

**Joint Review Panel  
Public Hearing**

**Commission d'examen conjoint  
Audience publique**

**Frontier Oil Sands Mine  
Project**

**Projet de mine de sables bitumineux  
Frontier**

**Joint Review Panel**

**Commission d'examen conjoint**

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1 Fort McMurray, Alberta / Fort McMurray (Alberta)

2 --- Upon resuming on Friday, September 28, 2018

3 at 0859 / L'audience reprend le vendredi

4 28 septembre 2018 à 0859

5 PREVIOUSLY AFFIRMED: KIERON McFADYEN

6 PREVIOUSLY AFFIRMED: LYNDON CHIASSON

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3 PREVIOUSLY AFFIRMED: JONATHAN CHUI

4 PREVIOUSLY AFFIRMED: SCOTT DONALD

5 PREVIOUSLY AFFIRMED: RICHARD SISSON

6 THE CHAIRPERSON: Good morning,  
7 everyone. Please be seated.

8 Just before we start, I just want to  
9 remind everybody that there is live audio and video  
10 webcasting here and anybody could be captured on the  
11 broadcast. If you have any concerns about that,  
12 please see the Secretariat counsel, Ms LaCasse or Ms  
13 Doebele.

14 Ms Asterisk.

15 MS ASTERISK: Thank you, Mr. Chair.

16 Yesterday we ran quite late and I left  
17 some stuff out. I've had some coaching, so I'm going  
18 to ask for a couple more questions, but I'm not going  
19 to be long about it, it will just be very quick, for  
20 the record.

21 THE CHAIRPERSON: Mr. Ignasiak.

22 MR. IGNASIAK: Mr. Chair, I'm  
23 concerned we -- I mean their cross was concluded, so I  
24 think that that should put an end to it. And I think  
25 we've got a schedule to maintain, so we're opposed to

1 the Keepers having another opportunity to ask further  
2 questions. I think they had that opportunity  
3 yesterday and indicated they were done.

4 MS ASTERISK: The problem is, though,  
5 that we went over 5:00 p.m. and I wasn't -- I didn't  
6 know that, I hadn't eaten lunch and so I was a bit  
7 faint. And so, yes, I left off some important  
8 information for the Panel regarding the traditional  
9 knowledge holders' concerns and I promise I won't  
10 bring them up, I'll just ask the questions.

11 MR. IGNASIAK: Well, again, if it's  
12 about bringing information, I think the opportunity to  
13 do that is during direct, sir.

14 MS ASTERISK: No, it's asking for  
15 information from Teck, whether you've addressed this  
16 stuff in your materials.

17 THE CHAIRPERSON: Okay. So, again,  
18 just to reiterate what Mr. Ignasiak said, not an  
19 opportunity to introduce evidence. If you have a  
20 couple of short questions, you know, I'll allow you 10  
21 minutes or so to do that, but again, we don't want to  
22 kind of prolong that, we do have a schedule to  
23 maintain.

24 MS ASTERISK: Understood.

25 THE CHAIRPERSON: And before we get to

1 that, I'll just ask, are there any other preliminary  
2 matters?

3 Okay. Ms Asterisk, go ahead.

4 CROSS-EXAMINATION (Cont'd)

5 MS ASTERISK: Thank you so much.

6 Can you point to a location in your  
7 materials that addresses increased forest flammability  
8 because of increasing and more northerly particulate  
9 matter and hydrocarbon emissions?

10 MR. SPELLER: Mr. Chairman, that  
11 information is not in the file material.

12 MS ASTERISK: No, no forest  
13 flammability.

14 Can you tell us where in your  
15 materials you address the increasing wind speeds that  
16 we're seeing with increasing climate change?

17 MR. SPELLER: So, Mr. Chairman, in our  
18 Response to Joint Review Panel Information Request  
19 3.11 in Package 3 -- and that is Registry Document No.  
20 268 -- we do talk about climate change and changing  
21 meteorology in comparison to the air quality  
22 assessment and the meteorology data we used in that  
23 assessment.

24 MS ASTERISK: Thank you.

25 Can you tell me where in your

1 materials you have planned for the potential for  
2 increased flooding due to climate change? Is that in  
3 your Tailings Management Plan?

4 --- Pause

5 MR. SPELLER: So, Mr. Chairman, we do  
6 have that. Dr. Long is going to find the reference  
7 for us. Just one second.

8 --- Pause

9 DR. LONG: Mr. Chairman, my name is  
10 Dejiang Long. I was the leader for the water  
11 management planning for the Frontier Project. The  
12 climate change potential effect on the hydrology for  
13 the project was assessed and the information is  
14 provided in Teck's Response to the Joint Review Panel  
15 Information Request 8.4.

16 MS ASTERISK: And can you tell me  
17 where in your material you addressed the potential for  
18 increased and more dramatic and destructive fires due  
19 to climate change? Is there somewhere in your  
20 material where it's described how that may or may not  
21 affect your operation?

22 --- Pause

23 MR. SPELLER: Mr. Chairman, Mr.  
24 Brescia is going to look up two references for that  
25 and he's going to provide them once he has them.

1 MS ASTERISK: Thank you.

2 Can you tell me where in your  
3 materials --

4 THE CHAIRPERSON: Ms Asterisk, just  
5 wait till they --

6 MS ASTERISK: Oh, wait for that?

7 THE CHAIRPERSON: Just wait. We don't  
8 want them to be too distracted.

9 MS ASTERISK: Oh, thank you.

10 --- Pause

11 MR. BRESCIA: Dave Brescia.

12 Mr. Chairman, we've discussed the  
13 approach we took to incorporating both existing and  
14 future forest fires in the Project Update Volume 3,  
15 Section 10.3.3.4, and in addition, in the Round 2 SIR  
16 Responses, Question 184, we have discussed the effects  
17 of a change in fire cycle return rate.

18 MS ASTERISK: Thank you.

19 And can you tell me where in your  
20 material you address the increasing cancers in  
21 animals?

22 --- Pause

23 MR. KOPPE: It's Bart Koppe.

24 So, Mr. Chair, as part of the wildlife  
25 health risk assessment the endpoints that we're really

1 interested in or the health endpoints are ones that  
2 could affect the long-term viability of a population,  
3 so we look at things like reproduction, development,  
4 growth. Cancer is not an endpoint that's considered  
5 as part of an ecological risk assessment, but it is  
6 considered as part of the human health risk  
7 assessment.

8 MS ASTERISK: So cancer in animals was  
9 not part of the material?

10 MR. KOPPE: For the reason that it  
11 tends not to be the most sensitive endpoint, again, we  
12 focus on population-level effects in the ecological  
13 risk assessment.

14 MS ASTERISK: Thank you.

15 Last one. Can you address the  
16 potential for inaccurate science due to financial  
17 interest?

18 MR. SPELLER: I'm wondering if you  
19 could maybe provide more clarification on what you're  
20 looking for.

21 MS ASTERISK: Certainly. I've been  
22 avoiding using quotes. These are all questions based  
23 on the concerns that were brought forward by  
24 traditional knowledge holders. I understand that you  
25 don't necessarily have contact directly with the

1 knowledge holders, so we're really glad to be able to  
2 bring forward these concerns. Several people  
3 mentioned that they are aware of scientists ignoring  
4 results, they are aware of people making  
5 misstatements, they're aware of environmental  
6 scientists -- one fellow actually even says, "ignoring  
7 evidence". So that's a real concern. Have you  
8 addressed the concern anywhere about this potential  
9 for inaccurate science or biased science due to  
10 financial interest?

11 MR. SPELLER: So, Mr. Chairman, I  
12 guess the way I would respond to that is the  
13 colleagues that I work with and myself are all  
14 professionals. It's important to us and we're bound  
15 by the different professions that we're in to make  
16 sure we are doing our best work and accurate work  
17 based on the information that we have. I have not run  
18 into a case of inaccurate science or a colleague  
19 looking to do inaccurate science. We have  
20 professionals who do good, honest work. I have not  
21 run into that as a concern.

22 MR. McFADYEN: Chair, if I may, I want  
23 to go back to my opening comments. Earlier in my  
24 opening statement I did make the point about Teck  
25 values. I just want to reemphasize one. There were

1 six, if you recall. So we are open, we are honest in  
2 our all dealings, and I want not to -- again, we don't  
3 mess about; we're open and we're honest in all our  
4 dealings.

5 MS ASTERISK: Thank you. I'm not  
6 trying to suggest otherwise. The way that the concern  
7 came forward is that, you know, this may not be a  
8 deliberate thing that people are doing, it's just a  
9 bias that is based around where their chequebook --  
10 where their money is coming from. So I'm not trying  
11 to suggest otherwise than what you just said, but  
12 there is the potential for inaccurate science just  
13 because of the way the system works, that it's -- that  
14 you're developing your own application, that there's  
15 nobody checking on things, that there's -- you know,  
16 it's all up to you.

17 And the people that work for you, I'm  
18 sure, are very professional and bound by their  
19 professions and -- but there is the potential for  
20 inaccurate science as based on the knowledge holders'  
21 observations just due to the fact that there's no  
22 checking, there's no cross-referencing, checking.

23 That's too long of a question.

24 Okay. Well --

25 THE CHAIRMAN: So let Mr. Johnstone

1 respond, and I think that was your last question?

2 MS ASTERISK: Yes.

3 THE CHAIRMAN: Okay. Go ahead, Mr.  
4 Johnstone.

5 DR. JOHNSTONE: Very briefly, Mr.  
6 Chair.

7 Look, there are many checks and  
8 balances throughout this process. Teck, as part of  
9 its consultation with indigenous communities, have  
10 provided the financial means for indigenous  
11 communities to hire their own technical experts to be  
12 able to review the -- the applications and all the  
13 materials.

14 In addition, government has also done  
15 the same.

16 There are many checks and balances in  
17 place to ensure that we're providing accurate,  
18 scientifically rigorous material.

19 And in addition, we have been  
20 collaborating intensively with indigenous communities  
21 to make sure that their viewpoints and perspectives  
22 from an indigenous knowledge holder perspective  
23 incorporated.

24 So if you look at things like cultural  
25 impact assessments, they also bring a different

1 perspective to assessment of the project on indigenous  
2 knowledge holders and community members, so we think  
3 there are many checks and balances in the process  
4 throughout this 10-year process.

5 MS ASTERISK: I'm sorry. That just  
6 brings up one absolutely final question.

7 Are the checks and balances all  
8 internal?

9 DR. JOHNSTONE: Mr. Chair, no, as I  
10 referred to, checks and balances are also created by  
11 indigenous communities through their technical review  
12 of the material that Teck provides, as does government  
13 also provide.

14 So the checks and balances that I'm  
15 referring to in this case, I've only referred to the  
16 external to Teck checks and balances.

17 MS ASTERISK: Thank you.

18 THE CHAIRPERSON: Okay. Thank you, Ms  
19 Asterisk.

20 Next up, Government of Canada for its  
21 cross-examination.

22 CROSS-EXAMINATION

23 MR. DRUMMOND: Thank you, Mr. Chair,  
24 Panel Members. For the record, Robert Drummond,  
25 Department of Justice Canada.

1 Thank you, panel. I hope to have just  
2 a -- just a few very brief questions for you.

3 The first question -- and I'm going to  
4 give you reference. I'm going to refer you to a page  
5 in the Parks Canada submissions, and these can be  
6 found at CEAA Registry document 489. The PDF page is  
7 398, and it should have a notation of PCA019.

8 --- Pause

9 MR. DRUMMOND: Specifically in Section  
10 4.1 for evaluating significance. And there's a  
11 reference there to a Canadian Environmental Assessment  
12 Agency document. Specifically, the quote is:

13 *"... the Operational Policy*  
14 *Statement Determining Whether a*  
15 *Designated Project is Likely to*  
16 *Cause Significant Adverse*  
17 *Environmental Effects under the*  
18 *CEAA, 2012..."*

19 Are you aware of that document?

20 MR. SPELLER: Yes, we are.

21 MR. DRUMMOND: Okay. And you are  
22 aware of the -- then, the section referring to  
23 determining whether residual environmental effects are  
24 significantly adverse, which would include an  
25 assessment of significance?

1 MR. SPELLER: Mr. Chairman, yes, we  
2 are.

3 MR. DRUMMOND: And you note that --  
4 and it's there on the page. Parks Canada makes  
5 reference to -- a reference to the unique  
6 characteristic of an area, including as the first  
7 example proximity to parklands.

8 MR. SPELLER: Mr. Chairman, yes, we  
9 are.

10 MR. DRUMMOND: And to be fair, Parks  
11 has raised its concern that Teck did not include the  
12 proximity of Wood Buffalo National Park in determining  
13 significance for environmental effects in regard to  
14 valued components.

15 Can you -- did -- so my question is  
16 effectively this. Did Teck include the fact of the  
17 proximity of Wood Buffalo National Park in determining  
18 significance of environmental effect with regard to  
19 valued components which may not be within the Park?  
20 --- Pause

21 MR. SPELLER: Mr. Chairman, two  
22 things.

23 So the first is we did not change our  
24 environmental consequence rating system because of  
25 proximity of the Park.

1                   When we looked at environmental  
2 consequence in setting magnitudes or the final  
3 environmental consequence, what we looked at were  
4 things like ecological sustainability, ecological  
5 persistence, those sort of items when we looked at  
6 that.

7                   The other clarification I wanted to  
8 make is we didn't determine significance. We used an  
9 environmental consequence system.

10                  The factors and the -- what we call  
11 our key indicators that we've looked at, we looked at  
12 from a -- we looked at ecological end points.

13                  So we looked at aquatic health, we  
14 looked at fish, we looked at wildlife. We looked at  
15 vegetation. We looked at soils.

16                  We looked at those from an ecological  
17 content, so would project effects or cumulative  
18 effects potentially have a net impact to their -- to  
19 the ecology of those. We did not account for them in  
20 proximity to the Park. We don't know that that's  
21 appropriate.

22                  MR. DRUMMOND: Okay. Thank you.

23                  And I apologize if I misused the word  
24 "determination" in my question, just for  
25 clarification.

1                   So I have one other area I wish to  
2 question on. And Mr. Speller, this may be directed to  
3 you, but also Dr. Biftu, you may have comments to add  
4 in. And it concerns Teck's conclusions with respect  
5 to effects on the water quality and water quantity in  
6 the Peace-Athabasca Delta.

7                   And if I just refer to PAD, you're all  
8 aware of what I'm referring to.

9                   I'll refer you to your OUV  
10 submissions, and this is CEAA Exhibit 364. And first  
11 I'm going to refer you to page 38 of those  
12 submissions, and that's PDF page 42, and specifically  
13 the last paragraph.

14                  MR. SPELLER: The paragraph starting  
15 "The environmental evaluation"?

16                  MR. DRUMMOND: That's correct, yes.

17                  MR. SPELLER: Yeah, we have that.

18                  MR. DRUMMOND: Okay. Thank you, sir.

19                  I just want you to note -- and I don't  
20 wish to make a speech, but I just want to frame this  
21 for my questions.

22                  You'll note that in that paragraph  
23 Teck makes a reference to the environmental evaluation  
24 of surface water quality changes to the  
25 Peace-Athabasca Delta, and just to use an ellipsis:

1                   "...demonstrated that effects on  
2                   water from the Project in  
3                   conjunction with operating  
4                   approved and planned developments  
5                   are negligible."

6                   You note that reference. This is  
7                   obviously your submission, so.

8                   And then it mentions that this  
9                   conclusion also applies within the Peace-Athabasca  
10                  Delta and further downstream.

11                  I'm just going to refer you, then,  
12                  next to page 36 of the submissions, which is PDF page  
13                  40.

14                  And specifically, the paragraph under  
15                  Section 7.1.3.2.5, and it's the paragraph beginning,  
16                  "In summary, the Project is predicted to cause  
17                  negligible changes".

18                  Are you there?

19                  And the concluding question of the  
20                  statement in that paragraph says:

21                  "...therefore, the Project is  
22                  predicted to cause negligible  
23                  changes to the flows and water  
24                  levels in the Peace-Athabasca  
25                  Delta."

1                   And this accords, actually -- I took a  
2 look at your transcript from the other day, and this  
3 accords what you said there as well. But I note a  
4 difference between these two.

5                   In the Water Quantity statement there  
6 is a reference only to the project, but in the Water  
7 Quality statement there is a reference to the project  
8 in conjunction with operating approved and planned  
9 developments. And so I have a question with respect  
10 to water quantity. I don't see an assessment about  
11 Teck's conclusions on the effect of water quantity in  
12 the PAD taking into account existing approved and  
13 planned projects in -- in conjunction with this  
14 project. Is -- does Teck have a position in that  
15 respect?

16                   MR. SPELLER: Yeah, so -- so,  
17 Mr. Chairman, I'll -- I'll give some clarity on that.  
18 So, the short answer is, yes, we have that information  
19 in here and in our filed material. The -- I shall  
20 just jump right to that. The -- so, above, if we look  
21 at there's three bullets above that summary, where we  
22 say the aver-- average annual change in the PAD,  
23 including like Athabasca water level, because of the  
24 allowable cumulative river water withdrawals by  
25 oilsands mines under the SWQMF, as we would say it,

1 but the acronym for the Surface Water Quantity  
2 Management Framework, for the historic climate  
3 condition is estimated to be 1.4 centimetres. So,  
4 the -- and then the next bullet is the assessment of  
5 the climate change. So, those three bullets are the  
6 project, all of oilsands withdrawals allowable under  
7 the Surface Water Quantity Management Framework, and  
8 then the effect of climate change and cumulative  
9 withdrawals; that's what those three bullets are. And  
10 that is based on the detailed analysis that was done  
11 in a few spots. Most recently Joint Review Panel  
12 Information Request 10.23, where we looked at changes  
13 in water levels in the Peace-Athabasca Delta from --  
14 with the relationship with the Peace River, as was  
15 requested by the Panel, as well as oilsands cumulative  
16 cumulative withdrawals and the effects of the project.  
17 As well as earlier work in Package 8 looking at the  
18 same issue. So, we have looked at water levels in the  
19 Athabasca ri-- in the river, in Lake Athabasca, in the  
20 PAD, the relationship with the Peace River in  
21 different spots. And what we have pulled into the OUV  
22 assessment is that -- a summary related to the OUV.

23 I think it's -- the one thing I -- I  
24 would comment on when I saw the August 31st  
25 submissions, people looking at the OUV assessment, I

1 do -- I do get concern that they have looked at the  
2 OUV assessment and haven't actually looked at all of  
3 the work that was done on the project update that  
4 relies -- that is tied to the park and the PAD that  
5 underpins a lot of our assessment. I'm worried if  
6 folks to look at just the OUV assessment and not that  
7 Table 4 reference that we provided with all the links,  
8 they're not actually seeing all the work that was done  
9 on this topic.

10 MR. DRUMMOND: Okay, just -- just a  
11 moment. We ...

12 So, it's -- it's -- it's your position  
13 that this summary then, it's -- it requires a referral  
14 to other work done in -- in the previous link. So,  
15 your -- your statement that this project will cause  
16 negligible changes, and I'm not contest-- with respect  
17 to the Peace -- Peace-Athabasca Delta, but is there a  
18 statement elsewhere where it talks about this project  
19 in conjunction with these other projects affecting  
20 water quantity? I -- I -- I can't quite find that in  
21 your submissions. If -- if you can point me to it.

22 MR. SPELLER: So, the ... So, in the  
23 response to Joint Information Request Package 10, in  
24 its response to question 10.23, and it's on -- that's  
25 on hard copy page 10-260, you will see the conclusions

1 of that response, which talks about changes to  
2 historic hydrologic conditions for both the project  
3 and cumulative oilsands development. What that shows  
4 is based on this updated prediction, including the  
5 relationship with Peace-Athabasca flows -- the Peace  
6 River flows, the Athabasca River flows, and the PAD,  
7 that the cumulative effect from oilsands - bless you -  
8 is on average expected to be 1.4 centimetres, as I  
9 said to you earlier. Here it's listed as 0.014  
10 metres. And then there's probably two pages of  
11 conclusions. That's where that information would be,  
12 and that's what underpins the results in the OUV  
13 assessment.

14 MR. DRUMMOND: Okay. All right.  
15 Thank you, Mr. Speller. Those are all my questions.  
16 Thank you, Panel.

17 THE CHAIRPERSON: Thank you,  
18 Mr. Drummond.

19 Next up will be Original Fort McMurray  
20 First Nation and Clearwater Band 175, Ms Gladieu-Quinn  
21 and Mr. Malcolm.

22 MS GLADIEU-QUINN: Good afternoon,  
23 Mr. Chair and Panel. I'm going to ask questions about  
24 consultation activities with the Original Fort  
25 McMurray First Nation and the Clearwater River Band.

1 Then Acting Chief John Malcolm of the Original Fort  
2 McMurray First Nation and manager of the Clearwater  
3 River Band will ask questions regarding the  
4 environmental impacts, as he has more familiarity with  
5 the subject than I do. If there is anything that I  
6 need to follow up with him after his questioning -- or  
7 follow up with his questioning, I will do so.

8 Now, Mr. McFadyen's opening  
9 statement --

10 THE CHAIRPERSON: Ms Quinn?

11 MS GLADIEU-QUINN: Yes.

12 THE CHAIRPERSON: I just see the Panel  
13 kind of shuffling around here.

14 MS GLADIEU-QUINN: Oh. I'll wait.

15 THE CHAIRPERSON: I'm just wondering  
16 if we should take a bit of a pause until they get  
17 settled.

18 Okay. I think you can proceed.

19 MS GLADIEU-QUINN: All right. Thank  
20 you, Mr. -- thank you, Mr. Chair.

21 Now, in Mr. McFadyen's opening  
22 statement, he indicated that 14 indigenous groups have  
23 been identified and agreements were reached. I'm  
24 going to refer you to Appendix 139c.1 in SIR 2,  
25 Volume 2, Part 2 of 2, I hope I'm saying that right;

1 you can get that document in front of you. And that  
2 is the "UTS Energy Corporation & Teck Cominco Limited  
3 Frontier Oil Sands Mine Project ABORIGINAL  
4 CONSULTATION PLAN". And in particular I'm going to  
5 refer you to Appendix II of that Community Inclusion  
6 List.

7 Now ... Now, in that Community  
8 Inclusion List you have three groups and the first  
9 group has a "FULL CONSULTATION" heading. And the  
10 group Fort McKay First Nation, I understand an  
11 agreement was reached with that Aboriginal community.

12 The Athabasca Chipewyan First Nation,  
13 an agreement was reached with that community.

14 The Mikisew Cree First Nation, an  
15 agreement was reached.

16 The Métis Local number 125 (Fort  
17 Chipewyan), was an agreement reached with that  
18 community?

19 DR. JOHNSTONE: Mr. Chair, yes, it  
20 was.

21 MS GLADIEU-QUINN: All right.

22 And the Métis Local number 63 (Fort  
23 McKay), that was -- an agreement was reached.

24 I'm just going to go through the  
25 communities just to get clarification as to what was

1 represented because I didn't hear all the answers.

2 Group number 2, "NOTIFICATION AND  
3 PERIODIC MEETINGS". Now, the Fort McMurray First  
4 Nation (number 468), was there an agreement reached  
5 with that community?

6 DR. JOHNSTONE: Mr. Chair, yes, there  
7 was.

8 MS GLADIEU-QUINN: All right.  
9 Métis Local number 1935, an agreement  
10 was reached.

11 Métis Local number 2020, an agreement  
12 was reached.

13 The Chipewyan Prairie Dené First  
14 Nation?

15 DR. JOHNSTONE: Mr. Chair, no, there  
16 wasn't.

17 MS GLADIEU-QUINN: And the Métis Local  
18 number 193, was there an agreement reached?

19 DR. JOHNSTONE: Mr. Chair, correct.

20 MS GLADIEU-QUINN: Métis Local number  
21 214?

22 --- Pause

23 DR. JOHNSTONE: Mr. Chair, no  
24 agreement was reached with Chard Local.

25 MS GLADIEU-QUINN: All right. And

1 Métis Local number 780?

2 DR. JOHNSTONE: Mr. Chair, yes.

3 MS GLADIEU-QUINN: And of course we  
4 have the Wood Buffalo First Nation. And you are aware  
5 that previously as well Wood Buffalo First Nation's  
6 Elder Society and you are aware that that is now  
7 called the Original Fort McMurray First Nation?

8 DR. JOHNSTONE: We are aware of the  
9 change in name and no agreement was negotiated.

10 MS GLADIEU-QUINN: An agreement was  
11 negotiated with the Original Fort McMurray First  
12 Nation or the previous names? No?

13 DR. JOHNSTONE: No agreement was  
14 negotiated.

15 MS GLADIEU-QUINN: Okay, thank you for  
16 clarifying that. I didn't quite hear you the first  
17 time.

18 And the Clearwater River Band, was an  
19 agreement reached?

20 DR. JOHNSTONE: No agreement was  
21 negotiated with the Clearwater River Band.

22 MS GLADIEU-QUINN: All right. And in  
23 Group 3, I will go through that quickly.

24 Notification only, Big Stone Cree  
25 First Nation?

1 DR. JOHNSTONE: Mr. Chair, no.

2 MS GLADIEU-QUINN: Out of that list --  
3 and I will just shorten this up.

4 Out of that list who did you make an  
5 agreement with?

6 DR. JOHNSTONE: Métis Nation of  
7 Alberta - Region One.

8 MS GLADIEU-QUINN: All right. And are  
9 there any indigenous communities that are missing from  
10 that list that you have reached agreement with or that  
11 you have consulted with?

12 DR. JOHNSTONE: There are member  
13 communities of Métis Nation of Alberta - Region One,  
14 that are not on that list.

15 MS GLADIEU-QUINN: All right.  
16 And who prepared this community  
17 inclusion list?

18 DR. JOHNSTONE: May I please ask for  
19 clarification of the term "community inclusion list"?

20 MS GLADIEU-QUINN: Perhaps I should be  
21 asking you that because this is in your document:  
22 Community Inclusion.

23 It's your Consultation Policy.

24 DR. JOHNSTONE: Thank you for that.

25 That's our Consultation Plan and that

1 was developed in 2008 and was circulated for review.  
2 And that was a document prepared by Teck and UTS at  
3 that time.

4 MS GLADIEU-QUINN: And do you recall  
5 if there was any consultation with the Aboriginal  
6 Consultation Office in the preparation of that list?

7 DR. JOHNSTONE: This document actually  
8 predates the founding of Alberta's Aboriginal  
9 Consultation Office. And this plan was submitted for  
10 review.

11 MS GLADIEU-QUINN: Okay, thank you.

12 DR. JOHNSTONE: And it was  
13 subsequently approved.

14 MS GLADIEU-QUINN: Okay, thank you.

15 And how were these groups identified?

16 DR. JOHNSTONE: These groups were  
17 identified through a number of methods.

18 First of all was proximity of  
19 traditional land use. It was also participation or  
20 expression of concern in previous hearings at that  
21 time.

22 MS GLADIEU-QUINN: At paragraph 2 of  
23 the document, PDF page 1, you indicate that the Crown,  
24 quote:

25 "The Crown has determined that

1 the project triggers  
2 consultation. Therefore, the  
3 Alberta's First Nation  
4 Consultation Guidelines on Land  
5 Management and Resource  
6 Development Requirements must be  
7 met." (As read)

8 You go on to qualify that quote:

9 "The Métis community consultation  
10 requirements have yet to be  
11 clarified by the Government of  
12 Alberta but "potentially affected  
13 Métis communities are included"  
14 (As read)

15 I've added "are included". I added  
16 that to make sense to the paragraph.

17 "... in the consultation plan as a  
18 matter of best practice."

19 (As read)

20 So you have mentioned Métis  
21 communities.

22 What is your understanding of a First  
23 Nations community?

24 DR. JOHNSTONE: Could you rephrase the  
25 question, please?

1 MS GLADIEU-QUINN: All right.

2 In your document you distinguish Métis  
3 communities and how there's really no clarification on  
4 the consultation process with regards to Métis  
5 communities, aside from Métis settlements. And I'm  
6 speaking specifically under this policy framework of  
7 the Alberta government.

8 And you indicate that as a matter of  
9 best practice you do consult with these communities.

10 So in coming to your list, is that the  
11 guiding factor that you used to determine how you  
12 characterized the groups on that list, in terms of No.  
13 1, No. 2 and No. 3 consultation levels?

14 --- Pause

15 DR. JOHNSTONE: Mr. Chair, our  
16 inclusion of First Nations or our definition of First  
17 Nations is that included under the definition of the  
18 *Indian Act*.

19 MS GLADIEU-QUINN: Okay. You've  
20 answered the second part of my question and I thank  
21 you for doing that.

22 I'm just going to go back to how you  
23 incorporated those communities under your levels of  
24 consultation.

25 For instance, you included the Fort

1 Chipewyn Métis Local under a full consultation list.

2 When you did that, knowing that there  
3 is no policy, what factors did you consider when  
4 determining that they would be on that list?

5 DR. JOHNSTONE: Mr. Chair, we included  
6 them due to their proximity to the project and that  
7 they were downstream of the project.

8 MS GLADIEU-QUINN: Now with regards to  
9 a First Nations community, you are aware that the  
10 Original Fort McMurray First Nation asserts its rights  
11 as a First Nations community, as does the Clearwater  
12 River Band assert its rights as a First Nation  
13 community.

14 In coming to the definition of First  
15 Nations under the *Indian Act*, are you indicating that  
16 the First Nations have to be Indian according to the  
17 definition of the *Indian Act*?

18 DR. JOHNSTONE: I think it's important  
19 that we actually go up a little, and this is that we  
20 identified that consultation was necessary, and we  
21 undertook consultation with Mr. Malcolm's, the groups  
22 that Mr. Malcolm was responsible for leadership of.

23 MS GLADIEU-QUINN: So including his  
24 groups under Level 2 didn't necessarily mean that you  
25 took into consideration their identity as Indians

1 under the *Indian Act*.

2 Is that a fair assessment or  
3 conclusion? Or as a Band under the *Indian Act*?

4 Could you clarify that?

5 DR. JOHNSTONE: Mr. Chair, I think  
6 that that's a reasonable characterization. I think  
7 it's also important to note that we received or we  
8 were copied on a letter from Alberta Environment on  
9 July 26<sup>th</sup>, 2008, addressed to Mr. Malcolm as Leader of  
10 the Wood Buffalo First Nation Elder Society and  
11 Clearwater River Band No. 175, that his organization  
12 was not recognized as a First Nation by the Crown,  
13 which meant Alberta's First Nation Guidelines on Land  
14 Management and Resource Development did not apply.

15 MS GLADIEU-QUINN: So did that letter  
16 influence your level of consultation with those groups  
17 subsequent to 2008?

18 DR. JOHNSTONE: We received this  
19 letter after drafting and adoption of the Consultation  
20 Plan and we have undertaken consultation with Mr.  
21 Malcolm's organization since.

22 MS GLADIEU-QUINN: And how well  
23 informed is Teck of who the Original Fort McMurray  
24 First Nation is, previously the Wood Buffalo First  
25 Nation?

1                   How well informed is Teck of who they  
2                   are?

3                   DR. JOHNSTONE: Mr. Chair, I would  
4                   answer that question as Mr. Malcolm has thoroughly  
5                   educated us.

6                   MS GLADIEU-QUINN: And the same answer  
7                   would apply to the Clearwater River Band, I take it?

8                   DR. JOHNSTONE: That's correct.

9                   MS GLADIEU-QUINN: I'm going to be  
10                  really -- I need some clarification on this, on your  
11                  answer that you had stated earlier with regards to  
12                  including the original Fort McMurray First Nation, or  
13                  Wood Buffalo First Nation as it was called, and the  
14                  Clearwater River Band, under a Level 2 consultation  
15                  process, or standard I should say.

16                  The clarification I need to seek is to  
17                  confirm that there were other factors aside from the  
18                  *Indian Act* that you considered or contemplated in  
19                  including them in that category I should say. Is that  
20                  correct?

21                  DR. JOHNSTONE: I think the critical  
22                  element, Mr. Chair, between Level 1 and Level 2 in our  
23                  original consultation plan was really we considered  
24                  that the Fort Chipewyan communities; the  
25                  Athabasca-Chipewyan First Nation, Mikisew Cree First

1 Nation, and Fort Chipewyan Métis, based on proximity  
2 and based on being downstream would have the potential  
3 to be most affected by the project.

4 So that's how we identified Category 1  
5 and then most other communities fell in Level 2 or  
6 Level 3. Level 1 was for the purposes of essentially  
7 full consultation and, for lack of a better term,  
8 accommodation. Level 2 was for notification and  
9 periodic meetings. Level 3 was for notification.

10 We think that that categorization or  
11 that spectrum of consultation was reasonable to do.  
12 We think that that's been backed up in the Canadian  
13 and national law in a variety of circumstances.

14 We recognize that some communities may  
15 disagree with how we've approached that and they may  
16 disagree with whom we have negotiated agreements with  
17 as well. But we think that what we've has been  
18 reasonable.

19 MS GLADIEU-QUINN: You are aware that  
20 both bands have members in both Fort Chipewyan and in  
21 Fort McMurray? Except, okay, the original Fort  
22 McMurray First Nation has members in both Fort  
23 Chipewyan and Fort McMurray?

24 DR. JOHNSTONE: Mr. Chair, we're not  
25 privy to the members list, so we cannot be clear on

1 who the membership is and where they reside.

2 MS GLADIEU-QUINN: That's going to  
3 lead me into my further questioning when I ask you,  
4 how much information did you obtain from the original  
5 Fort McMurray First Nation as we regards to their  
6 membership. But I'll save that for a little further  
7 on. I just want to get some clarity in terms of how  
8 you came up with including the original Fort McMurray  
9 First Nation and the Clearwater River Band as  
10 communities. Your answer was that you rely on the  
11 definition in the *Indian Act*.

12 DR. JOHNSTONE: Mr. Chair, I think  
13 that's a mischaracterization of what I said. I  
14 understood the question was how did we identify First  
15 Nations, and I said that we relied on the definition  
16 provided by the *Indian Act*.

17 MS GLADIEU-QUINN: So does Teck  
18 consider the original Fort McMurray First Nation as a  
19 First Nations community?

20 DR. JOHNSTONE: We consider that as a  
21 non-status First Nation.

22 MS GLADIEU-QUINN: All right. With  
23 regards to the Clearwater River Band?

24 DR. JOHNSTONE: The same thing, Mr.  
25 Chair.

1 MS GLADIEU-QUINN: Now, at page 2 of 9  
2 of your PDF document states that, "Teck will utilize  
3 the following steps to guide the overall consultation  
4 process." In these steps, the first one is that  
5 you'll provide sufficient information to potentially  
6 affected Aboriginal communities about the proposed  
7 project in order to ensure adequate understanding of  
8 the project.

9 I understand that's been done? Has it  
10 been done?

11 DR. JOHNSTONE: Excuse me, in relation  
12 to whom?

13 MS GLADIEU-QUINN: In relation to both  
14 bands.

15 DR. JOHNSTONE: We would answer that  
16 as a yes. I think it's just important to note that we  
17 provided notification packages to the Clearwater River  
18 Band in 2008, 2009, 2010 and 2016. Those  
19 notifications, the packages varied, but overall they  
20 included information about the company, a project  
21 overview including maps, project development plans,  
22 environmental health and safety considerations,  
23 consultation and engagement updates, and regulatory  
24 process updates.

25 But I think it's also important that

1 we certainly understood that Mr. Malcolm preferred to  
2 receive information about the project in hard copy,  
3 and we have provided Clearwater River Band with hard  
4 copies of all its regulatory findings.

5 MS GLADIEU-QUINN: In terms of  
6 providing that sufficient information, what  
7 necessarily was done in terms of providing  
8 notification packages in 2008, 2009, 2010 and 2016?  
9 Was it simply a provision of the notification  
10 packages? Is that what was done?

11 DR. JOHNSTONE: It was provision of an  
12 information package. There was also contact numbers  
13 for anybody to contact us if they had further  
14 questions about the project.

15 MS GLADIEU-QUINN: Those information  
16 packages you provided directly to John Malcolm for  
17 both bands?

18 DR. JOHNSTONE: Mr. Chair, that's  
19 correct.

20 MS GLADIEU-QUINN: With regards to the  
21 other communities that you've identified in your  
22 community inclusion list, were those information  
23 packages provided to their legal counsel or to the  
24 contact people that are on the list?

25 DR. JOHNSTONE: Mr. Chair, the

1 information packages were provided to a designated  
2 contact person. In the case of Clearwater River Band  
3 it was Mr. Malcolm.

4 MS GLADIEU-QUINN: At any time was any  
5 funding, that you're aware of, provided to the  
6 original Fort McMurray First Nation and/or the  
7 Clearwater River Band in terms of understanding the  
8 information packages? I'm just simply going into the  
9 first stage, so your providing sufficient information.  
10 Was anything done in that stage to help facilitate an  
11 understanding of those documents?

12 DR. JOHNSTONE: Mr. Chair, no, Teck  
13 did not, but we were always open to sitting down and  
14 take him through the material. We undertook in-person  
15 meetings with the Clearwater River Band, with  
16 specifically Mr. Malcolm, on June 11th, 2008, November  
17 25th, 2014, April 19th, 2017 and, most recently, with  
18 presumably some of his membership on June 2nd, 2018,  
19 and Teck did provide funding for that meeting.

20 MS GLADIEU-QUINN: Oh, I'm sorry, I  
21 didn't catch the last statement you made?

22 DR. JOHNSTONE: My last statement was  
23 Teck provided funding for that event or meeting.

24 MS GLADIEU-QUINN: Sorry, Teck  
25 provided funding for the June 2nd meeting?

1 DR. JOHNSTONE: Correct.

2 MS GLADIEU-QUINN: All right. I'm  
3 just going to ask a little bit more about that  
4 meeting. But let's go back to -- so you indicated  
5 that there were in-person meetings 2008, none in 2009  
6 or at these intervals, in 2010 intervals. Is that a  
7 correct assessment? Then none for the 2016 interval  
8 until April 19th, 2017? That would be a correct  
9 assessment then?

10 So you have the intervals 2008, 2009,  
11 2010 and 2016. So these would be the dates. There  
12 would be four dates then? Is that all there is? Is  
13 that it?

14 DR. JOHNSTONE: Mr. Chair, I've  
15 confirmed that we did not have any other meetings.  
16 We're always open to them.

17 I think it's important to note that we  
18 had a variety of e-mail contact with Mr. Malcolm in  
19 between the dates that I have previously referred to  
20 for meetings themselves. That included 2014, 2015,  
21 2016, 2017, and 2018.

22 MS GLADIEU-QUINN: We'll move on to  
23 the second step that you've outlined in your  
24 consultation process.

25 You provide sufficient time for

1 potentially-affected aboriginal communities to absorb  
2 and understand the project information. In a  
3 description of that you will identify these  
4 consultation efforts and fully report these  
5 consultation efforts through what is known as the  
6 bimonthly reporting process to Alberta Environment or  
7 the AENB. Was that done in the case of these bands?

8 DR. JOHNSTONE: Mr. Chair, yes it was.

9 MS GLADIEU-QUINN: Were these reports  
10 filed with the panel?

11 --- Pause

12 DR. JOHNSTONE: Mr. Chair, in recent  
13 years, with the operation of the Alberta Consultation  
14 Office, we provided copies of consultation logs  
15 regarding the Clearwater River Band to Mr. Malcolm for  
16 his review and/or comment. Now, the overall  
17 consultation record of the project and the individual  
18 documents reside in our consultation record with the  
19 Alberta Consultation Office.

20 MS GLADIEU-QUINN: The consultation  
21 record, that's what I'm most concerned about is that  
22 record. The environmental reports that you had  
23 indicated earlier, then, if we can have an undertaking  
24 that you'll provide those?

25 DR. JOHNSTONE: Can I just ask for a

1 clarification of what counsel is looking for?

2 MS GLADIEU-QUINN: Okay. You had  
3 indicated earlier that you had provided bimonthly  
4 reporting to the Alberta -- the AENB, and that the  
5 OFM -- the original Fort McMurray First Nation and  
6 Clearwater River Bands were included in those reports.  
7 Can you provide an undertaking, if I can have an  
8 undertaking, that you provide those documents that  
9 include the OFM and CRWB, those reports?

10 MR. IGNASIAK: Mr. Chair, I'm having  
11 some difficulty here because this is part of the ACO  
12 process and I'm not sure why we would kind of  
13 duplicate that process in this proceeding and provide  
14 those reports in this proceeding when the process  
15 established by the ministerial order and joint  
16 operating procedures is that those reports are  
17 provided to ACO and ACO makes a decision on adequacy.  
18 This panel doesn't oversee what the ACO does, so I'm  
19 having some difficulty with the relevance of the  
20 request.

21 MS GLADIEU-QUINN: Well, the documents  
22 are in their care and control, and I would submit that  
23 John Malcolm, as a representative of the organizations  
24 or bands, should be fully informed as to what is being  
25 reported about his bands that he represents to a third

1 party, so I think that these documents should be  
2 produced.

3 MR. IGNASIAK: I just don't see what  
4 it has to do with the project or the panel's mandate  
5 to assess the project. I mean the consultation  
6 process here with the ACO is a separate process.

7 MS GLADIEU-QUINN: To ensure that the  
8 bands have an opportunity or have had the opportunity  
9 to understand the information and that was discussed  
10 with them at those interval stages based on the first  
11 step of the process. This is your consultation plan,  
12 I'm not adding to it, we're simply seeing if those  
13 steps were followed in a diligent manner.

14 We do appreciate that, like the Métis  
15 communities -- although not a Métis community, we are  
16 First Nations -- this information that pertains or is  
17 communicated to the ACO is quite important to these  
18 bands. So, to understand, was there -- maybe I should  
19 ask if there was a representative from the ACO present  
20 at these meetings.

21 --- Pause

22 DR. JOHNSTONE: Sorry. Could I ask  
23 for clarification on where we're at with this?

24 MS GLADIEU-QUINN: Okay. Consultation  
25 efforts, you indicate in your consultation plan, as a

1 second step, that consultation efforts will be  
2 identified and fully reported through the bimonthly  
3 reporting process to Alberta Environment.

4 Now I will ask the question. Was the  
5 original Fort McMurray First Nation included in any of  
6 your bimonthly reports?

7 DR. JOHNSTONE: Yes, they were.

8 MS GLADIEU-QUINN: Was the Clearwater  
9 River Band included in any of your bimonthly reports?

10 DR. JOHNSTONE: Yes, they were.

11 MS GLADIEU-QUINN: Those reports,  
12 those are the reports I want an undertaking for you to  
13 provide.

14 MR. IGNASIAK: Again, sir, just  
15 backing up a second to what I said previously, I mean  
16 the reference is to Alberta Environment but  
17 subsequently ACO, so that ACO process, one, is a  
18 separate process, and, two, you know, pursuant to  
19 section 21 of RETA, it's not the panel's job to  
20 determine the adequacy of consultation, that's the ACO  
21 process.

22 On the federal side, we've got a  
23 Phase IV consultation phase subsequent to the panel's  
24 recommendations to the federal minister, so I don't  
25 see how those reports are relevant to the proceeding

1 here where we're supposed to be looking at the  
2 potential effects of the project on these asserted  
3 rights.

4 THE CHAIRPERSON: Okay.

5 Ms Gladieu-Quinn, can you help the  
6 panel understand what value it will have for the panel  
7 in its decision-making process?

8 MS GLADIEU-QUINN: We understand that  
9 the panel is not here to assess the adequacy of the  
10 consultation process, but what we do understand is the  
11 panel gathers information, and in gathering that  
12 information there will be a determination with regard  
13 to whether a consultation process was adequate enough  
14 to address the needs or the impacts that the project  
15 is going to have on the two bands. By having that  
16 information, we believe that it would assist a  
17 decision that would be forthcoming from that, so we're  
18 not seeking to, in any way, ask for a decision from  
19 the panel with regard to the adequacy, but as a matter  
20 of information that pertains to the bands who are not  
21 aware of what may have been communicated to the  
22 provincial government with regard to the information  
23 that was provided and what was done about that, I  
24 think this information would be of extreme assistance  
25 to the ultimate determination of that issue.

1 THE CHAIRPERSON: Mr. Ignasiak.

2 MR. IGNASIAK: Yes, sir. I would just  
3 say I don't think it's the job, the role of this panel  
4 to audit what has or hasn't been provided to the ACO  
5 by Teck or to Alberta Environment previously. I  
6 think, going to the thrust of the issue, if  
7 Ms Gladieu-Quinn wants the panel to have an  
8 understanding of the interactions that took place  
9 between Teck and Mr. Malcolm's organizations, then she  
10 should just ask the panel about those, about what  
11 means took place, when and where, and what  
12 communications they had. I think the panel will be  
13 responsive to that.

14 THE CHAIRPERSON: Okay. Thank you.  
15 Just give us a minute.

16 --- Pause

17 THE CHAIRPERSON: Okay. Ms  
18 Gladieu-Quinn, consistent with what Mr. Ignasiak said,  
19 I don't think this information is necessary for the  
20 Panel to complete its mandate. It's not in the  
21 position to assess the accuracy of consultation with  
22 the Crown and what the Crown knew or didn't know. I  
23 think Mr. Ignasiak's comments are fair. If you have  
24 questions for the Panel about the level of interaction  
25 between Mr. Malcolm and his group and Teck, you know,

1 that is helpful for the Panel. I think we've heard a  
2 bit of that already and have a bit of an  
3 understanding. So the Panel is not inclined to  
4 require Teck to provide the information.

5 MS GLADIEU-QUINN: So, Teck, you  
6 indicated earlier that there were notes or there were  
7 other documents provided to Mr. Malcolm based on the  
8 consultations or the meetings that you've had with  
9 him?

10 DR. JOHNSTONE: That's correct. So in  
11 November -- sorry, January 25th, 2012, we provided a  
12 hard copy of the November 2011 Integrated Application  
13 to Mr. Malcolm; and July 8th, 2015, we provided a hard  
14 copy of our June 2015 Project Update to Mr. Malcolm;  
15 and March 16th, 2018, following a request from Mr.  
16 Malcolm, we provided hard copies of all regulatory  
17 filings since the 2015 Project Update.

18 MS GLADIEU-QUINN: And I understand  
19 that -- I'm advised that Rounds 3, 4, 5 and 6 were not  
20 provided. Can you provide confirmation that they  
21 were? If not, why not? And perhaps I can get as an  
22 undertaking that you answer that question.

23 --- Pause

24 DR. JOHNSTONE: Mr. Chair, we weren't  
25 aware that that had been missed, but we can provide

1 that as an undertaking.

2 MS GLADIEU-QUINN: And your next step  
3 that you will ensure careful documentation of  
4 issues --

5 THE CHAIRPERSON: Just a minute, Ms  
6 Gladieu-Quinn. Some clarity on this point. Go ahead,  
7 Mr. Ignasiak.

8 MR. IGNASIAK: Sorry, I'm just -- if I  
9 understood the undertaking correctly, it was to  
10 provide the subsequent Information Requests that  
11 weren't provided. Those are on the record of this  
12 proceeding, so they're accessible on the Registry and  
13 have been for a very long time. So I'm not sure an  
14 undertaking is necessary there. We would simply be  
15 providing a link to the Registry.

16 THE CHAIRPERSON: Yes, Ms LaCasse.

17 MS LaCASSE: I wonder if Teck could  
18 just give us the document numbers.

19 MR. IGNASIAK: Sure. We'll hand that  
20 up.

21 MS LaCASSE: Perhaps that would help.

22 MS GLADIEU-QUINN: I'm advised that  
23 the general practice has been to provide hard copies  
24 to Mr. Malcolm, instead of asking him to go online and  
25 assess this. As you're aware that he's recently

1 received funding from the federal government for legal  
2 counsel and he hasn't that prior, so yes, if we can  
3 have the document numbers I think that would be of  
4 assistance. The...

5 MR. IGNASIAK: We can provide Mr.  
6 Malcolm with hard copies of those materials.

7 MS GLADIEU-QUINN: All right. Thank  
8 you.

9 MR. IGNASIAK: And just so we're  
10 clear, we're talking about 3, 4, 5?

11 MS GLADIEU-QUINN: And 6.

12 MR. IGNASIAK: Was there a 6?

13 MR. SPELLER: To clarify, so there  
14 were what we kind of think of as the first five Rounds  
15 of Supplemental Information Requests before EIA  
16 completeness was deemed in 2016 and then there were 12  
17 packages of Joint Review Panel Information Requests.  
18 We actually have two sets of numbers, so it would be  
19 good to clarify. If it's the earlier rounds they go  
20 up to 5 or if these are maybe the packages in the  
21 middle of those 12, that would be good clarification.

22 MR. IGNASIAK: Yes. So are you  
23 talking about the Information Requests from the Joint  
24 Review Panel or from the Agency and the AER prior to  
25 EIA completeness?

1 MS GLADIEU-QUINN: He's indicating all  
2 of it.

3 MR. IGNASIAK: I had a feeling that  
4 would happen. Okay.

5 --- Laughter / Rires

6 MR. IGNASIAK: So you want all of that  
7 printed material?

8 MS GLADIEU-QUINN: Yes.

9 DR. JOHNSTONE: May I please just be  
10 very clear that we've provided all regulatory filings  
11 since the Project Update.

12 MS GLADIEU-QUINN: Okay.

13 DR. JOHNSTONE: So it's important that  
14 we know whether it's -- which material it is, because  
15 we may have already provided it in our previous  
16 submissions to Mr. Malcolm.

17 MS GLADIEU-QUINN: I'll get further  
18 clarification from him and provide that written  
19 request.

20 MR. IGNASIAK: Why don't we do this  
21 and take the undertaking off the table. We'll simply  
22 work with Mr. Malcolm to get him the printed material  
23 that he needs.

24 THE CHAIRPERSON: Is that acceptable?

25 MS GLADIEU-QUINN: That's acceptable.

1 THE CHAIRPERSON: Okay.

2 MS GLADIEU-QUINN: And if there's an  
3 issue, we'll raise it.

4 THE CHAIRPERSON: Okay. Thank you.

5 MS GLADIEU-QUINN: Now, the third step  
6 is that you will ensure careful documentation of  
7 issues and concerns voiced by potentially affected  
8 Aboriginal communities throughout the regulatory  
9 process and you will carefully document all contact  
10 with potentially affected Aboriginal communities and  
11 you will include any issues and concerns that were  
12 expressed in relation to the proposed project. So I  
13 think you know where I'm going with this question.  
14 What issues and concerns were expressed by the  
15 Original Fort McMurray First Nation and by the  
16 Clearwater River Band?

17 --- Pause

18 MS GLADIEU-QUINN: And so I  
19 understand -- just to not detract from what you're  
20 discussing right now in answering that question -- you  
21 have a documentation format at Appendix 3 of your  
22 Consultation Plan. If you can also advise when you  
23 answer that question if those forms were filled out  
24 with regards to those two Bands.

25 --- Pause

1 THE CHAIRPERSON: Ms Gladieu-Quinn --

2 MS GLADIEU-QUINN: Yes.

3 THE CHAIRPERSON: -- we're just about  
4 the point where we would be looking for a break, so if  
5 you can find kind of a natural spot to take a break  
6 that would be good.

7 MS GLADIEU-QUINN: Sure. Perhaps,  
8 after this question is answered then we can take a  
9 break.

10 DR. JOHNSTONE: Could you please  
11 repeat the questions?

12 MS GLADIEU-QUINN: Okay. So in your  
13 third step under your Consultation Plan you indicate  
14 that there will be careful documentation of the issues  
15 and concerns that are raised by the two Bands or by  
16 the Aboriginal community that you're meeting with.  
17 What issues and concerns -- and I'm keeping in mind  
18 your format that you followed under Appendix 3 of your  
19 document -- what issues and concerns were raised by  
20 the Bands? And I appreciate the answer to that could  
21 be quite lengthy.

22 --- Pause

23 DR. JOHNSTONE: Mr. Chair, I'm going  
24 to briefly summarize these as quickly and as  
25 thoroughly as I can.

1                   So concerns about the use and  
2 pollution of groundwater; about dumps -- I'm not clear  
3 on what the nature of a dump is -- in close proximity  
4 to river; concern about not being consulted as they do  
5 not hold official status as a group; concern about  
6 Fort McMurray infrastructure and municipality's  
7 ability to handle and dispose of garbage accumulated  
8 through industrial activity; a concern that a number  
9 of Clearwater Band members are likely to be adversely  
10 affected by the project; and the potential for family  
11 cabins near the project; challenges that Mr. Malcolm  
12 faces with gaining recognition as a right-bearing  
13 condition -- community; how members of the Band were  
14 first forced off the land by government; concern that  
15 Teck will compound the wrongdoings done to members  
16 unless it is directed to consult with them by  
17 government; in September or October of 2016 Mr.  
18 Malcolm faxed Teck of documents he had sent to the  
19 Canadian Environmental Assessment Agency, outlying  
20 communities, efforts for recognition by federal and  
21 provincial governments; ongoing concern around the  
22 issue of not being recognized.

23                   That's a summary of the concerns.

24                   MS GLADIEU-QUINN: All right. And  
25 perhaps we'll take a break at this point.

1 THE CHAIRPERSON: Thank you, Ms Quinn.

2 It's just a little before 10:30, so

3 we'll resume at 10 to 11:00. Thank you.

4 --- Upon recessing at 1026 / Suspension à 1026

5 --- Upon resuming at 1050 / Reprise à 1050

6 THE CHAIRPERSON: Thank you. Please  
7 be seated.

8 Please carry on.

9 MS GLADIEU-QUINN: All right. So,  
10 Teck, when you outlined the concerns that you recorded  
11 from the Bands as communicated to you in your meetings  
12 with them or communications with them, it sounds to me  
13 that there really is very little in your reporting  
14 about how the project has a specific impact on the  
15 Bands. Is there anything in your reporting that  
16 outlines a specific impact to the Bands by the  
17 project?

18 DR. JOHNSTONE: Mr. Chair, no critical  
19 element besides those that I discussed were the issue  
20 of the status of Mr. Malcolm's groups. Now, I think  
21 it's important to note that one of the things that we  
22 do when we're working through environmental  
23 assessments is we take material or we take issues that  
24 we've heard and then we provide them through to the  
25 discipline leads of the environmental assessment. For

1 instance, somebody says they have a concern about  
2 water levels. We provide those through to the  
3 hydrology leads and they incorporate those concerns  
4 and how those should be addressed within the  
5 environmental assessment. And so if you look  
6 throughout the environmental assessment there are  
7 areas where we discuss and mention those potential  
8 impacts.

9 MS GLADIEU-QUINN: All right. And the  
10 Appendix 3 format that you have, I notice that you  
11 have dates, type of interaction, participants. Who  
12 would have been the participants at these meetings?  
13 Would they have been consistent or would they have  
14 differed depending on the type of meeting that you  
15 had? In other words, was it the same representative  
16 that met with the groups or were there a couple of  
17 individuals or who were the participants, other than  
18 the groups themselves?

19 DR. JOHNSTONE: Mr. Chair, in terms of  
20 the groups it consistently was Mr. Malcolm. I think  
21 in terms of Teck and our consultants, I think it's  
22 fair to say that over a 10-year project life we've had  
23 a number of changes in staff. Originally, the  
24 Consultation Plan was implemented by Teck and UTS. So  
25 that has changed. We have -- so there's been a

1 variety of people that have met with Mr. Malcolm over  
2 the duration of the project.

3 MS GLADIEU-QUINN: And were any of  
4 these people specialists that had met with him or were  
5 they simply liaison people from your organization? I  
6 mean that respectfully. If you can answer the  
7 question. Was there ever any time that any specialist  
8 was in attendance at the meeting to address any of the  
9 concerns? I suppose you've answered the question that  
10 there were no concerns on the project, so I'm going to  
11 assume that the answer to that is going to be no.

12 DR. JOHNSTONE: Look, I think I would  
13 go back to my previous statement. I think in general  
14 we have a team of people that are experienced in  
15 consultation, that are accustomed to hearing specific  
16 concerns from a community and bringing those back for  
17 the environmental assessment team to work through. So  
18 I think from a specialty perspective the specialty is  
19 community engagement and consultation, and, you know,  
20 some of us have got a variety of technical disciplines  
21 behind us as well.

22 MS GLADIEU-QUINN: And in terms of  
23 assessing the type of issues that pertain to the  
24 project, I note that your forms don't necessarily have  
25 the time spent with the groups. Do you have a

1 recording of the amount of time that you spent at each  
2 of these meetings with the groups?

3 DR. JOHNSTONE: Mr. Chair, no, we do  
4 not and, you know, I think in general we haven't been  
5 specifically asked for that before.

6 MS GLADIEU-QUINN: So --

7 DR. JOHNSTONE: And I think, in  
8 addition to that, nor has either the AER or the  
9 Alberta Consultation Office requested that of us.

10 MS GLADIEU-QUINN: And we do know that  
11 the concerns seem to be repetitive in terms of what  
12 you reported to me in terms of their lack of  
13 recognition and I think that -- is there anything that  
14 your organization does to dig a little deeper in that  
15 to facilitate more information from the groups in  
16 terms of what the impacts of the project are going to  
17 be on their traditional land uses, any detailed  
18 information like that that you obtained from them?

19 DR. JOHNSTONE: Mr. Chair, first of  
20 all, it's not Teck's responsibility to determine the  
21 status of an Indigenous group. In terms of the  
22 specific issue of incorporating issues around  
23 traditional land use with respect to the project, we  
24 had a number of traditional land use studies done. We  
25 had a number of communities that said, "We would

1 prefer to undertake that work ourselves." And in the  
2 specific case of Mr. Malcom, a traditional land use  
3 study was not completed and that's primarily because  
4 of the issue of really our work with the groups he's  
5 representative of being in the notification and  
6 periodic meetings.

7 MS GLADIEU-QUINN: I didn't quite  
8 understand the last part of that, the notification...?

9 DR. JOHNSTONE: I was referring to  
10 what is addressed in the original Consultation Plan as  
11 the three different groups of consultation being full  
12 consultation, notification and periodic meetings, and  
13 thirdly, notification only.

14 MS GLADIEU-QUINN: I see. If you're  
15 aware of the affidavit that was filed by Mr. Malcolm,  
16 Document No. 501, Appendix 5 of our written  
17 submissions, he includes, as an exhibit, Exhibit G, an  
18 email from a representative of Teck commenting on the  
19 June meeting that you referenced earlier, in which  
20 there was funding, you had indicated, for that meeting  
21 provided to facilitate that meeting.

22 And in that email it indicates that --  
23 the representative indicates to Mr. Malcolm that:

24 "It was an honor to be there for  
25 the official renaming of the boat

1 launch and park. I was however,  
2 quite disappointed at the lack of  
3 time we had to discuss the  
4 Frontier Project with the  
5 membership."

6 So it sounds to me like there were a  
7 little bit more people that were involved in that  
8 meeting than just John Malcolm. There were members in  
9 attendance. There was a lack of time, though. And  
10 what would you say would be a sufficient amount of  
11 time to dedicate to understanding the concerns for the  
12 Aboriginal communities, and in particular with this  
13 community was there a differential standard applied to  
14 these two communities? And I'm using time because  
15 that's one of the indicators in your consultation  
16 steps. So we're concerned that perhaps not enough  
17 time was spent with these Bands to ascertain their  
18 traditional uses in a way that was informative and I'm  
19 not asking about a traditional land use study, I'm  
20 simply asking about understanding what their concerns  
21 were because it seems to me -- I'm arguing. I'm  
22 arguing. It's not a question. I apologize.

23 So of these concerns, then, that you  
24 were able to obtain from discussions with the Band,  
25 were there any concerns that you took into

1 consideration -- and this leads into Part 4 of your  
2 steps in terms of understanding what mitigation  
3 strategies could address these concerns.

4 DR. JOHNSTONE: Mr. Chair, that's  
5 certainly a multi-layered question.

6 I think there's one issue that I think  
7 we've got to be very clear about. And you know, that  
8 meeting was held in, I think it was, June, and at Mr.  
9 Malcolm's request.

10 And in terms of the -- in terms of the  
11 issue of how do we get to substantive discussion  
12 around the impacts of a -- of the Frontier project on  
13 a community's traditional land use, I think it's very  
14 much up to the community itself to indicate or to  
15 allocate time within -- within a gathering.

16 In that case, we were able to spend  
17 about 20 minutes discussing the project, so we think  
18 that that's insufficient.

19 That's Mr. Malcolm's choosing in his  
20 running of the gathering.

21 We also note that that's 2018. We've  
22 been at this for 10 years, so a myriad of  
23 opportunities along the way for Mr. Malcolm and his  
24 group to engage with Teck in a fulsome manner over the  
25 Frontier project, and that wasn't picked up.

1                   And I think if you look at other  
2 communities and other communities that the counsel  
3 referred to in terms of ones that agreements were done  
4 with, Teck has shown a lot of flexibility in where  
5 communities we're engaged with, and many of those that  
6 were identified as Level 2 or Level 3, neither of  
7 which we identified for full consultation nor  
8 accommodation, because of their interest expressed in  
9 the process and their engagement with the regulatory  
10 process and with Teck ourselves, we adjusted our level  
11 of consultation.

12                   And that's how there are a number  
13 of -- in fact, we only originally identified five  
14 communities that we thought we would likely negotiate  
15 an environmental agreement with and ended up with 14.

16                   I go back to the issue of there were  
17 countless opportunities at Mr. Malcolm's request where  
18 we would have engaged more intensively around the  
19 project.

20                   So I think it's important to recognize  
21 that there is an onus on communities to express their  
22 interest in additional engagement and more intensive  
23 consultation around the process.

24                   But to -- you know, any hint that that  
25 was going to be done in June of 2018 when we'd had 10

1 years of regulatory processes, you know, that's too  
2 late.

3 MS GLADIEU-QUINN: The meeting that  
4 took place in June and that you had indicated June the  
5 2nd, 2018 where there were membership in attendance,  
6 were there any other meetings -- no, let's scratch  
7 that.

8 That meeting on June the 2nd, 2018 --  
9 and you specifically provided funding for that  
10 meeting?

11 DR. JOHNSTONE: That's correct, Mr.  
12 Chair. We provided \$10,000.

13 MS GLADIEU-QUINN: All right. And at  
14 that meeting, what further information were you able  
15 to gather aside from basically that the group doesn't  
16 feel that it has been -- or does -- that the groups do  
17 not feel that they are being recognized?

18 So what other -- were there any other  
19 project concerns that arose from that meeting and who  
20 was in attendance at that meeting?

21 DR. JOHNSTONE: Mr. Chair, I'm going  
22 to hand that over to Neil Sandstrom. Mr. Sandstrom  
23 was at the meeting and representing Teck and providing  
24 information around the project.

25 MR. SANDSTROM: Neil Sandstrom.

1                   Mr. Chair, yes, I did meet with Mr.  
2 Malcolm and members of his group and extended family.  
3 I did hear concerns.

4                   They were similar to concerns that  
5 I've heard from other groups over the years. They  
6 included things like water use. I did hear about  
7 groundwater. I did hear about some of the bison  
8 issues. And that was it.

9                   As Dr. Johnstone identified, it was a  
10 rather quick meeting.

11                   MS GLADIEU-QUINN: All right. So at  
12 this stage, then, it was presumed that -- and as you'd  
13 indicated earlier that the documentation with regards  
14 to any studies, et cetera would have been fully  
15 provided to the Bands for their understanding and now  
16 these issues at this 2018 meeting seem to have arisen,  
17 but there wasn't enough time to discuss that.

18                   Was any other funding provided in  
19 terms of assisting the Bands in understanding the  
20 previous information that had been provided? Aside  
21 from this meeting, this was the only funding?

22                   Sorry. It's a yes/no question --  
23 answer, if you can answer the first part and then the  
24 second.

25                   DR. JOHNSTONE: That's right. So no

1 further funding was provided.

2 MS GLADIEU-QUINN: All right. And  
3 when you do your cultural impact assessment, do you  
4 distinguish the Bands' concerns in those assessments  
5 in terms of what is particular of -- what is  
6 particularly of concern to them, or do you just  
7 generally describe Aboriginal concerns and list that?

8 DR. JOHNSTONE: Mr. Chair, we were  
9 directed by the federal government to do a cultural  
10 impact assessment as part of the project. We were  
11 happy to do so.

12 However, we took the perspective that  
13 Teck should not do those studies and the communities  
14 themselves should do them. And so the method, the  
15 approach, all of the -- how the information was  
16 gathered, how it was analyzed and the conclusions that  
17 were reached were the opinions of the -- were the  
18 analysis and opinions of the communities themselves.

19 MS GLADIEU-QUINN: Now, in simple  
20 language and in terms of communicating with regards to  
21 mitigation, the issues that arose at the June 2018  
22 meeting were, I take it -- and from what I understand  
23 from Mr. Sandstrom that they had already been  
24 addressed in other consultations with other Aboriginal  
25 communities. Is that a fair assessment?

1 DR. JOHNSTONE: That's a fair  
2 assessment. I think the key other step was that those  
3 concerns or issues were brought into the environmental  
4 assessment and considered and addressed within that  
5 scope.

6 MS GLADIEU-QUINN: And in terms of  
7 providing an understanding of those mitigation  
8 strategies or mitigation measures that your company  
9 was undertaking, were those ever communicated to the  
10 Bands in a manner that they could comprehend?

11 DR. JOHNSTONE: Mr. Chair, I'm just a  
12 little bit uncomfortable about opining on the level of  
13 understanding of a Band member, and I'd like further  
14 clarification of that question.

15 MS GLADIEU-QUINN: Well, Mr. Malcolm  
16 had some questions that will be forthcoming, and  
17 perhaps that will add more clarity with regards to  
18 what you understand what his concerns are.

19 And it's unfortunate that these issues  
20 have to come up at a questioning.

21 The -- so I take it there were no  
22 mitigation strategies that were particularly  
23 identified with the two Bands in particular.

24 DR. JOHNSTONE: Sorry. Could you  
25 repeat the question?

1 MS GLADIEU-QUINN: So were there any  
2 mitigation strategies that were identified?

3 And I had asked it in the negative,  
4 but I'll ask it to solicit a yes or no answer.

5 Were there any mitigation strategies  
6 identified with the Clearwater River Band or Original  
7 Fort McMurray First Nation Band?

8 --- Pause

9 DR. JOHNSTONE: Mr. Chair, I'm going  
10 to characterize that the outcome of that meeting June  
11 2018 was there were a number of mitigation measures  
12 discussed. One of the things that the Band expressed  
13 was the issue of, for example, impacts to bison, and  
14 also interest and concerns around water, water  
15 quality, water quantity.

16 And so the team at the meeting, given  
17 how brief it was, had little time to get into deep and  
18 specific discussion given that 20 minutes was -- ended  
19 up being allocated for Teck's purposes.

20 The Panel should also know that an  
21 email was sent from Ms Yvonne Walsh to Mr. Malcolm on  
22 June 22nd asking if there was any specific items or  
23 follow-up that was required from the meeting, and no  
24 response was received by Teck.

25 MS GLADIEU-QUINN: Okay. And I

1 understand that there was supposed to be a follow-up  
2 meeting to that meeting in Anzac?

3 DR. JOHNSTONE: Mr. Chair, we have no  
4 such record of that follow-up meeting. I think it is  
5 worthwhile noting that Ms Walsh and myself did see Mr.  
6 Malcolm in Anzac when the Premier was visiting that  
7 location.

8 MS GLADIEU-QUINN: And in your  
9 detailed notes, et cetera that you would have, you  
10 confirm your notes would state that there was no --  
11 scratch that.

12 Was it not the case that there was no  
13 further time because there was a plane that had to be  
14 caught by one of your representatives? Are you -- for  
15 the June 2nd meeting?

16 DR. JOHNSTONE: Mr. Panel, Ms Walsh  
17 will -- who was at that meeting will respond to that.

18 MS WALSH: Thank you, Mr. Chair.

19 It is -- Yvonne Walsh.

20 It is true that we, myself and Mr.  
21 Sandstrom, did have a plane to catch. However, we did  
22 arrive at the meeting place at 10:30 in the morning  
23 and we left for the airport at 3:00 p.m.

24 MS GLADIEU-QUINN: And you have a  
25 memory of that. You don't keep notes of your time,

1       though, you had indicated.

2                       MS WALSH: I'm very aware because it  
3       was a Saturday away from my family.

4                       MS GLADIEU-QUINN: And Mr. McFadyen  
5       had said earlier that, quote, "funding was provided to  
6       Aboriginal communities to review all the  
7       documentation".

8                       What documentation was reviewed at the  
9       four meetings that you held, in particular after 2015?  
10      Let's focus on that time period.

11                      So those two meetings subsequent to  
12      2015, what documentation was reviewed at those  
13      meetings?

14                      So the April 19th, 2017 and June 2nd,  
15      2018 meeting.

16                      I'm sorry. Mr. McFadyen had said this  
17      when he was being questioned by the Keepers of the  
18      Athabasca earlier on this morning.

19                      DR. JOHNSTONE: Could you repeat the  
20      question in its full context, then, please?

21                      MS GLADIEU-QUINN: Mr. McFadyen,  
22      earlier on, had given testimony that funding -- in an  
23      answer to a question by the Keepers of the Athabasca  
24      Society earlier this morning that funding was provided  
25      to the Aboriginal communities to review all the

1 documentation.

2 At which meetings, and in particular  
3 after 2015, was all the documentation reviewed by  
4 the -- with the -- or with the -- the Original Fort  
5 McMurray First Nation and Clearwater River Bands and  
6 in what context would the review have been undertaken?

7 In other words, are you aware that --  
8 of any meetings in which all of the documentation was  
9 reviewed with the Bands?

10 DR. JOHNSTONE: Mr. Chair, previously  
11 and in relation to Mr. McFadyen's comment, Teck has  
12 provided extensive funding for the technical review  
13 and for communities to undertake studies of their own  
14 interest to inform them with regard to the project.  
15 And that funding has not been provided because of,  
16 really, in relation to the consultation plan, our  
17 identification of the intensity of consultation to be  
18 undertaken with an indigenous community.

19 That funding was not made available to  
20 Mr. Malcolm's organizations. We do note, however,  
21 that the Canadian Environmental Assessment Agency has  
22 provided funding to Mr. Malcolm for participation in  
23 the regulatory process. I'm not able to speak, you  
24 know, as to the -- further to the purpose of that  
25 funding.

1 MS GLADIEU-QUINN: At what meetings  
2 that you had with the Bands was documentation reviewed  
3 with them and what were -- what was that documentation  
4 reviewed with them?

5 DR. JOHNSTONE: Mr. Chair, the  
6 information that was provided at -- at the few  
7 meetings that occurred with Mr. Malcolm's  
8 organizations consisted of PowerPoint presentations  
9 and we would typically run through the information in  
10 those -- in those decks. We were not taking a full  
11 environmental assessment and sitting down and  
12 reviewing that extensive documentation with them.

13 MS GLADIEU-QUINN: So it was a very  
14 precursory open question as to if they had any  
15 concerns. How -- help me understand how a meeting  
16 would look like, as I wasn't there.

17 What would necessarily be involved  
18 with how that meeting was conducted and what was  
19 discussed and what documents in particular were  
20 discussed?

21 MR. IGNASIAK: Mr. Chairman, I  
22 apologize. I'm struggling with the relevance of this.

23 I mean, the meetings took place.  
24 Like, this is an opportunity to address whatever  
25 outstanding concerns may exist after that review.

1 I -- I just -- I just fail to see how this is rel--  
2 relevant to the Panel's mandate to go into the precise  
3 documents at these four meetings.

4 THE CHAIRPERSON: Ms Gladieu-Quinn,  
5 any comments on that?

6 MS GLADIEU-QUINN: Well, they take  
7 detailed notes, and I'm asking what documents were  
8 reviewed with them at the meetings, if any were  
9 referenced, if any discussions took place on these  
10 documents.

11 THE CHAIRPERSON: I am wondering  
12 about, again, you know, we're pretty far down in the  
13 weeds here and in terms of the Panel's understanding  
14 of what concerns there may be with the project.  
15 You know, I think we have a general understanding of  
16 the consultation that -- that occurred.

17 MS GLADIEU-QUINN: All right.

18 THE CHAIRPERSON: So, I'm just not  
19 sure I see the value in continuing to get into more  
20 and more detail.

21 MS GLADIEU-QUINN: So, John Malcolm  
22 advises that he believed an agreement was about to be  
23 reached, and in particular I'll -- I'll reference  
24 Appendix 1, page 3 of the PDF, "Economic Opportunities  
25 and Social Benefits", and -- and I quote, "Business

1 opportunities will be presented to Aboriginal  
2 communities in a variety of ways." Now, John Malcolm  
3 advises that he believed an agreement was about to be  
4 reached with Leonard Gauthier, a Teck representative  
5 four to five years ago, sort of in 2013/2014, and with  
6 Ed Tatum of Consun, and who is a member of the Band.  
7 November 24th, 2014, is the date. Now, do you have  
8 notes on that particular event? In parti-- in -- in  
9 particular I should ask is Leonard Gauthier a Teck  
10 rep? Was he a representative for Teck?

11 DR. JOHNSTONE: Mr. Chair,  
12 Mr. Gauthier was a -- was briefly retained as a  
13 consultant by Teck. This was when we were undertaking  
14 our winter exploration program, and we were in the  
15 process of contacting a variety of communities in  
16 relation for the potential for work in relation to  
17 that exploration program.

18 MS GLADIEU-QUINN: So, Leonard  
19 Gauthier was engaged to discuss or negotiate any  
20 economic opportunities with the Bands and benefits, is  
21 that correct?

22 DR. JOHNSTONE: Mr. Gauthier was not  
23 authorized to be discussing or negotiating benefits  
24 with anybody. That's the direct responsibility of  
25 Teck.

1 MS GLADIEU-QUINN: So, if I could  
2 understand correctly then, there might have been a  
3 misunder-- Then Mr. Malcolm is misunderstanding  
4 Leonard Gauthier's role then in these discussions, and  
5 it's -- and in particular I'll -- I'll explain to you  
6 what it is. It's about water and sewer and water --  
7 water, sewer, and waterwork for the project site, the  
8 winter project. So ... So, it's the conclusion  
9 then -- it's -- it's the conclusion that he -- it was  
10 unreasonable for him to believe that Leonard Gauthier  
11 had the authority to discuss meaningful economic  
12 opportunities with him?

13 DR. JOHNSTONE: I think, Mr. Chair,  
14 you know, this really relates to our winter  
15 exploration program. I think it's worthwhile noting  
16 that a company called Consun, a business affiliation,  
17 we understand, of Mr. Malcolm's group, was  
18 pre-qualified by a contractor of ours, Norwest, to bid  
19 on contracts related to our 2014/2015 exploration  
20 program.

21 MS GLADIEU-QUINN: And in terms of  
22 mitigation, I again go to impacts. Again, in that  
23 context this representative was not to engage in  
24 mitigation discussions, is that correct?

25 DR. JOHNSTONE: Mr. Chair, that's the

1 responsibility of Teck Resources.

2 MS GLADIEU-QUINN: And going back to  
3 what I had asked earlier about the -- what was  
4 communicated to the -- the AEUB, under your bimonthly  
5 reporting with regards to the Bands, what was  
6 communicated to them? What did Teck communicate to  
7 them?

8 DR. JOHNSTONE: Mr. Chair, on a  
9 general level they -- the content of the report to  
10 government includes date of engagement, type of  
11 engagement, and -- and the -- the purpose of  
12 engagement.

13 MS GLADIEU-QUINN: And how did you  
14 report the -- the June meeting in particular? What  
15 did you report?

16 DR. JOHNSTONE: Is that June 2018?

17 MS GLADIEU-QUINN: Yes.

18 DR. JOHNSTONE: Mr. Chair, the -- the  
19 consultation log that we provided to the Alberta  
20 Aboriginal Consultation Office was for the purposes  
21 of -- of consultation with respect to Frontier, and  
22 that was -- that logging was closed because we had  
23 also already provided our consultation adequacy  
24 submission to the ACO by then.

25 MS GLADIEU-QUINN: Okay. So, you had

1 already provided it to them before the June meeting?

2 DR. JOHNSTONE: Mr. Chair, that's  
3 correct. Again, I feel that this is going back to  
4 consultation adequacy. This was all within that  
5 submission. That material was closed as part of our  
6 consultation adequacy submission.

7 MS GLADIEU-QUINN: I'll continue on.  
8 You state at Page 3 of 9 of the PDF UTS Teck Cominco  
9 Aboriginal Consultation Plan Frontier Oil Stands  
10 Project, that, quote, "... when agreement is not  
11 possible, a thorough explanation to AENV of why  
12 agreement was not possible will be provided." And was  
13 this provided in the case of the Clearwater River Band  
14 in the Original Fort McMurray First Nation?

15 DR. JOHNSTONE: Sorry, could you just  
16 tell me --

17 MS GLADIEU-QUINN: Okay.

18 DR. JOHNSTONE: -- what line that is?

19 MS GLADIEU-QUINN: It's at "Page 3 of  
20 9" --

21 DR. JOHNSTONE: Yeah.

22 MS GLADIEU-QUINN: -- and it is -- I  
23 didn't -- sorry, I didn't reference the paragraph.  
24 It's -- you state that, "... when [an] agreement is  
25 not possible, a thorough explanation [is --] of why

1 agreement was not possible will be provided." Now ...  
2 And has this explanation been provided? And can you  
3 find it because I -- I don't have it immediately in  
4 front of me, I --

5 DR. JOHNSTONE: M'hmm.

6 MS GLADIEU-QUINN: -- just have the  
7 quote. Have you found it?

8 DR. JOHNSTONE: Yes, thank you, it's  
9 paragraph 2 --

10 MS GLADIEU-QUINN: Okay.

11 DR. JOHNSTONE: -- on Page 3 of 9.

12 MS GLADIEU-QUINN: My apologies.

13 DR. JOHNSTONE: No, that's fine. So,  
14 this is in relation to what potential mitigation  
15 strategies are for the Frontier project. And in this  
16 case, you know, we -- the previous paragraph refers to  
17 avoidance, conservation and reclamation strategies,  
18 cultural preservation and retention strategies,  
19 capacity building, access management, environmental  
20 studies, all of that. So, I think that this -- what  
21 this is really indicating is that we put out there  
22 that we would engage with the community, we would hear  
23 what their concerns were, we would identify possible  
24 mitigation, we would include that in the environmental  
25 assessment, and -- and then go on to -- to -- to

1 complete the assessment, but then there would be plans  
2 that would be developed as a result of that, so things  
3 like access management. It would also include things  
4 like impact benefit agreements. And so we have done  
5 that, and we have done that for communities where we  
6 have undertaken full consultation and accommodation,  
7 but not for communities that were at a notification  
8 and periodic meetings, as Mr. Malcolm's groups were.

9 MS GLADIEU-QUINN: And it's  
10 interesting how your company came to the determination  
11 that he is a Level 2 -- or that the Bands are Level 2  
12 consultation level. That's at a Level 2 consultation  
13 level. I -- I -- if you can provide a little bit more  
14 information with regards to the -- the type of  
15 analysis that -- no, I already asked this question,  
16 I -- I won't repeat it. I'll continue on with my  
17 questions and I'll be finishing up shortly here, and  
18 then Mr. Malcolm will -- or Chief Malcolm will -- will  
19 ask some questions. And perhaps he could do so after  
20 lunch. I'm -- I'm noticing that we're getting close  
21 to noon.

22 THE CHAIRPERSON: It's still a little  
23 early, so I -- I would like to carry on --

24 MS GLADIEU-QUINN: Right.

25 THE CHAIRPERSON: -- some more before

1 lunch.

2 MS GLADIEU-QUINN: You had mentioned  
3 earlier that there was a -- a letter given to you by  
4 the Aboriginal Consultation Office in June -- or I  
5 believe it was July with regards to the two Bands.  
6 And other than that letter, and I can't find the  
7 particular date, I have written it down, but you had  
8 said that -- that there was a copy provided of that  
9 letter to John Malcolm, when we were asking about the  
10 consultation. I believe it was a July ... What  
11 was --

12 DR. JOHNSTONE: I can --

13 MS GLADIEU-QUINN: -- the date that --

14 DR. JOHNSTONE: -- provide that.

15 MS GLADIEU-QUINN: What was the date  
16 of that letter again?

17 DR. JOHNSTONE: It was July --

18 MS GLADIEU-QUINN: Oh.

19 DR. JOHNSTONE: -- 26, 2008.

20 MS GLADIEU-QUINN: 2008, right.

21 DR. JOHNSTONE: It was addressed to  
22 Mr. Malcolm, and -- and a copy was provided to  
23 Mr. Bateman of the UTS Energy Corporation, whom Teck  
24 was working with at the time.

25 MS GLADIEU-QUINN: All right. And

1 your list, your Community Inclusion List, was  
2 developed in 2008, you had indicated. So, was this  
3 list developed before that letter or after that  
4 letter?

5 DR. JOHNSTONE: The list was developed  
6 before that letter.

7 MS GLADIEU-QUINN: Okay.

8 DR. JOHNSTONE: And I -- I think it's  
9 important to -- to go back to our focus was -- in  
10 terms of the intensity of consultation or --

11 MS GLADIEU-QUINN: M'hmm.

12 DR. JOHNSTONE: -- spectrum of  
13 consultation was really on those groups that we  
14 thought would be -- had the potential to be most  
15 affected by the project. So, we focused on Fort  
16 Chipewyan downstream of the project and with many land  
17 users in the area. And -- and -- and then we worked  
18 up the river, and so we included Fort McKay First  
19 Nation, Fort McKay Métis. We think the logic of that  
20 is actually pretty reasonable. And -- and we also  
21 note that when other communities showed an interest,  
22 participated in the regulatory process, we responded.

23 MS GLADIEU-QUINN: So, are you saying  
24 that the communities in -- in this instance didn't  
25 show an interest? I'll move on. Do you want to

1 answer that?

2 DR. JOHNSTONE: Mr. Chair, we do not  
3 see the level of participation in the regulatory  
4 process by Mr. Malcolm's groups, and we think that's  
5 pretty clear on the record, in comparison with other  
6 communities that's not a -- that's not a judgment by  
7 Teck or -- or --

8 MS GLADIEU-QUINN: All right.

9 DR. JOHNSTONE: -- or any of this. We  
10 think that the record for this project shows that  
11 there has been little engagement by Mr. Malcolm's  
12 group in comparison with other communities.

13 MS GLADIEU-QUINN: All right. And you  
14 indicate in your Aboriginal Consultation Plan that the  
15 requirements of the Alberta's First Nation  
16 Consultation Guidelines and Land Management and  
17 Resource Development must be met. Now, we appreciate  
18 the -- the recognition of where the Bands are at was  
19 with regards to this particular policy, but I'm going  
20 to ask you some questions with regards to your  
21 engagement with the ACO in this process and -- and in  
22 particular the -- the -- the six essential ways that  
23 are outlined. And I'm curious as to whether Teck was  
24 required or not to be engaged with the ACO at these  
25 levels with regards to these two particular Bands.

1 And so my first question is has the ACO provided the  
2 pre-consultation assessment advice or direction with  
3 Teck regarding the original Fort McMurray First Nation  
4 or the Clearwater River Band?

5 DR. JOHNSTONE: Could you rephrase  
6 that question, please?

7 MS GLADIEU-QUINN: It's a yes or no  
8 answer.

9 MR. IGNASIAK: Mr. -- Mr. Chairman, I  
10 think if -- if they have issues with the ACO process,  
11 I don't think this is the forum to get the information  
12 they want to support whatever it is they want to do  
13 with ACO. That's not why we're here. If they -- they  
14 have issues with the ACO process, there's other means  
15 they can pursue that issue. I -- I don't see why --  
16 how that's relevant to this proceeding as to what  
17 steps ACO took beyond what we know is set out in the  
18 Joint Operating Procedures. And in addition, I think  
19 ACO has made its position pretty clear it put a letter  
20 on the record last week or perhaps the week before  
21 specifically with respect to these two groups.

22 MS GLADIEU-QUINN: So --

23 THE CHAIRPERSON: Ms Gladieu-Quinn, do  
24 you want to respond to those comments?

25 MS GLADIEU-QUINN: I think with

1 regards to the answers to those questions, I -- I  
2 wouldn't want to make an assumption that the ACO  
3 hasn't engaged with Teck in terms of the -- the  
4 Original Fort McMurray -- Fort McMurray First Nation  
5 and -- and Clearwater River bands in this -- in this  
6 regard, I wouldn't want to make that assumption that  
7 they haven't, so I would like to have a yes or no  
8 answer. Basically did the ACO provide, you know, the  
9 six essential steps they outline in their policy with  
10 regards to this particular -- with these two bands?  
11 It's yes or no.

12 THE CHAIRPERSON: I'll leave it to  
13 Teck whether they want to answer the question, but I  
14 would say in terms of the Panel's needs, again, this  
15 is not really the -- the forum to explore the ACO  
16 process. It is a separate process.

17 MR. IGNASIAK: Yeah. So, Mr. Chair, I  
18 don't -- I don't think the Panel is going to answer  
19 that question and I think we should move on to issues  
20 focused more -- at least touching on the project.

21 MS GLADIEU-QUINN: So, perhaps I could  
22 ask this question: Was the ... Yes, the letter will  
23 answer the question, so I agree with that, I won't ask  
24 any questions on that.

25 And ... And has Teck received a

1 consultation adequacy approval from the ESRD?

2 MR. IGNASIAK: I'm not aware of the  
3 ESRD issuing any such thing. If you mean ACO, that  
4 material is on the record, sir.

5 MS GLADIEU-QUINN: All right. And  
6 subject to any questions that might arise as a result  
7 of Chief Malcolm's questioning, those would be my  
8 questions.

9 THE CHAIRPERSON: Mr. Malcolm.

10 CROSS-EXAMINATION

11 MR. J. MALCOLM: Good morning,  
12 Mr. Chairman, honourable panel members, Alberta Energy  
13 Regulator members, and Teck Frontier's members. Thank  
14 you for this opportunity to allow us to cross-examine  
15 Teck Frontier Mine on your project. And I'd like to  
16 continue on with discussions of our meeting that we  
17 held with -- I'd first like to start with  
18 Mr. Johnstone. I think it was the first time we met  
19 was in Anzac at the Rachel Notley photo op?

20 DR. JOHNSTONE: Mr. Chair, that's  
21 correct.

22 MR. J. MALCOLM: And we discussed a  
23 possible meeting after the photo op with the  
24 honourable premier?

25 DR. JOHNSTONE: Mr. Chair, that's

1 correct, and that's what led to our June 2018 meeting  
2 with Mr. Malcolm.

3 MR. J. MALCOLM: I'm sorry, sir,  
4 you've got your dates wrong.

5 DR. JOHNSTONE: Oh.

6 Mr. Chair, I -- I -- I need to correct  
7 that. The date was the wrong way around. I first  
8 met Mr. Malcolm in Anzac and that occurred after the  
9 June meeting. I actually have no recollection of a --  
10 of a -- of a promise of a following meeting; however,  
11 I can't -- I -- I can't say that that wasn't a  
12 possibility either.

13 MR. J. MALCOLM: I think you're  
14 probably taken aback because I thanked the honourable  
15 premier for installing the carbon taxes. So, we did  
16 request it and it didn't happen, so I'll leave it at  
17 that.

18 If I can go to the June 2nd meeting we  
19 held with, Mr. Sandstrom and Ms Yvonne Walsh. And I'd  
20 like to ask Mr. Sandstrom a little bit about the  
21 meeting, if possible. And basically when you came and  
22 met with us, Mr. Sandstrom, did you have the  
23 impression you were meeting with an indigenous  
24 community?

25 MR. SANDSTROM: Mr. Chair, that was my

1 impression. There was a teepee present. There was  
2 native dancers. I believe they were from Fort McKay,  
3 if I recall correctly.

4 MR. J. MALCOLM: So your impression  
5 was it was an indigenous community.

6 Could you elaborate whether -- could  
7 you say whether it was a First Nations community or a  
8 Métis community?

9 DR. JOHNSTONE: Mr. Chair, look, I  
10 think we've got to be very clear that we went to --  
11 the agreement to meet with Mr. Malcolm was absolutely  
12 undertaken on the understanding that they were a Non  
13 Status indigenous group. We went there with full and  
14 sincere intent around meeting with the community and  
15 discussing any issues they might raise.

16 MR. J. MALCOLM: You still didn't  
17 answer my question, sir.

18 MR. IGNASIAK: Mr. Chair, I think the  
19 record is quite clear they are not a First Nation  
20 under the *Indian Act*.

21 I don't think it's appropriate to ask  
22 the panel for their impressions as to whether it's a  
23 recognized First Nation or not.

24 MR. J. MALCOLM: Sir, I beg to differ.  
25 Under the definition of the *Indian Act*, First Nation

1 group includes Non Status as well.

2 I just want to point out that Mr.  
3 Johnstone is wrong when he identifies the Clearwater  
4 River Band as Non Status. The Clearwater River Band  
5 citizens are all Status cardholders, had their  
6 reserves set aside for them in Order-in-Council. And  
7 they should not be viewed as Non Status.

8 Can I clarify that with you, sir?

9 MR. IGNASIAK: Mr. Chairman, again he  
10 is giving evidence, first of all. If he has specific  
11 questions for the panel -- I don't think the panel is  
12 here to answer the question of whether these are  
13 recognized or not First Nations. I think the record  
14 speaks for itself.

15 I think the materials filed by Mr.  
16 Malcolm make it abundantly clear that he is pursuing  
17 through a number of different means recognition for  
18 these organizations. But I don't think it's the  
19 appropriate forum here to try to get helpful input  
20 from Teck as to whether these are Status First Nations  
21 or not. That's not a decision for Teck to make.

22 THE CHAIRPERSON: Mr. Malcolm, I would  
23 agree. This isn't the proper forum to try and prove a  
24 claim of rights.

25 MR. J. MALCOLM: I understand that,

1 Mr. Chairman. But I also don't think it's proper for  
2 someone to be called someone that they are not. And  
3 he is identifying the Clearwater River Band as Non  
4 Status Indians, which is clearly wrong.

5 It throws the whole meaning of the  
6 community off and it also throws the requirements to  
7 trigger the consultation off when they are being  
8 deemed as Non Status.

9 THE CHAIRPERSON: Just on that,  
10 though, this is your opportunity to ask questions as  
11 opposed to give evidence.

12 You can certainly speak to those  
13 things in direct evidence.

14 MR. J. MALCOLM: Okay.

15 One of the clarities that I was hoping  
16 to accomplish was the identity of our community, sir,  
17 whether they viewed us as Métis or as First Nations  
18 communities. And apparently that's impossible to get  
19 an answer from.

20 Would I be correct on that one?

21 DR. JOHNSTONE: Mr. Chair, we engaged  
22 with Mr. Malcolm's group and membership with a sincere  
23 intent, and we really think that his question is up to  
24 the federal government.

25 Our participation in any meeting with

1 Mr. Malcolm was on a, if I can say, on a sincere  
2 level. We can't go further than that.

3 And if we have mistakenly, if we have  
4 misunderstood or mischaracterized the status of the  
5 groups, we apologize for that.

6 We know that the whole of government  
7 submission from Canada states that Original Fort  
8 McMurray First Nation and the Clearwater Band is a Non  
9 Status indigenous group.

10 That's on page 27 of CEEA O-50.

11 MR. J. MALCOLM: Sir, you mentioned  
12 sincerity. You are a multi-million dollar outfit.  
13 You have anything you need at your hands and you have  
14 a staff, you have computers, you have communications,  
15 you have the ability to do all that.

16 When you are talking with groups that  
17 are affected by your project or feel they are affected  
18 by your project, the groups that you talk to, have  
19 they all received funding from you to engage in the  
20 consultation process?

21 DR. JOHNSTONE: Mr. Chair, no, not all  
22 groups have.

23 MR. J. MALCOLM: Could you elaborate,  
24 please?

25 DR. JOHNSTONE: Well, that's explicit.

1 Not all groups have.

2 Over the ten years of consultation,  
3 we've reached out or been reached out to by about 33  
4 groups. And absolutely not all of those communities  
5 have.

6 MR. J. MALCOLM: So which ones have  
7 you funded?

8 DR. JOHNSTONE: All of the Fort  
9 Chipewyan communities, both Fort McKay communities.  
10 We have provided a variety of funding to -- one  
11 second.

12 --- Pause

13 DR. JOHNSTONE: Athabasca Chipewyan  
14 First Nation, Fort Chip Métis Local 125, Fort McKay  
15 First Nation, Fort McKay Métis Community, Fort  
16 McMurray Métis Local 1935, Fort McMurray First Nation  
17 No. 468, Alberta Nation of Alberta Local 1999, Métis  
18 Nation of Alberta - Region One, Mikisew Cree First  
19 Nation.

20 And with the recent funding of the  
21 meeting in June 2018 referred to, Original Fort  
22 McMurray Band and Clearwater River Band.

23 MR. J. MALCOLM: And why was the  
24 funding provided to them?

25 MR. IGNASIAK: Mr. Chairman, I know

1 Dr. Johnstone can answer that, but I just don't see  
2 how it's relevant to the concerns of Mr. Malcolm's  
3 groups.

4 We're supposed to be talking about the  
5 project here and in two hours we haven't had one  
6 question about the project.

7 MR. J. MALCOLM: Mr. Chairman, I'm  
8 sorry that Mr. Ignasiak has not heard much about the  
9 project. But we will get to that shortly. I just  
10 want to get some clarity on the meetings that we held  
11 to identify us as an indigenous community, and I  
12 wanted to get that clarification from Teck.

13 I also wanted to see the fairness of  
14 how they provide funding to certain groups but not to  
15 other groups. Fairness is the sincerity part. It's  
16 hard to swallow when you're dealing with groups that  
17 are impecunious.

18 I wanted to ask Mr. Johnstone that  
19 question, if I can be allowed.

20 Do you think it's fair to meet with  
21 impecunious groups like us and have us come up with  
22 concerns on your project when we have no experts to  
23 review your EIAs that you provide to us? Do you think  
24 that's fair?

25 DR. JOHNSTONE: Mr. Chair, the answer

1 to that is we've had a number of communities in a very  
2 similar situation. They receive no funding from us  
3 and express their concerns and we have responded  
4 accordingly.

5 I think it's worthwhile to note that  
6 there are a number of communities that submitted  
7 Statements of Concern with no funding from Teck and  
8 that we subsequently worked with. We heard their  
9 concerns and we started to engage with them, and in  
10 some cases we provided more funding.

11 That wasn't the case with the groups  
12 Mr. Malcolm represents.

13 We think what we've done has been  
14 absolutely reasonable. We recognize that some  
15 communities may disagree with how we've approached  
16 that. We think we've taken a reasonable approach.

17 MR. J. MALCOLM: I heard you mention  
18 the other day, yesterday, that Teck adheres to the  
19 UNDRIP policy of Canada?

20 DR. JOHNSTONE: Mr. Chair, as I said  
21 yesterday, Teck supports Canada's adoption of UNDRIP.

22 MR. J. MALCOLM: We are being viewed  
23 as an indigenous community by Canada. How about by  
24 Teck?

25 DR. JOHNSTONE: Mr. Chair, I think

1 that our engagement with indigenous communities,  
2 Status, Non Status, Métis, First Nation, has more than  
3 demonstrated interest and respect for indigenous  
4 rights and the principles outlined in UNDRIP.

5 MR. J. MALCOLM: Mr. Chairman, my  
6 answer(sic) was whether or not we are an indigenous  
7 community. Canada acknowledges us as one. Does Teck  
8 acknowledge us as one?

9 MR. IGNASIAK: Mr. Chairman, I think  
10 we've canvassed this ground extensively. I think the  
11 panel said, I think Dr. Johnstone said all he can say  
12 on behalf of Teck on this issue. I think the record  
13 is pretty clear.

14 MR. J. MALCOLM: Do I take that as a  
15 no?

16 MR. IGNASIAK: I would suggest we take  
17 it as move to the next question. But it's not my  
18 call.

19 MR. J. MALCOLM: I would like an  
20 answer, sir, if possible.

21 THE CHAIRPERSON: I do believe you put  
22 this question to the panel before.

23 Mr. Johnstone, do you have anything  
24 further you want to add or should we just move on?

25 DR. JOHNSTONE: Mr. Chair, I would

1 like to be able to move on.

2 I think I've made the comment we have  
3 previously referred to a letter from Alberta to Mr.  
4 Malcolm and we've referred to a letter and an Appendix  
5 to the whole of government submission, both of which  
6 refer to Mr. Malcolm's group as Non Status indigenous  
7 groups.

8 It's government's opinion; it's not  
9 Teck's.

10 MR. J. MALCOLM: I'm just not clear on  
11 the answer, sir.

12 THE CHAIRPERSON: Mr. Malcolm, I think  
13 we need to move on.

14 MR. J. MALCOLM: I would like to go to  
15 the meeting of November 24, 2014, a meeting that we  
16 held with Teck Frontier Mine, Sawridge, Wisconsin, and  
17 myself and Mr. Leonard Gauthier.

18 There was another Teck representative  
19 present but I forgot their name.

20 Could you tell me their names, please?

21 DR. JOHNSTONE: Mr. Chair, the  
22 attendees at that meeting were Ms Janais Turuk, Mr.  
23 Ray Proulx and Mr. Harry Seward, all of Teck  
24 Resources.

25 MR. J. MALCOLM: And was Mr. Gauthier

1 also present?

2 DR. JOHNSTONE: At the November  
3 meeting, no.

4 MR. J. MALCOLM: Okay, my mistake  
5 then, sir.

6 Can you tell me when we had that  
7 meeting with Leonard Gauthier and there was a Teck  
8 Frontier representative with him as well? I believe  
9 she was consultation liaison, a senior advisor.

10 --- Pause

11 DR. JOHNSTONE: Mr. Chair, we do not  
12 have a record of a meeting with Mr. Gauthier, a Teck  
13 representative and Mr. Malcolm. Our records indicate  
14 that in April 2014 Mr. Gauthier met with Mr. Malcolm  
15 in relation to the upcoming opportunities to bid on  
16 contracts for 2014-2015 Teck exploration program.

17 I previously provided these details.

18 MR. J. MALCOLM: And who was the Teck  
19 representative with us at that meeting?

20 DR. JOHNSTONE: Mr. Chair, we have no  
21 record of a Teck representative at that meeting.

22 MR. J. MALCOLM: So he was just on his  
23 own when he met with us then? Is that what you are  
24 telling me?

25 DR. JOHNSTONE: As I have stated, our

1 records indicate that it was Mr. Gauthier alone  
2 meeting with Mr. Malcolm.

3 MR. J. MALCOLM: I beg to differ. But  
4 I forgot her name from the Teck representative.

5 I won't go there since you don't have  
6 a proper recollection of the meeting with Leonard  
7 Gauthier and the Teck representative.

8 I would like to elaborate on the  
9 discussions of us not bringing up proper concerns  
10 during our meetings.

11 Did we not file a Statement of  
12 Concerns on this project?

13 DR. JOHNSTONE: Mr. Chair, the record  
14 indicates concerns outlined by communities and their  
15 SOCs. I don't have it in front of me.

16 I can pull it up but I'm sure that Mr.  
17 Malcolm's concerns are outlined in his SOCs.

18 MR. J. MALCOLM: And these were never  
19 discussed with our meetings that we held with Teck by  
20 anyone?

21 --- Pause

22 DR. JOHNSTONE: Mr. Malcolm, would you  
23 be able to provide the reference for the SOC that you  
24 filed?

25 MR. J. MALCOLM: I'm sorry?

1 DR. JOHNSTONE: Would you be able to  
2 provide the date for the SOC that you provided?

3 MR. J. MALCOLM: I can't recollect.  
4 It's been ten years now since we filed our concerns on  
5 this project.

6 But I can kind of tell you what they  
7 would consist of, what we normally file Statements of  
8 Concerns on all these projects, regarding the air, the  
9 water, the birds, the wildlife and water quality.

10 I'm taken aback by your comment saying  
11 that we don't talk to Teck about our concerns on the  
12 project, on the environment. That's my new focus on  
13 consultation.

14 THE CHAIRPERSON: Mr. Malcolm, was  
15 there a question in there? I wasn't quite sure that  
16 there was a question.

17 MR. J. MALCOLM: Well, sir, you made  
18 comments that we don't talk about the environment when  
19 we met with Teck Frontier Mine; that we only talked  
20 about lack of consultation.

21 I wanted to clarify that with him,  
22 whether or not any other concerns other than  
23 consultation took place.

24 DR. JOHNSTONE: I believe that I  
25 covered that in the summary of the list that I read

1 out. It wasn't just concerns regarding status, but it  
2 was also -- I think the first one on the list that I  
3 read out was water, as an example.

4 MR. J. MALCOLM: All right.

5 I will move on to more of the project  
6 concerns, the environment, as kind of hashing out the  
7 sincerity of the Teck Frontier Mine dealing with us as  
8 indigenous groups seems to be futile.

9 THE CHAIRPERSON: Mr. Malcolm, I hate  
10 to do this given that you're just about to get to some  
11 of the questions on the project, but it is a little  
12 past noon now.

13 If you're okay, this would be a good  
14 time to take a break. If you want to continue, we can  
15 continue.

16 MR. J. MALCOLM: Thank you, Mr.  
17 Chairman. That's fine.

18 I think I have a lot of questions  
19 after lunch.

20 THE CHAIRPERSON: Okay.

21 It's just about ten after 12:00 so we  
22 will break till ten after 1:00.

23 Thank you.

24 --- Upon recessing at 1208 / Suspension à 1208

25 --- Upon resuming at 1309 / Reprise à 1309

1 THE CHAIRPERSON: Thank you. Please  
2 be seated.

3 Mr. Ignasiak.

4 MR. IGNASIAK: Thank you, Mr. Chair.  
5 Maybe just before Mr. Malcolm gets back up. In the  
6 course of reviewing the transcript yesterday I think  
7 Mr. Ebner identified something he'd like to clarify.  
8 I think Mr. Dejiang Long had something to add to what  
9 he said this morning. So if I could just have Mr.  
10 Ebner and Mr. Long issue those clarifications and  
11 additions, and then that'll be that.

12 THE CHAIRPERSON: Okay, thank you.

13 MR. IGNASIAK: Mr. Ebner.

14 MS LaCASSE: Just before we start, I  
15 want to remind the Panel again, in the back row, to  
16 state your name before you give your answers please.

17 MR. EBNER: From two days ago when we  
18 were being questioned from the Canadian Parks and  
19 Wilderness Society I just want to make a couple  
20 corrections.

21 On page 368, line 4, we were  
22 discussing harvest levels around Ducks Unlimited. I  
23 had stated 34 per cent, it's actually 23 per cent.  
24 That's the first correction.

25 On page 414 we were being asked by Mr.

1 Fluker around the inclusion of whooping crane as a key  
2 indicator in the integrated application. We misspoke,  
3 whooping crane was included as a key indicator in the  
4 Integrated Application.

5 MR. IGNASIAK: Thank you. Dr. Long.

6 DR. LONG: Dejiang Long here. Mr.  
7 Chairman, this morning when I responded to the  
8 question related to flooding, climate change on  
9 flooding, and also the project design consideration of  
10 flooding information, I made the reference to Teck's  
11 response to Joint Review Panel's Information Request  
12 8.4.

13 I just would like to add that the  
14 information also provided by Teck in its response to  
15 the Joint Review Panel Question 2.6 related to climate  
16 change also contained additional relevant information  
17 that may be valuable to the Panel.

18 THE CHAIRPERSON: Okay, thank you.

19 Before we move back to Mr. Malcolm,  
20 just one other thing. I understand there's a Mr.  
21 Berube who wanted to make a request. If he's here,  
22 could you come forward?

23 MR. BERUBE: Hello, my name's Luke  
24 Berube. I just want to make a request to make a small  
25 presentation at a later point as a member of local

1 Lodge 146, and explain how I think this will affect  
2 us.

3 THE CHAIRPERSON: Okay. Mr. Berube,  
4 when you say small, are we talking a couple of  
5 minutes? Is that what your ask is?

6 MR. BERUBE: Roughly five minutes,  
7 yes.

8 THE CHAIRPERSON: Five minutes?

9 MR. BERUBE: Yes.

10 THE CHAIRPERSON: Okay. Mr. Ignasiak,  
11 any questions or concerns? No? Okay. Thank you, Mr.  
12 Berube. Do we have a way to get a hold of you through  
13 the Secretariat staff?

14 MR. BERUBE: Yes.

15 THE CHAIRPERSON: Okay. So we'll let  
16 you know.

17 MR. BERUBE: Okay, thanks.

18 THE CHAIRPERSON: Okay, thank you.

19 I see somebody else coming up to the  
20 mic.

21 MR. YEWCHUK: Drew Yewchuk, for the  
22 Parks and Wilderness Society. We'd just like a few --  
23 probably until the end of the next presentation to  
24 decide if we have any response to that slight change  
25 to the transcript, and I'll let you know if I have any

1 small questions following.

2 THE CHAIRPERSON: Okay. Thank you,  
3 Mr. Yewchuk.

4 MR. YEWCHUK: Thank you.

5 THE CHAIRPERSON: Okay, Mr. Malcolm,  
6 you can continue.

7 MR. J. MALCOLM: Thank you, Mr.  
8 Chairman. I'll try to focus on the project more. I'd  
9 like to start with the pipelines, if I may bring that  
10 up. Canada seems to have a problem getting it  
11 started, to rebuild the pipeline to send more oil. I  
12 wanted to know, sir, that -- Mr. McFadyen, your  
13 company is involved in shipping coal, am I correct?

14 MR. McFADYEN: That is correct.

15 MR. J. MALCOLM: You also mentioned, I  
16 heard in your statement, that you do -- safety is your  
17 number 1 priority?

18 MR. McFADYEN: Correct.

19 MR. J. MALCOLM: So have you  
20 entertained the idea of other possible ways of  
21 shipping your oil across the ocean?

22 MR. McFADYEN: So maybe, Mr. Malcolm,  
23 you can say more?

24 MR. J. MALCOLM: Yes, sir.  
25 Previously, I used to be Process Operator and a Power

1 Engineer, a 3rd Class Power Engineer, now I'm an  
2 unemployed Power Engineer. But I have some solutions  
3 to your problems of shipping the oil and helping it  
4 make it safe for the killer whales.

5 The question that I have is, when you  
6 ship your oil to the coast and then you have to load  
7 the oil into the oil ship container, do you need to  
8 have the diluted naphtha in that when you ship it?

9 MR. McFADYEN: Yes, partially.

10 MR. J. MALCOLM: Have you explored  
11 other ways of shipping it without diluted naphtha?

12 MR. McFADYEN: Not to my knowledge.  
13 But let me defer to Mr. Chiasson.

14 MR. CHIASSON: Mr. Chairman, that is  
15 the method that we would envision. We would be  
16 interested to hear if Mr. Malcolm has some other means  
17 in mind.

18 MR. J. MALCOLM: I do, yes. As a  
19 previous Process Operator, running a diluent recovery  
20 unit was one of my fortes, and we would strip the  
21 diluent naphtha, light ends, from the bitumen, make it  
22 to dry bitumen.

23 I understand that dry bitumen and  
24 dil-bitumen, the value is pretty much the same on the  
25 market. Would I be correct on that?

1 MR. McFADYEN: Pretty much.

2 MR. J. MALCOLM: Okay. So building a  
3 diluent recovery unit on the coast, it sits on a pad  
4 maybe 300 feet by 200 feet, and it's able to extract  
5 the light ends and naphtha from the bitumen so you  
6 have two ways of shipping it after you do that. You  
7 can ship it as dry bitumen or you can ship it in  
8 pellets.

9 The Clearwater River Band has a patent  
10 from 1950 here in the tar sands, with these documents  
11 that we submitted show how it can be converted into  
12 pellets and shipped on the railway. I was just  
13 wondering why that couldn't be entertained in shipping  
14 your bitumen from the coast?

15 I understand pipelines are important  
16 to eliminate the railway from here to there, but if  
17 you could ship it in your ships that are shipping coal  
18 right now, they're going to be obsolete, you could  
19 ship bitumen in there instead, dry bitumen as pellets.

20 Have you ever considered that?

21 MR. McFADYEN: No, I don't think we  
22 have. I have to say, I am aware of the technology.  
23 Chair, I don't know if this is the place to talk about  
24 technology, it could well be.

25 I just want to make the point, our

1 door is always open. So if anybody's got any ideas  
2 that help us make our business safer, more  
3 responsible, more cost effective, happy to have that  
4 conversation. I'm just not sure we want to have it  
5 here.

6 MR. J. MALCOLM: Just the fact that  
7 you're about to approve a project without that  
8 conversation, it might never happen.

9 MR. IGNASIAK: So, Mr. Chairman, I  
10 think I would tend to agree with Mr. McFadyen. I  
11 mean, as we know, we're here to look at the project as  
12 applied for at this time.

13 I think if Mr. Malcolm wants to have  
14 those types of conversations, I think Mr. McFadyen  
15 just confirmed that Teck's prepared to have those.  
16 But I don't think this is the forum for it.

17 MR. MCFADYEN: Mr. Malcolm, let me be  
18 clear, I'm not trying to be dismissive in any way  
19 whatsoever. This seems like a very good idea. I  
20 don't think that this is the forum to have that debate  
21 though. I'm happy to have the conversation, but maybe  
22 in a different forum.

23 MR. J. MALCOLM: Sure, might come with  
24 a fee.

25 --- Laughter / Rires

1 MR. McFADYEN: I beg your pardon?

2 MR. J. MALCOLM: It might come with a  
3 fee, I said.

4 MR. McFADYEN: Yeah, I thought you  
5 said that.

6 --- Laughter / Rires

7 MR. J. MALCOLM: So, you know, I'm not  
8 against development of the tar sands, but we are  
9 looking forward to do it in a smart manner and a new  
10 and innovative manner, if possible.

11 That's why I suggested removing the  
12 diluent to ship it across the ocean, because if you  
13 ever have an oil spill with coal, it's a lot less  
14 hazardous with coal than it is with diluted bitumen.  
15 I think you'll agree with me on that?

16 MR. McFADYEN: No, I won't.

17 MR. J. MALCOLM: You think that a  
18 coal spill is just as hazardous as diluted bitumen  
19 spill?

20 MR. IGNASIAK: Mr. Chairman, we're way  
21 beyond the scope of the project, as set out in the  
22 terms of reference.

23 THE CHAIRPERSON: I would agree, Mr.  
24 Malcolm. We need to kind of get back to the project.

25 MR. J. MALCOLM: Yeah. I'm sorry,

1 sir. I heard talk about stuff that were outside the  
2 project previously and I hadn't heard no qualms about  
3 it, but I'll move on to the site-specific projects.

4 But it's difficult with -- one of the  
5 things that I have, we heard talk about the ducks and  
6 the migratory birds and such and that there was, in  
7 North America, over 14 million birds or something like  
8 that. Would I be correct with my hearing, that I did  
9 hear that mentioned?

10 MR. SPELLER: Mr. Malcolm, I think  
11 earlier I had mentioned the 48 million bird  
12 population, it was from Ducks Unlimited.

13 MR. J. MALCOLM: Okay. I would like  
14 to bring up a diagram, Figure 2-14, Volume 3, Section  
15 2.

16 THE CHAIRPERSON: Mr. Malcolm, are you  
17 referring to the project update when you say Volume 3?

18 MR. J. MALCOLM: Well, it says,  
19 Developments and activities assessed by assessment  
20 case, Figure 2-14, Volume 3 update, Section 2. Yes,  
21 sir.

22 THE CHAIRPERSON: Okay.

23 MR. J. MALCOLM: Now, if I can bring  
24 the picture back. You mentioned North America, 42  
25 million birds, and so I'm just taken aback by it's not

1 project-related. So could you tell me, from Figure  
2 2-14, how many birds will be estimated to fly through  
3 that diagram on a yearly basis? I don't think it's 42  
4 million.

5 MR. SPELLER: Sorry, we're still just  
6 looking for the figure on my side.

7 MR. J. MALCOLM: Figure 2-14.

8 MR. SPELLER: So, Mr. Chairman,  
9 yesterday or the day before Mr. Ebner mentioned that  
10 an estimate through this area of certain birds was  
11 around 650,000.

12 MR. J. MALCOLM: Could you tell me how  
13 he came to that estimate, please?

14 MR. EBNER: Derek Ebner. The estimate  
15 of 650,000 birds breeding in the region, Mr. Chairman,  
16 was provided in Environment Canada's September 30  
17 submission.

18 MR. J. MALCOLM: Mr. Chairman, my  
19 question was the migratory birds, not the ones who are  
20 inhabitant in the region.

21 MR. EBNER: Derek Ebner. Mr.  
22 Chairman, we currently don't have an estimate of the  
23 total number of migratory birds flying through the  
24 region.

25 MR. J. MALCOLM: Okay, thank you for

1 that. Looking at Figure 2-14 as a traditional land  
2 user, and I don't know if any of you hunt in the Panel  
3 or not. But if you look at Figure 2-14 you can see  
4 all the planned developments and developments that are  
5 happening that I have to face trying to feed my  
6 family.

7 I was wondering if any of you could  
8 figure out from there where is a good place to go  
9 hunting on this map, to try call moose, where I'm not  
10 disturbed by tailings ponds, with the air cannons  
11 going off constantly, and where I'm not disturbed by  
12 development?

13 MR. McFADYEN: Mr. Chair, no, we  
14 wouldn't speculate on that.

15 MR. J. MALCOLM: So you have no one  
16 here who could tell me where a good place to go  
17 hunting is around here then?

18 MR. McFADYEN: Mr. Chair, we wouldn't  
19 speculate on that.

20 MR. J. MALCOLM: Yeah. Well, it's not  
21 speculation, sir. These are figures and drawings of  
22 developments that are imposed upon us in our  
23 traditional lands. I take it that you guys have no  
24 idea what it's like to go out and hunt, try to feed  
25 your family, but for us it's very frustrating,

1 especially when air cannons are going off constantly.

2 So the point I'm making is there is no  
3 place -- as far as I can say, there is no place for me  
4 to go hunt and feed my family in this figure, which is  
5 our traditional lands. There's no one here who can  
6 dispute me. So that's my point I'm trying to make.

7 Now, if I would go to Figure 9-2,  
8 vegetation and wildlife regional study area, Volume 2  
9 update, Section 9. In it it has a key wildlife  
10 biodiversity zone.

11 That key wildlife biodiversity zone  
12 could you please explain to me what that means?

13 MR. EBNER: Derek Ebner. Mr. Chair,  
14 in our response to SAR Round 2, Response 87, we had  
15 some questions around the purpose and intent of what a  
16 key wildlife biodiversity zone was. Essentially, the  
17 purpose of the key wildlife and biodiversity zone sort  
18 of emphasizes in maintaining the long-term integrity  
19 and productivity of key ungulate winter ranges and  
20 river corridors where ungulates concentrate.

21 MR. J. MALCOLM: With those key  
22 wildlife zones, could you tell me which areas have not  
23 been affected by wild forest fires? I'm looking for  
24 old-growth forest, that's why I'm leading up to this,  
25 because I think that's one of the key considerations

1 in the key wildlife biodiversity is old-growth forest.

2 MR. SPELLER: Mr. Chairman, we're just  
3 going to find the section to discuss this in the filed  
4 material.

5 MR. EBNER: Derek Ebner. In the  
6 project update, in Volume 2, in the appendices there's  
7 a figure, Figure 8(b)-1, that figure shows the extent  
8 of the 2011 Richardson Fire. The key wildlife and  
9 biodiversity zone is not on that figure, a portion of  
10 it was affected by the fire.

11 Just to emphasize as well, as part of  
12 the assessment, the effects on wildlife, we did  
13 include some modelling to look at the effect of future  
14 fire events as well.

15 MR. J. MALCOLM: So that's the only  
16 fire that's impacted this zone that we're talking  
17 about? Not other forest fires that affected it in the  
18 past 10 years since your project started?

19 MR. EBNER: Derek Ebner. At the time  
20 of the project update, all fires that had been  
21 included up until that date, so up until 2015, those  
22 fires were included in the assessment.

23 MR. J. MALCOLM: Do they affect the  
24 key wildlife biodiversity zone?

25 MR. EBNER: In the project update we

1 didn't include a figure that shows the extent of all  
2 the fires over the 10 years prior to 2015.

3 MR. J. MALCOLM: 2018?

4 MR. EBNER: That wasn't -- the project  
5 update was done in 2015.

6 MR. J. MALCOLM: Okay. So you didn't  
7 include the Fort McMurray meltdown?

8 MR. EBNER: No, we did not in the  
9 project update.

10 MR. J. MALCOLM: Okay. So I could say  
11 that this map is wrong then in regards to the key  
12 wildlife biodiversity zone, it's inaccurate.

13 MR. SPELLER: So, Mr. Chairman, the  
14 map was produced in 2015 for the project update. The  
15 Fort McMurray fire that we're discussing happened in  
16 2016, so it wasn't included in that map.

17 MR. J. MALCOLM: Do you have one  
18 with -- a new one?

19 MR. SPELLER: Mr. Chairman, we do not.

20 MR. J. MALCOLM: So then it goes back  
21 to my statement that this map is wrong then.

22 MR. SPELLER: Mr. Chairman, it was  
23 right at the time when we produced it.

24 MR. J. MALCOLM: But not now.

25 MR. SPELLER: Mr. Chairman, I think

1 I've answered this. We have not updated this map  
2 since 2015.

3 MR. J. MALCOLM: So you have no idea  
4 whether it's right or wrong?

5 MR. SPELLER: Mr. Chairman, I think  
6 I've answered this.

7 THE CHAIRPERSON: Mr. Malcolm, he has  
8 answered the question.

9 MR. J. MALCOLM: I'm sorry, Mr.  
10 Chairman?

11 THE CHAIRPERSON: He has answered the  
12 question, that the map has not been updated since  
13 2015.

14 MR. J. MALCOLM: Yes, he has answered  
15 that question. But he hasn't answered whether -- is  
16 it valid today or does it need to be changed?

17 MR. SPELLER: Mr. Chairman, we're not  
18 proposing to change any of the figures for this  
19 process.

20 MR. J. MALCOLM: Mr. Chairman, it's  
21 just the fact that this map is showing key  
22 biodiversity zones and it's wrong. It hasn't been  
23 updated or changed. So it's harder for me to decipher  
24 whether -- the accuracy of my findings.

25 So I'll continue on with this with the

1 key wildlife map that we have in place here. I notice  
2 the whooping crane critical habit that's required for  
3 them. None of that's considered in this key finding,  
4 biodiversity.

5 MR. EBNER: Derek Ebner. The figure  
6 we're discussing right now, Figure 9-2 in Volume 2,  
7 the project update, no, it does not include critical  
8 habitat of whooping crane. As we've previously  
9 discussed, the critical habitat for whooping crane is  
10 currently within Wood Buffalo National Park, at the  
11 north end, and that habitat has been identified  
12 primarily around habitat needed for breeding.

13 MR. J. MALCOLM: I also heard that it  
14 was also critical habitat that needed to be identified  
15 outside the Wood Buffalo National Park range.

16 MR. EBNER: In the recovery strategy  
17 for whooping crane Environment Canada has discussed,  
18 Mr. Chairman, the possibility of in the future  
19 identifying additional critical habitat outside the  
20 park.

21 MR. J. MALCOLM: Now, if I can go back  
22 to Figure 2-14, Volume 3, Section 3, if I can go back  
23 to that drawing, I'm thinking like a whooping crane;  
24 I'm a traditional land user and we hunt. You have to  
25 think like the animals that you're going to hunt if

1 you want to be successful. But I don't have whooping  
2 cranes, but I still like to think that how they feel  
3 is how I feel. I'm flying 3,000 kilometres, I'm  
4 getting close to my home and I'm tired and I need a  
5 break before I go the final stretch.

6 Now, on map -- this 2-14, which is  
7 within 500 kilometres from the bottom to 200  
8 kilometres to the top of this map, from my home, would  
9 you not consider taking a rest before you continue on?  
10 I'll ask that question first.

11 MR. SPELLER: Mr. Chairman, what we  
12 can share on that topic is the telemetry data that we  
13 discussed over the last couple of days related to  
14 whooping crane. The collared whooping crane and the  
15 data that's available, as we talked about, from the  
16 Environment and Climate Change Canada slides do say  
17 that cranes fly over the oil sands. Some do stop over  
18 in the area.

19 MR. J. MALCOLM: Do you know where?

20 MR. SPELLER: In Environment and  
21 Climate Change Canada's August 31 submission that's on  
22 the registry there are figures that show flyover  
23 locations and stopover locations, so those figures are  
24 in the government's submission from August 31.

25 MR. J. MALCOLM: Okay. I wasn't privy

1 to that, sir.

2 MR. IGNASIAK: That's all on the  
3 registry, sir.

4 MR. J. MALCOLM: Are any of those  
5 stopovers on this map?

6 MR. SPELLER: That map doesn't contain  
7 the stopover locations, but the stopover locations do  
8 occur over the mineable oil sands area.

9 MR. J. MALCOLM: So the whooping crane  
10 flies over and does stop in the oil sands area, and  
11 from what I've seen in the pictures, they do get tar  
12 on their feathers. Is that correct?

13 MR. SPELLER: Mr. Chairman, as we  
14 discussed the last couple of days, they do stop over.  
15 The Environment and Climate Change Canada slide deck  
16 has a picture of three cranes in Nebraska that appear  
17 to have oil on their bottom halves, and there's  
18 speculation that's oil potentially from the oil sands,  
19 but I don't think that's been confirmed or -- yeah,  
20 I'll just leave it at that, I don't think it's been  
21 confirmed.

22 MR. J. MALCOLM: Okay. I won't  
23 elaborate on any other ideas that you might think of  
24 where they got that oil from. I'd be only assuming.

25 The critical habitat that's identified

1 by Environment with their studies, is that being  
2 protected?

3 MR. SPELLER: Mr. Chairman, yes, that  
4 critical habitat is within Wood Buffalo National Park,  
5 at the north end, about 240 kilometres away from the  
6 project. That has a number of protections between the  
7 *Species at Risk Act* and it being in a national park.

8 MR. J. MALCOLM: Yeah. I'll go back  
9 to the question outside the national park, sir. The  
10 critical habitat, and so on, where they stop over  
11 outside the park, are they being protected?

12 MR. SPELLER: Mr. Chairman, critical  
13 habitat is a specific designation for species at risk  
14 under the Act. As we discussed the last couple of  
15 days, there is no critical habitat in the region of  
16 the project outside of the park. Again, that area is  
17 240 kilometres away. The recovery strategy recommends  
18 identifying other critical habitat, if it's necessary,  
19 outside of the park, but that hasn't been defined now,  
20 so that's a long way of saying under the *Species at*  
21 *Risk Act* definition there is no critical habitat  
22 outside the park currently.

23 MR. J. MALCOLM: Do you feel there  
24 should be some critical habitat stopover zones in the  
25 Wood Buffalo region other than the Wood Buffalo

1 National Park?

2 MR. SPELLER: Mr. Chairman, I'm not  
3 sure if we can comment on that. We're not the kind of  
4 groups that identify critical habitat.

5 MR. J. MALCOLM: If I can ask you  
6 another question about the other birds that we hunt,  
7 I'm sorry, the birds that we hunt in our Wood Buffalo  
8 region, in my traditional lands, like the ruffed  
9 grouse, the spruce grouse, the ducks and the geese?  
10 Would you be able to tell me, out of the 42 million,  
11 even with the migratory birds, how many nest in the  
12 traditional lands between Fort McMurray and Wood  
13 Buffalo National Park?

14 MR. EBNER: Derek Ebner.

15 As previously discussed, Mr. Chairman,  
16 in Environment Canada's August 31 submission they  
17 reported a number of greater than 650,000 birds,  
18 waterfowl, in particular, breeding within the mineable  
19 oil sands region.

20 MR. J. MALCOLM: What kind of birds?

21 MR. EBNER: Waterfowl.

22 MR. J. MALCOLM: Six hundred and fifty  
23 thousand waterfowl in this region?

24 MR. EBNER: That is based on surveys  
25 reported back in 2009.

1 MR. J. MALCOLM: From 2009. We've had  
2 Fort Hills and Husky oil and more mine developments  
3 since then. Do you think that's an accurate count for  
4 today?

5 --- Pause

6 MR. EBNER: Derek Ebner.

7 As part of Teck's submission on  
8 September 12, we included a presentation that  
9 Environment Canada gave during the IUCN mission for  
10 Wood Buffalo. That is Attachment 15. In that,  
11 Environment Canada stated that there have been no  
12 significant negative population trends in the  
13 oil sands region or the Peace-Athabasca Delta based on  
14 surveys from 1992 to 2012.

15 MR. J. MALCOLM: I just can't fathom  
16 the idea that half of their nesting grounds have been  
17 decimated by oil sands projects and there's no change  
18 in numbers. It just doesn't make sense to me. Does  
19 it make sense to you?

20 MR. EBNER: We're just reporting on  
21 the data that Environment Canada has provided.

22 MR. J. MALCOLM: How about the ruffed  
23 grouse and spruce grouse?

24 MR. EBNER: Derek Ebner.

25 We don't have any estimates on ruffed

1 grouse or spruce grouse populations.

2 MR. J. MALCOLM: They're part of our  
3 food source and you don't know how many migratory  
4 birds fly over, you don't know how many -- we call  
5 them chickens, but ruffed grouse and spruce grouse,  
6 our food sources, you have no idea how much is in the  
7 area, but you can say that we're not impacted. Is  
8 that correct?

9 MR. SPELLER: Mr. Chairman, when we  
10 look at, and we talked about this a bit the last  
11 couple of days, when we look at effects on wildlife we  
12 often don't have population data in the region.  
13 Individual proponents don't collect that information,  
14 and the provincial and federal governments often don't  
15 have that information either, so what we do is we take  
16 a conservative approach where we assume if there is  
17 habitat that species would use we assume that they use  
18 it and we end up looking at how much of the habitat  
19 would be disturbed by development and how much is  
20 remaining for their use, and that's part of our  
21 habitat availability assessment, so we can look at  
22 that without knowing the population levels and still  
23 come to a conclusion.

24 MR. J. MALCOLM: Have you had  
25 discussions with the traditional land users in the

1 area about this?

2 MR. SPELLER: Mr. Malcolm, I'm  
3 wondering if you could be more specific.

4 MR. J. MALCOLM: Well, talking with  
5 the native groups that you've talked to, the  
6 indigenous groups, do any of them have any concerns  
7 about the wildlife dissipating and disappearing?

8 DR. JOHNSTONE: Mr. Chair, we've heard  
9 a lot of concerns expressed throughout our 10 years of  
10 consultation, and wildlife has been a key focus of  
11 land users. I think we would note that the  
12 information that's on the record from the  
13 14 communities that we have agreements with note that  
14 Teck has done all it should within its power to  
15 resolve project concerns and that they are satisfied  
16 with that. They note that there are other areas where  
17 they think that ongoing work between the communities,  
18 in some cases Teck and the federal governments and  
19 provincial governments, would be needed to fully  
20 address some of those issues.

21 MR. J. MALCOLM: I'm not sure if that  
22 answered my question, sir.

23 DR. JOHNSTONE: Could you repeat the  
24 question?

25 MR. J. MALCOLM: Have any of the

1 traditional land users, in the discussions that you  
2 had, mentioned that there's a disappearance of  
3 wildlife that were being severely impacted by the  
4 developments of the oil sands?

5 DR. JOHNSTONE: Mr. Chair, the answer  
6 to that is yes.

7 MR. J. MALCOLM: What was your  
8 mitigation for that?

9 DR. JOHNSTONE: Mr. Chair, I think  
10 it's important to recognize that some of those  
11 concerns have been reported prior to development of  
12 the project, and some of those are cumulative concerns  
13 by nature. This was very much what some of the  
14 communities were getting at.

15 If you look at the submissions by --  
16 the joint submission with Teck yesterday and with  
17 Mikasew Cree First Nation, some of those suggested  
18 mitigation measures are included in that, and that  
19 would include items like protection of the Ronald Lake  
20 bison herd from non-indigenous hunting. We certainly  
21 heard that trophy hunting was of particular concern to  
22 indigenous communities, and they look to the  
23 provincial government to fully protect the herd. We  
24 certainly support them in that mitigation measure.

25 MR. J. MALCOLM: What was the

1 solutions for the wildlife?

2 DR. JOHNSTONE: That was an example,  
3 the Ronald Lake bison herd is certainly an example of  
4 wildlife whereby they would, the communities and Teck,  
5 think that the provincial government needs to  
6 implement a management plan, and that that should be  
7 sure to have collaboration from indigenous communities  
8 in the development and implementation of that.

9 I think another item that both the  
10 ACFN and MCFN have been very clear about is the  
11 interest in a biodiversity stewardship area south of  
12 Wood Buffalo National Park that would provide  
13 essentially a development freeze. This initiative has  
14 been led by Mikasew Cree, and Teck has been working at  
15 their direction and advancing that with them.

16 MR. J. MALCOLM: You referred to the  
17 bison in that mitigation comment. Was that just bison  
18 only?

19 MR. SPELLER: Mr. Chairman, as we  
20 talked about the last couple of days, as part of the  
21 joint review panel information requests, Teck  
22 submitted a number of mitigation, monitoring and  
23 adaptive management plans, and that includes a  
24 Wildlife Plan, a Waterfowl Plan, a Ronald Lake Bison  
25 Herd Plan. There's a Biodiversity Management Plan,

1 there's a detailed Fisheries Offsetting Plan, and  
2 there's also Traditional Land Use Mitigation,  
3 Monitoring and Adaptive Management Plans. Those are  
4 project-specific plans that address those specific  
5 areas of potential project effects.

6 MR. J. MALCOLM: On the  
7 project-specific areas, have you done any bird counts,  
8 animal counts or migratory bird counts?

9 MR. EBNER: Derek Ebner.

10 Between 2005 and 2015, we carried out  
11 a number of different wildlife surveys in the local  
12 study area.

13 MR. J. MALCOLM: Could you please  
14 elaborate?

15 MR. EBNER: Yeah. We did 15 different  
16 types of wildlife surveys, including winter tracking,  
17 which did record grouse that you've mentioned. We did  
18 breeding bird surveys, area waterfowl surveys, beaver  
19 lodge surveys, amphibian surveys, common nighthawk  
20 surveys, rail surveys, and such.

21 MR. J. MALCOLM: Those are all the  
22 birds that inhabit the project site?

23 MR. EBNER: Yes. All the surveys that  
24 were conducted were meant to determine various  
25 relative abundance of certain species, and to

1 determine whether or not certain species at risk  
2 actually occurred within the local study area.

3 MR. J. MALCOLM: Would that be  
4 considered your baseline studies?

5 MR. EBNER: That is correct.

6 MR. J. MALCOLM: So you had no  
7 previous baseline studies done prior to the  
8 development of the tar sands.

9 MR. SPELLER: Mr. Chairman, yes and  
10 no. As part of this project obviously we didn't do  
11 that, but what we did as part of this project was  
12 collect past data if there is available information.

13 What we developed, especially in the  
14 aquatics and terrestrial disciplines, was a  
15 predevelopment scenario, so we tried to paint a  
16 picture of what our regional study areas look like in  
17 this area prior to oil sands development, so what was  
18 the air quality like, what was water quality like,  
19 what was the wildlife and vegetation conditions back  
20 then. That's actually something that we think is very  
21 good about our assessment is, for instance, in the  
22 terrestrial assessment, when we look at the effects of  
23 the project and existing and improved projects we're  
24 actually comparing those effects back to that  
25 predevelopment scenario, so what was life like before

1 oil sands, that's the delta that we're assessing in  
2 our terrestrial assessment. A major reason why we do  
3 that is input from the indigenous communities, that's  
4 a viewpoint that they want us to look at in our  
5 assessment.

6 MR. J. MALCOLM: With that assessment,  
7 what's the predevelopment stage on Teck's Frontier  
8 mine lease? Is there a change in the amount of  
9 wildlife from your assumption of the predevelopment to  
10 the baseline studies that you have? Do you have any  
11 numbers to compare with?

12 MR. EBNER: Derek Ebner.

13 For the wildlife assessment, as an  
14 example, just carrying on with what Mr. Speller was  
15 discussing, predevelopment was the assessment case we  
16 were comparing against in terms of base case,  
17 application case, planned development.

18 The comparison to predevelopment was  
19 primarily, Mr. Chair, around the change in habitat  
20 availability for the most part, so in that case it  
21 wasn't necessarily what the conditions were like  
22 before oil sands, they were the conditions without the  
23 oil sands. We essentially lifted the oil sands  
24 development off the landscape and then put vegetation  
25 within the footprint, so in the case we're talking

1 about we didn't compare the change in actual abundance  
2 between the predevelopment and the assessment cases,  
3 it was more, for the most part, looking at change in  
4 habitat availability as being the primary effect we  
5 were focused on.

6 MR. J. MALCOLM: So the assumption  
7 would be if the habitat is there the animals are  
8 there, like you do with the fish?

9 MR. EBNER: We were assessing, like I  
10 discussed, the change of habitat availability. We're  
11 not saying how many animals are present in that  
12 habitat, but really it's looking at the potential for  
13 them to be there based on the suitability of the  
14 habitat present.

15 MR. J. MALCOLM: In the baseline  
16 studies that you have from 2006 onward, when did the  
17 winter road go in there, and to the project site?  
18 When did you guys have a winter road installed?

19 MR. SPELLER: I'm going to give an  
20 answer. I'm not sure if it's exactly what was being  
21 looked for.

22 For a number of the surveys that we  
23 do, we actually don't use the road in, we helicopter  
24 people in, or we get them in through other ways. It's  
25 not tied to the winter road necessarily.

1 MR. J. MALCOLM: But there was one put  
2 in. That's what I asked, when it was.

3 MR. CHIASSON: Mr. Chairman, I think I  
4 can help with this.

5 When we do exploration programs on  
6 Frontier, I think that might be what Mr. Malcolm is  
7 referring to, when we do exploration programs at  
8 Frontier, given the nature of the terrain, we put  
9 winter roads in to be able to get the equipment into  
10 the site to conduct the exploration program. We've  
11 conducted a number of exploration programs over the  
12 years. The most recent ones were in the winter of  
13 2013-14, so that would have been Q1 of 2014 we would  
14 have conducted a program. The year before that we  
15 would have conducted a program.

16 What we do for access for those  
17 programs, often we work with the forestry companies in  
18 the area if they have activities ongoing to get the  
19 equipment and often we freeze-in a winter road across  
20 the Athabasca River and then use winter roads to  
21 access the site for exploration programs.

22 MR. J. MALCOLM: So was this -- you  
23 didn't answer the question of what year, but I'll ask  
24 you a question. Was this exploration work ongoing at  
25 the same time you put the road in and the same time

1 you're gathering baseline studies?

2 MR. CHIASSON: So, Mr. Chairman, I  
3 tried to determine which particular time Mr. Malcolm  
4 was referring to. What I referred to was there was a  
5 road that got put in in 2013 and one that got put in  
6 in 2014. I'm not sure if that's the one you're  
7 referring to.

8 MR. J. MALCOLM: Well, those dates are  
9 very helpful. Thank you, sir.

10 So the baseline study done in 2006  
11 might have some accuracy in it pre-disturbance era,  
12 right?

13 MR. CHIASSON: Okay.

14 MR. J. MALCOLM: Okay. And with that  
15 study that was done in 2006, were animals found to be  
16 in abundance or in stress? What were their  
17 thresholds?

18 MR. EBNER: Derek Ebner. The surveys  
19 that occurred between 2005 and 2015, we weren't  
20 comparing any of the results, Mr. Chair, against a  
21 threshold per se, we were just recording what was  
22 there.

23 MR. J. MALCOLM: So you have no idea  
24 whether it was a good year or a bad year?

25 MR. EBNER: I would say that every

1 site is a little different and the day that we  
2 collected wasn't necessarily looking at particular  
3 trends within the area, but we didn't -- in some cases  
4 we might have done comparisons against other oil sands  
5 projects in the past, but in this case we just  
6 reported the numbers that were present.

7 MR. J. MALCOLM: Animals come in  
8 cycles, they have good years and bad years, up where  
9 they're plentiful and they get diseased out, then they  
10 die off and they start up again. Would you tell me --  
11 of any of the studies that you did, can you tell me  
12 any of the cycles that they were in, whether they were  
13 in a high cycle or a low cycle?

14 MR. EBNER: No, we can't.

15 MR. J. MALCOLM: Okay. So you have no  
16 idea of the health of the herds or whatever it is  
17 involved because you don't have an accurate idea  
18 whether they're in low cycles or high cycles?

19 MR. EBNER: The surveys that we  
20 conducted weren't focused on looking at any health  
21 characteristics of the populations, we were just  
22 recording abundance of the various species present.

23 MR. J. MALCOLM: As a traditional land  
24 user, I think that's very important for us to know,  
25 whether it's a healthy herd or not, because it helps

1 us manage it.

2 MR. SPELLER: So, Mr. Chairman, as we  
3 talked about the last couple of days, we do look at  
4 the health of -- the health risk to wildlife in the  
5 region based on emissions from the oil sands industry  
6 through the wildlife health risk assessment, which Mr.  
7 Koppe has mentioned a few times. It concludes that  
8 there is low risk to wildlife in the region due to oil  
9 sands.

10 MR. J. MALCOLM: I'm sorry, who stated  
11 that?

12 MR. SPELLER: Mr. Koppe, our Health  
13 Risk Assessor.

14 MR. J. MALCOLM: So that's not from  
15 Fish and Wildlife or Alberta government saying that,  
16 that's from your own company?

17 MR. SPELLER: So, Mr. Chairman, that's  
18 our Health Risk Assessor -- who was sitting behind me,  
19 I think he's off to the side now -- based on his  
20 assessment using the approach that's recommended by  
21 federal and provincial regulators.

22 MR. J. MALCOLM: Okay. So we have no  
23 idea how many animals are there, we have no idea what  
24 health they're in, we have no idea what cycles they  
25 are, and we have no idea how they're being impacted by

1 the cumulative element of the tar sands?

2 MR. SPELLER: So, Mr. Chairman, we do  
3 look at the cumulative effects of oil sands. We look  
4 at effects on habitat availability, landscape  
5 connectivity, mortality risk, and abundance and  
6 distribution, both from the Frontier's potential  
7 effects and also cumulative in the oil sands region  
8 within our original study area. So we have provided  
9 information related to that. We don't provide  
10 population numbers, it's not a piece of the way that  
11 the assessment is done, and as I mentioned earlier,  
12 population levels for a species in the region is very  
13 limited in terms of the data, the population data is  
14 very limited.

15 MR. J. MALCOLM: That's the point I'm  
16 trying to make, Mr. Chairman. The studies are very  
17 limited, they're all models, they have no idea what's  
18 out there, they have no idea of the health of the  
19 animals, how stressed they are, and yet they're saying  
20 they're not impacted by the tar sands development.

21 MR. IGNASIAK: Mr. Chair, we're  
22 getting a lot of argument, I think, as opposed to  
23 questioning of the Panel.

24 MR. J. MALCOLM: Yes, I'm sorry, I'll  
25 try to focus on more questions, because it's

1 frustrating when you don't get any answers.

2 So I'll just see about what else we  
3 can -- the accuracy of your books here. They're 10  
4 years of studies. You have no idea of the bird  
5 counts, no idea of the animals. You're going on what  
6 other people are telling you, but you don't listen to  
7 the traditional land users that tell you the animals  
8 are suffering and they're in dire need and there's  
9 hardly any left; would I be correct on that?

10 MR. SPELLER: I'm sorry, I'm not sure  
11 what the question was. I'm sorry.

12 MR. J. MALCOLM: Your --

13 THE CHAIRPERSON: Mr. Malcolm, again,  
14 you're kind of repeating your arguments as opposed to  
15 asking specific questions that the Panel can answer.

16 MR. J. MALCOLM: Okay. I'm sorry,  
17 sir. I'll try to refocus. I'll move on to something  
18 else. Maybe they might have some answers for me  
19 because for now I haven't gotten any.

20 The fish, the habitat and studies, I  
21 noticed that they're getting better, they're trying to  
22 capture the days that the fish spawn so they can  
23 actually get an idea of how healthy the streams are.  
24 And looking at all the counts on your studies, fish  
25 normally travel in schools and would you be able to

1 tell me -- is there a fish biologist there who can  
2 tell me what a normal fish school would consist of in  
3 numbers, say, for the walleye for example?

4 MR. SPELLER: So, Mr. Chairman, Mr.  
5 Bjornson down at the end is our -- led our fish  
6 assessment. If we can get a microphone down to him,  
7 we'll get him to respond.

8 MR. BJORNSON: Chris Bjornson.

9 Mr. Chair, we conduct a number of  
10 baseline surveys over several years, occurring in  
11 multiple seasons, spring, winter, summer, fall. In  
12 addition to surveys conducted by Teck Frontier, we  
13 also look at all the available information.

14 There was a large study done in the  
15 same area by Shell at the time they were proposing the  
16 Pierre River Mine. The province has a database called  
17 the Fish and Wildlife Management Information System.  
18 It contains all the information for fish captured in  
19 Alberta when people sample on a fish research licence.  
20 We looked at historical data and for the particular  
21 area that we're in there's data going back to -- or,  
22 sorry, historical data from the 1970s. We also looked  
23 at the Regional Aquatics Monitoring Program which  
24 operates in the region and in the last few years has  
25 been conducting sampling in the local study area, in

1 Big Creek and Redclay Creek. So we looked at all that  
2 information.

3 In terms of our surveys, we do count  
4 the fish that we capture. So we set traps, nets and  
5 we do electrofishing. We always count the number of  
6 each individual species that we get. These numbers  
7 are presented in our baseline update and also the  
8 baseline report from the Integrated Application.

9 In addition to counting the fish, we  
10 also do abundance estimates we call "catch per unit  
11 effort" and in these we record all of the effort we  
12 take to catch fish. So setting a trap, we record the  
13 number of hours and that determines the numbers of  
14 trap-hours that are set. When we're electrofishing,  
15 the units record every second that electrical current  
16 is applied to the water and we can determine how many  
17 fish we catch per 100 seconds. So with this, we get  
18 numbers of fish that are counted as well as the  
19 abundance estimates.

20 MR. J. MALCOLM: Thank you for that,  
21 but my question was how many fish are in a school of  
22 fish from walleye normally?

23 MR. BJORNSON: School sizes of fish  
24 vary considerably based on the population and the  
25 habitat.

1 MR. J. MALCOLM: Okay. Let's talk  
2 about the Athabasca River.

3 MR. BJORNSON: Chris Bjornson.

4 Numbers of fish typically captured in  
5 the Athabasca River, the Regional Aquatics Monitoring  
6 Program conducts sampling there on a near-annual basis  
7 and records the number of fish that they record each  
8 time. Again, in a specific school of fish there's no  
9 specific number. Again, it depends on the population  
10 level and the habitat.

11 MR. J. MALCOLM: So is two a school of  
12 fish, three a school of fish, or 300 or 3,000?

13 MR. BJORNSON: Yes, all of those.

14 MR. J. MALCOLM: Which is healthier?

15 MR. BJORNSON: It depends on the  
16 habitat and the number of fish it can support.

17 MR. J. MALCOLM: So did you capture  
18 any schools of fish in your studies?

19 MR. BJORNSON: Yes, we did.

20 MR. J. MALCOLM: Which ones?

21 MR. BJORNSON: Which species of fish?

22 MR. J. MALCOLM: Yes.

23 MR. BJORNSON: Number of species of  
24 fish, Mr. Chair. We captured Arctic grayling, we  
25 captured walleye, we captured burbot. It's a fairly

1 long list.

2 MR. J. MALCOLM: How many? That's  
3 what I'm concerned about.

4 MR. BJORNSON: The numbers of fish I  
5 can't provide individually. It is presented in our  
6 materials. We do have tables with the number of fish  
7 captured and the amount of sampling effort put in to  
8 capture those fish.

9 MR. J. MALCOLM: Okay. So to get an  
10 accurate account of what's in your streams and the  
11 health of the streams, would -- counting them is the  
12 way of doing it; correct?

13 MR. BJORNSON: I'm sorry, I didn't  
14 understand that.

15 MR. J. MALCOLM: To see if the stream  
16 is healthy and has fish and it's healthy, counting  
17 them would be one way; correct?

18 MR. BJORNSON: Counting them is one  
19 way, yes.

20 MR. J. MALCOLM: Okay. And how about  
21 when they spawn; is that not a critical time for them?

22 MR. BJORNSON: It is, and so being  
23 there in the spring is important to determine which  
24 species are there. We can -- when we capture adult  
25 fish in the spring we can determine if they're in

1 spawning condition. So, for example, suckers have  
2 external tubercles we can see. Also, we can determine  
3 if the fish is ready to spawn and whether it's a male  
4 or a female.

5 MR. J. MALCOLM: Okay. So I notice  
6 the days you went out in the spring was in early  
7 March.

8 MR. BJORNSON: Again, Mr. Chair,  
9 there's a large amount of data that was used over  
10 multiple years and some years it may have been March.  
11 Typically, May is the spring period.

12 MR. J. MALCOLM: And I never did see  
13 where there was a high count of fish in any of those  
14 studies where it would show that you were either there  
15 on the spawning days or just the fact that if you were  
16 that there's very low numbers and it's not healthy.

17 MR. BJORNSON: We did find in the --  
18 based on the habitat conditions in the streams in the  
19 local study area that there were some habitat  
20 limitations. So Big Creek, Redclay Creek are not  
21 particularly large water courses, so they have lower  
22 numbers than you would find in a larger tributary of  
23 the Athabasca River or in the Athabasca River itself,  
24 but that's just the natural condition.

25 MR. J. MALCOLM: Are they spawning

1 streams?

2 MR. BJORNSON: Yes. They contain  
3 suitable spawning habitat for a variety of fish  
4 species.

5 MR. J. MALCOLM: And when you do your  
6 studies, is it in high-flow season or low-flow season?  
7 Could you tell me which season it was in?

8 MR. BJORNSON: Yes. Chris Bjornson.  
9 Yes, again because it's over a number of years and  
10 seasons, there were -- looking at the high-flow  
11 years -- we had some low, moderate and high-flow  
12 years. So, for example, I believe 2013 was a flood  
13 year, we were out doing some sampling.

14 MR. J. MALCOLM: And would you say the  
15 streams are abundant?

16 MR. BJORNSON: Sorry, please repeat.

17 MR. J. MALCOLM: Would you say the  
18 streams have an abundance of fish?

19 MR. BJORNSON: No, Mr. Chair, looking  
20 at the habitat conditions and the number of fish  
21 captured, they were not particularly high. They are  
22 higher for some species than for others. So being  
23 small streams, the lower ends with some rocky habitat,  
24 we do catch a lot of some species such as siamese  
25 sculpin, but we don't see a lot of big fish.

1 MR. J. MALCOLM: Have you ever seen  
2 northern pike spawn up that stream?

3 MR. BJORNSON: Which particular  
4 stream?

5 MR. J. MALCOLM: Any of them.

6 MR. BJORNSON: Yes, Mr. Chair, I've  
7 seen quite a bit of that and done fish counting fence  
8 studies on some streams and have documented spawning  
9 runs.

10 MR. J. MALCOLM: And did you get a  
11 count of them?

12 MR. BJORNSON: Yes. There's several  
13 counting fish fence studies that have been conducted  
14 for the oil sands region that count the number of  
15 fish.

16 MR. J. MALCOLM: Any of them over 100?

17 MR. BJORNSON: Yes, Mr. Chair.

18 MR. J. MALCOLM: Give me a number,  
19 please.

20 MR. BJORNSON: I don't have the  
21 numbers with me. I will say that the numbers of fish  
22 vary by species and, Mr. Chair, if we look at the  
23 larger water courses such as the Steepbank River fish  
24 counting fence we would see 2, 3 to 4,000 suckers  
25 coming up the streams and lesser numbers of other

1 species, so predator species like walleye and pike we  
2 usually see lower numbers, in the hundreds, grayling  
3 also lower numbers than the suckers.

4 MR. J. MALCOLM: And how about streams  
5 on your project site?

6 MR. BJORNSON: Streams on the project  
7 site are much more limited. That information I do  
8 have in terms of a fish counting fence -- and just to  
9 find it here. So this is, Mr. Chair, numbers from a  
10 fish counting fence that was on lower Redclay Creek.

11 MR. J. MALCOLM: And what time of year  
12 was that taken, too, please?

13 MR. BJORNSON: Mr. Chair, the duration  
14 of the fish fence was from April 29th through to June  
15 1st, and the numbers of fish were 29 northern pike, 3  
16 walleye, 3 longnose sucker and 1 white sucker. And as  
17 I said, Mr. Chair, these small water courses do not  
18 contain the numbers of fish or the size of spawning  
19 runs one sees in the larger water courses.

20 THE CHAIRPERSON: Mr. Malcolm, can you  
21 tell me how much more you have?

22 MR. J. MALCOLM: I have a fair bit,  
23 sir.

24 THE CHAIRPERSON: Okay. Well, here's  
25 kind of the situation. A lot of the information

1 you're asking about is information that's on the  
2 record. The Panel is familiar with it. I understand  
3 you may not be familiar with all of it, but we can't  
4 really take the time to go through everything that's  
5 on the record. You know, between you and Ms  
6 Gladue-Quinn, we've been in cross-examination since  
7 about 9:30 this morning. It's 2 o'clock, after 2  
8 o'clock. We do have other parties that need to ask  
9 questions as well.

10 MR. J. MALCOLM: Okay. Sir, in all  
11 fairness, they haven't been very clear in their  
12 answers or questions to me. It's not my fault that  
13 they have no idea what's out there with the wildlife  
14 and the birds, and now I'm about to nail them on the  
15 fish, and it's important to get these questions nailed  
16 down. And I'll try to be more specific to the  
17 questions to speed things up if that may help.

18 MR. IGNASIAK: Sir, there's four racks  
19 of binders, about 40,000 pages there detailing what's  
20 out there. So I mean I think you're dead on, Mr.  
21 Chair. If he wants to question on something specific  
22 that's fine, but, you know, if he's chosen not to read  
23 the materials that have been filed and now wants to  
24 get it all orally, that's not why we're here.

25 MR. J. MALCOLM: Sir, that's not the

1 whole point of all this. The point is those books are  
2 inaccurate, your studies are inaccurate and I'm trying  
3 to prove that. I'm not given the opportunity to prove  
4 that their books are old and depleted and inaccurate.

5 THE CHAIRPERSON: Okay.

6 MR. J. MALCOLM: I'm trying to prove  
7 that.

8 THE CHAIRPERSON: Yes. So, Mr.  
9 Malcolm, as Mr. Ignasiak said, we don't have time to  
10 go through all of the data in cross-examination. I'm  
11 going to allow you and Ms Gladue-Quinn another half an  
12 hour to kind of wrap up any questions you have, but  
13 after that we're going to have to move on.

14 MR. J. MALCOLM: Certainly, Sir.  
15 Hopefully I'll get some clear answers.

16 If I can stay on the fish, for  
17 example, the regional study area for the aquatics,  
18 "Figure 8-2 Aquatics Regional Study Area", Volume 2,  
19 Section 8, I believe, it shows the regional study area  
20 for the aquatics that they've done and I feel that's  
21 insufficient and if I may ask some questions on it  
22 without being disturbed, I will get through it  
23 quicker.

24 Now, the regional study area is  
25 insufficient as far as I'm concerned. It doesn't

1 encompass Lake Athabasca, and Lake Athabasca is fed by  
2 the Athabasca River. So is Lake Athabasca impacted by  
3 the Athabasca River? To the biologist, fish  
4 biologist.

5 MR. BJORNSON: Mr. Chair, I don't  
6 actually understand the question.

7 MR. J. MALCOLM: Well, the regional  
8 study area that you've done, for me, is incomplete.  
9 The Athabasca River, you have it from Fort McMurray to  
10 Lake Claire. The entrance into Lake Claire on the  
11 River is your study area how you impact in the River  
12 and I feel that it's too small because the Athabasca  
13 River is the main source of food and fish for Lake  
14 Athabasca. And if you feel the citizens of Fort  
15 Chipewyan are impacted by your project, the lake that  
16 they live on is also impacted by your project;  
17 correct?

18 MR. BJORNSON: Well, in terms of the  
19 regional study area for the fish component, we looked  
20 at the area that had the potential for direct effects  
21 on the project, which is the project area, and the  
22 area of potential cumulative and indirect effects,  
23 which is a portion of the Athabasca River adjacent to  
24 the project, downstream as far as we can reasonably  
25 predict no predicted impacts.

1 MR. J. MALCOLM: So these fish that  
2 are spawning up the streams on your site, are they not  
3 part of the Lake Athabasca fisheries? They leave Lake  
4 Athabasca, spawn up the Athabasca River and they go  
5 back into Lake Athabasca; correct?

6 MR. BJORNSON: Mr. Chair, that's  
7 correct for the portion of the population which is  
8 documented to overwinter in Lake Athabasca. Other  
9 portions have been more recently documented through  
10 CEMA studies as overwintering within the Athabasca  
11 River, but they are considered the migratory  
12 populations for that area. They use the main  
13 Athabasca River as well as its tributaries.

14 MR. J. MALCOLM: And the pollutants  
15 from the tailings ponds, seepage from all the ponds  
16 that have been identified, they're also impacting Lake  
17 Athabasca; correct?

18 MR. SPELLER: So, Mr. Chairman, that's  
19 not our conclusion. As I said in our direct evidence,  
20 the monitoring data in the region from both the  
21 federal government, the provincial government,  
22 community-based monitoring and our monitoring and  
23 modelling say there's a negligible effect on water  
24 quality in Lake Athabasca and at the edge of our  
25 regional study area.

1 MR. J. MALCOLM: So is Lake Athabasca  
2 affected by the tar sands development or not?

3 MR. SPELLER: So our assessment  
4 concludes that Lake Athabasca is not affected by oil  
5 sands development in terms of water quality.

6 MR. J. MALCOLM: Okay. Let's get to  
7 the fish then, the fish quality. We can no longer eat  
8 the fish out of Lake Athabasca. They shut the  
9 fisheries down due to contaminations. It wasn't  
10 before the tar sands development. Before then,  
11 everybody was healthy and eating good.

12 MR. SPELLER: Mr. Chair, I just want  
13 to clarify. Is this related to the mercury advisories  
14 in Lake Athabasca?

15 MR. J. MALCOLM: No. It's related to  
16 the health of the fish. I imagine mercury is part of  
17 it, but naphthenic acids and benzenes and toluenes and  
18 all that other nasty stuff that cause carcinogens are  
19 in the water that weren't there previously and they  
20 all flow into the river and to the lake, and you're  
21 telling me that it's not impacted by the tar sands  
22 development and I just can't fathom that.

23 MR. IGNASIAK: Mr. Chairman, one, I  
24 don't think there's any evidence on the record to  
25 support those claims. I don't think Mr. Malcolm's in

1 a position to be giving evidence right now, and I --  
2 finally, I didn't hear a question.

3 MR. J. MALCOLM: Okay. I'll move it  
4 on, Mr. Chairman, to the project sites.

5 The ability for the waters to come off  
6 Birch Mountains, the fresh waters that flow through  
7 the Muskeg and they come into the river and they  
8 purify the river, now, with Teck Frontier Mine's site,  
9 it's taking away millions of gallons of water that  
10 normally flow into the river; correct?

11 DR. BIFTU: Betu Biftu.

12 Mr. Chairman, in terms of the effect  
13 of hydrology on some of the watersheds that -- where  
14 we have the Frontier project development, during  
15 operation the runoff which comes from Birch Mountain  
16 are going to be diverted around the mine plant.

17 There are some flow changes in the  
18 creek at the downstream and in our assessment we  
19 quantify that flow change.

20 MR. J. MALCOLM: It's difficult to get  
21 answers from these people, Mr. Chairman.

22 I only wanted to know how many -- how  
23 the water -- the millions of gallons of water that  
24 flowed into the river previously, was it millions of  
25 gallons of water, how much water is being stopped now

1 from flowing into the Athabasca River from the project  
2 and how long will that continue.

3 DR. BIFTU: So Mr. Chairman, the  
4 latest information that shows how much flow reductions  
5 that occur for each creek that comes through the  
6 project or around the project is provided in response  
7 to JRP Question 8.9, Package 8.

8 MR. J. MALCOLM: So how much water?

9 DR. BIFTU: So it depends on the time  
10 you are looking into, whether it's annual or seasonal.  
11 We provide --

12 MR. J. MALCOLM: Annual. Annual. And  
13 over all the years from the project of 40 years, how  
14 much water's going to be held up from going into the  
15 Athabasca River that normally help cleanse the river  
16 for the fish and water quality?

17 MR. IGNASIAK: Again, I think the  
18 expert witness -- sorry.

19 The expert witness has referred to the  
20 materials where all of this information is. I don't  
21 think it's appropriate now for Mr. Malcolm to be  
22 coming up with new scenarios here at the hearing and  
23 asking when he hasn't reviewed the initial information  
24 that contains all the information generally that he's  
25 asking for.

1 MR. J. MALCOLM: I don't believe it  
2 contains the information that I'm asking for, sir.

3 I'm asking for 40 years of cumulative  
4 water withdraw -- water is not flowing into the river  
5 because of the project site.

6 I don't know where I could find that  
7 in the EIA and I don't think Mr. Ignasiak could,  
8 either.

9 But it is important because it does  
10 show the river's being impacted by their project, the  
11 quality of water is being impacted.

12 And I'd also like to ask them about  
13 the winter season and the drilling camps and all the  
14 workers, 7,000 workers that are going to be building  
15 it. Is the sewage going to be diverted to Fort  
16 McMurray sewage plant?

17 --- Pause

18 MR. J. MALCOLM: And I don't know if  
19 that's in the EIA or not.

20 MS SIBBEL: Kristen Sibbel.

21 During construction we do ship it off  
22 site, but when in operation we do have a treatment  
23 facility.

24 MR. J. MALCOLM: Okay. So while  
25 you're doing the winter work until the plant is in

1 operations, all the sewage will go to Fort McMurray or  
2 off site. Where else does it go?

3 MS SIBBEL: Yes. Kristen Sibbel.  
4 Sorry.

5 Yes, you would be correct. It goes to  
6 Fort McMurray.

7 MR. J. MALCOLM: Okay. And that's in  
8 the wintertime?

9 MR. CHIASSON: Mr. Chair, I'd just  
10 like to ask a clarification question.

11 Are you talking about the -- should  
12 the project be approved, the construction of the plant  
13 or are you talking about winter drilling?

14 MR. J. MALCOLM: I'm referring to the  
15 impact on the river from your sewage during the  
16 wintertime when in-stream flow needs are at the lowest  
17 and the Fort McMurray sewage lagoon is at its highest  
18 peak is in the wintertime when all the workers  
19 cumulatively from the whole area dump their sewer into  
20 the municipality sewage lagoon and I want to know if  
21 Teck Frontier is included in that.

22 MR. CHIASSON: So during the -- as Ms  
23 Sibbel answered, Mr. Chairman -- as Ms Sibbel  
24 answered, during the construction of the facilities,  
25 of the project, the plan is to ship the sewage off

1 site to the Fort McMurray facilities, but that's not  
2 the long-term plan.

3 Once the facilities are constructed,  
4 facilities will be constructed to treat the sewage on  
5 site.

6 MR. J. MALCOLM: Okay. So we have the  
7 in-stream flow needs at the lowest point in winter and  
8 you have no idea how much sewage you're dumping into  
9 the river during that time period.

10 MR. CHIASSON: Mr. Chairman, is there  
11 a question there?

12 MR. J. MALCOLM: Yes. Do you have any  
13 idea how much -- how many gallons -- millions of  
14 gallons of sewage that you're dumping into the river  
15 during the wintertime when it's at its lowest flow?

16 MR. CHIASSON: So Mr. Chairman, the  
17 treatment facilities in Fort McMurray, sewage  
18 treatment facility, has been designed for about  
19 137,000 people. By our assessment, for the temporary  
20 period of time while the facilities are being  
21 constructed for Frontier should the project be  
22 approved, there's capacity within the sewage treatment  
23 facilities in Fort McMurray to accommodate sewage from  
24 the Frontier project until we can build the sewage  
25 treatment plant at the project.

1 MR. J. MALCOLM: Again they don't  
2 answer my questions, sir.

3 I want to know how many millions of  
4 gallons go into the river from Teck Frontier Mine's  
5 project. All they're telling me is they're thinking  
6 the sewage lagoon can handle it. Doesn't answer the  
7 question.

8 But I will go on to say that the  
9 sewage lagoon does not have a polishing unit on it.  
10 It only removes the solids, and has a black light. It  
11 doesn't remove the chemicals, doesn't remove the  
12 pharmaceuticals.

13 And I want to know how much it impacts  
14 the river, and all you're telling me is that the  
15 sewage lagoon is capable of handling what you send.

16 It's not the answer that I was looking  
17 for, but if that's the answer I have to deal with,  
18 I'll have to live with it.

19 So I'll move on to the -- the fact  
20 that I'm admonished by your answers.

21 So I'll go on to the monitoring wells  
22 of the tailings pond.

23 Now, there's a diagram, Figure 3-2C,  
24 Historical and Current Groundwater Information. And  
25 I'd like to find out your monitoring wells, do they go

1 down to the lime rock where the seepage would occur?

2 MR. DONALD: Mr. Malcolm, just to  
3 confirm, the figure that you have, is that from the  
4 Project Update Volume 2?

5 MR. J. MALCOLM: It's Volume 2  
6 Baseline Update, Section 13, or Section 3. I'm sorry.

7 MR. DONALD: Three.

8 MR. J. MALCOLM: Figure 3-2C,  
9 Historical and Current Groundwater Information. And  
10 it has the -- some of the monitoring wells on site.

11 And I couldn't find any other ones  
12 that showed monitoring wells. I think there was one,  
13 but it was a premature one, or...

14 MR. DONALD: Mr. Chair, that figure  
15 shows the current and historical groundwater  
16 monitoring locations in the project development area.

17 Some of those are into the Devonian.  
18 There's others in the basal water sands as well as the  
19 Quaternary aquifers. They're all shown on that one  
20 figure.

21 MR. J. MALCOLM: I just noticed you  
22 have some just on the adjacent side of the riverside,  
23 but none on the northern or southern portions. And  
24 you have none that are close to the river.

25 Are you planning on putting in more?

1 MR. DONALD: Yes. So Mr. Chair, this  
2 figure is the present locations of the monitoring  
3 wells. Should the project be approved, there  
4 certainly would be additional wells installed.

5 Many of these would be lost from --  
6 from the development footprint, so those would be  
7 replaced by fit-for-purpose locations during  
8 operations. And that would include -- include new  
9 wells between -- between the project and the river.

10 MR. J. MALCOLM: So you do plan on  
11 putting in more?

12 MR. DONALD: Correct.

13 MR. J. MALCOLM: Would you be able to  
14 provide us with a diagram of them?

15 MR. DONALD: So Mr. Chair, at this --  
16 at this stage of the process, it's not typical to show  
17 a map with specific locations, so what we've provided  
18 in two different places in the filed materials,  
19 there's an overall hydrology and water quality  
20 monitoring program. I believe that's in the response  
21 to JRP IR-10.25.

22 And there's additional details which  
23 lay out the concepts of where wells would go, and  
24 that's in -- I might have to look that one up.

25 It's in round 5, SIR-5. I believe

1 it's AER SIR-5.

2 MR. J. MALCOLM: That's for the new  
3 wells proposed are going to be? That's where I can  
4 find that?

5 MR. DONALD: You won't find a map with  
6 well locations, but you'll find a discussion that lays  
7 out in concept where they'll go.

8 So for example, they'll -- it mentions  
9 in there that they'll be both upstream and downstream  
10 of the mine facility, so that would include the  
11 tailings facility.

12 MR. J. MALCOLM: Okay. Since we're on  
13 the tailings pond, there's no liner for that; correct?

14 MR. CHIASSON: Mr. Chairman, that's  
15 correct.

16 MR. J. MALCOLM: Have you known any of  
17 the tailings ponds that are in place with the oil  
18 sands that don't leak?

19 MR. CHIASSON: Mr. Chairman, our  
20 understanding is that the oil sands tailings ponds do  
21 seep. That's the intent of seepage protection system  
22 and a monitoring well system, is to make sure that  
23 seepage from tailings is managed and kept within the  
24 project.

25 MR. J. MALCOLM: Is that -- okay.

1 That's not site specific, so I'll just let it be known  
2 that all the tailings ponds leak and I see your as  
3 being no different 'cause it has no liner just like  
4 all the other ones; correct?

5 MR. CHIASSON: Mr. Chairman, I  
6 mentioned we don't have a liner. What we do have is  
7 during operations and construction pumping wells to  
8 manage the seepage.

9 We've got monitor wells to make sure  
10 that the pumping wells are working. We've got ditches  
11 at the --

12 --- Pause

13 MR. CHIASSON: I'm in stereo.

14 The -- so the ditches along the toe of  
15 the external tailings area pumping wells and then  
16 monitoring wells to ensure that the system is working  
17 as it's supposed to.

18 MR. J. MALCOLM: I'd like to see the  
19 diagrams when you do get them.

20 And I'd like to move on to the  
21 tailings ponds dust. Is that considered a fugitive  
22 emission?

23 MR. CHIASSON: I'm sorry. I think I  
24 missed the beginning.

25 Could you repeat the question?

1 MR. J. MALCOLM: The tailings pond  
2 dust, you know, it's toxic. Correct?

3 I wouldn't want to eat it.

4 --- Pause

5 MR. SPELLER: So Mr. Chair, we do look  
6 at fugitive dust from the site and we do look at  
7 consumption of dust when it lands on like berries and  
8 then people who may eat the berries, how that may  
9 affect their health.

10 The thing that we're discussing is I  
11 don't -- I don't think we have a source of looking at  
12 people eating the sand directly, and I don't -- I  
13 would need to confirm whether the effluent tailing  
14 sand is part of the fugitive dust emissions.

15 But we do look at fugitive dust and we  
16 do consider in that human health risk assessment, and  
17 the wildlife health risk assessment.

18 MR. J. MALCOLM: Okay. I didn't see  
19 fugitive dust as a -- one of your emissions from  
20 your -- from your EIA with fugitive emissions. That's  
21 why I was inquiring.

22 MR. SPELLER: Yeah. Yeah, so we do,  
23 Mr. Chairman.

24 So when we look at mine fugitive  
25 emissions in our tables, a portion of that is dust.

1 MR. J. MALCOLM: Would you say it's  
2 toxic?

3 I don't see nothing growing on them.  
4 --- Pause

5 MR. SPELLER: So Mr. Chairman, I just  
6 confirm that the tailing sand is not part of the  
7 fugitive dust emissions that we look at, but the  
8 fugitive dust emissions we do look at is not toxic.

9 MR. J. MALCOLM: Okay. But how about  
10 the tailings pond dust? Is it toxic or not?

11 MR. SPELLER: So Mr. Chairman, we're  
12 not -- we don't have samples of that to confirm.

13 MR. J. MALCOLM: I find that's very  
14 important, Mr. Chairman. Tailings pond dust is  
15 something that blows kilometres, if not into the Wood  
16 Buffalo National Park, and impacts them throughout the  
17 whole area.

18 It also covers the food for the bison,  
19 the Ronald Lake Bison herd, and I'm concerned that  
20 that's going to impact them. And they have any -- any  
21 ideas how it's going to impact them at all or are you  
22 just going to say that "We have no studies and we have  
23 no impacts"?

24 MR. SPELLER: So Mr. Chairman, with  
25 respect to tailing sand dust, that's -- that's one of

1 the reasons why our plan includes progressively  
2 reclaiming the side slopes as the facility is  
3 constructed, is -- is that is, in effect, a means to  
4 manage the dust flowing from the tailings pond.

5 Mr. Chairman, two things as well.

6 So the fugitive dust predictions we  
7 have don't have the dust travelling that far. It was  
8 mentioned it would travel into the Park.

9 Our modelling shows that the fugitive  
10 dust we look at does not travel that far, especially  
11 the coarse pieces that would be lifted by wind and go  
12 into the air.

13 Mr. Koppe wants to add on about the  
14 toxicity discussion.

15 MR. KOPPE: So it's Bart Koppe.

16 So one of the ways that we look at  
17 this, and it's almost done in an indirect way, is that  
18 as part of the human health risk assessment and  
19 wildlife health risk assessment there's extensive soil  
20 sampling that goes along with that.

21 So any dust that would come off of the  
22 mine site would land nearby, would deposit onto soils,  
23 so if you are getting -- if you're getting substantial  
24 loading onto those soils from things -- from sources  
25 like the tailings, that would show up as part of that

1 soil sampling plan.

2 So over time, you would start to see  
3 changes in metal concentrations in the soils, you  
4 would start to see changes in the pH concentrations in  
5 the soils, and we're not seeing that. So we're not  
6 seeing an impact to soils with respect to changes in  
7 pH concentrations and metal concentrations that would  
8 lead to an adverse impact to either human health or to  
9 wildlife health.

10 MR. J. MALCOLM: That's from your  
11 studies done with your pH studies, PI studies, your  
12 potential asset input and metal studies?

13 MR. KOPPE: Yeah. Mr. -- again it's  
14 Bart Koppe.

15 So Mr. Malcolm, it's -- relates more  
16 to the actual deposition of the contaminant, so the  
17 metals and the pHs and things like that that have a  
18 tendency to travel or potential to travel up the food  
19 chain.

20 MR. J. MALCOLM: Okay. So your...

21 MR. VANDENBERG: Yeah. I'd just like  
22 to add a little bit about some of the studies that  
23 we've seen that relate to the Peace-Athabasca Delta  
24 and Wood Buffalo National Park with regards to aerial  
25 emissions.

1                   And the folks here have referred to  
2                   some modelling studies, and modelling studies do have  
3                   some uncertainty, as all modelling studies do. But I  
4                   think what's maybe a more conclusive line of evidence  
5                   from a chemistry perspective is the snow pack surveys  
6                   that have been done by Alberta Environment,  
7                   Environment Canada, University of Alberta researchers  
8                   and others that show fairly conclusively that these  
9                   aerial emissions are not reaching the Peace-Athabasca  
10                  Delta and Wood Buffalo National Park.

11                  And in addition to that, another  
12                  really strong line of evidence we have is the sediment  
13                  core studies that have been done.

14                  These are by academic researchers, I  
15                  believe, from Waterloo -- University of Waterloo -- in  
16                  fact, some folks who are now with Environment  
17                  Canada -- and these show really clearly that aerial  
18                  emissions have not impacted Buffalo National Park or  
19                  the Peace-Athabasca Delta. And so when we combine  
20                  that with our modeling studies that are predictive, we  
21                  have a fairly strong line of evidence using multiple  
22                  lines of evidence actually that show that aerial  
23                  emissions are not predicted to be any sort of a factor  
24                  for the Peace-Athabasca Delta and with Buffalo  
25                  National Park. That's in our filed materials, most

1 recently in our response to ECCC on September 12th.

2 MR. J. MALCOLM: Can I go back to the  
3 Ronald Lake bison herd territory? Is that impacted by  
4 your toxic tailing ponds dust?

5 MR. KOPPE: Bart Koppe. Bart Koppe.  
6 The -- the short answer is, no, it is not.

7 MR. J. MALCOLM: They're right up  
8 against your tailings pond. They're not going to be  
9 impacted by your dust?

10 MR. KOPPE: Based -- based on -- on  
11 the results and the findings of -- of the Wildlife  
12 Health Risk Assessment, the answer is no.

13 MR. J. MALCOLM: Your tailings pond  
14 management, there is a tailings pond management plan  
15 implemented by the Alberta Energy regulators, I forget  
16 the number, but it was a way that all the tailings  
17 pond management is supposed to be combined to make it  
18 better, and every participant that has tailings ponds  
19 are supposed to be involved in helping making it  
20 better. Does that include Teck to your mind?

21 MR. CHIASSON: Mr. Chairman, I believe  
22 Mr. Malcolm is referring to the -- the Directive 85  
23 Technical Advisory Committee, where the Alberta Energy  
24 regulator involved Indigenous groups, members from  
25 industry, members from the regulator, members from

1 government. Teck was involved in that group, and, in  
2 fact, I was.

3 MR. J. MALCOLM: I'm not sure if it's  
4 the right number. The -- the -- the group that I'm  
5 talking about are required by the regulators to  
6 participate and help make tailings ponds initiatives  
7 better, and to work together with the other oil  
8 company owners and complying to make things better.  
9 Is that part -- is that Teck's commitment?

10 MR. CHIASSON: That is correct,  
11 Mr. Chairman. The -- the -- as Mr. Malcolm, I think,  
12 is alluding to, the -- the central -- there's a number  
13 of facets associated with I think it's Directive 85  
14 is -- is what you're referring to, the new tailings  
15 directive, the -- the regulatory framework that  
16 tailings will be managed. There is a number of facets  
17 to that, that the central element of it is to treat  
18 fluid tailings. These are those tailings that have  
19 clay particles within them that take a long time to  
20 dewater. So, to be able to reclaim them quicker,  
21 the -- the core foundation of that new directive is to  
22 treat those tailings quicker, to help them dewater  
23 quicker so that reclamation can take place quicker.

24 MR. J. MALCOLM: Yeah, you got it  
25 partially right. Just -- the directive that I'm aware

1 of is that you have to comply with the other tailings  
2 ponds' owners, that if one system is better, that you  
3 would adopt that system if it's proven better.

4 MR. CHIASSON: Mr. Chairman, I'm --  
5 I'm not aware of that regulation. That said, Teck  
6 is -- is very much for continuous improvement. As I  
7 mentioned in previous remarks, that is why we modified  
8 our tailings plan from what was in the Integrated  
9 Application to the current tailings plan in the  
10 project update to include centrifuge fluid tailings to  
11 treat the tailings, one of the leading technologies,  
12 in our view, of -- of doing that. So, I'm not aware  
13 of a regulation mandating that, but Teck is very much  
14 for continuous improvement through technology and best  
15 practices, absolutely.

16 THE CHAIRPERSON: Mr. Malcolm, we're  
17 kind of at the end of the time I said. I'll give you  
18 a couple more minutes just to wrap up any last  
19 questions you may want to ask.

20 MR. J. MALCOLM: Will Teck -- with  
21 CNRL's new plan that they have boasted about in -- in  
22 the news, that they have a way of eliminating tailings  
23 ponds, will Teck follow suit if that's successful?

24 MR. CHIASSON: So, Mr. Chairman,  
25 that's a bit difficult to speak to, since the project

1 or that technology is in the pilot stage. I would go  
2 back to what I said earlier is Teck is very much  
3 continued -- committed to continuous improvement.  
4 We're keen to see how that technology works out in its  
5 testing. For the Frontier Project, we have included  
6 proven technology. We're open to considering --  
7 certainly technology should it become proven, to -- to  
8 use that word, we're going to continuously improve,  
9 and we're committed to using the best available  
10 technology economically achievable. So, we're --  
11 we're interested to see how that technology works out.  
12 Currently it's not commercially been proven and -- and  
13 we haven't included that as part of our design.

14 MR. J. MALCOLM: One more -- I'll  
15 throw him a softball, sir. The -- the air monitoring  
16 studies that you've done and potential asset input,  
17 potential metals and ppms, I have to let you know that  
18 they're wrong because Suncor has announced to remove  
19 their coke fired boiler and are replacing it with a  
20 natural gas fired boiler, which will significantly  
21 reduce the amount of ppms and pollution that you have  
22 estimated in your books. Are you aware of that,  
23 Suncor's new announcement to change their coke fired  
24 boiler?

25 MR. SPELLER: Mr. Chairman, we are.

1 That information came out fairly recently. We haven't  
2 redone our air quality assessment, but it -- it  
3 suggests that since Suncor is currently not using  
4 those lower emitting natural gas units, when  
5 eventually they are installed it means our assessment  
6 is conservative and will likely show levels higher  
7 than will occur when those units are operational.

8 MR. J. MALCOLM: Except for some  
9 greenhouse gases?

10 MR. SPELLER: So -- so, Mr. Chair,  
11 we -- in our air quality assessment we look at  
12 greenhouse gas emissions, but we don't model them, so  
13 it wouldn't -- the statement I made earlier on the  
14 modeling would stand.

15 MR. CHIASSON: If -- if I could add to  
16 Mr. Speller's comments. We are aware of the  
17 technology that Mr. Malcolm has identified. That is  
18 a -- an -- our understanding that's an improvement in  
19 the coker units that Suncor has, which is part of  
20 their upgrading facilities, which is not contemplated  
21 for the Frontier Project. We -- we don't have an  
22 upgrader.

23 MR. J. MALCOLM: I'm aware of that,  
24 it's just your books and your -- your predictions and  
25 that are inaccurate, and I just wanted to point that

1 out. And also I'd like to point out the fact that the  
2 greenhouse gas emissions are going to be increased  
3 significantly because of this. And we have what's  
4 called blue-green algae blooms starting to form due to  
5 climate change in our region, and the greenhouse gas  
6 has contributed to the blue-green algae. And I just  
7 wanted to wonder have you guys ever considered the  
8 blue-green algae blooms because of the development of  
9 the tar sands and how it impacts us?

10 THE CHAIRPERSON: Mr. Malcolm, so that  
11 la-- that was the last question, but I'll let the  
12 Panel respond if they want to.

13 MR. VANDENBERG: Jerry Vandenberg.  
14 Yes, so we've considered nutrient inputs through a  
15 variety of pathways, including aerial emissions. That  
16 information is included in the Project Update  
17 Volume 3, section 7.4 and 7.8.

18 MR. J. MALCOLM: And it doesn't  
19 include Suncor's announcements and reductions and  
20 increases?

21 MR. VANDENBERG: It does include the  
22 nutrient inputs and the climate scenarios that would  
23 lead to eutrophication. It -- it -- it's well aware  
24 of the recent literature showing those potential  
25 effects.

1 THE CHAIRPERSON: Okay. Mr. Malcolm,  
2 that -- that's it.

3 MR. J. MALCOLM: We'll get our chance  
4 in our panel submission. Thank you, sir.

5 THE CHAIRPERSON: You -- you will.  
6 So, thank you very much and to Ms Gladieu-Quinn as  
7 well.

8 So, it's just before 3 o'clock. We'll  
9 take our break till 3:20, and after that we will hear,  
10 well, it would be Donald McCargar speaking on behalf  
11 of the trappers.

12 --- Upon recessing at 1459 / Suspension à 1459

13 --- Upon resuming at 1527 / Reprise à 1527

14 THE CHAIRPERSON: Thank you. Please  
15 be seated.

16 Mr. Yewchuk, go ahead.

17 MR. YEWCHUK: Drew Yewchuk, Canadian  
18 Parks and Wilderness Society. I just have a couple  
19 questions relating directly to the earlier correction,  
20 just one of the corrections; I don't think the other  
21 one is important enough.

22 MS LaCASSE: Mr. Yewchuk -- sorry.  
23 Mr. Yewchuk, can I just get -- get you to pull that --

24 MR. YEWCHUK: Is that all right?

25 MS LaCASSE: Excellent.

1 MR. YEWCHUK: All right. Sorry about  
2 that.

3 So, I'm leaving one of the  
4 corrections, I'm not worried about it. The other one  
5 is in document 005, it's the Integrated Application  
6 from 2011. And I am looking at the page marked 4-18;  
7 it's page 79 of the PDF. This is one of the pages  
8 that shows the whooping crane as a key indicator  
9 species, is that correct?

10 MR. EBNER: Derek Ebner. Derek Ebner.  
11 Yes, that is correct. In Table 4.3 in Volume --  
12 Volume 6 of the Integrated Application.

13 MR. YEWCHUK: Yes, this is Volume 6,  
14 Part 4. Sorry, I should have said that.

15 And just down one page, it says, at  
16 the top of the page:

17 "Four SARA-listed wildlife  
18 species were not assessed as part  
19 of the EIA." (As read)

20 Is the whooping crane one of them?

21 MR. EBNER: That is correct. That was  
22 an editorial mistake.

23 MR. YEWCHUK: Okay. Does it give ...  
24 So, it -- it was assessed? That -- that's just an  
25 editorial mistake?

1 MR. EBNER: That's correct, it was  
2 assessed.

3 MR. YEWCHUK: Okay. And now I'm going  
4 to page 76 on the PDF, which is marked as page 4-15.  
5 And on this table here I see one of the columns is  
6 "Measurable Parameter". Is a measurable parameter a  
7 parameter that can be ascertained or quantified into  
8 standard units? This is Table 4-2, sorry.

9 MR. EBNER: Just to clarify, is that  
10 related to my correction?

11 MR. YEWCHUK: Yes, the whooping crane  
12 is on this chart. This is part of where it's assessed  
13 in this document.

14 MR. EBNER: I would agree, yes,  
15 whooping crane is mentioned in this table.

16 MR. YEWCHUK: Okay. Then my question:  
17 Is a measurable parameter one that can be ascertained  
18 or quantified into standard units?

19 MR. EBNER: Not all measurable  
20 parameters are quantified. Some of them might be  
21 qualitative as well.

22 MR. YEWCHUK: What does the word  
23 "measurable" mean?

24 MR. IGNASIAK: Mr. Chairman, while  
25 Mr. Ebner is looking that up, I'm not sure what this

1 is related to in terms of the correction that was  
2 made.

3 MR. YEWCHUK: The correction stated  
4 that the whooping crane had not been assessed in this  
5 document. It was assessed in this document, this is  
6 part of where it was. If the question had been  
7 answered correctly, I would have discussed this then.  
8 This -- I am only going to talk about the table on  
9 this page.

10 MR. EBNER: So, just -- just to  
11 clarify - Derek Ebner here - the measurable parameters  
12 that we have included are quantitative. Apologies for  
13 the mistake. That's correct, they're quantitative.

14 MR. YEWCHUK: Okay. So, in row W3 the  
15 whooping crane is included.

16 MR. EBNER: Derek Ebner. Yes, that is  
17 correct.

18 MR. YEWCHUK: Okay. And the key  
19 indicator, key question for W3, could you read that  
20 for me?

21 MR. EBNER: Sorry, just to clarify,  
22 you want me to read what's in W3 --

23 MR. YEWCHUK: I --

24 MR. EBNER: -- under "Key indicator  
25 species"?

1 MR. YEWCHUK: I'll actually read it,  
2 so there's no point.

3 MR. EBNER: Okay.

4 MR. YEWCHUK: W3, "Could the Frontier  
5 Project contribute to cumulative changes in wildlife  
6 mortality risks?" "Wildlife" here meaning whooping  
7 crane, amongst others.

8 MR. EBNER: Derek Ebner. Yes, for the  
9 Integrated Application we assessed potential mortality  
10 risk for the whooping crane.

11 MR. YEWCHUK: Okay. And in row W3  
12 under column "Measurable Parameter", the measurable  
13 parameter is estimated change in wildlife mortality  
14 rate?

15 MR. EBNER: Yes, that is correct.

16 MR. YEWCHUK: So, this is a document  
17 from 2011, correct?

18 MR. EBNER: Yes, that is correct, but  
19 has been -- since been updated for the project update  
20 in 2015.

21 MR. YEWCHUK: Yes. So, seven years  
22 ago Teck recognized that the estimated change in  
23 wildlife mortality rate for the whooping crane was  
24 something that should have been put into standard  
25 units?

1 MR. EBNER: Derek Ebner. Based on the  
2 data that was available, we had no estim-- estimated  
3 mortalities in the oilsands region, so that number was  
4 zero.

5 MR. YEWCHUK: The estimated change in  
6 wildlife mortality rate caused by the project.

7 MR. EBNER: Just one second.

8 Based on our assessment of mortality  
9 risk for whooping crane, because there -- Mr. Chair,  
10 there had been no known fatalities within the region  
11 for whooping crane and at the time of the Integrated  
12 Application, based on information that was provided  
13 during the Total-Joslyn hearing that whooping crane  
14 were migrating east of the oilsands, we concluded that  
15 mortality risk for whooping crane was low.

16 MR. YEWCHUK: Is "low" a standard  
17 unit?

18 MR. EBNER: As we have discussed  
19 previously, mortality risk in some -- in most cases  
20 during our EIAs is not always quantified as a number,  
21 it's defined as risk.

22 MR. YEWCHUK: You earlier agreed that  
23 this document from 2007 said that Teck -- Teck  
24 recognized it was important that that would be a  
25 measurable parameter, it would be in standard units.

1 MR. EBNER: I did not say that,  
2 Mr. Chair. I said based on the information that's  
3 been presented we knew that the number of fatalities  
4 recorded in the oilsands region over the past 40-plus  
5 years has been zero. So, that was our standard  
6 point -- standard -- or starting point in terms of our  
7 assessment of the mortality risk for whooping crane at  
8 the time of the Integrated Application. And based on  
9 the information -- sorry. Based on the information  
10 provided during the Total-Joslyn hearing on the  
11 migration pathway of whooping crane in the region,  
12 which was east of the oilsands at the time, that was  
13 the understanding, we -- we determined that mortality  
14 risk, the increased potential mortality risk might be  
15 low.

16 MR. YEWCHUK: What is in that box does  
17 not say "wildlife mortality rate". You concluded that  
18 the wildlife mortality rate for whooping crane was  
19 zero. It says the estimated change in wildlife  
20 mortality rate. The change from zero to any other  
21 number would have been another number.

22 I think Derek Ebner probably could  
23 have answered this one.

24 MR. IGNASIAK: Is there a question?

25 MR. YEWCHUK: That -- that actually

1 wasn't a question.

2 MR. EBNER: Derek Ebner.

3 As I have said, for our assessment of  
4 mortality risk, Mr. Chair, for both the Integrated  
5 Application as well as for the Project Update, we  
6 assessed mortality risk based on a low, moderate, high  
7 ratings. We did not provide actual numbers.

8 MR. YEWCHUK: Final question.

9 Did Teck ever put the change in  
10 estimated whooping crane mortality rate into standard  
11 units?

12 MR. EBNER: Derek Ebner.

13 As I just said, for our assessment of  
14 mortality risk for the Integrated Application, as well  
15 following up for the Project Update, we just rated  
16 mortality risk as low, moderate, high based on the  
17 information that we had available from the various  
18 monitoring programs in the regions, as well as again  
19 at the time of migration pathways for whooping crane.

20 MR. YEWCHUK: If you had said no,  
21 would that have been correct?

22 MR EBNER: I think I answered the  
23 question, Mr. Chair.

24 MR. YEWCHUK: Thank you very much.

25 THE CHAIRPERSON: Thank you, Mr.

1 Yewchuk.

2 Mr. McCargar.

3 --- Pause

4 MS LaCASSE: Mr. McCargar, I have here  
5 a document that I understand you are going to use  
6 during your examination of this panel.

7 So just for reference, the number will  
8 be 573.

9 And when you are ready, I can provide  
10 a copy to the Panel.

11 MR. McCARGAR: Yes, if you could do  
12 that for me, I would appreciate it.

13 573?

14 EXHIBIT NO. 573: Hardcopy of  
15 email message from Donald  
16 McCargar to Robin Sidsworth and  
17 Yvonne Walsh, dated September 26,  
18 2018, with annotations

19 CROSS-EXAMINATION

20 MR. McCARGAR: Good afternoon, Mr.  
21 Chair, Panel, Vice-President of Teck and their team,  
22 and of course their operational staff which we  
23 couldn't get by without.

24 I would like to thank the Chair for  
25 giving me an opportunity to speak on behalf of the

1 trappers and the two areas that they lease at this  
2 time.

3 I have provided David with a document,  
4 573, and I have provided one to Teck this afternoon.  
5 Yvonne has it in the back, I see.

6 It was in response to the trappers  
7 coming in, on Tuesday I think they were here. And I  
8 will just give a little prelim here because I think  
9 it's needed.

10 They didn't have anyone assisting them  
11 in this matter. Fortunately for both of us, we came  
12 across each other's paths since I grew up in the same  
13 neighbourhood with them, six years ago, a long time,  
14 and know them fairly well.

15 They asked me to step in since my  
16 background has been land development for the last 46  
17 years. So I have been in Teck's position and on this  
18 side, not as quite as expensive projects as Teck's.  
19 But it's still an experience to say the least.

20 One of my major concerns here is  
21 information that I could be provided in a very short  
22 period of time. I know I'm kind of just speaking  
23 right now and I will get to the questions very  
24 quickly. But I think this is needed.

25 The trappers basically didn't have no

1 documentation, so with the assistance of the  
2 Vice-President, which I very much appreciate, he put  
3 me in contact with Yvonne and Robin and documentation  
4 as far as the consulting process was provided  
5 extremely quickly to me of what they had.

6 I think with that being said I would  
7 just like to start off with some of my questions at  
8 this point.

9 I promised the Chair half an hour. I  
10 know it's Friday night and I never want to be the last  
11 guy on a Friday night before the weekend. It's not  
12 good.

13 With that being said, I would like  
14 to -- I assume it's Yvonne I'll be talking to for  
15 Teck?

16 My question would go to Document 573  
17 that I provided to Yvonne and Robin by e-mail.

18 It's basically a description and a bio  
19 of the individuals that have the leases directly  
20 downstream from Teck. They will be the first  
21 development to be impacted by the mine downstream. So  
22 it's a very important position for Teck and ourselves  
23 to look at and see how that's going to affect them now  
24 and in the future, and a little bit from the past.

25 The families that you are dealing with

1 here are four families. The four families basically  
2 have lease areas, RFMA areas, 2346. The size of that  
3 lease area is roughly two and a half townships.

4 My first question to Teck is: Did you  
5 know about these two FRMA areas, 2346 and the other  
6 one would be RFMA -- just give me a second here --  
7 2932, the existence of them?

8 DR. JOHNSTONE: Mr. Chair, yes, we are  
9 aware of them and have been for quite some time. We  
10 have actually undertaken consultation with the owners,  
11 kicking off back in 2008, and have had a variety of  
12 communications since that time.

13 MR. McCARGAR: As I said before, I  
14 received some documentations from Yvonne here today  
15 showing the correspondence between Teck and Darryl  
16 Shevolup and even some correspondence between Wolfgang  
17 Hoffman and Teck.

18 So Wolfgang Hoffman, for your  
19 information, is the senior lease on FRMA 2932. And  
20 Darryl Shevolup is the senior leasor on RFMA 2346.

21 When I looked into the correspondence  
22 documentation -- I don't know if you would have this;  
23 it's not numbered -- it's basically a datasheet  
24 showing mail going toward them or a phone call being  
25 made throughout the years. It's been almost 12 years,

1 a long time.

2 It's through this communication sheet,  
3 it shows what method they did try to communicate with  
4 the trappers. Unfortunately, it does show that the  
5 communication they were attempting to do, in my  
6 opinion, didn't make the connection. And it's  
7 unfortunate.

8 I'm going to ad lib here a little bit  
9 as we go through here, and I'm doing it to try to give  
10 you a little background on these guys.

11 Darryl Shevolup has a grade seven  
12 education. He has no technical experience. He  
13 doesn't have Internet. A lot of times he's out in the  
14 bush for three years at a time. I see there's been a  
15 couple of phone calls made to him with the phone being  
16 not operating no more or mail going there and  
17 actuality some mail coming back to Teck because they  
18 sent it out.

19 So what the story or the history tells  
20 me that in 12 years Darryl Shevolup has had no  
21 connection with Teck and no communication on his lease  
22 directly downstream, FRMA 2346. That's very  
23 unfortunate.

24 As I said at the start, I get a very  
25 good spirit from Teck; that they are trying to close

1 the loop up on this very quickly and deal with it.  
2 And I think that's great. And the transparency from  
3 Teck, after I've been sitting here for four or five  
4 days, has been awesome.

5 But we do have a problem here.

6 So would the representative for Teck  
7 agree with me that the normal communication process  
8 that may work for others has not worked here?

9 DR. JOHNSTONE: Mr. Chair, I think I  
10 would concur that there are limitations to  
11 communications: e-mail, phone, mail. That's a pretty  
12 standard suite and it has been for many years for  
13 trying to reach out to people.

14 There have been occasions where we  
15 have had meetings with trappers, not in the case of  
16 Mr. Shevolup but in the case of Mr. Hoffman, I  
17 understand.

18 So I think it's fair to say that there  
19 are limitations. And that was not purposeful. I  
20 think it was we've done our best from that  
21 perspective.

22 MR. McCARGAR: Sorry, I didn't hear  
23 that last part.

24 DR. JOHNSTONE: I think we've done our  
25 best from that perspective.

1                   MR. McCARGAR: And I respect your  
2 opinion. And I think in the normal realms those types  
3 of communication should work. In this situation  
4 registered mail was even put out and came back to  
5 Teck. From Teck's position, if I may put myself in  
6 their chair, I would have maybe made a little bit more  
7 effort if you're out in the area. Maybe you go out  
8 there to his trap line and have a conversation with  
9 him.

10                   That's probably the best area to catch  
11 him and his family. But I'm not going to try to tell  
12 Teck how to do their business.

13                   I'm just saying I think there could be  
14 further steps taken once you've seen that the  
15 situation was lacking in communication between two  
16 individuals. Teck has a huge project here and they  
17 seem to have covered their bases extremely well with  
18 the other indigenous groups.

19                   As you said at the start, 14 of them  
20 have agreements. I find that remarkable. I take my  
21 hat off to you for that.

22                   But in the same token, other than this  
23 communication on this sheet, I assume Teck took no  
24 other steps to try to make contact, to consult with  
25 Darryl Shevolup?

1 DR. JOHNSTONE: That's correct, we did  
2 not undertake any other methods to contact him.

3 --- Pause

4 MR. McCARGAR: I apologize. I'm going  
5 through, because as we proceeded through the day,  
6 there was a lot of information provided to me. So I  
7 had my question lists pretty defined but it's broken  
8 up here a little bit. And I have no problems with  
9 that.

10 --- Pause

11 MR. McCARGAR: As I tried to define in  
12 the e-mail that was sent over to Yvonne, No. 573,  
13 there's four basic families on these two leases. I  
14 gave a little bit of a description to him.

15 My question for Teck is: Do you  
16 realize that the families that are partaking on these  
17 leases and living there, and as a group, are  
18 indigenous in nature; that they would actually be  
19 indigenous families coming from the Inuit and First  
20 Nation and the Métis, the three categories that we  
21 define our indigenous people here in Canada?

22 DR. JOHNSTONE: Mr. Chair, our  
23 understanding was that the trappers were  
24 non-indigenous but through this communication we  
25 understand that spouse and offspring are. And we

1 absolutely accept that based on the letter.

2 MR. McCARGAR: Thank you for  
3 acknowledging that.

4 I would go as far as to say we just  
5 don't have single families located on these two  
6 leases, these two trap leases. We have an indigenous  
7 community that has been there since 1982.

8 Darryl Shevolup got that property back  
9 in that year and he's never left it. In fact, they  
10 have congregated together and now you have multiple  
11 levels of generation that are there, from fathers and  
12 mothers and from children of their own to their  
13 grandchildren.

14 I think that is the basis for an  
15 indigenous community in Canada.

16 I have had the opportunity to --

17 THE CHAIRPERSON: Mr. McCargar?

18 MR. McCARGAR: Yes.

19 THE CHAIRPERSON: There is quite a bit  
20 of evidence being given here and I understand that you  
21 are not familiar with the process and you are also  
22 trying to find context for your questions.

23 But you will have an opportunity next  
24 week when you do your presentation to provide a lot  
25 more detail.

1                   So I'm just wondering if you can kind  
2 of focus on kind of the questions you have for Teck?

3                   MR. McCARGAR: I can appreciate that,  
4 Mr. Chair.

5                   In your document, Appendix 139C.1, in  
6 SIR-2, Volume 2, Part 2 of 2, is your Aboriginal  
7 Consultation Plan.

8                   I know this question, you already  
9 answered this.

10                  Have you applied the guidelines and  
11 objectives in this document, specific consultation it  
12 asks in this document?

13                  In fact, have you applied this  
14 document in the whole to these individuals that are  
15 the trappers and their families in the past, from this  
16 hearing date back?

17                  DR. JOHNSTONE: Mr. Chair, I would  
18 characterize that there are two key items here.

19                  One was that our understanding was  
20 that the mentioned trappers were non-indigenous. So  
21 from that perspective a broad consultation policy  
22 wouldn't necessarily apply.

23                  However, we have the additional aspect  
24 of essentially being a good neighbour. We understood  
25 that there were trap lines close by. There is one

1 trap line that will be directly impacted by the  
2 Frontier Project development area. That's RFMA 2939,  
3 belonging to a Mr. George Clarke.

4 The two trap lines being discussed  
5 here, 2346 and 2932, are 7.6 kilometres north and 9.1  
6 kilometres northwest, respectively, and won't be  
7 directly impacted by the project development area, and  
8 are indeed actually outside Teck's leases.

9 That's one point. But that's not  
10 necessarily the critical point.

11 Really the critical point is if Teck's  
12 activities are going to result in a loss of income or  
13 direct damage to a trap line, Teck will work with the  
14 trapper to resolve that.

15 You know, we'll negotiate compensation  
16 with trappers that are expected to experience lost  
17 trapping opportunities, losses of revenues or other  
18 costs incurred as a result of the project.

19 We would undertake that compensation  
20 using the Fort McKay-Teck Compensation Matrix as a  
21 guide, which is widely recognized as industry best  
22 practice for the region.

23 We refer to that in Project Update  
24 Volume 1, Section 18.9.4.2.

25 So with respect to, you know, future

1 concerns and whether we have engaged with trappers  
2 directly under our Indigenous Consultation Policy, no,  
3 this is something that will be dealt with by Teck in a  
4 straightforward manner as good neighbours.

5 MR. McCARGAR: Thank you for your  
6 clarification on that. You get to my point before I  
7 get there and I appreciate it.

8 So with that understanding, this  
9 Aboriginal Consultation Plan, Appendix 139C.1 will be  
10 applied to the two leaseholders directly south of the  
11 mine site, specifically FRMA 2346, FRMA -- just give  
12 me a second here -- 2932?

13 DR. JOHNSTONE: Could I just seek  
14 clarification on what direction you had them in?

15 MR. McCARGAR: Sorry, what was that,  
16 sir?

17 DR. JOHNSTONE: Could I just seek  
18 clarification on what direction you stated they were  
19 in from the project?

20 MR. McCARGAR: I was asking if Teck  
21 would take the approach that they would apply their  
22 Aboriginal Consultation Plan to the individuals that  
23 are leasing and living on those two leases at this  
24 time, FRMA 2346 and FRMA 2932.

25 DR. JOHNSTONE: Mr. Chair, we would

1 engage with the communities in an ongoing manner,  
2 which isn't necessarily just -- which would be suited  
3 for essentially a neighbourhood, best neighbours, and  
4 wouldn't necessarily apply all the plans that were  
5 included in that original plan.

6 I should actually be saying too that  
7 that original plan submitted to the Alberta government  
8 and subsequently approved was really in the context of  
9 a formal consultation process that has subsequently  
10 been taken over by the Alberta Aboriginal Consultation  
11 Office.

12 So from that perspective we're coming  
13 to a close of that process in terms of the ACO making  
14 their decision, project being considered in this  
15 process for review and approval hopefully.

16 So that policy really doesn't apply  
17 moving forward. But we will do the right thing.

18 MR. McCARGAR: I'm fine with that  
19 answer, sir.

20 The question was asked earlier on that  
21 there was a road put in place by Teck and I think the  
22 years were 2013 and 2014.

23 DR. JOHNSTONE: That's correct. That  
24 is a winter road and we undertook some discussion with  
25 Mr. Hoffman in 2013. Our lead geologist met with Mr.

1 Hoffman to describe the mining project and our winter  
2 geotechnical drilling activities. So we provided Mr.  
3 Hoffmann with a map of the project detailing access  
4 roads and also a radio for him to hear traffic on the  
5 roads and call out his locations.

6 MR. McCARGAR: I assume it was  
7 Wolfgang Hoffmann that you were speaking about?

8 DR. JOHNSTONE: That's correct.

9 MR. McCARGAR: Did you have any  
10 discussions with the senior lease holder on FRMA(sic)  
11 2346 about the road?

12 DR. JOHNSTONE: In that case, no, and  
13 that was largely because of his -- the RFMA being  
14 north and to the west and outside of our leases.

15 MR. McCARGAR: Could you indicate to  
16 me how far west that road is from FRMA(sic)-2346, just  
17 roughly if you could?

18 DR. JOHNSTONE: My apologies, I've  
19 actually mixed those two up. So we talked with Mr.  
20 Hoffmann and Mr. Hoffmann was on RFMA 2932, which the  
21 nearest point is 9.1 kilometres northwest of our  
22 project development area and outside of our mining  
23 leases. In the case of Mr. Shevolup, RFMA 2346, that  
24 is located essentially one township to the north of  
25 our project development area.

1 MR. McCARGAR: I was indicating --  
2 maybe I wasn't clear -- I was asking how far the road  
3 that was put in is from FRMA(sic) 2346, not how far  
4 they are from the mine site.

5 DR. JOHNSTONE: Gotcha. So by a very  
6 precise method of drawing we have come up with it  
7 would be two townships, so 20 kilometres away. I'd  
8 better put an approximate on that.

9 MR. McCARGAR: Thank you. Does  
10 FRMA(sic) 2346 and FRMA(sic) 2932, do they fall into  
11 your study area, Teck's study area of the mine?

12 MR. SPELLER: So, Mr. Chairman, we use  
13 a bunch of different study areas. So let me walk  
14 through some of them, and I can give you that context.  
15 So they fall within our air quality study area. They  
16 don't fall into our noise study area because they're  
17 too far, but the figures that we have in our noise  
18 assessment shows that the noise from the project isn't  
19 predicted to be perceptible where these are located.

20 So if you look at our figures, we  
21 don't show the traplines on them, but the location of  
22 them -- if you look at the townships --

23 MR. McCARGAR: Townships.

24 MR. SPELLER: -- and ranges, you can  
25 see them on our noise figures.

1 MR. McCARGAR: Okay.

2 MR. SPELLER: So you can pick them  
3 out. I've just been doing that now as we've been  
4 talking. Our health risk assessment includes them,  
5 the low spatial locations where we use our receptors.  
6 Our aquatics local study area kind of goes up like a  
7 teardrop shape all the way up to Ronald Lake. So that  
8 captures a portion of 2346 --

9 MR. McCARGAR: Correct.

10 MR. SPELLER: -- and potentially a  
11 portion of 2932, but I think it's actually outside the  
12 watershed. But we're not predicting any effects  
13 outside of that teardrop shape local study area that  
14 we have.

15 Our terrestrial assessment, so that's  
16 where we look at soils and vegetation and wildlife,  
17 both of them are included, all of 2346 and at least a  
18 portion of 2932. We also have a Ronald Lake bison  
19 herd winter study area that also incorporates all of  
20 2346 from what I can see, and a portion of 2932.

21 We also have a resource use assessment  
22 that looks at some of the traplines around the  
23 project, they're shown in that assessment. But  
24 there's not a direct disturbance to them, but they are  
25 shown in the figures. So there's a figure where you

1 can see the bottom of 2346 and kind of the side of  
2 2932.

3 MR. McCARGAR: Okay, thank you for  
4 that explanation.

5 MR. SPELLER: You're welcome.

6 MR. McCARGAR: I'll have opportunity,  
7 hopefully in the next four or five days before we come  
8 back before the Panel, to examine those documents.  
9 Just I didn't have opportunity at all here.

10 I don't know if Teck was aware that  
11 there was a cabin placed at Ronald Lake by ACFN  
12 without permission or any kind of consulting with the  
13 senior leaseholder. Does Teck have anything to do  
14 with the ACFN cabin that was placed at Ronald Lake?

15 DR. JOHNSTONE: Mr. Chair, no, we  
16 don't, and you'd have to refer that to the Nation.

17 MR. McCARGAR: Has Teck got any shares  
18 held by ACFN in the Frontier project? Early on you  
19 said it was 100 per cent owned. I just want to make  
20 sure that ACFN isn't one of the investors or a  
21 shareholder in the mining corporation.

22 DR. JOHNSTONE: Mr. Chair, I had to  
23 confirm whether I was able to comment on that. ACFN  
24 is not a shareholder in the Frontier project or Teck  
25 Resources, to our knowledge.

1 MR. McCARGAR: Thank you. Has Teck  
2 reached an agreement with George Clark, the trapper  
3 that Yvonne had talked about or someone had talked  
4 about here? They're right on the mine site. I forget  
5 his FRMA(sic) number. No, I don't -- it's 2939,  
6 that's correct.

7 DR. JOHNSTONE: Mr. Chair, I think  
8 there's a matter of really actually confidentiality  
9 between Teck and any other parties that are not being  
10 represented here today.

11 We note that there are several RFMA  
12 holders that will actually be directly affected within  
13 the project development area were the project to  
14 proceed, and those would be RFMA 1275, 2939, 2892 and  
15 2016. But as to whether we have concluded or started,  
16 I'm not able to speak to that.

17 THE CHAIRPERSON: Thank you, Mr.  
18 Johnstone.

19 Mr. McCargar, we're kind of getting --

20 MR. McCARGAR: Yes, I've got the  
21 stopwatch here.

22 THE CHAIRPERSON: Okay.

23 MR. McCARGAR: I promised you a half  
24 an hour, I'm at 31:33, and I think I'm pretty close to  
25 being finished, sir.

1 THE CHAIRPERSON: Okay, thank you.

2 MR. McCARGAR: I had a couple more  
3 questions but, you know, I think we can deal with them  
4 at the Panel session. Again, thank you and Teck for  
5 the opportunity to put me in for this half an hour.  
6 So I kept my word.

7 THE CHAIRPERSON: Okay.

8 MR. McCARGAR: So have a good day,  
9 guys.

10 THE CHAIRPERSON: Thank you, Mr.  
11 McCargar.

12 Next up will be question from the  
13 Secretariat Staff. So, Ms LaCasse?

14 MS LaCASSE: Mr. Chair, if we could  
15 have just two minutes to move a couple of people  
16 around?

17 THE CHAIRPERSON: Certainly.

18 MS LaCASSE: Thank you.

19 MR. SPELLER: Mr. Chairman, I'm not  
20 sure if it'd be possible to get an idea of the topics  
21 that are coming? Because we would do the same out of  
22 convenience. It's okay if we can't, but we may have  
23 to do the same because we still have some folks out in  
24 the gallery.

25 MS LaCASSE: Sure. Why don't we have

1 a discussion offline about that rather than putting  
2 all of that on the transcript?

3 THE CHAIRPERSON: Okay. Why don't we  
4 take a 10-minute break while you guys can work that  
5 out and move people around?

6 MS LaCASSE: Okay.  
7 --- Upon recessing at 1611 / Suspension à 1611  
8 --- Upon resuming at 1622 / Reprise à 1622

9 THE CHAIRPERSON: Thank you. Please  
10 be seated.

11 EXAMINATION

12 MS LaCASSE: Good afternoon, Panel.  
13 My name's Meighan LaCasse and I am Counsel for the  
14 Joint Review Panel. I'm going to be asking you some  
15 questions today that have been provided to me by the  
16 AER Staff. My colleague, Mrs. Doebele, will also be  
17 asking some questions.

18 Just as a preliminary matter for the  
19 court reporter, can the gentleman second from the --  
20 at the back? Yes. Can you state your name?

21 MR. DiMARCO: Mike DiMarco.

22 MS LaCASSE: Thank you. So I'm going  
23 to start with some socioeconomic questions. The first  
24 line of questions will be with regard to housing.

25 So the appropriate document, if Ms

1 Wheaton's able to pull it up, is CEAA 163, Project  
2 Update, Volume 1, Section 16. On PDF 314...

3 Okay. So it's 163, Project Update,  
4 Volume 1, Section 16, PDF 314. I'm not sure you  
5 actually need the document in front of you. Just in  
6 case anyone wants to make sure I'm characterizing your  
7 evidence correctly.

8 At that page it says that:

9 "The effect of the project on the  
10 resident urban population is  
11 limited during both the  
12 construction and operation phases  
13 by the lodge-based approach."

14 Teck then goes on to note at page 293,  
15 and that's PDF 293, that:

16 "During construction the effect  
17 of the project on the urban  
18 population stems primarily from  
19 indirect and induced employment  
20 effects."

21 Back on page 301 there's a reference  
22 to the plan development case being expected to  
23 increase the urban population of the region to 117,000  
24 by 2027.

25 So what Staff is interested in knowing

1 is whether the plan development case assessment of  
2 that population level, 117,000 by 2027, has changed as  
3 a result of the economic downturn experienced in the  
4 oil sands region since 2014 and the effects of the  
5 2016 fire?

6 MR. GRAY: Ian Gray. Mr. Chairman,  
7 the resident population in Fort McMurray was affected  
8 by the wildfire. Best estimate, after the fire and  
9 subsequent population estimate work that went on, was  
10 the population reduced down to about 72,000 to 74,000.  
11 Since that time, it is estimated the population has  
12 returned to the 80,000 range.

13 In terms of revising the cumulative  
14 population case, I don't believe that was done in  
15 subsequent work. The cumulative outlook was as was  
16 stated in the 2015 update.

17 MS LaCASSE: Thank you. So Staff is  
18 wondering if Teck would be able to provide an update  
19 assessment, reforecast the urban population in the  
20 region based on the plan development case for 2027?

21 MR. CHIASSON: Mr. Chairman, Teck  
22 doesn't feel that an update is necessary because the  
23 effects are going to be minimal, but I'll ask my  
24 colleague, Mr. Gray, to elaborate on that.

25 MS LaCASSE: Thank you

1                   MR. GRAY: Mr. Chairman, the social  
2 infrastructure effects that occur in the region flow  
3 through population. When the 2015 update was  
4 undertaken and the cumulative population was estimated,  
5 since that time there's been a reduction due to, as  
6 the question points out, two factors: impacts from  
7 the wildfire and some out-migration that occurred; as  
8 well as changes in operations from oil sands companies  
9 dealing with the economic recession and some job  
10 changes in the region. So those two factors have led  
11 to a decrease in the regional population now.

12                   In terms of future outlook, there may  
13 be a reduced cumulative picture of development, which  
14 is continuously changing as companies announce plans.  
15 But from an assessment point of view, the population  
16 base used in 2015 was a larger estimate in the future  
17 than perhaps today. Therefore, the effects that we  
18 assessed are also larger or could be interpreted as  
19 more conservative.

20                   I would also like to direct the  
21 Panel's attention to Teck's response to the Joint  
22 Review Panel information request Package 5, and the  
23 specific question is 5.2, and --

24                   MS LaCASSE: Mr. Gray, do you have a  
25 page number?

1 MR. GRAY: Well, it's paper page 5-21.

2 MS LaCASSE: Thank you.

3 MR. GRAY: In the end of that  
4 response, 5.2, Teck examined what would be the impacts  
5 to the assessment after the wildfire. So in that text  
6 it walks through, you know, changes to the  
7 socioeconomic assessment of the project due to the  
8 wildfire is expected to be negligible, because the  
9 population effect of the project on the urban service  
10 area during the 2019 to 2022 period is estimated to be  
11 less than 500 people. By the time the project reaches  
12 peak construction in 2024 rebuilding activities are  
13 expected to be largely complete at that time.

14 The second bullet speaks to the  
15 project's remote location and camp-based housing,  
16 which basically buffers the urban population from the  
17 full project population effect.

18 MS LaCASSE: So my next question  
19 relates to document 294, which is the document you  
20 were just referring to, and that's Teck's response to  
21 IR Round 5, Socioeconomics. In particular, Section  
22 5.2, PDF 26. On that page Teck states:

23 "The effects of the 2016 fire,"

24 (As read)

25 as you just indicated,

1 "is expected to be negligible.  
2 Teck's view that the fire will  
3 have no impact on housing as the  
4 population effect of the project  
5 on the urban surface area during  
6 the 2019 to 2022 period is  
7 estimated at less than 500  
8 people." (As read)

9 That's correct, isn't it?

10 MR. GRAY: Mr. Chairman, that's what  
11 the text says.

12 MS LaCASSE: Yeah, okay. Teck states  
13 that, "By the time the project reaches peak  
14 construction in 2024 rebuilding activities are  
15 expected to be largely completed." Same document, and  
16 that's stated on PDF 27.

17 Does this assessment, that rebuilding  
18 activities are expected to be largely completed by  
19 that date still stand in light of the rate of rebuild?

20 MR. GRAY: Mr. Chairman, it does.  
21 We've seen recent numbers on the Regional Municipality  
22 of Wood Buffalo's website with a rebuilding committee  
23 that's in charge, and they've been posting progress to  
24 date.

25 For instance, I believe I read 30 per

1 cent of structures destroyed have been rebuilt and I  
2 believe it was 70 or 80 per cent have had permits  
3 issued. So it appears that they're on track, more or  
4 less, for that timeline of recovery.

5 In interviews that we had with the  
6 reconstruction committee, recovery committee, the  
7 general indication was anywhere from three to five  
8 years was the estimate for the community to be, in  
9 those parts, brought whole again.

10 MS LaCASSE: So does that mean the  
11 urban service area housing market will be able to meet  
12 peak demands of 1,680 units by 2025?

13 MR. GRAY: Mr. Chairman, yes, we  
14 believe that to be the case.

15 MS LaCASSE: Okay, thank you.

16 My next questions relate to traffic.  
17 So, again, project update, which is Document 163,  
18 Volume 1, Section 16, PDF 299 to 300. On those pages  
19 Teck states in the plan development case, "It is  
20 estimate that traffic volumes on Highway 63 north of  
21 Fort McMurray could reach 11,780 AADT by 2026.

22 Regional transportation infrastructure  
23 requirements are the subject of ongoing study and  
24 consideration by the provincial government.

25 So my question in regard to that is,

1 Teck's Environmental Assessment Impact report didn't  
2 include a traffic impact assessment. Did Alberta  
3 assess traffic impacts to Highway 63 as insignificant?  
4 --- Pause

5 MR. GRAY: Mr. Chairman, I'd ask if  
6 perhaps we could go to a later source of information  
7 that was found with a little bit more of an updated  
8 traffic estimate. That was in response to JRP  
9 Package 5.8. That's on PDF page 129.

10 MS LaCASSE: I don't suppose,  
11 Mr. Gray, you'd know the CEAA document number?

12 MR. SPELLER: It's document 273.

13 MR. GRAY: In that analysis we  
14 updated, similar to what we did in the project update,  
15 this time with the inclusion of the workforce required  
16 to build the bridge for the project access, as well as  
17 considered timber haulage offsite, so in Table 5.8-2,  
18 on page 129 PDF, it presents four different points of  
19 location where traffic effect would occur.

20 In this instance, the project, at peak  
21 construction, is estimated to generate in the order of  
22 313 average annual daily traffic movements. That's on  
23 a base projected at the time of 29,000 AADT with a net  
24 effect of about 1 percent above base.

25 Once operations is in place in 2026,

1 traffic is estimated to decline due to the project to  
2 about 140 vehicle movements, and that's on a base  
3 that's estimated to be in the 30,000 daily movements,  
4 so less than a percent. That's north of  
5 Fort McMurray, on the urban centre boundaries.

6 If you go north of Fort McKay, where  
7 traffic is substantially lower, the 313 movements  
8 would be about 2.8 percent above baseline volumes at  
9 that time or about 10,000 movements a day. Once  
10 operations is in place, the 140 movements would be  
11 about 1.2 percent above the estimated daily movements.

12 Back to your question, counsel. As  
13 far as I understand, Teck did not commission a traffic  
14 impact assessment, and to date, any kind of  
15 traffic-related questions through supplemental  
16 information requests with the regulator have been  
17 focused on our findings.

18 MS LaCASSE: Are you able to tell me  
19 what communications Teck has had with regard to this  
20 issue with Alberta Transportation?

21 --- Pause

22 MR. GRAY: Mr. Chairman, we responded  
23 to a few SIRs that came in regarding this from -- I  
24 assume Alberta Transportation were the drivers behind  
25 the questions. I can quote which ones we responded

1 to, if you would like.

2 MS LaCASSE: I think that might help  
3 staff if you could do that.

4 MR. GRAY: Sure.

5 There was a question I believe on  
6 peaking load or peaking factor. That was Question 10  
7 of Round 1 SIR. There was an over-dimensional load  
8 and strategy for Teck, which was Round 5, SIR 41.  
9 There was some open camp-related traffic questions,  
10 that was Round 5, SIR Q42. Round 5, Q101 looked at  
11 aggregate sourcing. There was a question on the  
12 Fort Chippewan winter road, which was Q98, and that  
13 was Round 5.

14 MS LaCASSE: Mr. Chiasson.

15 MR. CHIASSON: Mr. Chairman, I just  
16 want to make sure I understood the premise of the  
17 question was the information that was provided with  
18 the transportation folks with the AER. Was that the  
19 question?

20 MS LaCASSE: Any communications with  
21 Alberta Transportation, not the AER.

22 MR. CHIASSON: Sorry. I got that  
23 wrong.

24 In addition to the information  
25 provided by Mr. Gray, I participated in two meetings,

1 communicating with Alberta Transportation in Edmonton.  
2 I don't have the specific dates, but there were two  
3 meetings.

4 MS LaCASSE: Would you be able to tell  
5 us the content of those meetings, generally?

6 MR. CHIASSON: Generally, the location  
7 of the project, any long-term infrastructure road  
8 plans for the area west of the Athabasca River in the  
9 proximity of the project, those types of -- the fact  
10 that there would need to be a bridge to access the  
11 project location, those types of things.

12 MS LaCASSE: Okay. What staff is  
13 still interested in is whether, at any point, whether  
14 in that meeting or otherwise, Alberta Transportation  
15 ever indicated to Teck that Alberta Transportation  
16 considered the traffic impacts from this project to be  
17 insignificant.

18 MR. CHIASSON: Mr. Chairman, I don't  
19 recall -- they could have indicated that. I don't  
20 recall that from the meetings.

21 MS LaCASSE: Okay. As I understand  
22 it, Teck is committed to provide funding to support  
23 maintenance and upgrading of Highway 63 from  
24 Fort McKay to Fort Chippewan to assist in the  
25 maintenance and safety of applicable segments of the

1 road affected by the project. For anyone who's  
2 interested that's from document 163, "Project Update",  
3 Volume 1, PDF 306.

4 If I can just give you the question?  
5 I was just giving you a moment to pull the document  
6 up.

7 What staff is interested in is if Teck  
8 could provide more details regarding the plan funding  
9 and support.

10 --- Pause

11 MR. CHIASSON: Sorry. We're just  
12 trying to find the reference.

13 MS LaCASSE: Certainly.

14 I'm assuming, gentlemen, that's in  
15 section 16 of Volume 1.

16 --- Pause

17 MR. SPELLER: Sorry, Ms. LaCasse,  
18 would you be able to repeat your question?

19 MS LaCASSE: Certainly.

20 What staff is hoping you would be able  
21 to provide them is some more details regarding the  
22 plan funding and support for the program that's  
23 referred to on page 306 with regard to support,  
24 maintenance and upgrading of Highway 63 between McKay  
25 and Fort Chip.

1 MR. SPELLER: Okay. Thank you.

2 MR. CHIASSON: Mr. Chairman, in  
3 response to the question, it's our understanding that  
4 Highway 63 has been ungraded in that area, so the  
5 ongoing maintenance that we had anticipated at this  
6 time wouldn't be required. The Regional Municipality  
7 of Wood Buffalo is managing that road. That said, we  
8 understand that we would be discussing with them user  
9 fees for the road.

10 I believe we touch on this in an SIR  
11 response. We're just searching for that now.

12 --- Pause

13 MR. GRAY: Mr. Chairman, I'm still  
14 trying to source the supplemental response, but I  
15 believe it is Question 98 from AER, Round 5.

16 MR. CHIASSON: I believe I found it.  
17 It's Round 5, response to Question 98. It's hardcopy  
18 page 350.

19 MS LaCASSE: I don't suppose you have  
20 a CEAA or exhibit number for us, do you?

21 MR. CHIASSON: It's CEAA Exhibit  
22 No. 186.

23 MS LaCASSE: Thank you.

24 MR. CHIASSON: Yeah, so it's Part A.  
25 I'll just wait for folks to get there.

1                   It's the first sentence in response to  
2       Part A:

3                   "The Regional Municipality of  
4                   Wood Buffalo upgraded  
5                   approximately 22 kilometres of  
6                   the southern segment." (As read)

7       Then, about mid-paragraph:

8                   "A portion of the upgraded  
9                   segment was also paved in about  
10                  2014. Given these improvements,  
11                  Teck no longer needs to upgrade  
12                  the Fort Chippewan winter road to  
13                  all season status." (As read)

14                 Then there's a map showing that  
15       segment.

16                 MS LaCASSE: Has Teck made any  
17       commitments in terms of maintaining that road?

18                 MR. CHIASSON: Mr. Chairman, the  
19       answer is no.

20                 MS LaCASSE: I'd like to move away  
21       from traffic.

22                 Health and emergency services is the  
23       next area that staff is interested in.

24                 At its peak, Teck's workforce is  
25       estimated to be about 6,300 workers and 4,000 to 5,000

1 workers will be accommodated in onsite lodging. Given  
2 the size and remoteness of the accommodation, staff  
3 need to get some more detailed information on health,  
4 safety, and other social infrastructure to support  
5 this very large workforce. Would you be able to  
6 provide a summary, in detail, of the amenities and  
7 services that will be made available to the onsite  
8 lodging relating to health, safety and emergency  
9 services, recreational amenities, accommodations for  
10 cultural and spiritual purposes, and any other  
11 accommodations to address social, health and cultural  
12 challenges of this remote workcamp?

13 DR. JOHNSTONE: Could you please  
14 elaborate, when you say "cultural challenges", what it  
15 is you are referring to?

16 MS LaCASSE: I think what staff had in  
17 mind was anything to address cultural challenges that  
18 workers might have that were not part of the culture  
19 of the predominant workforce at those camps when  
20 they're leaving their communities and going to this  
21 camp.

22 --- Pause

23 DR. JOHNSTONE: Mr. Chair, I think, to  
24 begin with, I'd just like to talk on the nature of the  
25 facilities. We don't have a lot of detail around

1 things like the recreational facilities, largely  
2 because we recognize that we're going to have to have  
3 a facility that is attractive to workers and retains  
4 workers. We also know that the standards and the  
5 features that are attractive to workers are going to  
6 change over time. So, from that perspective, what we  
7 can say about what the site will be like will be that  
8 it will be a modern, up-to-date facility that has both  
9 recreational facilities that are comparative in the  
10 time period in which we're constructing it, and  
11 recognizing the standards that other industrial  
12 operations have said.

13 We also need to recognize that we're  
14 actually competing for labour across Canada, so we're  
15 not just measuring the facilities -- we won't be just  
16 measured by the facilities within the oil sands, we'll  
17 be met by the standards of industrial facilities  
18 across Canada.

19 In terms of the cultural challenges,  
20 I'm going to address a couple of them.

21 One, we realize that when people leave  
22 home, and especially because this will be on a  
23 rotational basis they're not going to be returning  
24 home every night, that people will have specific needs  
25 to facilitate their life at the site and with

1 potentially their family back at home. Teck has got  
2 an employee and family assistance program that's  
3 available to all its employees and their dependants.  
4 It is free, it's immediate, and it's confidential. We  
5 each get an orientation provided with a package, what  
6 it looks like. At any time, you can phone, your kids  
7 can phone the 1-800 number and get access to  
8 counselling, even to -- whether budgetary stresses, so  
9 we have an in-depth program like that. That's been  
10 tested in a variety of places around the globe. From  
11 an indigenous perspective, it's been implemented at  
12 our Red Dog Operations in Alaska where just over  
13 50 percent of the employees at the site are  
14 indigenous. It has worked well in a cross-cultural  
15 situation, so we have a track record there, and we  
16 know that that works well.

17 I think another item is just around  
18 the cross-cultural items as well and there we have a  
19 clear policy around lack of discrimination, harassment  
20 or bullying in the workplace. That's something that  
21 we take very seriously. We address that in all of our  
22 operations and our offices across the globe and people  
23 are held to account around items like that.

24 In terms of specific facilities or  
25 programs for Indigenous areas, we will certainly

1 consider access to a dedicated cook in the area for  
2 traditional foods. That has occurred at our Alaskan  
3 operation. Sometimes it's difficult to translate that  
4 depending on local food-safe requirements, but we  
5 would certainly look at that and a communal healing  
6 area. Those are very regular facilities.

7 And then I'll pass it over to Mr.  
8 Chiasson.

9 MR. CHIASSON: Mr. Chairman, I would  
10 like to refer the Panel to Registry Document No. 68.  
11 It was a response to Round 1 SIRs. It would be hard  
12 copy page 306. It would be Question 127 and it would  
13 be part a). I won't read the whole thing, but in  
14 summary, we're in the early stages of planning  
15 obviously for the medical facilities, but as a minimum  
16 they would include First Aid, stabilization of serious  
17 injuries, advanced life support, remote online  
18 consultation with a physician, dispensing of common  
19 prescriptions. We would have onsite medically trained  
20 personnel, including emergency medical technicians,  
21 registered nurses, paramedics, nurse practitioners, et  
22 cetera. So while we're in the early stages, that's  
23 the vision for the medical system.

24 DR. JOHNSTONE: Mr. Chair, just to  
25 finish off, I think I also wanted to note that one

1 element that we are undertaking is cross-cultural  
2 training and we've rolled that out to 1,340 of our  
3 employees, and we think that's a really important way  
4 to identify how people can interact and some of the  
5 ways we need to change our interaction.

6 On a gender basis, we also recognize  
7 some of the need for specific approaches to ensure  
8 gender equality in the workplace. Some of those  
9 things are as simple as having the right size PPE,  
10 which has been an issue before -- sorry, Personal  
11 Protective Equipment.

12 And that number of 1,340 people gone  
13 through cross-cultural training is from Teck's 2017  
14 sustainability report, which is in the public domain.

15 MS LaCASSE: Okay. One more question  
16 on this general theme. Does Teck have any experience  
17 in operating remote onsite lodging of this size?

18 MR. CHIASSON: Mr. Chairman, yes, we  
19 do. Our Red Dog operation in Alaska is of similar  
20 size to that of Frontier.

21 MS LaCASSE: So I guess based on that  
22 experience, are there any unique considerations you  
23 will have to make to accommodate this type of  
24 workforce? And I guess type means volume as opposed  
25 to type.

1 MR. CHIASSON: I was just wondering if  
2 you could be -- did you have a specific sub-question  
3 in mind with that regard?

4 MS LaCASSE: I think staff is just  
5 interested in whether there was anything that was  
6 going to -- you were going to have to do or anticipate  
7 having to do at Frontier based on your experience at  
8 Red Dog, given the size. And I don't just mean well,  
9 everything has to be bigger, but is there something  
10 qualitatively different?

11 DR. JOHNSTONE: Mr. Chair, in the  
12 brief discussion that we had, we don't think there's  
13 really going to be anything in particular unusual  
14 about Frontier in terms of some of the specific  
15 challenges that we've had. We've been operating in  
16 Canada, we've operated in the High Arctic one of the  
17 most northernmost mines in Canada's history and ran  
18 that successfully through long winters where tempers  
19 can get frayed. So I think we're in a position  
20 where -- have we seen it all? Possibly not. Will we  
21 have the people and the process in place to cope with  
22 it? Absolutely.

23 MS LaCASSE: Okay. My last area of  
24 questions on socioeconomic is with regard to  
25 autonomous trucks. So staff is wondering if Teck has

1 had any experience using autonomous trucks at other  
2 operations.

3 MR. CHIASSON: Mr. Chairman, we're  
4 currently piloting I believe it's six autonomous  
5 trucks is the vision at our Highland Valley Copper  
6 operation in Kamloops, British Columbia. So we're in  
7 the early stages of testing for that operation on  
8 whether that might be something that that operation  
9 would adopt.

10 MS LaCASSE: And I suppose it would be  
11 fair to say it might be under consideration for  
12 Frontier depending what happens at Kamloops?

13 MR. CHIASSON: I would never say  
14 never. If there's a technology improvement in any  
15 aspect of our operations throughout Teck, we would  
16 certainly look at that for Frontier. That's not  
17 currently the plan, though.

18 MS LaCASSE: This might be a little  
19 premature, this question, but I'll ask it. Staff is  
20 wondering, have you given any thought to the economic  
21 impacts in terms of workforce if you were to go that  
22 direction?

23 MR. CHIASSON: I would agree it's  
24 premature. In general, I would say from our  
25 understanding of course autonomous haul trucks are

1 being implemented at Fort Hills. We're part owners  
2 there, we have some insight into that operation. In  
3 general, what happens for those types of operations is  
4 the net jobs that people might expect a decrease in  
5 isn't so much, there's a lot more systems and  
6 technology type jobs that go along with that. But  
7 that would be a high-level -- it's very -- for  
8 Frontier it's premature.

9 MS LaCASSE: Okay. Thank you.

10 So my next couple of questions relate  
11 to the Mine Financial Security Program, and Teck has  
12 been very clear and forthright that they will comply  
13 with that security program. My question is -- I just  
14 want to confirm this -- that Teck, if it becomes a new  
15 approval-holder, will follow the MFSP Standard and  
16 Guide through all phases of the project, including  
17 construction, even before it's eligible for a net --  
18 can you answer -- deemed netback? Pardon me, deemed  
19 netback.

20 MR. CHIASSON: Yes.

21 MS LaCASSE: I was thinking about my  
22 next question.

23 --- Laughter / Rires

24 MR. CHIASSON: Okay. Sorry, I thought  
25 you were still asking your question. Absolutely, Teck

1 will comply with the Mine Financial Security Program.  
2 Absolutely.

3 MS LaCASSE: Thank you.

4 So for my next question or couple of  
5 questions, if you could look at Document No. 294,  
6 which is I believe Teck's Response to -- Package 5  
7 Socio-economics, and in particular if you could look  
8 at page 54, which is Response 5.4a).

9 And in fact, it's not the response I  
10 want to take you to first, it's the actual request.  
11 So that requested that Teck:

12 "Provide updated estimated  
13 reclamation costs for the  
14 Project..."

15 And Teck was to:

16 "...include a breakdown of the  
17 major components considered in  
18 the [estimate] ..."

19 I'm sorry, I may have rushed ahead.  
20 Do you have the reference? On the fourth line it  
21 says:

22 "Examples of major components  
23 include, but are not limited to,  
24 abandonment, remediation,  
25 treatment of tailings and process

1 affected water, dams and ponds  
2 decommissioning, process plants  
3 and associated infrastructure  
4 decommissioning, soil placement  
5 and re-contouring, revegetation,  
6 and reclamation ..."

7 So if I could next take you to, in the  
8 same document, page 56. And there in Section 5.4a),  
9 Table 5.4a-1, entitled "Reclamation and Closure Cost  
10 Detail", includes in the "Operations" column costs  
11 that appear to staff to include closure costs such as  
12 centrifuged fluid tailings systems, reclamation  
13 material salvage and placement, tailings area  
14 re-contouring, reclamation and closure.

15 MR. CHIASSON: Oh, sorry, I thought --

16 MS LaCASSE: I haven't got a question  
17 yet.

18 MR. CHIASSON: Okay. All right.

19 MS LaCASSE: But if you'd like to say  
20 something, by all means, this is your opportunity.

21 MR. CHIASSON: No, that's fine. No,  
22 that's fine.

23 MS LaCASSE: Okay. So what staff is  
24 wondering is what Teck's rationale was for classifying  
25 these costs as operations costs.

1                   MR. CHIASSON: So, Mr. Chairman, we  
2                   tried to be very descriptive in our reclamation and  
3                   closure costs. So a very good question.

4                   We will be progressively reclaiming  
5                   the site before closure. We're going to start  
6                   reclaiming the site actually two years before first  
7                   oil. So in 2024 we start progressively reclaiming the  
8                   site. The centrifuged fluid tailings system, our plan  
9                   is to start operating that system in a relatively  
10                  small way in year -- at the end of year 3 of operation  
11                  and the reason is to gain operation experience with  
12                  that system before sufficient in-pit space has been  
13                  developed so that in 2037 when sufficient in-pit space  
14                  has been developed we have the operating experience  
15                  with treating fluid tailings at Frontier to then scale  
16                  it up to treat the fluid tailings in a very efficient  
17                  way.

18                  So we talked about Directive 85  
19                  earlier today and part of the -- it's aligned with the  
20                  Tailings Management Framework, and the fluid  
21                  inventory, the expectation is that you do not let that  
22                  fluid inventory grow beyond a maximum of 10 full  
23                  production years, and the reason is it's intended to  
24                  not leave a lot of fluid treatment liability towards  
25                  the end of mine life. So the costs in the operation

1 column for centrifuged fluid tailings, that's those  
2 costs. It's during operations, treating just about  
3 all of the fluid tailings so that when we get to the  
4 end of the mine life there's actually only a couple of  
5 years of fluid tailings treatment remaining. So  
6 that's why there's a small number for fluid tailings  
7 treatment in the closure timeframe and a much larger  
8 number in the operations timeframe.

9 Does that help to answer your  
10 question?

11 MS LaCASSE: I think so. So you're  
12 saying the distinction isn't the character of the  
13 cost, it's when it's incurred?

14 MR. CHIASSON: Yes.  
15 --- Laughter / Rires

16 MR. CHIASSON: I just got some  
17 coaching. I should have said that to you.  
18 --- Laughter / Rires

19 MS LaCASSE: Just give me one moment.  
20 I have to speak to the brains of the operation.  
21 --- Pause

22 MS LaCASSE: So one last question on  
23 this topic and I indicated to your counsel sometime  
24 before this afternoon that I was going to refer to the  
25 Guide. The MFSP Guide states at 3.1, which is page

1 17, that:

2 "Contingencies are built into  
3 cost estimates as part of good  
4 engineering and budgeting  
5 practice."

6 I'm sure you've had a look at that  
7 since I mentioned it to Mr. Ignasiak.

8 When I go to Document 294,  
9 "Socio-economics", and specifically PDF 56, which is  
10 that same Table 5.4a-1, I don't see any reference to a  
11 contingency. Can you tell me what contingency Teck  
12 has placed on the items within the description column?

13 MR. CHIASSON: That's correct, there's  
14 no contingency showed in the table here that's  
15 illustrated. That said, there's contingency built  
16 into some of the numbers. So I'll explain.

17 So Teck has a lot of reclamation  
18 experience. So as far as the earth moving reclamation  
19 and the fluid tailings treatment that happens during  
20 operation, we have very conservative estimates there  
21 and we're very confident that those are accurate, so  
22 we did not include any contingency for those. As far  
23 as the closure costs, which are further out, we're  
24 still quite confident in those numbers but we've built  
25 in 7 percent contingency in that column of numbers.

1 It's just included in the numbers.

2 MS LaCASSE: If we could now go back  
3 to the Project Update, Document No. 163, Volume 1,  
4 Section 4.4 "Mineable Bitumen Estimate", and I think  
5 probably PDF 20 would be the place to start.

6 Can I carry on?

7 MR. CHIASSON: Yes, I'm there.

8 MS LaCASSE: Okay. So you'll see  
9 there are tables there, 4.4-1 Mineable Bitumen  
10 Estimate at a total volume to bitumen in place 16:1  
11 Equivalent, and Table 4.4-2 Mineable Bitumen Estimate  
12 12:1. Teck states:

13 "At a nominal TV:BIP ratio of  
14 16:1 there are 3.0 billion  
15 barrels ... of recoverable  
16 bitumen."

17 Table 4.4-2 shows recoverable bitumen  
18 of 1.8 billion barrels if the 12:1 ratio is used.

19 In Document 294, which is Teck's  
20 Response 5 Socio-economics, at PDF 10-11 it says that:

21 "Resource evaluations can be  
22 found where Teck estimates there  
23 are 3,220.5 million barrels of  
24 bitumen recoverable."

25 So that's the build-up to this

1 question. If the minimum ratio of cutoff total volume  
2 to bitumen in place were to be 12, the minimum  
3 permitted by the AER's Directive 82, rather than the  
4 projected 16, so that resource recovery would change  
5 from 3 billion to 1.8 billion barrels, how would that  
6 affect the project? And in particular, staff are  
7 interested in how that impacts the project's economics  
8 and the Tailings Management Plan.

9 MR. CHIASSON: Just one moment to  
10 confer with colleagues.

11 --- Pause

12 MR. CHIASSON: So, Mr. Chairman,  
13 that's correct. The table shows 1.8 billion barrels  
14 was our estimate. We did what's called a pit show to  
15 view what that would look like. That said, Teck did  
16 not analyze advancing a plan at the minimum 12:1, we  
17 developed a plan, advanced it at the nominal 16:1. In  
18 our view that's the optimum plan for Frontier and  
19 that's what we have submitted. Based on the size of  
20 the pit that we have, maximizing and optimizing the  
21 resource, we felt that that was a much better plan  
22 than just going with the minimum required total volume  
23 to bitumen in place.

24 MS LaCASSE: Well, my next  
25 question/request might not surprise you, but staff is

1 wondering if Teck could provide an economic estimate  
2 under the minimum production scenario of 12:1.

3 MR. CHIASSON: My answer to that would  
4 be -- would be no, but I'd like to explain why.

5 To do a proper evaluation of -- as  
6 what was done for the Frontier project as designed,  
7 that -- the technical work not including the  
8 environmental impact assessment work that went with  
9 it, that takes about a year at this stage of design.

10 So 1.8 billion barrels is what would  
11 be the approximate recovery should a plan be advanced  
12 that -- on that basis.

13 Teck wanted to maximize the resource  
14 recovery. We felt that that was optimum to the people  
15 of Alberta, the people of Canada for Teck, for the  
16 local communities, for indigenous communities.

17 We see that as the -- as the optimum  
18 size of the pit for the project, that's -- that is our  
19 project design basis to do -- to do an economic  
20 assessment on what a 12:1 cut-off pit would -- would  
21 be like is essentially submitting a different project.

22 MS LaCASSE: Okay. What about the  
23 impact on the tailings management plan?

24 You're telling me Teck hasn't given  
25 any consideration to that? You don't have any

1 information on that?

2 MR. CHIASSON: If I understand your  
3 question correctly, what would the impact on the  
4 tailings management plan if we had a smaller pit and  
5 just mined the 1.8 billion barrels?

6 MS LaCASSE: Yeah. The minimum.

7 MR. CHIASSON: It would be smaller.  
8 The -- the pit would be smaller. The total amount of  
9 tailings we would create would be smaller.

10 The bitumen we would recover would be  
11 less, so things would be smaller.

12 That said, we do feel we've found the  
13 sweet spot with respect to the size of the pit that  
14 we've developed and, on a number of fronts, have  
15 optimized the design as part of the project we've  
16 submitted.

17 MS LaCASSE: Okay.

18 MR. CHIASSON: If I could just add one  
19 more thing.

20 These are large capital investment  
21 projects, and part of the economic attractiveness is  
22 trying to maximize the resource recovery. These are  
23 very large scale projects, so that's another driver  
24 that was considered when we looked at trying to  
25 maximize the resource recovery.

1 MS LaCASSE: Okay. This one is pretty  
2 easy.

3 Can you tell me which oil benchmark  
4 Teck evaluated its royalties on?

5 And I guess for a reference point ---

6 MR. CHIASSON: I was trying to make  
7 sure I understood your question correctly.

8 So we started with the WTI U.S. NIMEX  
9 benchmark price, and then the way that we evaluate the  
10 royalties is we -- it's called net back to the plant  
11 gate.

12 So we start with what the forecasted  
13 oil price would be during the operational period  
14 should the project be approved and then we net that  
15 back to WCS, then net it to a paraffinic froth  
16 treatment. There's a small difference to paraffinic  
17 froth treatment, bitumen from WCS.

18 Then we take into account the exchange  
19 rate, then we take into account the pipeline tolls to  
20 get it to somewhere like Hardisty to a hub to then  
21 access it to different markets.

22 So once the -- we're netting it back  
23 from Cushing, Oklahoma where the WTI price is netted  
24 all the way back as an example to the plant gate, and  
25 that's where we have Canadian dollars per barrel net

1 back to the plant gate. And that factors in times the  
2 barrels recovered factored into the economics to  
3 calculate royalties.

4 MS LaCASSE: So we're starting with  
5 the WTI.

6 MR. CHIASSON: That was a long answer,  
7 but yes, starting with the WTI.

8 MS LaCASSE: Okay. No, that was  
9 helpful. Thank you.

10 Again in document number 294, PDF page  
11 10. And that's Section 5.1a)(iii).

12 In paragraph 5, Teck states that  
13 another important factor with respect to Project  
14 economics is the fact that oil sands mining  
15 companies are finding efficiencies to lower operating  
16 costs.

17 Teck refers to Suncor's success  
18 between 2011 and 2017 to show how that company lowered  
19 costs -- operating costs from \$39.05 to \$22.55.

20 So staff's first question is, in  
21 referencing Suncor's lowered operating costs during  
22 that period, is Teck aware which assets Suncor used to  
23 calculate its oil sands cash operating costs? Are  
24 they specific just to mining or overall operations?

25 MR. CHIASSON: Just one moment, Mr.

1 Chair.

2 --- Pause

3 MR. CHIASSON: The short answer is  
4 I -- it's from their -- Suncor's base operations Fort  
5 Hills during 2017. I believe that's where it was  
6 published in the -- in their annual report.

7 The start-up of production at Fort  
8 Hills came in late January, so it would not have  
9 included that. It would have been their base -- base  
10 operations, but our understanding that was with  
11 respect to their mining operations.

12 And maybe just one add to that, we're  
13 partners with Suncor on Fort Hills and the partners  
14 have stated publicly that they're driving targeting  
15 towards less than \$20 a barrel operating costs for  
16 that facility, so we're encouraged by continuous  
17 improvement in the mining industry to drive costs  
18 down.

19 MS LaCASSE: Okay. Staff's next  
20 question is, what cash operating costs is Teck  
21 expecting at the Frontier project over the first five  
22 years annualized per barrel?

23 MR. CHIASSON: I just have to check  
24 one thing.

25 --- Pause

1 MR. CHIASSON: I don't have it in the  
2 first five years broken down over the life of the  
3 mine. It would be in the range of just a little bit  
4 more than \$23 a barrel operating costs.

5 MS LaCASSE: Does Teck's operating  
6 cost methodology align with Suncor's calculations of  
7 cash operating costs?

8 MR. CHIASSON: Mr. Chairman, I would  
9 expect it's similar, but I can't speak for Suncor.

10 MS LaCASSE: Okay. I'll try this out  
11 and see how it goes.

12 Could Teck provide a sensitivity  
13 analysis between operating costs plus or minus 20  
14 percent and the overall economics of the project?

15 --- Pause

16 MR. CHIASSON: So my response to that  
17 would be no, but I'd like to explain why.

18 In the mining business, as in any  
19 business, we're continually trying to drive costs  
20 down. We utilized what we feel are reasonable  
21 conservative costs and put that economic basis  
22 forward.

23 There's a number of factors we analyze  
24 when we do the economic assessment. We look at a  
25 number of things. But that would be a lot of work,

1 and that's something that we -- we fail to see how it  
2 would apply since we feel we've optimized the costs.

3 MS LaCASSE: Okay. So moving away  
4 from the numbers -- well, the money numbers, I have a  
5 couple of questions about noise.

6 So in document 163, Project Update  
7 Volume 3, Sections 1 to 3, PDF 111.

8 MR. SPELLER: I think we have it.

9 MS LaCASSE: Okay. So there, Section  
10 3.4.2 states that the Project's peak emissions period  
11 is the year 2060. That's referenced on that page.

12 Then if you look at Table 3-5 on PDF  
13 114 and 115, which is hard copy 3-15, there it shows  
14 that the predicted sound levels base case and  
15 indicates at PDF 115 that noise contribution from the  
16 Suncor Fort Hills project is based on the data for  
17 year 2022.

18 Does the year 2022 represent the peak  
19 noise emission of the Suncor Fort Hills project?

20 And the point of that question is, and  
21 you probably recognize this, staff's trying to  
22 understand if this is calculated on a very  
23 conservative basis.

24 MR. CHUI: Jonathan Chui.

25 Yeah. When we did the assessment

1       cumulatively, we based it on the worst-case scenario  
2       of the Fort Hill assessment.

3                       MS LaCASSE:   Okay.   So in the same  
4       document, same volume, same section, PDF 128, hard  
5       copy 3-28, Teck proposes "comprehensive sound level  
6       monitoring will be completed to verify compliance with  
7       Directive 038 permitted sound levels" following the  
8       project commissioning.

9                       However, noise emissions during the  
10      project's early operational stage are expected to be  
11      less than the project's peak emissions predicted to  
12      occur in 2060.

13                      So staff's question is, what is Teck's  
14      plan to ensure compliance with AER requirements as  
15      noise emissions increase until the year of peak noise  
16      emission, being 2060?

17      --- Pause

18                      MR. SANDSTROM:   Neil Sandstrom.

19                      So we'll do some performance  
20      monitoring during commissioning, but our intent is to  
21      have a complaint-driven system.

22                      MS LaCASSE:   So the extent you get  
23      complaints, what is going to happen then?

24                      MR. SANDSTROM:   We would do a  
25      follow-up and, depending upon the nature of the

1 complaint, the conditions, we would determine what  
2 they were at the time, for example, weather, wind, so  
3 forth, and then we would respond back to the  
4 complainant. If necessary, we would consider  
5 mitigative action.

6 We have identified that there could be  
7 fence-line monitoring if appropriate, so.

8 MS LaCASSE: Okay, yes.

9 MR. CHIASSON: I'd just like to add,  
10 we would implement a site-wide monitoring program  
11 early in the operation and annually thereafter to  
12 measure the noise emissions from the project to verify  
13 compliance with the directives.

14 MS LaCASSE: Yeah. Thank you.

15 So those are my sound questions.

16 My next question relates to bitumen  
17 recovery. And for reference, it's the Project Update,  
18 document 163, Volume 1, Section 5.5-1. And on PDF  
19 page 74 Teck states:

20 "Many of the challenges  
21 experienced during start-up and  
22 commissioning will affect the  
23 ability to meet the requirements  
24 of *Directive 082* in the first  
25 year of operation."

1                   Teck goes on and lists the challenges.  
2       Teck then states, "Most of these challenges will still  
3       be offset by", and then it lists the activities to  
4       offset the challenges.

5                   So staff want to know if Teck is going  
6       to commit to meet Directive 082 bitumen recovery  
7       requirements during the first year of operation.

8                   MR. CHIASSON:   Just one moment, Mr.  
9       Chair.

10      --- Pause

11                   MR. IGNASIAK:   Mr. Chair, I got a  
12      signal about a few people needing a break soon, so.

13                   MS LaCASSE:   I have no objection.

14                   THE CHAIRPERSON:   On that topic, I  
15      guess a bit of a question for Ms LaCasse and Mr.  
16      Ignasiak on what the plan is.

17                   Do we want to just do a short break  
18      now and get back it?  I'm not quite sure how long this  
19      is going to take.

20                   I got a sense that there was a desire  
21      to kind of try and get through this tonight.

22                   MR. IGNASIAK:   Yes.  I think a short  
23      break now and we'd be prepared to go.

24                   MS LaCASSE:   I'm here for the  
25      duration, so it makes no difference to me.  That's

1 easy for me to say because Ms Doebele and Mr. Birchall  
2 will probably be after me, so I think, you know --

3 THE CHAIRPERSON: People want to carry  
4 on after some breaks? Okay.

5 Okay. Let's take a 10-minute break  
6 and then we'll get back at it.

7 --- Upon recessing at 1748 / Suspension à 1748

8 --- Upon resuming at 1801 / Reprise à 1801

9 THE CHAIRPERSON: Thank you. Please  
10 be seated.

11 MS LaCASSE: So, when we left you were  
12 working on an answer to my question from staff: Will  
13 Teck commit to meet Directive 82, Bitumen Recovery  
14 requirements during its first year of operation?

15 MS SIBBEL: Kristen Sibbel. During  
16 start-up and commissioning there are many challenges,  
17 as we have listed in section 5.5.1, as you have  
18 pointed out previously, and we will strive -- excuse  
19 me - we will strive to meet the bitumen recovery as  
20 soon as possible to comply with Directive 82;  
21 however -- oh, as I say, there are a number of  
22 challenges, but we have confidence that we will meet  
23 it from year two onwards. And I'd also like to bring  
24 up that we have experience with Suncor as a partner at  
25 Fort Hills. They just went through a start-up. It

1 went extremely well, we have a lot of learnings from  
2 that, and we hope to implement them during Frontier's  
3 start-up well.

4 MS LaCASSE: So, that's a no for year  
5 one and a strive for year two?

6 MS SIBBEL: That is a strive for year  
7 one and a yes for year two.

8 MS LaCASSE: Okay. Thank you.

9 So, if we -- if we can go again to the  
10 Project Update, document 163, Volume 1, section 4 to  
11 9, and on PDF 13 in the third paragraph, "Teck  
12 proposes mid-ore mining at the south leased boundary,  
13 which is expected to result in an equal volume of ore  
14 for each leaseholder. Teck also indicates it will  
15 continue to work with Shell to discuss the shared  
16 boundary should Shell reapply for Pierre River Mine."  
17 [as read] And there's a second reference I'd like to  
18 take you to. Same document but sections 10 to 18,  
19 PDFs 121 and 122, and -- and maybe 123 as well. Here  
20 Teck proposes to place a pit lake, the south pit lake,  
21 at the project's south boundary. At 121, Teck  
22 indicates it will work with Shell to integrate their  
23 respective closure drainage plans -- or plan; however,  
24 the conceptual closure drainage plan shown on page  
25 122, and this is an observation, not part of the

1 quote, in Figure 13.6.4 doesn't seem to show how the  
2 closure landform is integrated or prepared to be  
3 integrated with the adjacent leaseholder, whereas on  
4 the next page, which is Figure 13.6-5, that is shown.  
5 So, staff are wondering what the impact of the  
6 placement of the south pit lake on the ability of the  
7 adjacent leaseholder to mine the mid-ore share will be  
8 and to integrate the closure landform at the south  
9 leased boundary. So, I guess two questions, the  
10 ability of the adjacent leaseholder to mine the  
11 mid-ore share, and the ability to integrate the  
12 closure landform at the south leased boundary.

13 Gentlemen, sorry to bother you during  
14 your deliberations. I have now been advised that I  
15 misstated something. Neither figure shows how the  
16 closure landform is integrated or prepared to be  
17 integrated with the adjacent leaseholder.

18 MR. CHIASSON: So, I'd like to start  
19 with the answer and then I'm going to ask Dr. Long  
20 to -- to answer the second more detailed part.

21 So, at -- at a very high level, at the  
22 time Shell was the leaseholder to the south, and we  
23 worked on a lease exchange with them in 2013 and there  
24 was two components of the lease exchange. One was  
25 exchanging the leases to -- to consolidate leases for

1 Teck's Frontier area, and for Shell to consolidate  
2 leases for its Pierre River Mine area. The second  
3 component of that arrangement was what we call the  
4 Projects Agreement, which was an agreement to  
5 collaborate on common infrastructure, work plans  
6 together, that type of thing. So, we did have many  
7 meetings along those lines. Since, of course, the  
8 Project Update was submitted there has been a change  
9 in ownership of those leases with Canadian Natural.  
10 You know, we have had some discussions with them about  
11 the -- the proximity of our leases. We would strive  
12 to have the same kind of discussions with them and  
13 same kind of collaborative arrangements with them.  
14 That said, the Pierre River Mine project has -- was  
15 applied for but then removed, and -- and we're looking  
16 to continue to build a relationship with Canadian  
17 Natural to coordinate activities around those leases.  
18 And I'll ask Dr. Long to add a little bit more detail  
19 to it.

20 DR. LONG: Mr. Chairman, Dejiang Long  
21 here. The figure of 13.6-4 shows the integrated  
22 conceptual closure change plan based on the -- the  
23 closure plan that developed by Shell as a part of  
24 their Pierre River Mine submissions. And their  
25 submission indicate that there will be no mine pit

1 immediately south of the south pit for the Frontier  
2 Project, but this figure does show, though, their  
3 proposed external tailings area located to the  
4 southeast of the -- of the Frontier Project. So, that  
5 figure shows how the -- the external tailings drainage  
6 area is integrated with the -- the closure landscape  
7 for the Frontier Project. And also too I want to  
8 highlight on that figure, it shows the Red Clay fish  
9 compensation facility proposed as a part of the Pierre  
10 River Mine application. So, at the time we prepared  
11 the closure integration plan we rely on the  
12 information in the public domain. So, Shell's  
13 proposed Pierre River Mine did not contain any mine  
14 pit immediately to the south.

15 So, the next figure is 13 -- 13.6-5,  
16 shows the removal of any facility associated with the  
17 Pierre River Mine and shows the kind of standalone  
18 closure drainage plan for the Frontier Project.

19 MS LaCASSE: So, staff -- staff is  
20 wondering if there wasn't going to be a mine pit what  
21 was the purpose of mid-ore mining, or what would be  
22 the purpose of mid-ore mining if there was no pit?

23 MR. CHIASSON: Mr. Chairman, the --  
24 the purpose of mid-ore mining is an equivalent amount  
25 that lies within the leases that Teck holds. We

1 wouldn't have the prerogative to mine ore that's not  
2 within the leases that we're -- we're -- we're the  
3 holder of. Yeah.

4 MS LaCASSE: And with regard to Figure  
5 13.6-4 and 13.6-5, staff noticed that there's  
6 reference on the east side to the Shell compensation  
7 lake, and that is not referred to with -- on the next  
8 diagram, and so staff is just wondering what the  
9 status is of those lakes, or that lake?

10 MR. CHIASSON: The short answer is  
11 we're not sure of the status. The -- the Pierre River  
12 Mine was withdrawn. We've showed one drawing with the  
13 compensation lake on it and one without, but, quite  
14 frankly, we -- we -- we don't know what CNR's plans  
15 are for that.

16 MS LaCASSE: Okay. One more question. Would Teck  
17 commit to submit to the AER for approval a finalized  
18 mine enclosure plan at least five years prior to  
19 mining at the lease boundary? Would you like me to  
20 give that to you again?

21 MR. CHIASSON: Yes.

22 MS LaCASSE: Okay. Would Teck commit  
23 to submit to the AER for approval a finalized mine  
24 enclosure plan at least five years prior to mining at  
25 the lease boundary?

1 MR. CHIASSON: And we have a number of  
2 lease boundaries. You're referring to the south  
3 boundary?

4 MS LaCASSE: Just the south.

5 MR. CHIASSON: Yeah. Just -- just one  
6 moment, Mr. Chair.

7 I just want to clarify are you asking  
8 for a mine plan or a closure plan?

9 MS LaCASSE: Finalized mine and  
10 closure plan.

11 MR. CHIASSON: Oh, okay. So,  
12 Mr. Chairman, we -- we would commit to submitting a  
13 finalized closure plan for -- for that area, but we  
14 have got more -- by the time we mine through that area  
15 we would have 35 years of mining remaining, and we  
16 think it's in everybody's best interest if we're able  
17 to optimize and finalize that at a -- at a later time.  
18 So -- so, yes, for that area, but we would recommend a  
19 later finalization of a closure plan for the areas  
20 further north, where we will be mining three decades  
21 into the future.

22 MS LaCASSE: So, I -- I just want to  
23 go back to the mid-ore mining. Please bear with me.  
24 Staff understood your answer to be that mid-ore mining  
25 is no longer something that's going to occur. Is that

1 correct?

2 MR. CHIASSON: So -- so, no, the --  
3 the mid-ore mining would -- would still be the intent  
4 as to maximize the resource recovery within the leases  
5 that Teck holds.

6 MS LaCASSE: Okay. Thank you.

7 So, in the Project Update, Volume 1,  
8 section 14.12, and I don't think you need to find  
9 this, PDF 16, Teck states that before construction  
10 it's going to develop a comprehensive emergency  
11 response plan, and I think that's addressed in one of  
12 your -- maybe your agreement that you presented to the  
13 panel with ACFN or with MCFN, I don't recall, but what  
14 staff would like is a commitment from Teck to submit  
15 the emergency response plan to the AER six months  
16 prior to commencement of operations.

17 MR. CHIASSON: Yes, we will.

18 MS LaCASSE: Thank you.

19 Same document, Project Update, Volume  
20 1, section 5.5.3.2, page 76, and, again, I don't think  
21 you need to necessarily pull it up, but what it says  
22 is, "Consistent with the Integrated Application, a  
23 commissioning and start-up sequence plan will be  
24 developed as part of future stages of engineering when  
25 more specific knowledge of equipment is known." [as

1 read] Staff are wondering if Teck would be prepared  
2 to commit to submit the commissioning start-up  
3 sequence plan to the AER at least six months prior to  
4 the commencement of operations?

5 MR. CHIASSON: Yes, we will.

6 MS LaCASSE: Again, document 163,  
7 Project Update, Volume 1, section 11.5.2, at PDF 350  
8 Teck states, "Teck will consult AER to establish the  
9 required measurement systems and reporting methodology  
10 during future stages of engineering." [as read] Staff  
11 would like to know if Teck will commit to submit a  
12 detailed measurement plan to the AER at least one year  
13 prior to commencement of operations?

14 MR. CHIASSON: Yes, we will.

15 MS LaCASSE: Once again in the Project  
16 Update, document 136, Volume 1, section 14.4, PDF 194,  
17 Teck states, "The Froth treatment process selected for  
18 the project uses a paraphrenic solvent with two  
19 tailing solvent recovery units to limit solvent losses  
20 to the tailings areas to less than four volumes per  
21 thousand volumes of bitumen production." [as read]  
22 Then same section, page 199, Teck states using dual  
23 solvent vapour recovery units to provide full  
24 redundancy in vapour recovery, i.e. functionally  
25 eliminating routine flaring. What staff doesn't see

1 is a reference to nonroutine flaring and spills in  
2 regard to solvent losses. So, my question from staff  
3 is will Teck report on solvent losses to the scheme as  
4 a whole, not just in the tailings area, including  
5 solvent losses due to nonroutine emergency flaring and  
6 solvent spills, and not only those losses in the  
7 tailings area?

8 MR. CHIASSON: Yes, we will.

9 MS. LaCASSE: Great.

10 Would Teck commit to providing its  
11 methods for determining solvent losses at least one  
12 year prior to start-up as part of the measurement plan  
13 previously committed to?

14 MR. CHIASSON: Yes, we will.

15 MS LaCASSE: Thank you.

16 Are you able to tell the staff what  
17 the expectant solvent losses to the scheme, so  
18 site-wide solvent losses as per Teck's current design,  
19 including nonroutine flaring solvent spills and any  
20 other losses? So, what's the expectation right now on  
21 the desi-- the current design for scheme-wide solvent  
22 loss?

23 MR. CHIASSON: The number is four vols  
24 of solvent for per thousand of vols of recovered  
25 bitumen.

1 MS LaCASSE: Could Teck please advise  
2 staff what its position is if the Panel was to  
3 consider imposing a lower solvent loss limit than the  
4 proposed four volumes per thousand volumes of bitumen  
5 production?

6 --- Pause

7 MS LaCASSE: Panel, sorry to interrupt  
8 you. I will give you all the time you need, but I do  
9 want to just point out that in the proposed  
10 commitments in the ASFN-Teck Joint Submission,  
11 Commitment 12.2(c) -- and that's document 571, if  
12 anyone is interested, page 13.

13 The second part of the proposed  
14 mitigation and management commitment states that Teck  
15 will endeavour to reduce solvent losses to three  
16 volumes per thousand.

17 MR. CHIASSON: Mr. Chairman, I'm  
18 really glad to hear that because that's what I was  
19 going to say: is we'll endeavour to achieve that but  
20 we will certainly commit to four or less and we will  
21 endeavour to do better and endeavour to do three.

22 MS LaCASSE: The staff would like to  
23 know when you think you are going to get to the point  
24 where you would be less than four.

25 MR. CHIASSON: Mr. Chairman, I would

1 suggest it's premature for me to be able to comment on  
2 that. We will strive to reduce our solvent losses  
3 from day one, but when we think we're going to be able  
4 to achieve it, it would be premature for me to  
5 speculate on that.

6 MS LaCASSE: Now we're going to get to  
7 the easy stuff, the water.

8 If you would like to look at Exhibit  
9 361, Teck Responses to Joint Review Panel Information  
10 Request Package 10, February 2018, and PDF pages 36 to  
11 42.

12 Teck provides a predicted  
13 concentration of PAHs in surface water for the aquatic  
14 local study area, incorporating snow melt PH  
15 concentrations, published PAH deposition rates and  
16 inclusion of tailings areas as emission sources.

17 At PDF 42 Teck indicates that  
18 predicted concentrations were considered conservative  
19 based on previous studies but that there is a low  
20 confidence in the ability to predict absolute values  
21 of concentrations.

22 If predicted concentrations of PAHs in  
23 surface waters during snow melt exceed environmental  
24 triggers, what mitigation measures will be feasible to  
25 reduce PAH concentrations in that snow melt?

1 --- Pause

2 MR. VANDENBERG: It's Jerry  
3 Vandenberg.

4 I'm going to start with a little bit  
5 of the technical details to follow up on the models  
6 that we use, because as you've noted and as we've  
7 acknowledged, the modelling that we've done for this  
8 process we still believe is quite preliminary. It's a  
9 highly complex set of processes that require an  
10 enormous amount of knowledge of the inputs and  
11 mechanisms.

12 So I'm just going to start off with  
13 some of the more recent information that comes from  
14 the published literature to kind of give you an update  
15 of what we know that we didn't know when we wrote  
16 this.

17 There have been a few studies, I think  
18 three different studies, looking at sediment cores by  
19 different researchers -- and I believe some Alberta  
20 Environment and Park staff were involved in these  
21 studies so I'm assuming you are familiar with them --  
22 that have looked more at what are the sources of the  
23 PAHs on the snow and in the receiving environment.

24 Those studies all indicate that the  
25 main sources of PAHs that are reaching the receiving

1 environment are either upgraders or delayed coke or a  
2 combination thereof.

3 I just want to start by mentioning  
4 that that does lead us to believe that the modelling  
5 that we've done for this project is conservative,  
6 because back when we did the models we didn't have  
7 that resolution in our inputs. We really just kind of  
8 saw mines, oil sands mines and upgraders and  
9 everything as one source of emissions and went from  
10 there.

11 So looking forward to what we can  
12 expect from this project, I do believe it would be  
13 lower than what we've predicted so far.

14 Now in terms of the mitigation, I'm  
15 going to turn it over to Mr. Speller.

16 MR. SPELLER: In -- I think I'm  
17 looking at the wrong registry number.

18 It's Package 3. It's Registry No.  
19 285. Teck provided an Air Quality Mitigation  
20 Monitoring and Adaptive Management Plan.

21 From the project the primary PAH  
22 sources are from diesel combustion and from fugitive  
23 dust. So in that plan -- I'm going to open that up --  
24 there's an Adaptive Management section that covers  
25 both of these things.

1                   It's on PDF page 19. On PDF page 19  
2 the bottom row says "reduce fugitive dust emissions".

3                   Thank you; that's great.

4                   So the middle column are the  
5 mitigations that Teck has committed to that we  
6 included in our assessment. The column on the right  
7 are potential adaptations if those emissions are  
8 higher. And part of that trigger will be if  
9 environmental monitoring suggests that those emissions  
10 and their effects are higher than we predicted.

11                   So altering effort for mitigation,  
12 exploring different watering intervals. There's a  
13 list there.

14                   So then when you look at the NOx and  
15 the SO<sub>2</sub> and the PM<sub>2.5</sub> rows above, those are related to  
16 -- those are different emission sources but it's the  
17 same emission source, different emissions; sorry.

18                   So the ones that are related to  
19 diesel, those are ones that could also be adapted in  
20 order to reduce PAH emissions.

21                   MS LaCASSE: So are there timelines  
22 for the Adaptive Management Plan, at least as it  
23 relates to this topic -- mitigation; sorry.

24                   MR. SPELLER: Sorry, could you ask  
25 that again? I'm sorry.

1 MS LaCASSE: Probably not.

2 So are there timelines for  
3 implementing the mitigations in the Adaptive  
4 Management Plan?

5 MR. SPELLER: So there are no  
6 timelines within this plan because it's a draft plan.

7 In Section 8.3 of this draft plan it  
8 talks about Implementing the Mitigation, Monitoring  
9 its Effectiveness and Evaluating the Effectiveness.  
10 That's the title.

11 You will see, as identified in this  
12 section, that it's early in the sequence of actions  
13 where you decide what you're measuring and when. That  
14 hasn't been fleshed out but the spirit of the section  
15 is that it happens early. It's not that the site  
16 operates for a number of years and then you do those  
17 activities. You do it early on.

18 That level of detail would likely get  
19 finalized when the plan gets finalized before  
20 construction.

21 MS LaCASSE: Okay. So given the  
22 uncertainty in model prediction results and current  
23 work being undertaken to improve understanding of the  
24 linkage between snow melt and surface water chemistry,  
25 what is the expected timeline when Teck will have

1 higher confidence in predictive results for now melt  
2 impacts to surface water?

3 And that one I could repeat.

4 MR. VANDENBERG: It's Jerry  
5 Vandenberg.

6 It's tough to put an exact timeline on  
7 it. I would say that there is an extremely large  
8 amount of research going on in this area. There's  
9 research being done by COSIA. We've published some of  
10 that research ourselves. The federal government has  
11 many studies related to this topic, as does staff from  
12 AEP, academics from all over.

13 You may be familiar with the recent  
14 Journal and Atmospheric in Chemistry Physics -- sorry,  
15 whatever the journal's name is.

16 You know, there is a tremendous amount  
17 of research going on. To be able to put a timeline on  
18 when we could improve predictions is difficult.

19 I'm actually not sure that model  
20 predictions are the way to go with this exact set of  
21 processes. I think the monitoring and just kind of  
22 understanding the fundamental processes and working  
23 its way back to mine sources and potential mitigations  
24 might be actually a better way to go than trying to  
25 make predictions.

1 I say this as somebody who has put a  
2 lot of effort into trying to improve the models and  
3 just maybe seeing that it's not actually the right  
4 tool at this point.

5 So I think the predictive aspect of  
6 this might not -- I don't know, I'm not sure if I  
7 could ever commit to putting a timeline on that.

8 I think what we can say is that we're  
9 learning a lot more about this all the time,  
10 particularly about where the sources are and what we  
11 can do about it in terms of pinning down where the  
12 PAHs and metals are coming from, which is really the  
13 important part.

14 MR. SANDSTRUM: Neil Sandstrum.

15 So further to what Mr. Vandenberg  
16 said, we're going to monitor this emerging research,  
17 Mr. Chair, and we will incorporate it as it comes  
18 forth. We will continue it through our involvement in  
19 COSIA.

20 So that's what we will do.

21 MS LaCASSE: Okay. I think I have at  
22 least one more question on that theme, so just give me  
23 a moment.

24 --- Pause

25 MS LaCASSE: I was going to ask the

1 panel some questions at the end of my topic questions  
2 about the joint submission between Teck and ACFN, but  
3 it appears instead I'm going to bounce back and forth.

4 This relates to that document and it's  
5 CEAA No. 571.

6 I don't have a PDF number but it's not  
7 that long. I'm sure you can find it.

8 Oh, PDF 6. Someone does have it.

9 It relates to Condition 4.2 -- not  
10 Condition, Commitment 4.2A(4).

11 Would Teck be committing in reference  
12 to that to snowmelt monitoring on the Frontier site?  
13 --- Pause

14 DR. JOHNSTONE: Could you please  
15 repeat the question just to make sure we're answering  
16 the right one?

17 MS LaCASSE: Yes, I could.

18 So in regard to Commitment 4.2A(4) in  
19 the ACFN Teck Joint Submission, the question is:  
20 Would Teck be committing with regard to that  
21 commitment to snowmelt monitoring on the Frontier  
22 site?

23 DR. JOHNSTONE: Mr. Chair, yes, we  
24 are.

25 MS LaCASSE: Thank you.

1                   Again I would like to take you to  
2 Exhibit 361. This time it's Appendix 10.25, Draft  
3 Hydrology and Water Quality Mitigation Monitoring  
4 Adaptive Management Plan, Version 2, Frontier Oil  
5 Sands Mine Project, PDF page 13.

6                   Teck states that while a full suite of  
7 parameters will be monitored as part of the Surface  
8 Water Quality Monitoring Program, adaptive management  
9 actions focus on indicator chemicals of potential  
10 concern (COPCs) predicted to be or have been measured  
11 above background levels. The investigation thresholds  
12 for when the Adaptive Management Program would be  
13 implemented for COPCs are outlined in Tables 10.25-6  
14 to 10.25-8.

15                   And those are on PDF pages 30 to 31.

16                   Do you have those?

17                   Can Teck provide further rationale for  
18 the choice of these chemicals of potential concern and  
19 investigative thresholds given inherent uncertainty in  
20 modelling results?

21                   MR. SPELLER: Mr. Chairman, I'm going  
22 to start briefly and then I will pass it to Mr.  
23 Vandenberg.

24                   The one thing to keep in mind with  
25 this draft plan -- and Teck makes it clear at the

1 beginning that it's draft and that there's a lot of  
2 consultation to be done with regulators and indigenous  
3 communities and stakeholders. So I wouldn't say these  
4 are set in stone.

5 Mr. Vandenberg can speak to how they  
6 were selected.

7 MR. VANDENBERG: Jerry Vandenberg.

8 Yes, so indeed those were selected  
9 based on model results of the aerial deposition model,  
10 so there would be some uncertainty there.

11 However, looking at this list I can  
12 tell you even if we had not used the model, this would  
13 still be a pretty good list. And the reason I say  
14 that is because the two main metals, for example, that  
15 one would want to measure is vanadium and nickel.  
16 These are associated with ore and they turn up in  
17 virtually every snow pack study of monitored metals in  
18 snow pack, as well as some of the other studies  
19 looking at different types of media in the receiving  
20 environment.

21 --- Pause

22 MR. VANDENBERG: So yes, these are  
23 good indicators with or without that modelling result  
24 because they are known to be associated with the ore  
25 and they are indicated as elevated in some areas

1 around oil sands developments.

2 So nickel and vanadium would certainly  
3 be on that list. Silver, I suspect, might be a bit of  
4 a model artifact, although it certainly doesn't hurt  
5 to monitor more than necessary.

6 So as well cadmium and chromium may or  
7 may not be relevant. But again those would be  
8 additional to the two main ones.

9 And then in terms of the PAHs,  
10 benzanthracene and benzopyrene, those were also  
11 selected based on the model. They're good health  
12 indicators.

13 One might look more to the monitoring  
14 results when going from the draft to the final version  
15 of this. I think that would be a fair check to see if  
16 there are things in the snow that aren't listed here  
17 that are indicated as being potentially high.

18 MS LaCASSE: So we're just going to  
19 confirm that Teck will be evaluating other parameters  
20 being monitored to determine if these should be  
21 incorporated as indicator COPCs.

22 Is that correct?

23 MR. SPELLER: Yes, we will.

24 MS LaCASSE: Thank you. Good news,  
25 we've eliminated a question. Moving along at a rapid

1 pace.

2 If you could please turn to Exhibit  
3 364, which is the Potential Effects of the Frontier  
4 Project on the Outstanding Universal Value of Wood  
5 Buffalo National Park. I'm going to be talking about  
6 page 15 to start with.

7 There, Teck indicates that, "There is  
8 a valid linkage between changes in water quality in  
9 the Peace-Athabasca Delta and the project."

10 The effects analysis outlined then on  
11 PDF 40 concludes that:

12 "Because concentrations of  
13 substances were predicted to  
14 remain below guidelines or within  
15 reference ranges, they would not  
16 be considered a pathway for  
17 potential impacts to Lake Claire  
18 or other parts of the Delta."

19 (As read)

20 Teck further states on PDF 42 that:

21 "Water concentrations that result  
22 from inputs from oil sands  
23 operations can only diminish as  
24 the water flows further from the  
25 source and becomes attenuated by

1                                   other inputs." (As Read)

2                                   So Staff's question is how Teck is  
3 going to participate in and support regional water  
4 quality monitoring programs for the Peace-Athabasca  
5 Delta to validate Teck's conclusion of no  
6 project-specific effects on Lake Claire and the Delta?

7                                   MR. SANDSTROM: Neil Sandstrom. So we  
8 will be doing project-specific monitoring, some of  
9 which is outlined in the draft Hydrology and  
10 Mitigation, Monitoring Adaptive Management Plan.  
11 That'll include project boundary, it'll also include  
12 select locations within the Ronal Lake watershed.

13                                   However, when it comes to the larger  
14 region, we would seek to -- well, we would defer to  
15 the Joint Oil Sands Monitoring Program that we must  
16 support. I would add that there is also the  
17 Peace-Athabasca Environmental Monitoring Program that  
18 we are aware of, but we are not currently  
19 participating in, nor have we been asked to.

20                                   MS LaCASSE: I just want to clarify.  
21 You said you were going to defer to the Joint Oil  
22 Sands Monitoring Program?

23                                   MR. SANDSTROM: Yeah. I will clarify.  
24 So the Joint Oil Sands Monitoring Program is managed  
25 by the province with the input from the federal

1 government. So industry present does not influence  
2 the form of that. So that's why I say we would defer  
3 to their experts.

4 MS LaCASSE: You may have kind of  
5 answered this, but I'll see. Are there any planned  
6 research activities within the Peace-Athabasca Delta  
7 that Teck is funding or planning to fund to evaluate  
8 potential water quality impacts with the project or  
9 oil sands development?

10 MR. SANDSTROM: Robin.

11 DR. JOHNSTONE: Mr. Chair, we would  
12 refer to the Mikisew Cree First Nation's submission of  
13 August 31st, and their page 38, PDF 41 of 49. That is  
14 Registry Document 497.

15 There is a Clause 8 in there,  
16 Underwater Discharge where the proponent will consult  
17 with Indigenous groups on the establishment, review  
18 and adaptation of water discharge criteria which  
19 supports maintenance of aquatic life, aquatic health  
20 of the Peace-Athabasca Delta, including pit lake water  
21 release criteria prior to discharging waste or  
22 process-affected waters into waters that may reach the  
23 Ronald Lake watershed or Lake Claire.

24 So I think that's really the pertinent  
25 joint proposed condition.

1 MS LaCASSE: So are you telling us  
2 that that condition relates to research?

3 DR. JOHNSTONE: I think the critical  
4 element here is there are water release criteria and  
5 water discharge -- sorry, the establishment of water  
6 discharge criteria may well include research.

7 MS LaCASSE: Based on your knowledge  
8 of the Oil Sands Monitoring Program, and maybe you  
9 don't have much knowledge given who's doing it, and  
10 what you refer to coming out of the MCFN submission,  
11 do you believe those programs or intended programs  
12 will provide information necessary to confirm the  
13 conclusions of now downstream impact to Lake Claire or  
14 the Peace-Athabasca Delta from the project?

15 MR. VANDENBERG: Jerry Vandenberg.  
16 Sorry to do this, but could you repeat the question?  
17 I just want to give it a bit of thought because I  
18 think it's a multi-part answer.

19 MS LaCASSE: Okay. So based on your  
20 knowledge of the Joint Oil Sands Monitoring Program  
21 and what you know so far about what's described in the  
22 clause that Mr. Johnstone just spoke of in the MCFN  
23 submission, the joint condition, do you believe the  
24 monitoring and research coming out of those two  
25 programs, if I can call them that, will provide the

1 information necessary to confirm the conclusions of  
2 now downstream impact to Lake Claire or the  
3 Peace-Athabasca Delta from the project?

4 MR. VANDENBERG: Yes, and I'll just  
5 give a couple reasons why. So, to start with, there  
6 will be monitoring at the point of discharge, whatever  
7 point that may be from the project and then  
8 downstream, assuming the project has similar  
9 conditions as other approvals. So that's the project  
10 specific near-field monitoring that would be in place  
11 in pretty much any discharge in Alberta.

12 Further afield, the water quality  
13 monitoring will show any potential increases from  
14 direct release, the snowpack monitoring which Teck is  
15 committed to, and which the government also does,  
16 would show any impacts to water quality through the  
17 aerial deposition pathway.

18 But the other, perhaps most important,  
19 pathway would be the biological monitoring, which I  
20 understand is included in JOSM, and so they do  
21 multimedia looking at water sediment and biota. That  
22 would be the ultimate test of effects in the Delta.

23 MS LaCASSE: Thank you. If we can go  
24 to -- sorry, Dr. Johnstone, I didn't see you preparing  
25 to speak.

1 DR. JOHNSTONE: No, that's okay.  
2 That's okay.

3 I think just one other pertinent item  
4 in the Mikisew joint conditions Registry Document 497,  
5 PDF page 40, Clause 4(g) is the requirement for a  
6 follow-up program to verify the accuracy of the  
7 environmental assessment as it pertains to the adverse  
8 effects on the designated project on water quality and  
9 water quantity.

10 So there's a commitment there that  
11 pertains to the monitoring and follow-up program that  
12 we were discussing.

13 MS LaCASSE: Thank you. Exhibit 163,  
14 Project Update, Volume 3, Section 7, Figure 7-8 and  
15 7-9 on PDF 126 and 127 show how water quality  
16 parameters were screened to assess which parameters  
17 would be identified as substances of potential concern  
18 requiring further assessment.

19 Can Teck provide details on the steps  
20 that were used to determine whether a substance was  
21 considered benign or required screening?

22 My colleague sitting next to me  
23 thought it might be helpful if I pointed out to you on  
24 Figure 7-8 the footnote that says, "Substances that  
25 are considered to be benign were not included in the

1 water quality screening."

2 MR. VANDENBERG: Jerry Vandenberg. So  
3 this refers to substances like calcium for which there  
4 are no real toxicological concerns. In other words,  
5 the toxic thresholds, if there were any, are actually  
6 higher than solubility constraints, so we would expect  
7 to never see concentrations of concern of these  
8 substances in the receiving environment.

9 It referred to I believe -- I can't  
10 remember if it was just calcium and magnesium, but  
11 that was essentially the rationale. If I took a few  
12 minutes, I could find the specific list of  
13 constituents that applied to. But it was a very small  
14 number, it was three or four constituents maybe.

15 Maybe I'll just add something to that.  
16 We do model these substances because they're  
17 ecotoxicity modifying factors. So we like to know  
18 what the conditions are in the water as it affects  
19 other metal toxicity and other parameters of interest.  
20 In case people are wondering why would we model these  
21 if we don't assess them. It's just to understand the  
22 conditions of the water.

23 MS LaCASSE: So did Teck use the same  
24 approach for all constituents considered benign?

25 MR. VANDENBERG: Jerry Vandenberg.

1 Yes. So, essentially, those were just not screened  
2 for effects on aquatic health. If it was something  
3 like calcium where we have no concerns whatsoever  
4 about higher concentrations, there was really nothing  
5 to screen them against, so there's no screening to do.

6 MS LaCASSE: Okay. Is it possible  
7 that substances elevated as a result of project  
8 activities, but not screened in for further assessment  
9 may still result in impacts to aquatic health in the  
10 receiving environment?

11 MR. VANDENBERG: Jerry Vandenberg. I  
12 don't believe so, no.

13 MS LaCASSE: So again at the project  
14 Update, Volume 3, PDF pages 153 to 154, Section 7.  
15 Teck states that:

16 "Mitigation measures to address  
17 potential changes in substances  
18 in the fish habitat compensation  
19 lake have not been assessed, but  
20 does identify mitigation measures  
21 to reduce effects of  
22 methylmercury accumulation in  
23 fish and other biota." (As Read)

24 Teck further states that:

25 "Challenges in modelling

1 methylmercury concentrations can  
2 be addressed by gathering  
3 site-specific data, including  
4 surface water quality monitoring  
5 and fish tissue. This would be  
6 incorporated within an adaptive  
7 management plan." (As Read)

8 So Staff would like to know if Teck  
9 can confirm that its intent is to develop a water  
10 quality monitoring and mitigation program specific for  
11 issues of concern within the fish habitat compensation  
12 lake such as methylmercury release and  
13 bioaccumulation?

14 MR. BJORNSON: Chris Bjornson. Yes,  
15 Teck does plan to monitor and adaptive manage. The  
16 update to some of this information, particularly  
17 mercury in the compensation lake, is in the draft  
18 Detailed Fisheries Monitoring Plan, that's AIR 2.1,  
19 Appendix 2.1. So there is a draft Monitoring Program  
20 and Adaptive Management Program, and that includes  
21 water quality monitoring as well as fish tissue  
22 monitoring.

23 MR. SPELLER: Just for the transcript,  
24 that's CEAA Registry at 285.

25 MS LaCASSE: Thank you. So, as part

1 of Teck's monitoring, will methylmercury modelling for  
2 the fish habitat compensation lake be conducted?

3 MR. VANDENBERG: Jerry Vandenberg.  
4 Sorry, could you clarify? Did you ask if monitoring  
5 or modelling would be completed?

6 MS LaCASSE: Should have modelling. I  
7 did say monitoring, but it should have been modelling.

8 MR. VANDENBERG: Jerry Vandenberg.  
9 Modelling is not planned for the compensation lake.  
10 Teck has gone to a mitigation of the lake, which is  
11 deemed the most effective type of mitigation against  
12 methylmercury production, which is to remove the  
13 organic carbon from the lake.

14 You know, from a modeller's  
15 perspective, if one was to run such a model, you know,  
16 the likely outcome would be, you know, running a model  
17 unmitigated. It would show that you need to mitigate  
18 it by removing the carbon. So, really, Teck has just  
19 skipped that step entirely and gone straight to the  
20 mitigation.

21 MS LaCASSE: Can Teck provide examples  
22 of sites where methylmercury formation issues have  
23 been successfully mitigated to reverse potential  
24 adverse effects on fish and other aquatic biota?

25 MR. VANDENBERG: Jerry Vandenberg

1 here. Yes, there are some really applicable examples  
2 referred to in the draft Fisheries Offsetting Plan.  
3 Those are the other compensation lakes which have been  
4 constructed in the oil sands' region which presently  
5 show low concentrations of mercury in the water and in  
6 the fish.

7 MR. BJORNSON: Thank you. Chris  
8 Bjornson.

9 Just further to what Mr. Vandenberg  
10 said, one of the analogue lakes we looked at -- we  
11 looked at a couple of analogue lakes that have been  
12 constructed and monitored for mercury concentrations.  
13 A couple of them have been partially stripped, not  
14 fully stripped. The one analogue lake that we looked  
15 at that was completely stripped of all organics was an  
16 excavated lake, and it has absolutely no increase in  
17 mercury so far in the sediment or the water.

18 MS LaCASSE: If the proposed  
19 mitigation measures for methylmercury aren't  
20 successful, what alternatives to the fish habitation  
21 compensation lake will Teck pursue?

22 MR. SPELLER: Mr. Chairman, I think we  
23 have the answer for that in the filed material. My  
24 colleagues are just looking it up to point to the  
25 right spot.

1 --- Pause

2 MR. VANDENBERG: Jerry Vandenberg.

3 Referring again to the Draft Fisheries  
4 Offsetting Plan, which is Appendix 2.1 of Package 2  
5 JRP IR package response, in the Adaptive Management  
6 Plan, listed in Table 30 within the Draft Fisheries  
7 Offsetting Plan, there are additional potential  
8 adaptations and mitigations shown there.

9 MS LaCASSE: Mr. Vandenberg, you  
10 wouldn't happen to know the registry number for that  
11 document, would you?

12 Mr. Speller?

13 MR. SPELLER: It's like it's a quiz  
14 show.

15 MR. VANDENBERG: It's 266.

16 MR. SPELLER: No, it's 285.

17 MR. VANDENBERG: Sorry, 285.

18 MS LaCASSE: If you can just give us a  
19 moment to look at that? Sorry, can you give me that  
20 PDF page again?

21 MR. VANDENBERG: PDF page 184.

22 MS LaCASSE: Thank you.

23 --- Pause

24 MS LaCASSE: Continuing with  
25 Exhibit No. 163, Volume 3, "Assessment Update,

1 Section 7, Surface Water Quality", at pages 225 to 226  
2 it indicates:

3 "To achieve pit lake water  
4 quality suitable for discharge  
5 there are several management  
6 options, and Teck outlines those  
7 on PDF 226." (As read)

8 Staff's question is whether Teck has  
9 evaluated the unintended consequences of increasing  
10 dissolved salt concentrations as a result of  
11 implementing mitigation measures, such as increased  
12 recycling or holding time of water prior to release.  
13 --- Pause

14 MR. VANDENBERG: Jerry Vandenberg.  
15 I'd like to start by looking at  
16 Table 7-28, which is in the same volume you've  
17 referred me to. It's on PDF 709. If the PDF number  
18 is different, the printed number would be 7-126.

19 MS LaCASSE: Okay.

20 MR. VANDENBERG: In this table we show  
21 the sources of water that will be used to fill central  
22 pit lake, as well as some of the basic characteristics  
23 of the lake, like volume.

24 First, I guess I'll go back and answer  
25 your question. The answer is, no, we haven't

1 quantitatively looked at the possibility that  
2 increased water recycling during operations would lead  
3 to more salinity which could affect the pit lake.

4 I guess now I'll explain why. The  
5 waters that could affect, the increased amount of  
6 water recycling, if that were done, that could raise  
7 the salinity in those waters, would only affect mostly  
8 the first number in the bottom row of that table, so  
9 the tailings area cap water, which is 58.2 million  
10 cubic metres, and the pump tailing centrifuge water,  
11 which is 26.7, so, in theory, if water was recycled  
12 much more than planned, the TDS and major ions in  
13 those waters could increase. The reason that's  
14 unlikely to be an issue in this particular lake is  
15 because that's only about 10 percent of the overall  
16 water volume in the lake, so the whole lake would not  
17 be particularly sensitive to changes in TDS and major  
18 ions of those inputs.

19 MS LaCASSE: What mitigation measures,  
20 if any, are being considered by Teck to address  
21 potential issues of elevated salt in pit lakes?

22 MR. VANDENBERG: Jerry Vandenberg.  
23 Again, I've got sort of a multi-part  
24 answer here.

25 Referring now to a table a few pages

1 later, Table 7-30, that's on printed page 7-139, these  
2 are the predictions under the assessed case, and the  
3 central pit lake is shown here. This is the only lake  
4 that will have any of the processed water put into the  
5 lake as part of the filling strategy. The predictions  
6 for TDS are relatively low, they're 518 to 549, which  
7 is well below the benchmark, so there is quite a bit  
8 of spare capacity, if you want to call it that, for  
9 additional salts in this lake, so if say 10 percent of  
10 the source water was higher TDS, it's really unlikely  
11 that TDS would be an issue to the point where it would  
12 need to be treated.

13 Nonetheless, as I mentioned I think on  
14 Tuesday in my testimony to the OSEC in  
15 cross-examination, there are active treatment measures  
16 that would be available. Teck has covered those  
17 fairly exhaustively in Round 2 SIR-17, and Round 2  
18 SIR-16.

19 MS LaCASSE: For clarification, the  
20 mitigation measures that I think are listed on  
21 PDF 226, those apply to the whole lake or only to  
22 pre-tailings water?

23 MR. VANDENBERG: Those could be  
24 applied to either source, but the way it would be done  
25 almost certainly would be, through adaptive

1 management, one would see the TDS going up in the  
2 source waters and treat that water before it goes into  
3 the pit lake as opposed to having to treat the whole  
4 lake. This is something that would be pretty well  
5 easily measured and well known long before that water  
6 ever has to go into the lake.

7 MS LaCASSE: My next question relates  
8 to release criteria for oil sands pit lakes. I'm sure  
9 you understand that there's currently no defined  
10 release criteria. If water quality thresholds for the  
11 release of water from oil sands pit lakes are set  
12 below chronic effects benchmarks or guidelines what  
13 measure will Teck need to take to reduce  
14 concentrations of parameters predicted to be above  
15 conditions but below CEBs or guidelines -- reference  
16 conditions, pardon me?

17 MR. VANDENBERG: Jerry Vandenberg.

18 The chronic effects benchmarks used in  
19 this project update are good screening tools for  
20 potential effects in the future, but I wouldn't  
21 necessarily use them as a discharge criteria. Alberta  
22 Environment has an excellent document for deriving  
23 discharge criteria, the reference is AEP 1995,  
24 referred to a few times in our filed material. This  
25 gives guidance on how to derive discharge

1 concentrations, as well as how to apply whole effluent  
2 toxicity in the derivation to come up with actual  
3 discharge criteria, and that's presumably what would  
4 be applied or whatever is in place at that time.

5 MS LaCASSE: Is it feasible to achieve  
6 reference condition water quality in proposed pit  
7 lakes?

8 MR. VANDENBERG: Jerry Vandenberg.

9 Over the very long term, yes, but in  
10 the near term almost certainly not. I can't think of  
11 any mining feature on earth that discharges the same  
12 quality of water from the mine as reference water  
13 quality, although over, you know, several residents'  
14 times of the water body it would start to take on a  
15 background nature.

16 MS LaCASSE: I think you've kind of  
17 answered this, but what's your view of how this would  
18 affect current timelines for reclamation of end pit  
19 lakes?

20 MR. VANDENBERG: Well, I guess it  
21 depends how you define "reclamation". I wouldn't  
22 necessarily say that pit lakes have to achieve  
23 background conditions in order to be reclaimed, I  
24 would say they have to be suitable for aquatic life  
25 and not causing adverse impacts downstream, which is

1 very different from achieving reference conditions.

2 MS LaCASSE: Mr. Vandenberg, would you  
3 accept that criteria for discharge from end pit lakes  
4 have not yet been determined?

5 MR. VANDENBERG: Yes.

6 MS LaCASSE: Okay.

7 Again, Exhibit 163, Volume 3, PDF 222.  
8 On that page, Teck describes uncertainty as to whether  
9 the pit lake will provide healthy, productive  
10 ecosystems and indicates it will rely in part on  
11 research from other oil sands operations, such as  
12 Syncrude's Base Mine Lake, and from coal and metal  
13 mining industries.

14 Staff are wondering how you're going  
15 to incorporate research findings from these lakes into  
16 the proposed pit lakes for Frontier given the inherent  
17 differences between Teck's operation and these other  
18 operations. In the others, for example, Syncrude's  
19 Base Mine Lake, tailings are placed in pit lakes, and  
20 coal and metal mining have very different water  
21 quality issues.

22 MR. VANDENBERG: The answer to this is  
23 quite large. I'll try and give a short answer.

24 In terms of process of how this  
25 information is being incorporated, I'm aware of COSIA

1 initiatives that are looking at worldwide case studies  
2 of pit lakes, bringing experts in from around the  
3 world to discuss findings from other post-mining  
4 landscapes and pit lake mine closure projects. I know  
5 they're planning to talk to government and  
6 stakeholders in the region relatively soon, so that's  
7 kind of the process.

8 In terms of the actual findings, as it  
9 happens I'm one of the people giving one of those  
10 talks so I can elaborate a little bit. The physical  
11 effects or the hydrodynamics of lakes are quite  
12 similar no matter what type of pit lake it is, in  
13 other words, a coal mine pit lake, which is long and  
14 fairly deep and skinny, has similar hydrodynamics to  
15 an oil sands pit lake, a different chemistry for sure  
16 but, fundamentally, we start with the physical  
17 processes and then we try and understand how the  
18 constituents would move through the waterbody.

19 Now, in terms of learning from systems  
20 in the oil sands region, there are a few good systems  
21 that show us a lot about the chemistry and that's the  
22 demonstration lakes that were built at Syncrude in the  
23 eighties and nineties and Base Mine Lake itself, which  
24 has been in operation for about -- well, depending on  
25 what you call the start of operations. It was filled

1 in 2015, so it's been full for three years and there's  
2 now a fair amount of peer-reviewed literature coming  
3 out that's showing the results of the toxicity in Base  
4 Mine Lake and this is really the fundamental question  
5 for oil sands pit lakes, is how does the toxicity  
6 degrade with time and when will it become suitable for  
7 aquatic life. And we are seeing peer-reviewed studies  
8 come out from Base Mine Lake on that.

9 And then another one I believe is  
10 Suncor has built one lake and there will be  
11 information from that demonstration lake available in  
12 the coming years.

13 These are all mentioned in the  
14 Tailings Management Plans that were submitted to AER  
15 in the past year or two.

16 MS LaCASSE: If you can just give me  
17 one moment, I'm going to switch helpers.

18 --- Pause

19 MS LaCASSE: Okay. So if you could  
20 look at Document No. 293, Teck's Response to IR  
21 Package No. 8, Surface Water, Groundwater and  
22 Wetlands, and PDF 55 and 56.

23 So those pages indicate that Teck is  
24 proposing to divert water from Big Creek into its  
25 off-stream storage pond without a water licence on the

1 basis that this water can be passed downstream through  
2 the pond without being used. It is proposed that this  
3 upstream diversion would occur as early as 2021, but  
4 the channel to the off-stream storage pond wouldn't be  
5 completed until 2037 and would operate from then until  
6 2081.

7 So my colleague would like to know how  
8 Teck will manage outflows from the off-stream storage  
9 pond to ensure no water from the Big Creek diversion  
10 will be used to fill the off-stream storage pond or  
11 withdrawn for industrial use.

12 --- Pause

13 MR. CHIASSON: Mr. Chairman, if I  
14 understand the question, it's diverting water from Big  
15 Creek through the second off-stream storage location.  
16 That would be done -- it's the second off-stream  
17 storage location, so that would only be done after  
18 that second off-stream storage facility gets put in  
19 place if that was the question.

20 MS LaCASSE: What we're looking for is  
21 an answer about how you're going to ensure that you  
22 don't use any of that water for industrial use or  
23 filling.

24 MR. CHIASSON: Oh, okay. So, Mr.  
25 Chair, I would like Dr. Long to answer that question.

1 DR. LONG: Dejiang Long here.

2 The current water management pond is  
3 to monitor the water that's going to be diverted from  
4 the river to that off-stream storage facility and so  
5 if the project requires the water to be taken out from  
6 our facility, the project will monitor the amount of  
7 water it will take out and then ensuring that the  
8 water would be recorded and then the storage in the  
9 remaining OSSP capacity would be refilled by the water  
10 we store from the river. So the project is going to  
11 keep track of the water taken from the river and then  
12 also keep track of how much water will be taken out  
13 from the OSSP to ensure the water use is the same as  
14 the water taken out from the river.

15 So just to illustrate the initial  
16 operation or phase, for example, before the off-stream  
17 storage pond is available for use as an off-stream  
18 storage facility, soon after construction the plan is  
19 to take the water from the river, feed it up to the  
20 full supply level and then be ready for use by the  
21 project if needed, and then the water will be diverted  
22 for the Big Creek diversion and then use that facility  
23 as a flow-through structure. So water diverted  
24 upstream to that facility would be released to the  
25 discharge facility in the OSSP. And also too, the

1 water diverted into that facility will be monitored as  
2 well to ensure the outflow will be equal to the  
3 inflows.

4 --- Pause

5 MS LaCASSE: Okay, let's try this.

6 Our understanding is, and your materials reflect this,  
7 that this is a storage pond, so water levels will be  
8 well below the spillway much of the time, especially  
9 after a dry fall/winter period. Snowmelts in spring  
10 could significantly fill the OSSP before any water can  
11 flow out. Diverting water to fill the storage is  
12 usually considered use under the *Water Act*. So in  
13 light of those statements, I guess staff is having  
14 problems understanding the concept that there's going  
15 to be no storage or use of Big Creek water.

16 DR. LONG: Dejiang Long here again.

17 Mr. Chairman, the OSSP design for the  
18 storage, for the active storage that will be used for  
19 potential water supply for the project, that storage  
20 will be filled with water diverted from the Athabasca  
21 River, and the project plan is to monitor how much  
22 water will it divert from the water to fuel that  
23 storage.

24 And at the same time, the project will  
25 continue to monitor if the project needs that water

1 from the storage, we will recall it.

2 So the project's going to take -- only  
3 take the water, divert it from the river in terms of  
4 the already mentioned amounts.

5 And in addition to that, the project's  
6 going to monitor how much inflow coming into the OSSP  
7 from the upstream diversion and then also design a  
8 facility ensuring whatever comes in will be released  
9 to the downstream.

10 So that's how the current plan is to  
11 keep track of the water volumes.

12 And of course, we recognize that  
13 within the pond the water from the river and also the  
14 water from the diversion will be mixed.

15 MS LaCASSE: So is the suggestion or  
16 more than a suggestion -- your submission is that  
17 you're going to be able to divert the water out from  
18 Big Creek as -- at the same rate that it comes in in  
19 all circumstances.

20 DR. LONG: That's the plan, yes.

21 --- Pause

22 MS LaCASSE: Mr. Long?

23 DR. LONG: Dejang here.

24 I wonder whether I had answered the  
25 question. If not, I can further elaborate.

1 MS LaCASSE: Well, let me ask you  
2 this.

3 So how is Teck going to ensure what  
4 you propose will happen, that the volume of water  
5 flowing from the creek into the OSSP will be released  
6 out of the OSSP within a relatively short timeframe?  
7 How will that be done?

8 DR. LONG: Mr. Chairman, the current  
9 design for the facility is to weigh consumption level,  
10 and the outlet may consist of a spillway. And if the  
11 OSSP is full with water diverted from Athabasca River  
12 and if the project does not need to use that water, so  
13 what comes in would get out.

14 And the facility may include other  
15 outlet facility for some of the low level outlet or  
16 additional pumping facility to ensure when we monitor  
17 the inflow from the upstream diversion would be equal  
18 to the outflow from the facility either through  
19 gravity or through pumping.

20 MS LaCASSE: Staff would like to know  
21 why Teck wouldn't simply just route Big Creek around  
22 the OSSP instead of through the pond.

23 DR. LONG: Dejang Long here.

24 The OSSP location is situated within  
25 the unnamed creek valley. Based on the site

1 conditions, it's a very cost effective way to  
2 construct an embankment and use that facility for dual  
3 purpose.

4 One is to provide upstream storage  
5 facility for the project, but also facilitate the  
6 diversion. So it's a cost effective solution to  
7 address both water management need.

8 So in the current project design, we  
9 selected that solution to reduce the overall water  
10 management costs.

11 MS LaCASSE: So what you're proposing  
12 is more cost effective than diverting around the OSSP.  
13 Is that correct?

14 DR. LONG: Mr. Chairman, that's  
15 correct.

16 MS LaCASSE: Given that this  
17 infrastructure won't be in place until 2037, has Teck  
18 considered the option of applying for a *Water Act*  
19 licence for this water at a later date?

20 --- Pause

21 DR. LONG: Dejang Long here, Mr.  
22 Chairman.

23 The current *Water Act* licence request  
24 does not include any water diversion from Big Creek.  
25 It only include the water licence diversion from the

1 Athabasca River.

2                   So the current plan is that the  
3 project only use the volume of water diverted from  
4 Athabasca River into the upstream storage pond, and  
5 the plan is not to use any water in terms of volume  
6 amounts from the Big Creek diversion.

7                   MS LaCASSE: So just back to my  
8 question, though, has Teck considered the option of  
9 applying for *Water Act* licence for the Big Creek water  
10 at a later date?

11                   DR. JOHNSTONE: Mr. Chair, we have not  
12 because we have made a commitment to an indigenous  
13 community that we would not -- we would not do that.

14                   MS LaCASSE: Thank you. That's  
15 helpful.

16                   DR. JOHNSTONE: Sorry if it wasn't --

17                   MS LaCASSE: No, that's helpful.

18                   So the same document, 293, PDF 55,  
19 which was one of the pages you were probably already  
20 on, I hope. And you may want to look at this page  
21 just to follow along with what I'm about to say.

22                   So Teck acknowledges at this page that  
23 the largest increase in flow in the Big Creek reach  
24 will be from 2021 to 2036 when the increase in flow  
25 will be 23 percent, but Teck is not proposing to

1 divert water around Big Creek at this early stage.

2           Instead, it's proposing to divert the  
3 water from 2037 to 2081 when the increase in flow  
4 would be nine percent. Teck states that a moderate  
5 increase of 23 percent over a short 16-year  
6 operational period is a small risk of change to the  
7 geomorphic conditions of the Big Creek reach, while an  
8 increase of nine percent over a moderate duration of  
9 45 years will result in a moderate risk of geomorphic  
10 change to this reach of the Big Creek.

11           So the question for this panel is, on  
12 what basis did Teck conclude that a nine percent  
13 change in flow for 45 years was an erosion risk that  
14 required significant mitigation effort, but that a 23  
15 percent increase in flow for 16 years was a small risk  
16 that did not require such measures?

17           DR. LONG: Dejang Long.

18           Mr. Chairman, that assessment is  
19 qualitative. The geomorphic assessment typically is  
20 qualitative approach.

21           We recognize the time exposure is  
22 relatively small but also, too, in that response we  
23 did talk about the project commitment to monitor the  
24 flow conditions and also monitor the geomorphic  
25 conditions of the downstream reach of the Big Creek

1 and also use the monitoring information to inform our  
2 assessment prediction.

3 If the monitoring data indicate that  
4 the geomorphic changes are not on the direction that  
5 we are predicting, the project had the option to  
6 advance the diversion. So the Big Creek diversion to  
7 the split flow to the unnamed creek number 2 can be  
8 advanced.

9 So for the project design, we  
10 recognized the potential risk and then had a  
11 monitoring plan in place to monitor it and, if needed,  
12 the diversion can be advanced to manage that potential  
13 risk to the geomorphic impact.

14 MS LaCASSE: Thank you.

15 --- Pause

16 MS LaCASSE: So downstream First  
17 Nations have expressed concerns that the Government of  
18 Alberta's surface water quality matching framework  
19 doesn't include adequate conditions to limit  
20 cumulative and project impacts on navigation in the  
21 Athabasca River in the late summer and early fall.

22 Information has been provided showing  
23 that a river -- river flows around 500 cubic metres  
24 per second described as the Aboriginal extreme flow  
25 disruption to navigation is widespread and extreme.

1                   Teck is proposing a two-stage *Water*  
2 *Act* licence from the Athabasca River with an  
3 allocation of 98 million cubic metres for Stage 1 and  
4 60 million cubic metres for Stage 2, with a maximum  
5 diversion rate of 4.2 cubic metres per second for both  
6 stages.

7                   In most years, Teck is predicting that  
8 the annual diversion volume from the Athabasca will be  
9 30 million cubic metres per year, roughly, or less,  
10 which is equivalent to approximately one cubic metre  
11 per second over a year. And that's coming from  
12 document 293, Teck's response, PDF pages 19 to 20, I  
13 believe.

14                   So the question staff would like to  
15 have answered is, what would be the implication on  
16 Teck's water management operations if, in addition to  
17 the surface water quantity management framework rules,  
18 Teck was limited to, for example, a withdrawal rate of  
19 two cubic metres per second in Stage 1 and one cubic  
20 metre per second in Stage 2 when flows in the  
21 Athabasca are below 500 cubic metres per second?

22                   And yes, I can repeat that.

23 --- Pause

24                   MR. IGNASIAK: Mr. Chairman, while  
25 they're caucusing, just wondering if -- I mean,

1 despite the heroic efforts of everyone involved, I  
2 don't -- it seems to me unlikely we're getting done  
3 tonight unless you tell me otherwise.

4 But -- so I'm just trying to get a  
5 sense of what -- do we have a game plan in terms of  
6 timing just so we can kind of do some logistics back  
7 here?

8 THE CHAIRPERSON: Sure. So I know Ms  
9 LaCasse has a few more questions.

10 Do you have a sense of how much longer  
11 you would be?

12 MS LaCASSE: I'm probably more than  
13 three-quarters of the way through.

14 THE CHAIRPERSON: And then Ms Doebele  
15 has questions.

16 Do you have a sense compared to Ms  
17 LaCasse how many questions you have?

18 MS LaCASSE: Forty-five (45) minutes  
19 to an hour for Ms Doebele.

20 THE CHAIRPERSON: Okay. And Mr.  
21 Birchall?

22 MS LaCASSE: So 30 minutes for Mr.  
23 Birchall.

24 THE CHAIRPERSON: So hour and a half,  
25 two hours, maybe two and a half hours. It's 8

1 o'clock.

2 So what's the will of the people?

3 --- Laughter / Rires

4 THE CHAIRPERSON: The trade-off is you  
5 get tomorrow off if we finish tonight, but it is  
6 getting late and people are getting tired.

7 MR. IGNASIAK: Yeah. We don't know  
8 how many questions the Panel Members have.

9 THE CHAIRPERSON: That's true. The  
10 Panel does have some questions. Not a large number,  
11 but.

12 MR. IGNASIAK: Yeah, maybe we get  
13 through this and then we do another -- well, why don't  
14 we get back to the question and we'll do some chatting  
15 back here quietly?

16 THE CHAIRPERSON: Okay.

17 MR. IGNASIAK: Thank you.

18 --- Pause

19 MR. IGNASIAK: So Mr. Chair, if it's  
20 the will of the Panel and provided our witnesses are  
21 going to remain coherent, we're prepared to press  
22 through if that's the will of the Panel.

23 THE CHAIRPERSON: Okay. I think maybe  
24 we'll try and press on.

25 We will take a break, though. I think

1 we'll need to do that pretty shortly because we've  
2 been going for quite a while.

3 MS LaCASSE: If I could finish this  
4 line of questioning and then take a break.

5 MR. CHIASSON: So this is going to be  
6 a two-part answer. I'm going to start, and Dr.  
7 Johnstone's going to finish.

8 So I'd like to -- I'd like to answer  
9 the question directly. No, we couldn't commit to  
10 doing that.

11 What we have designed the project for  
12 is 4.2 metres per second. That said, we have -- over  
13 the life of the project, we have a plan that will be  
14 amongst -- compared to the average withdrawal use  
15 intensity of the past 17 years of two and a half,  
16 we'll be at 1.9 metres cubed per barrel intensity  
17 relative to the average of two and a half. We think  
18 that that's very good.

19 We're not going to rest on our  
20 laurels, and we're going to continue to try to improve  
21 that.

22 But the current design basis includes  
23 four or more months' worth of off-stream storage  
24 capacity, so we think it's a very responsible design  
25 and with significant spend, but we're going to

1 continue to try to improve on that water use  
2 intensity.

3 And we have made some commitments to  
4 First Nations with respect to extreme flow conditions  
5 in the river, and I'd ask Dr. Johnstone to add to my  
6 comments.

7 DR. JOHNSTONE: Yes. So I would just  
8 refer the Panel to the two documents, the August 31st  
9 submission by Mikisew Cree First Nation, page 36 of  
10 that document, PDF 40. And also the ACFN document  
11 joint submission, and that is in Section 3.3 regarding  
12 water quantity and Aboriginal extreme flow where we  
13 commit to really working to avoid taking water from  
14 the river during periods of low flow.

15 MS LaCASSE: So staff is wondering if  
16 it would be correct that if Teck focuses its peak  
17 withdrawals during the months of May, June and July  
18 that Teck shouldn't need to withdraw water from the  
19 Athabasca at a rate close to its maximum diversion  
20 rate during September and October except during a  
21 small number of years when short-term peak demands  
22 align with the low flow year?

23 MR. CHIASSON: Mr. Chairman, it's  
24 likely possible, but it's not guaranteed. And with  
25 that in mind, we're not willing to commit to that.

1                   To Dr. Johnstone's comments, we have  
2 made commitments to make best efforts and incorporate  
3 it into planning, and we certainly are prepared to do  
4 that. But to make a commitment that we could limit  
5 flows, we can't do that.

6 --- Pause

7                   MS LaCASSE: In the joint conditions  
8 contained in document 497 from MCFN's August 31st  
9 appendix -- or August 31st submission, Appendix 2,  
10 there are several references to avoiding or minimizing  
11 water intake when indigenous base flow is not met.

12                   So we'd like to know what Teck's  
13 understanding of minimizing to mean here and in the  
14 other conditions to which Teck's agreed.

15                   MR. CHIASSON: I think we may have  
16 solved the issue here.

17                   So when -- when talking about  
18 "minimize", we're looking at trying to minimize the  
19 windows where we do withdraw the water from the river  
20 to take into account concerns and feedback from  
21 indigenous communities.

22                   So it's not to slow it down, but it's  
23 to minimize when we take it. So that's where we're  
24 having difficulty with the 4.2 metres cubed per  
25 second, is we would actually need to leverage that to

1 be able to take water from the river less frequently  
2 during high flow times to live up to our commitments  
3 to make best efforts to not take water from the  
4 Athabasca to the degree we can during lower flow  
5 times.

6 MS LaCASSE: This would be an  
7 appropriate spot to take a break.

8 THE CHAIRPERSON: Okay. We'll take 20  
9 minutes, give people a chance to stretch and shake a  
10 little bit. It's 8:20, so we'll come back at 8:40.

11 --- Upon recessing at 2018 / Suspension à 2018

12 --- Upon resuming at 2039 / Reprise à 2039

13 THE CHAIRPERSON: So I understand we  
14 may have a change in plans.

15 Mr. Ignasiak.

16 MR. IGNASIAK: Yeah. We apologize,  
17 Mr. Chairman, but there's some serious commitments  
18 conditions being talked about. There's some  
19 potentially big ramifications to some of the answers  
20 being given and, you know, it is late. It has been a  
21 very long week and very long day, so we think it would  
22 probably be the responsible thing to do given kind of  
23 the important issues we're talking about that we give  
24 everyone a chance to catch up on some sleep and start  
25 fresh.

1 THE CHAIRPERSON: Yeah. No, I would  
2 agree with that. I think wise decision.

3 So question, do we want to start  
4 tomorrow at 9:00 or would you prefer a slightly later  
5 start at 10:00?

6 MR. IGNASIAK: I think if we have  
7 three or four hours, I think 10:00 -- I think I'd be  
8 popular if I said 10:00.

9 --- Laughter / Rires

10 THE CHAIRPERSON: Okay. Well, that's  
11 important for you, so.

12 Okay. So hearing no objections, let's  
13 resume tomorrow morning at 10 o'clock. And thank you  
14 for your endurance today.

15 So we're done till tomorrow.

16 --- Whereupon the hearing adjourned at 2041, to resume  
17 on Saturday, September 29, 2018 at 1000 /

18 L'audience est ajournée à 2041, pour reprendre  
19 le samedi 29 septembre 2018 à 1000

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