8,8,11,16,18  131:8,10,12,19 132:12  132:13,15,16 135:5  136:13,16,17,20 137:2,9  269:5,23  <b>meetings</b> [22] 119:11,13  121:17,18,20 128:23,25  131:14 132:4,24 135:9  136:4,7,8,10,25 137:20  138:6,8,10 209:17 213:16  <b>member</b> [5] 27:8 126:23  128:10 136:15 244:17  <b>members</b> [10] 1:4 5:8  20:3 93:8 123:3 128:21  129:3,25 132:22 210:14  <b>membership</b> [1] 118:22  <b>Memorial</b> [2] 11:10 25:1  <b>mention</b> [3] 41:13 64:16  124:6  <b>mentioned</b> [17] 31:16  34:9 38:9,24 44:10 54:25  84:10,21 90:7 122:13  134:13 163:8 192:25</p>	<p>193:19 221:16 230:3  252:15  <b>merchant</b> [4] 21:16  247:20 248:15 267:21  <b>mesh</b> [1] 139:22  <b>message</b> [2] 261:7,12  <b>met</b> [2] 187:17 263:13  <b>metal</b> [1] 241:8  <b>meteorologist</b> [1]  148:18  <b>meteorologists</b> [1]  148:16  <b>meteorology</b> [1] 147:24  <b>method</b> [1] 98:3  <b>metre</b> [4] 219:14,15,17  219:17  <b>metres</b> [7] 35:18 42:16  43:5,7,13 44:5 47:20  <b>Mexico</b> [1] 29:16  <b>mid</b> [3] 188:22 197:1  202:10  <b>might</b> [25] 7:5 8:20 9:13  15:9 64:4 72:21 87:25  92:9 101:5 103:10,13,21  104:11,12,21 105:18  129:19,20 184:6 185:15  188:9 206:5 227:19  228:12 262:17  <b>miles</b> [1] 262:1  <b>military</b> [1] 220:3  <b>million</b> [4] 43:16 44:9  50:10 266:4  <b>mind</b> [3] 37:2 126:3  157:5  <b>minds</b> [1] 5:7  <b>mingles</b> [1] 130:3  <b>minimize</b> [1] 176:25  <b>minimum</b> [2] 77:18  197:21  <b>Minister</b> [1] 263:8  <b>minor</b> [2] 229:1 269:3  <b>minus</b> [2] 35:19,21  <b>minute</b> [2] 170:15 266:23  <b>minutes</b> [10] 72:25  128:25 131:8,18,23,24  132:3 249:23,25 250:3  <b>mission</b> [8] 254:7,23  257:17 258:12,14 262:1  265:19 266:18  <b>missions</b> [5] 251:19,19  258:19,21 263:20  <b>mitigate</b> [6] 96:14  102:20 105:15,17 109:2  156:3  <b>mitigated</b> [1] 134:20  <b>mitigating</b> [2] 95:19  175:4  <b>mitigation</b> [7] 102:22  103:2 107:4 110:1 135:7  220:9,14  <b>mitigations</b> [18] 95:21  96:14 100:8,24 102:16  103:7 106:11,24 109:20  109:25 110:4 111:3,5,20</p>	<p>132:25 136:3 159:7 246:9  <b>mixture</b> [1] 48:9  <b>mobile</b> [4] 47:12 48:4  56:9 176:16  <b>mobilized</b> [2] 259:16  268:1  <b>mode</b> [1] 254:12  <b>model</b> [5] 93:16 113:12  113:25 192:19 199:22  <b>models</b> [1] 192:18  <b>moderate</b> [1] 166:20  <b>modifications</b> [1] 4:24  <b>MODU</b> [5] 47:6,9,10  56:10 88:1  <b>module</b> [1] 43:24  <b>MODUS</b> [1] 176:15  <b>moment</b> [4] 10:14  144:15 254:1 261:18  <b>Monday</b> [1] 266:21  <b>money</b> [1] 190:20  <b>monitor</b> [7] 84:21 85:2  107:24 115:9 159:10  178:20 236:8  <b>monitoring</b> [15] 80:3,3  85:4,21 89:8 97:5,5  150:5 169:8 177:19 178:1  178:14 197:8 229:15,17  <b>monitors</b> [2] 178:6  237:17  <b>month</b> [7] 14:4 79:4,4  135:20 170:8 230:23,25  <b>months</b> [5] 23:17 75:10  75:11 147:21 239:3  <b>morning</b> [20] 1:3,4,21  1:23 10:6 72:22 157:7  158:24 161:22,24 164:24  167:6 172:4 175:12  185:16 201:16,21 250:18  269:1,13  <b>mornings</b> [1] 6:9  <b>Mosbacher</b> [1] 46:23  <b>Moss</b> [1] 271:13  <b>most</b> [20] 13:8,25 36:10  49:4 59:8,11,12,14 117:9  133:24 142:6 149:23  167:25 168:11,16 180:20  194:21 199:23 213:21  214:1  <b>motion</b> [1] 199:24  <b>motivated</b> [1] 97:15  <b>mounted</b> [4] 166:22  167:16,19,20  <b>mounting</b> [1] 163:12  <b>move</b> [25] 6:10 11:11  39:16 53:18,24 69:17  91:13 93:14 96:3,7 98:18  111:14 114:23 118:10  126:13 165:19 178:24  201:8 245:21,22 252:20  257:1 260:12,19 269:13  <b>moved</b> [8] 25:15,18 28:6  28:11,15 29:3,5 252:15  <b>movement</b> [3] 96:5  117:4 147:9  <b>moves</b> [1] 25:13</p>
---	--	---	---	---

<p><b>moving</b> [7] 14:6 91:11 93:13 114:7,25 129:17 257:7</p> <p><b>MRSC</b> [1] 264:19</p> <p><b>Ms</b> [2] 6:15 8:12</p> <p><b>MS2000</b> [1] 202:6</p> <p><b>muffs</b> [2] 242:13 244:14</p> <p><b>multidisciplinary</b> [2] 187:11 189:19</p> <p><b>multiple</b> [6] 80:4 116:3 157:13,17 166:19 256:3</p> <p><b>Murphy</b> [2] 42:13 46:22</p> <p><b>must</b> [28] 77:6 78:17 89:1 93:10 99:7 139:14,17 151:4 162:19 166:4,11 166:12,24 167:4,13 168:1 168:3,24 169:15,18 172:9 199:9 223:4 232:24 235:4 241:14 242:11 244:7</p> <p><b>Mustang</b> [4] 202:6,12 202:14 213:23</p> <p><b>musts</b> [1] 167:8</p> <p><b>mutual</b> [5] 80:11,13,15 150:9 184:17</p> <p><b>myriad</b> [1] 117:1</p>	<p>156:13 158:18 172:10 211:15 223:18 231:2 241:4</p> <p><b>nets</b> [1] 38:20</p> <p><b>never</b> [3] 20:6 83:4 222:4</p> <p><b>nevertheless</b> [1] 158:25</p> <p><b>new</b> [40] 12:4 51:12,12 51:14 68:22,22 69:1,12 69:13 73:21 109:16 110:16 115:11 116:23 122:24 126:21,23 128:8 128:9 130:17 131:11 137:16 171:5 181:22 192:19 193:3 197:24 208:21 209:6,13 211:18 211:24 213:5,20,25 214:12 220:11 239:6 241:19,19</p> <p><b>newer</b> [2] 197:5,6</p> <p><b>Newfoundland</b> [34] 20:1 24:25 25:13 30:10 31:23 32:15 33:17 35:13 39:25 40:11 41:1 42:5 44:16 55:13,20 58:20 59:7 61:3 63:9 70:6 110:17 123:23 124:2,12 173:7 175:10 187:17 196:16 217:21 219:10,23 223:13 228:23 271:6</p> <p><b>Newfoundlander</b> [1] 26:20</p> <p><b>Newfoundlanders</b> [1] 27:3</p> <p><b>newly</b> [1] 28:13</p> <p><b>news</b> [2] 137:15 232:16</p> <p><b>next</b> [48] 8:10 9:25 10:8 10:13 12:20,21 18:18 22:25 25:17 31:19 36:12 44:23 46:10 54:21 56:8 56:10 59:3,14 69:12 73:4 76:4 81:8 86:2 102:15 108:19 109:22 131:25 165:7 166:8 168:22 175:5 179:20 186:10 197:17,18 197:20 201:9,12 203:18 218:2,9 221:25 236:18 238:23 251:3 259:1 266:19 268:11</p> <p><b>nice</b> [1] 202:1</p> <p><b>night</b> [7] 169:3 173:3,9 173:10,16,16 175:7</p> <p><b>nimbleness</b> [1] 4:23</p> <p><b>nine</b> [1] 168:13</p> <p><b>NL</b> [1] 271:9</p> <p><b>NLOPB</b> [3] 73:8 151:4 255:18</p> <p><b>Noble</b> [1] 146:1</p> <p><b>non</b> [3] 63:22 64:16 259:17</p> <p><b>none</b> [4] 145:12 171:4 183:22 238:10</p> <p><b>nonetheless</b> [1] 96:7</p> <p><b>normal</b> [4] 50:15 164:18 187:20 258:1</p> <p><b>normally</b> [14] 74:16 85:6 107:13 163:7 169:1,13 170:5,6,24 238:21 243:24</p>	<p>244:12 261:5,6</p> <p><b>Norsk</b> [1] 25:22</p> <p><b>North</b> [11] 23:4,7 24:7 29:16 37:5,6,8,11 51:11 70:20 233:11</p> <p><b>northern</b> [2] 37:11 51:21</p> <p><b>Norway</b> [1] 25:24</p> <p><b>note</b> [5] 2:13 63:20 90:21 147:18 216:7</p> <p><b>noted</b> [6] 57:13 114:6 189:12 196:18 233:9 257:15</p> <p><b>nothing</b> [3] 20:13 70:24 238:8</p> <p><b>notice</b> [1] 244:21</p> <p><b>notification</b> [2] 259:8 259:11</p> <p><b>notified</b> [2] 255:3 259:20</p> <p><b>notify</b> [1] 237:18</p> <p><b>Notwithstanding</b> [1] 143:13</p> <p><b>Nova</b> [39] 18:22 24:23 25:8,11 26:9,11,16,19 29:17 34:6,24 39:12 40:2 46:11,14,14 47:4,5,20 49:4,14 50:12,18 51:23 53:16 54:3,13 86:14 151:16 158:1 160:22 180:13 184:7 186:5 189:8 189:24 197:17 217:8,14</p> <p><b>November</b> [4] 42:17 55:16 211:24 212:4</p> <p><b>now</b> [100] 1:4,14,16,19 2:12,19,25 4:5,6 9:3 10:15 11:11 12:2,5,19 14:6 15:18 17:11 21:11 21:22 23:20 24:5,17 25:5 25:23 35:1,12 41:16 44:23 45:23 46:6,18 47:9 51:10 69:19,21 83:23 85:9 89:11 91:11 93:22 99:13 100:12,15,21 101:13 103:11 107:22 113:13 116:16 118:10 120:4 130:8 138:19 141:23 145:9 150:10 153:18 154:24 164:18 165:4 173:7 181:22 182:7 188:7 190:21 191:12 192:20 200:7 201:8 202:14 209:16 213:2,12 214:3 217:24 222:3 223:15 241:22 245:7,21 245:22 246:25 247:1 250:14,15,17,19 251:9 251:20 252:4,20 254:12 256:20 260:12 266:1 267:10,12 269:4,17</p> <p><b>nowhere</b> [2] 2:15 253:1</p> <p><b>NTL</b> [1] 58:8</p> <p><b>number</b> [37] 2:3 10:11 15:4 16:7,19 23:7 25:12 27:4 28:4 29:1 33:12 57:14 58:4 68:12 75:20 81:19 116:3 135:5 138:23 144:2 150:17 154:5 170:11 174:21 175:10 186:3,4 193:4,13 198:25</p>	<p>201:17 205:2 213:24 228:9 248:17 251:25 263:11</p> <p><b>numbers</b> [3] 105:5 126:20 175:16</p> <p><b>numerous</b> [3] 27:5 65:11 233:25</p> <p><b>nurse</b> [3] 231:5 240:23 240:25</p> <hr/> <p style="text-align: center;"><b>-O-</b></p> <hr/> <p><b>o'clock</b> [3] 153:20 173:20 182:2</p> <p><b>object</b> [1] 155:15</p> <p><b>objective</b> [4] 8:6 110:22 221:10 223:24</p> <p><b>objectives</b> [5] 78:23 174:9,10 221:21 229:5</p> <p><b>objects</b> [1] 155:19</p> <p><b>obligations</b> [1] 34:4</p> <p><b>obliged</b> [1] 263:5</p> <p><b>observation</b> [6] 108:6 108:17 144:7,18 146:10 146:21</p> <p><b>observations</b> [1] 108:10</p> <p><b>observers</b> [3] 123:7 147:11,19</p> <p><b>obtain</b> [2] 33:18 64:11</p> <p><b>obtained</b> [2] 48:8 209:11</p> <p><b>obtaining</b> [1] 75:25</p> <p><b>obviously</b> [5] 11:19 29:17 100:11 113:15 173:11</p> <p><b>occasion</b> [2] 106:19 170:14</p> <p><b>occasional</b> [2] 155:14 155:19</p> <p><b>occasionally</b> [1] 58:18</p> <p><b>occasions</b> [3] 141:25 155:17 267:7</p> <p><b>occupational</b> [12] 65:19 66:2 90:23 120:9,17 123:17 124:13 125:15 129:2,13 229:14 259:18</p> <p><b>occur</b> [7] 86:19 96:2 138:4,7 155:16 223:8 246:19</p> <p><b>occurred</b> [4] 86:20 134:10 158:23 238:6</p> <p><b>occurrence</b> [1] 229:10</p> <p><b>occurring</b> [2] 113:5 259:8</p> <p><b>occurs</b> [4] 61:10 114:4 138:5 262:2</p> <p><b>ocean</b> [3] 42:24 43:2 266:8</p> <p><b>October</b> [3] 29:12 213:10 218:17</p> <p><b>odd</b> [1] 26:22</p> <p><b>off</b> [11] 27:9 28:25 37:16 52:17 53:5 144:4 151:6 161:12 176:1 235:18 262:1</p> <p><b>offence</b> [2] 64:19,24</p>	<p><b>offense</b> [1] 64:17</p> <p><b>offer</b> [3] 19:9 200:10 217:9</p> <p><b>offered</b> [1] 268:3</p> <p><b>office</b> [1] 43:14</p> <p><b>officer</b> [8] 77:2 157:21 158:3,21 162:20 165:24 235:1,8</p> <p><b>officers</b> [2] 98:8 163:7</p> <p><b>offload</b> [4] 53:12,12,14 57:9</p> <p><b>offloaded</b> [2] 49:1,2</p> <p><b>offloading</b> [2] 21:24 46:25</p> <p><b>offshore</b> [191] 11:17,20 11:20 12:15 20:1,10,16 20:20,22 21:2,10 22:8,8 22:19,20 23:9,25 24:1,4 24:4,7 25:7,8,10,19,25 26:8 27:1,4,7,16 28:22 28:24 29:2,8,15,18,22 31:23 32:2,20 33:19 35:12 36:24 39:25 40:7 40:9,11 42:5,15 44:13 47:12 49:13 56:9,25 59:17 61:3 63:14 68:22 70:12,16 71:11 78:2 79:14 83:16 84:12 86:11 86:11 87:11 91:18 106:6 106:13,17,21 107:10 110:16,17 120:2,3,9,11 121:3,5 123:23 124:3,23 124:24 125:5 127:1,11 127:24 131:11 133:21 134:25 137:1 138:7 139:17 141:20 144:5 147:4,16 150:3,21,24 151:25 153:6 154:20 156:14 162:18 164:13 172:9,10,15 173:21 174:16 175:2 176:16 179:12 180:5,12 186:22 189:2 194:22 196:1,8,9 196:16 199:17 204:17 211:23 212:24 213:13,17 215:13 218:18 222:1 225:14,16 226:15,22,22 227:16,20,23 228:10,22 229:4,6,11,18,21,23,25 231:10,15 232:8,22 233:4 233:6,8,12,24,24 234:17 235:3,8,21 236:10,15,16 237:9,11,12,14 238:25 239:5,25 240:23 241:2 242:24 243:1,19 244:22 245:5 246:19 249:3 254:17 256:23 257:14 258:12 259:8</p> <p><b>often</b> [11] 33:22 70:21 72:6 135:18 143:2 155:16 209:16 210:21 233:20,21 238:12</p> <p><b>oil</b> [44] 10:25 11:9,12 13:13 14:3 16:17 19:4 20:17 21:14,18 22:1,4 22:11,18 24:10,23 25:17 26:10 27:24 36:5 42:12 42:14,17,19 43:20 44:14 45:10 46:18 48:9,12,15 48:25 49:4 50:10 51:19</p>
---	---	--	--	---

<p>53:15 55:5 71:24,25 91:1 165:11 213:24 223:24 268:14 <b>oilfield</b> [1] 40:3 <b>oilfields</b> [1] 40:16 <b>Oilwell</b> [1] 226:17 <b>OIM</b> [2] 135:11 254:17 <b>old</b> [2] 212:11 232:19 <b>older</b> [3] 197:9 199:1 232:13 <b>OLF</b> [1] 233:11 <b>once</b> [26] 48:11 95:11 100:8 101:1 103:19 104:1 109:12 112:20 113:11 114:14 116:8 128:24,24 135:19,19,19,20,25 170:7 170:8,8 220:15 221:4 232:21 244:7 258:12 <b>one</b> [144] 4:20 6:3 7:24 15:11 16:1,9 19:13 20:12 21:21,24 23:4,10 25:22 26:1,7,12 28:9 31:12 34:24 35:2,21 36:1,6,9 36:17 37:8 40:18 44:6 45:11,14,17 46:4 52:13 58:18 59:8,18 63:10 76:5 76:19 81:3,4 82:1 99:16 100:10 102:2 105:10 107:14 112:13 117:18 122:13 124:14 125:6,20 126:1,25 127:1,12,17,23 130:5 132:11 133:19 137:7,8 139:8 144:8 145:5 147:12 151:19 154:2 158:23 163:11 174:3 176:21 177:19 178:17,18 180:8,24 181:3 181:19,21,24,24 183:16 183:24 184:1,22 185:2,3 185:11,15,23,24 186:3 187:6 188:15 190:11 193:16 194:6,7 196:1 198:4 204:12 206:16,20 207:16 209:22,24 212:22 212:24 215:5,6,19 217:7 217:16 219:14,14,16,17 224:3 230:4,23,25 237:15 239:7 240:14 243:4 249:8 250:1,4,8,16 251:5 253:9 253:12 254:12 255:1 256:3 261:4 262:6 264:21 267:2,6 <b>one-day</b> [1] 233:4 <b>one-hour</b> [5] 253:2,6,21 253:25 267:3 <b>one-third</b> [1] 160:23 <b>one-year</b> [2] 69:7 233:6 <b>ones</b> [5] 21:25 38:23 117:11 123:6,9 <b>ongoing</b> [3] 143:5 150:15 186:9 <b>onshore</b> [18] 26:13 27:1 28:9 29:3 40:7 106:5,15 106:20 120:2,4 127:9 134:25 135:15 136:24 138:7 150:22 154:15 156:12 <b>onshore/offshore</b> [1] 138:10</p>	<p><b>onto</b> [6] 16:8 39:22 48:10 59:1 212:14 215:23 <b>open</b> [3] 116:25 117:3 135:3 <b>opening</b> [4] 1:8 10:12 41:14 116:12 <b>opens</b> [1] 116:14 <b>operate</b> [13] 11:22 12:13 32:5 36:9 40:19 45:14 51:18 79:23 153:6,8 216:8 250:15 267:15 <b>operated</b> [7] 34:10,24 35:2 42:6 89:5 97:15 151:14 <b>operates</b> [3] 51:24 57:14 180:22 <b>operating</b> [19] 32:1 34:5 34:7 35:22 36:14 38:15 38:25 59:24 63:15,21 70:6 92:25 158:15 165:22 172:5 174:8 190:13 193:14 194:22 <b>operation</b> [14] 60:10 73:9 95:5 106:4 108:12 129:12 150:11 162:3 176:23 179:5 182:25 263:20,24 265:17 <b>operational</b> [10] 82:3 95:12 97:23 174:10 184:22 185:19 204:3 219:12 249:2,9 <b>operationally</b> [2] 127:17 185:1 <b>operations</b> [74] 16:18 17:1 18:20 19:25 20:17 23:16,19,22,23 26:14,15 29:8 30:12 32:15 33:2,7 35:15 50:15 54:24 57:4 57:18 59:22 61:2,6,7 62:15 64:9 65:21 66:6 70:5 72:6 74:12,13,16 79:13,15,18 80:5 83:24 93:2,4 95:1 97:20 118:21 121:25 144:10 145:25 149:8 150:1 156:8 158:6 159:11 160:10,13 164:19 165:5,8,11,13,20 166:1 166:3,9,11 176:19 184:10 191:15 192:25 225:11 234:14 250:17 259:6 268:18,25 <b>operator</b> [34] 16:12 38:16 46:20 59:17 71:24 74:15 77:4,6 139:16,18 141:4,8 142:8,10 145:1 154:22 158:2,11 167:23 175:7 180:25 181:22 187:22,23 188:2 189:6 236:8 237:11,18,21 245:23 257:5,7 261:5 <b>operator's</b> [8] 32:21 78:20 83:19 97:25 108:8 108:9 142:3 247:19 <b>operators</b> [93] 4:7,12 10:25 11:9,18,21,23 12:17 19:5,24 23:9 31:22 32:8,12 33:3,16 38:10 38:16 57:16 59:7 61:11 61:24 63:5 68:25 70:5</p>	<p>77:15 78:2 80:11,16 81:4 91:19 121:19 125:18 140:8 141:14,15 142:4 143:14 144:3 145:8,11 145:13 150:7,14 152:4,8 165:16,18 166:4,6 171:4 174:8,20 179:1 180:10 180:22 181:1 182:25 184:3,16 186:15 187:2 191:6,7,13 196:14 202:5 202:11 204:4 211:16 217:21 218:23 219:23 225:9,13 226:16 227:10 229:17 236:3,10 240:13 243:2 245:25 249:1 253:15 256:22 257:1,12 262:7 267:12 268:1,3,10 <b>opinion</b> [5] 30:22 163:21 164:11,16 225:23 <b>OPITO</b> [1] 233:10 <b>opportune</b> [1] 257:20 <b>opportunities</b> [1] 13:22 <b>opportunity</b> [2] 3:13 3:21,22 5:13 6:13 7:11 9:23 15:23 18:7 21:3 28:21 58:16 68:20 84:9 108:11 211:1,5 228:2,4 257:16 262:25 <b>opposed</b> [6] 38:23 53:4 175:20 212:11 214:25 217:18 <b>opposite</b> [1] 41:10 <b>option</b> [1] 162:15 <b>options</b> [2] 191:7 195:25 <b>orange</b> [1] 260:24 <b>order</b> [9] 45:19 65:16 95:15 166:5 180:20 197:22 223:4 227:22 237:20 <b>ordinary</b> [1] 168:12 <b>organization</b> [6] 4:13 70:25 104:22 118:19 129:3 133:4 <b>organizational</b> [2] 79:19 246:14 <b>organizations</b> [1] 90:12 <b>orientate</b> [1] 54:5 <b>orientated</b> [1] 52:15 <b>orientation</b> [2] 134:21 135:2 <b>orientations</b> [1] 134:17 <b>oriented</b> [2] 69:14 118:1 <b>original</b> [2] 51:7 247:14 <b>originally</b> [2] 17:10 50:12 <b>OSH</b> [2] 81:14 123:23 <b>otherwise</b> [1] 147:8 <b>ourselves</b> [6] 3:24 21:12 27:14 40:15 70:20 250:19 <b>outage</b> [1] 50:14 <b>outbound</b> [1] 250:4 <b>outdated</b> [4] 176:10,12 176:14,14 <b>outdoors</b> [1] 24:13 <b>outline</b> [3] 30:17 201:17</p>	<p>256:17 <b>outlined</b> [2] 189:11 266:3 <b>outlines</b> [3] 61:1 226:20 226:23 <b>outward</b> [1] 249:24 <b>overall</b> [8] 78:18 196:2 196:12 219:1 223:16 246:17 263:19 264:25 <b>overboard</b> [1] 48:16 <b>overhang</b> [1] 53:1 <b>overhead</b> [1] 265:23 <b>overnight</b> [1] 18:9 <b>oversight</b> [1] 59:25 <b>overview</b> [3] 31:24 35:12 201:22 <b>own</b> [23] 5:18 13:14,15 13:15 36:1 50:9 85:2 112:23 127:9,10 128:9 131:14 139:13 143:10 144:20 146:15,19 148:18 174:23 215:3 233:14 245:18 268:11 <b>owned</b> [1] 34:13 <b>ownership</b> [1] 33:25 <b>owns</b> [1] 145:24 <hr/><b>-P-</b><hr/><b>P</b> [1] 17:10 <b>P-116</b> [1] 17:16 <b>P-117</b> [1] 17:17 <b>p.m</b> [2] 266:22 270:3 <b>pack</b> [1] 168:23 <b>package</b> [2] 213:13 214:19 <b>page</b> [1] 178:24 <b>pages</b> [2] 18:3 73:5 <b>PAL</b> [2] 257:18 258:4 <b>panel</b> [9] 1:4 12:23 13:24 16:13,25 17:16 44:22 108:8 210:13 <b>panellists</b> [2] 154:1 230:4 <b>panels</b> [2] 14:2 60:22 <b>parallel</b> [1] 211:19 <b>Parks</b> [1] 263:12 <b>parlance</b> [1] 168:12 <b>part</b> [52] 3:5 4:5 5:11 8:9 8:9,11 16:16 25:12 37:12 43:22 45:6 49:5,24 50:3 50:6 85:24 100:10 124:1 124:5 125:19 131:12 132:15,20 138:22 139:11 139:12 141:5 144:12 149:24 154:14,16,20 156:11 158:1 161:15 162:2 167:25 168:16 176:6 197:22 205:9,25 212:17 215:20 222:16 227:18 241:20 253:12 262:20 263:14 264:22 266:7 <b>partial</b> [1] 174:6 <b>participants</b> [1] 190:22</p>	<p><b>participate</b> [4] 132:21 132:23 183:6 189:21 <b>participates</b> [1] 118:17 <b>participating</b> [1] 33:21 <b>participation</b> [2] 32:9 118:11 <b>particles</b> [1] 198:22 <b>particular</b> [26] 11:15 20:8 22:9 34:3 36:6 39:23 45:6 54:5 58:22 98:24 100:25 101:7 102:3 104:3 121:6 123:1 144:25 146:23 150:16 157:8 194:3,4 199:22 249:18 252:8 255:24 <b>particularly</b> [6] 52:5,6 77:25 144:17 147:1 195:6 <b>parties</b> [9] 2:9,17 3:3 7:1 8:13 14:20 17:9 18:6 269:6 <b>partner</b> [2] 51:11 93:7 <b>partners</b> [4] 33:23 34:14 46:20 51:10 <b>parts</b> [2] 16:11 179:25 <b>party</b> [3] 5:20 88:19 256:12 <b>pass</b> [3] 24:18 114:21 241:8 <b>passenger</b> [18] 70:7 81:17 82:13 153:1,3 166:21 171:13 179:10 196:3,4 201:14,18 202:25 203:11 223:3 242:20 244:13,23 <b>passengers</b> [17] 166:24 168:24 169:2,15,18 170:4 171:7 179:17 241:5 242:7 242:11 243:7,24 244:6 244:10,13 267:25 <b>passwords</b> [1] 3:4 <b>past</b> [10] 13:21 170:11,14 170:16 180:13 194:8 221:11,12 262:24 269:3 <b>pat</b> [1] 108:15 <b>path</b> [1] 41:11 <b>pattern</b> [1] 172:13 <b>Paul</b> [4] 18:15 19:2 27:21 118:24 <b>pay</b> [1] 15:7 <b>paying</b> [1] 214:25 <b>Peet</b> [1] 271:5 <b>penalized</b> [1] 180:25 <b>people</b> [9] 5:4 10:3 20:9 27:11 40:6,8 49:13 50:17 56:5,6,18 90:3 92:4 93:5 93:10,17,23 94:3,5,6,7 94:15,17 95:7 96:15,25 97:3,6,16,21 104:13 109:12 112:21,25 113:9 113:13,22 114:19 116:15 117:8,14,19,20 118:1,12 118:15 120:3,5 121:5 126:14 129:17,24 130:10 130:13,21 131:9,11,16 134:14 137:13,21 141:9 141:11 142:1 152:2 157:12 159:4,6 170:20</p>
---	--	--	--	--

<p>170:22 173:12 174:15 183:11,14 185:7 191:19 199:22 203:19 213:21 214:1 227:16,17,21 228:6 235:11 236:22,22 241:1 246:4 254:18 256:3</p> <p><b>people's</b> [4] 15:13 24:12 92:11 94:9</p> <p><b>per</b> [8] 24:1 29:22 35:17 83:14 113:14 204:12 232:10 252:25</p> <p><b>perceive</b> [1] 257:2</p> <p><b>percent</b> [9] 50:17 51:14 175:18,20 176:1,2 204:18 205:1 266:6</p> <p><b>percentage</b> [2] 34:1 175:11</p> <p><b>perfect</b> [1] 199:4</p> <p><b>perform</b> [8] 90:14 101:19 106:4 107:2,7 141:9 154:10 187:5</p> <p><b>performance</b> [5] 98:2 115:3 187:12 198:10 219:12</p> <p><b>performed</b> [2] 98:14 107:23</p> <p><b>perhaps</b> [32] 7:24 9:23 15:17 20:4 31:2 33:11 39:22 90:3 92:15 95:2 102:5 105:13 107:21 108:6,12 112:11 115:12 115:14,16 116:12,18,24 117:8 127:5 155:7 173:12 201:3 215:23 246:11 252:3 259:22 261:25</p> <p><b>period</b> [13] 7:12 12:8 55:15 69:8 73:11 74:20 74:24 189:1 199:18 215:19 218:24 233:6 242:5</p> <p><b>periodically</b> [3] 85:20 179:24 191:9</p> <p><b>periods</b> [2] 50:21 191:6</p> <p><b>permanent</b> [1] 267:6</p> <p><b>permit</b> [18] 82:15,16 98:23 99:25 100:14 104:4 104:7,13,16 106:22,24 107:21 108:3 135:12,23 135:25,25 154:21</p> <p><b>permit-to-work</b> [4] 99:17,23 107:24 108:2</p> <p><b>permitted</b> [2] 73:9 206:6</p> <p><b>persistent</b> [1] 108:21</p> <p><b>person</b> [20] 15:16 19:13 54:7 104:21 133:6 141:21 159:2,16 179:11 215:10 216:15 217:22 231:1,15 231:17,23 238:24 239:11 240:3 242:21</p> <p><b>personal</b> [13] 29:23 32:16 65:4 150:17 201:12 212:13 216:1,2 218:7 236:11 241:10 245:10,18</p> <p><b>personally</b> [3] 36:2 91:6 119:8</p> <p><b>personnel</b> [39] 29:1 32:13 40:12 43:21 50:21</p>	<p>57:8 60:4 71:13 78:21 83:21 152:15 179:7,8 204:25 205:4 213:18 214:13,23 216:6 218:18 222:23 225:10 226:13 229:3,7 234:18 236:15 236:20 237:2 240:17 241:9,15,16 242:1,14 243:22 244:2,15 251:2</p> <p><b>persons</b> [4] 46:4 105:24 105:24 147:13</p> <p><b>perspective</b> [7] 28:19 28:21 43:15 82:6 140:1 200:17 242:25</p> <p><b>pertain</b> [1] 4:25</p> <p><b>pertaining</b> [1] 73:12</p> <p><b>Petro</b> [13] 25:5 145:8 189:7,9,11,17,18,22,25 195:10,11,18 196:19</p> <p><b>PetroCanada</b> [2] 35:1 46:18</p> <p><b>petroleum</b> [14] 2:1 31:25 35:13 61:2 63:13 65:14 68:23 71:12,15 81:8,11 82:11,16 87:11</p> <p><b>phase</b> [9] 2:15 7:25 8:1 8:10,11,19 40:4 143:3 181:11</p> <p><b>Phillips</b> [1] 12:5</p> <p><b>philosophy</b> [1] 108:24</p> <p><b>phonetic</b> [1] 28:10</p> <p><b>photograph</b> [2] 52:19 52:20</p> <p><b>photographs</b> [1] 202:15</p> <p><b>phrase</b> [1] 91:20</p> <p><b>physical</b> [8] 68:16 80:2 114:8 115:1 155:6,21 170:17 268:4</p> <p><b>physically</b> [6] 105:6 114:23 155:4,15 159:13 249:10</p> <p><b>pick</b> [1] 198:21</p> <p><b>picks</b> [1] 124:8</p> <p><b>pickup</b> [1] 199:1</p> <p><b>picture</b> [4] 56:8,11 265:24 267:10</p> <p><b>piece</b> [9] 114:14 147:2 156:6 179:12 183:21 191:20 220:11 226:3 249:18</p> <p><b>pieces</b> [1] 118:9</p> <p><b>pigs</b> [1] 123:12</p> <p><b>Pike</b> [1] 165:23</p> <p><b>pilots</b> [9] 147:7 166:12 179:7 200:24 251:11,18 252:2,3 267:25</p> <p><b>pipe</b> [4] 96:11 155:14,21 156:6</p> <p><b>place</b> [36] 4:19 15:4,18 27:16 32:12 33:3 38:17 45:11 64:6 69:23 72:21 100:2 106:11,23 114:22 117:22,22 122:15,16,17 153:16 169:22,25 205:13 209:4 211:12 213:23 222:7 225:20 227:5</p>	<p>228:12 229:11 234:23 240:20 264:23 271:5</p> <p><b>places</b> [7] 27:5 56:25 72:8 111:3 165:25 173:5 255:9</p> <p><b>plan</b> [49] 68:13 69:3,4 76:2,5,10,15,23 77:3,4,7 77:11,18,19 78:15,16,17 78:24 79:12,15 80:7 84:8 85:2,3 91:1 93:20 104:15 109:18,20 111:25 154:18 211:12,17 212:4 213:11 213:19 218:15 220:10,14 246:6,13,16,17 247:9 250:24 253:6,8,16,20</p> <p><b>plane</b> [1] 265:21</p> <p><b>planned</b> [3] 104:14 124:19 141:4</p> <p><b>planning</b> [7] 80:1,8 98:2 172:1 201:19 212:17 252:22</p> <p><b>plans</b> [6] 13:16 79:2 84:3 238:20 246:13 247:8</p> <p><b>platform</b> [18] 26:1,4 28:16,20 29:19 42:14 43:11,12,15,23 44:8,22 145:25 151:20 233:9 244:25 245:13 267:24</p> <p><b>play</b> [4] 80:25 81:2 92:2 94:3</p> <p><b>players</b> [1] 92:23</p> <p><b>PLB</b> [5] 212:12 217:14 217:15 218:4 244:1</p> <p><b>PLBs</b> [4] 203:3 216:8 217:1,3</p> <p><b>pleased</b> [2] 25:10 268:6</p> <p><b>plot</b> [1] 110:22</p> <p><b>plotted</b> [1] 248:4</p> <p><b>plugs</b> [2] 242:13 244:14</p> <p><b>POB</b> [6] 46:6 54:7 204:19 204:23,23 230:18</p> <p><b>point</b> [28] 3:25 5:23 8:3 43:12 71:18 91:13 94:5 94:9 115:18 138:6 147:18 148:10 156:21 162:18 163:2,6 184:21 188:15 196:21 200:12,14,20 211:7 224:20 234:9 254:6 254:9 268:23</p> <p><b>points</b> [2] 31:10 199:1</p> <p><b>policeman</b> [1] 222:12</p> <p><b>policies</b> [5] 79:16 99:6,7 139:18 142:24</p> <p><b>policy</b> [9] 98:7,12,21,22 99:12,14,24 101:16 123:22</p> <p><b>polluting</b> [1] 89:5</p> <p><b>pollution</b> [1] 91:1</p> <p><b>Pond</b> [1] 172:18</p> <p><b>pool</b> [3] 180:22 182:15 196:20</p> <p><b>pooling</b> [9] 16:24 17:5 17:25 181:12 183:3,6,12 184:8 186:6</p> <p><b>port</b> [3] 52:17 53:2,6</p> <p><b>portion</b> [5] 89:19 149:13</p>	<p>149:25 171:17 174:2</p> <p><b>posed</b> [1] 77:9</p> <p><b>position</b> [8] 19:11 21:8 29:4,13 141:18 153:13 242:13 244:9</p> <p><b>positioned</b> [1] 242:22</p> <p><b>positioning</b> [1] 153:11</p> <p><b>positions</b> [2] 22:7 28:13</p> <p><b>possibility</b> [1] 65:1</p> <p><b>possible</b> [10] 26:24 31:5 65:4 88:2 110:25 169:4 173:4 229:9,10 237:6</p> <p><b>possibly</b> [2] 9:17 239:9</p> <p><b>post</b> [1] 268:19</p> <p><b>posted</b> [2] 68:24 213:17</p> <p><b>posture</b> [1] 249:7</p> <p><b>potential</b> [11] 96:1 103:1 113:10 114:2 170:25 172:6 174:14 187:3,4 209:7 246:8</p> <p><b>potentially</b> [7] 92:12 103:20 104:17 112:9 120:2 135:15 228:24</p> <p><b>pounds</b> [1] 241:19</p> <p><b>power</b> [2] 43:19 50:9</p> <p><b>PowerPoint</b> [2] 16:14 213:13</p> <p><b>practicable</b> [2] 30:7 169:9</p> <p><b>practical</b> [4] 108:24 109:15 183:18 258:9</p> <p><b>practically</b> [1] 173:5</p> <p><b>practice</b> [7] 71:12 100:12 100:13 166:16 226:12 236:7 237:1</p> <p><b>practices</b> [4] 93:3 101:17 108:2 142:24</p> <p><b>practises</b> [1] 119:22</p> <p><b>pre-qualification</b> [2] 143:3 187:2</p> <p><b>pre-set</b> [1] 184:2</p> <p><b>precise</b> [1] 248:4</p> <p><b>predictions</b> [1] 148:8</p> <p><b>predrilled</b> [1] 54:11</p> <p><b>predrills</b> [1] 54:13</p> <p><b>prefer</b> [1] 268:24</p> <p><b>preferences</b> [1] 199:19</p> <p><b>preferred</b> [3] 56:24 207:20 209:13</p> <p><b>preliminary</b> [1] 1:11</p> <p><b>premature</b> [1] 198:23</p> <p><b>preparation</b> [6] 19:4 22:25 121:2 154:14 189:7 191:1</p> <p><b>prepare</b> [3] 119:22 223:5 246:3</p> <p><b>prepared</b> [3] 6:10 238:2 239:21</p> <p><b>preparedness</b> [3] 32:21 245:23 246:1</p> <p><b>prescribe</b> [1] 124:21</p> <p><b>prescribed</b> [2] 259:7 267:11</p>	<p><b>present</b> [2] 5:10 162:23</p> <p><b>presentation</b> [20] 16:13 16:14,25 17:17 19:5,12 30:17 31:2,17 110:10 137:4,6 138:22 144:13 165:9 180:8 213:17 224:24 225:1 257:2</p> <p><b>presentations</b> [9] 4:7 12:22 44:23 60:20 79:3 127:6 186:19 247:2,15</p> <p><b>presenters</b> [1] 19:7</p> <p><b>presents</b> [1] 111:11</p> <p><b>preservation</b> [1] 256:14</p> <p><b>President</b> [3] 18:17 27:22 29:24</p> <p><b>pressure</b> [2] 48:22,25</p> <p><b>presume</b> [4] 2:7 157:13 212:22 233:18</p> <p><b>pretty</b> [3] 106:2 110:12 269:8</p> <p><b>prevailing</b> [3] 39:19 155:8 172:24</p> <p><b>prevalent</b> [2] 38:13 198:16</p> <p><b>prevent</b> [3] 92:5 156:18 229:10</p> <p><b>preview</b> [1] 16:3</p> <p><b>previous</b> [5] 113:8 132:12,15 135:14 200:5</p> <p><b>previously</b> [10] 22:2 34:9 59:18 61:8 93:16 98:17 153:2 196:5,19 252:18</p> <p><b>price</b> [3] 15:7,11,11</p> <p><b>pride</b> [1] 26:20</p> <p><b>primarily</b> [4] 78:1 142:25 149:22 150:25</p> <p><b>primary</b> [6] 49:12 158:8 179:23 191:14 231:13 265:3</p> <p><b>principally</b> [2] 15:5 263:18</p> <p><b>principle</b> [1] 158:10</p> <p><b>principles</b> [2] 92:20 102:13</p> <p><b>priority</b> [2] 126:4 184:11</p> <p><b>Pritchard</b> [159] 18:19 19:1,18,20,22 37:21 38:1 40:25 49:11 51:2,5 52:8 52:12,23 53:7,11,23 54:20 55:21 56:2 57:2 57:23 58:13,21 66:15,16 66:21 67:1,5,21 78:12 82:7 91:16,17 94:19,25 99:9,22 102:7 103:18 104:9,24 105:3 106:1 107:12 110:11,19 111:1 111:16 112:4,15,19 113:23 114:17 117:23 118:3 119:10,15,19 120:19 121:1,11 122:5 122:10,18 123:16 124:17 125:9,13,21 126:2,15 127:14,20 128:4,16,20 129:22 130:12,23 131:2 131:7,20 132:2,8,19 134:12 135:22 136:11</p>
--	---	--	--	---

<p>137:11,23 138:2,13,18 143:12,22 150:10 154:3 154:8 156:23 157:2,14 157:18 158:17 159:5,17 159:21 161:5,19 184:19 184:25 185:8,12,17 200:11 210:15 211:2 230:15 238:7 245:22,24 247:3,10,16 248:5,11,25 249:19 250:9,13 251:23 252:10,14 253:5,14,19 254:4,14,21 255:5,16 256:1,7,11,24 257:6,11 257:24 258:8 260:19 261:1,10,21 263:4 264:4 264:8,13,17 267:18</p> <p><b>privacy</b> [1] 15:14 <b>proactive</b> [1] 135:7 <b>probe</b> [1] 6:25 <b>problem</b> [4] 10:1,1 210:9 229:1 <b>problems</b> [2] 125:17 214:7 <b>procedure</b> [9] 98:24,25 99:13,17,23,25 158:19 199:10 259:9 <b>procedures</b> [13] 79:17 97:15 98:14,23 99:7 101:16 108:2 109:12 160:3 161:11,14 237:3 246:23 <b>proceed</b> [4] 2:14 133:16 195:13 256:8 <b>proceeding</b> [3] 3:1 4:6 5:25 <b>proceedings</b> [2] 9:24 10:6 <b>process</b> [61] 4:15 14:8 14:24 15:3 40:21 69:13 72:13 85:5 92:10 105:25 106:5 109:23 113:9,13 113:21 117:12 133:7,10 133:14 161:15 162:9,18 164:4,16 165:18 179:18 186:24 187:1,3,7 189:10 189:16,18,21 191:3 195:1 195:9 203:6 207:14 211:7 212:3 214:1 218:3,14 219:1,3,6,19 220:21 227:7 230:1 237:22 239:21 240:12,15 241:16 241:20 242:8 243:1,3 269:18 <b>processes</b> [18] 79:13 92:4 93:23 94:4,7,15,18 97:11,19 108:23 116:1 117:22 118:6,10 134:19 209:4,16 224:2 <b>processing</b> [1] 63:13 <b>produce</b> [3] 64:4 94:7 106:15 <b>produced</b> [5] 2:10 4:1 48:14 49:1 71:14 <b>Producers</b> [2] 2:1 71:15 <b>producing</b> [13] 19:25 28:10 29:8 31:23 32:3 40:2 46:15 48:6 54:25 92:21 141:16 186:23 196:8</p>	<p><b>product</b> [2] 21:19 48:8 <b>production</b> [32] 21:14 21:23 22:2,11 23:21 25:16,20 26:1,3,6,18 28:23 42:5 45:10 47:2 47:17 51:20 54:15,24 57:3 63:12 64:2 65:15 68:23 69:2 74:12 86:6 141:14,15 156:21 195:3 213:24 <b>products</b> [2] 22:4 48:12 <b>professional</b> [2] 30:1 36:3 <b>professionals</b> [2] 120:1 227:24 <b>profile</b> [1] 256:16 <b>program</b> [24] 12:3,6 41:21 55:1 56:16 68:14 74:22 75:3 76:9,15 81:17 85:20 90:7 108:18 123:22 144:13 182:1 195:3 222:16 223:22 232:24 233:2 234:7 237:17 <b>programs</b> [12] 55:3 61:4 68:16 79:16 89:9 117:11 129:5 140:10 152:4 188:21 211:17,20 <b>progress</b> [3] 92:8 93:12 269:9 <b>project</b> [25] 21:21 22:4,7 22:9,13,14,23 24:23 34:3 34:8,18,24 35:2,5 42:13 57:8 59:17,22 93:25 94:1 95:3 128:8 145:1 189:8 191:1 <b>project-related</b> [2] 57:5 57:6 <b>projectile</b> [1] 171:3 <b>projects</b> [2] 33:16 108:25 <b>prop</b> [1] 38:21 <b>proper</b> [4] 9:11 214:21 232:6 241:16 <b>properly</b> [7] 208:3,15 214:8 215:12 217:3 242:18 244:18 <b>property</b> [1] 246:5 <b>proposal</b> [2] 187:9,14 <b>proposition</b> [1] 3:11 <b>proprietary</b> [1] 14:17 <b>prosper</b> [1] 30:11 <b>protect</b> [3] 48:1 115:23 246:4 <b>protecting</b> [1] 48:6 <b>protection</b> [5] 47:22 51:17 69:4 197:9 209:2 <b>protective</b> [2] 32:16 201:13 <b>protocol</b> [3] 38:17 161:1 199:14 <b>protocols</b> [1] 234:11 <b>proven</b> [2] 169:8 177:18 <b>provide</b> [27] 4:2 22:18 31:20,24 88:16,22 109:3 139:4 147:5,13 149:12 151:7 152:5 166:8 179:4 180:6 206:24 208:7 221:4</p>	<p>222:18,24 223:3,6,16 229:13 231:6 239:19 <b>provided</b> [15] 2:3,5,19 2:23 3:2,13 9:4,6,8 59:24 164:11 165:14,24 231:10 262:11 <b>provider</b> [15] 11:2 140:20 142:8 145:4 146:13,18 148:3 165:15 186:12,25 187:5 188:18 189:24 190:7 229:22 <b>providers</b> [1] 148:14 <b>provides</b> [7] 32:2 70:17 88:19 180:2 218:11 226:13 233:5 <b>providing</b> [3] 63:4 169:6 188:11 <b>province</b> [1] 20:11 <b>provincial</b> [2] 123:19 124:3 <b>provision</b> [8] 146:23 147:15 149:9 150:8 166:15 179:2 187:20 263:6 <b>public</b> [12] 10:19 14:12 14:23 16:23,25 17:2,11 17:19,21,24 21:1 30:25 <b>publication</b> [4] 70:11 70:19 71:3 90:21 <b>pull</b> [2] 112:8 157:9 <b>Puma</b> [6] 191:14,24 196:18 223:15 224:7,9 <b>Pumas</b> [5] 192:17 196:5 196:22 197:13 199:24 <b>pump</b> [8] 104:3 105:5,6 105:12 115:11,16,19,25 <b>pumps</b> [8] 104:1 115:7,7 115:10,14,22,24 116:3 <b>purely</b> [1] 102:11 <b>purpose</b> [12] 13:20 34:17 88:21,24 89:4 96:17 97:10 194:4 222:18 231:14 240:25 258:15 <b>purpose-built</b> [3] 49:3 49:14 56:18 <b>purposes</b> [4] 16:21 89:17 151:25 156:10 <b>pursue</b> [1] 120:15 <b>put</b> [22] 4:19 6:17 7:6,18 7:20 10:12 33:2 43:15 84:25 106:23 114:22 122:17 195:18 211:12 214:14 225:25 235:13,13 242:15 243:20 253:15 260:20 <b>puts</b> [1] 244:16 <b>putting</b> [2] 117:21,22</p>	<p>43:25 44:17,25 45:5,9 46:1,9 47:8 48:17 50:23 51:3 52:4,10,18 53:3,9 53:21 54:16 55:18,24 56:21 57:20 58:10,24 60:7,17,23 61:12,19 62:1 62:8,13,18,22 63:6,24 64:13,18,23 65:3,8,24 66:14,19,24 67:3,8,12 67:18,23 68:4,9 69:15 69:24 70:23 71:4,8,16 71:23 72:14,20 73:2,14 73:24 74:5,9,18,25 75:4 75:8,14 76:8,13,18,24 77:21 78:8 79:1,9 80:12 80:19,23 81:23 82:10 83:1,5,10,22 84:16 85:8 85:12,16 86:1,25 87:7 87:12,18,22 88:9 89:10 89:16,22 90:1 91:4,10 91:14 94:13,23 99:1,20 101:25 103:14 104:6,19 105:1,22 107:8 110:8,15 110:21 111:9,23 112:10 112:17 113:19 114:11 117:17,25 119:7,12,17 120:13,24 121:9 122:1,8 122:12 123:5,11 124:11 125:2,11,16,23 126:7 127:4,16,25 128:12,18 129:9 130:7,19,25 131:4 131:17,22 132:5,17 133:18 134:1,6 135:17 136:9 137:5,19,25 138:9 138:16 139:20 140:11,18 140:24 141:10,19 142:14 142:20 143:8,19,24 144:11 145:18 146:3,8 146:14,20 147:10 148:1 148:6,11,17,22 149:3,14 151:2,17 152:18 153:15 153:24 161:18 164:22 165:3 167:2 168:2,9,19 169:10 170:2 171:8,15 171:20,24 172:21 173:2 173:23 175:8,19,23 176:3 176:11,24 177:5,10,14 178:3,11,22 180:16 181:5 181:20 182:6,12 183:2,8 184:23 185:5,10,14 186:1 186:13 188:6,17,23 189:3 190:2,23 191:18 192:1,5 192:10,14,22 193:18 194:10,17 198:3,18 200:8 200:22 201:7,24 202:13 202:21 203:17,24 204:10 204:22 205:3,8,14 206:3 206:10,14,19,23 207:3,7 207:11,15 208:2,6,11,18 209:15 210:2,6,19 211:8 212:20,25 214:2 215:2 215:22 216:13,22 217:5 218:5 219:25 221:2,9,19 222:2,11 223:9,23 224:6 224:13,18 225:2,19 226:4 226:9 227:3,12,25 228:11 228:18 230:2,12,19,24 231:12 232:15 233:17 234:8 235:6,19,25 236:19 237:25 238:14 239:1,10 239:16 240:1,8 241:21 243:8,15 245:6,20 246:24 247:6,12 248:2,9,23</p>	<p>249:12 250:5,11 251:17 252:6,12,19 253:11,17 253:24 254:8,19,24 255:7 255:21 256:5,9,19 257:4 257:9,21 258:6 260:18 261:3,16 262:16 263:2 264:1,6,10,15 267:13 268:20 269:20</p> <p><b>Qatar</b> [1] 28:12 <b>qualification</b> [4] 119:23 121:13 236:7 237:7 <b>qualifications</b> [13] 32:19 71:13 79:25 221:25 225:10,12,18,23 226:13 226:20 227:8 236:5 237:2 <b>qualified</b> [5] 147:24 187:5,6,9 241:14 <b>qualities</b> [1] 207:18 <b>quality</b> [5] 116:5,7,9 117:13 209:4 <b>quarter</b> [3] 59:4 190:1 220:25 <b>quarterly</b> [3] 83:14 86:18 121:18 <b>questioned</b> [2] 7:5 238:12 <b>questioning</b> [2] 4:14 9:15 <b>questions</b> [17] 2:9 3:14 4:12 5:13 7:5 8:6 9:9 10:3 19:8 51:1 157:5 178:23 198:2 201:23 237:19 238:15 239:24 <b>quite</b> [14] 3:17 5:2,5 57:14 70:19,21 72:6 116:9 143:2 154:13 155:22 215:17 220:14 238:12 <b>quote</b> [2] 78:15,24</p> <hr/> <p style="text-align: center;"><b>-R-</b></p> <p><b>radio</b> [2] 90:24,25 <b>rafts</b> [5] 166:22 167:16 167:19,20 251:8 <b>raise</b> [4] 5:1 104:11,13 217:20 <b>raised</b> [10] 24:25 28:18 104:4 132:14 136:23 154:21 200:20 210:12 211:6 268:19 <b>raises</b> [2] 104:7 162:10 <b>range</b> [6] 153:4,5 176:1 195:7 196:6,7 <b>rank</b> [1] 107:9 <b>ranks</b> [1] 21:19 <b>rate</b> [2] 18:11 269:9 <b>rather</b> [12] 8:9,10 13:21 20:23 52:2 105:16 224:2 249:22 250:20 251:21 259:11 262:4 <b>rationale</b> [3] 176:5,7 204:1 <b>rationalize</b> [1] 177:1 <b>RCMP</b> [1] 263:12 <b>re-submitted</b> [1] 77:12</p>
---	--	---	---	--

<p><b>reach</b> [1] 232:21  <b>reaches</b> [1] 98:10  <b>reactions</b> [1] 93:9  <b>read</b> [3] 31:13 144:4 184:15  <b>ready</b> [4] 1:5 154:7 201:8 228:19  <b>real</b> [5] 66:4 114:24 131:15 147:5 184:14  <b>reality</b> [1] 109:7  <b>realize</b> [1] 160:18  <b>realized</b> [1] 259:12  <b>really</b> [9] 9:8 12:21 38:22 72:2 79:5 93:18 118:6 198:5 261:22  <b>rear</b> [1] 53:4  <b>reason</b> [5] 158:21 170:23 197:11 198:8 239:12  <b>reasonable</b> [2] 30:7 109:17  <b>reasonably</b> [1] 175:4  <b>reasons</b> [6] 15:5 180:5 190:5 193:17 222:4 231:25  <b>reassess</b> [1] 112:8  <b>rebid</b> [1] 191:10  <b>rebreather</b> [1] 219:8  <b>receive</b> [6] 62:5 84:24 129:3 168:24 169:15 216:12  <b>received</b> [3] 4:4 16:6 69:21  <b>receivers</b> [1] 251:9  <b>receiving</b> [1] 72:18  <b>recent</b> [3] 121:21 170:15 171:3  <b>recently</b> [3] 7:17 133:24 262:11  <b>RECESS</b> [1] 153:21  <b>reclaim</b> [1] 45:21  <b>recognise</b> [1] 20:25  <b>recognize</b> [8] 20:20 25:23 100:14 111:4 117:7 143:14 159:7 205:17  <b>recognized</b> [7] 86:9 90:11 105:18 118:19 202:7 233:15 245:25  <b>recognizing</b> [1] 260:13  <b>recommendation</b> [5] 188:1,4 195:14 196:14 219:9  <b>recommendations</b> [4] 33:6 92:15 187:22 220:23  <b>recommended</b> [2] 189:23 209:12  <b>recommending</b> [1] 195:10  <b>record</b> [1] 196:13  <b>recording</b> [1] 101:9  <b>recordings</b> [2] 101:20 102:10  <b>records</b> [2] 236:5,12  <b>recovered</b> [1] 152:14</p>	<p><b>recovery</b> [8] 95:20 96:19 96:21,23 97:1 109:3 152:15,19  <b>recruitments</b> [1] 246:15  <b>recurrent</b> [1] 233:2  <b>red</b> [3] 40:17 110:24 266:3  <b>redacted</b> [3] 15:13,14 17:4  <b>redaction</b> [4] 14:8,25 14:25 15:4  <b>redactions</b> [1] 15:19  <b>reduce</b> [4] 94:2 97:13 108:23 109:9  <b>reduced</b> [3] 30:5 113:1 113:2  <b>reducing</b> [2] 20:23 109:9  <b>reduction</b> [1] 94:12  <b>redundancy</b> [1] 116:4  <b>reel</b> [1] 53:14  <b>refer</b> [6] 50:3,20 60:8 153:11 174:14 199:15  <b>reference</b> [6] 70:21 82:12 121:23 176:15 220:19 246:14  <b>referenced</b> [3] 81:15 166:2 195:17  <b>references</b> [8] 61:5 80:4 80:8 81:9,12,19 165:12 166:9  <b>referred</b> [7] 6:14,14,16 33:22 163:5 243:10,10  <b>refitted</b> [2] 241:14,20  <b>reflect</b> [3] 108:11 134:17 260:21  <b>reflection</b> [1] 112:12  <b>refocussed</b> [1] 234:5  <b>refresh</b> [1] 202:1  <b>refresher</b> [3] 116:17,20 116:24  <b>refuel</b> [3] 95:23 160:15 177:6  <b>refuelled</b> [2] 244:12,13  <b>refuelling</b> [5] 157:10,11 157:21 160:4 235:24  <b>refusals</b> [3] 161:25 162:5 163:9  <b>refuse</b> [7] 123:21 133:4 133:10 162:21 163:1 164:6 242:8  <b>refused</b> [1] 133:20  <b>refuses</b> [2] 162:10 242:5  <b>regarding</b> [5] 51:17 101:9 102:15 121:21 248:16  <b>Regardless</b> [1] 30:7  <b>regime</b> [2] 10:24 129:11  <b>regimes</b> [1] 61:10  <b>region</b> [5] 259:7 263:24 263:25 264:3 266:2  <b>regions</b> [4] 59:9 259:4 263:22 264:18  <b>Register</b> [3] 86:14 87:2 90:16</p>	<p><b>Registrar</b> [1] 18:1  <b>regular</b> [8] 23:12,24 27:9 50:19 115:10 116:6 119:13 228:10  <b>regulate</b> [1] 11:2  <b>regulated</b> [6] 59:9,11 59:12,14 62:4 204:19  <b>regulates</b> [2] 10:25 12:16  <b>regulation</b> [2] 67:16 124:22  <b>regulations</b> [38] 12:18 63:23 65:11,13,14,15,16 65:18,19,22 66:3,9,13 68:23 71:20 81:9,12,14 81:16,20 82:2,12,17,21 82:23 84:4,5,7,22 88:18 88:25 89:4 119:21 123:18 176:10 201:17 232:10 250:23  <b>regulator</b> [2] 187:23,25  <b>regulators</b> [2] 23:14 225:14  <b>regulatory</b> [15] 32:5 59:16 60:5 61:10,23 63:1 63:3 69:1 70:14 88:20 165:12 201:22 226:18 229:16 234:19  <b>reinject</b> [2] 48:13,21  <b>reinjection</b> [1] 51:22  <b>reissue</b> [1] 77:19  <b>relate</b> [1] 52:6  <b>related</b> [15] 4:24 32:17 44:21 61:5 63:11 68:15 70:4 76:6 78:23 121:12 126:17 134:8 165:12 220:12 234:14  <b>relates</b> [1] 149:25  <b>relating</b> [1] 237:21  <b>relation</b> [3] 30:23 40:19 134:2  <b>relationships</b> [1] 78:20  <b>relative</b> [3] 114:7,25 117:3  <b>relatively</b> [5] 40:18 47:19 115:15 116:11,23  <b>relevance</b> [1] 15:12  <b>relevant</b> [5] 10:4 15:15 15:16 242:2 244:4  <b>reliable</b> [2] 20:15 201:4  <b>relied</b> [1] 147:14  <b>remain</b> [5] 89:6 92:20 93:11 269:22,25  <b>remaining</b> [1] 181:4  <b>remains</b> [3] 12:7 86:23 88:24  <b>remarks</b> [1] 33:9  <b>remember</b> [2] 6:18 7:24  <b>Remembering</b> [1] 13:20  <b>remind</b> [3] 10:20 40:15 262:25  <b>reminded</b> [1] 154:9  <b>reminding</b> [1] 5:3  <b>remote</b> [3] 155:14,20</p>	<p>228:24  <b>removal</b> [2] 154:11,19  <b>remove</b> [2] 155:2 235:12  <b>render</b> [1] 265:10  <b>renewal</b> [2] 69:12 232:25  <b>renewed</b> [2] 74:16 232:25  <b>rental</b> [1] 15:8  <b>rep</b> [1] 162:16  <b>repatriation</b> [1] 259:22  <b>repatriations</b> [1] 261:13  <b>replace</b> [2] 202:12 204:16  <b>replaced</b> [1] 156:9  <b>replacement</b> [1] 203:10  <b>replete</b> [1] 31:4  <b>report</b> [8] 16:18 17:2 33:8 119:4 147:25 148:2 164:3 220:23  <b>reported</b> [2] 155:9 254:1  <b>reporting</b> [2] 68:14 69:5  <b>reports</b> [1] 138:15  <b>represent</b> [2] 21:13 24:17  <b>representation</b> [1] 128:1  <b>representative</b> [6] 24:16 126:8,12 215:14 237:12 242:16  <b>representatives</b> [10] 11:3 12:24 60:2,15 65:5 70:1 219:5 227:10 228:6 228:9  <b>represented</b> [4] 126:1 128:22,23 139:6  <b>represents</b> [4] 1:10 5:4 125:7 236:9  <b>request</b> [3] 81:5 254:5 255:6  <b>requested</b> [5] 2:20,22 72:19 136:5 145:16  <b>requesting</b> [1] 214:23  <b>require</b> [11] 20:16 56:5 56:6,17 75:18,21 76:22 81:3 152:4 183:21 201:17  <b>required</b> [33] 9:15 23:5 32:19 33:18 74:13 79:25 80:17 83:15,18 86:18 121:20 129:8 152:23 160:7 166:15 174:18 191:10 203:4,10 218:19 218:20 220:14 222:1 226:14,20 227:17 232:23 240:17,19 244:11 245:4 250:2 259:13  <b>requirement</b> [19] 72:15 72:17 80:2 82:9 101:11 150:2,5 189:15 190:6,10 203:3 204:17,19 209:5 248:19 250:1 253:3 254:6 259:13  <b>requirements</b> [35] 59:16 61:23,25 63:1,3 69:1 70:14 75:24 81:11,22 84:23 90:25 100:19,20</p>	<p>115:19 123:25 124:9 142:12 152:11 184:1 189:11 196:11 201:18 208:24 219:13,16 222:19 225:11,13,16 229:16 232:13 234:14 237:8 255:20  <b>requires</b> [6] 74:23 86:6 86:21 102:22 108:21 217:17  <b>requiring</b> [1] 259:23  <b>rescue</b> [21] 32:25 152:13 216:6 229:13 251:7 252:25 256:13,15 258:13 258:16,19 259:24 260:23 262:10,14 263:10,15,21 264:7,18 266:17  <b>reserve</b> [2] 169:4 176:4  <b>reserves</b> [1] 237:19  <b>reservoir</b> [2] 26:18 48:9  <b>resistance</b> [1] 213:9  <b>resistant</b> [1] 213:6  <b>resolve</b> [1] 162:12  <b>resolved</b> [2] 133:13 162:13  <b>resolving</b> [1] 136:24  <b>resource</b> [2] 259:14,21  <b>resources</b> [29] 57:10,15 80:17 81:6 145:21 148:24 246:7 247:18,19 258:17 258:23,25 260:3,5,7 265:3,6,16,22 266:10,13 266:16,20,25 267:3,16 267:19 268:4,5  <b>respect</b> [7] 12:14 46:11 53:19 122:23 198:9 249:17 268:4  <b>respecting</b> [4] 61:4 70:9 152:4 166:2  <b>respective</b> [10] 33:25 86:13 139:16 140:9 165:19 195:6,8 196:25 236:3 268:2  <b>respond</b> [1] 6:6  <b>responds</b> [1] 11:16  <b>response</b> [39] 7:10 8:24 83:19 152:12 166:14,16 174:24 180:6 183:25 246:6,13,15,20 247:8 249:4 251:19 252:15 254:15,16 257:14 258:3 258:9 259:9 260:1,8 261:5,6,13,19 262:9,14 264:22,25 266:11,20,21 268:2,6,11  <b>responsibilities</b> [8] 23:20 32:25 36:3 93:10 257:3 258:25 260:13 266:6  <b>responsibility</b> [16] 11:5 31:18 78:4 91:7,19,21 91:22 99:4 142:16,22,25 157:8 256:14,18 263:19 266:3  <b>responsible</b> [20] 22:10 22:20 23:3 29:24 60:3 60:13 73:4 78:1,6 89:19</p>
---	---	---	---	--



<p>98:5 119:5 139:21,23 142:10 235:23 236:4 251:18 259:5 263:23</p> <p><b>responsiveness</b> [1] 8:4</p> <p><b>rest</b> [2] 50:20 155:8</p> <p><b>restraints</b> [1] 166:21</p> <p><b>restrict</b> [1] 156:7</p> <p><b>result</b> [1] 164:9</p> <p><b>resume</b> [1] 184:9</p> <p><b>retrieving</b> [1] 152:17</p> <p><b>return</b> [3] 174:1 199:14 249:21</p> <p><b>returned</b> [4] 29:12 164:18 215:13 243:23</p> <p><b>returning</b> [2] 4:3 245:17</p> <p><b>revalidated</b> [1] 77:12</p> <p><b>review</b> [20] 32:18 100:7 100:8,9 107:3 132:12,14 138:15 154:24,25 156:2 159:12 189:19,21 195:24 220:19,22 221:17 225:16 231:8</p> <p><b>reviewed</b> [7] 100:9 105:14 155:11 156:12 162:22 188:4 219:11</p> <p><b>reviews</b> [5] 92:10,10 97:11 120:20 195:21</p> <p><b>revised</b> [3] 18:1 69:8 227:1</p> <p><b>revisit</b> [1] 191:8</p> <p><b>revoke</b> [1] 63:21</p> <p><b>revolve</b> [1] 54:2</p> <p><b>rid</b> [2] 174:18 184:10</p> <p><b>rig</b> [8] 40:10 45:15,17,20 45:22 55:10 73:21 145:4</p> <p><b>rig-share</b> [1] 145:10</p> <p><b>Rigging</b> [2] 120:21 121:13</p> <p><b>right</b> [46] 17:23 18:21 41:13,18 45:23 46:6 50:7 63:1,7 68:10 97:16 113:24 123:21 128:9 132:18,21,24 133:4,10 150:10 162:21 163:1 164:6 167:20 178:4 179:21 188:24 189:4 194:6 200:6 203:23 205:7 213:6 214:6 215:18 216:23 218:6 220:16 224:12 231:13 237:19 242:5,8 247:13 248:24 269:17</p> <p><b>right-hand</b> [2] 75:22 101:23</p> <p><b>rights</b> [2] 34:3 132:20</p> <p><b>rigs</b> [14] 43:18 44:7 45:2 45:2,14,16,17,25 55:19 56:22 145:24 146:1 150:12 193:13</p> <p><b>risk</b> [1] 136:21</p> <p><b>risk</b> [34] 20:24 30:5 77:9 79:21 92:17,18 94:2,2 94:12 97:13 102:19 106:16 108:19,20,23 109:9,22,24 110:6,9 111:6 112:7,20,22 113:1</p>	<p>154:4 155:12 159:1 161:7 164:10 220:10 222:24 223:1 229:13</p> <p><b>risks</b> [7] 20:21 100:3 110:23,23 133:14 219:11 220:13</p> <p><b>risky</b> [1] 112:2</p> <p><b>road</b> [1] 149:10</p> <p><b>Robbie</b> [1] 134:10</p> <p><b>robust</b> [1] 114:3</p> <p><b>Roil</b> [424] 1:4,6,15 6:4 6:11,12 10:10,18 18:13 19:3,19 24:21 30:18,19 31:16 33:10 34:15,21 35:4,9,24 36:16,20 38:6 39:2,15,21 40:13 41:2,7 41:12,19 42:1,21 43:3,8 43:25 44:17,25 45:5,9 46:1,9 47:8 48:17 50:23 51:3 52:4,10,18 53:3,9 53:21 54:16 55:18,24 56:21 57:20 58:10,24 60:7,17,23 61:12,19 62:1 62:8,13,18,22 63:6,24 64:13,18,23 65:3,8,24 66:14,19,24 67:3,8,12 67:18,23 68:4,9 69:15 69:24 70:23 71:4,8,16 71:23 72:14,20 73:2,14 73:24 74:5,9,18,25 75:4 75:8,14 76:8,13,18,24 77:21 78:8 79:1,9 80:12 80:19,23 81:23 82:10 83:1,5,10,22 84:16 85:8 85:12,16 86:1,25 87:7 87:12,18,22 88:9 89:10 89:16,22 90:1 91:4,10 91:14 94:13,23 99:1,20 101:25 103:14 104:6,19 105:1,22 107:8 110:8,15 110:21 111:9,23 112:10 112:17 113:19 114:11 117:17,25 119:7,12,17 120:13,24 121:9 122:1,8 122:12 123:5,11 124:11 125:2,11,16,23 126:7 127:4,16,25 128:12,18 129:9 130:7,19,25 131:4 131:17,22 132:5,17 133:18 134:1,6 135:17 136:9 137:5,19,25 138:9 138:16 139:20 140:11,18 140:24 141:10,19 142:14 142:20 143:8,13,19,24 144:11 145:18 146:3,8 146:14,20 147:10 148:1 148:6,11,17,22 149:3,14 151:2,17 152:18 153:15 153:23,24 157:6 161:17 161:18 164:22 165:3 167:2 168:2,9,19 169:10 170:2 171:8,15,20,24 172:21 173:2,23 175:8 175:19,23 176:3,11,24 177:5,10,14 178:3,11,22 180:16 181:5,20 182:6 182:12 183:2,8 184:20 184:23 185:5,10,14 186:1 186:13 188:6,17,23 189:3 190:2,23 191:18 192:1,5 192:10,14,22 193:18</p>	<p>194:10,17 198:3,18 200:8 200:22 201:7,24 202:13 202:21 203:17,24 204:10 204:22 205:3,8,14 206:3 206:10,14,19,23 207:3,7 207:11,15 208:2,6,11,18 209:15 210:2,6,19 211:8 212:20,25 214:2 215:2 215:22 216:13,22 217:5 218:5 219:25 221:2,9,19 222:2,11 223:9,23 224:6 224:13,18 225:2,19 226:4 226:9 227:3,12,25 228:11 228:18 230:2,12,19,24 231:12 232:15 233:17 234:8 235:6,19,25 236:19 237:25 238:14 239:1,10 239:16 240:1,8 241:21 243:8,15 245:6,20 246:24 247:6,12 248:2,9,23 249:12 250:5,11 251:17 252:6,12,19 253:11,17 253:24 254:8,19,24 255:7 255:21 256:5,9,19 257:4 257:9,21 258:6 260:18 261:3,16 262:6,16 263:2 264:1,6,10,15 267:13 268:20 269:20 270:1</p> <p><b>role</b> [11] 26:3,14,14,16 29:21 88:15 92:2 94:4 120:4 234:25 268:8</p> <p><b>roles</b> [2] 78:19 235:5</p> <p><b>roll</b> [2] 136:12,13</p> <p><b>room</b> [9] 10:20 14:20 16:6 17:9 120:15 170:10 173:4 225:4 243:25</p> <p><b>ropes</b> [1] 38:19</p> <p><b>ROs</b> [2] 90:12,13</p> <p><b>Rose</b> [26] 23:17,18 34:6 35:1 39:13 40:3 49:2,9 51:8,10,25 53:19 54:12 54:14 86:15 87:14 145:6 145:7 150:20 151:16 154:10 180:14 186:5 191:1 197:17 267:24</p> <p><b>rotate</b> [2] 50:5 184:21</p> <p><b>rotating</b> [1] 29:9</p> <p><b>rotation</b> [11] 23:25 27:9 28:25 50:19 54:9 128:25 129:15,20,24 130:14 138:4</p> <p><b>rotational</b> [1] 29:6</p> <p><b>round</b> [1] 251:4</p> <p><b>route</b> [2] 120:12 147:7</p> <p><b>routine</b> [5] 158:24 160:2 160:8,20 161:6</p> <p><b>routines</b> [1] 115:9</p> <p><b>Rowan</b> [1] 55:22</p> <p><b>ruled</b> [1] 3:18</p> <p><b>rules</b> [3] 12:18 67:17,19</p> <p><b>ruling</b> [1] 164:11</p> <p><b>run</b> [3] 20:17 111:25 222:4</p> <p><b>running</b> [3] 154:6 249:25 250:21</p> <p><b>Russia</b> [1] 37:4</p>	<p style="text-align: center;"><b>-S-</b></p> <p><b>S</b> [4] 170:20 192:15 260:8 267:9</p> <p><b>S-61</b> [5] 167:18 191:16 192:9 193:1 196:5</p> <p><b>S-61s</b> [2] 196:22 197:14</p> <p><b>S-92</b> [27] 165:17,19,21 177:25 178:18 183:1 192:9,20 195:10,19 196:2 196:3,15,20,24 197:4,5 197:8 198:9,17,24 199:25 200:15 223:16,21 251:6 260:3</p> <p><b>S-92A</b> [7] 191:11,12 193:7 194:20 195:14,22 197:2</p> <p><b>S-92As</b> [1] 196:22</p> <p><b>S-92s</b> [2] 267:5 268:15</p> <p><b>S61</b> [1] 199:23</p> <p><b>Sable</b> [1] 29:17</p> <p><b>Sacuta</b> [224] 18:15,16 19:2,15,17 26:5 27:20 27:21 30:16,24 31:7,15 33:13 34:19,23 35:7,11 36:7 37:1,13,18 38:7,8 39:8,17,24 40:22 41:5,9 41:17,23 42:3,25 43:6 43:10 44:2,19 45:3,7,12 46:5 56:15 58:15 59:2,6 60:12,21,25 61:17,22 62:3,11,16,20,25 63:8 64:7,15,21,25 65:6,10 66:7 67:25 68:7,11 69:20 70:3 71:1,6,10,21 72:4 72:16 73:3,6,18 74:3,7 74:11,21 75:2,6,12,16 76:11,16,20 77:1,22 78:5 78:14 79:7,11 80:14,21 81:1 82:5,19 83:3,8,12 84:1,19 85:10,14,18 86:4 87:3,9,15,20 88:3,7,14 89:11,14,20,24 90:4 91:8 91:12 123:2,8,14 132:10 133:23 134:4,9 145:22 161:8,20,23 162:8 172:4 182:20,22 183:5 200:16 201:9,11 202:4,17,23 203:22 204:2,14,24 205:6 205:11,16 206:8,12,17 206:21 207:1,5,9,13,24 208:4,9,13,20 209:25 210:4,11 211:4,10 212:22 212:23 213:7 214:9 215:9 215:25 216:17,24 217:12 218:8 220:2 221:6,14,24 222:9,14 223:11 224:4 224:11,16,22 225:8,22 226:7,11 227:9,14 228:8 228:19,21 230:3,9 231:4 232:1,17 233:22 234:12 235:10,22 236:2,24 238:4 238:11,17 239:4,14,18 240:6,10 241:24 243:13 243:17 245:12 262:5,22</p> <p><b>saddened</b> [1] 20:2</p> <p><b>safe</b> [17] 20:14 22:24 27:16 30:12 77:10 79:13 79:18 90:23 98:4 99:24</p>	<p>100:12,16 105:7,10,23 106:14 133:9</p> <p><b>safely</b> [6] 21:11 89:5 98:14,22 99:15 229:7</p> <p><b>safety</b> [138] 4:25 5:8 11:16 12:14 13:16 15:22 16:2 20:13,19 21:2,4,5,9 22:21 23:10 27:16 29:23 29:25 30:2 32:7,9 44:21 60:4 63:19 65:19 66:3 68:13,15 69:3 76:2,5,10 76:15,22 77:2,3,4,7,10 77:11,14,18,19 78:2,6 78:15,16,17,17,22,24 79:2,12,15,17 80:7 84:3 84:8 85:2 90:23 91:15 91:18,21 92:2,10 93:5 93:21 97:3 98:6 102:2 102:18 108:22 118:11 119:2 120:6,10,17 123:17 123:22,24 124:3,13,23 125:15 126:3 127:21,23 129:2,5,13 132:23 133:2 133:3 134:17,18 135:6,8 135:11 136:4,12 137:17 138:5 139:12,13,15,22 141:17 142:24,24 152:7 159:2,4,9,16,23 162:16 162:20 163:7 165:24 169:21 187:12 196:2 198:10 200:14 201:15 213:16 219:18 220:12 226:21 227:23 234:15,16 250:24 252:22 253:6,8 253:16,20</p> <p><b>sail</b> [2] 23:17 54:2</p> <p><b>sailed</b> [1] 22:13</p> <p><b>sanctioned</b> [1] 46:17</p> <p><b>SAR</b> [39] 185:4 249:4,7 249:11 250:1,25 251:1,3 251:5,10,10,11,13,16,19 252:5 254:6,11,23 256:22 256:23 257:13,17 258:2 258:9,10,12 259:6,21 260:1 263:6,17,20,23 265:1,3,16 266:10 267:7</p> <p><b>sat</b> [2] 119:8,13</p> <p><b>satellite</b> [2] 217:15 248:20</p> <p><b>satisfaction</b> [2] 162:14 163:3</p> <p><b>satisfied</b> [5] 89:2 127:18 136:18,20 163:3</p> <p><b>satisfy</b> [1] 183:25</p> <p><b>saving</b> [1] 204:7</p> <p><b>saw</b> [2] 110:9 261:4</p> <p><b>says</b> [7] 7:7 167:25 168:16 186:15 241:17 252:22 256:2</p> <p><b>scale</b> [1] 190:14</p> <p><b>scenarios</b> [1] 246:2</p> <p><b>scene</b> [2] 258:5 262:3</p> <p><b>schedule</b> [9] 2:13,16,24 3:13 4:1 5:24 7:9 240:14 250:16</p> <p><b>scheduled</b> [2] 86:18 243:5</p> <p><b>scheduling</b> [2] 237:5</p>
---	--	--	---	---

<p>250:15 <b>scope</b> [29] 50:22 59:23 84:20 100:1,11 101:11 102:12,25 103:6,24 104:5 104:12,17 105:4,8 106:3 106:8,9,12,19 107:17,19 107:21 145:13 154:9 155:24 187:8 189:11 202:24 <b>score</b> [1] 209:12 <b>Scotia</b> [4] 25:8 29:17 217:8,14 <b>screening</b> [3] 179:10,15 219:18 <b>sea</b> [38] 21:18 23:4,7,17 24:7 29:16 35:20 37:6,6 37:8,12 38:2,5,12 39:11 39:13 44:11 50:4,7 51:25 53:19 54:11,14 70:20 145:6 147:8 151:15 154:10 166:20 175:3 180:14 216:3 233:11 234:2,3 237:16 267:24 268:1 <b>seabed</b> [1] 55:11 <b>Seaboard</b> [1] 49:7 <b>seal</b> [6] 202:19 212:11,12 214:16,21 232:6 <b>Sealand</b> [1] 188:15 <b>sealed</b> [1] 240:21 <b>sealing</b> [1] 214:25 <b>search</b> [15] 32:24 241:6 251:7 252:24 256:13,15 258:16,19 259:24 260:23 262:10,14 263:10,14 266:17 <b>seas</b> [1] 36:12 <b>seatbelt</b> [5] 242:16,17 242:21 244:16,18 <b>seated</b> [6] 18:14,16,18 18:21 242:13 244:8 <b>seats</b> [1] 223:21 <b>seawater</b> [1] 48:24 <b>second</b> [10] 7:7 44:4 46:14 49:5 130:10,18,20 131:5,12 220:25 <b>secondary</b> [1] 265:5 <b>seconded</b> [2] 120:2 141:25 <b>secondment</b> [2] 25:22 26:2 <b>Secretariat</b> [2] 263:10 263:15 <b>section</b> [28] 31:20,24 32:4,11,14,15,18,20,23 33:1,5 54:21 58:23 59:15 138:24 139:3 162:3 165:9 189:14 195:17 198:1 201:9,12,22 221:25 224:25 238:22 259:1 <b>sections</b> [5] 19:6,8 31:17 31:19 32:6 <b>sector</b> [1] 29:15 <b>sectors</b> [1] 111:22 <b>Secunda</b> [1] 149:22 <b>secure</b> [3] 197:22 245:1</p>	<p>245:4 <b>secured</b> [1] 245:14 <b>security</b> [10] 179:10,15 241:6 244:22 245:3,5,8 245:10,18 246:5 <b>see</b> [47] 15:18 17:3 26:20 30:10 37:10 40:15 42:18 43:22 46:21 52:20,20,25 53:13 55:8,10 58:3,5 61:14 62:9 75:19 79:5 81:18 97:17 101:15,23 102:4,13 109:12 110:5 113:11,20 116:8 117:1 129:25 134:24 149:15 151:3,18,22 156:2 159:15 202:15 212:13 231:19 248:6 253:2 260:23 <b>seem</b> [1] 8:3 <b>sees</b> [1] 237:23 <b>segregated</b> [1] 117:19 <b>select</b> [1] 95:3 <b>selected</b> [4] 159:22 191:4 191:13 220:6 <b>selection</b> [11] 97:22 165:14,17 186:11,24 189:6 191:11 195:14 208:21 212:3 219:3 <b>semisubmersible</b> [2] 47:13 56:9 <b>semisubmersibles</b> [1] 54:18 <b>send</b> [1] 58:18 <b>senior</b> [5] 24:15 65:5 71:24 135:9 237:11 <b>sense</b> [1] 102:13 <b>sensitive</b> [1] 15:6 <b>sent</b> [3] 7:16 178:10 213:13 <b>separate</b> [11] 13:14,15 13:16 16:20 47:4,15 57:21,24 142:7 192:2 269:1 <b>separated</b> [2] 48:12 94:15 <b>separately</b> [3] 13:17 34:12 59:20 <b>separation</b> [1] 12:22 <b>sequence</b> [3] 160:6,25 239:25 <b>series</b> [2] 16:15 48:11 <b>served</b> [1] 226:5 <b>service</b> [31] 142:5,8,9 144:5 145:4 146:13,18 146:22 147:15 148:14 151:7 165:15 180:24 185:3 186:11,25 187:4 187:16,19,21 188:11 189:23 195:19 218:4 229:13,22 231:10 249:2 249:11,21 263:15 <b>serviceable</b> [1] 249:10 <b>services</b> [37] 13:17 22:17 23:2 32:12 43:19 63:4 128:13 138:20,23,25 139:5 140:8 142:3 143:16 144:3,5,9 146:24 149:7</p>	<p>149:12 150:8 165:8,14 179:3,3,9 180:2,6,9 189:10,13 191:3 229:19 229:25 231:6 256:15 263:13 <b>session</b> [2] 6:9 144:9 <b>set</b> [10] 17:10 43:2 53:5 76:4 127:7 160:6,25 190:15 237:8 265:20 <b>sets</b> [2] 98:7 184:8 <b>setting</b> [3] 98:2 99:5 227:7 <b>seven</b> [3] 28:5 112:21,21 <b>several</b> [3] 27:6 165:25 195:25 <b>shafts</b> [1] 44:6 <b>shall</b> [3] 63:17 72:10 77:2 <b>shallow</b> [2] 47:19,21 <b>share</b> [8] 13:2 15:11 80:17 144:19 145:20 150:16 181:4,23 <b>shared</b> [3] 59:1 187:22 190:22 <b>shares</b> [1] 34:12 <b>sharing</b> [2] 57:12 186:6 <b>shed</b> [1] 194:16 <b>sheet</b> [1] 244:24 <b>sheets</b> [1] 174:21 <b>Shetland</b> [1] 37:16 <b>shift</b> [3] 138:3,3,5 <b>ship</b> [7] 53:4 56:11 74:1 74:2 87:23 88:1,10 <b>shipboard</b> [1] 91:1 <b>shipment</b> [1] 44:15 <b>Shipping</b> [8] 21:17 88:6 88:8,10,12 90:11,16 265:8 <b>ships</b> [3] 22:3 54:19 70:10 <b>Shipyard</b> [1] 22:5 <b>shore</b> [3] 149:6 231:7 234:17 <b>shore-based</b> [4] 144:5 144:14 149:8 166:25 <b>short</b> [4] 35:12 74:22 145:19 211:16 <b>shorter</b> [2] 74:20,24 <b>shortly</b> [2] 99:19 163:9 <b>shoulds</b> [2] 167:7,12 <b>show</b> [6] 12:10 42:22 50:2 78:17 92:1 135:5 <b>shown</b> [5] 56:11 113:14 201:20 242:1 244:3 <b>shows</b> [10] 41:4 49:9,10 56:8 57:10 75:17 92:1 103:9 241:17 247:17 <b>shuttle</b> [3] 58:4,6,8 <b>sic</b> [1] 227:18 <b>side</b> [15] 25:16,20 45:20 52:17,17 53:2,6 75:20 75:22 76:22 116:16 117:20 118:16 120:7 251:16 <b>signal</b> [2] 216:6,12 <b>signed</b> [1] 90:8 <b>significant</b> [9] 38:9 94:3 139:11 149:13,24 155:23 193:11 258:16 269:11 <b>signs</b> [1] 244:23 <b>Sikorsky</b> [12] 163:13 164:1 167:18 191:12,16 191:21 192:9,11 193:1,7 195:5,10 <b>Sikorsky's</b> [2] 178:10 194:25 <b>similar</b> [13] 24:9 37:4 47:18,23 49:1 52:1,3 53:16 54:12 110:9 124:18 153:7 187:1 <b>similarly</b> [1] 2:23 <b>simply</b> [13] 7:1,20 8:6 15:1 54:2 57:15 71:25 82:14 132:23 204:12 220:14 269:6,21 <b>simulators</b> [1] 195:8 <b>single</b> [4] 45:24 60:10 206:11 258:15 <b>sit</b> [5] 9:25 26:25 128:10 130:18 176:21 <b>site</b> [8] 22:12 54:12 91:24 106:14 155:11 228:22 229:5 245:14 <b>sites</b> [3] 159:12,12,23 <b>sits</b> [2] 42:23 212:14 <b>situation</b> [17] 3:25 55:14 80:18 84:11 86:19 111:25 133:20 222:17,22 223:5 231:23 234:21 238:1,6 242:4 254:18 259:25 <b>situations</b> [15] 81:3 103:17,19,23 109:3,5 124:16 161:10 163:24 205:20 223:7 232:6 233:3 243:22 246:10 <b>six</b> [4] 24:1 42:8 131:24 233:6 <b>size</b> [19] 16:19 49:19 114:8 115:1 126:25 127:2 128:1,5 170:18 182:14 195:7 215:3,8,15 223:20 241:11,13,23,25 <b>sized</b> [1] 214:15 <b>sizes</b> [1] 214:24 <b>skill</b> [1] 189:22 <b>sky</b> [4] 247:22 248:6,12 252:16 <b>slice</b> [2] 93:16 113:12 <b>slices</b> [2] 113:14 114:5 <b>slide</b> [42] 33:12 36:13 40:15 56:7 57:10 61:1 62:10 64:8 75:17,23 76:22 86:2 94:9 101:23 101:24 102:15 103:9 108:19 109:22 114:1 135:5 140:12 154:5 164:25 166:8 168:22,22 186:10,21 189:14 201:21 203:18 215:24 228:20 236:18 239:21 243:2 247:17 251:3 255:19</p>	<p>266:1,19 <b>slides</b> [9] 39:10,23 55:8 59:15 76:4 91:25 113:8 117:19 122:25 <b>slightly</b> [4] 52:16 53:5 98:1 116:25 <b>Slinging</b> [2] 120:21 121:14 <b>slipped</b> [1] 167:3 <b>slot</b> [1] 243:20 <b>slots</b> [3] 45:16,18,18 <b>slow</b> [2] 99:2 169:11 <b>small</b> [7] 16:10 93:25 115:15 116:11 190:12 242:25 262:18 <b>smaller</b> [4] 38:22 116:22 179:24 215:6 <b>snow</b> [1] 37:5 <b>software</b> [1] 178:9 <b>Sokland</b> [1] 37:3 <b>solve</b> [2] 8:2 10:2 <b>someone</b> [2] 108:11 134:22 <b>sometime</b> [1] 249:13 <b>sometimes</b> [6] 77:16 100:4 140:3 145:19,20 235:14 <b>somewhat</b> [3] 24:9 37:11 230:16 <b>somewhere</b> [5] 41:22 96:4,6 182:2 230:10 <b>son</b> [1] 24:5 <b>Sooley</b> [1] 271:11 <b>soon</b> [2] 154:6 239:9 <b>sorry</b> [10] 8:10 17:20 47:12 66:20 85:9 174:1 191:19 204:25 207:16 253:12 <b>sort</b> [8] 16:19 88:1 135:20 168:14 183:18 184:20 209:19 210:23 <b>sought</b> [1] 4:10 <b>sound</b> [1] 271:7 <b>sounds</b> [1] 168:10 <b>sources</b> [2] 148:19 163:23 <b>South</b> [1] 23:5 <b>southern</b> [3] 37:12 38:11 40:24 <b>southwest</b> [2] 41:1 43:22 <b>space</b> [3] 100:16 150:23 190:15 <b>speak</b> [7] 19:14 154:4 160:22 165:10 170:14 196:16 198:13 <b>speaking</b> [7] 2:7 58:14 118:20 213:12 230:11 238:5 247:7 <b>special</b> [4] 86:18,22 97:3 101:4 <b>specialist</b> [3] 200:18 251:1 258:18 <b>specialists</b> [2] 251:13 258:16</p>
--	---	--	--

<p><b>specialized</b> [3] 179:6 180:9 229:21</p> <p><b>specializing</b> [1] 25:3</p> <p><b>specific</b> [35] 32:19 34:8 61:5 72:10 76:5 80:4 81:9 82:12 90:11 100:17 100:18,19 101:18,22 118:20 126:25 129:4,6 133:2 159:23 161:10 166:3,9 176:15 180:23 180:24 187:25 201:14 220:7 223:7,14 225:13 229:15 238:13 259:24</p> <p><b>specifically</b> [5] 32:17 81:15 160:14 170:3 171:13</p> <p><b>specification</b> [1] 255:24</p> <p><b>specified</b> [2] 191:6 204:4</p> <p><b>specify</b> [1] 73:8</p> <p><b>speculate</b> [1] 261:22</p> <p><b>speculation</b> [1] 261:11</p> <p><b>speed</b> [4] 147:8 196:6 222:22 248:18</p> <p><b>speeds</b> [1] 35:16</p> <p><b>spend</b> [3] 31:3 146:4 169:17</p> <p><b>spent</b> [4] 25:16 27:3 28:8 28:22</p> <p><b>spirit</b> [2] 30:2 184:15</p> <p><b>splash</b> [1] 212:15</p> <p><b>splitting</b> [1] 31:18</p> <p><b>spoke</b> [1] 51:17</p> <p><b>spool</b> [3] 154:11,19 155:2</p> <p><b>spot</b> [1] 7:8</p> <p><b>spouse</b> [1] 93:7</p> <p><b>spreading</b> [1] 252:1</p> <p><b>Squadron</b> [1] 174:25</p> <p><b>square</b> [2] 112:21 266:4</p> <p><b>St</b> [20] 24:8,12 25:15 28:15,18 29:10 147:4 149:16 172:16 173:19 182:8 249:23 260:4,9 262:3 264:20,24 268:8 271:5,9</p> <p><b>staff</b> [1] 78:22</p> <p><b>stage</b> [2] 188:2 209:19</p> <p><b>stages</b> [2] 145:1 218:16</p> <p><b>stake</b> [1] 51:14</p> <p><b>stakeholders</b> [1] 21:1</p> <p><b>stand</b> [6] 2:2 4:4 106:15 156:19 182:19 259:14</p> <p><b>standard</b> [26] 71:12 119:22 132:11,15 152:8 158:13 167:24 197:7 203:1,2,14,15 204:6,9 204:11,13 206:11,15 207:22,25 208:1 226:12 227:8 236:7 237:1 240:11</p> <p><b>standards</b> [10] 70:17 82:20 95:14 96:11 121:13 207:21 210:8,24 233:11 236:9</p> <p><b>standby</b> [19] 49:9 58:1,3 58:4 80:9 150:2 151:4,5 151:13,15,22,24 152:9</p>	<p>152:10,15,16 249:4 252:24 259:16</p> <p><b>standing</b> [2] 3:3 52:21</p> <p><b>stands</b> [2] 70:11,18</p> <p><b>start</b> [8] 25:25 40:5 54:15 104:16 118:16 129:19,20 250:17</p> <p><b>started</b> [5] 11:25 22:1 28:2 31:13 203:5</p> <p><b>starting</b> [1] 99:4</p> <p><b>starts</b> [5] 17:18 98:6 106:25 173:17 255:19</p> <p><b>state</b> [2] 78:16 92:18</p> <p><b>statement</b> [6] 98:13 99:11,13,15,24 208:14</p> <p><b>statements</b> [1] 61:14</p> <p><b>states</b> [3] 147:8 166:21 175:3</p> <p><b>stating</b> [1] 98:22</p> <p><b>stationed</b> [1] 151:19</p> <p><b>statistically</b> [1] 175:17</p> <p><b>statistics</b> [2] 135:11 137:17</p> <p><b>Statoil</b> [11] 12:1,2 25:23 41:15 42:14 46:22 145:8 145:17 182:23,24 183:1</p> <p><b>StatoilHydro</b> [1] 41:14</p> <p><b>status</b> [2] 18:2 33:6</p> <p><b>statutory</b> [3] 85:19 90:6 90:9</p> <p><b>stay</b> [2] 12:6 217:24</p> <p><b>stayed</b> [1] 29:10</p> <p><b>step</b> [12] 75:19 94:20 102:17 103:20 105:8 138:19 161:11,12,13,14 161:15 239:22</p> <p><b>steps</b> [8] 110:23 164:4 181:14 223:4,17 224:3 238:24 239:25</p> <p><b>stern</b> [3] 52:14 53:13 95:10</p> <p><b>still</b> [12] 23:25 66:8 73:4 82:14 86:23 91:2 98:19 111:4 118:22 173:21 256:25 257:7</p> <p><b>stimulates</b> [1] 103:4</p> <p><b>stood</b> [1] 28:25</p> <p><b>stop</b> [9] 35:25 63:25 85:9 112:8 120:14 190:3 193:19 222:7 225:5</p> <p><b>stops</b> [2] 155:3,6</p> <p><b>storage</b> [7] 21:23 44:8,9 46:25 95:24 96:3,5</p> <p><b>store</b> [1] 50:9</p> <p><b>storeys</b> [1] 49:22</p> <p><b>strategies</b> [1] 38:15</p> <p><b>strategy</b> [1] 211:22</p> <p><b>stream</b> [1] 197:16</p> <p><b>Street</b> [1] 271:5</p> <p><b>strengths</b> [1] 153:9</p> <p><b>strike</b> [1] 197:9</p> <p><b>strive</b> [1] 246:2</p> <p><b>stroking</b> [1] 223:21</p>	<p><b>structure</b> [13] 43:1 44:5 55:12 56:15 79:19,20,25 87:1 91:25 98:5 101:16 184:9 246:14</p> <p><b>structures</b> [1] 55:3</p> <p><b>study</b> [1] 157:1</p> <p><b>style</b> [2] 56:12 219:9</p> <p><b>styles</b> [1] 54:23</p> <p><b>stymied</b> [3] 5:5 6:20 7:22</p> <p><b>sub-committees</b> [3] 119:3,14,16</p> <p><b>subcentres</b> [2] 264:19 264:21</p> <p><b>subject</b> [7] 102:23 120:1 121:4 140:12,15 156:15 157:6</p> <p><b>subjects</b> [1] 19:14</p> <p><b>submerged</b> [3] 216:9,11 216:14</p> <p><b>submission</b> [2] 187:8 253:8</p> <p><b>submit</b> [1] 76:1</p> <p><b>subsea</b> [4] 47:3,21 48:7 51:18</p> <p><b>subsequent</b> [3] 39:10 130:14 216:20</p> <p><b>subsequently</b> [1] 164:13</p> <p><b>substandard</b> [1] 200:2</p> <p><b>Substantially</b> [1] 122:6</p> <p><b>subtle</b> [2] 52:2 231:19</p> <p><b>success</b> [1] 30:13</p> <p><b>successful</b> [4] 222:20 223:18 258:19,21</p> <p><b>such</b> [23] 18:12 53:24 59:19,20 80:20 103:2 109:7 121:12,24 130:1 139:11 147:24 182:1 229:2 250:15 251:7 260:3 260:5 265:3,6,17,21 267:8</p> <p><b>sufficient</b> [3] 126:20 127:2 231:11</p> <p><b>suggest</b> [2] 9:22 10:7</p> <p><b>suggesting</b> [1] 210:20</p> <p><b>suggestions</b> [1] 72:1</p> <p><b>suggests</b> [1] 128:6</p> <p><b>suit</b> [67] 70:8 82:13 122:14,20,23,24 202:6,6 202:14,16,18,19 203:8 203:10,12,14 204:6,11 204:16 205:18,23,23 206:6 207:20 208:15,21 208:25 209:6,6,11 211:23 212:7,9,11,15,17 213:5 213:20,25 214:7,10,13 214:15,17,21 215:11,15 215:17,18 218:21 232:5 241:9,10,12,16,19,22,25 242:10,12,19,23 243:25 244:2,6,8,20</p> <p><b>suitable</b> [3] 111:8 169:18 194:22</p> <p><b>suitably</b> [1] 168:25</p> <p><b>suite</b> [3] 57:9 103:11 271:5</p>	<p><b>suited</b> [1] 231:9</p> <p><b>suits</b> [30] 81:10,13,15,18 81:22,25 82:25 121:24 122:16 169:20,21 201:19 202:8,12,25 203:4 204:5 204:8,18 205:2,5 209:14 211:15,18,24 213:22,23 214:24 216:1 217:2</p> <p><b>Sumatra</b> [1] 28:7</p> <p><b>summary</b> [5] 162:4 164:3 239:20,21 243:2</p> <p><b>summer</b> [1] 29:3</p> <p><b>Suncor</b> [18] 11:22 18:22 25:5 34:25 35:1 42:9 46:19 50:2 51:9 59:19 67:11,13 140:1,5 145:9 145:16 149:21 198:13</p> <p><b>Suncor's</b> [1] 140:1</p> <p><b>Suncore</b> [2] 230:22 238:10</p> <p><b>Super</b> [11] 191:14,24 192:17 196:5,18,22 197:13 199:23 223:15 224:7,9</p> <p><b>supervise</b> [1] 142:16</p> <p><b>supervising</b> [1] 29:7</p> <p><b>supervision</b> [7] 100:10 107:18 133:11 135:15 136:19 141:25 155:10</p> <p><b>supervisor</b> [4] 26:4 28:23 162:11 163:22</p> <p><b>Supervisors</b> [1] 26:6</p> <p><b>supervisory</b> [3] 28:12 29:4 141:23</p> <p><b>supplier</b> [3] 140:9 142:6 209:13</p> <p><b>suppliers</b> [2] 140:4 209:8</p> <p><b>supply</b> [18] 49:10 138:23 149:15,21 151:11,11 179:5,24 202:24 206:1,4 209:21 211:14,16 218:11 249:1 262:13 267:14</p> <p><b>support</b> [24] 30:4 57:3,9 57:21,24 81:4 99:23 139:7 144:6 145:7 149:7 149:12 150:4,8 151:11 151:12 152:25 158:4 159:15 193:10 196:12 263:15 266:16 267:14</p> <p><b>supported</b> [3] 106:19 252:16 263:9</p> <p><b>supports</b> [1] 160:9</p> <p><b>suppose</b> [1] 210:25</p> <p><b>supposed</b> [3] 85:24 162:16 199:8</p> <p><b>surface</b> [4] 47:25 216:7 216:11 217:4</p> <p><b>surpassed</b> [1] 199:1</p> <p><b>surprise</b> [1] 4:8</p> <p><b>surprised</b> [1] 8:15</p> <p><b>surprising</b> [1] 3:17</p> <p><b>surveillance</b> [2] 38:18 229:14</p> <p><b>surveys</b> [5] 85:6,13,15 85:21 90:15</p>	<p><b>survival</b> [6] 211:21 222:16 232:24 233:1,4 234:6</p> <p><b>survivor</b> [1] 11:7</p> <p><b>survivors</b> [1] 2:21</p> <p><b>suspect</b> [1] 252:7</p> <p><b>suspend</b> [1] 63:21</p> <p><b>Swiss</b> [4] 93:15 113:12 114:12,13</p> <p><b>sworn</b> [2] 18:23,25</p> <p><b>system</b> [39] 21:24 44:14 53:16 70:8 77:7,15 78:18 92:19 95:24 96:10 97:25 98:6,16,17 100:3 104:2 107:22,24 115:4,23 124:25 125:18 141:3 177:25 178:2 181:7 197:8 201:6 203:12 227:11 247:22,24,25 248:7,8,14 248:16 252:17,18</p> <p><b>systematic</b> [1] 98:3</p> <p><b>systems</b> [21] 32:8 43:18 79:13 96:16,24 102:3 107:17 133:3 134:16 139:14,14,15,22 140:7 169:9 177:19 234:24 236:12,21 248:10,12</p> <hr/> <p style="text-align: center;"><b>-T-</b></p> <hr/> <p><b>T</b> [1] 243:18</p> <p><b>table</b> [1] 118:22</p> <p><b>tabs</b> [2] 16:20,20</p> <p><b>tag</b> [1] 105:5</p> <p><b>tailored</b> [1] 222:17</p> <p><b>takeoff</b> [1] 160:11</p> <p><b>takes</b> [8] 15:4 30:8 91:22 114:1 176:17 178:8 182:1 264:23</p> <p><b>taking</b> [6] 151:5 166:10 185:6 241:2 245:15 268:7</p> <p><b>talks</b> [4] 64:9 86:2 168:23 179:18</p> <p><b>tandem</b> [1] 256:4</p> <p><b>tank</b> [11] 100:11,13,15 100:19,21,25 101:12 163:11 164:8 176:21 223:20</p> <p><b>tanker</b> [1] 52:15</p> <p><b>tankers</b> [10] 21:18 44:15 49:3,6 53:12 57:10 58:5 58:6,9,18</p> <p><b>Tara</b> [1] 271:5</p> <p><b>target</b> [1] 220:24</p> <p><b>task</b> [22] 33:2,8 100:4,5 107:3,25 118:23,25 119:4 119:20,25 133:5,10 158:8 160:5,8 161:13,13 162:3 265:23 268:18,25</p> <p><b>Taskforce</b> [2] 16:18 17:1</p> <p><b>tasking</b> [1] 265:2</p> <p><b>tasks</b> [19] 91:24 107:23 133:1 135:24 158:7,24 158:25,25 160:1,2,3,19 160:20,20,23,24 161:6,7 161:7</p>
---	---	--	--	--

<p><b>team</b> [19] 93:8,11 107:6 107:13 108:15 116:15,16 116:19,20,23 133:6 157:22 158:4 159:13 187:11 189:19 235:9,9 244:17</p> <p><b>teams</b> [4] 235:3,3,11 268:2</p> <p><b>technical</b> [7] 141:2,17 184:12 187:13 195:4 209:9,11</p> <p><b>technician</b> [1] 258:9</p> <p><b>technicians</b> [3] 166:15 251:10,20</p> <p><b>techniques</b> [1] 129:6</p> <p><b>technologies</b> [1] 197:24</p> <p><b>technology</b> [7] 4:21 178:17 193:3 197:6 199:3 218:2 219:22</p> <p><b>techs</b> [1] 251:10</p> <p><b>telephone</b> [1] 138:14</p> <p><b>television</b> [1] 20:4</p> <p><b>telling</b> [3] 69:18 140:14 143:9</p> <p><b>temperatures</b> [3] 35:19 35:20 36:12</p> <p><b>ten</b> [3] 26:7 145:2 168:13</p> <p><b>tend</b> [1] 144:19</p> <p><b>tender</b> [1] 143:4</p> <p><b>tentative</b> [1] 7:9</p> <p><b>term</b> [8] 31:8 33:23 72:17 74:22 88:23 128:22 190:6 211:16</p> <p><b>terminal</b> [4] 44:16 58:8 58:20 179:9</p> <p><b>terminates</b> [1] 173:17</p> <p><b>terms</b> [43] 19:12 34:7 36:25 37:17 49:17 50:11 61:20 62:14 64:19 66:6 89:17 96:9,13 97:19 98:10 99:5 109:1 114:8 114:24 117:3 118:20 122:6 126:16 135:7 147:2 147:14 155:23 170:17 172:7,7 173:6 175:2 192:17 195:6 198:10,24 202:14 220:19 232:11 246:17 247:18 261:15 269:8</p> <p><b>Terra</b> [35] 18:22 24:22 25:11 26:8,11,16,19 34:6 34:24 39:12 40:2 46:11 46:14,14 47:4,5,20 49:3 49:14 50:12,18 51:23 53:16 54:3,12 86:14 151:16 157:25 160:22 180:13 184:7 186:4 189:8 189:24 197:17</p> <p><b>tested</b> [1] 4:21</p> <p><b>testified</b> [1] 61:9</p> <p><b>testify</b> [1] 212:19</p> <p><b>testifying</b> [1] 260:15</p> <p><b>testimony</b> [11] 93:17 122:25 134:11 135:14 141:24 163:10 165:23 212:7 237:14 249:7</p>	<p>268:11</p> <p><b>testing</b> [5] 122:14,15,22 123:4,12</p> <p><b>Texaco</b> [1] 46:23</p> <p><b>thank</b> [38] 1:7 6:3 10:9 10:11 27:17,19 30:15 33:11 38:7 50:24 52:11 63:7 70:1 73:3 76:25 83:11 128:19 132:18 143:25 149:4 153:25 160:17 161:17,19,19 164:21 178:24 190:24 194:18 202:3 208:19 211:9 239:17 245:21 256:10 263:3 264:16 270:1</p> <p><b>that'll</b> [1] 180:7</p> <p><b>theirs</b> [1] 183:1</p> <p><b>themselves</b> [9] 18:8 54:5 107:15 135:10 136:22 137:18 159:9 197:19 236:22</p> <p><b>thereafter</b> [3] 28:11 258:14 260:9</p> <p><b>therefore</b> [6] 56:6,19 97:1 116:6 126:22 136:16</p> <p><b>thermal</b> [5] 207:18,21 207:22 208:8 209:2</p> <p><b>they've</b> [3] 199:18 225:25 238:20</p> <p><b>thickness</b> [2] 101:10,12</p> <p><b>thin</b> [1] 252:1</p> <p><b>third</b> [11] 15:17 16:23 17:5 49:25 88:19 130:21 181:23 185:11,15 197:18 249:18</p> <p><b>thought</b> [4] 3:23 6:22 7:13 162:3</p> <p><b>thoughts</b> [1] 20:6</p> <p><b>threat</b> [2] 39:19 246:6</p> <p><b>three</b> [109] 10:8 11:18,21 11:23 12:7,11,24 13:9 15:9 16:11 18:14 19:7,9 19:24 20:10 23:3 25:14 29:8 31:22 33:16 38:15 40:1,18,20 43:16 49:19 51:19 54:9,25 57:21,24 58:12,16,25 64:1 66:5 74:17,24 75:10,10 77:12 77:15,18,23,23 78:9 80:16 83:13 86:11 92:3 92:7,21 94:1 109:13 128:24 129:15 130:9,14 131:25 133:25 134:5,7 134:10 136:7,7 137:3 144:16 145:8,11 148:24 150:14 155:21 160:12 161:25 162:5 163:9,14 163:24 164:2,7,12,17 176:20 181:14,21 182:15 183:4,15 184:16,16,21 185:1,6,18 186:5 187:6 187:9 194:1 198:6 229:24 231:16 232:20,25 233:16 243:2 249:9 267:5,11,11</p> <p><b>three-and</b> [1] 54:8</p> <p><b>three-yearly</b> [1] 77:16</p> <p><b>thrilled</b> [1] 28:17</p>	<p><b>through</b> [60] 2:14 16:13 17:4,18,18,23 21:19 26:9 27:13 45:24 48:11 52:1 59:2 62:6,7 72:13 75:19 91:23,25 93:12 94:21 99:18 103:21 105:8 108:5 111:20 114:4,21,24 116:17 117:12 121:7 138:20 140:9 141:15 142:6 143:4,6 147:6 164:1,15 174:22 179:15 195:1,12 201:10,19 212:18 218:3 223:13 224:3 225:17 227:22 240:4 241:5,8 242:10,10 245:8 253:8</p> <p><b>throughout</b> [4] 22:14 24:2 31:19 219:19</p> <p><b>thrusters</b> [1] 54:3</p> <p><b>tieback</b> [1] 51:13</p> <p><b>tied</b> [3] 47:16 249:14,15</p> <p><b>tightly</b> [1] 184:14</p> <p><b>timeframes</b> [1] 234:11</p> <p><b>timeliness</b> [2] 8:4,7</p> <p><b>timely</b> [1] 180:3</p> <p><b>times</b> [15] 24:1,4 27:5,7 29:22 84:14 121:22 126:14 150:6 168:13 171:4 178:13 180:14 266:20,21</p> <p><b>tips</b> [1] 180:12</p> <p><b>to-day</b> [1] 106:13</p> <p><b>to-work</b> [2] 98:24 107:22</p> <p><b>today</b> [27] 9:24 12:23 13:25 16:4,14 17:7,17 18:5,15 19:23 20:4,10 21:13 24:17 26:25 29:2 29:18 30:3 31:17 33:14 49:17 93:19 156:19 197:3 202:20 218:7 268:23</p> <p><b>today's</b> [1] 17:14</p> <p><b>together</b> [15] 13:1,3,4 13:11 24:11 97:21 102:25 116:21 117:4 125:14 126:4 127:12,23 131:16 225:25</p> <p><b>tolerance</b> [3] 116:7,12 116:13</p> <p><b>tomorrow</b> [8] 9:24 17:15 18:6 93:20 162:2 268:17 269:8,15</p> <p><b>ton</b> [1] 155:21</p> <p><b>tonnes</b> [2] 248:15,19</p> <p><b>tons</b> [1] 43:16</p> <p><b>too</b> [12] 24:7 112:2 119:1 140:2 146:4 156:16 191:3 218:25 221:16 252:1,2 268:6</p> <p><b>took</b> [11] 42:18 122:15 164:4 195:18 196:19 197:12,18 200:12 218:25 220:17 221:16</p> <p><b>tool</b> [1] 112:22</p> <p><b>toolbox</b> [5] 106:25 107:1 107:5 135:12 136:2</p> <p><b>tools</b> [8] 103:9,11,12,15 103:22,22,25 134:19</p>	<p><b>top</b> [4] 91:23 98:9 105:9 126:4</p> <p><b>topics</b> [2] 121:17 137:16</p> <p><b>topsides</b> [1] 43:17</p> <p><b>Torbay</b> [1] 182:7</p> <p><b>torso</b> [1] 166:21</p> <p><b>total</b> [2] 174:4,6</p> <p><b>totality</b> [1] 89:18</p> <p><b>totally</b> [1] 111:19</p> <p><b>touch</b> [1] 8:13</p> <p><b>tow</b> [1] 176:21</p> <p><b>towards</b> [3] 103:8 105:11 110:5</p> <p><b>towing</b> [2] 38:19 150:4</p> <p><b>town</b> [10] 135:9 136:25 137:3,6,9,10,14 199:13 199:14 245:17</p> <p><b>TP</b> [1] 70:10</p> <p><b>TP-7920</b> [1] 152:9</p> <p><b>track</b> [2] 109:17 196:12</p> <p><b>tracked</b> [1] 217:15</p> <p><b>tracking</b> [5] 236:12,21 247:22 248:6 252:17</p> <p><b>tracks</b> [1] 236:21</p> <p><b>traditional</b> [1] 144:24</p> <p><b>tragedy</b> [1] 27:12</p> <p><b>tragic</b> [1] 268:12</p> <p><b>train</b> [3] 219:14 223:19 251:14</p> <p><b>trained</b> [8] 96:15,24 116:16 117:14 157:17 160:14 241:15 251:1</p> <p><b>trainer</b> [1] 11:11</p> <p><b>training</b> [76] 32:19 71:13 79:24 92:13 97:2,6,17 119:22 121:12 122:21,22 122:22 129:3 160:12,13 166:13 168:25 169:16 211:20,21 218:20 219:13 220:9 222:1,15,16,23,25 223:2,2,7,12,16,22 224:15 225:9,12,14,15 225:16,17,23 226:12,14 226:19,21,23 227:7,22 232:24 233:1,20 234:7 234:13,19 235:1,4 236:6 236:13 237:1,7 238:19 240:16,18 246:15,18,20 247:5 251:16 252:1,4,5 258:17,20 262:1 264:22</p> <p><b>transcend</b> [2] 125:5 127:22</p> <p><b>transcribed</b> [1] 271:6</p> <p><b>transcript</b> [1] 271:3</p> <p><b>transfer</b> [3] 44:14 104:2 248:21</p> <p><b>transit</b> [2] 11:17 12:14</p> <p><b>transited</b> [1] 164:13</p> <p><b>transiting</b> [1] 206:2</p> <p><b>transition</b> [10] 196:17 197:2 209:6 211:17,22 212:4 213:19 214:12,12 215:19</p> <p><b>transmitters</b> [1] 251:8</p>	<p><b>transport</b> [42] 11:3 15:22 56:24 61:8,21 62:5 62:6,15 63:3 70:9,11 77:10 85:6,13,15 89:25 90:7,14,20,20 91:3,5 95:7 142:13 148:15 149:10 150:18 152:1,6 166:12,13 169:1,19,24 179:23 203:1,13,15 206:7 208:24 240:22 263:12</p> <p><b>transportation</b> [43] 5:1 15:21 16:2 20:15 21:15 22:3,22 23:6 30:6 32:18 49:13 56:6,20 63:13 70:8 76:7 81:13,15,18,21,22 81:24 82:13,24 121:23 122:7 134:3,7,22 135:2 164:10 169:20,21 201:14 201:18 203:12 205:19,22 209:14 213:22 232:5 234:20 249:2</p> <p><b>transported</b> [1] 174:15</p> <p><b>transporting</b> [1] 234:21</p> <p><b>Transshipment</b> [2] 44:16 58:20</p> <p><b>travel</b> [22] 20:21 21:10 24:1 29:21 37:23 38:3 56:22 226:22 227:16,23 228:10 229:4 231:18,24 233:12 236:16 237:14 239:11,13,15 240:4 241:5</p> <p><b>travelled</b> [5] 22:15 24:3 228:3,7 233:8</p> <p><b>travelling</b> [3] 218:18 236:15 237:9</p> <p><b>travels</b> [3] 134:22 179:12 239:5</p> <p><b>treat</b> [2] 66:10 241:3</p> <p><b>tremendous</b> [1] 20:25</p> <p><b>trends</b> [1] 135:8</p> <p><b>Trevor</b> [2] 18:19 19:1</p> <p><b>trial</b> [1] 69:7</p> <p><b>tried</b> [1] 215:5</p> <p><b>trip</b> [1] 137:2</p> <p><b>troubling</b> [1] 7:24</p> <p><b>true</b> [4] 3:9 27:3 208:16 271:3</p> <p><b>try</b> [8] 29:21 31:5,8 145:20 154:18 162:25 168:13 199:12</p> <p><b>trying</b> [5] 154:10 182:14 192:6 199:4 224:14</p> <p><b>TSB</b> [1] 11:4</p> <p><b>turkey</b> [1] 241:18</p> <p><b>turn</b> [2] 51:1 53:25</p> <p><b>turnaround</b> [1] 209:5</p> <p><b>turned</b> [1] 214:4</p> <p><b>turning</b> [1] 201:1</p> <p><b>turns</b> [1] 217:11</p> <p><b>turret</b> [4] 50:3 53:15 154:12,12</p> <p><b>twenty</b> [1] 230:7</p> <p><b>twice</b> [2] 121:17 138:4</p> <p><b>two</b> [49] 6:3 10:8 14:11 25:14 31:19 37:2 43:18</p>
---	---	---	--	---

<p>44:6 45:2,13,24 46:2 57:17 58:6,11 61:10 64:5 113:14 128:22 130:4 144:23 150:12 151:9 153:20 154:1,17 160:1 160:12 163:7,10 173:4 182:16 184:2 185:6,24 186:4 193:6 194:21 210:8 210:24 230:7 232:20 239:3,3,3,3 266:21,24 267:25</p> <p><b>two-day</b> [1] 233:2 <b>twofold</b> [1] 240:25 <b>type</b> [19] 37:17 55:16 73:8 94:1 95:5 108:16 112:22 135:7 145:7 150:11 160:2,10 170:16 171:23 176:19,23 246:20 247:4 256:4</p> <p><b>types</b> [16] 14:11,23 21:18 39:4 54:23 55:9 56:7 75:25 103:12 135:5 142:3 160:1 165:13 179:3 197:10 199:19</p> <p><b>typical</b> [5] 103:24 109:22 121:14 243:3 247:17 <b>typically</b> [11] 23:10 119:20 120:20 135:9 140:6 141:8,23 142:1 146:7 147:20 246:10</p>	<p><b>undertaking</b> [5] 2:3,21 3:19 7:3 23:11 <b>undertakings</b> [6] 2:10 2:18 4:10 5:11 8:21 15:17 <b>undertook</b> [1] 202:11 <b>underwater</b> [3] 168:24 169:7 218:9 <b>underway</b> [2] 46:8 57:18 <b>unfit</b> [2] 231:18 232:7 <b>unintelligible</b> [2] 265:15 268:9 <b>unique</b> [6] 31:25 36:10 36:14 38:5 39:1 172:5 <b>unit</b> [5] 47:4,12 56:10 88:17 204:12 <b>United</b> [1] 23:8 <b>units</b> [2] 176:16 219:13 <b>University</b> [3] 11:11 25:1 28:1 <b>unless</b> [8] 3:6 9:19 63:14 164:23 168:4 201:23 240:18 245:4 <b>Unlimited</b> [2] 271:12,14 <b>unloading</b> [1] 235:21 <b>unsafe</b> [1] 133:22 <b>unserviceable</b> [1] 183:23 <b>unsure</b> [1] 251:24 <b>untouched</b> [1] 20:12 <b>up</b> [72] 1:11 6:11,21 8:16 15:19 16:16 19:13 25:25 26:10 31:16 40:5 42:8 43:21 48:25 54:1,14 60:1 60:14 61:24 65:25 66:1 83:19 104:10 107:10 114:19,23 116:12,25 117:20 124:8 127:7 136:12,13,22 150:20 154:5 155:5 156:22 164:23 174:17 182:16 184:1 188:21 190:15,17 198:16,21 214:5 215:20 215:21 216:21 234:4 238:21 241:17 242:12 244:8 250:2,3,7 251:5 253:3,7,10,22,25 254:7 259:12,14 265:20 266:23 266:25 267:4 <b>update</b> [2] 246:16 262:11 <b>updates</b> [1] 121:22 <b>upper</b> [1] 166:21 <b>upwards</b> [2] 50:10,16 <b>usage</b> [6] 156:10 169:8 177:18 178:1,14 197:8 <b>used</b> [28] 14:25 47:9 55:17,20,22 59:1 71:18 93:16 103:15 109:23 110:13 117:15 151:9,10 167:17 169:9 189:19 190:8 194:8 196:6 202:5 213:14,15 219:9 220:4 224:2 243:21 259:19 <b>useful</b> [2] 11:8 202:9 <b>user</b> [3] 208:12 218:11 266:8</p>	<p><b>users</b> [3] 180:10 201:2 227:11 <b>uses</b> [3] 86:15 92:18 149:23 <b>using</b> [15] 31:6 38:19,20 38:21 46:24 56:13 58:8 103:24 127:12 165:19 191:14 200:18 203:9 233:1 250:21 <b>usually</b> [7] 29:21 34:4 60:1 95:18 107:6,15 136:15 <b>utility</b> [1] 43:18 <b>utilize</b> [4] 32:9 146:12 250:14 266:10 <b>utilized</b> [3] 240:12 243:1 249:20 <b>utilizes</b> [1] 58:6 <b>utilizing</b> [1] 259:21</p>	<p><b>VHF</b> [1] 248:22 <b>via</b> [2] 92:14 218:18 <b>vibrating</b> [1] 225:4 <b>vibration</b> [2] 199:25 200:5 <b>vicinity</b> [1] 261:25 <b>video</b> [3] 134:24 242:1 244:3 <b>view</b> [8] 27:11 94:6,9 200:12,14 225:21 226:6 226:8 <b>vigilant</b> [2] 93:11 114:10 <b>vintage</b> [1] 199:2 <b>virtue</b> [6] 67:19 110:6 129:23 130:13 136:1 167:8 <b>visit</b> [2] 83:17 86:22 <b>visited</b> [1] 155:10 <b>visits</b> [3] 83:20 84:13 86:19</p>	<p>152:23 166:20 216:4,5,7 216:9 217:19 254:18 266:7 <b>waters</b> [1] 217:15 <b>wave</b> [2] 37:18 153:14 <b>waves</b> [1] 35:18 <b>ways</b> [6] 24:10 108:9 117:2 144:23 155:25 199:7 <b>wear</b> [6] 169:19 212:21 212:22,24 218:20 232:4 <b>wears</b> [1] 115:16 <b>weather</b> [33] 37:5 38:25 53:20,22,24 80:3 144:7 144:18 146:9,21 147:1,3 147:5,5,11,19,25 148:3 148:8,10 155:7 171:25 172:6,7,20,24 174:12,12 175:2,6 184:8 205:21 228:25 <b>website</b> [4] 3:2 14:13,22 65:23 <b>week</b> [7] 13:8 44:23 79:4 129:15,24 135:19 170:8 <b>weekend</b> [1] 266:24 <b>weekly</b> [2] 136:8 246:19 <b>weeks</b> [11] 10:13 12:21 128:24 130:9,15 131:24 131:25 136:7 137:3 239:3 268:12 <b>weighs</b> [1] 43:15 <b>weight</b> [7] 89:9 105:12 155:22 179:16,22 193:10 208:25 <b>weights</b> [2] 240:20 243:24 <b>well-designed</b> [1] 97:14 <b>well-trained</b> [1] 116:18 <b>wellhead</b> [1] 48:5 <b>wellheads</b> [5] 47:3,21 47:24 48:2,7 <b>wells</b> [7] 47:5,14,15 48:22,23 54:10 145:2 <b>west</b> [4] 29:7,10,16 45:17 <b>Western</b> [3] 28:3,6 29:14 <b>Westland</b> [2] 193:8,20 <b>wheel</b> [1] 155:6 <b>wheels</b> [12] 184:1 250:3 251:5 253:3,7,10,22,25 254:6 266:23,25 267:4 <b>whereabouts</b> [1] 40:20 <b>whereas</b> [2] 39:12 150:22 <b>whereby</b> [2] 135:6 156:11 <b>wherever</b> [1] 53:25 <b>Whiffen</b> [1] 49:5 <b>whilst</b> [2] 92:21 118:21 <b>White</b> [15] 23:18 34:6 35:1 40:3 49:2,9 51:8,10 86:15 87:14 145:6 150:20 186:5 191:1 197:17 <b>whited</b> [1] 15:2 <b>WHMIS</b> [1] 234:24</p>	
<p><b>-U-</b></p>		<p><b>-V-</b></p>		<p><b>-W-</b></p>	
<p><b>Uh-hm</b> [2] 138:17 190:24 <b>UK</b> [5] 29:15 70:15 71:5 71:7 86:15 <b>UKOOA</b> [1] 23:8 <b>ultimately</b> [10] 12:15 22:7 133:12 173:11 181:8 195:13,20,22 196:13 240:3 <b>umbrella</b> [1] 4:13 <b>unable</b> [2] 53:17 102:20 <b>unacceptable</b> [2] 164:9 223:1 <b>unconscious</b> [2] 217:22 241:4 <b>under</b> [21] 14:12 32:5 36:9 50:10 61:7 63:9 80:5 82:15,16,23 85:19 90:10 125:14 138:7 149:11 218:15 219:14,16 236:25 237:15 265:7 <b>undergo</b> [1] 160:11 <b>undersigned</b> [1] 271:2 <b>understand</b> [22] 2:25 8:16 19:15 93:13 103:1 113:1 129:14 154:3 159:11 163:17,19 176:6 181:11,12 183:14 191:20 203:25 204:3 214:1 254:25 256:22 259:20 <b>understands</b> [1] 154:16 <b>understatement</b> [1] 28:17 <b>understood</b> [3] 7:13,14 213:21 <b>undertake</b> [1] 221:3</p>	<p><b>valid</b> [7] 86:8,24 163:1 164:5 166:5 233:12,14 <b>validated</b> [1] 188:4 <b>vaning</b> [3] 53:20,22,24 <b>variety</b> [3] 55:2,9 151:24 <b>various</b> [24] 19:6,14 25:17 27:4 28:12 49:6 50:21 54:22 64:9,10 75:17 78:21 81:20 92:7 111:20 119:3 125:5 148:19 177:6 192:11 222:4 230:5 259:4 263:22 <b>vary</b> [1] 157:19 <b>vast</b> [3] 260:7 266:4,8 <b>vehicle</b> [3] 194:3 216:14 216:15 <b>venture</b> [3] 33:22 34:1 51:9 <b>venturers</b> [5] 33:23 35:3 59:19 60:3,16 <b>ventures</b> [3] 31:21 33:15 33:21 <b>verified</b> [2] 217:2 240:16 <b>verify</b> [1] 174:23 <b>versus</b> [1] 39:4 <b>vessel</b> [34] 22:24 46:25 49:10,17,21,23,25 50:4 50:5,7 52:14,15 53:13 54:1 56:12 58:1,11 73:9 81:6 101:7 147:9 149:9 150:22 150:23 151:4,13,15,24 152:10 158:1 205:20 206:1,7 240:4 265:11 <b>vessel's</b> [1] 248:17 <b>vessels</b> [45] 38:18,21 55:2 57:5,7 58:4,11 73:9 81:6 138:24 144:6 149:21 150:3,13,16,16 151:7,9 151:11,12 152:7,9,15,16 153:2,5,10 167:1 193:13 247:19,21,25 248:3,15 248:19,22 257:16 265:5 265:6,10 266:12,14,15 267:15,21 <b>vests</b> [1] 203:3</p>	<p><b>Vokey</b> [113] 18:21,25 24:18,20,22 37:15 44:24 46:11,12 47:11 48:20 50:25 51:17,24 67:9,10 67:14 78:10 88:5 138:19 138:21 139:25 140:16,22 141:1,13,22 142:18 143:1 143:17 144:1,22 146:6 146:11,16,25 147:17 148:4,9,13,20 149:1,5 149:18 151:8,21 152:21 157:24,25 158:12 159:24 160:21 164:24 165:1,6 167:3,10 168:6,15,21 169:23 170:13 171:11,18 171:22 172:2,25 173:15 173:25 175:15,21,25 176:8,13 177:2,8,12,24 178:5,15,25 180:18 181:18,25 182:10,18 183:12,19 185:21 186:8 186:20 188:13,19,25 189:5 190:9,25 191:23 192:3,8,12,16,24 194:5 194:14,19 198:12,20 201:5 210:17 230:21 238:9 268:17 <b>volume</b> [1] 115:8 <b>voyage</b> [1] 206:1</p>	<p><b>wait</b> [1] 199:12 <b>walking</b> [1] 24:14 <b>wall</b> [1] 47:23 <b>wants</b> [1] 239:11 <b>warning</b> [1] 201:6 <b>warrant</b> [1] 84:11 <b>wash</b> [1] 38:21 <b>watch</b> [2] 80:10 222:13 <b>watching</b> [1] 20:4 <b>water</b> [37] 22:17 23:2 35:20 38:21 42:15 43:5 43:7,20 47:19,21 48:1,3 48:10,14,24 51:20 55:6 115:6,8,18 122:14,20 123:4,6,10 152:17,20,22</p>		

<p><b>whole</b> [4] 12:15 174:4 213:19 214:3 <b>wide</b> [1] 49:20 <b>widely</b> [1] 110:13 <b>wider</b> [2] 115:21 116:14 <b>wife</b> [1] 28:18 <b>wiggle</b> [1] 173:4 <b>willing</b> [1] 133:16 <b>wind</b> [6] 35:16 37:18 50:6 53:25 147:8 153:14 <b>windows</b> [1] 223:20 <b>winds</b> [2] 172:11 175:3 <b>wing</b> [3] 265:4,21 266:14 <b>winter</b> [1] 147:21 <b>wire</b> [1] 38:19 <b>wish</b> [6] 9:9 10:2 19:11 54:5 131:14 132:22 <b>wishes</b> [1] 241:13 <b>withdraw</b> [1] 128:13 <b>within</b> [19] 2:16 10:8,20 14:23 15:20 59:22 78:18 82:1 91:7 126:20 142:2 155:16,17,18 250:2,3 259:6 263:24 266:9 <b>without</b> [5] 89:5 109:24 153:13 220:12 222:25 <b>withstand</b> [2] 39:11 44:11 <b>witness</b> [1] 7:21 <b>witnesses</b> [4] 18:23 125:4 177:20 268:21 <b>Wolff</b> [1] 22:6 <b>wonder</b> [2] 8:7 225:3 <b>wondering</b> [2] 210:21 231:22 <b>word</b> [8] 15:1 127:13 152:19 167:4,4 168:10 192:6 224:1 <b>worded</b> [1] 184:14 <b>wording</b> [2] 176:12,14 <b>words</b> [4] 111:12 169:13 211:20 259:13 <b>wore</b> [1] 214:21 <b>worked</b> [18] 21:17,19 22:5,20 23:24 28:3,12 28:24 59:10,13 116:20 120:3 130:16 170:11 195:20 211:19 236:10 268:9 <b>worker</b> [10] 22:8 77:9,9 107:10 133:5,20 159:15 232:12 262:20,21 <b>workers</b> [21] 78:2 100:4 100:5 107:2 120:2 124:15 124:16,25 125:7 129:14 133:11,15 135:4 159:3 201:2 225:17 226:5,22 232:22 233:19 245:7 <b>workforce</b> [31] 20:11 20:14,20,22 29:25 78:7 98:11 106:13,21 107:15 108:17 135:12,14 156:14 198:15 199:6 211:23 213:4 220:10 226:15 227:5,6,15,20 251:22,24</p>	<p>261:7 262:8,12,19,23 <b>workings</b> [1] 118:24 <b>workplace</b> [2] 20:22 102:18 <b>works</b> [18] 21:4 24:5,6 51:25 56:16 92:1 94:22 99:8,10 104:13 126:16 127:18,19,21 172:22 181:7 225:25 235:2 <b>world</b> [21] 14:19 25:19 31:4 35:23 36:4,10,24 40:1 49:16 56:23 57:1 59:9,10 87:25 92:23 93:3 110:18 173:6 193:22 220:1,3 <b>world's</b> [1] 28:9 <b>worldwide</b> [3] 87:8,10 268:15 <b>wrist</b> [1] 232:3 <b>written</b> [1] 79:16 <b>wrong</b> [2] 159:2 199:10</p> <hr/> <p style="text-align: center;"><b>-X-</b></p> <hr/> <p><b>x</b> [2] 150:15 157:11 <b>x-ray</b> [1] 241:7</p> <hr/> <p style="text-align: center;"><b>-Y-</b></p> <hr/> <p><b>year</b> [26] 2:4 23:18 24:2 25:22 26:1 29:22 69:23 83:14 84:13 107:20 128:22 133:25 135:20 140:6 150:7 153:8 156:5 160:12 170:8 173:20 175:9 230:7,11 232:22 251:4 267:5 <b>yearly</b> [1] 121:17 <b>years</b> [37] 21:15 23:25 24:9,24 25:17 26:7,22 27:4,24 28:5,8,22 42:20 51:7 74:17,24 77:13,19 92:18 93:1 116:21 145:9 170:12,15 193:4 197:14 197:21 202:16 213:24 223:15 232:19,20,21,25 233:14,16 239:3 <b>yellow</b> [5] 111:21 202:16 202:18 260:24 261:24</p> <hr/> <p style="text-align: center;"><b>-Z-</b></p> <hr/> <p><b>zip</b> [2] 242:12 244:8 <b>zipper</b> [1] 212:10 <b>zone</b> [1] 38:12</p>			
--	--	--	--	--