

NUNAVUT IMPACT REVIEW BOARD'S HEARING REGARDING THE
REVIEW OF AGNICO EAGLE MINES LIMITED'S
WHALE TAIL PIT PROJECT PROPOSAL

FILE: 16MN056

HEARING HELD AT
BAKER LAKE, NUNAVUT
VOLUME 3
SEPTEMBER 21, 2017

1 APPEARANCES:

2

3 NUNAVUT IMPACT REVIEW BOARD

4 E. Copland Chair

5 G. Alikut Member

6 P. Kadlun Member

7 K. Kaluraq Member

8 A. Maghagak Member

9 H. Ohokannoak Member

10

11 NUNAVUT IMPACT REVIEW BOARD STAFF

12 R. Barry Executive Director

13 S. Granchinho Manager of Impact Assessment

14 T. Maksagak Junior Technical Advisor

15 S. Taptuna Outreach Coordinator

16 T. Meadows Legal Counsel

17

18 PROPONENT AGNICO EAGLE MINES LIMITED

19 I. Amarook Meadowbank Employee

20 G. Bigue Human Resource Coordinator

21 D. Gerard Vice president, Nunavut

22 M. Groleau Geotechnical Coordinator

23 L. Grondin Senior Vice President,

24 Environment, Sustainable

25 Development and People

26 S. Leclair Superintendant, Community

1		Relations
2	K. Mayrand	Human Resources Assistant
3		Superintendent
4	B. Paradis	General Manager
5	F. Pertrucci	Study Manager, Mining
6	J. Quesnel	Environmental Superintendent
7	C. Ramcharan	Senior Coordinator, IIBA
8	C. Squires	Community Relations
9	R. Vanengen	Environmental Superintendent
10	E. Voyer	Principal Geotechnical
11		Engineer
12	K. Yip	Community Affairs Coordinator
13	V. Bertrand	Consultant (Golder Associates)
14	C. De La Mare	Consultant (Golder Associates)
15	C. Prather	Consultant (Golder Associates)
16	J. Range	Consultant (Golder Associates)
17	J. Virgl	Consultant (Golder Associates)
18	C. Kowbel	Legal Counsel
19	B. Armstrong	Legal Counsel
20		
21	INTERVENORS	
22		
23	BAKER LAKE HUNTERS AND TRAPPERS ORGANIZATION	
24	R. Aksawnee	Chairperson
25	H. Nateela	Manager
26	W. Bernauer	Consultant

1 DEPARTMENT OF FISHERIES AND OCEANS CANADA

2 M. D'Aguiar Senior Fisheries Protection
3 Biologist

4 B. Ross Senior Science Advisor

5 L. Watkinson Fisheries Protection Biologist

7 DEPARTMENT OF JUSTICE

8 S. Gruda-Dolbec Legal Counsel

10 ENVIRONMENT AND CLIMATE CHANGE CANADA

11 B. Asher Air Quality Analyst

12 T. Auser Project Officer, Water Quality

13 M. Pinto Environmental Assessor, EA
14 Coordinator

16 GOVERNMENT OF NUNAVUT

17 K. Johnson Environmental Assessment
18 Coordinator, Department of
19 Economic Development and
20 Transportation

21 L. Perrin Project Manager, Impact
22 Assessment, Department of
23 Environment

24 S. Pinksen Assistant Deputy Minister,
25 Department of Environment

26 A. Robinson Manager, Land Use Planning and

1		Environmental Assessment,
2		Department of Environment
3	E. Zell	Avatiliriniq Coordinator
4	S. Atkinson	Wildlife Consultant
5	E. Stockley	Legal Counsel
6		
7	INDIGENOUS AND NORTHERN AFFAIRS CANADA	
8	A. Belanger	Water Resources Analyst
9	K. Costello	Director, Resource Management
10	J. Neary	Resource Management Officer
11	I. Parsons	Manager, Water Resources
12	J. Prokopick	Environmental Assessment
13		Coordinator
14	R. Theoret-Gosselin	Senior Environmental
15		Assessment Coordinator
16	T. Brown	Consultant (Arcadis)
17	R. Knapp	Consultant
18		
19	KIVALLIQ INUIT ASSOCIATION	
20	G. Garlik	Executive Director
21	J. Hart	Land and Water Inspector
22	L. Manzo	Director of Lands
23	J. Tulugak	Land and Water Inspector
24	K. Poole	Biology Consultant
25	A. Sexton	Geology Consultant
26	K. Gilson	Legal Counsel

1 NATURAL RESOURCES CANADA

2 R. Besner Senior Environmental
3 Assessment Officer

4

5 NORTHERN PROJECTS MANAGEMENT OFFICE

6 L. Jonart Project Manager

7

8 TRANSPORT CANADA

9 S. Sadoway Manager, Transport Canada
10 Centre, Marine Safety

11

12 COMMUNITY REPRESENTATIVES

13 J. Kalluk Baker Lake

14 L. Quinangnaq Baker Lake

15 L. Tapatai Baker Lake

16

17 W. Gibbons Arviat

18 L. Issumatarjuak Arviat

19 A. Panigoniak Sr. Arviat

20 J. Pingushat Arviat

21

22 H. Aggark Chesterfield Inlet

23 P. Aggark Chesterfield Inlet

24 E. Kimmaliardjuk Chesterfield Inlet

25 J. Krako Chesterfield Inlet

26 R. Kreealak Qiyuk Chesterfield Inlet

1	A. Tautu	Chesterfield Inlet
2		
3	P. Pudlat	Coral Harbour
4		
5	R. Angotealuk Jr.	Naujaat (Repulse Bay)
6	L. Mablik Nakoolak	Naujaat (Repulse Bay)
7	A. Nanordluk	Naujaat (Repulse Bay)
8	M. Tuktudjuk	Naujaat (Repulse Bay)
9		
10	M. Hickes	Rankin Inlet
11	C. Tartak	Rankin Inlet
12	I. Tattuinee	Rankin Inlet
13	J. Tattuinee	Rankin Inlet
14		
15	A. Poksiak Turner	Whale Cove
16		
17	INTERPRETERS/TRANSLATORS	
18	C. Qaqimat	Inuktitut Translator
19	L. Taparti	Inuktitut Translator
20	J. Tucktoo-Lacasse	Inuktitut Translator
21		
22	S. Anderson, CSR(A)	Court Reporter
23	E. Royal, CSR(A)	Court Reporter
24		
25	W. Nicoll	Sound Technician
26		

TABLE OF CONTENTS

2		
3	Description	Page
4		
5	Motions/Objections	372
6		
7	Agnico Eagle Mines Limited Responds to	374
8	Deferred Questions	
9		
10	Presentation by Agnico Eagle Mines Limited	379
11	(Predevelopment Application)	
12		
13	Comments by Baker Lake Hunters and	383
14	Trappers Organization	
15		
16	Indigenous and Northern Affairs Canada	387
17	Questions Agnico Eagle Mines Limited	
18		
19	Comments by Nunavut Water Board	389
20		
21	JEFF HART, LUIS MANZO, KIM POOLE, Affirmed	393
22		
23	Presentation by Kivalliq Inuit Association	393
24		
25		
26		

1	TABLE OF CONTENTS	
2		
3	Description	Page
4		
5	Baker Lake Hunters and Trappers	400
6	Organization Questions Kivalliq Inuit	
7	Association	
8		
9	Comments by Government of Nunavut	406
10		
11	Comments by Agnico Eagle Mines Limited	408
12		
13	Nunavut Impact Review Board Staff	409
14	Questions Kivalliq Inuit Association	
15		
16	Nunavut Impact Review Board Questions	413
17	Kivalliq Inuit Association	
18		
19	WARREN BERNAUER, RICHARD AKSAWNEE, HUGH	418
20	NATEELA, Affirmed	
21		
22	Presentation by Baker Lake Hunters and	418
23	Trappers Organization	
24		
25	Comments by Indigenous and Northern	428
26	Affairs Canada	

1	TABLE OF CONTENTS	
2		
3	Description	Page
4		
5	Comments by Agnico Eagle Mines Limited	429
6		
7	Nunavut Impact Review Board Staff	430
8	Questions Baker Lake Hunters and Trappers	
9	Organization	
10		
11	Nunavut Impact Review Board Questions	431
12	Baker Lake Hunters and Trappers	
13	Organization	
14		
15	Comments by Agnico Eagle Mines Limited	438
16		
17	STEVE PINKSEN, STEPHEN ATKINSON, Affirmed	439
18		
19	Presentation by Government of Nunavut	439
20		
21	Kivalliq Inuit Association Questions	445
22	Government of Nunavut	
23		
24	Baker Lake Hunters and Trappers	446
25	Organization Questions Government of	
26	Nunavut	

1	TABLE OF CONTENTS	
2		
3	Description	Page
4		
5	Nunavut Impact Review Board Questions	449
6	Government of Nunavut	
7		
8	TRISH AUSER, MELISSA PINTO, BRIAN ASHER,	456
9	Affirmed	
10		
11	Presentation by Environment and Climate	457
12	Change Canada	
13		
14	Nunavut Impact Review Board Questions	473
15	Environment and Climate Change Canada	
16		
17	MARK D'AGUIAR, BEVERLEY ROSS, Affirmed	479
18		
19	Presentation by Fisheries and Oceans	480
20	Canada	
21		
22	Agnico Eagle Mines Limited Questions	496
23	Fisheries and Oceans Canada	
24		
25	Nunavut Impact Review Board Staff	496
26	Questions Agnico Eagle Mines Limited	

TABLE OF CONTENTS

1		
2		
3	Description	Page
4		
5	Nunavut Impact Review Board Staff	498
6	Questions Fisheries and Oceans Canada	
7		
8	Nunavut Water Board Questions Fisheries	498
9	and Oceans Canada	
10		
11	Nunavut Impact Review Board Questions	500
12	Fisheries and Oceans Canada	
13		
14	Agnico Eagle Mines Limited Responds to	506
15	Deferred Questions	
16		
17	Nunavut Impact Review Board Questions	507
18	Agnico Eagle Mines Limited	
19		
20	KAREN COSTELLO, RACHEL THEORET-GOSSELIN,	511
21	Affirmed	
22		
23	Presentation by Indigenous and Northern	511
24	Affairs Canada	
25		
26		

1	TABLE OF CONTENTS	
2		
3	Description	Page
4		
5	Baker Lake Hunters and Trappers	536
6	Organization Questions Indigenous and	
7	Northern Affairs Canada	
8		
9	Agnico Eagle Mines Limited Questions	542
10	Indigenous and Norther Affairs Canada	
11		
12	Nunavut Water Board Questions Indigenous	544
13	and Northern Affairs Canada	
14		
15	Nunavut Impact Review Board Questions	545
16	Indigenous and Northern Affairs Canada	
17		
18	RACHELLE BESNER, Affirmed	551
19		
20	Presentation by Natural Resources Canada	552
21		
22	Natural Resources Canada Responds to	560
23	Deferred Questions	
24		
25	CANDACE RAMCHARAN, BERTIN PARADIS, KAREN	563
26	YIP, Affirmed	

TABLE OF CONTENTS

Description	Page
Presentation by Agnico Eagle Mines Limited (Introduction and Overview - Community Roundtable)	564
Community Roundtable	598
Government of Nunavut Responds	607
Certificate of Transcript	614
Exhibit Index	615

1 (PROCEEDINGS COMMENCED AT 9:06 AM)

2 THE CHAIR COPLAND: Good morning, everybody. This
3 morning is Thursday. I don't remember what number it
4 is. Before we start, I'm going to ask Mary Tukturjuk
5 to open the meeting with a prayer. Will somebody hand
6 a mic to Mary Tukturjuk, please, or show her where to
7 go. Thank you.

8 (OPENING PRAYER)

9 THE CHAIR: Thank you. Yesterday I
10 mentioned I'm Elizabeth Copland. I'm the Chairperson
11 for the Nunavut Impact Review Board and the rest of the
12 Board. We are here to listen to Agnico Eagle's wishes
13 to open up Whale Tail area.

14 There are listening equipment. If you need
15 interpretation equipment, just get one.

16 Please turn off your cell phones or put on silent
17 mode. Today we will continue the technical sessions
18 with the -- with presentations from our registered
19 intervenors. Following that, we will begin the
20 community roundtable. During this community roundtable
21 and -- members of the general public, they will have
22 opportunity to ask questions directly to the proponent
23 and intervenors.

24 The people sitting around the table, we're going
25 to hear their presentations first, and then this
26 afternoon, the people that are here from the

1 communities will be able to sit at the table and ask
2 questions. Right now let's listen to the
3 presentations. Write down your questions so you won't
4 forget. Don't be shy. Don't be scared. You'll be
5 able to ask any questions that you hear from the
6 presentations. Representatives from the community will
7 sit around the table this afternoon.

8 We'll hear the formal presentations from
9 intervenors today. I would like to canvass the parties
10 here to ensure there are no objections to eliminating
11 the presentations from registered intervenors from the
12 community roundtable portion of the agenda.

13 And I will go around the table. I'll go -- I'll
14 ask Kivalliq Inuit Association.

15 Motions/Objections

16 MS. GILSON: Good morning, Madam Chair.
17 Kimberley Gilson, Kivalliq Inuit Association. No
18 objection.

19 THE CHAIR: Thank you.

20 Baker Lake Hunters and Trappers Organization.

21 MR. AKSAWNEE: Thank you, Madam Chair.
22 Richard Aksawnee, Baker Lake Hunters and Trappers. No
23 objection.

24 THE CHAIR: Government of Nunavut.

25 MR. PINKSEN: Thank you. Steve Pinksen,
26 Government of Nunavut. No objections.

1 THE CHAIR: Environment and Climate Change
2 Canada.

3 MS. PINTO: Thank you, Madam Chair.
4 Melissa Pinto, Environment and Climate Change Canada.
5 We have no objections as well.

6 THE CHAIR: Thank you.
7 Fisheries and Oceans Canada.

8 MR. D'AGUIAR: Thank you, Madam Chair. Mark
9 D'Aguiar, Fisheries and Oceans Canada. We have no
10 objections.

11 We just want to let everyone know that our marine
12 mammal biologist will be coming in tonight, so for any
13 questions related to that, we won't have answers until
14 tomorrow. Thank you.

15 THE CHAIR: Thank you.
16 Indigenous and Northern Affairs Canada.

17 MR. GRUDA-DOLBEC: Yes. Simon Gruda-Dolbec for
18 the Department of Justice. There are no objections
19 from the Government of Canada in general.

20 THE CHAIR: Thank you.
21 Natural Resources Canada.

22 MS. BESNER: Rachelle Besner, Natural
23 Resources Canada. I have no objections.

24 THE CHAIR: Transport Canada.

25 MR. SADOWAY: Thank you. Shane Sadoway,
26 Transport Canada. No objections.

1 THE CHAIR: Thank you. All is good.

2 Okay. And we will update the agenda to reflect
3 that we made changes or whatever, so we'll get back to
4 that.

5 Just before the presentations from registered
6 intervenors, we will turn to Agnico Eagle for their
7 final presentation by the proponent regarding its
8 application to the Nunavut Impact Review Board for
9 exemptions from review for specific development or
10 exploration activities, and I would like to invite them
11 to provide responses to any deferred questions at this
12 time.

13 Agnico Eagle.

14 Agnico Eagle Mines Limited Responds to Deferred
15 Questions

16 MR. QUESNEL: Thank you, Madam Chair. Jamie
17 Quesnel.

18 The one deferred question was related to water use
19 for dust suppressants, the number based on the volume
20 of water used per kilometre. So based on the practices
21 at Meadowbank utilizing the trucks that we used for
22 spraying water on the haul roads, we use 7 cubic metres
23 per kilometre.

24 Dealing with the question regarding the fuel
25 spills with the transfer from the boat to land, just a
26 couple of clarifications. The fuel spill in 2017 in

1 Rankin was related to the community resupply and not
2 our project. And, also, to confirm the major -- was
3 classify [sic] as a major spill in Baker Lake, and the
4 only information we have was from 2012, which was 200
5 litres. So I just wanted to confirm those are the two
6 spills we're talking about.

7 MR. BARRY: Thank you, Madam Chair. Ryan
8 Barry, Nunavut Impact Review Board staff.

9 Yes, that's correct. And apologies for
10 mislabelling the spill in Rankin Inlet. We do
11 recognize the spill that we were referencing was
12 associated with regular community resupply; however,
13 our concern with regards to the likelihood of spills
14 still remains.

15 MR. QUESNEL: Yeah. Thank you, Madam Chair.

16 Thank you for that clarification. Yeah. So based
17 on the spills and basely on our classification on a
18 likelihood of a spill as unlikely is based on the
19 controls that we have in place related to these
20 transfers, the procedures, the spill plans that we
21 have, the training, and the effectiveness of these
22 controls to ensure these events do not occur.

23 These events have happened. These -- these spills
24 were very isolated, based on the number of transfers
25 that does occur at Baker Lake and also in Rankin for
26 the communities, but we have in place a robust

1 management system that looks at these aspects of
2 transfer. We look at our procedures. And based on
3 even the 2012 events, we wouldn't classify it as a
4 major spill. It's 200 metres. We looked at that
5 spill, investigated that spill with the -- with the
6 shipping company, improved upon our procedures, and
7 lessons learned were implemented into the controls.

8 So we feel, based on these unfortunate events,
9 based on our experience of improving, our robust
10 management systems, the likelihood of this event -- it
11 still remains unlikely based on our effectiveness of
12 the controls. Thank you.

13 MR. VANENGEN: Madam Chair, Ryan Vanengen
14 with Agnico Eagle. The other deferred question was
15 related to -- was Kaviq's question -- Board Member
16 Kaviq's question, which was how far away would a human
17 be to be able to hear the road?

18 And just to give a little bit of background, our
19 background noise is 30 decibels, so if you're out at
20 tundra, we would set up our noise-monitoring equipment,
21 and it's at 30 decibels, and that would account for the
22 wind, as well as birds, as well as ground squirrels or
23 any other activity near the noise meter in the summer.
24 So that's 30 decibels, and that's reported in our
25 Volume 4 of the EIS.

26 At a 7-kilometre distance from the Whale Tail Pit

1 site, we're -- our noise modelling predicts that we
2 would be back to background. So 7 kilometres away, you
3 would be back to background where you'd only hear the
4 wind, the birds, and the other activities near the
5 noise meter.

6 At 2.5 kilometres from the site, you would hear
7 noise at a level of 40 decibels, which, as my colleague
8 Jamie shared yesterday, is about the same decibel level
9 as your refrigerator humming. So that's at
10 2-and-a-half kilometres from our Whale Tail Pit site.
11 And we used our Whale Tail Pit site for our noise
12 modelling because it's kind of the worst-case scenario
13 for noise, and we assumed that same noise model for
14 along the haul road.

15 So to directly answer your question, at
16 7 kilometres away from the road, the haul road, you'll
17 be back to background noise levels where you only hear
18 the wind and the other animals nearby.

19 Mat'na.

20 MR. DE LA MARE: Thank you, Madam Chair. I
21 believe the -- the last deferred question was in
22 response to the Baker Lake Hunters and Trappers
23 Organization related to how we determine significant
24 effects to marine mammals.

25 So as suggested -- or as pointed out yesterday on
26 the slides, the volume of shipping traffic for the

1 Whale Tail Project is -- will be the same as it
2 currently is. The assessment end point that we've
3 defined for marine mammals and marine fish is
4 self-sustaining and ecologically effective marine
5 wildlife populations and ongoing marine fisheries
6 productivity. Through an analysis of the project
7 pathway -- so how the project might interact with these
8 components, such as marine mammals and marine fish, it
9 was determined that there are no significant adverse
10 effects to marine mammals and marine fish, and all of
11 that information can be found in Volume 3,
12 Appendix 3(a).

13 MR. QUESNEL: Thank you, Madam Chair. And I
14 think this is the last deferred question. It was
15 related to the modifications of the lights on the
16 shipping vessel, and the question was from Transport
17 Canada.

18 We spoke to our logistics team last night. Just
19 to clarify, the only changes that occurred were on the
20 cargo deck to new exploration-proof fixtures, and that
21 was all based on respect of all regulations with
22 Transport Canada. So those are the only changes that
23 did occur. Thank you.

24 THE CHAIR: Thank you. You may proceed
25 with your last presentation.

26 Legal counsel?

1 MS. MEADOWS: Thank you, Madam Chair.
2 Teresa Meadows, legal counsel for the Nunavut Impact
3 Review Board. And so I have this presentation to be
4 filed as the next exhibit in these hearings.
5 Thank you, Madam Chair. Those are my matters.

6 EXHIBIT 19 - Agnico Eagle hard copy
7 PowerPoint presentation entitled
8 "Predevelopment Application"
9 (English/Inuktitut)
10 Presentation by Agnico Eagle Mines Limited
11 (Predevelopment Application)

12 MR. VANENGEN: Ryan Vanengen from Agnico
13 Eagle. Good morning, Board members and Madam Chair.
14 For the next five minutes, I'll be presenting on our
15 predevelopment application and our NIRB exemption.

16 On July 14th, Agnico Eagle submitted an
17 application to NIRB and the Nunavut Water Board for a
18 predevelopment and site preparation exemption. That
19 includes a Type B water licence application and a
20 request for exemption under NuPPAA.

21 Agnico Eagle has applied for a Nunavut Impact
22 Review Board exemption to ensure the gap between the
23 end of production and mining at the Meadowbank mine and
24 commencement of predevelopment activities at Whale Tail
25 Pit is limited to the extent possible to ensure
26 employment continuity in Nunavut.

1 We actually acknowledge that permission to proceed
2 with predevelopment is not an indicator of the Board's
3 ultimate decision on the Whale Tail Pit Project itself,
4 and we are asking for the predevelopment decision by
5 the end of November or -- or mid-November and might be
6 issued simultaneously with the Nunavut Impact Review
7 Board's final hearing report for the Whale Tail Pit
8 Project.

9 In summary, the exemption application includes the
10 predelivery of material; the construction of a lay-down
11 area that are in the future will be the Whale Tail Pit
12 camp, construction of service roads, so these lines in
13 darker green and these areas here, as well as these
14 areas here; the construction of the Mammoth crossing,
15 which is here; the expansion of the exploration access
16 road to a haul road to ensure safe delivery of material
17 and equipment. That's expanding the road from the
18 Amaruq exploration site to Meadowbank, expanding that
19 from 6-and-a-half to 9-and-a-half metres. Quarrying at
20 this quarry here called "Quarry 2"; and construction of
21 the waste rock berm located on this figure here. And
22 the startings of the construction of our sump and berms
23 to make sure waste in the future is collected within
24 the sump.

25 The list on this slide summarizes what I just
26 spoke to. It is important to note that all of the

1 facilities and activities included in the exception
2 application would be used to support continued
3 exploration activity in the event that the Whale Tail
4 Pit Project is not approved by NIRB.

5 So just to describe what that means is that our
6 exploration team will use the series of roads to
7 continue exploration drilling and use this quarry to
8 build those roads to continue exploration drilling
9 within the area in the case that the Whale Tail Pit
10 Project is not approved.

11 Agnico Eagle believes that the proposed
12 predevelopment activities and Nunavut Impact Review
13 Board exemption will greatly help the site preparation
14 for construction, reduce the risk of employment loss,
15 and does not have a significant adverse environmental
16 and ecosystemic impact. The scale of the project is
17 evidently small. Predevelopment closure costs are
18 estimated at \$714,000 as compared to our Whale Tail Pit
19 Project, which is estimated at \$26.2 million. So that
20 just gives you an idea of the scale of this project
21 that we're proposing under predevelopment -- or the
22 activities under predevelopment as compared to the
23 Whale Tail Pit Project. It's very small in its scale.

24 Given the scale of the project and the impacts
25 that are predictable and can be mitigated by keeping
26 the site footprints small and utilizing the facilities

1 that are approved under advanced exploration, we
2 believe that the impacts are not significant.

3 Mat'na.

4 THE CHAIR: Thank you.

5 Right now we just heard the last presentation.
6 We'll try and keep it short. I'm sure this afternoon
7 we'll have the community roundtable, but we're going to
8 hear the people around the table, what they think on
9 that last presentation and how we're going to proceed
10 from here.

11 We will now proceed to the technical presentations
12 from registered intervenors starting the Kivalliq Inuit
13 Association, but we'll start off with our legal
14 counsel.

15 Kivalliq Inuit Association, if you can give your
16 presentation.

17 Questions on the presentation from the Kivalliq
18 Inuit Association.

19 Ryan, clarify yourself.

20 MR. BARRY: Apologies, Madam Chair. Ryan
21 Barry, Nunavut Impact Review Board staff.

22 We have time on the agenda for questions on this
23 presentation from Agnico Eagle around the table before
24 we go into the presentation from the Kivalliq Inuit
25 Association.

26 THE CHAIR: That's why I went to Kivalliq

1 Inuit Association asking them first if they have a
2 question on the presentation. Is that what you're
3 asking? Okay.

4 MR. MANZO: Thanks, Madam Chair. Luis
5 Manzo, Kivalliq Inuit Association. We don't have
6 questions on the proponent presentation. Thank you.

7 THE CHAIR: Baker Lake Hunters and
8 Trappers Organization.

9 Comments by Baker Lake Hunters and Trappers
10 Organization

11 MR. BERNAUER: Thank you, Madam Chair.
12 Warren Bernauer for the Baker Lake Hunters and Trappers
13 Organization. I don't have a question, but I have a
14 comment on the presentation.

15 Now, initially, the Baker Lake HTO opposed this
16 exemption application in a submission to NIRB, and the
17 HTO is very concerned about the precedent it could set.
18 There's many cases where aboriginal communities' rights
19 have been eroded because companies were allowed to
20 begin construction on projects before assessments were
21 complete and community support was obtained.

22 However, after further discussion with AEM, the
23 HTO believes that this concern can be addressed through
24 a term and condition in the exemption order, and AEM
25 has agreed to refrain from making arguments that the
26 Whale Tail Project should be approved because of money

1 spent on predevelopment activities during both the NIRB
2 review and ministerial approval. And as a result, the
3 Baker Lake HTO now supports this exemption application
4 and recommends the NIRB approve the exemption
5 application with a term requiring AEM to refrain from
6 making arguments about sump costs during approval.

7 And the HTO has submitted a letter to NIRB
8 indicating support for this exemption application in
9 the Whale Tail Project, which I submitted to NIRB staff
10 yesterday, and legal counsel may want to mark as an
11 exhibit. Thank you.

12 THE CHAIR: Legal counsel?

13 MS. MEADOWS: Thank you, Madam Chair.

14 Teresa Meadows, legal counsel for the Nunavut Impact
15 Review Board.

16 So for the benefit of the participants who are in
17 the audience and may not have seen the written
18 materials associated with what is called an "exception
19 from review", there is a process under the Nunavut
20 Agreement, which is what is being requested here, and
21 that is, in advance of the conclusion of the Board's
22 review of a main project, certain activities may be, if
23 granted the exception from review by the Nunavut Impact
24 Review Board, may be allowed to proceed that are
25 considered to be predevelopment works only.

26 The ability of the proponent -- so Agnico Eagle in

1 this case -- to proceed if an exception is granted --
2 there is a recognition that those activities, should
3 the project not be allowed to proceed ultimately --
4 that those activities would be reclaimed and that those
5 activities would not mean that the main project would
6 proceed because there were the smaller activities --
7 predevelopment activities allowed to proceed.

8 So the -- what is being requested here is
9 absolutely permitted under the Nunavut Agreement and
10 under the Nunavut Planning and Project Assessment Act,
11 but there is a recognition that those activities would
12 have to be reclaimed if the main project was not
13 approved.

14 So the concerns, I think, of the Baker Lake HTO
15 are probably shared by many of the community members,
16 if they were concerned that this would in some way mean
17 that the Board had no choice but to approve in the
18 event that they approved these exception activities
19 precedent.

20 So with that lengthy explanation, we have received
21 a copy of the letter that's referenced by the Baker
22 Lake Hunters and Trappers Organization, and it is
23 addressed to Madam Chair and to Dr. Carolyn Bennett,
24 the Minister of Indigenous and Northern Affairs Canada.
25 I have shown it to my colleagues. Legal counsel have
26 indicated to me they have no objections to this being

1 filed as the next exhibit in this public hearing, and
2 so we will file it as the next exhibit.

3 But if there are any members of the public or
4 members who -- participants who have not seen the
5 letter, please feel free to come and take a look at it.
6 I've got the hard copy exhibit with me.

7 Thank you, Madam Chair.

8 EXHIBIT 20 - Agnico Eagle hard copy
9 correspondence dated September 20, 2017, from
10 the Baker Lake Hunters and Trappers
11 Organization to the Chair of the Nunavut
12 Impact Review Board and the Minister of
13 Indigenous and Northern Affairs Canada
14 regarding the proposed Whale Tail mine
15 (English)

16 THE CHAIR: Thank you.

17 Government of Nunavut.

18 MR. PINKSEN: Thank you. Steve Pinksen,
19 Government of Nunavut. We have no questions on this
20 issue.

21 THE CHAIR: Thank you.

22 Any questions from Environment and Climate Change
23 Canada?

24 MS. PINTO: Thank you, Madam Chair.
25 Melissa Pinto, Environment and Climate Change Canada.
26 We have no questions at this time.

1 THE CHAIR: Fisheries and Oceans Canada.

2 MR. D'AGUIAR: Mark D'Aguiar, Fisheries and
3 Oceans Canada. We have no concerns or questions.

4 THE CHAIR: Indigenous and Northern
5 Affairs Canada.

6 Indigenous and Northern Affairs Canada Questions Agnico
7 Eagle Mines Limited

8 MS. THEORET-GOSSELIN: Rachel Theoret-Gosselin for
9 Indigenous and Northern Affairs Canada.

10 I have a small question that is not just related
11 to the presentation but to the exception request
12 itself. So should the pre-construction work start as
13 early as fall 2017 as requested, when would the
14 proponent envision to produce the committed updates
15 and/or documents that are scheduled prior to
16 construction? So in other word, when would the date
17 line would be drawn between pre-construction work and
18 construction? Thank you.

19 MR. VANENGEN: Ryan Vanengen from Agnico
20 Eagle. The -- or, Madam Chair, may I speak?

21 Ryan Vanengen from Agnico Eagle. The date that
22 we've been discussing with INAC is related to -- in
23 most of the conditions that we've been discussing
24 recently, we've made a statement where it would be
25 prior to operations, which would be -- we're
26 forecasting, depending permitting, to be July 2019.

1 When we refer to "construction", what we're
2 referring to -- the start of construction, what we
3 refer to as -- is June 2018 when we begin the dike
4 construction. So all of the activities before that, in
5 our view, is considered predevelopment. Then we
6 anticipate receiving the Type A water licence in
7 June 2018, and as soon as we begin construction of the
8 Whale Tail dike, we deem that the beginning of our
9 construction of the Whale Tail Pit Project.

10 So I hope that clarifies things.

11 MS. THEORET-GOSSELIN: Rachel Theoret-Gosselin from
12 Indigenous and Northern Affairs Canada.

13 Thank you. It does clarify.

14 THE CHAIR: Thank you.

15 Natural Resources Canada.

16 MS. BESNER: Rachelle Besner, Natural
17 Resources Canada. I have no questions.

18 THE CHAIR: Transport Canada.

19 MR. SADOWAY: Thank you. Shane Sadoway,
20 Transport Canada. No questions.

21 THE CHAIR: Any questions from the Nunavut
22 Impact Review Board staff?

23 MR. BARRY: Thank you, Madam Chair. Ryan
24 Barry, Nunavut Impact Review Board staff. No
25 questions.

26 THE CHAIR: Nunavut Water Board.

1 Comments by Nunavut Water Board

2 MR. KHARATYAN: Thank you, Madam Chair. Karen
3 Kharatyan, Water Board.

4 Just one small comment, please, for everyone's
5 information, that -- in the case Nunavut Impact Review
6 Board grants the exception, Nunavut Water Board may be
7 able to issue a short-term licence that is not to be
8 renewed. This is according to Nunavut Agreement.

9 Thank you.

10 THE CHAIR: Legal counsel.

11 MS. MEADOWS: Thank you, Madam Chair.

12 Teresa Meadows, legal counsel for the Nunavut Impact
13 Review Board and legal counsel, occasionally, for the
14 Nunavut Water Board as well.

15 So I can confirm Karen's statement that if there
16 is an exception granted again under the existing
17 legislation governing the Nunavut Water Board, that the
18 Nunavut Water Board would be able to issue a short-term
19 licence that would not be subject to renewal for the
20 exception activities, and there could be security --
21 reclamation security also required to be posted by the
22 Nunavut Water Board for the reclamation of those works
23 as well.

24 So good point, Karen, and I thought I would just
25 add the security provisions as well. Thank you,
26 Madam Chair.

1 THE CHAIR: Thank you.

2 Any questions from the Board from their -- from
3 Agnico Eagle's last presentation? Thank you.

4 Okay. Now we're ready, too, for the Kivalliq
5 Inuit Association's presentation.

6 MR. ARMSTRONG: Madam Chair, Brad Armstrong
7 for Agnico. Just before we do that, I wonder whether
8 we could just have a few minutes' break because we may
9 have a further document to file confirming some
10 commitments which have been agreed to. But we just
11 need a few minutes to confer on that if we could.

12 THE CHAIR: Okay. Let's take a short
13 five-minute break.

14 (ADJOURNMENT)

15 THE CHAIR: Okay. Let's get back to the
16 hearing. We took a little more than five minutes.

17 Okay. Agnico Eagle, go ahead.

18 MR. ARMSTRONG: Thank you, Madam Chair. Brad
19 Armstrong, legal counsel for Agnico Eagle. Madam
20 Chair, we have two documents to file just to complete
21 the presentation. The first is a document with a list
22 of a number of commitments which the company has made
23 in discussion with the Government of Nunavut and in
24 response to the Government of Nunavut recommendations.
25 That is the first document. And the second document is
26 a shorter list of commitments which have been made to

1 the Kivalliq Inuit Association by the company in
2 discussion with the Association.

3 So if we could have those marked, and then
4 Mr. Vanengen will give you a brief description of some
5 of the commitments which are made in the document.
6 So commitments in response to the Government of
7 Nunavut, if we could mark that as one exhibit, and the
8 commitments in response to the Kivalliq Inuit
9 Association as a -- the second exhibit.

10 MS. MEADOWS: Thank you, Madam Chair.
11 Teresa Meadows, legal counsel for the Nunavut Impact
12 Review Board. So let the record show that those will
13 be marked as Exhibits Number 21 and 22 in this final
14 hearing.

15 Thank you, Madam Chair.

16 EXHIBIT 21 - Agnico Eagle hard copy
17 terrestrial environment commitments in
18 response to Government of Nunavut
19 (English)

20 EXHIBIT 22 - Agnico Eagle hard copy
21 terrestrial environment commitments with
22 reference to Kivalliq Inuit Association final
23 written submission comments, dated September
24 21, 2017 (English)

25 MR. ARMSTRONG: Madam Chair, Brad Armstrong.
26 And Mr. Vanengen will provide you with a brief summary

1 of these commitments.

2 MR. VANENGEN: Madam Chair, Ryan Vanengen
3 from Agnico Eagle.

4 So over the last few weeks, we've been working
5 closely with the Government of Nunavut, and through
6 discussions, we have agreed -- Agnico Eagle has agreed
7 to run a number of studies. We have agreed -- and
8 those studies would include evaluating our blast
9 thresholds -- our blast-distance thresholds that were
10 discussed in our presentation, the caribou group-size
11 thresholds, mitigation associated with haul road,
12 evaluating our haul road activities, as well as
13 evaluating our monitoring effectiveness. And we've
14 also come to an agreement that we will work together
15 through the terrestrial advisory group.

16 The other exhibit that was submitted is related to
17 the discussions and summarizing the commitments through
18 discussions with the Kivalliq Inuit Association, and
19 Agnico Eagle have agreed to work with the Kivalliq
20 Inuit Association through the terrestrial advisory
21 group, and we will evaluate our monitoring, we will
22 evaluate with the Kivalliq Inuit Association our
23 group-size thresholds, and we'll continue to work with
24 the GN to evaluate and conduct zone-of-influence
25 assessments.

26 Mat'na.

1 THE CHAIR: Thank you.

2 Okay. On to the registered intervenors'
3 presentation starting with the Kivalliq Inuit
4 Association. Go ahead.

5 And, legal counsel.

6 JEFF HART, LUIS MANZO, KIM POOLE, Affirmed

7 MS. MEADOWS: Thank you, Madam Chair.

8 Teresa Meadows, legal counsel for the Nunavut Impact
9 Review Board. And it is my understanding we have a
10 PowerPoint presentation that will be marked as the next
11 exhibit in this public hearing. And those are my
12 procedural matters, Madam Chair.

13 EXHIBIT 23 - Agnico Eagle hard copy
14 PowerPoint presentation of Whale Tail Gold
15 Project, KIA/NTI technical review of the
16 environment impact statement
17 (English/Inuktitut)

18 THE CHAIR: Thank you.

19 Kivalliq Inuit Association, you may proceed.
20 Presentation by Kivalliq Inuit Association

21 MR. MANZO: I would like to thank Madam
22 Chair, members of the Board, your staff, the
23 intervenors, and the proponent to give us opportunity
24 to present today, and also the members of the public
25 who are here today.

26 Our presentation we're going to switch because

1 there was changes in between the last three days to our
2 technical advisor here for the section on caribou, and
3 then we're going to go back to the last two slides.

4 KIA represent Inuit, administer and monitor
5 certain provisions of the Nunavut Final Agreement in
6 the Kivalliq Region.

7 KIA mission is to represent Inuit in a fair and
8 democratic manner in the development, protection,
9 administration, and advancement of the rights and
10 benefits and to promote economic, social, political,
11 and cultural well-being.

12 The purpose of this technical review was to ensure
13 that the potential impacts and benefits were
14 comprehensively assessed through scientific,
15 socioeconomic, and impact assessment best practices.
16 And to ensure Inuit traditional knowledge is
17 incorporated into the impact determination, mitigation,
18 protection [sic], and design, and the monitoring.

19 A technical review of the environmental impact
20 statement was submitted to the Nunavut Impact Review
21 Board on August 11, 2017. Six issues was remaining at
22 the time in the -- in [sic] the table relating to
23 caribou, and one issue was remaining in the table
24 regarding waste rock storage facility, who we speak
25 about those -- and I will -- and I will pass that on to
26 Kim Poolee, our technical advisor for -- in cargo.

1 MR. POOLE: Thank you. Kim Poolee for
2 the -- excuse me -- Kivalliq Inuit Association.

3 As we have been discussing the past day, potential
4 impacts to caribou is among the highest concern of the
5 project. The difference -- one of the main differences
6 for caribou is that the haul road is going to have
7 close to ten times higher traffic levels than the
8 existing all-weather access road between Baker Lake and
9 Meadowbank. This has led to a number of uncertainties
10 in the data that we have and in the effects that will
11 be met with the new project and requires a high level
12 of adaptive management as we go forward.

13 Agnico Eagle is to be commended for hosting quite
14 a few workshops -- three workshops in the last ten
15 months that have moved the terrestrial ecosystem
16 management plan forward in a nice collaborative way and
17 for their agreement to development a terrestrial
18 advisory group that, I think, will make discussions and
19 collaboration on monitoring and mitigation of caribou
20 and other wildlife going forward much easier.

21 As we heard earlier this morning, it's good that
22 the company has agreed to all of our technical terms
23 and commitments and suggestions for how to proceed with
24 changes to mitigation, monitoring, and analysis. So
25 I'm -- what I'm going to do is just -- excuse me --
26 briefly go through some of what we've agreed to.

1 The low numbers of caribou -- sorry. The low
2 numbers of collars that are on caribou means that they
3 represent a large proportion of the herds. And the
4 possibility that caribou could be present even in the
5 absence of collars remains; therefore, we are
6 requesting further analysis on collared caribou
7 movements be completed, which will include examination
8 of harvest levels and annual variation in environmental
9 conditions, as well as integrating the caribou -- the
10 collared caribou data with height-of-land and
11 road-survey-monitoring data to cross calibrate with the
12 collar data, and this would be useful for describing
13 the representation of the collars and for further
14 refining the thresholds in the terrestrial ecosystem
15 management plan.

16 The data collected for the Meadowbank project to
17 date suggests that, on average, approximately
18 10,000 caribou are observed each year along the
19 all-weather access road and around the Meadowbank mine.
20 This, of course, does not represent necessarily 10,000
21 individuals, but it's just the number of sightings,
22 but, regardless, it's a large number of animals.

23 There are relatively few caribou collared, and so
24 with this high annual sighting rate, the cumulative
25 effects may be strong as a high proportion of the herd
26 may be involved. There's a lot of uncertainty there.

1 This would be addressed further in analyses.

2 Analyses conducted by both the company and by the
3 Government of Nunavut on the collar data leave some
4 concerns and a lot of uncertainty as to the effects of
5 the haul truck traffic on caribou. What we are
6 requesting and what the company has agreed to do is to
7 further examine and build into their mitigation system
8 the use of convoys. That's running a number of trucks
9 together with the intent of increasing the spacing
10 between trucks. Right now they're looking at about
11 six, seven minutes per truck, and if you can combine
12 three, five, how many trucks together, then you
13 increase the spacing and allow caribou a greater period
14 of undisturbed time to cross the road, if that was
15 their indication.

16 So we have requested that the company examine and
17 place into the terrestrial ecosystem management plan
18 details on thresholds for when to implement convoying
19 and the duration of gaps in traffic for all three of
20 the project segments, and we've also requested that
21 they examine how convoying will be tested for the
22 effectiveness using cameras, perhaps, or track surveys.

23 Both the company and Government of Nunavut have
24 made preliminary analyses and reviews on the potential
25 zone of influence around the project, and the data are
26 still, on -- is still quite a bit of uncertainty,

1 especially as we're trying to translate this -- the
2 existing data, which is from the all-weather access
3 road to the haul road on caribou. So we have asked
4 that the company collaborate with the Government of
5 Nunavut to conduct further analysis of collared caribou
6 movements to be completed for the zone of influence
7 which will reduce the uncertainty in the potential
8 effects of the haul road traffic on caribou.

9 And -- sorry. Where am I here. There is also, as
10 I mentioned, a great deal of uncertainty in the effects
11 of the Whale Tail Pit and haul road activities on
12 caribou disturbance, and, as such, we have requested
13 that the company shall complete a review of the
14 statistical design, the statistical power, and the
15 sample size for caribou collaring as it is applicable
16 for environmental assessment and adaptive management.

17 Just as some background, the collars that are put
18 out by the Government of Nunavut were initially
19 designed to kind of look at broad-scale herd movements,
20 but they are being increasingly used for environmental
21 assessment purposes in many of the projects that are
22 occurring in Nunavut and also for environmental
23 monitoring, and we don't have a good handle on how
24 effective that is as well.

25 And, finally, we make a recommendation to the
26 Government of Nunavut that the uncertainty is about --

1 the magnitude of cumulative effects of the project, in
2 part, occur because of weakness in the understanding of
3 caribou population dynamics.

4 Increasing development has not been matched by
5 equivalent efforts in the adaptive management for the
6 herds and their habitat. Herd level sample sizes,
7 design, and data availability must be examined to
8 assure that the monitoring has sufficient power to
9 detect effects, and, as such, we recommend that to
10 offset the uncertainty about the cumulative effects,
11 the adaptive mitigation and monitoring at the herd
12 level should be strengthened through the completion and
13 implementation of the Government of Nunavut's draft
14 caribou strategy framework.

15 Thank you. And I'll pass that back to Jeff -- or
16 Luis. Sorry.

17 MR. MANZO: Atmospheric environment. The
18 KIA accepts the conclusions presented by AEM in their
19 response to the Commitment Number 7. However, given
20 the importance of dust as potential issues, the KIA
21 would like the following monitoring to be continued for
22 the operating life of the Whale Tail Pit Project.

23 Dustfall measures during June to August along the
24 transects perpendicular to the Baker Lake to Meadowbank
25 all-weather access road.

26 And the fresh -- freshwater environment and waste

1 rock pile, that issue has been resolved, and proponent
2 had commit to -- with KIA and those terms.

3 And the security deposit, Environment and AEM and
4 Indian [sic] and Northern Affairs Canada and KIA
5 finally agreed to a total cost of reclamation.

6 Also, we signed a secure management agreement,
7 attached to that particular total amount of cost of
8 security that we will presented [sic] during the
9 Nunavut Water Board hearings next week.

10 And the section on water compensation, we are
11 still working with the proponent to present the water
12 compensation agreement during the Nunavut Water Board
13 hearings, and that's -- Mat'na.

14 THE CHAIR: Okay. Thank you.

15 Questions to Kivalliq Inuit Association from the
16 Baker Lake Hunters and Trappers Organization?
17 Baker Lake Hunters and Trappers Organization Questions
18 Kivalliq Inuit Association

19 MR. BERNAUER: Thank you, Madam Chair. This
20 is Warren Bernauer for the Baker Lake Hunters and
21 Trappers Organization. I have a series of questions
22 for KIA pertaining to caribou protection.

23 So, first, given the size, location, and other
24 characteristics of this project, in your opinion, could
25 it impact caribou distribution in a way that would
26 impact hunting and food security if proper mitigation

1 measures were not implemented?

2 MR. POOLE: Kim Poolee for the Kivalliq
3 Inuit Association. I think there's no question --
4 despite the company's claim for zero harm to the
5 environment and to caribou, that -- that's almost an
6 impossibility when you put in hauling how many million
7 tonnes of ore along 65 kilometre stretch of road with a
8 truck every six and seven minutes and a large open pit
9 and mining facilities. There's no question that this
10 project will have some impact on caribou.

11 But there are many facets of impacts to caribou
12 that would affect distribution and, as a result, access
13 to harvesting by First Nations. Many of those relate
14 to the disturbance that can be coming from the company
15 itself from the mining activities. Those can be
16 mitigated to a large extent. They can't be eliminated,
17 but they can be mitigated.

18 But, of course, there's other things that may be
19 influencing the system. Environmental effects has an
20 influence on caribou distribution, and I guess the
21 elephant in the room is that harvesting has a great
22 influence on caribou distribution. There are studies
23 that show that roads where no harvesting takes place
24 have less influence on caribou distribution than roads
25 where harvesting takes place. And, of course, the
26 first 85 kilometres of the all-weather access road has

1 been harvested -- or has been open to harvesting for
2 the last ten years. That will probably continue, as in
3 there will be some difficult-to-measure influence of
4 harvesting on the animal distribution off that section
5 of the area. If the Whale Tail Project haul road is
6 indeed not open to non-mining use and is not used as a
7 wildlife harvesting corridor, then the impacts of the
8 mine truck traffic on caribou distribution, I would
9 suggest, will not be as great as they would be if
10 harvesting was associated with that road as well.

11 This was a circular answer, but I hope that met
12 what you're looking for.

13 MR. BERNAUER: Thank you. Yes. You've, I
14 think, expressed what I was looking for, which is that
15 there's a potential for harm, but if we get these
16 mitigation measures right, we can protect local food
17 security.

18 Okay. Then I guess the follow-up from there would
19 be, thus far, are the mitigation measures right?
20 The -- for example, the group-size thresholds and
21 proposed monitoring activities, as they stand, do you
22 think they're sufficient to protect local food
23 security?

24 MR. POOLE: Kim Poolee for the Kivalliq
25 Inuit Association.

26 The terrestrial ecosystem management plan has gone

1 a long ways from where it started back in the fall of
2 last year. There are still some refinements that I
3 think the Kivalliq Inuit Association and the Government
4 of Nunavut and, I assume, the Baker Lake Hunters and
5 Trappers Organization would like to see to strengthen a
6 few things, but we're getting close. There's a few
7 tweaks, I think, that need to be made to make sure that
8 the monitoring is adequate to detect animals when
9 they're there and that the mitigation is -- is at a
10 high enough level to reduce potential impacts.

11 So I wouldn't say that I want to sign off on it
12 right now, but we're getting quite close. Okay.

13 MR. AKSAWNEE: Thank you, Madam Chair.

14 Richard Aksawnee, Baker Lake Hunters and Trappers.

15 My question doesn't relate to the presentation
16 that we just saw, but what we heard from yesterday's
17 presentation by Agnico Eagle. I think it was in the
18 evening session where something caught my ear, where
19 Agnico Eagle presented a figure of 400 -- over \$400
20 million from Agnico to KIA. Is this something I heard
21 correctly? Is -- I'm trying to get a clarification to
22 what that 400 -- during a presentation yesterday, there
23 was a \$400 figure that was said during a presentation.

24 MR. QUESNEL: Thank you, Madam Chair. Yeah.
25 It's the royalties through the Kivalliq Inuit
26 Association and NTI for both projects, Meliadine and

1 Whale Tail.

2 MR. AKSAWNEE: Thank you, Madam Chair.

3 The reason why I raised this question is we've
4 been negatively impacted in the community over a decade
5 now. We've had Meadowbank open over a decade. As --
6 as everybody sees the news, everybody sees the media
7 that Baker Lake Hunters and Trappers submitted our list
8 of concerns to Nunavut Impact Review Board for this
9 final hearing, and one of our concerns was a legacy
10 benefit for the community.

11 Over the past ten years, this community hasn't
12 really benefitted much. At the same time, it's getting
13 harder to harvest any caribou, fish. But my question
14 to KIA is that 400 -- 400 -- over \$400 million royalty,
15 if that will be distributed within the region?

16 MS. GILSON: Thank you, Madam Chair.

17 Kimberley Gilson, Kivalliq Inuit Association.

18 And thank you for the question from the Baker
19 Lake. First of all, with respect to the number, the
20 value 400 million that Agnico Eagle has put forward,
21 KIA doesn't necessarily agree with that number. It's
22 speculative based on whatever inputs Agnico Eagle has
23 determined are appropriate to come up with that number.

24 Secondly, the value is not monies that all come to
25 the Kivalliq Inuit Association, so we shouldn't in any
26 way assume that KIA, Kivalliq Inuit Association, is

1 going to obtain that amount of money. However, having
2 said that, the Kivalliq Inuit Association, through its
3 president and executive, has recently initiated a
4 series of community consultations which are ongoing,
5 and the purpose of those consultations is to determine
6 at a community level -- each of the Kivalliq
7 communities -- how monies that are received by the
8 Kivalliq Inuit Association ought to be spent. So we
9 invite, in every community, any members of the
10 community or representatives of -- be it the HTO, the
11 Hamlet, and anybody who has interest in putting forward
12 their ideas of how the money should be spent. Then
13 that's something that KIA and, as president, strongly
14 encourage and welcome. It's not something that would
15 be resolved through the Nunavut impact review process,
16 but I just wanted to make sure that we had an answer
17 for the -- to question.

18 And I would also encourage input through the
19 socioeconomic monitoring committee and the work that
20 they do, which Agnico Eagle participates in, as do
21 other entities. The purpose of that organization is
22 also to hear from the communities as to the impacts,
23 and they should also be considering mitigation
24 measures, and -- and that would include some of the
25 supports that the communities are looking for.

26 Thank you.

1 MR. AKSAWNEE: Thanks, Madam Chair.

2 And thanks, Kim, for that clarification. Yeah.

3 Sitting here representing Baker Lake Hunters and

4 Trappers Organization, like, the other community --

5 community members here representing their hunters and

6 trappers, there's some projects that we want to try and

7 carry out within our community, traditional -- elders,

8 youth -- programmings, that we want to try and carry

9 out, but due to limited funding, it's hard to get these

10 projects up and running. That's the main reason why I

11 questioned this royalty fee that I heard yesterday, so

12 I just wanted clarification on that.

13 Thank you, Madam Chair.

14 THE CHAIR: And that's all the questions
15 from the Hunters and Trappers Organization, Baker Lake?

16 MR. AKSAWNEE: Yes. No further questions.

17 THE CHAIR: Thank you.

18 Any questions to Kivalliq Inuit Association from
19 the Government of Nunavut?

20 Comments by Government of Nunavut

21 MR. PINKSEN: Thank you, Madam Chair. Steve
22 Pinksen, Government of Nunavut.

23 Just one item to mention for clarification. In
24 their presentation, the Kivalliq Inuit Association had
25 wording that requested that the Government of Nunavut
26 complete the caribou strategy framework in two years

1 and one other request surrounding research. We're open
2 to discussing these matters with the Kivalliq Inuit
3 Association, but I believe the proponent, as well, may
4 have a word to say about, perhaps, one of the exhibits
5 that was put forward with this as a -- as a commitment,
6 which we cannot accept. So we'll be happy to discuss
7 that. Thank you.

8 THE CHAIR: KIA?

9 MR. MANZO: No comments at this time,
10 Madam Chair. When you -- if you hear -- who say
11 recommendations?

12 THE CHAIR: I asked because I totally did
13 not get -- or we did not get what GN is trying to say.
14 Can you speak close to the mic?

15 MR. PINKSEN: Thank you, Madam Chair. In
16 their presentation, the Kivalliq Inuit Association had
17 a request that the Government of Nunavut undertake some
18 actions. We are open to discussing these actions with
19 the Kivalliq Inuit Association, but we would not accept
20 them as commitments or obligations on the Government of
21 Nunavut. Thank you.

22 THE CHAIR: Okay. Thank you. Clear.

23 Any questions from Environment and Climate Change
24 Canada to Kivalliq Inuit Association?

25 MS. PINTO: Thank you, Madam Chair.

26 Melissa Pinto, Environment and Climate Change Canada.

1 We have no questions at this time.

2 THE CHAIR: Thank you.

3 Any questions from Fisheries and Oceans Canada?

4 MR. D'AGUIAR: Fisheries and Oceans Canada,
5 Mark D'Aguiar. We have no questions.

6 THE CHAIR: Thank you.

7 Any questions from Indigenous and Northern Affairs
8 Canada?

9 MS. COSTELLO: Good morning, Madam Chair.

10 Karen Costello for Indigenous and Northern Affairs
11 Canada. We have no questions at this time. Thank you.

12 THE CHAIR: Thank you.

13 Any questions from Natural Resources Canada?

14 MS. BESNER: Rachelle Besner, Natural
15 Resources Canada. I have no questions.

16 THE CHAIR: Any questions to KIA from
17 Transport Canada?

18 MR. SADOWAY: Thank you, Madam Chair. Shane
19 Sadoway, Transport Canada. No questions.

20 THE CHAIR: Any questions from Agnico
21 Eagle?

22 Comments by Agnico Eagle Mines Limited

23 MR. ARMSTRONG: Thank you, Madam Chair. Brad
24 Armstrong. We don't have questions, but I do have a
25 clarification which follows on the concerns raised by
26 Mr. Pinksen for the Government of Nunavut.

1 Of the two documents we filed this morning, the
2 second exhibit is one which includes some commitments
3 made by Agnico Eagle to the Kivalliq Inuit Association,
4 but the document actually also includes two -- the two
5 requests, which Mr. Pinksen is concerned with, and they
6 are requests for -- the recommendations made by the
7 Kivalliq Inuit Association that the Government of
8 Nunavut do certain things.

9 So on that document, Commitments 1, 2, and 5 are
10 commitments made by Agnico Eagle, but the Commitments 3
11 and 4 on this document should be disregarded. They --
12 because they are things which the Kivalliq Inuit
13 Association wants the Government of Nunavut to do, some
14 studies, and those are not things which Agnico Eagle is
15 able to commit to. For that clarification.

16 Thank you, Madam Chair.

17 THE CHAIR: Thank you.

18 Any questions from the Nunavut Impact Review Board
19 staff?

20 Nunavut Impact Review Board Staff Questions Kivalliq
21 Inuit Association

22 MR. BARRY: Thank you, Madam Chair. Ryan
23 Barry, Nunavut Impact Review Board staff. I've got one
24 question, and my colleague Sophia has a question.
25 First, to, actually, Agnico Eagle for clarification for
26 Mr. Armstrong's last remark.

1 You've referenced terms and conditions -- or
2 Commitments 3 and 4. Can you clarify which ones you're
3 referring to, as they're not numbered 3 and 4.

4 MR. ARMSTRONG: Yes. Madam Chair, Brad
5 Armstrong.

6 If you look at the document, the bolded headings,
7 the first one is "Uncertainty in Caribou Responses".
8 I'm calling that "Number 1". The next is "Terrestrial
9 Ecosystem Management Plan". That's Agnico's plan.
10 That's "Number 2". The third one, the terrestrial --
11 the, again, "Terrestrial Ecosystem Management Plan",
12 that's a request from the Kivalliq Inuit Association
13 for the Government of Nunavut to complete further
14 analyses, and so that's "Number 3". That one should be
15 disregarded. It's not an Agnico Eagle commitment. And
16 the next one as well. It's headed "Uncertainty in
17 Effects", and that is the Kivalliq Inuit Association
18 asking the Government of Nunavut to complete its draft
19 caribou strategic framework again, so that's
20 "Number 4". The -- so 3 and 4 should be disregarded.
21 They're not commitments of Agnico Eagle.

22 There's a -- the fifth one is a commitment of
23 Agnico Eagle to do some statistical work within one
24 year or project certification. That's "Number 5".

25 THE CHAIR: KIA?

26 MR. POOLE: Thank you, Madam Chair. Kim

1 Poolee for the Kivalliq Inuit Association.

2 Thank you for the numbering. That helped me too,
3 but just to be clear, on Number 3, what we were asking
4 for -- and as a very little bit of background, in the
5 last three weeks, we've had number of analyses,
6 counter-analyses, rebuttals, counter-rebuttals, on data
7 analyses primarily related to the zone of influence for
8 caribou around the road. It's been a lot of last
9 minute, it's been a lot of back and forth, and it's
10 been a lot of confusion.

11 What we are asking for is not a commitment from
12 the Government of Nunavut. We are asking for the --
13 Agnico Eagle to collaborate with the Government of
14 Nunavut. So our comment is not directed at Government
15 of Nunavut, rather that a collaboration take place,
16 which I think is in everyone's best interest.

17 Thank you.

18 MR. ARMSTRONG: Thank you, Madam Chair.

19 And, yes, the company -- Agnico Eagle is committed
20 to this collaboration. We simply can't confirm the
21 other side of that. We can't confirm the collaboration
22 on the side of the Government of Nunavut, but we
23 expected that would likely -- that that would likely
24 take place, but we can't make commitments on behalf of
25 the Government of Nunavut.

26 THE CHAIR: GN -- or Government of

1 Nunavut?

2 MR. PINKSEN: Thank you. Steve Pinksen,
3 Government of Nunavut.

4 And I can certainly confirm the Government of
5 Nunavut is prepared to collaborate with the -- all
6 parties on these issues. Thank you.

7 THE CHAIR: Nunavut Impact Review Board
8 staff.

9 MS. GRANCHINHO: Thank you, Madam Chair. It's
10 Sophia Granchinho with the Nunavut Impact Review Board.

11 I just have a clarification question for the
12 Kivalliq Inuit Association. This is with respect to
13 Slide Number 12 on the arsenic levels related to waste
14 rock. It just wasn't clear in the presentation, but
15 can you clarify what has been resolved with respect to
16 the arsenic levels related to the waste rock storage
17 facility and whether this has been -- this is listed
18 within the commitments that were filed as exhibits by
19 the Kivalliq Inuit Association or by Agnico Eagle.

20 Thank you.

21 MR. MANZO: Madam Chairman [sic]. Luis
22 Manzo, Kivalliq Inuit Association.

23 Yes. Over the last -- we have few workshops with
24 the proponent, and the proponent being -- agree in
25 certain issues as coming from the waste rock, water
26 quality, sampling the mixing zone, and all those will

1 be reflected in the existing term and conditions.

2 And -- and in the rest of this would -- is related
3 to the Nunavut Water Board licence, also will be
4 addressed during next week. Thank you.

5 THE CHAIR: No other questions?

6 Thank you.

7 Any questions from the Nunavut Water Board?

8 MR. KHARATYAN: Thank you, Madam Chair. Karen
9 Kharatyan. Nunavut Water Board has no questions at
10 this time.

11 THE CHAIR: Any questions from the Nunavut
12 Impact Review Board to KIA?

13 Allen.

14 Nunavut Impact Review Board Questions Kivalliq Inuit
15 Association

16 MR. MAGHAGAK: Quana, Iksivautaq. Allen
17 Maghagak, NIRB.

18 Clarification on the monitoring of the four
19 caribou herds that will be impacted or that will be
20 migrating around through the Meadowbank and the Amaruq
21 property, so called "Whale Tail". Will you be working
22 with the Kivalliq Wildlife -- regional Wildlife
23 Management Board and the Baker Lake Hunters and
24 Trappers to monitor the migration process that the
25 four -- these four herds will be -- and how they will
26 be impacted by this new development?

1 Quana, Iksivautaq.

2 MR. POOLE: Kim Poolee for the Kivalliq
3 Inuit Association.

4 Thank you for the question. Monitoring at the
5 herd level, I would suggest, is more of a Government of
6 Nunavut responsibility. As it relates to the mine, it
7 has committed to a terrestrial advisory group where the
8 members, including Agnico Eagle, the Kivalliq Inuit
9 Association, the Government of Nunavut, and the Baker
10 Lake Hunters and Trappers Organization will get
11 together to discuss and make -- and provide advice to
12 the company.

13 To my knowledge, the Wildlife Board -- the
14 Kivalliq Wildlife Board has not been included in that,
15 but I'm not privy to -- I'm not sure how that works, to
16 be honest. But general monitoring of the herd will be
17 done, I guess -- well, it will be done using collar
18 data that is supplied from the Government of Nunavut.

19 I hope that answers your question.

20 MR. MAGHAGAK: Quana, Iksivautaq.

21 The reason I'm asking this question is both the
22 Meadowbank, Vault pit, and the proposed Amaruq property
23 and the Whale Tail are both subsurface-owned land that
24 are managed by Kivalliq Inuit Association under the
25 Nunavut Land Claims Agreement. That's why I'm asking
26 KIA to clarify for me whether this process of

1 monitoring these four herds are going to be part of
2 your process, or are you going to hand that over to
3 Government of Nunavut?

4 Quana, Iksivautaq.

5 THE CHAIR: Government of Nunavut?

6 MR. PINKSEN: Thank you. Steve Pinksen,
7 Government of Nunavut. It's correct that the
8 Government of Nunavut is responsible for overall herd
9 and caribou management. So we conduct ongoing surveys
10 of all wildlife and caribou herds in Nunavut. We do
11 this collaboratively with the Hunters and Trappers
12 Organizations in all communities and the Kivalliq
13 Wildlife Board as well.

14 In terms of priority setting on where the research
15 is done and herd surveys, collaring, we regularly hold
16 research-priority workshops -- these are -- we're a
17 participant in that; we don't run them -- to determine
18 research priorities. And certainly in this region,
19 where resource development is more active than in
20 others, possible impacts on development are a driver of
21 research so we certainly put more resources towards
22 gathering information around areas where resource
23 development is taking place. And if there's more
24 details that you need, let me know. Thank you.

25 THE CHAIR: Thank you.

26 Questions -- (LOST TRANSLATION) -- KIA.

1 MR. MANZO: Thank you, Madam Chair. Luis
2 Manzo, Kivalliq Inuit Association.

3 At this point, in the leases that we grant to
4 proponents, we do monitor those sites. With respect --
5 the term and conditions with that particular agreement,
6 usually we do lands inspections, we do water quality,
7 and -- and also in combination with and MOU with INAC
8 quality -- quality, quantity, and flow.

9 In regard to the cargo, we also have a -- in -- in
10 the Meliadine project, we have a coordinated approach
11 with the proponent, the HTO, the Wildlife Board, KIA
12 Lands, and KIA implementation department to make sure
13 when the herd is crossing everything is being monitored
14 in time. That will be reflected here as well. We
15 going to do it with this review -- after this review.
16 When you see the terms presented and revised, you will
17 see that duplication that we'll be having here as well.

18 And I hope that answers your question. Thanks.

19 THE CHAIR: Okay. Thank you.

20 For the people that are in town from the
21 communities and the people of Baker Lake that are in --
22 sitting around here, we're going to be here. When you
23 have the opportunity, you'll be able to ask questions
24 to the Kivalliq Inuit Association or to any of the
25 people around the table. You'll be able to ask the
26 questions later on this afternoon or this evening.

1 They will be available. You can ask them the
2 questions.

3 (ADJOURNMENT)

4 THE CHAIR: Okay. Shall we get started?

5 I'm sure the community representatives are
6 patiently waiting to ask questions. So when it is the
7 community roundtable's turn, agencies, please stick
8 around. They may have questions for you.

9 Thank you to the Kivalliq Inuit Association for
10 their presentation. Next we have the Government of
11 Nunavut -- no. I'm sorry. I'm skipping the community
12 of Baker Lake.

13 Baker Lake Hunters and Trappers Organization, your
14 presentation.

15 MR. AKSAWNEE: Thank you, Madam Chair. Good
16 morning. Baker Lake HTO, our presentation for the
17 technical hearing.

18 MS. MEADOWS: Madam Chair.

19 THE CHAIR: Yes, legal counsel. I keep
20 forgetting you.

21 MS. MEADOWS: Thank you, Madam Chair.

22 Teresa Meadows, legal counsel for the Nunavut Impact
23 Review Board.

24 So, Madam Chair, I have two revised final hearing
25 presentation documents that were provided to us by the
26 Baker Lake Hunters and Trappers Organization, and they

1 also are available at the back. So I would like to
2 mark those two as the next exhibits in this final
3 hearing.

4 EXHIBIT 24 - Baker Lake Hunters and Trappers
5 Organization hard copy revised final hearing
6 presentation for the Whale Tail Pit Proposal
7 (English)

8 EXHIBIT 25 - Baker Lake Hunters and Trappers
9 Organization hard copy revised final hearing
10 presentation for the Whale Tail Pit Proposal
11 (Inuktitut)

12 WARREN BERNAUER, RICHARD AKSAWNEE, HUGH NATEELA,
13 Affirmed

14 MS. MEADOWS: Thank you, Madam Chair.
15 Teresa Meadows, legal counsel for the Nunavut Impact
16 Review Board.

17 Those are all my procedural matters.

18 THE CHAIR: Thank you. I was just going
19 to say "The Three Tenors".

20 Go ahead. Give your presentation.

21 Presentation by Baker Lake Hunters and Trappers
22 Organization

23 MR. AKSAWNEE: Thank you, Madam Chair.

24 Good morning to the people and the public.
25 Intervenors, agencies, welcome to Baker Lake. And
26 thank you, Nunavut Impact Review Board, for giving us

1 the opportunity to be an intervenor.

2 The Baker Lake Hunters and Trappers Organization
3 supports the Whale Tail Project.

4 We believe the project will have net benefits for
5 our community and region. In particular, we believe
6 that the employment opportunities the project will
7 provide to our community will be a substantial benefit.
8 We also believe that, with the right environmental
9 controls, negative impacts can be kept to an acceptable
10 level.

11 That said, the Baker Lake HTO has or had several
12 outstanding issues with the Whale Tail Project. These
13 include -- and some of them were -- we discussed with
14 the proponent, KIA, GN, and other intervenors. So we
15 discussed some of these items:

- 16 1) the need for an independent
17 dust-monitoring study, based on Inuit
18 Qaujimagatuqangit;
- 19 2) need for independent wildlife monitoring;
- 20 3) need for community participation in
21 monitoring and mitigation decisions;
- 22 4) need to remodel Meadowbank and Amaruq
23 roads;
- 24 5) need for stronger caribou protection
25 measures; and the last item is
- 26 6) the need for government to address

1 barriers to employment.

2 For our presentation, I'll pass it over to my colleague
3 Warren.

4 MR. BERNAUER: Thank you, Richard. And thank
5 you, Nunavut Impact Review Board.

6 Many of these outstanding issues have since been
7 resolved, to my understanding, with Agnico Eagle.
8 However, we are awaiting confirmation on the public
9 record that they agree to commit to some of these
10 requests or agree to have them listed as terms and
11 conditions. The ones that I think we have clear
12 agreement on, I'm just going to skim over in the
13 interest of time.

14 So the first issue is the need for a
15 dust-monitoring study, based on Inuit
16 Qaujimajatuqangit. Yesterday Agnico Eagle indicated
17 that they agree to conduct an independent
18 dust-monitoring study with a focus on Inuit
19 Qaujimajatuqangit, residents' perspectives, and
20 observations of dust, and that the researcher and study
21 design will be agreed upon by both the Baker Lake HTO
22 and Agnico Eagle. Perhaps after my presentation is
23 complete, they can indicate whether or not they're
24 comfortable with the wording.

25 The next outstanding issue that we had was the
26 need for independent wildlife monitoring. We requested

1 that Agnico Eagle provide the Baker Lake HTO with funds
2 to hire an additional staff person to assist in
3 monitoring the road and caribou migrations. Agnico
4 Eagle has agreed to do this through an MOU that has
5 been signed with the Baker Lake HTO, and we propose
6 that this commitment be included in the project
7 certificate as a term and condition.

8 Now, the next outstanding issue, which I believe
9 we're close to resolving but there's still some further
10 conversations to take place, deals with community
11 participation in mitigation decisions.

12 Now, the Baker Lake HTO had suggested a monitoring
13 committee of local representatives be involved with
14 overseeing monitoring and mitigation decisions. Now,
15 Agnico Eagle has developed the terrestrial advisory
16 group to fill this role. However, the Baker Lake HTO
17 was rather concerned that the terrestrial advisory
18 group is an advisory group, not a decision-making body,
19 and that Agnico Eagle would be able to listen to our
20 advice but not necessarily follow it.

21 Now, we've had several productive discussions with
22 them, and I believe we're very close to concluding
23 language for terms and conditions that would provide
24 the advisory group with the decision-making powers that
25 we're looking for. However, we're still waiting on
26 confirmation as to whether or not Agnico Eagle will

1 revise the terms of reference for the terrestrial
2 advisory group to make it clear that Agnico will adhere
3 to the advice of the majority of the representatives on
4 the advisory group. So this is one of our major
5 outstanding issues, and a lot hinges on this, just to
6 be clear.

7 So moving on. The next issue that we had was a
8 need to re-slope and repair sections of the Meadowbank
9 and Amaruq roads. This is based on advice from elders
10 and other hunters in the community who have complained
11 that it's difficult to cross the road by snowmobile and
12 that the slope of the road shoulders makes it difficult
13 for caribou to cross.

14 Now, AEM has indicated that they are willing to
15 work with the HTO on this matter, and we propose two
16 terms and conditions for the Whale Tail Pit Project
17 certificate to this end.

18 First, Agnico Eagle shall build and regularly
19 maintain snowmobile and other traditional land-use
20 crossings along the Meadowbank and Whale Tail roads.
21 The location of such crossings shall be determined
22 through consultation with the Baker Lake Hunters and
23 Trappers Organization.

24 Second, Agnico Eagle shall consult with the Baker
25 Lake Hunters and Trappers Organization and Baker Lake
26 elders to determine whether or not selected sections of

1 the Meadowbank and Whale Tail access roads need to be
2 recontoured.

3 And, hopefully, at the conclusion of our
4 presentation, we can see if Agnico's comfortable with
5 that wording.

6 And on to the next slide, caribou protection
7 measures. So the Baker Lake Hunters and Trappers
8 Organization was concerned that the caribou protection
9 measures currently proposed by Agnico may not be strict
10 enough. I think, as other parties have made quite
11 clear, the number of haul trucks that are going to
12 travel between the mill at Meadowbank and the pit at
13 Whale Tail is unprecedented for migratory tundra
14 caribou, and there is potential for harm if strict
15 mitigation is not in place.

16 At the beginning of these hearings, we understood
17 that the Government of Nunavut and the Kivalliq Inuit
18 Association also had outstanding issues with the
19 monitoring and mitigation plans, and the Baker Lake
20 Hunters and Trappers Organization obviously supports
21 the strongest feasible caribou protection measures for
22 this project. We don't want to impose undue burdens on
23 the proponent, but we want the strongest protection for
24 caribou possible. This is the biggest source of
25 healthy food for many people in the community, and it's
26 absolutely vital for food security that we get this

1 right.

2 Now, most of these issues have been deferred to
3 the terrestrial advisory group that I discussed
4 previously, which is why the HTO is so adamant that the
5 terms of reference for the terrestrial advisory group
6 need to be agreed upon before this hearing is done, as
7 I mentioned in a previous section.

8 And, finally, the last issue that I wish to
9 discuss deals with socioeconomic issues and barriers to
10 employment -- in particular, the government
11 responsibility to help address barriers to employment.
12 So the concern of the HTO is that Agnico Eagle's
13 environmental impact statement does not consider the
14 role of government in addressing these barriers.

15 So as it stands, the Inuit employment levels at
16 the Meadowbank mine have been quite good, honestly.
17 It's ranged between 32 and 38 percent over the project
18 lifespan, according to the monitoring reports from AEM;
19 and they've predicted 42 percent Inuit employment at
20 the Whale Tail Project. And this is better than most
21 projects that have operated in Nunavut to date. With
22 the exception of the Rankin Inlet mine in the 1950s,
23 according to the research I've conducted, no other
24 project has achieved better than 30 percent Inuit
25 employment. Some currently operate under well below
26 these levels. In a recent report from Baffinland, the

1 Mary River project has dropped to 12.5 percent. So
2 Agnico is doing very, very well in terms of hiring and
3 retaining Inuit employees.

4 However, there's still clearly room for
5 improvement on this issue. They've committed to a
6 target of 50 percent Inuit employees at all their
7 projects. The Nunavut economic development strategy
8 set a target of 50 percent of all expenditures on wages
9 should accrue to Nunavut residents, and the president
10 of Agnico Eagle has publicly said that he has a vision
11 of 100 percent Inuit employment at the projects.
12 That's a wonderful goal, but clearly we have a lot of
13 work left to do if we're going to get there.

14 And Agnico Eagle has analyzed barriers to
15 employment in its environmental impact statement, and
16 it's committed to continuing to study these barriers.
17 However, there is one oversight, and that's that the
18 EIS seems to imply that addressing these barriers is
19 solely the responsibility of the mining industry and,
20 through its IIBAs, the Inuit organizations.

21 And I believe this is an oversight because
22 government has a responsibility to address these
23 barriers as well -- in particular, by providing
24 adequate social services to facilitate people's
25 participation in the labour force. And it seems that a
26 lack of necessary government services, especially

1 mental health and healing services, addiction treatment
2 services and the like, might be a substantial barrier
3 to employment for Inuit at this time.

4 So the GN, Nunavut Tunngavik Incorporated, the
5 Inuit Tapirisat of Canada -- or Inuit Kanatami at this
6 point, I suppose. That's an outdated term -- and a lot
7 of other groups have acknowledged that social trauma is
8 at the root of many of the challenges the Nunavummiut
9 faces today. These are the lingering effects of
10 colonization, of the treatment of Inuit by the
11 government and other outside forces primarily between
12 the 1930s and 1970s. It's widely accepted in social
13 sciences that this is the root cause of many of
14 Nunavut's social problems today. There's also been a
15 recognition by many groups -- including, quite
16 publicly, the Nunavut Court of Justice -- that there's
17 a lack of services to address this trauma. And I don't
18 think it's a stretch to conclude that these issues can
19 also be affecting employability. Agnico Eagle runs a
20 dry camp. If somebody suffers from addictions, they're
21 not going to be able to maintain employment at a dry
22 camp. And there's no resident addiction treatment
23 facility in Nunavut.

24 In closing, we recommend that the Nunavut Impact
25 Review Board consider whether or not this lack of
26 social services may be compounding these barriers to

1 employment and consider making recommendations to
2 territorial and federal governments about increasing
3 funding for programs that can help Inuit access the
4 workforce.

5 Thank you.

6 THE CHAIR: Thank you.

7 Questions to the Baker Lake Hunters and Trappers
8 Organization from Kivalliq Inuit Association.

9 MR. MANZO: Luis Manzo, Kivalliq Inuit
10 Association.

11 No questions at this time, Madam Chair.

12 THE CHAIR: Government of Nunavut.

13 MR. PINKSEN: Thank you. Steve Pinksen,
14 Government of Nunavut.

15 We have no questions.

16 THE CHAIR: Environment and Climate Change
17 Canada.

18 MS. PINTO: Thank you, Madam Chair.
19 Melissa Pinto, Environment and Climate Change Canada.

20 We have no questions.

21 THE CHAIR: Fisheries and Oceans Canada.

22 MR. D'AGUIAR: Thank you, Madam Chair. Mark
23 D'Aguiar, Fisheries and Oceans Canada.

24 We have no questions.

25 THE CHAIR: Indigenous and Northern
26 Affairs Canada.

1 Comments by Indigenous and Northern Affairs Canada

2 MS. COSTELLO: Thank you, Madam Chair. Karen
3 Costello for Indigenous and Northern Affairs Canada.

4 I thank the Baker Lake HTO for their presentation.
5 I could not help but note that they're definitely
6 broadening their interest. Under the Nunavut
7 Agreement, the mandate of the HTOs is much more focused
8 on harvesting, allocation, and enforcement of community
9 basic needs when it comes to harvesting. It certainly
10 does not include some of the things that you are
11 getting into as far as the social side and directions
12 to government. So I just thought it would be
13 worthwhile noting that you're definitely setting out
14 the -- moving away from the powers and functions of the
15 HTO as defined in the Nunavut Agreement.

16 Thank you, Madam Chair.

17 THE CHAIR: Thank you.

18 Questions from Natural Resources Canada.

19 MS. BESNER: Thank you, Madam Chair.
20 Rachelle Besner, Natural Resources Canada.

21 I have no questions.

22 THE CHAIR: Transport Canada.

23 MR. SADOWAY: Thank you, Madam Chair. Shane
24 Sadoway, Transport Canada.

25 No questions.

26 THE CHAIR: Any questions from Agnico

1 Eagle Mines?

2 Comments by Agnico Eagle Mines Limited

3 MR. QUESNEL: Thank you, Madam Chair. Just
4 a couple of points of clarification.

5 Especially dealing with Items 1 and 2,
6 dust-monitoring study and also the independent wildlife
7 monitoring, we have agreement in our memorandum of
8 understanding. So, like, we feel that's covered under
9 the memorandum of understanding based on those two
10 items. So we don't really see a need for a term and
11 condition or commitment in the PC. It's in the MOU.

12 Dealing with the need for community participation
13 and monitoring, like, we're very close to that wording.
14 So we just have to, Madam Chair, just work a little bit
15 further on the wording. We're very close on that.
16 And, also, to have the same wording that we have with
17 the Government of Nunavut on that.

18 Dealing with the fourth item, need to re-slope
19 section of Meadowbank and Amaruq roads, we feel those
20 commitments are okay. There's maybe a little bit of --
21 we have to change one of the prepositions in that based
22 on the wording. But a little bit of cleanup of that.

23 But dealing with the terms of reference, Madam
24 Chair, we're working on that right now with input from
25 all the parties related to that, and we're getting very
26 close to the final wording on the terms of reference.

1 And we would like to submit that in the next -- in the
2 coming days.

3 Thank you.

4 THE CHAIR: Okay. Thank you.

5 Any questions from the Nunavut Impact Review Board
6 staff?

7 Nunavut Impact Review Board Staff Questions Baker Lake
8 Hunters and Trappers Organization

9 MR. BARRY: Thank you, Madam Chair. Ryan
10 Barry, Nunavut Impact Review Board staff.

11 Just one question, general question. I'm
12 wondering if the Hunters and Trappers Organization can
13 comment on whether it's comfortable that its current
14 resources are sufficient enough to participate and have
15 the involved role, collaborative role, in wildlife
16 monitoring for this particular project that's being
17 proposed.

18 MR. BERNAUER: Thank you. Warren Bernauer
19 for the Baker Lake Hunters and Trappers Organization.

20 We hope we will. It's uncertain what commitments
21 will be required to facilitate the HTO fully
22 participating in the advisory group. Now, Agnico Eagle
23 has been, you know, very helpful in agreeing to provide
24 funding for additional staff. Whether they'll have the
25 full technical expertise required to participate in all
26 these discussions is not 100 percent certain at this

1 time.

2 THE CHAIR: Thank you.

3 Any questions from the Nunavut Water Board staff?

4 MR. KHARATYAN: Thank you, Madam Chair. Karen
5 Kharatyan, Nunavut Water Board.

6 No questions at this time.

7 THE CHAIR: Any questions from the Board?

8 Kaviq.

9 Nunavut Impact Review Board Questions Baker Lake
10 Hunters and Trappers Organization

11 MS. KALURAQ: Mat'na, Iksivautaq. Thank
12 you, Madam Chair.

13 Just going back to that statement about staffing,
14 of technical expertise, can the Baker Lake Hunters and
15 Trappers Organization clarify if it's seeking
16 additional funding for community employment to increase
17 community participation for increase work of people
18 from the community based on Inuit Qaujimajatuqangit, or
19 is it for technical expertise such as what's provided
20 by other government agencies? Can you clarify? Or is
21 it both?

22 Thank you.

23 MR. BERNAUER: Thus far, what we've
24 negotiated with AEM is for a local to be hired to help
25 participate in monitoring.

26 That said, some of the discussions that may take

1 place during the advisory group may require further
2 technical advice, which we haven't sought funding for
3 yet, as far as I can tell. Richard Aksawnee may want
4 to follow up on that. Apologies. Hugh Nateela will
5 come and provide some follow-up on that. He's just
6 walking around now.

7 MR. NATEELA: Thank you, Madam Chair. Hugh
8 Nateela from the HTO.

9 To sort of respond to the Board member's question,
10 it's -- we have -- we are still in discussions. It is
11 something that we have been trying to -- have been
12 working on, 'cause one of the goals that the Board
13 is -- has been discussing is to start training some
14 local people and, in particular, young people to be
15 able to start getting into some of these monitoring
16 programs, whether it be wildlife, water, and all these
17 other monitoring programs that we hear about from the
18 regulators, the intervenors, and certainly Agnico
19 monitoring programs.

20 So it is something that we are still working on,
21 but it's one of the, I think, discussions and goals
22 that the Board is -- has certainly been discussing.
23 But we are currently still discussing that with -- at
24 the moment with Agnico Eagle to see what -- how we
25 would be able to establish some of these opportunities
26 for some local involvement in some of these monitoring

1 programs.

2 I hope that answers the question, Madam Chair.

3 THE CHAIR: Thank you.

4 Any questions from the Board?

5 Guy.

6 MR. ALIKUT: Thank you. Guy Alikut,

7 Nunavut Impact Review Board.

8 My question to the Baker Lake HTO: The haul
9 trucks are going to be seven minutes apart when they're
10 hauling. When the caribou are crossing that area, what
11 is your plans for? That's my first question. You have
12 one herd that's close to the road. How are you going
13 to manage the caribou? I just want to get
14 clarification on that. The trucks will be travelling
15 every day, 365 days a year. How will the caribou
16 cross? Who would be the first one -- are you going to
17 be part of the monitoring and decision-making? That's
18 my first question.

19 Thank you.

20 MR. AKSAWNEE: Thank you, Madam Chair.

21 Richard Aksawnee, Baker Lake Hunters and Trappers.

22 We haven't gotten that far into discussion on
23 that. That's why in our concerns we were asking to be
24 involved by hiring one monitor to start. We know the
25 traffic's going to be really heavy between the mill at
26 Meadowbank and Whale Tail Pit. We discussed it

1 briefly, but with limited resources right now, we're
2 trying to figure out how to tackle this problem at the
3 moment.

4 I don't know if this answers your question.

5 Thank you, Madam Chair.

6 MR. ALIKUT: Thank you. That's good.

7 And my other question: The caribou with the
8 collars, how many are they that have collars? They
9 could be in one herd because they're not -- you can't
10 hear -- you can't find out everything just with the
11 collars. You have to use Inuit traditional knowledge.
12 Do you believe -- I know the HTOs are the ones that are
13 the frontline workers for our wildlife, and our country
14 food is one of our staples. You have to know exactly
15 what -- when the caribou are in the area or no longer
16 in the area. Do you have a backup? Or do you have
17 other ways of monitoring, not only the collars?

18 Thank you.

19 MR. BERNAUER: Thank you. Warren Bernauer
20 for the Baker Lake HTO.

21 This is part of why we've requested AEM provide us
22 funding for the road monitor. That way they can
23 observe caribou and monitor for caribou movement
24 visually rather than based on collar data alone. And
25 we agree; there is significant problems with relying
26 primarily on caribou collars.

1 MR. ALIKUT: One more question. Thank you.

2 Mental health is a big issue, and HTO is looking
3 at this as well. I know everybody has to look at
4 mental health. Whether it's an organization or a
5 company, we have to look at it. It's not -- because
6 Inuit are not dumb. It's because we didn't have the
7 type of things right now. It seems like we're -- when
8 the government are looking at us, they think we're not
9 qualified, and we're -- we don't have mental health.
10 We need something to fix this problem for today, and
11 they are working in our communities. When we were
12 out -- living out on the land and we were forced into
13 the communities and we had to live like the white man,
14 now -- it's just support. I'm glad to hear the things
15 that you are dealing with and trying to deal with
16 mental health issues.

17 Thank you.

18 THE CHAIR: Any other questions from the
19 Board?

20 I have two questions -- or could be one question.

21 The Baker Lake Hunters and Trappers Organization
22 had stated a notice in a decline in wildlife,
23 especially caribou. Does the HTO feel that may be due
24 to mining in area? Or other factors? And can you
25 please elaborate on this issue.

26 Plus, does the HTO get approached or get any calls

1 from hunters and fishermen out there in regards to any
2 concerns regarding the road, helicopters, anything in
3 regards to mining?

4 Thank you.

5 MR. AKSAWNEE: Thank you, Madam Chair.

6 Richard Aksawnee, Baker Lake Hunters and Trappers
7 Organization.

8 The effects on caribou, yeah, we see a decline in
9 our caribou. It's a mixed factor. It's part of
10 development. It's part of us Inuit harvesting them as
11 well.

12 And the other question that you had in regards to
13 disturbance on wildlife reporting, yes, we do get
14 reports from our local hunters when they spot any
15 low-flying aircrafts -- or any other disturbance, for
16 that matter. Reported to our office and then we
17 turn -- and then we go to the -- we have a talk with
18 the game officer to try and investigate into this
19 reported incident.

20 Thank you, Madam Chair.

21 THE CHAIR: Okay. Thank you.

22 Thank you to the Baker Lake Hunters and Trappers
23 Organization for your presentation.

24 Next we have is the Government of Nunavut.

25 But, first, I won't forget our legal counsel.

26 MS. MEADOWS: Thank you, Madam Chair.

1 Teresa Meadows, legal counsel for the Nunavut Impact
2 Review Board.

3 I have four presentation submissions to mark as
4 the next exhibits in this public hearing that were
5 filed by the Government of Nunavut and that will be
6 presented today and that are available at the back
7 table.

8 EXHIBIT 26 - Government of Nunavut hard copy
9 technical session regarding Agnico Eagle
10 Whale Tail Pit Project for Nunavut Impact
11 Review Board final hearing, September 19-22,
12 2017 (English/Inuktitut)

13 EXHIBIT 27 - Government of Nunavut hard copy
14 technical session regarding Agnico Eagle
15 Whale Tail Pit Project for Nunavut Impact
16 Review Board final hearing, September 19-22,
17 2017 (English/French)

18 EXHIBIT 28 - Government of Nunavut table of
19 proposed terms and conditions (English)

20 EXHIBIT 29 - Government of Nunavut table of
21 proposed terms and conditions (Inuktitut)

22 EXHIBIT 30 - Government of Nunavut table of
23 proposed terms and conditions (French)

24 MR. ARMSTRONG: Madam Chair. Brad Armstrong.

25 I'm sorry to interrupt, but Mr. Quesnel just had a
26 clarification that related to the previous panel. If

1 we could just do that before we proceed.

2 Thank you.

3 THE CHAIR: I'm sorry. I didn't get --
4 related to the what?

5 MR. ARMSTRONG: It's in relation to the HTO
6 panel. And so he wanted to make a clarification on one
7 point, which it relates to the HTO panel, before we
8 move on to GN, if he could.

9 Thank you, Madam Chair.

10 Comments by Agnico Eagle Mines Limited

11 MR. QUESNEL: Thank you, Madam Chair. Jamie
12 Quesnel.

13 Just two points of clarification.

14 The first is just related to the involvement with
15 the Baker Lake Hunters and Trappers Organization.
16 They've been involved with the workshops, with the
17 Kivalliq Inuit Association, the Government of Nunavut.
18 It was mentioned earlier by my colleague Ryan the three
19 workshops that we had, two in Winnipeg and two [sic] in
20 Ottawa. There was a representative from the Baker Lake
21 Hunters and Trappers Organization to be involved with
22 that discussion too, and they were involved with the
23 changes with our monitoring plans related to the
24 terrestrial ecosystem management plan. So they've been
25 involved with that from the start of those workshops.

26 And the second point of clarification, based on us

1 operating for the Whale Tail Pit Project for 365 days,
2 it's been presented that we have calculated 28 days out
3 of the 365 to shut down for caribou and also for
4 blizzards.

5 So I just wanted to pass those clarifications on.

6 Thank you.

7 THE CHAIR: Okay. Thank you.

8 STEVE PINKSEN, STEPHEN ATKINSON, Affirmed

9 MS. MEADOWS: Teresa Meadows, legal counsel
10 for the Nunavut Impact Review Board.

11 Thank you, Madam Chair. Those are all my
12 procedural matters.

13 THE CHAIR: Thank you.

14 You may go ahead with your presentation.
15 Presentation by Government of Nunavut

16 MR. PINKSEN: Thank you. Steve Pinksen,
17 Government of Nunavut.

18 On behalf of the Government of Nunavut, I would
19 like to thank the Nunavut Impact Review Board for the
20 opportunity to make this presentation today. I look
21 forward to listening to all comments and questions
22 asked during this session, and we will do our best to
23 provide complete answers.

24 The Government of Nunavut is a highly dynamic
25 organization characterized by a variety of interests in
26 the resource development sector. We try to conduct

1 reviews in a balanced manner. We strive to ensure
2 equal consideration of all priorities as they relate to
3 the biophysical, socioeconomic, and cultural
4 environments. We rely on a variety of government
5 policy and legislation.

6 We will cover the following -- we will cover the
7 following topics over the remainder of our
8 presentation: the Government of Nunavut's role,
9 mandate, policies, and legislation as it relates to
10 resource development; outstanding issues, remarks, or
11 recommendations on the proponent's final environmental
12 impact statement; and our conclusions.

13 The Government of Nunavut has a multipronged role.
14 It assesses the environmental and socioeconomic impacts
15 of a project. In efforts to ensure our proposed
16 project aligns with the Government of Nunavut's
17 mandate, the government must fulfill its role to assess
18 all possible project impacts within its jurisdictional
19 boundaries. The Government of Nunavut has conducted a
20 thorough assessment of Agnico Eagle's final
21 environmental impact statement. We work to provide
22 adequate advice and expertise in areas such as wildlife
23 protection and management, public safety, culture and
24 heritage, employment and contracting -- when assessing
25 the impacts of a proposed project. We will also
26 monitor proponent operations to ensure compliance with

1 territorial legislation.

2 Sivumut abluqta or "stepping forward together" is
3 a Government of Nunavut mandate to achieve the
4 responsible development of the territory's renewable
5 and non-renewable resources in a manner that benefits
6 all Nunavummiut.

7 Our participation in impact assessment processes
8 is also guided by several overarching strategic
9 documents, including the mineral exploration and mining
10 strategy, the transportation strategy, and the tourism
11 strategy.

12 Under parnautiit, the Government of Nunavut's
13 mineral exploration and mining strategy, the goal is to
14 create the conditions for a strong and sustainable
15 minerals industry that contributes to a high and
16 sustainable quality of life for Nunavummiut.

17 This slide outlines the various legislation our
18 government referenced during the final environmental
19 impact statement review process. Highlights are the
20 Wildlife Act, the Environmental Protection Act, and the
21 Public Health Act.

22 Inuit Qaujimajatuqangit guides our participation
23 in all reviews. The Government of Nunavut is building
24 Nunavut's future based on the guiding knowledge of
25 Inuit Qaujimajatuqangit, which sees traditional Inuit
26 knowledge incorporated into modern practices.

1 For the remainder of this presentation, I will be
2 providing a breakdown of the Government of Nunavut's
3 technical review of Agnico Eagle's final environmental
4 impact statement. In completing the technical review
5 of the proponent's final environmental impact
6 statement, the Government of Nunavut identified a
7 number of concerns which will be highlighted and
8 responded to during the remaining -- remainder of the
9 presentation.

10 Our review was conducted and completed by an
11 interdepartmental group known as the environmental
12 assessment review team. This contains two
13 subcommittees, the socioeconomic assessment committee
14 and the environment and human health assessment
15 committee. Through ongoing communications throughout
16 the review process, the Government of Nunavut and the
17 proponent have resolved I think all, as of today, of
18 the previously noted issues. These include fiscal
19 impacts to government, socioeconomic monitoring,
20 seasonal windows for implementation of caribou
21 protection measures, raptor mitigation, labour market
22 forecasting, and other matters.

23 Through various discussions with the proponent,
24 all seven of our outstanding socioeconomic issues were
25 resolved. The Government of Nunavut worked closely
26 with the proponent to develop agreed-upon wording for

1 socioeconomic-related terms and conditions and
2 commitments. If the project is granted approval, the
3 Government of Nunavut will continue to work with the
4 proponent to ensure all terms and commitments are
5 fulfilled.

6 Prior to the hearing, we had a number of
7 outstanding matters related to wildlife, particularly
8 around sensory disturbances to caribou. Since filing
9 our presentation with the Nunavut Impact Review Board,
10 we have reached agreement regarding these outstanding
11 ecosystemic concerns with the project. Agreement has
12 primarily been reached through the formation of the
13 terrestrial advisory group, which will be a group
14 formed from the Kivalliq Inuit Association, the Baker
15 Lake Hunters and Trappers Organization, Agnico Eagle
16 Mines, and the Government of Nunavut.

17 We've agreed to this approach with the
18 understanding that Agnico Eagle Mines has committed to
19 adhering to or remaining consistent with majority-based
20 approach to decision-making, similar to what was
21 discussed by the Baker Lake Hunters and Trappers
22 Organization. To be clear, we agree that these issues
23 have been resolved on the assumption that the terms of
24 reference for the terrestrial advisory group are agreed
25 to by all parties prior to the completion of the
26 hearing.

1 Caribou protection measures, referenced GN Comment
2 Number 4: Agnico Eagle has made a commitment to
3 evaluate its proposed caribou protection measures, and
4 we consider this issue resolved.

5 Similar with caribou group sizes, GN-06, we
6 consider this issue resolved.

7 And caribou monitoring, GN-07, we consider the
8 issue resolved.

9 For road traffic and operations, again, through
10 discussions, we resolved this issue.

11 For GN-09 regarding the blasting, again, we
12 consider the issue resolved.

13 For GN Comment Number 10, mandatory helicopter
14 distances to caribou, we consider the issue resolved.

15 For traffic rates and monitoring related to
16 caribou, GN Comment 11, we consider the issue resolved.

17 Project-tolerant wildlife, GN Comment Number 12,
18 we consider the issue resolved.

19 Muskox and mitigation, GN Comment Number 13, we
20 consider the issue resolved.

21 Raptor mitigation, GN Comment Number 14, we
22 consider the issue resolved.

23 In conclusion, in the project's lifecycle, should
24 the project be approved, the Government of Nunavut
25 commits to working with all stakeholders, including the
26 proponent, to ensure monitoring and mitigation measures

1 are achieved. As part of our continued effort to
2 encourage and support economic development initiatives,
3 the Government of Nunavut must ensure this is done
4 responsibly and using a balanced approach. The
5 Government of Nunavut believes in the principles of
6 Inuit Qaujimajatuqangit and encourages the continued
7 use of Inuit societal values through all stages of
8 development.

9 Thank you.

10 Kivalliq Inuit Association Questions Government of
11 Nunavut

12 THE CHAIR: Thank you.

13 Questions to the Government of Nunavut from the
14 Kivalliq Inuit Association.

15 MR. POOLE: Thank you, Madam Chair. Kim
16 Poole for the Kivalliq Inuit Association.

17 I understand that most of the commitments to the
18 Government of Nunavut's caribou recommendations and
19 other wildlife depend on wording to be added to the
20 terms of reference for the terrestrial advisory group.
21 Is it acceptable to the Government of Nunavut that this
22 wording be finalized in the coming days after the end
23 of this hearing?

24 Thank you.

25 MR. PINKSEN: Thank you. Steve Pinksen,
26 Government of Nunavut.

1 In short answer, no. We prefer that the specific
2 decision-making language around how the decisions of
3 the terrestrial advisory group are made are finalized.
4 Our conclusions that the issues are resolved are based
5 on that assumption, that we will find that wording,
6 hopefully today.

7 Thank you.

8 THE CHAIR: Any questions from the Baker
9 Lake Hunters and Trappers Organization?
10 Baker Lake Hunters and Trappers Organization Questions
11 Government of Nunavut

12 MR. BERNAUER: Thank you, Madam Chair.
13 Warren Bernauer for the Baker Lake Hunters and Trappers
14 Organization.

15 First, a point of clarification: The Hunters and
16 Trappers Organization's position is the same as the
17 Government of Nunavut's, that these terms of reference
18 should be agreed upon prior to the conclusion of the
19 hearing. We didn't have a chance to respond to
20 Agnico's response to us at the end of our presentation;
21 so I just wanted to clarify.

22 And next I want to ask you the same questions that
23 I asked the Kivalliq Inuit Association previously.

24 So judging from your presentation and the comments
25 the Government of Nunavut has made in writing, it's my
26 understanding that your assessment is that there is

1 potential for harm with this project, but with the
2 right mitigation measures, local food security can be
3 protected. Is this correct?

4 MR. PINKSEN: Thank you. Steve Pinksen,
5 Government of Nunavut.

6 We work with the intervenors and particularly the
7 HTO and Kivalliq Inuit Association and the proponent to
8 develop these mitigation measures. We believe that,
9 should these mitigation measures be correctly followed
10 through and the terrestrial advisory group function as
11 it's been conceived, then yes. We would note that
12 there's always uncertainty. There's no 100 percent
13 that there won't be impacts. But we've also insisted
14 upon and agreed upon extensive monitoring with
15 potential adaptive management to respond to changes.
16 So with those considerations, yes.

17 Thank you.

18 MR. BERNAUER: Thank you. I appreciate your
19 response.

20 A further question regarding the monitoring and
21 adaptive management: The Government of Nunavut raised
22 numerous concerns with the current plans that Agnico
23 Eagle has in place. And just for clarity, your
24 concerns with group-size thresholds, blast radiuses and
25 the like, you're comfortable with these being deferred
26 to the terrestrial advisory group to discuss these

1 later?

2 MR. PINKSEN: Thank you. Steve Pinksen,
3 Government of Nunavut.

4 Yes, on the assumption that we come to an
5 agreement on the specific wording for the terms of
6 reference.

7 Thank you.

8 MR. BERNAUER: Thank you. No further
9 questions.

10 THE CHAIR: Thank you.

11 Any questions from Environment and Climate Change
12 Canada?

13 MS. PINTO: Thank you, Madam Chair.
14 Melissa Pinto, Environment and Climate Change Canada.

15 We have no questions at this time.

16 THE CHAIR: Fisheries and Oceans Canada.

17 MR. D'AGUIAR: Thank you, Madam Chair. Mark
18 D'Aguiar with Fisheries and Oceans Canada.

19 We have no questions.

20 THE CHAIR: Indigenous and Northern
21 Affairs Canada.

22 MS. COSTELLO: Karen Costello on behalf of
23 Indigenous and Northern Affairs Canada.

24 We have no questions at this time.

25 Thank you, Madam Chair.

26 THE CHAIR: Natural Resources Canada.

1 MS. BESNER: Thank you, Madam Chair.

2 Rachelle Besner, Natural Resources Canada.

3 We have no questions.

4 THE CHAIR: Transport Canada.

5 MR. SADOWAY: Thank you very much. Shane

6 Sadoway, Transport Canada.

7 No questions.

8 THE CHAIR: Any questions from Agnico

9 Eagle Mines?

10 MR. QUESNEL: Thank you, Madam Chair. Jamie

11 Quesnel.

12 No questions.

13 THE CHAIR: Any questions from the Nunavut

14 Impact Review Board staff?

15 MR. BARRY: Thank you, Madam Chair. Ryan

16 Barry with the Nunavut Impact Review Board staff.

17 We have no questions.

18 THE CHAIR: Any questions from the Nunavut

19 Water Board staff?

20 MR. KHARATYAN: Thank you, Madam Chair. Karen

21 Kharatyan, Nunavut Water Board.

22 No questions.

23 THE CHAIR: Any questions from the Board?

24 Phillip.

25 Nunavut Impact Review Board Questions Government of

26 Nunavut

1 MR. KADLUN: Quana, Madam Chair. Phillip
2 Kadlun, Nunavut Impact Review Board member.

3 Just a point of clarification, I guess, on your
4 group-size threshold. My point of clarification is
5 that -- the need for my clarification is that, those
6 numbers, are they to be the same all across Nunavut or,
7 rather, for all herds?

8 Thank you, Madam Chair.

9 MR. PINKSEN: Thank you. Steve Pinksen,
10 Government of Nunavut.

11 No, these thresholds are specific to this project
12 and the herds that are associated with the project in
13 this area, not Nunavut-wide.

14 Thank you.

15 THE CHAIR: Guy.

16 MR. ALIKUT: Thank you, Madam Chair. Guy
17 Alikut, Nunavut Impact Review Board.

18 My question, from the past -- from the past, this
19 is a question that's always been asked. Our youth want
20 to work, and they don't have any house of their own.
21 There's a lot of people that are in social housing.
22 And once they start working, they have to pay
23 35 percent of what they make for their rent to the
24 housing association, and this is a reason why a lot of
25 people don't want to work. I know personally if you --
26 once you started working, this person owes \$35,000 for

1 rent. He just wanted to stop working because it cost
2 too much to pay rent. Whether this would be something
3 to be dealt with in the future, it's been something
4 that has been talked about for a long time. Where is
5 that? As the Government of Nunavut, where is this
6 issue? Is it on your radar?

7 Thank you.

8 MR. PINKSEN: Thank you. Steve Pinksen,
9 Government of Nunavut.

10 The Government of Nunavut's social housing program
11 is an income-based program so that lower-income
12 individuals do pay less than higher incomes. It's
13 intentionally structured that way. There was a recent
14 change -- I don't remember the specific date. I think
15 it was within the past 12 months or so -- when they did
16 increase that threshold so that people could earn more
17 income without seeing a change, an increase, in their
18 rent. But it certainly is an income-based threshold,
19 an income-based program. And there isn't a plan to
20 change it across the board. It's expected to be --
21 remain income-based out of necessity because of cost,
22 because the cost of building and maintaining social
23 housing is really high. But I will take that comment
24 back with us when we -- back and pass it on to our
25 bosses and superiors.

26 Thank you.

1 MR. ALIKUT: Thank you for the answer.

2 It's a good answer.

3 When we're talking, discussing this issue, people
4 getting social housing, it seems like it started
5 going -- it was going smooth, and when people wanted to
6 purchase their own houses and build their own houses, a
7 lot of people got their -- were able to build their
8 houses. I don't know what happened, why it change
9 it -- why it changed and that program is no longer
10 available. I know there's a lot of youth that want to
11 work, but because of the government, they're going to
12 give their house back to the government and then become
13 welfare recipients. It's not a good thing.

14 I think we'd be able to come up with solutions
15 with the same way as the past with the HAP houses,
16 whether you'd revisit that idea of assisting people
17 with purchasing their own house. It's -- even though
18 they want to work, it's because of the rent getting too
19 high, they just don't want to work anymore. I don't
20 know how our youth can be helped to stand up on their
21 own. I think we would be able to work together and
22 resolve these issues.

23 I'll leave that at that. It's just a comment;
24 it's not a question.

25 Thank you.

26 THE CHAIR: Yes, it's just a comment.

1 Kaviq.

2 MS. KALURAQ: Thank you, Madam Chair. Kaviq
3 Kaluraq, NIRB.

4 Could you explain or elaborate on any increase --
5 with the Government of Nunavut's experience with the
6 Meadowbank project or Agnico Eagle projects in the
7 Kivalliq Region, can the Government of Nunavut explain
8 if it has seen an increased demand for government
9 services and, if it has, if there has been an increase
10 in government services specifically in Baker Lake and
11 other Kivalliq communities.

12 Mat'na, Iksivautaq.

13 MR. PINKSEN: Thank you. Steve Pinksen,
14 Government of Nunavut.

15 I can confirm that there's been an increase in
16 demands on the health centre here in Baker Lake. So
17 our Department of Health has indicated that a larger
18 population and activity in Baker Lake has increased
19 their demands on the health centre. I'm not aware of
20 any other demands on government services, except around
21 the health centre.

22 I will discuss with my colleagues and defer a
23 further answer until later.

24 Thank you.

25 THE CHAIR: Any other questions?

26 I have a question. Is the Government of Nunavut

1 considering other methods of monitoring caribou? We
2 have heard some concerns from hunters indicating that
3 collars are a little huge and have caused infection or
4 starving of caribou. Has the Government of Nunavut
5 considered other methods of monitoring caribou?

6 And another concern that we have heard was on
7 helicopter disturbing wildlife. Has the Government of
8 Nunavut been approached on this issue? And what
9 measures are being done?

10 Thank you.

11 MR. PINKSEN: Thank you. Steve Pinksen,
12 Government of Nunavut.

13 Just first to the helicopter issue, we do
14 encourage anybody who sees any harassment of wildlife
15 or aircraft disturbing wildlife to report that so we
16 can look into it. And just for anybody who
17 specifically sees it, on every aircraft, there's a
18 number -- that's all we need to track them down. So we
19 appreciate that. And we do get reports occasionally of
20 helicopters disturbing wildlife, and with that
21 information, we can look into the activity.

22 Specific to the project, the proponent has agreed
23 to certain conditions that will be discussed further
24 through the terrestrial advisory group for helicopter
25 use associated with the project. So we are dealing
26 with that specific to the project.

1 On the collar usage, given the vast size of
2 caribou migration areas in the mainland part of
3 Nunavut, collars are about the only method that we've
4 got that's reliable in tracking long-distance
5 movements. We can use hunter observations and other
6 observations for more localized movements around
7 communities and on road monitoring, but collars do
8 provide us with information that we can't really get
9 from other sources.

10 We do recognize that people have concerns with
11 collar usage on caribou and other species. But we
12 would note that, in terms of scale, there's very few
13 collars out there. So we've got several hundred
14 thousand caribou in the mainland area, like maybe three
15 hundred thousand, and at any given time there's only
16 about 50 collars out there. So the number of collars
17 out is minimized; so the actual impacts on caribou
18 populations are pretty small. And I guess it could be
19 considered a necessary evil to get that valuable data,
20 is the effects on those few numbers of caribou.

21 Thank you.

22 THE CHAIR: Thank you. That also would go
23 with Guy's concern on depending on collared caribou.
24 Thank you.

25 Okay. It's now lunchtime. Let's go for lunch and
26 be back at 1:15 with the presentation from Environment

1 and Climate Change Canada.

2 (LUNCHEON ADJOURNMENT AT 12:04 PM)

3 (PROCEEDINGS RECOMMENCED AT 1:37 PM)

4 THE CHAIR: Okay. We're five minutes late
5 already. Welcome back.

6 Next for presentations is the Environment and
7 Climate Change.

8 Legal counsel.

9 MS. MEADOWS: Thank you, Madam Chair.

10 Teresa Meadows, legal counsel for the Nunavut Impact
11 Review Board. So, Madam Chair, in advance of this
12 presentation, I have to file as exhibits three
13 copies -- two copies -- two copies of the Environment
14 and Climate Change Canada presentation materials and --
15 in English and Inuktitut and in English and French.

16 EXHIBIT 31 - Environment and Climate Change
17 Canada hard copy PowerPoint presentation to
18 the Nunavut Impact Review Board respecting
19 the Whale Tail Pit Project
20 (English/Inuktitut)

21 EXHIBIT 32 - Environment and Climate Change
22 Canada hard copy PowerPoint presentation to
23 the Nunavut Impact Review Board respecting
24 the Whale Tail Pit Project (French/English)

25 TRISH AUSER, MELISSA PINTO, BRIAN ASHER, Affirmed

26 MS. MEADOWS: Thank you, Madam Chair. Those

1 are all my procedural matters.

2 THE CHAIR: Thank you. You may proceed
3 with your presentation.

4 Presentation by Environment and Climate Change Canada

5 MS. PINTO: Good afternoon, Madam Chair,
6 Board members, elders, community members, Board staff,
7 and parties that have joined us here today.

8 My name is Melissa Pinto, and I'm a senior
9 environmental assessment coordinator with Environment
10 and Climate Change Canada. With me today, on my left,
11 I have Trish Auser, our water quality expert; and Brian
12 Asher, our air quality expert, to my right.

13 To start off, I will go through the department's
14 mandate, briefly touch upon the relevant acts and
15 legislation, and then go through the recommendations
16 outlined in Environment and Climate Change Canada's
17 final written submission to the Nunavut Impact Review
18 Board. For each recommendation, we will indicate
19 whether or not the issue has been resolved or still
20 remains outstanding, along with any commitments made by
21 the proponent.

22 Summarized, Environment and Climate Change
23 Canada's mandate is conserve and protect Canada's water
24 resources, forecast daily weather conditions and
25 warnings, coordinate environmental policies and
26 programs for the federal government; and continued on,

1 to preserve and enhance the quality of the natural
2 environment, including air, water, soil, flora, and
3 fauna, and to enforce rules relating to boundary
4 waters.

5 Environment and Climate Change Canada's mandate is
6 governed by the Department of the Environment Act, the
7 Canadian Environmental Protection Act, the Pollution
8 Prevention Provisions of the Fisheries Act, the
9 Migratory Birds Convention Act and the Species at Risk
10 Act.

11 For air quality, Environment and Climate Change
12 Canada had concerns with the location of the active
13 particulate monitoring station that was meant to
14 monitor dust from Whale Tail Pit. Through discussions
15 with the proponent, it was agreed that the proponent
16 would evaluate alternative locations for the station
17 and the addition of a supplemental low-powered
18 particulate monitoring station once site infrastructure
19 is in place. The department will review these
20 assessments and future iterations of the air quality
21 monitoring plan. Environment and Climate Change Canada
22 has no outstanding air quality concerns at this point.

23 For wildlife, Environment and Climate Change
24 Canada previously had concerns with potential waterbird
25 entanglement; however, the proponent developed and
26 submitted the fish-out diving waterbird protection plan

1 which, when implemented, will address these concerns.

2 In the final written submission, the department
3 indicated that there were outstanding concerns with
4 migratory birds in regards to flooding, the tailing
5 storage facility, and incident reporting.

6 Environment and Climate Change Canada's first
7 concern outlined in the final written submission was in
8 regards to flooding and migratory birds. To clarify,
9 the department is referring to all migratory birds and
10 not just waterbirds for this particular recommendation.
11 This may not have been clear in the terrestrial
12 environment presentation given by the proponent
13 yesterday.

14 The baseline data presented by the proponent at
15 the time was insufficient to understand the magnitude
16 of the potential effects of the flooding on migratory
17 birds. The department was and still is unsure of the
18 effectiveness of the preferred mitigation measures
19 proposed by the proponent.

20 In the associated recommendation, the department
21 recommends that the proponent conduct additional field
22 studies to better characterize migratory bird and
23 vegetation communities within the predicted flooded
24 area and conduct field tests during the 2018 season,
25 and/or conduct a thorough literature review of the
26 effectiveness of the proposed deterrence.

1 Environment and Climate Change Canada also
2 recommends that the proponent monitor the effectiveness
3 of the mitigation measures during flooding to ensure
4 they are working as intended and continue to work with
5 the department and other interested parties on the
6 development and implementation of the migratory birds
7 protection plan.

8 In the proponent's response to final submissions,
9 the proponent indicated it had agreed to these
10 recommendations through meetings with the department
11 and subsequently in the migratory birds protection
12 plan. Environment and Climate Change Canada
13 acknowledges that this plan fulfills parts of this
14 recommendation. In the plan, the proponent indicates
15 that field studies planned for the summer of 2017 will
16 be reported in the annual terrestrial ecosystem
17 monitoring report and that the evaluation of mitigation
18 options will be completed in consultation with the
19 department.

20 On September 8th, the proponent sent the
21 department the 2017 terrestrial baseline
22 characterization report update for Whale Tail. This
23 report contains results from the field studies
24 conducted earlier this year. During a meeting between
25 the proponent and the department on September 14th,
26 2017, it was agreed that the discussions on this report

1 and the results of the baseline studies would be held
2 later this year. These discussions will help to inform
3 Part B and C of this recommendation which have not yet
4 been fully addressed by the migratory birds protection
5 plan.

6 During the September 14th meeting, the proponent
7 agreed to update the migratory birds protection plan
8 between now and the next field season to address
9 concerns under Part B and C of this recommendation.
10 Environment and Climate Change Canada recommends to the
11 Nunavut Impact Review Board that a term and condition
12 be included in the project certificate, which captures
13 our outstanding concerns. The wording, as follows, has
14 been developed in consultation with the proponent.

15 The proponent will continue to develop and
16 implement the migratory birds protection plan in
17 consultation with Environment and Climate Change Canada
18 and other interested parties. The plan will include
19 and/or give consideration to the following: (a),
20 information obtained from baseline characterization of
21 migratory bird and vegetation communities within the
22 predicted flood area; (b), results of field tests
23 and/or the thorough literature review of the
24 effectiveness of preferred deterrence prior to actual
25 flooding; and (c), details regarding monitoring the
26 effectiveness of mitigation measures during flooding.

1 With this term and condition, the department considers
2 this issue resolved.

3 Environment and Climate Change Canada's second
4 concern was regarding Commitment Number 14, 15, and 16
5 made at the technical meeting. At the technical
6 meeting, the proponent committed to monitoring
7 shorebirds as part of the bird monitoring program at
8 the tailing storage facility, adding the semipalmated
9 sandpiper as a wildlife receptor of concern as part of
10 the wildlife screening level risk assessment plan, and
11 to have this plan include risk assessments for
12 potential ingestion of water and/or sediment at the
13 tailing storage facility for all wildlife receptors of
14 concern. The updated terrestrial ecosystem management
15 plan, including the wildlife screening level risk
16 assessment plan, did not include these commitments.

17 In the proponent's response to Environment and
18 Climate Change Canada's comment, the recommendation --
19 and the recommendation, the proponent indicated that
20 the terrestrial ecosystem management plan, including
21 the wildlife screening level risk assessment plan, will
22 be updated to reflect Commitments 14, 15, 16 sixty days
23 following the issuance of the project certificate. The
24 department considers this issue resolved.

25 The department's third concern was regarding
26 migratory bird incident reporting. Through discussions

1 with Environment and Climate Change Canada, the
2 proponent was reminded that migratory bird interactions
3 and mortalities should be reported to the department
4 and not just to the Government of Nunavut. Engaging
5 Environment and Climate Change Canada early will allow
6 assessment of further risks to migratory birds and
7 possible adaptive management recommendations.

8 The department recommends that the proponent
9 ensure migratory bird interactions and mortality
10 incidents are reported to Environment and Climate
11 Change Canada, and details surrounding incidents are
12 recorded and included in the relevant annual reports
13 for review by parties. In the proponent's response to
14 this recommendation, the proponent indicated that the
15 terrestrial ecosystem management plan would be updated
16 60 days following the issuance of the project
17 certificate to include this information. The
18 department considers this issue resolved.

19 I will now hand it over to Trish to continue the
20 presentation.

21 MS. AUSER: For water quality, some of the
22 outstanding concerns that Environment and Climate
23 Change Canada had at the close of the prehearing
24 conference were resolved by subsequent exchanges with
25 the proponent. One such concern was with the
26 site-specific water quality objective for arsenic,

1 which was initially proposed as 28 micrograms per
2 litre. In response to the department's concerns, the
3 proponent removed the amphibian data and provided
4 summary statistics for the models and the rationale for
5 selecting the normal model.

6 Environment and Climate Change Canada acknowledges
7 that there is unlikely to be a statically significant
8 difference between the results of the two models;
9 therefore, the department accepts the revised
10 site-specific water quality objective of 25 micrograms
11 per litre for total arsenic, which excludes the
12 amphibian data.

13 Environment and Climate Change Canada had also
14 raised concerns regarding water quality modelling
15 predictions for arsenic and phosphorous levels in the
16 receiving environment and has recommended improved
17 treatment for these constituents. The proponent now
18 proposes to improve the treatment objective for arsenic
19 and for phosphorous. The department accepts these more
20 stringent treatment objectives.

21 Environment Canada Comment Number 4 relates to the
22 north wall pushback of the Whale Tail Pit. The
23 original Whale Tail Pit design, which is the base case,
24 resulted in approximately 29 percent of the final pit
25 shell containing exposed ultramafic rock, which has a
26 higher potential to leach arsenic than does other rock

1 types.

2 A pushback -- that is increased removal -- of the
3 north wall containing this ultramafic rock was
4 initially identified by the proponent as a potential
5 contingency measure to reduce the amount of exposed
6 ultramafic rock on the final pit shell by roughly half
7 with the intent to reduce arsenic levels in the Whale
8 Tail Pit Lake. The department noted that the
9 environmental risks and benefits of removing
10 approximately half of the exposed north wall ultramafic
11 material from the Whale Tail Pit -- that is a north
12 wall pushback -- have not been fully quantified or
13 discussed. Given the large volume of waste rock that
14 would be produced by a north wall pushback, which would
15 increase the waste rock storage facility to an
16 elevation of 66 metres, together with modest
17 improvements and water quality, an alternatives
18 assessment was recommended.

19 The department recommended that the proponent
20 conduct an alternatives analysis of the pit design with
21 and without the north wall pushback scenario in order
22 to assess the potential risks and benefits to the
23 aquatic receiving environment. Such an alternatives
24 analysis should consider the entire life of mine and
25 through post-closure.

26 In the responses to final submissions, the

1 proponent summarized the -- the evaluations done
2 stating that they have evaluated the change from base
3 case to adding the north wall pushback. Given that the
4 north wall pushback has already been selected as the
5 preferred design over the base case, the department
6 acknowledges that the main issues have been compared --
7 that is water quality and arsenic waste rock
8 enclosure -- and is currently satisfied with the
9 information provided. Environment and Climate Change
10 Canada anticipates that operational information will
11 refine predictions and management actions for this
12 alternative.

13 For Environment and Climate Change Canada Comment
14 Number 5, the proponent provided sensitivity analysis
15 for a range of modeled conditions, which highlight
16 potential for problems to arise if conditions are not
17 as predicted. The department recommends that the
18 proponent submit detailed management plans to be
19 implemented for waste rock segregation and testing,
20 thermal modelling of waste rock, and seepage management
21 and monitoring. Plans should include a schedule for
22 reporting of results and periodic updating of
23 predictions for the waste rock storage facility pond
24 quality, along with proactive planning for optimal
25 cover conditions. Contingency measures should be
26 identified as appropriate. Monitoring results for

1 receiving waters should be compared to model
2 predictions, and thresholds identified for management
3 actions should trans-indicate water quality objectives
4 may be exceeded. The proponent has responded in
5 agreement with this recommendation, and Environment and
6 Climate Change Canada considers this issue resolved.

7 Comment Number 6 in the final written submission
8 discussed the effluent quality criteria proposed by the
9 proponent. The department recommends the effluent
10 quality criteria be set based on concentrations that
11 are achievable and that minimize discharge levels to
12 receiving waters. Criteria should be applicable to all
13 mine-related discharge to surface waters. In response
14 to this recommendation, the proponent provided revised
15 criteria that have been updated to reflect discussions
16 with Environment and Climate Change Canada. The
17 proponent also committed to determining the level for
18 mercury in consultation with the department prior to
19 the water licence hearing. Environment and Climate
20 Change Canada accepts the revised criteria levels and
21 agrees to work with the proponent to identify an
22 appropriate effluent quality criteria for mercury.

23 Initially, proposed sludge management involved
24 discharging sludge waste from the treatment plants into
25 the Whale Tail attenuation pond. Because the
26 attenuation pond will be located within the drained

1 north basin of Whale Tail Lake, the pond will
2 ultimately become submerged within Whale Tail Lake upon
3 re-flooding of the north basin and would therefore
4 result in sludge waste within the lake bed of Whale
5 Tail Lake north basin in perpetuity.

6 The department has raised a concern with disposing
7 of sludge in this location as there would be no way to
8 manage potential environmental effects, such as
9 migration of contaminants from the sludge into
10 Whale Tail Lake over time. Environment and Climate
11 Change Canada recommends that sludge be disposed using
12 methods that have been demonstrated to provide
13 effective containment in isolation under northern
14 conditions, such as into the waste rock storage
15 facility or the tailings storage facility at Meadowbank
16 rather than into the attenuation pond at Whale Tail
17 Lake.

18 In response to Comment Number 7, the proponent
19 agreed with the department's recommendation and will
20 dispose of the sludge into the waste rock storage
21 facility instead of the attenuation pond. Environment
22 and Climate Change Canada considers this issue
23 resolved.

24 The Azimuth report from 2017 provides a synthesis
25 of information on mercury and methylmercury in
26 connection with flooding of terrestrial areas. It

1 provides a good review of the factors and tries to
2 assign a risk level for the likelihood of increased
3 methylmercury associated with the flooding of the area
4 around south Whale Tail Lake.

5 In the absence of information on conditions that
6 are unique to this environment, conclusions are
7 tentative and qualified. The report notes that the
8 authors are unaware of any other reservoirs created
9 strictly within an arctic environment and that the
10 arctic is an untested environment with respect to
11 mercury modelling for impoundment. Specifically, a
12 number of key uncertainties are identified. Conducting
13 an investigation of these key uncertainties would
14 contribute to understanding mercury dynamics in a
15 northern impoundment scenario and could improve mercury
16 predictions for fish, other aquatic biota, sediment,
17 and water quality.

18 Environment and Climate Change Canada recommends
19 conducting a separate study during the construction,
20 operations, and closure of the flooded areas to address
21 key uncertainties that were identified in the Azimuth
22 report in order to inform mercury modelling for this
23 project. Adaptive management options should be
24 considered based on the results from this study.

25 The proponent agrees with this recommendation and
26 proposes to conduct a separate mercury monitoring

1 program, including water, sediment, and biota of Whale
2 Tail Lake south basin that will be conducted alongside
3 the core receiving environment monitoring program and
4 fisheries and offsetting monitoring plan with results
5 compared to model predictions. Details of the
6 monitoring program will be provided 60 days following
7 approval of the Type A water licence. The department
8 accepts this response and the proposed term and
9 condition and considers this issue resolved.

10 At the technical meeting, Environment and Climate
11 Change Canada noted that sediment core analysis was
12 limited to metals only and requested that a full suite
13 of testing be conducted. The proponent responded that
14 there was insufficient material to permit a full suite
15 of testing and did not agree to the request for full
16 sediment core analysis. Clarifications were made, and,
17 as indicated in the proponent's response to this
18 comment, the proponent will continue to analyze for a
19 full suite of constituents in sediment grab samples and
20 will collect sediment core samples in 2017 for analysis
21 of moisture, metals, and pH. The department accepts
22 the proposed analyses, and this issue is considered
23 resolved.

24 In summary, Environment and Climate Change Canada
25 is generally satisfied with the information provided by
26 the proponent and looks forward to participating and

1 reviewing information as it becomes available in the
2 regulatory phase should the project proceed.

3 That concludes our presentation. We would like to
4 thank the Nunavut Impact Review Board, again, for
5 giving us the opportunity to present, and we would be
6 happy to answer any questions. Thank you.

7 THE CHAIR: Thank you.

8 Questions to Environment and Climate Change Canada
9 from Kivalliq Inuit Association?

10 MR. MANZO: Thanks, Madam Chairman [sic].
11 Luis Manzo, Kivalliq Inuit Association. No questions
12 at this time.

13 THE CHAIR: Any questions from the Baker
14 Lake Hunters and Trappers Organization?

15 MR. BERNAUER: Thank you, Madam Chair.
16 Warren Bernauer for the Baker Lake HTO. We have no
17 questions at this time.

18 THE CHAIR: Thank you.

19 Any questions from Government of Nunavut?

20 MR. PINKSEN: Thank you. Steve Pinksen,
21 Government of Nunavut. We have no questions.

22 THE CHAIR: Fisheries and Oceans Canada.

23 MR. D'AGUIAR: Mark D'Aguiar with Fisheries
24 and Oceans Canada. We don't have any questions.
25 Thank you.

26 THE CHAIR: Indigenous and Northern

1 Affairs Canada.

2 MS. COSTELLO: Thank you, Madam Chair. Karen
3 Costello for Indigenous and Northern Affairs Canada.

4 We have no questions. Thank you.

5 THE CHAIR: Natural Resources Canada.

6 MS. BESNER: Rachelle Besner, Natural
7 Resources Canada. I have no questions.

8 THE CHAIR: Transport Canada.

9 MR. SADOWAY: Thank you, Madam Chair. Shane
10 Sadoway, Transport Canada. No questions.

11 THE CHAIR: Any questions from Agnico
12 Eagle Mines?

13 MR. QUESNEL: Thank you, Madam Chair. Jamie
14 Quesnel, Agnico Eagle. No questions.

15 THE CHAIR: Nunavut Impact Review Board
16 staff.

17 MR. BARRY: Thank you, Madam Chair. Ryan
18 Barry, Nunavut Impact Review Board staff. No
19 questions. And I'd like to thank Environment and
20 Climate Change Canada for taking the time to thoroughly
21 go through their outstanding issues. That helped us as
22 we're tracking these issues to confirm which remain
23 outstanding or have resolved, so thank you.

24 THE CHAIR: Any questions from the Nunavut
25 Water Board staff?

26 MR. KHARATYAN: Thank you, Madam Chair. Karen

1 Kharatyan, Nunavut Water Board. No questions at this
2 time.

3 THE CHAIR: Nunavut Impact Review Board.
4 Guy?

5 Nunavut Impact Review Board Questions Environment and
6 Climate Change Canada

7 MR. ALIKUT: Thank you, Madam Chair. Guy
8 Alikut, Nunavut Impact Review Board.

9 I just want clarification on the air quality. Is
10 it only just in that area or outside of that area?
11 What -- where do you do your analysis for air quality?
12 Just in that area or elsewhere as well? Just want
13 clarification on that. Is it -- how far outside of the
14 area, and how do you -- how often do you do studies?
15 Once a year or twice a year? I just want clarification
16 on that. Thank you, if you could understand my
17 question.

18 MR. ASHER: Thank you, Madam Speaker.
19 Brian Asher, Environment and Climate Change Canada.

20 Are you -- just for clarification, are you looking
21 for information on air quality analysis done by the
22 proponent?

23 MR. ALIKUT: Thank you. Guy Alikut from
24 the NIRB.

25 How -- I don't know if I'm asking AEM or you. Is
26 it -- is it just a remote area or the whole -- air

1 quality -- how do you do the air quality studies? I
2 don't know which one -- I just want to get
3 clarification. Just in that area there at Whale Tail
4 or further out? Thank you.

5 THE CHAIR: Environment and Climate Change
6 Canada.

7 MR. ASHER: Thank you, Madam Speaker.
8 Brian Asher, Environment and Climate Change Canada.

9 So the air quality analysis -- or assessment was
10 done by AEM, and they -- and it encompasses a domain
11 size that's done through air quality modelling, and so
12 I -- I don't recall the exact size of the domain, and I
13 imagine AEM might be able to specify, but it's on the
14 order of tens of kilometres wide. And then further --
15 and then they have committed to air quality monitoring,
16 and that is at various locations around the site of
17 Meadowbank, dustfall monitoring, and then they've also
18 committed to dustfall monitoring along the road between
19 Meadowbank and Amaruq, and then they've also committed
20 to active air quality modelling -- or monitoring at
21 site close to the -- the Amaruq mine site, as well as
22 an active -- two -- I believe it's two active
23 monitoring locations close to Meadowbank.

24 THE CHAIR: Thank you.

25 Kaviq.

26 MR. ALIKUT: Thank you.

1 MS. KALURAQ: Thank you, Madam Chair. Kaviq
2 Kaluraq, Nunavut Impact Review Board. Recommendation
3 Number 4, on arsenic levels in Agnico Eagle's water
4 quality report, they mention -- they put down 0.1 to
5 0.2 milligrams per litre of arsenic, and in terms of
6 water quality, can Environment and Climate Change
7 Canada comment on if those levels are typical for lakes
8 where there might be recreational use or fish
9 harvesting activity?

10 Mat'na, Iksivautaq.

11 THE CHAIR: Environment and Climate Change
12 Canada?

13 MS. PINTO: Melissa Pinto with Environment
14 and Climate Change Canada. I feel that the question
15 would be better answered by Health Canada if it's
16 specifically for waters regarding recreation and fish
17 harvesting.

18 MS. MEADOWS: Madam Chair, Teresa Meadows,
19 legal counsel for the Nunavut Impact Review Board.

20 If I can ask Department of Justice, maybe, to
21 follow up with Health Canada and get a deferred answer
22 back to us if we can?

23 MR. GRUDA-DOLBEC: Simon Gruda-Dolbec for the
24 Department of Justice. We'll be looking into that with
25 our colleagues. Thank you.

26 THE CHAIR: Any other questions from the

1 Board?

2 I have a question. On your slide, you said
3 "concern with location of active particulate monitoring
4 station". Can you please explain to the public what
5 this system does.

6 MR. ASHER: Thank you, Madam Speaker.
7 Brian Asher, Environment and Climate Change Canada.

8 An active air sampler is a sampler that, with a --
9 with a pump, pulls air into the equipment, and it
10 samples -- in this case, it samples for various size
11 fractions of particulate matters. So PM2.5 is very
12 small particulate matter, smaller than 2-and-a-half
13 microns; there's PM10, smaller than 10 microns; and
14 then there's total suspended particulate, and that's
15 what the active sampler would sample for. And that's
16 separate from a passive sampler, which doesn't require
17 power and you would just leave out there. And
18 depending on what you're monitoring, for example, for
19 dustfall, you would just have -- it's effectively a jar
20 that sits out and dust would fall into it, and then you
21 would measure that dust.

22 THE CHAIR: And you had concerns with the
23 locations, but it's okay now, or what?

24 MR. ASHER: Yeah. So we had concerns
25 because the location chosen by Agnico Eagle was not
26 downwind of -- of the pit. Through discussions with

1 Agnico Eagle, we have -- they have committed to looking
2 into alternative locations once the site is
3 constructed. The limit -- we -- we acknowledge that
4 there are limitations because the sampling -- the
5 sample -- sampling equipment requires power, and to
6 choose a site that isn't anywhere close to power -- a
7 source of power would require a generator, which
8 complicates air quality measurements.

9 So we agreed that -- with Agnico Eagle that they
10 would look into alternative locations once the
11 construction is underway and that they would also look
12 into a supplementary location which -- which would
13 require less power, possibly battery powered. That's
14 something that we are looking forward to revisiting
15 with them once the -- if the project is approved.

16 Thank you.

17 THE CHAIR: Yes. If construction is
18 underway. Yes.

19 And I did not see anything on permafrost. Any
20 permafrost monitoring in the area? Any change?

21 MS. PINTO: Melissa Pinto, Environment and
22 Climate Change Canada.

23 Permafrost, I believe, is under the mandate of
24 Natural Resources Canada.

25 THE CHAIR: Okay. Thank you.

26 No other questions from the Board?

1 Guy.

2 MR. ALIKUT: Thank you, Madam Chair.

3 Guy Alikut, Nunavut Impact Review Board.

4 Something that I didn't quite think about, however
5 the areas for the water -- air quality, whether through
6 Inuit traditional knowledge from the northwest, is our
7 prevailing winds. Why would it -- why would it be put
8 where the wind is not blowing? Using traditional
9 knowledge, it's very evident to put it to where the
10 prevailing winds are, and if -- if the wind is going
11 northwest, then it should be facing that way. In the
12 Kivalliq Region, that's our prevailing winds, if you
13 could understand my comments.

14 Why -- why didn't they put it in an area where the
15 prevailing winds are? I just wanted to mention that.
16 Thank you.

17 MR. ASHER: Thank you, Madam Speaker.

18 Brian Asher, Environment and Climate Change Canada.

19 We share those concerns, and that's why we had
20 those discussions with Agnico Eagle about the location
21 of the sampling site, and we believe that revisiting
22 the issue, in term -- taking into account the logistics
23 of putting power in another location and the addition
24 of a supplementary sampling site, so essentially
25 another sampler that would require -- have as heavy
26 power requirements, is -- would be worthwhile and would

1 take into account the downwind -- the particulate
2 matter emissions that -- with the sampler downwind of
3 the pit, which is our primary area of concern.

4 Thank you.

5 THE CHAIR: Thank you for your
6 presentation.

7 Next we have is the -- Fisheries and Oceans
8 Canada.

9 Legal counsel.

10 MS. MEADOWS: Thank you, Madam Chair.
11 Teresa Meadows, legal counsel for the Nunavut Impact
12 Review Board. Madam Chair, I have two presentation
13 exhibits to file in respect of the presentation by
14 Fisheries and Oceans Canada consisting of the English
15 and Inuktitut version and French and English versions
16 of their presentation notes.

17 EXHIBIT 33 - Fisheries and Oceans Canada
18 hard copy PowerPoint presentation to the
19 Nunavut Impact Review Board final hearing
20 (English/Inuktitut)

21 EXHIBIT 34 - Fisheries and Oceans Canada
22 hard copy PowerPoint presentation to the
23 Nunavut Impact Review Board final hearing
24 (English/French)

25 MARK D'AGUIAR, BEVERLEY ROSS, Affirmed

26 MS. MEADOWS: Thank you, Madam Chair.

1 Teresa Meadows, legal counsel for the Nunavut Impact
2 Review Board. Those are my procedural matters.

3 THE CHAIR: Thank you. You may proceed
4 with your presentation.

5 Presentation by Fisheries and Oceans Canada

6 MR. D'AGUIAR: Thank you.

7 Good afternoon, Madam Chair, members of -- and
8 staff of the Board, the community of Baker Lake, and
9 other community members joining us here this week. My
10 name is Mark D'Aguiar. I'm a senior fisheries
11 protection biologist with Fisheries and Oceans Canada;
12 and I am accompanied by Bev Ross, the regional
13 regulatory manager for Fisheries and Oceans; and my
14 colleague Laura Watkinson, who is also a fisheries
15 protection biologist with Fisheries and Oceans Canada.

16 I would first like to just thank the Nunavut
17 Impact Review Board for providing Fisheries and Oceans
18 with the opportunity to present our final comments and
19 recommendations from our final written submission on
20 the Whale Tail Project here at this session.

21 So in this presentation, I will first provide you
22 with an overview of Fisheries and Oceans' mandate, the
23 applicable legislation and policies. I will also
24 provide an overview of our comments that we provided to
25 the Nunavut Impact Review Board in our final written
26 submission. The technical comments will touch on

1 habitat losses, valued components, habitat alteration,
2 changes to lake ecosystem productivity, and the water
3 quality inflow monitoring plan.

4 I would like to specify that due to the limited
5 time and in the spirit of brevity, Fisheries and Oceans
6 Canada will bring to the Board's attention only the key
7 points and outstanding items recognizing that our final
8 written submission includes a more complete discussion
9 of all our issues. Fisheries and Oceans would like to
10 note that Agnico Eagle has agreed to many of our
11 requests through Agnico Eagle's final submission
12 responses. Agnico has also agreed to further
13 discussions with Fisheries and Oceans to finalize the
14 fish and habitat gains-and-loss accounting and
15 associated offsetting plan, as well as monitoring.

16 On behalf of the Government of Canada, the mandate
17 of Fisheries and Oceans Canada's fisheries protection
18 program is to maintain the sustainability and ongoing
19 productivity of recreational, commercial, and
20 aboriginal fisheries. The fisheries protection program
21 is responsible for ensuring that projects in or near
22 water are undertaken following the requirements of the
23 Fisheries Act and the Species At Risk Act. The program
24 provides guidance to proponents on how to avoid,
25 mitigate, or offset impacts to fish and fish habitat.

26 Our regulatory role is defined by the Fisheries

1 Act. Section 35 of the Fisheries Act, which prohibits
2 serious harm to fish that are part of a commercial,
3 recreational, or aboriginal fishery, or to fish that
4 support such a fishery. In the Fisheries Act, "serious
5 harm" is defined as the death of fish, permanent
6 alteration of habitat, or destruction of habitat. The
7 act also allows for the Minister of Fisheries and Oceans
8 to issue a Fisheries Act authorization in order for a
9 project to proceed.

10 Once it has been determined that the issuance of a
11 Fisheries Act authorization is required, there are four
12 factors under the Fisheries Act that must be considered
13 by the Minister. They include the contribution of the
14 relevant fish to the ongoing productivity of
15 commercial, recreational, or aboriginal fisheries;
16 fisheries management objectives; whether there are
17 measures and standards to avoid, mitigate, or offset
18 serious harm to fish that are a part of a commercial,
19 recreational, or aboriginal fishery or fish that
20 support such a fishery; and the public interest.

21 Section 20 relates to the requirement to provide
22 sufficient water for fish and to ensure fish passage is
23 maintained.

24 The Species at Risk Act, particularly Sections 32,
25 33 and 58, which prohibit the killing, harming,
26 harassing, capturing or taking of listed species, as

1 well as the destruction of their residence or critical
2 habitat. Fisheries and Oceans is the competent
3 minister for these listed aquatic species.

4 The fisheries protection program is also the main
5 program at Fisheries and Oceans Canada involved in the
6 environmental assessment process, like the one defined
7 by Article 12 of the Nunavut Land Agreement.

8 Fisheries protection program is guided by two
9 policies. One is the fisheries protection policy
10 statement, which provides guidance on the application
11 of the fisheries protection provisions of the Fisheries
12 Act; and the fisheries productivity investment policy,
13 which is a proponent's guide to offsetting. This
14 provides guidance on undertaking effective measures to
15 offset serious harm to fish.

16 Offsetting measures are taken after the
17 application of avoidance in mitigation measures. They
18 are intended to provide conservation outcomes for fish
19 and fish habitat that may be reasonably expected to
20 counterbalance the loss of fish and fish habitat and
21 fisheries productivity as a result of impacts from the
22 project. Proponents are required to demonstrate that
23 the offsetting measures will maintain or improve the
24 productivity of fisheries.

25 So the first technical comment that Fisheries and
26 Oceans Canada presented relates to habitat losses. In

1 our final written submission, Fisheries and Oceans
2 Canada requested that Agnico provide requested
3 illustrations, as agreed to by Agnico, which Fisheries
4 and Oceans Canada would like to receive prior to the
5 commencement of the regulatory phase. Agnico has
6 agreed to work with DFO to fulfill with this request in
7 providing requested illustrations during the regulatory
8 phase. This issue is considered resolved to the
9 satisfaction of DFO.

10 The second request under habitat losses, Fisheries
11 and Oceans Canada notes that Agnico has not adequately
12 demonstrated the evaluation of the sustainable water
13 quality and habitat suitability for fish in the
14 post-closure scenario. Fisheries and Oceans Canada has
15 concerns respecting how Agnico will effectively
16 evaluate and monitor the mixing or non-mixing in the
17 re-flooded pit. Fisheries and Oceans Canada is also
18 concerned that water quality from the pit could
19 negatively affect the remainder of the lake and fish
20 habitat.

21 Fisheries and Oceans Canada has therefore
22 requested that Agnico provide additional details
23 outlining how they intend to evaluate the question of
24 potential mixing or non-mixing of the waters in the pit
25 portion of Whale Tail Lake. If these additional
26 details cannot be provided to DFO -- sorry -- Fisheries

1 and Oceans Canada, additional offsetting options
2 located outside the Whale Tail Lake basin would need to
3 be developed.

4 DFO -- sorry -- Fisheries and Oceans Canada
5 acknowledges Agnico Eagle's commitment in their final
6 submission responses to evaluate the mixing and
7 non-mixing of the pit through depth profile,
8 limnological monitoring, and depth-integrated sampling,
9 which will aid in assessing the potential for end-pit
10 lakes for support self-sustaining fish populations.

11 Fisheries and Oceans Canada requested that Agnico
12 provide additional and updated information on the
13 evaluation of end-pit lake scenarios with references to
14 address the Fisheries and Oceans Canada's concern
15 regarding end-pit lake scenarios. In our final written
16 submission, with respect to habitat losses, Fisheries
17 and Oceans Canada expressed concern that fish would not
18 be able to return to the north basin of Whale Tail Lake
19 post-closure due to several concerns with the long-term
20 water quality and physical aspects of an end-pit lake.

21 DFO acknowledges the efforts made by Agnico Eagle
22 to address uncertainty respecting the successful
23 creation of an end-pit lake that can support healthy,
24 self-sustaining fish population but does note that
25 sufficient information to support consideration of the
26 post-closure pit as fish habitat is not yet available.

1 As such, additional offsetting measures should also be
2 explored. Fisheries and Oceans Canada will work with
3 Agnico, the Kivalliq Inuit Association, and the Hunters
4 and Trappers Organization during the regulatory phase
5 to ensure that all losses to fish and fish habitat are
6 accounted for and fully offset.

7 Our next technical comment is related to valued
8 components. Fisheries and Oceans Canada notes that
9 evaluating potential fishery losses and gains, all
10 fisheries -- sorry -- all fish species should be
11 weighted equally. Fisheries and Oceans Canada
12 requested that Agnico Eagle give equal weights to
13 species based on their presence or absence in the
14 offsetting calculation. In their final submission
15 response, Agnico Eagle agreed to our recommendation to
16 use equal species weighting in their calculation. As
17 such, this is resolved to the satisfaction of DFO.

18 The next technical comment that Fisheries and
19 Oceans Canada presented was in regard to habitat
20 alteration. Habitat alteration refers to the
21 alteration that will occur due to the proposed flooding
22 activities. DFO acknowledges that Agnico provided
23 additional clarification in their final submission
24 response. DFO will work with Agnico, the Kivalliq
25 Inuit Association, and the Hunters and Trappers
26 Organization during the regulatory phase to ensure that

1 all losses to fish and fish habitat are accounted for
2 and fully offset. In our final written submission,
3 Fisheries and Oceans Canada had requested that Agnico
4 Eagle clarify the calculated numbers for all phases of
5 the project providing the rationale with the
6 calculations, including the raw data.

7 Fisheries and Oceans Canada reiterated previous
8 comments, that Agnico omit any habitat gains associated
9 with temporary flooding activities during the
10 operations. The temporary alteration of a stream -- or
11 of steams due to flooding may have negative effects of
12 on fish productivity due to a loss of stream habitat.
13 Fisheries and Oceans Canada also does not believe
14 temporary flooding activities will result in an overall
15 positive change in fish productivity.

16 Fisheries and Oceans Canada acknowledges that
17 Agnico has agreed to provide the raw data during the
18 authorization phase and to work together at that time
19 to finalize an offsetting plan. We note that Fisheries
20 and Oceans Canada will require additional
21 rationalization on other calculated fish habitat losses
22 and gains associated with the proposed offsetting plan.

23 DFO will work with Agnico, the Kivalliq Inuit
24 Association, and the Hunters and Trappers during the
25 regulatory phase to ensure all losses to fish and fish
26 habitat are accounted for and fully offset should the

1 project be approved to proceed to regulatory phase.

2 The third request under habitat alteration is in
3 regard to the proposed plan by Agnico in which a
4 portion of Mammoth dike will be reconfigured to create
5 a surface connection between Whale Tail and Mammoth
6 Lake permanently raising the elevation of Whale Tail
7 Lake by .5 metres. This was proposed in the recent
8 offsetting plan from June.

9 In our final written submission, Fisheries and
10 Oceans Canada requested that Agnico provide more
11 information regarding their plan to permanently flood
12 Whale Tail Lake by raising the water level by
13 0.5 metres, including the rationale and the ability to
14 sustain this condition so as to provide measurable
15 increases in fisheries productivity. Fisheries and
16 Oceans Canada is unclear on what mechanisms will be
17 used to ensure the lake will remain at this increased
18 water level in perpetuity and requires more information
19 on the plans to make this permanent increase happen.
20 In addition, Fisheries and Oceans Canada is not
21 confident that this type of flooding and associated
22 increase in lake surface area will result in a
23 productive habitat gain, given the uncertainty in the
24 long-term productivity of end-pit lakes.

25 As such, additional measures to offset the loss of
26 fish habitat may be required. Fisheries and Oceans

1 Canada will work with Agnico, Kivalliq Inuit
2 Association, Hunters and Trappers during the regulatory
3 phase to ensure all losses to fish and fish habitat are
4 accounted for and fully offset should the project be
5 approved to proceed to regulatory phase.

6 The next technical comment that Fisheries and
7 Oceans Canada presented is in regard to changes to lake
8 ecosystem productivity. The first request related to
9 the potential proposed change to the lake trophic
10 status of Mammoth Lake. Fisheries and Oceans Canada
11 requested clarification on whether the newly proposed
12 changes to the project, specifically in the form of
13 phosphorous treatment, will still result in a change to
14 the trophic status of the lake. In their final
15 submission responses, Agnico clarified that the
16 worst-case scenario will now see a change
17 from oligotrophic to mesotrophic rather than eutrophic.
18 This issue has been resolved to the satisfaction of
19 DFO.

20 In our final written submission, Fisheries and
21 Oceans Canada had requested that the losses caused by a
22 trophic change in the lake ecosystem from nutrient
23 overloading be considered as losses in the calculations
24 for offsetting. However, in their final submission
25 responses, Agnico Eagle confirmed that a smaller
26 trophic change was actually predicted to occur. Given

1 that a trophic change is still predicted to occur,
2 Fisheries and Oceans Canada is unclear how this
3 predicted change in trophic status will still impact
4 fish productivity and request that Agnico conduct an
5 appropriate analysis. This can be provided during the
6 regulatory phase should the project be approved to
7 proceed.

8 Fisheries and Oceans Canada's third request in
9 relation to the changes in trophic status is in regard
10 to a proposed research study evaluating the change from
11 an oligotrophic lake to a eutrophic lake and then back
12 to oligotrophic again. Fisheries and Oceans Canada had
13 previously requested that Agnico undertake a detailed
14 research study to evaluate fisheries productivity
15 losses when altering the waterbodies in such a way.
16 Fisheries and Oceans Canada is unclear, since the
17 discussion of phosphorous treatment options, whether
18 Agnico is still planning to complete the proposed
19 study.

20 In our final written submission, Fisheries and
21 Oceans requested clarification on whether Agnico was
22 planning on conducting a study in conjunction with the
23 University of Manitoba on the change in fisheries
24 productivity due to a change in the ecosystem from
25 oligotrophic to eutrophic and back to oligotrophic
26 again.

1 For the members who are not familiar with the
2 terms, "oligotrophic lake" just means very clear, low
3 productivity, low algae growth, low plant growth, and
4 "eutrophic" is higher nutrients in the water, more
5 algae growth, and higher productivity of, yeah, primary
6 producers, algae and whatnot, not to be confused with
7 productivity of fishes.

8 In their final submission responses, Agnico --
9 sorry. Before I go on, was that definition caught by
10 the translator? Okay.

11 In their final submission responses, Agnico
12 responded and explained that the study on the change to
13 eutrophic will no longer be completed since the lake
14 will not change to eutrophic. However, Agnico did
15 propose monitoring and adaptive management to track
16 changes to downstream environments. Fisheries and
17 Oceans Canada acknowledges Agnico's response and
18 recommends that, in addition to the monitoring and
19 proposed adaptive management, additional studies be
20 conducted to assess the impacts of the predicted
21 trophic change on fisheries productivity or fish
22 productivity.

23 The next technical comment that Fisheries and
24 Oceans Canada presented discusses our concern with the
25 water quality and flow monitoring plan. In discussing
26 planned monitoring stations, Fisheries and Oceans

1 Canada notes that Agnico Eagle has referenced the core
2 receiving environmental monitoring plan in addition to
3 the water quality and flow management plan. The core
4 receiving environmental monitoring plan is a different
5 plan focused on measuring different parameters than the
6 water quality and flow monitoring plan, and thus
7 Fisheries and Oceans Canada is concerned that data
8 generated from the two plans, including reference data,
9 may not be directly comparable and/or complementary.
10 It is important to addressing future offsetting
11 requirements that appropriate monitoring stations that
12 are consistent and comparable are captured in the --
13 any monitoring plan intended to address the
14 requirements of a Fisheries Act authorization should
15 the project be approved to proceed to the regulatory
16 phase. In addition, Fisheries and Oceans Canada will
17 work with Agnico to ensure that monitoring supports any
18 research proposed as complementary measures to offset
19 serious harm to fish.

20 The second request under the topic of water
21 quality and flow monitoring plan is in regard to
22 reference stations. In our final written submission,
23 Fisheries and Oceans Canada requested that Agnico
24 include at least two control lake monitoring stations
25 in the water quality and flow monitoring plan and to
26 include rationale to why the reference lakes that are

1 chosen are appropriate.

2 In Agnico's final submission responses, they have
3 referenced the core receiving environmental monitoring
4 plan and the reference lakes used for Meadowbank
5 project. However, Fisheries and Oceans is still
6 unclear on the rationale for using the reference lakes
7 used for Meadowbank project when the reference lakes
8 are not within the Whale Tail Lake watershed;
9 therefore, Fisheries and Oceans Canada recommends that
10 Agnico just provide a rationale to Fisheries and Oceans
11 Canada clearly indicating or outlining how the current
12 reference lakes used in the core receiving
13 environmental monitoring plan are suitable for the
14 Whale Tail Lake Project.

15 The third request for the water quality and flow
16 monitoring plan is in regard to consistency in sampling
17 frequency. Fisheries and Oceans Canada was concerned
18 about consistency and sampling frequency that will
19 occur throughout operations, closure, and post-closure
20 at monitoring stations and requested that a consistent
21 and increased frequency be considered for sampling at
22 all sampling stations throughout the project to acquire
23 appropriate comparable data to inform future studies as
24 committed by Agnico.

25 Fisheries and Oceans acknowledges that Agnico has
26 agreed to our requests respecting monitoring in their

1 submission responses, including ensuring consistency in
2 sampling locations and sampling frequency. Fisheries
3 and Oceans will work -- continue to work with Agnico to
4 ensure that monitoring frequency and location supports
5 any research proposed as complementary measures to
6 offset serious harm to fish.

7 In conclusion, Madam Chair, Fisheries and Oceans
8 Canada believes that it will be possible to offset the
9 impacts to fish and fish habitat that will result from
10 the Whale Tail Project. Fisheries and Oceans Canada
11 will continue to work with Agnico Eagle, the Kivalliq
12 Inuit Association, and the Hunters and Trappers to
13 address our concerns with the proposed offsetting plan.
14 This includes ensuring that losses to fish and fish
15 habitat are fully accounted for and fully offset.
16 Fisheries and Oceans Canada believes a robust
17 monitoring program is necessary to be able to verify
18 the proponent's impact predictions and detect any
19 unforeseen changes to the aquatic environments;
20 therefore, DFO will continue to work cooperatively with
21 the proponent and stakeholders, the Kivalliq Inuit
22 Association, the Hunters and Trappers Organization, and
23 the potentially impacted communities during the
24 regulatory phase should the NIRB recommend the project
25 be approved to assure that appropriate mitigation,
26 monitoring, and robust follow-up programs are

1 implemented.

2 Thank you.

3 THE CHAIR: Thank you. Questions to
4 Fisheries and Oceans from Kivalliq Inuit Association?

5 MR. MANZO: Luis Manzo. Thank you, Madam
6 Chair. Luis Manzo, Kivalliq Inuit Association. No
7 questions at this time. Thank you.

8 THE CHAIR: Any questions from the Baker
9 Lake Hunters and Trappers Organization?

10 MR. AKSAWNEE: Thank you, Madam Chair. No
11 questions.

12 THE CHAIR: Government of Nunavut?

13 MR. PINKSEN: Thank you. Steve Pinksen,
14 Government of Nunavut. No questions for DFO.

15 THE CHAIR: Environment and Climate Change
16 Canada?

17 MR. PINTO: Thank you, Madam Chair.
18 Melissa Pinto, Environment and Climate Change Canada.
19 We have no questions at this time.

20 THE CHAIR: Indigenous and Northern
21 Affairs Canada.

22 MS. COSTELLO: Thank you, Madam Chair. Karen
23 Costello. We have no questions at this time.

24 THE CHAIR: Any questions from Natural
25 Resources Canada?

26 MS. BESNER: Rachelle Besner, Natural

1 Resources Canada. I have no questions.

2 THE CHAIR: Transport Canada.

3 MR. SADOWAY: Shane Sadoway, Transport
4 Canada. No questions. Thank you.

5 THE CHAIR: Agnico Eagle Mines.

6 Agnico Eagle Mines Limited Questions Fisheries and
7 Oceans Canada

8 MR. VANENGEN: Yeah. Ryan, Vanengen from
9 Agnico Eagle.

10 Just a question for DFO. I just wanted
11 confirmation from DFO that -- it's our understanding
12 that all of the outstanding items will be dealt with
13 during the authorization phase. If they could confirm
14 that, that would be great.

15 Mat'na.

16 MS. ROSS: Bev Ross, Fisheries and Oceans
17 Canada. Thank you, Madam Chair.

18 Yes. We feel that we can address any outstanding
19 items in the regulatory phase.

20 THE CHAIR: Any questions from the Nunavut
21 Impact Review Board staff?

22 Nunavut Impact Review Board Staff Questions Agnico
23 Eagle Mines Limited

24 MS. GRANCHINHO: Thank you, Madam Chair.

25 Actually, this is more a question for Agnico Eagle.

26 During their presentation, Fisheries and Oceans noted

1 that they're still unclear on the rationale for the use
2 of the reference lake -- or the two reference lakes
3 from the core receiving environmental monitoring
4 program, so I was just wondering if Agnico Eagle was
5 going to respond to that just to provide rationale.
6 Thank you.

7 Thank you, Madam Chair.

8 MR. VANENGEN: Yeah. Ryan Vanengen from
9 Agnico Eagle.

10 The study design for the core receiving
11 environmental program which has two reference lakes
12 that are located in a watershed that is between -- is
13 outside of the Meadowbank watershed -- the Meadowbank
14 mine site watershed, and it's also outside of the Whale
15 Tail Pit watershed. And we believe, based on that
16 study design and the approach that we take with our
17 core receiving environmental monitoring program, is
18 that we evaluate at a basin level, so we select basins
19 around the Meadowbank site, and we've selected basins
20 around the Whale Tail Pit site, and our reference lakes
21 also are basins within these reference lakes in between
22 the two projects.

23 And, therefore, we believe the study design that
24 we've had -- and we've had rigorous review of our core
25 receiving environmental program over the years -- is
26 adequate, and that those reference lakes will continue

1 to be useful for the monitoring of both Meadowbank mine
2 site, as well as the Whale Tail Pit mine site.

3 Mat'na.

4 Nunavut Impact Review Board Staff Questions Fisheries
5 and Oceans Canada

6 MS. GRANCHINHO: Thank you, Madam Chair.
7 Sophia Granchinho with the Nunavut Impact Review Board.
8 Then thank you for that response.

9 Maybe just to follow up to Fisheries and Oceans
10 Canada, if they can confirm if they're satisfied with
11 the response to the rationale for the selection of the
12 two reference lakes? Thank you.

13 MS. ROSS: Bev Ross, Fisheries and Oceans
14 Canada. Thank you, Madam Chair.

15 Conceptionally that sounds like a reasonable
16 rationale. What we would ask Agnico Eagle to provide
17 is a direct comparison, so -- and a more detailed
18 rationale for some details about the watershed features
19 that are in the Whale Tail watershed and those
20 reference lakes.

21 MS. GRANCHINHO: Thank you, Madam Chair.
22 That's all.

23 THE CHAIR: Thank you.

24 Any questions from the Nunavut Water Board staff?
25 Nunavut Water Board Questions Fisheries and Oceans
26 Canada

1 MR. KHARATYAN: Thank you, Madam Chair. Karen
2 Kharatyan, Nunavut Water Board.

3 Just one clarification, please. Fisheries and
4 Oceans Canada stated for a couple of issues that they
5 will be discussing and working out the solution with
6 the proponent, the Kivalliq Inuit Association during
7 regulatory phase or authorization phase. To just make
8 sure that we have a -- we have the same understanding
9 about "regulatory phase", whether they mean before the
10 licence is being issued or no?

11 MS. ROSS: Bev Ross, Fisheries and Oceans
12 Canada. Yeah. That would be during the phase where we
13 were developing the terms and conditions for
14 the authorization, and that would follow an approval
15 that the project could proceed.

16 MR. KHARATYAN: One more follow-up. Karen
17 Kharatyan, Water Board.

18 It's still not very clear. During our regulatory
19 phase or DFO's regulatory phase?

20 MR. D'AGUIAR: Mark D'Aguiar, Fisheries and
21 Oceans Canada.

22 It will be required for DFO's authorization phase
23 for us to provide the authorization. If it's done
24 before in the regulatory water licencing phase, that's
25 great too.

26 Thank you.

1 MR. KHARATYAN: No more questions. Thank you.

2 THE CHAIR: Thank you.

3 Any questions from the Board?

4 Henry.

5 Nunavut Impact Review Board Questions Fisheries and
6 Oceans Canada

7 MR. OHOKANNOAK: Thank you, Madam Chair. Henry
8 Ohokannoak, Nunavut Impact Review Board.

9 I would just like to ask Fisheries and Oceans
10 Canada, are they going to be taking part in monitoring
11 during the phase of dewatering Whale Tail Lake, or is
12 there going to be an officer there from DFO during that
13 period? Thank you, Madam Chair.

14 MR. D'AGUIAR: Mark D'Aguiar, Fisheries and
15 Oceans Canada. May we just have a few moments to
16 deliberate?

17 THE CHAIR: And for the information, we
18 will break today at 4:30 and then reconvene at 6:00, as
19 a Board member has a medical appointment. So today we
20 will break at 4:30, but we'll be back here at 6:00.

21 (LOST TRANSLATION) -- NRCan does their
22 presentation, the community members can come up
23 afterward, and you'll be given an opportunity to voice
24 your concerns or make comments.

25 MS. ROSS: Bev Ross, Fisheries and Oceans
26 Canada. Thank you, Madam Chair.

1 Fisheries and Oceans may have officers that visit
2 a site to ensure compliance, and they make those
3 choices on a case-by-case basis, often based on
4 compliance history, complaint history, and other
5 factors. So it's possible, but we wouldn't -- we
6 wouldn't at this point commit to having a fishery
7 officer on-site.

8 MR. OHOKANNOAK: Thank you, Madam Chair. Henry
9 Ohokannoak, Nunavut Impact Review Board.

10 Thank you for your response.

11 THE CHAIR: Allen.

12 MR. MAGHAGAK: Thank you, Madam Chair. Allen
13 Maghagak, Nunavut Impact Review Board member. Just
14 have a -- one clarification question for DFO as
15 regulator and not as intervenor.

16 In regards to your fish sampling, I would like to
17 get clarification from DFO whether fish sampling of the
18 species that were listed in the proponent's
19 presentation at Whale Tail, Mammoth, and Nemo Lakes --
20 I would like to know if fish sampling will be done in
21 three phases, prior to, during, and after the -- the
22 diking has been built on Whale Tail Lake. And I'm
23 asking this question because there will be some habitat
24 alteration.

25 Quanqutit, Iksivautaq.

26 MS. ROSS: Bev Ross, Fisheries and Oceans

1 Canada. Thank you, Madam Chair.

2 Monitoring of fish and fish habitat will be a
3 requirement of the authorization before, during, and
4 after the project. The details of the monitoring
5 program can best be provided by the proponent and what
6 they're proposing, and then that would be included as
7 conditions in the authorization.

8 THE CHAIR: Can you speak up, please?

9 MS. ROSS: Oh, I'm sorry.

10 Monitoring of fish and fish habitat will be a
11 requirement of the Fisheries -- of any Fisheries Act
12 authorization that would be issued by Fisheries and
13 Oceans Canada.

14 MR. MAGHAGAK: Thank you, Madam Chair. Allen
15 Maghagak, Impact Review Board member.

16 When you say "monitoring", does that also include
17 sampling the various species of fish that were
18 identified in the proponent's presentation?

19 Quanqutit, Iksivautaq.

20 THE CHAIR: Fisheries and Oceans?

21 MS. ROSS: Bev Ross, Fisheries and Oceans
22 Canada.

23 There has been, as part of determination of a
24 baseline, already some fish sampling for different
25 components during the assessment of -- or verification
26 of impacts to fish and fish habitat. There may be

1 additional fish sampling. And when the productivity is
2 being assessed in association with determining the
3 success of any offsetting measures, we would also
4 expect some fish sampling.

5 THE CHAIR: Thank you.

6 Guy.

7 MR. ALIKUT: Thank you, Madam Chair. Guy
8 Alikut, Nunavut Impact Review Board.

9 I just want clarification. The lakes -- when you
10 dewater them, you're going to use -- first you dike the
11 lake and then dewater and defish. If there's 100 fish
12 in that area, how many are alive when you move them? I
13 know some of them will die on the way. And how many
14 would go to the community?

15 And just a clarification -- I can envision it, but
16 I can't really see clearly -- how many fish do you
17 lose, and where does it go? If you -- do you move them
18 other -- another lake, and how much do you lose in that
19 scenario? If you could understand my question.

20 MS. ROSS: Bev Ross, Fisheries and Oceans
21 Canada. I don't have exact numbers in front of me with
22 respect to the fish-out. Agnico Eagle has conducted
23 fish-outs for some of their other pit dewatering
24 operations, and, typically, our expectation is that
25 they're assessed, sometimes some measurements and
26 metrics are taken; and if some of the fish die, they

1 can be provided to the communities for their use.

2 Does that fully address your question?

3 MR. ALIKUT: Yes. Guy Alikut, NIRB.

4 If there's 100 fish and you have to move them to
5 another lake, how many percent do -- go to the other
6 lake, and how many percent is good food, and how many
7 percent that are no good and have to be thrown away?
8 I'm just trying to get an idea. I know this is
9 probably something that the people that dewater and
10 defish the lakes know the answer to.

11 Thank you.

12 THE CHAIR: Did you get that?

13 MS. ROSS: I think I understood --

14 THE CHAIR: When you're dewatering the
15 lake -- you're going to dewater a lake. How many of
16 the fish is given away to the people? How many
17 percentage of the fish is just wasted? How many of the
18 fish is transferred? What's the plan?

19 MS. ROSS: Bev Ross, Fisheries and Oceans
20 Canada. Thank you, Madam Chair, for the clarification.

21 I'm looking over at Ryan Vanengren because he can
22 probably --

23 THE CHAIR: Okay. Agnico Eagle Mines --

24 MS. ROSS: -- probably better answer
25 that.

26 THE CHAIR: -- go ahead.

1 MR. VANENGEN: Ryan Vanengen from Agnico
2 Eagle.

3 So our -- we've had a number of fish-outs, as Bev
4 mentioned, at the Meadowbank mine site, and, generally,
5 we have very good success rate, in our view, of
6 transferring fish. It's been -- and we've transferred
7 fish at Phaser Lake in 2015, and then we transferred
8 fish also in 2013 during our fish-out at Vault, and we
9 transferred fish in the -- from the Bay Goose dike
10 fish-out as well.

11 And based on that experience, we were able to
12 transfer, at the low range -- of the hundred fish that
13 you used as an example, 65 of them were transferred
14 successfully, and for Phaser Lake and Vault Lake, were
15 in the 80 percent, so 80 of those fish were transferred
16 successfully.

17 The remaining fish, as Bev mentioned, are used for
18 studies. They're used to account for some of the
19 Department of Fisheries and Oceans protocols for
20 fish-out. So we have to do studies on the health of
21 those fish that died during the fish-out. And some of
22 the remaining fish are then sent -- and all of these
23 fish that are dissected are sent to -- are frozen and
24 then sent to the Baker Lakes freezer as well for
25 consumption. So I hope that helps.

26 THE CHAIR: Thank you. Clarified.

1 Any other questions from the Board?

2 Thank you, Fisheries and Oceans, for your
3 presentation. Let's take a 15-minute break.

4 (ADJOURNMENT)

5 THE CHAIR: Okay. Shall we reconvene?

6 Like I said earlier, we're going to take a break at
7 4:30 and be back here at 6:00.

8 Ryan.

9 MR. BARRY: Thank you, Madam Chair. Ryan
10 Barry, Nunavut Impact Review Board staff.

11 Just before we go to the next -- swearing in the
12 next presenter, I know Agnico Eagle had indicated that
13 they would be able to help address a response that the
14 federal government had deferred an answer to, and for
15 the interest of the Board, I think if we could provide
16 them a moment to give a response.

17 THE CHAIR: Yes. I didn't get that.

18 Sorry.

19 Agnico Eagle, you have a response.

20 Agnico Eagle Mines Limited Responds to Deferred
21 Questions

22 MR. QUESNEL: Thank you, Madam Chair.

23 Just to provide a little bit of context, one of
24 the questions from the Board regarding arsenic, it was
25 related to the Environment Canada Climate Change
26 presentation. It was related to the effluent

1 objective.

2 I just wanted to mention that, as we're a mining
3 company, we have to comply with the Metal Mining
4 Effluent Regulation; and they have objectives for
5 multiple parameters for metals. And one of the metals
6 would be arsenic, and that number is 0.50 milligrams
7 per litre. So dealing with the arsenic at Whale Tail
8 and the treatment -- so the treatment will have an
9 effluent, and that effluent would be 0.10 milligrams
10 per litre. So the Metal Mining Effluent Regulation is
11 .5; our effluent is .1. Then in the receiving
12 environment, which would be Mammoth Lake, the -- that
13 objective would be 0.025 milligrams per litre. And
14 just to give some additional context to that, at our
15 existing operation, the Meadowbank operation, at the
16 Vault pit, the effluent objective there is the same, at
17 0.10 milligrams per litre.

18 So hopefully that just helps with your question
19 regarding arsenic.

20 Thank you.

21 Nunavut Impact Review Board Questions Agnico Eagle
22 Mines Limited

23 MS. KALURAQ: Thank you, Madam Chair. Kaviq
24 Kaluraq, Nunavut Impact Review Board.

25 I'm looking for some, I guess, reference examples.
26 Is that typical for other lakes in the area or places

1 where people go fishing and are used recreationally?

2 Mat'na, Iksivautaq.

3 MR. QUESNEL: Thank you, Madam Chair.

4 Yes, that would be typical related to the
5 effluents regarding arsenic. Okay.

6 THE CHAIR: Thank you.

7 Okay. Next we have -- oh, first, I'd like to
8 acknowledge attendance of the Grade 11 school --
9 Grade 11 social sciences class. Welcome.

10 Next we have to present is Indigenous and Northern
11 Affairs Canada.

12 Legal counsel.

13 MS. MEADOWS: Thank you, Madam Chair.

14 Teresa Meadows, legal counsel for the Nunavut Impact
15 Review Board.

16 So, Madam Chair, I have six presentations for
17 Indigenous and Northern Affairs Canada consisting of
18 the three presentations of the technical session and
19 also the three presentations that were the summary
20 presentations for -- planned for the community
21 roundtable, seeing as they are amalgamating both of
22 those presentations right now.

23 And then it is my understanding that in advance of
24 their submission that there's a joint submission with
25 Agnico Eagle Mines Limited and Indigenous and Northern
26 Affairs Canada that may be referenced throughout the

1 presentation as well and that it may be advisable to
2 file that as an exhibit at this time as well.

3 So, Ms. Costello, if that's in keeping with what
4 your expectations were, perhaps you can address whether
5 or not you want that to be filed at this time as well.

6 MS. COSTELLO: Karen Costello for Indigenous
7 and Northern Affairs Canada.

8 I just want to confirm which joint submission it
9 is before making -- agreeing on it. The title on the
10 front page would be useful.

11 MS. MEADOWS: Thank you, Madam Chair.

12 So it is the joint submission on suggested terms
13 and conditions, and it is dated and states that it is
14 being provided for NIRB's consideration based on
15 agreement reached by the parties on September 20th,
16 2017.

17 MS. COSTELLO: Thank you, Madam Chair. Karen
18 Costello for Indigenous and Northern Affairs Canada.

19 I can confirm that we are fine with this joint
20 submission.

21 MS. MEADOWS: Thank you, Madam Chair.
22 Teresa Meadows, legal counsel for the Nunavut Impact
23 Review Board.

24 So let the record show we will be filing that in
25 addition to the six presentation materials that have
26 been provided by Indigenous and Northern Affairs

1 Canada.

2 EXHIBIT 35 - Indigenous and Northern Affairs
3 Canada hard copy PowerPoint presentation for
4 technical session regarding Agnico Eagle
5 Whale Tail Pit Project for Nunavut Impact
6 Review Board final hearing (English)

7 EXHIBIT 36 - Indigenous and Northern Affairs
8 Canada hard copy PowerPoint presentation for
9 technical session regarding Agnico Eagle
10 Whale Tail Pit Project for Nunavut Impact
11 Review Board final hearing (Inuktitut)

12 EXHIBIT 37 - Indigenous and Northern Affairs
13 Canada hard copy PowerPoint presentation for
14 technical session regarding Agnico Eagle
15 Whale Tail Pit Project for Nunavut Impact
16 Review Board final hearing (French)

17 EXHIBIT 38 - Indigenous and Northern Affairs
18 Canada hard copy PowerPoint presentation for
19 community session regarding Agnico Eagle
20 Whale Tail Pit Project for Nunavut Impact
21 Review Board final hearing (English)

22 EXHIBIT 39 - Indigenous and Northern Affairs
23 Canada hard copy PowerPoint presentation for
24 community session regarding Agnico Eagle
25 Whale Tail Pit Project for Nunavut Impact
26 Review Board final hearing (Inuktitut)

1 EXHIBIT 40 - Indigenous and Northern Affairs
2 Canada hard copy PowerPoint presentation for
3 community session regarding Agnico Eagle
4 Whale Tail Pit Project for Nunavut Impact
5 Review Board final hearing (French)

6 EXHIBIT 41 - Agnico Eagle Mines and
7 Indigenous and Northern Affairs Canada hard
8 copy joint submission on suggested terms and
9 conditions, dated September 20, 2017
10 (English)

11 KAREN COSTELLO, RACHEL THEORET-GOSSELIN, Affirmed
12 MS. MEADOWS: Teresa Meadows, legal counsel
13 for the Nunavut Impact Review Board.

14 Thank you, Madam Chair. Those are all my
15 procedural matters.

16 THE CHAIR: Thank you.

17 You may proceed with your presentation.

18 Presentation by Indigenous and Northern Affairs Canada

19 MS. COSTELLO: Thank you, Madam Chair. Karen
20 Costello here on behalf of Indigenous and Northern
21 Affairs Canada.

22 Good afternoon, everybody.

23 I am the director of resource management with the
24 Nunavut regional office of Indigenous and Northern
25 Affairs. I am located in Iqaluit. It's a pleasure to
26 be with you here today to present on behalf of the

1 department.

2 I'd like to thank you, Madam Chair, along with
3 your staff for providing us with the opportunity to
4 present. I'd also like to thank the community
5 representatives that are here today, as well as the
6 other intervenors for participating with us in this
7 review and the community of Baker Lake for welcoming
8 us.

9 I'm joined here by Rachel Theoret-Gosselin, the
10 senior environmental assessment specialist and the
11 project lead for the Whale Tail Proposal review; Julia
12 Prokopick, the environmental assessment coordinator for
13 the Whale Tail Proposal; Amanda Belanger and James
14 Neary from our office in Gatineau; and subject to
15 aircraft, our consultant Tony Brown from Arcadis, who
16 supported the department's technical review, should be
17 walking in the door any minute now.

18 So moving on to Slide 2. The Minister, who is
19 currently known as the Minister of Indigenous and
20 Northern Affairs Canada, is called a responsible
21 minister in the review of the Whale Tail Project
22 Proposal, and she along with the other responsible
23 ministers will be making a decision on the Whale Tail
24 Pit Project based on recommendations from the Nunavut
25 Impact Review Board.

26 Our department also has a role as an intervenor in

1 the Board process. The impact assessment division
2 within the Nunavut regional office has been an active
3 participant in the assessment of the Whale Tail Pit
4 Project Proposal. We have provided expert advice to
5 the Board through technical submissions for their
6 considerations throughout the review process.

7 Finally, if the Board is -- if the project is
8 authorized to proceed, the department will have a role
9 as a regulator. Our department would be responsible
10 for the issuance of land authorizations when project
11 components are located on Crown land. The department
12 would inspect and enforce these authorizations as well
13 as any authorizations issued by the Nunavut Water
14 Board.

15 I'd like to summarize INAC's participation in the
16 review of the proposed Whale Tail Pit Project.

17 We attended the Nunavut Impact Review Board
18 scoping meetings, making it to four communities --
19 Baker Lake, Rankin Inlet, Whale Cove, and Arviat. The
20 department has submitted additional -- has requested
21 additional information in the form of information
22 requests from the proponent on various topics relating
23 to material submitted to the Board. We have reviewed
24 the proponent's environmental impact statement which
25 addresses the potential impacts of the project, both
26 biophysical and socioeconomic, and submitted technical

1 review comments. The department participated in the
2 technical meeting and prehearing conference where our
3 technical review comments were discussed in spring of
4 this year. Following these meetings, we participated
5 in a number of teleconference calls with the proponents
6 and other intervenors to further the discussions on
7 outstanding concerns. On August 14th, Indigenous and
8 Northern Affairs provided a final written submission to
9 the Board, which included nine final comments. The
10 rest of this presentation will touch on our final
11 submission.

12 Overall, the department evaluated the methodology
13 used, alternatives considered, and cumulative effects
14 assessment by the proponent on the following topics:
15 the environmental implications of the mine design.
16 Waste management and potential for contamination and
17 distribution of Crown land, including impacts or
18 changes to permafrost. We looked at impacts to surface
19 and groundwater, including quality and quantity. We
20 considered all phases of the project, including
21 construction, operation, closure, and reclamation,
22 assessing both plans and closure cost estimates. We
23 looked at the adequacy of community consultation
24 undertaken by the proponent and the responses to
25 community input. And we looked at potential
26 socioeconomic impacts and the proposed monitoring and

1 mitigation of project activities on communities.

2 The final conclusion of our review was submitted
3 to the Board in the middle of August, and we received
4 responses to our comments by the proponent on
5 August 29th. As you have heard just prior to the start
6 of our presentations, there was further discussions
7 with the proponent, and we have reached agreement on
8 certain items, and we will be providing a copy of some
9 meeting notes from our September 14th meeting for the
10 Board.

11 The department's technical review was based on the
12 environmental impact statement, the additional
13 information and addendums submitted through the Board
14 or during telephone conference calls with the proponent
15 since the spring technical meeting. Generally
16 speaking, the proponent has submitted adequate
17 information in their environmental impact statement.
18 The potential impacts associated with the operational
19 phase are well understood and can be mitigated.

20 Some uncertainties regarding post-closure could
21 result in unintended and difficult-to-mitigate impacts.
22 Therefore, adequate monitoring and impact management
23 strategies will be required.

24 In our August 14th submission, we identified six
25 outstanding concerns and provided some comments on
26 them. These were related to water quality of the waste

1 rock storage facility seepage; the potential for
2 incomplete thermal encapsulation -- so basically
3 incomplete freezing -- of the waste rock storage
4 facility; the water quality of the re-flooded pit; the
5 nature of the public engagement; incomplete planning
6 for socioeconomic aspects of closure; and unclear
7 socioeconomic monitoring framework.

8 Before I turn it over to Rachel to continue our
9 presentation, I'm just going to point out that we've
10 done our best to try and update our presentation
11 following a lot of the dialogue we have had with the
12 proponent since our submission of our final
13 presentation. As you look at these slides, you will
14 see -- and Rachel will discuss the issue on why we had
15 the concern. And at the bottom, you will see a series
16 of check marks or X's. At this time, there are no X's
17 remaining. We have been satisfied, pending just some
18 clarification of some wording for some commitments and
19 some proposed terms and conditions, which we expect to
20 have before the conclusion of this hearing. We're
21 satisfied we've had all of our concerns satisfied by
22 the proponent.

23 I'll turn things over now to Rachel to continue
24 our presentation.

25 MS. THEORET-GOSSELIN: Thank you.

26 Hello, everyone. As Karen said, my name is Rachel

1 Theoret-Gosselin. I was the lead on this file, and I
2 will now elaborate a little bit on the outstanding
3 concerns identified in our written submission.

4 Our first final comment is related to the waste
5 rock storage facility seepage and its potential impact
6 on the water quality post-closure. In the
7 environmental impact statement, the proponent has
8 indicated that all waste rock below the active
9 freeze-thaw zone of the waste rock storage cover will
10 remain permanently frozen. The proposed cover would be
11 made exclusively of waste rock that is non-acid
12 generating and with low metal-leaching potential, which
13 is considered the cleanest material available. Based
14 on these assumptions, the proponent concluded that the
15 cover would be an insignificant source of arsenic in
16 the seepage during the post-closure phase.

17 The department agrees with the conclusion that the
18 material below the active zone will be frozen and will
19 not produce seepage. However, as indicated in the
20 environmental impact statement, the active zone of the
21 waste rock storage pile will be an ongoing source of
22 arsenic seepage and loadings to the downstream
23 receiving environment during the post-closure phase of
24 the project. These loadings are associated with
25 arsenic that is predicted to leach from the cover
26 material of the waste rock facility.

1 In addition, the department expressed skepticism
2 that the cover could be constructed of 100 percent
3 clean material without some degree of contamination by
4 waste rock with high arsenic-leaching potential. Thus
5 we asked the proponent to conduct a sensitivity
6 analysis and to provide the results of scenarios where
7 some contamination of the cover would happen.

8 In July, the proponent fulfilled the commitments
9 related to the department's request in an addendum to
10 the Appendix 6(h).

11 Based on all of the information presented to date,
12 we concluded that some issues were still outstanding.

13 First, the results from the modelling of the waste
14 rock storage seepage without treatment during the
15 post-closure phase with the newly adjusted cover
16 thickness of 4 metres show arsenic loadings above the
17 site-specific water quality objective. Although the
18 department agrees that active treatment of the seepage
19 during operation and closure could be implemented if
20 the water quality is not acceptable, long-term water
21 treatment is not an appropriate mitigation. In
22 addition, monitoring programs and mitigation measures
23 need to account for the potential delayed onset of the
24 seepage. So the seepage could only be identified a few
25 years in the post-closure.

26 Regarding the implications of the result from the

1 modelling without the treatment of the waste rock
2 seepage to the downstream waterbodies, the proponent's
3 assessment of the mixing zone in Mammoth Lake is based
4 on simplified assumptions. The department considers
5 that insufficient information is presented to
6 adequately evaluate the impacts of the proposed passive
7 discharge of the waste rock seepage if arsenic loadings
8 are above criteria.

9 Additionally, the results of the sensitivity
10 analysis for the 2 and 5 percent cover contamination
11 show that the arsenic concentrations in the waste rock
12 seepage could lead to exceedances in several downstream
13 waterbodies. The proponent stated that their waste
14 management plan and the experience gained from
15 Meadowbank eliminates the potential for contamination
16 of the cover with metal-leaching material. Although we
17 agree that segregation protocols presented are
18 consistent with best practices and should greatly
19 reduce the risks of contamination, the department is of
20 the opinion that some degree of contamination is
21 likely.

22 Based on these uncertainties related to the
23 post-closure waste rock pile seepage and the potential
24 impacts to water quality of surrounding waterbodies, we
25 issued three recommendations.

26 First, given the potential of elevated arsenic

1 concentrations in the seepage if contamination of the
2 cover happens, we recommend that the proponent update
3 the waste rock management plans to ensure diligent
4 segregation of waste material.

5 Secondly, given the uncertainties on the arsenic
6 concentration that will occur in the waste rock seepage
7 and the potential delayed onset of that seepage, the
8 department recommends that the proponent revise the
9 water quality monitoring plans to ensure prolonged and
10 intensive monitoring of the seepage. The monitoring
11 plans should be developed with the objective to
12 maximize the ability to identify emerging issues and to
13 optimize the adaptive management approach.

14 Finally, given the uncertainties of the effects of
15 uncontrolled waste rock seepage on the water quality in
16 Mammoth Lake, the department recommends that the
17 proponent conduct a detailed hydrodynamic modelling to
18 evaluate the mixing zone where the waste rock seepage
19 discharge would reach Mammoth Lake. The updated plans
20 and the additional modelling should be provided as part
21 of the water licencing process.

22 On August 28th, the proponent replied to those
23 concerns in a response package. In this document, the
24 proponent commits to update the waste rock management
25 plan as well as other management plans and will submit
26 those 60 days prior to operation. However, this

1 response partially addressed our recommendations. The
2 department still recommended that the updated seepage
3 monitoring plans include detailed evaluation of the
4 risks associated with the seepage and, as per our
5 discussion in our written submission, also discuss
6 contingency plans with appropriate mitigation measures
7 to which, after discussion with the proponent on
8 September 14th, they committed to do so.

9 And, finally, in the response package, when
10 addressing our comments for the Nunavut Water Board,
11 the proponent committed to conduct hydrodynamic
12 modelling of the discharges into Mammoth Lake and to
13 submit those results prior to operation. This last
14 recommendation in our Final Comment Number 1 could be
15 satisfied if the proponent commits to provide the
16 results of the hydrodynamic modelling in the water
17 licence.

18 The second final comment identified in our review
19 is related to the maximum thaw depth of their waste
20 rock storage facility cover. In the original
21 environmental impact statement, the proponent proposed
22 to encapsulate the waste rock under a cover. As Karen
23 mentioned, that means freezing the waste rock under the
24 cover. That would improve seepage water quality after
25 closure. The conceptual design of the cover was
26 proposed to be between 2 and 4 metres in thickness and

1 was predicted to be the active freeze-thaw zone,
2 although no thermal modelling was -- has been performed
3 to support the design thickness.

4 Given the arsenic-leach ability of the waste rock
5 to be frozen, we were concerned that the proposed cover
6 thickness could be inadequate and requested the
7 proponent to provide thermal modelling that would
8 incorporate climate change to ensure that the design
9 would be effective. Following this request, also a
10 code by Natural Resources Canada, the proponent
11 fulfilled their commitment of conducting thermal
12 modelling for the waste rock storage facility and
13 provided their results in July.

14 Based on all of the information presented to date,
15 the department concluded the conceptual design appeared
16 to be adequate. However, the variability in the active
17 layer might warrant thicker cover in some locations of
18 the waste rock pile. Given the potential for elevated
19 arsenic concentrations in the waste rock seepage if the
20 metal-leaching material is not completely frozen, the
21 model presented will require refinement. Specifically,
22 all relevant observational data collected at Meadowbank
23 should be used to calibrate the thermal model.

24 Additionally, the models should be updated to
25 account for changes in the waste rock storage facility
26 design. Currently, the model assumes a height of

1 50 metres, but the latest documentation submitted by
2 the proponent states that the facility will be up to
3 66 metres.

4 Based on these uncertainties related to the
5 maximum thaw depth in the waste rock storage facility
6 cover and the potential impacts to water quality of
7 surrounding waterbodies, the department issued three
8 recommendations: Given the potential of arsenic
9 concentrations in the seepage if the leachable material
10 is not completely frozen below the active zone, the
11 department recommends that the proponent recalibrate
12 the thermal models using all relevant observational
13 data from Meadowbank. The results of the revised
14 models should then be used to support the final design
15 of the waste rock storage facility and its cover. The
16 updated thermal models and the final designs should be
17 provided for review and approval as part of the water
18 licencing.

19 On August 28th, the proponent replied to those
20 concerns in their response package. It is unclear from
21 the proponent's response if our recommendations will be
22 followed through.

23 Following the teleconference held with the
24 proponent on September 14th, the proponent clarified
25 that the detailed design for the cover, which will
26 include results from updated thermal modelling, will be

1 submitted to the Nunavut Water Board prior to
2 construction of the mine, approximately the first
3 quarter of 2018.

4 Our recommendations in Final Comment Number 2
5 could be satisfied if the proponent commits to
6 recalibrate the thermal model with Meadowbank's data
7 and use those results to update the cover design within
8 the water licence process.

9 So the two are considered resolved.

10 The third final comment identified in our review
11 is related to the water quality in the flooded pit
12 after closure. The base-case scenario presented by the
13 proponent assumes no diffusion from the rock formations
14 surrounding the pit. The predictions under these
15 assumptions indicate that the arsenic concentrations
16 will be below the discharge criteria and thus no water
17 treatment would be required after closure.

18 The proponent does, however, acknowledge various
19 uncertainties related to this no-diffusion scenario.
20 The main factor affecting the level of diffusion that
21 will happen in the pit is the hydraulic gradients in
22 the vicinity of the proposed pit. Within the
23 environmental impact statement, the proponent concluded
24 that the predevelopment hydraulic gradients range from
25 slightly positive to slightly negative.

26 Notably, the proponent did not perform baseline

1 hydrogeological characterization studies to validate
2 this assumption. Instead, the conclusions presented
3 are based on a high-level review of local lake levels
4 in the vicinity of the pit. In the event that the
5 proponent's assumptions are incorrect and diffusion
6 results in elevated arsenic levels, the proposed
7 contingency is to isolate the impacted area and to
8 actively treat any discharges, as it was described by
9 the proponent yesterday.

10 Although the no-diffusion scenario was presented
11 as the best -- base-case scenario, we consider this
12 assumption to be optimistic based on the number of
13 currently unknown factors that could influence the
14 gradients within the pit. The predicted arsenic
15 concentrations resulting from the diffusion scenario
16 presented were concerning, and the department requested
17 the proponent conduct additional analysis to support
18 the conclusion on the likelihood of diffusion. We also
19 requested that additional proactive mitigation measures
20 be identified to reduce the reliance on long-term water
21 treatment as the sole contingency.

22 In response to our concerns, the proponent
23 proposed an alternative pit configuration removing a
24 larger proportion of the problematic rock formation.
25 The proponent also committed to reevaluate the water
26 quality prediction under this newly proposed scenario,

1 which is referred as "the north wall pushback". The
2 updated information was provided in the addendum to
3 Appendix 6(h) submitted in July.

4 Based on all the information presented, the
5 department concluded that the proposed contingency of
6 removing the rock, the ultramafic rock, presents
7 marginal benefits. Even with the pushback, arsenic
8 concentration remains concerning if some level of
9 diffusion occurs. No additional analyses or studies
10 are available to support the assumption that the pit is
11 acting as a groundwater recharge area. Thus
12 uncertainty remains on the likelihood of diffusion.

13 The department remains concerned that the only
14 other potential mitigation measure identified by the
15 proponent is water treatment if predictions are
16 incorrect. Evaluation of pit stratification, referred
17 to as "meromixis", could provide support for another
18 mitigation measure than water treatment.

19 Based on the remaining uncertainties regarding the
20 hydraulic gradients around the re-flooded pit and the
21 potential resulting arsenic concentration if diffusion
22 occurs, the department issued three recommendations.

23 First, hydrogeological characterization studies
24 need to be conducted by the proponent to validate the
25 hydraulic gradients in the area of the pit and to
26 confirm the likelihood of diffusion. Following this

1 assessment, if some concern remains on the potential
2 for diffusion, we recommend that quantitative analysis
3 of stable meromixis be performed. The department
4 recommends both these additional evaluations be
5 provided for review prior to pit construction. A
6 specific term and condition was recommended in our
7 written submission, if approved.

8 Additionally, although predictions will be refined
9 and uncertainty will be reduced by the previous
10 recommendations, water quality monitoring plans should
11 be updated to incorporate intensive monitoring of the
12 flooded pit. The updated monitoring program should be
13 provided as part of the water licence process.

14 On August 28th, the proponent provided a response
15 to our concern. After reviewing the response package,
16 we found that the timing in the proponent's responses
17 were contradictory and inconsistent with our request.

18 Following discussions held on September 14th and
19 clarification acquired during the hearing and some
20 discussion here, the proponent has agreed to our
21 recommendation and to provide the results of the
22 hydrogeological characterization studies along with
23 their implication to the pit design and to the relevant
24 management plans for review prior to pit construction.
25 INAC still recommends that a term and condition that
26 has been -- that is being worked with the proponent be

1 incorporated in the project certificate issued by the
2 NIRB should the project be allowed to proceed.

3 Now moving on to the socioeconomic final comments.

4 The first one identified in our review is related
5 to the public consultation and the incorporation of
6 community concerns in the proposed project. In the
7 environmental impact statement, the proponent provided
8 a list of public consultation events that was
9 considered as consultation for the Whale Tail Project.
10 The assessment of socioeconomic impacts presented in
11 the documentation is considered to be incorporating the
12 community concerns, but impact characterization and
13 significance is based on professional judgment. The
14 proponent also concludes that broader community
15 concerns are successfully managed with the community
16 liaison system.

17 After reviewing the supporting documents provided,
18 we found that the public consultation, the impact
19 assessment methodology, and the engagement of the wider
20 community were not clearly supporting the proponent's
21 conclusion. The department requested additional
22 information on the consultation evidence on the impact
23 prediction assumptions and on the effectiveness of the
24 community liaison system. Following this request, the
25 proponent fulfilled various commitments of providing
26 additional information in a socioeconomics addendum

1 filed in July.

2 Based on all of the information presented to date,
3 the department concluded that public consultations
4 occurred regarding this particular project but the
5 sessions were largely information-provision and
6 baseline data-gathering exercises. Consultation events
7 focusing on impact determination, mitigation and
8 monitoring programs required by the community, or
9 validation of assessments done by the proponent would
10 have improved the incorporation of public input into
11 the project. Additionally, the monitoring of community
12 concerns and the way that they are addressed by the
13 proponent remains unclear. Minimal information was
14 available to confirm the effectiveness of the community
15 liaison system.

16 Due to the lack of clarity on how the proponent is
17 incorporating public input into the planning of the
18 project, we recommend that issues and concerns
19 identified through the community liaison system be
20 effectively recorded and that the follow-up and the
21 mitigation measures addressing these concerns be
22 reported in the annual report submitted to the Board.
23 A specific term and condition was recommended in our
24 written submission, if approved.

25 On August 28th, the proponent submitted a response
26 package in which all of the recommendations are agreed

1 to as also the term and condition. Thus we consider
2 the response satisfactory.

3 The next socioeconomic final component --
4 comment -- sorry -- identified is related to the
5 closure plan. In the original documentation submitted
6 by the proponent, the closure plan did not include any
7 element related to the socioeconomic aspect of the
8 project and how long-term impacts would be mitigated.
9 The proponent did not discuss any known closure and
10 post-closure impacts, and no lessons learned from other
11 mining projects were incorporated in the closure plans.

12 The department disagreed with this approach and is
13 of the opinion that socioeconomic components should be
14 part of the closure plans at the earliest-possible
15 stages. Experience gained since the development of the
16 mining industry in northern environments should be used
17 to improve closure planning and to build on lessons
18 learned.

19 The department requested additional information on
20 the socioeconomic aspects of the closure planning for
21 the Whale Tail Project. In response to our concern,
22 the proponent added a high-level description of
23 socioeconomic closure planning in the additional filing
24 to address Commitment Number 24 in July.

25 Based on all the information, the department notes
26 that the -- notes the proponent's willingness to work

1 on issues related to closure, particularly with the
2 community of Baker Lake. However, the department
3 concluded that there is still limited evidence that the
4 relevant socioeconomic components related to closure
5 will be accounted for. Of particular interest are the
6 impacts on employment in the Kivalliq Region. Due to
7 the limited information in the closure plans, it is
8 difficult to assess if the mitigation measures
9 implemented during operations will efficiently address
10 potential long-term socioeconomic effects.

11 In light of the current level of planning for
12 socioeconomic components at closure of the project, the
13 department provided two recommendations: First, we
14 recommended that the proponent revise its interim
15 closure plan to incorporate the potential socioeconomic
16 effects to the Kivalliq Region and submit the updated
17 plan to the NIRB within one year of issuance of the
18 project certificate, if approved. Additionally, the
19 department requested the proponent to clarify the plans
20 for workforce transition for the Inuit workers employed
21 at the various operations owned by the proponent in the
22 region, as per a question that we heard yesterday from
23 the Nunavut Impact Review Board staff.

24 On August 28th, the proponent replied to our
25 concerns in the response package. In this document,
26 the proponent does not agree to provide an interim

1 closure plan that accounts for socioeconomic aspects
2 but rather suggests to submit a final closure plan.
3 The department would like to clarify that the final
4 closure plan regulated by the Nunavut Water Board would
5 not have any socioeconomic component as it falls
6 outside of the Water Board's responsibility. Further,
7 the proponent does not provide clarification on the
8 plans for workforce transition in the response package.

9 However, during discussions here at the hearing,
10 we came to an agreement with the proponent who has
11 revised commitments and proposed terms and conditions
12 that resolve our concerns and were submitted as an
13 exhibit prior to this presentation.

14 The last socioeconomic final comment identified in
15 our review is related to the framework for monitoring
16 and reporting of the project impacts. In the
17 environmental impact statement, the proponent outlined
18 the monitoring activities and the potential mitigation
19 measures to deal with socioeconomic effects of the
20 project. The high-level monitoring framework was
21 described generally, and the proponent proposed to
22 approach the question through adaptive management.

23 Given the short project life, the department was
24 concerned that adaptive management approach would be
25 challenging and difficult to implement effectively. To
26 improve the effectiveness of this approach, the

1 implementation of the monitoring activities and the
2 reporting schedule should be presented. Hence we
3 requested additional information on the adaptive
4 management responses and the establishment of
5 arrangements for monitoring.

6 In response to our concerns, the proponent
7 committed to participate in the Kivalliq socioeconomic
8 monitoring committee.

9 Following subsequent discussions with the
10 proponent, in the review of all documents submitted to
11 date, the department concluded that the socioeconomic
12 monitoring program would be enhanced by incorporating
13 specific considerations. The program should account
14 for the short project time frame; it should aim at
15 gathering information on a workforce and worker family
16 wellness; and it should acknowledge the ongoing nature
17 of some crucial monitoring studies. Finally, it should
18 address the linked nature of the Whale Tail Project
19 with the other project operated by the proponent in the
20 region.

21 Since some potential significant socioeconomic
22 effects are still not well understood -- as noted in
23 the environmental impact statement -- particularly
24 issues related to Inuit workforce, monitoring and
25 reporting on these components should be detailed.

26 Based on a need to properly monitor socioeconomic

1 effects of the project on the Kivalliq Region, we
2 issued three recommendations.

3 First, given the importance of the outcomes of the
4 ongoing monitoring studies, the department recommends
5 that, upon completion, the proponent incorporates the
6 results of the labour market analysis and of the Inuit
7 worker barrier study in their monitoring plans and
8 report on the results and the updates of the plans to
9 both the Kivalliq socioeconomic monitoring committee
10 and the Nunavut Impact Review Board.

11 Additionally, in order to gather important
12 monitoring information, we recommend detailed workforce
13 surveys be conducted by the proponent annually within
14 their three major operations in the Kivalliq.

15 And, finally, the department recommends that -- in
16 collaboration with the Government of Nunavut, the
17 Kivalliq Inuit Association, and our department -- a
18 socioeconomic monitoring program be developed and
19 incorporate programs from Meadowbank, Whale Tail, and
20 Meliadine. A specific term and condition was
21 recommended in our final written submission, if
22 approved.

23 On August 28th, the proponent's response only
24 addressed the last recommendation that I described to
25 which the proponent agrees and proposed slight
26 modification to the proposed term and condition, which

1 was satisfactory to the department. However, since the
2 start of the final hearing, the proponent committed to
3 fulfill all of our other recommendations, and
4 commitments and terms and conditions has been filed as
5 an exhibit. Thus those three marks all become
6 check marks.

7 Since the technical meeting, the proponent has
8 provided the department with additional information
9 that resolved some concerns that were raised after the
10 review of the original documents containing the
11 environmental impact statement. Clarification on the
12 waste rock storage facility dimensions resolved our
13 concern regarding the availability of cover material
14 for the pile. Additional details on the research plans
15 resolved the department's concern related to
16 revegetation research. Clarifications during a
17 teleconference call resolved our concerns about the
18 methodology used to evaluate ammonia and nitrate levels
19 from the use of explosive. And, finally, additional
20 information and further discussion resolved the
21 department's concern regarding the evaluation of
22 impacts on socioeconomic components.

23 In general, the department found that the
24 information, analysis, and presentation of the
25 assessment was good. For the Whale Tail Project, the
26 potential environmental impacts associated with the

1 operational phase are well understood and can be
2 mitigated. In contrast, uncertainties regarding
3 post-closure could result in unintended and
4 difficult-to-mitigate impacts that should be dealt with
5 through proactive and early planning and actions for
6 both biophysical and socioeconomic impacts. The
7 socioeconomic aspect of the review recommends ongoing
8 public engagement and monitoring of potential impacts.

9 Thank you, everyone, for bearing with me on this
10 long presentation. We just wanted to ensure that our
11 assessment of the project was clear to all of the
12 intervenors.

13 Mat'na.

14 THE CHAIR: Thank you.

15 Questions to Indigenous and Northern Affairs
16 Canada from Kivalliq Inuit Association.

17 MR. MANZO: Luis Manzo, Kivalliq Inuit
18 Association.

19 No questions at this time.

20 THE CHAIR: Baker Lake Hunters and
21 Trappers Organization.
22 Baker Lake Hunters and Trappers Organization Questions
23 Indigenous and Northern Affairs Canada

24 MR. NATEELA: Thank you, Madam Chair. Hugh
25 Nateela.

26 Ask a couple of questions, I guess, to the

1 Indigenous and Northern and -- department. In terms
2 of -- I was kind of wondering what their thoughts might
3 be on how the outcome of this hearing would have been
4 if there was participant funding available to the HTOs
5 and, in particular, to the Baker Lake HTO, as you all
6 know the frustrations and the challenges of trying to
7 acquire meaningful consultations and to get meaningful
8 information of concerns from community members. So I
9 guess that would be one of my questions to the
10 department.

11 Thank you, Madam Chair.

12 MS. COSTELLO: Thank you, Madam Chair. Karen
13 Costello for Indigenous and Northern Affairs Canada.

14 I thank the Baker Lake Hunters and Trappers
15 Organization for that question.

16 At this time, the department does not have a
17 formal program for participant funding. By registering
18 as an intervenor, you have been able to -- with the
19 Nunavut Impact Review Board, you have been able to
20 participate in this -- in this process.

21 One of the things that I heard in some of the
22 conversations earlier today and yesterday, you spoke to
23 trying to apply for funding for different activities.
24 I'm quite happy to meet with you offline to make you
25 aware -- or to give you some information about ways
26 that you can apply for funding for monitoring programs

1 through the department's Nunavut general monitoring
2 program. Hunters and Trappers Organizations also do
3 receive or can apply for funding through our
4 implementation group for specific activities.

5 Your question was what are our thoughts on the
6 outcome of the hearing if there had been participant
7 funding? I'm not able to speculate on that, but I do
8 know that we have benefitted from your active
9 participation in this project to date. So thank you
10 for that.

11 MR. NATEELA: Thank you for the response.

12 Madam Chair, I just -- I just guess also for a
13 concern that has been brought up from the HTO at a
14 community level, I guess, is it's not so much directed
15 at the department, but you are also one of the
16 regulators. And there was concern where the community
17 members sort of tend to miss out on these monitoring
18 programs when the regulators go in and -- to inspect
19 and to monitor the project and, you know, all the
20 people -- all the intervenors are informed. They get
21 all the reports and so forth. But what's missing I --
22 we feel is that the community members don't hear from
23 the regulators after they go up and do their
24 inspections and to do their monitoring.

25 So I was just wondering if this is something that
26 maybe the -- if the department would certainly consider

1 where they would be able to come in and to follow up --
2 and do a follow-up with community members with regards
3 to their monitoring and their inspections; so, you
4 know, what they do up -- with the project.

5 Thank you, Madam Chair.

6 MS. COSTELLO: Thank you very much, Madam
7 Chair.

8 And thank you for your question. It is important
9 for us to have -- for the public to have confidence in
10 what we do. We realize that when we do inspections,
11 particularly our inspections under the water licence,
12 those ones are posted on the Water Board website. But
13 I do appreciate and I hear your concern about hearing
14 from the department direct. This is a message I will
15 take back. And while I cannot commit 100 percent, it
16 is a very important exercise for us to do, to report
17 back to the community on our findings, on our
18 inspections, and on the monitoring that we do. So I
19 take your request very seriously, and it's important
20 for us as a regulator to have the confidence of the
21 public. If that means making the time to do a public
22 presentation, that is a key message I will take back to
23 my -- to my department.

24 Thank you.

25 MR. BERNAUER: Thank you. Warren Bernauer
26 for the Baker Lake Hunters and Trappers Organization.

1 I have -- I'd like to follow up on Hugh's question
2 about participant funding, and I'll just direct this at
3 the Crown in general, which is maybe some or none of
4 you. It's always difficult to figure out who the Crown
5 actually is in these situations.

6 With regards to participant funding, the Nunavut
7 Impact Review Board, Nunavut Tunngavik Incorporated,
8 the Qikiqtani Inuit Association, and several HTOs now
9 have all been raising this question recently about
10 participant funding. And I'd also note that, in the
11 recent Supreme Court of Canada ruling around Clyde
12 River, they found that the Qikiqtani Inuit were not
13 properly consulted in part because --

14 (UNREPORTABLE SOUND)

15 MR. BERNAUER: -- no proper participant
16 funding was provided.

17 THE CHAIR: Excuse me.

18 MR. BERNAUER: Yes.

19 THE CHAIR: Hi. We're getting off topic.

20 MR. BERNAUER: Okay.

21 THE CHAIR: And we need to break right
22 now, as one of the members needs to get seen. So we're
23 going to break right now and be back here at 6:00.

24 Thank you.

25 (DINNER ADJOURNMENT AT 4:19 PM)

26 (PROCEEDINGS RECOMMENCED AT 6:06 PM)

1 THE CHAIR: Okay. Good evening. Let's
2 get back to the hearing. We were at -- we had just
3 heard a presentation from Indigenous and Northern
4 Affairs Canada and questions on their presentation.

5 Baker Lake HTO, are you done with questions?

6 MR. AKSAWNEE: Thank you, Madam Chair. We
7 have no questions.

8 THE CHAIR: Thank you.

9 Any questions from Government of Nunavut?

10 MR. PINKSEN: Thank you. Steve Pinksen,
11 Government of Nunavut. We have no questions.

12 THE CHAIR: Any questions from Environment
13 and Climate Change Canada?

14 MS. PINTO: Thank you, Madam Chair.
15 Melissa Pinto, Environment and Climate Change Canada.
16 We have no questions at this time.

17 THE CHAIR: Any questions from Fisheries
18 and Oceans Canada?

19 MR. D'AGUIAR: Thank you, Madam Chair. Mark
20 D'Aguiar with Fisheries and Oceans Canada. We do not
21 have any questions.

22 THE CHAIR: Any questions from Natural
23 Resources Canada?

24 MS. BESNER: Rachelle Besner, Natural
25 Resources Canada. I have no questions.

26 THE CHAIR: Transport Canada.

1 MR. SADOWAY: Thank you. Shane Sadoway,
2 Transport Canada. No questions.

3 THE CHAIR: Agnico Eagle Mines.
4 Agnico Eagle Mines Limited Questions Indigenous and
5 Norther Affairs Canada

6 MR. QUESNEL: Thank you, Madam Chair. Just
7 a couple of points of clarification if I can ask the
8 Indigenous and Northern Affairs Canada.

9 Just based on the printed handouts and also the
10 presentation that was shown, I just want to confirm
11 that the 'X's are check marks and that everything is
12 resolved?

13 MS. COSTELLO: Thank you, Madam Chair. Karen
14 Costello for Indigenous and Northern Affairs Canada.

15 As I said early in my presentation, before handing
16 it over to Rachelle, the 'X's that are on there are all
17 check marks. To be clear, for the Board's benefit,
18 INAC has no -- Indigenous and Northern Affairs Canada
19 has no outstanding issues with the proponent's
20 proposal. We're satisfied with the commitments and
21 responses that have been provided to our comments and
22 recommendations, pending some confirming of some
23 wording and a term and condition, which we're currently
24 working on and we should be getting to the Board very
25 shortly. Thank you.

26 MR. QUESNEL: Thank you, Madam Chair. Just

1 one additional item.

2 On Slide 26, you mentioned post-closure
3 uncertainties require mitigation. Could you just
4 confirm to the Board that we have agreed on the closure
5 costs on the security, and also we have a signed
6 security management agreement. Thank you.

7 MS. COSTELLO: Thank you, Madam Chair.

8 Indigenous and Northern Affairs Canada considered
9 some of the uncertainties when determining its
10 reclamation cost estimate. We also worked with our
11 colleagues at Kivalliq Inuit Association to reach
12 agreement on a security management agreement once we --
13 everyone agreed on a reclamation cost estimate.

14 The reclamation cost estimate accounts -- it does
15 include contingencies for additional monitoring during
16 the closure and post-closure phase, as well as the
17 potential for treatment should it be required.

18 Thank you. I hope that clarification is
19 sufficient.

20 MR. QUESNEL: Thank you, Madam Chair. Jamie
21 Quesnel, Agnico Eagle.

22 Yes, it does. Thank you.

23 THE CHAIR: Thank you.

24 Any questions from the Nunavut Impact Review Board
25 staff?

26 MR. BARRY: Thank you, Madam Chair. Ryan

1 Barry, Nunavut Impact Review Board staff. We have no
2 questions.

3 THE CHAIR: Any questions from the Nunavut
4 Water Board staff?

5 Nunavut Water Board Questions Indigenous and Northern
6 Affairs Canada

7 MR. KHARATYAN: Thank you, Madam Chair. Karen
8 Kharatyan, Water Board.

9 Just one comment or clarification. In a few
10 slides, we have the statement -- I will just read it:
11 (as read)

12 To be provided as part of the water licencing
13 process.

14 I think there may be some confusion about the
15 interpretation of this statement. Maybe you can
16 clarify that it doesn't necessarily mean prior to
17 licence issuance but through the licence terms and
18 conditions as well.

19 MS. COSTELLO: Thank you, Madam Chair.

20 The intent of our statement was to ensure that
21 this information would be captured by the Board.
22 Should the Nunavut Impact Review Board approve the
23 project, the Nunavut Water Board will be considering a
24 Type A water licence, and when we said it should be
25 considered in the water licencing process, the term and
26 condition or the commitment would -- it's our

1 expectation that it would be brought forward -- it
2 would be our intent to bring this -- the commitment or
3 the agreed-upon term and condition to the Water Board's
4 attention during the public hearing, which is in a
5 short few days.

6 MR. KHARATYAN: Thank you. No more questions.

7 THE CHAIR: Thank you.

8 Any question from the Board?

9 Phillip.

10 Nunavut Impact Review Board Questions Indigenous and
11 Northern Affairs Canada

12 MR. KADLUN: Thank you, Madam Chair.

13 Phillip Kadlun, Nunavut Impact Review Board member.

14 My question is on waste rock storage facility.
15 We've heard that it will be well below freeze -- freeze
16 and thaw zone, and you also referenced the uncertainty
17 around climate change. My question is whether those
18 sites, waste storage, et cetera, will be monitored long
19 after the closure, knowing that the -- the -- those --
20 the seepage were rather -- that the oxidation will
21 occur overtime, and it -- that -- that -- if -- I think
22 there needs to be a periodic check or -- if there's
23 any.

24 And my question is how long will -- if any, how
25 long will that monitoring take place after the mine
26 closure?

1 Thank you, Madam Chair.

2 MS. COSTELLO: Thank you, Madam Chair. There
3 is always, for each project -- it's Karen Costello for
4 Indigenous and Northern Affairs Canada. My apologies
5 for not stating my name earlier for the record.

6 With each project, there is always a period of
7 post-closure monitoring. In this case, the proponent
8 has agreed to post-closure monitoring that takes us to
9 about 2046. So we're at 2017 right now, so the
10 post-closure monitoring will go almost 30 years from
11 now. The intent of post-closure monitoring is to
12 determine if the site is stable, if it's physically and
13 chemically stable. If, during that time, there's any
14 evidence, the -- each proponent has to complete
15 monitoring during that time and report it to the Impact
16 Review Board and the Water Board, and if there's
17 evidence that the site -- any site is not stable, then
18 additional monitoring could be required.

19 So you're asking specifically how long after
20 closure will monitoring occur? Right now the plan,
21 based on what the proponent has presented, is for it to
22 be monitored to 2046.

23 THE CHAIR: Any other questions from the
24 Board?

25 Allen.

26 MR. MAGHAGAK: Quana, Iksivautaq. Allen

1 Maghagak, (OTHER LANGUAGE SPOKEN)

2 I want to ask -- get clarification from the INAC
3 with the licences for the land or water. (LOST
4 TRANSLATION) a regulator -- I would like to ask
5 Indigenous and Northern Affairs Canada, as
6 you indicated, you are responsible for issuing the
7 lands and water licences with terms and conditions. I
8 would like to ask if -- for clarification, how often
9 will you guys be visiting the sites to ensure that --
10 that the licence's terms and conditions are compliant
11 to the terms, and how often will you be visiting those
12 sites to monitor the compliance, or will you leave that
13 up to NIRB? Thank you.

14 MS. COSTELLO: Thank you, Madam Chair. Karen
15 Costello for Indigenous and Northern Affairs Canada.

16 Should the Nunavut Impact Review Board recommend
17 the project proceed and the minister -- the responsible
18 ministers accept that recommendation, the NIRB will
19 hold a project certificate workshop to look at the
20 terms and conditions that they have recommended. They
21 will ask regulators who will be addressing some of
22 those terms and conditions. The ones that are relevant
23 related to any activities on Crown land, Indigenous
24 Northern Affairs Canada will incorporate those in any
25 authorizations we issue.

26 Our inspection frequency is dependent on the level

1 of activity at the site. At present, large projects
2 that are operating year-round are typically inspected
3 four times a year. This would be an inspection of any
4 Crown land authorizations, as well as any inspections
5 of water licences that are associated with activities
6 for the project. Some of the inspections conducted by
7 our water resource officers also include -- they will,
8 from time to time, take some samples -- water samples.

9 Indigenous and Northern Affairs Canada also has a
10 memorandum of understanding with the Kivalliq Inuit
11 Association which has been in place for over ten years,
12 and we have been monitoring in the area of some of the
13 major mineral developments in order to track baseline
14 or to determine if there's any changes to conditions.
15 We do this jointly twice a year in the spring, just
16 after the sprig freshet, and early in the fall. As an
17 example, the second round of sampling was just
18 completed last week, and we do this -- and we have been
19 doing this in partnership with the Kivalliq Inuit
20 Association. And all of the reports -- the results
21 from those monitoring samples are with the KIA, and I
22 believe we have them on the website. Yeah. We have
23 them on the Kivalliq Inuit Association website.

24 THE CHAIR: Kivalliq Inuit Association.

25 MS. COSTELLO: We don't.

26 MR. MANZO: Thank you, Madam Chairman.

1 No. That's -- right now -- we have the reports.
2 Do you have copy? And we have a copy of the report.
3 We distribute to whoever require it. I don't know --
4 the federal government will be combined with a
5 monitoring secretary for the accumulative effect in
6 central Baker Lake, but it's awaiting for the federal
7 government to see if we can release everything jointly.

8 MS. COSTELLO: I hope I've -- Madam Chair,
9 Karen Costello for Indigenous and Northern Affairs. I
10 believe I've answered the questions about how often we
11 visit sites and how we incorporate terms and conditions
12 into our Crown land authorizations. If there's
13 anything more, I'm happy to hear.

14 THE CHAIR: Thank you.

15 Any other questions from the Board?

16 Thank you for your presentation.

17 We're going to hear from one more, and it will be
18 the last presentation from Natural Resources Canada.
19 They'll be speaking for half an hour, and then ask
20 questions, and then we'll have a break -- brief break,
21 and the community representatives will sit around the
22 table a little bit later after the break.

23 Next presentation is Natural Resources Canada.

24 And legal counsel.

25 MS. MEADOWS: Thank you, Madam Chair.

26 Teresa Meadows, legal counsel for the Nunavut Impact

1 Review Board. Madam Chair, I have six exhibits for --
2 in advance of this presentation consisting of the
3 presentation both for the technical session and also
4 for the community session for Natural Resources Canada
5 in English, Inuktitut and French. And, Madam Chair, I
6 propose to file those next -- as the next six exhibits
7 in this final hearing.

8 And if I can have the witness state and spell her
9 name for the record, please.

10 EXHIBIT 42 - Natural Resources Canada hard
11 copy PowerPoint presentation for final
12 hearing (English)

13 EXHIBIT 43 - Natural Resources Canada hard
14 copy PowerPoint presentation for final
15 hearing (Inuktitut)

16 EXHIBIT 44 - Natural Resources Canada hard
17 copy PowerPoint presentation for final
18 hearing (French)

19 EXHIBIT 45 - Natural Resources Canada hard
20 copy PowerPoint Presentation for community
21 roundtable (English)

22 EXHIBIT 46 - Natural Resources Canada hard
23 copy PowerPoint Presentation for community
24 roundtable (Inuktitut)

25 EXHIBIT 47 - Natural Resources Canada hard
26 copy PowerPoint Presentation for community

1 roundtable (French)

2 RACHELLE BESNER, Affirmed

3 MS. MEADOWS: Teresa Meadows for the Nunavut
4 Impact Review Board. Thank you, Madam Chair. Those
5 are all my procedural matters.

6 THE CHAIR: Thank you.

7 Natural Resources, you may proceed.

8 MS. BESNER: Rachelle Besner, Natural
9 Resources Canada.

10 Before I start my presentation, I just wanted to
11 go back to a question that was posed by you, Madam
12 Chair, earlier to Environment and Climate Change Canada
13 regarding permafrost monitoring. I do have a response
14 for you, but I was wondering if I could give that at
15 the end of my presentation?

16 THE CHAIR: Yes, that's okay.

17 MS. BESNER: Rachelle Besner, Natural
18 Resources Canada. And I'd also like to just ask a
19 further question regarding that. Were you asking about
20 permafrost monitoring in general in Nunavut or
21 specifically for the project?

22 THE CHAIR: Just let me look for my
23 question.

24 MS. BESNER: Sure.

25 THE CHAIR: In the area around Meadowbank
26 or even around Baker Lake, any change of permafrost in

1 the area, or has there been any permafrost monitoring
2 in the area? Thank you.

3 Presentation by Natural Resources Canada

4 MS. BESNER: Thank you, Madam Chair.

5 Good evening, Madam Chair, members of the Board.

6 My name is Rachelle Besner. I'm a senior environmental
7 assessment officer with the environmental assessment
8 division at Natural Resources Canada. I would like to
9 thank you for the invitation to present here tonight.
10 I would also like to extend my thanks to the members of
11 the community, the elders who are presenting in this
12 hearing tonight.

13 For my presentation, I will outline Natural
14 Resources Canada's mandate and role with respect to
15 Agnico Eagle's Whale Tail Pit Project proposal. I will
16 discuss Natural Resources Canada's technical review for
17 permafrost and hydrogeology as it related to the
18 additional information presented by the proponent in
19 relation to commitments made during the technical
20 meeting for further consideration.

21 Natural Resources Canada seeks to enhance the
22 responsible development, use, and competitiveness of
23 Canada's natural resources and products. Natural
24 Resources Canada is an established leader in science
25 and technology in the fields of energy, forests, and
26 minerals and metals, and we use our expertise in earth

1 sciences to build and maintain a base -- a knowledge
2 base of our landmass and to support the safety and
3 security of its citizens.

4 Natural Resources Canada conducts innovative
5 science and facilities across Canada to generate ideas
6 and transfer technologies. Natural Resources Canada
7 develops policies and programs that enhanced the
8 contribution of the Natural Resource sector to the
9 economy.

10 Specific to this project, Natural Resources
11 Canada's regulatory role relates to the federal
12 Explosives Act and its regulations. Natural Resources
13 Canada also provided expert scientific advice on
14 permafrost and terrain conditions and hydrogeology as
15 it relates to the Whale Tail Pit Project. Comments and
16 recommendations from the geological survey of Canada
17 research scientists are reflected in Natural Resources
18 Canada's final submission dated August 14th, 2017.

19 Natural Resources Canada regulates the storage and
20 manufacture of explosives through the federal
21 Explosives Act. Through this legislation, Natural
22 Resources Canada issues licences for the manufacturer
23 and storage of explosives but not for the use of
24 explosives.

25 For this project, the proponent intends to have a
26 building for motion storage and a specialized truck

1 that mixes explosives for blasting at the pit. The
2 truck normally comes from the bulk explosives factory
3 at the mine, but it may be necessary for it to stay at
4 the Whale Tail operation. This facility will require a
5 satellite site certificate from Natural Resources
6 Canada. The operation will also have explosive
7 magazines, which are indicated on the map.

8 I don't know if you can -- it's at the bottom with
9 the arrow. I don't have a pointer.

10 A review focused on permafrost and terrain
11 conditions at the proposed Whale Tail Pit. We looked
12 at three issues related to permafrost. The first is
13 baseline permafrost and terrain conditions in the
14 project area, the design cover thickness for the waste
15 rock storage facility, and permafrost and talik
16 distribution in the project area.

17 So on this slide, I'll be talking about baseline
18 permafrost and terrain conditions in the project area.
19 Permafrost occurs throughout the project area and will
20 provide a foundation for project infrastructure.
21 Terrain mapping of the area was conducted through a
22 combination of air photo interpretation, analysis of
23 satellite imagery, and field surveys.

24 Natural Resources Canada generally agrees that
25 terrain mapping is adequate for this stage of the
26 design process. Natural Resources Canada notes that

1 the national scale maps -- for example, the permafrost
2 map of Canada -- showing ground ice content and thaw
3 sensitivity are too small a scale for permafrost
4 assessment and terrain sensitivity at a local scale.

5 Natural Resources Canada agrees with the proponent
6 that there is uncertainty regarding ground ice
7 conditions; therefore, the proponent is conducting
8 geotechnical investigations to support stability
9 analysis of project facilities. Natural Resources
10 Canada agrees that the proponent is following a
11 reasonable approach. Natural Resources Canada
12 recommends that the proponent complete the geotechnical
13 investigations that are planned and update the
14 characterization of ground ice conditions in the
15 project area to support detail and final design of
16 project components.

17 Next I will discuss the design cover thickness for
18 the waste rock storage facility. The proponent has
19 suggested a cap of non-potentially acid generating rock
20 of 2 to 4 metres for the cover thickness in order to
21 maintain frozen conditions in the waste rock storage
22 facility to limit oxidation and water movement in the
23 pile. The non-potentially acid generating cover must
24 be thick enough to ensure that seasonal thawing is
25 limited to the cover and maintenance of frozen
26 conditions of the material in a waste rock storage

1 facility.

2 The proponent has conducted one-dimensional
3 modelling which suggests that a cover thickness of
4 4 metres is required. Natural Resources Canada
5 recommends that the proponent conduct two-dimensional
6 modelling to support design -- sorry -- to support
7 detailed design of the waste rock storage facility,
8 including the refinement of the cover thickness.
9 Natural Resources Canada also recommends that the
10 proponent continue to utilize data generated from the
11 Meadowbank monitoring program and data collected from
12 thermistors installed at the Whale Tail waste rock
13 storage facility, as well as any additional information
14 or material properties of the site to refine thermal
15 analysis for final cover design.

16 On this slide, we'll talk about permafrost and
17 talik distribution in the project area. The Whale Tail
18 Pit will be excavated in the footprint of the Whale
19 Tail Lake where there is a potential for an open talik.
20 This is important because taliks, which are unfrozen
21 zones that can exist under large bodies of water, can
22 allow for groundwater flow and connect with surface and
23 subsurface water and affect water quality. The
24 proponent does recognize that the talik in the pit area
25 is not completely closed, and there is likely a
26 hydrologic connection between the pit and the deeper

1 groundwater system due to the open talik to the south
2 of the pit.

3 Natural Resources Canada agrees that the proponent
4 has conducted reasonable analysis at this stage to
5 determine the distribution of permafrost in the pit and
6 adjacent areas. As a result, the proponent might
7 consider, for final design and to refine groundwater
8 modelling, to conduct sensitivity analysis to deal with
9 any uncertainties in the thermal model parameters, such
10 as ground thermal regime, thermal properties, and
11 thermal gradient.

12 As part of this review, Natural Resources Canada
13 also did a review of hydrogeology and focused on three
14 different areas: the long-term water quality in the
15 flooded pit, groundwater sampling and quality --
16 sorry -- groundwater quality, and groundwater
17 modelling.

18 So we'll discuss long-term water quality in the
19 flooded pit. The proponent predicts that water in the
20 Whale Tail Pit will develop layers which will not mix.
21 Groundwater inflow from the surrounding area will enter
22 from the bottom and should not mix with the upper
23 layers. The proponent has identified a plan to monitor
24 the mine site contact water flow volume and quality for
25 the post-closure phase. Natural Resources Canada is in
26 agreement with the proponent's monitoring plan from a

1 hydrogeological point of view and recommends that they
2 continue verifying that the pit acts as a recharge area
3 using continuous monitoring throughout the mine's life.
4 The proponent has already agreed to this recommendation
5 as part of Commitment Number 32 from the technical
6 meeting.

7 On this slide, we'll talk about groundwater
8 quality. The proponent's groundwater samples were
9 contaminated during the sampling process. Natural
10 Resources Canada recommended assessing the
11 hydrogeological characterization from site-specific
12 samples prior to mine development to ensure baseline
13 conditions are well understood in order to update the
14 groundwater model and the water management plan, in
15 addition to other plans which could be affected by
16 changes to baseline data.

17 Natural Resources Canada has reviewed the
18 additional information provided in the water quality
19 and flow monitoring plan and is satisfied with the
20 information provided, including updating the
21 groundwater model, the water management plan, and the
22 inclusion of additional water quality monitoring
23 locations annually and during all phases of the
24 project.

25 In this slide, I'll discuss groundwater modelling.
26 Natural Resources Canada considers that the current

1 groundwater model can appropriately assess various
2 scenarios because the model will be updated and
3 calibrated based on groundwater quantity and quality
4 evolution as per previous recommendations from Natural
5 Resources Canada made during the information-request
6 stage.

7 Natural Resources Canada recommended that the
8 model be validated and adjusted on the basis of
9 knowledge and additional data acquired during mining
10 operations. Natural Resources Canada has reviewed the
11 additional information provided in the water quality
12 and flow monitoring plan and in the prehearing
13 conference decision table and is satisfied with the
14 responses provided.

15 In response to the proponent's response to
16 NRCan -- Natural Resources Canada recommendations, we
17 are satisfied with the proponent's response to the
18 design cover thickness for the waste rock storage
19 facility recommendation and are in agreement with their
20 approach to support the detail on final design of the
21 waste rock storage facility and the refinement of the
22 cover thickness.

23 Natural Resources Canada suggests the proponent
24 commit to implementing the recommendation as stated in
25 NRCan's final submission dated August 14th, 2007.
26 Thank you. That is the end of my presentation.

1 Natural Resources Canada Responds to Deferred Questions

2 MS. BESNER: And to respond to the question
3 about monitoring -- permafrost monitoring in the
4 project area, the proponent is doing monitoring through
5 the Meadowbank monitoring program for thermal, and they
6 will be doing monitoring as part of the closure plans,
7 as Karen Costello from Indigenous and Northern Affairs
8 Canada stated earlier.

9 In addition to that, the Government of Nunavut, in
10 collaboration with Natural Resources Canada and ten
11 communities in Nunavut, we've been monitoring
12 permafrost between 2008 and 2014 across the region, and
13 this is informing the Nunavut permafrost monitoring
14 network.

15 I hope that answers your question.

16 THE CHAIR: Thank you. Thank you.
17 Questions to Natural Resources Canada from Kivalliq
18 Inuit Association?

19 MR. MANZO: Luis Manzo, Kivalliq Inuit
20 Association. No questions. Thanks.

21 THE CHAIR: Baker Lake Hunters and
22 Trappers Organization.

23 MR. AKSAWNEE: Thank you, Madam Chair. We
24 have no questions.

25 THE CHAIR: Government of Nunavut.

26 MR. PINKSEN: Thank you. Steve Pinksen,

1 Government of Nunavut. We have no questions.

2 THE CHAIR: Environment and Climate Change
3 Canada.

4 MS. PINTO: Thank you, Madam Chair.
5 Melissa Pinto, Environment and Climate Change Canada.
6 We have no questions at this time.

7 THE CHAIR: Fisheries and Oceans Canada.

8 MR. D'AGUIAR: Thank you, Madam Chair. Mark
9 D'Aguiar with Fisheries and Oceans Canada. We have no
10 questions. Thank you.

11 THE CHAIR: Indigenous and Northern
12 Affairs Canada.

13 MS. COSTELLO: Karen Costello for Indigenous
14 and Northern Affairs Canada. We have no questions.
15 Thank you, Madam Chair.

16 THE CHAIR: Transport Canada.

17 MR. SADOWAY: Thank you. Shane Sadoway,
18 Transport Canada. No questions.

19 THE CHAIR: Thank you.

20 Any questions from Agnico Eagle Mines?

21 MR. QUESNEL: Thank you, Madam Chair. Jamie
22 Quesnel, Agnico Eagle. No questions. Thank you.

23 THE CHAIR: Any questions from the Nunavut
24 Impact Review Board staff?

25 MR. BARRY: Thank you, Madam Chair. Ryan
26 Barry, Nunavut Impact Review Board staff. No

1 questions.

2 THE CHAIR: Nunavut Water Board staff.

3 MR. KHARATYAN: Thank you. Karen Kharatyan,
4 Water Board. No questions at this time.

5 THE CHAIR: Any questions from the Board?

6 No questions. Thank you. Good presentation.

7 Thank you.

8 Okay. We're going to take a break while the staff
9 do some changing around. Going to take a brief break,
10 and our staff is going to arrange the room so that the
11 community roundtable can sit at the tables, so ...

12 (ADJOURNMENT)

13 THE CHAIR: Thank you very much for coming. Please
14 feel welcome to make any comments you wish. Ask
15 questions when you feel like asking a question. It's
16 open. We are going to make a decision whether this
17 project -- or the Whale Tail Project is going to be
18 approved or may not be approved. We are going --
19 you're going to help us make a decision by the comments
20 that you make because, as Board members, we have to
21 make a Board decision, so with your help, we'll be able
22 to achieve that.

23 The proponent will be making a short presentation
24 about their project, so please ensure that when you
25 make a comment or ask a question that you ask it in
26 full and don't interrupt others. (TRANSLATION LOST) --

1 summarize the application for the community roundtable,
2 and then we will open this for questions from the
3 communities.

4 Legal counsel.

5 MS. MEADOWS: Thank you, Madam Chair.
6 Teresa Meadows, legal counsel for the Nunavut Impact
7 Review Board.

8 Mr. Quesnel, are there additional witnesses that
9 should be sworn or affirmed?

10 MR. QUESNEL: Thank you, Madam Chair.

11 Yeah. Two colleagues to my right, Bertin and
12 Candace. And also Karen, please.

13 CANDACE RAMCHARAN, BERTIN PARADIS, KAREN YIP, Affirmed

14 MS. MEADOWS: Thank you, Madam Chair.
15 Teresa Meadows, legal counsel for the Nunavut Impact
16 Review Board.

17 Madam Chair, I will be marking this as the next
18 exhibit in the public hearing, and those are my
19 procedural matters.

20 EXHIBIT 48 - Agnico Eagle hard copy
21 PowerPoint presentation for community
22 information session, introduction and
23 overview (English/Inuktitut)

24 THE CHAIR: Thank you.

25 You have to ensure that you have your receivers
26 handy should you need them.

1 MR. QUESNEL: Thank you, Madam Chair. We
2 just need the -- excuse me, the remote.

3 THE CHAIR: Those straight -- directly
4 ahead of me and around the table, you have bottles of
5 water already. They're provided for you.

6 Presentation by Agnico Eagle Mines Limited
7 (Introduction and Overview - Community Roundtable)

8 MR. PARADIS: Thank you very much, Madam
9 Chair. Before I go with the presentation, I would like
10 first to thank the community of Baker Lake, first, to
11 welcome us here this week and also for their
12 participation to the hearing.

13 I would also like to thank representatives of all
14 other communities of the Kivalliq Region also for their
15 presence to the hearing.

16 Thanks to the Nunavut Impact Review Board for the
17 organization and direction of the hearing.

18 Finally, thanks to all intervenors who have been
19 involved in the revision of the Whale Tail Pit process.

20 So a quick summary of our presentation tonight.
21 So we'll first go with description of the Agnico Eagle
22 operation, globally. We'll go with brief
23 regulatory history of the Whale Tail Pit/Meadowbank
24 division project; we'll go through a summary of the
25 Whale Tail Pit Project, which is the future of the
26 Meadowbank division; overview of the construction and

1 operation at Whale Tail Pit; the continued use of the
2 Meadowbank mine facilities; we'll go through
3 environmental monitoring and mitigation; and, finally,
4 we'll highlight some continued success through training
5 and development of our skilled Nunavut force in
6 Meadowbank.

7 So let's start with a quick description of who's
8 Agnico Eagle. So Agnico Eagle: We are worldwide gold
9 producer celebrating our 60th anniversary in 2017. We
10 are part of Canada's top 50 corporate responsible
11 companies. We employ over 7,500 employee across the
12 world in four different production hubs: first, in
13 Mexico; second, in Finland; third, in the Abitibi
14 region in Quebec; and, finally, the most important one
15 for all of us here today, Nunavut.

16 The Nunavut hub of Agnico Eagle is composed of
17 many exploration leases and three main projects
18 properties: the Meadowbank mine, which is the closest
19 one of Baker Lake; the Meliadine project, close of
20 Rankin Inlet, which is all permitted and actually under
21 construction with a planned production to start in the
22 second half of 2019; finally, the Amaruq property not
23 far from our Meadowbank mine which hosts the Whale Tail
24 satellite open-pit project, the reason for this week's
25 Nunavut Impact Review Board final hearing. This
26 important presence of Agnico Eagle in Nunavut is due to

1 the fact that we strongly believe Nunavut is a
2 politically attractive and stable jurisdiction with an
3 enormous geological potential. I won't go through all
4 these dates there, just a few ones.

5 First, 2007, so this is truly acquisition of the
6 Meadowbank project from Cumberland that Agnico Eagle
7 began its presence in Nunavut. Ten years later, we're
8 still here, and AEM, through project development and
9 active exploration activities, to be here for many more
10 decades.

11 A second important date to notice in the table is
12 the third quarter of 2018. In the third quarter of
13 2018, it's going to be the end of the actual Meadowbank
14 open-pit operation as it is known right now. A third
15 important date in that table, finally, is June 2018,
16 which is the actual target dates to start the
17 construction of the Whale Tail open-pit project,
18 subject to receipt of final permits, reason of our
19 presence here this week. The beginning of the
20 construction of the Whale Tail Project in June 2018
21 will allow us to maintain the actual level of
22 employment at Meadowbank.

23 To give to all an idea of the location of the
24 project, here's an aerial view of the area. We can see
25 the actual exploration camp right here. A few weeks
26 ago, we connected with the exploration road from

1 Meadowbank, which is 74 kilometres southeast of Amaruq.
2 We see on the Amaruq property where the Whale Tail
3 Project is located right here with that white line
4 right here.

5 I will also like everybody in the room, during
6 breaks, to take the opportunity to go to the table
7 close of the entrance where we did expose a 3-D model
8 of the project which give a very good idea of the size
9 of the project.

10 Since Agnico Eagle first exploration activities
11 back in 2013, the Amaruq property has been the location
12 of an extensive exploration drilling program. This
13 program led to the discovery of the Whale Tail
14 satellite open pit, which is seen by us now as an
15 excellent opportunity to extend the Meadowbank life of
16 mine. The proximity of Whale Tail from Meadowbank is
17 giving us the opportunity to secure the actual level of
18 employment and leverage on the expertise and experience
19 developed by the Meadowbank team during the past
20 decade.

21 It will also add significant amount of new jobs to
22 allow the transportation of the ore from Whale Tail
23 satellite project to Meadowbank process plant. Our
24 actual plan to develop the project is to maximize the
25 use of our actual Meadowbank infrastructures, like our
26 process plant, tailing storage facility, airstrip,

1 all-weather access road from Baker Lake, fuel storage,
2 et cetera. The use of these existing infrastructure
3 combined with strong management plans and monitoring
4 program will lead to minimize the impacts of the
5 project on environment.

6 The Whale Tail Project is in line with Agnico
7 Eagle's commitment to the north, especially to Nunavut.
8 The Whale Tail Project and our long-term investment
9 vision will allow to keep building on the strong
10 partnership developed in Nunavut since our beginning in
11 this region and keep improving the socioeconomic track
12 record of mining for the region. This could secure
13 long-term quality jobs, create environment for Nunavut
14 that is favourable to education and career planning for
15 generation to come. This will also create similar
16 context in building capacity for the north.

17 The project will also, through royalties and fees,
18 increase the benefit of our operation for Nunavut
19 Tunngavik Incorporated and also Kivalliq Inuit
20 Association and, through tax revenues, benefit the
21 Government of Canada and the Government of Nunavut.

22 With that said, I will now leave my colleague
23 Jamie Quesnel to keep going with the presentation.

24 MR. QUESNEL: Thank you, Madam Chair. Jamie
25 Quesnel, Agnico Eagle.

26 And thanks, Bertin.

1 This is just a slide highlighting the -- Agnico
2 Eagle's indigenous people engagement commitment.
3 Agnico Eagle Mines will work in partnership with
4 indigenous people to establish a mutually beneficial,
5 cooperative, and productive relationship. Our approach
6 would be characterized by effective two-way
7 communication, consultation, and partnering.

8 Part of this public engagement approach -- there's
9 four cornerstones to it: "plan", "do", "check", and
10 "act". And, for example, "planning" would be related
11 to Inuit Impact Benefit Agreements, also our
12 sustainable development policy as our planning
13 platform; the "doing" piece would be related to open
14 houses, public meetings, such as tonight; the "check"
15 piece, to see if we're doing the right things, how we
16 can improve, would be related to monitoring, external
17 reporting, also our internal performance indicators;
18 and after that "check" is the "act". We have internal
19 reviews and also external reviews with multiple
20 stakeholders.

21 The next couple slides, we'll get into a summary
22 of the activities related to the Whale Tail Pit
23 Project. This slide here -- I know it's a little bit
24 busy. It's hard to read the small print, but it's just
25 related into the construction schedule for Whale Tail
26 Pit, also the window of activity for the continuation

1 of activities at Meadowbank. But the following slides
2 are -- will be a little bit easier to go through, and
3 it has the details of the different phases.

4 I'll go through a couple corrections in the
5 prints. The dates have changed, and so I just want to
6 make sure that's corrected. So the construction
7 activities related to dikes, the site pads, site and
8 haul roads, will commence, based on receiving the
9 approvals, 2018 to 2019. The operational window of
10 activities at Whale Tail will be from 2019 to 2022.
11 During that operational window, the jobs would remain
12 at threshold of 800 jobs. There would be additional
13 150 jobs related to the Whale Tail satellite pit.
14 During the operation, the ore, the rock will be shipped
15 by the haul road from Whale Tail Pit to the Meadowbank
16 mill. We'll have a camp at Whale Tail. And like
17 Bertin mentioned, we'll still continue using our
18 Meadowbank camp and other infrastructure like the mill,
19 tailings storage facility, and also the airstrip.

20 The closure stage would be from 2022 to 2029, and
21 the post-closure would be from 2030 to 2046. Some of
22 the highlights related to Meadowbank and the Whale Tail
23 Pit production: Meadowbank will continue to operate at
24 11,000 tonnes per day until the third quarter of 2018.
25 There'll be a production gap during the construction
26 window, which would be the third quarter of 2018 to the

1 startup of the construction of the -- of operations, I
2 should say, during the construction window into 2019.

3 The Whale Tail Pit has proposed to operate up to
4 11,000 tonnes per day. Initially, once we start up,
5 based on approvals, we would start up at 9,500 tonnes
6 per day beginning in the third quarter 2019; then
7 ramping up to the existing throughputs, the amount of
8 rock going through the mill at 11,000 tonnes per day
9 from 2020 to 2023. The total gold resource for the
10 Whale Tail Pit will extend the life of mine at
11 Meadowbank, as Bertin was mentioning, and also to
12 ensure the continuation of the existing workforce, plus
13 an additional 150 jobs.

14 As Bertin mentioned, the exploration road under
15 the existing approvals we have for exploration at
16 Amaruq, including the Whale Tail footprint, that has
17 been completed, so the road is linked now to Meadowbank
18 starting at the Vault pit to the Whale Tail location.
19 And that road will be expanded based on the approvals
20 of the permit, and that will be the haul road to move
21 the rock from Whale Tail to the Meadowbank mill.

22 The slide just gives a summary of the traffic, 18
23 long-haul trucks transporting the ore operating 24
24 hours per day. We'll have about two-and-a-half cycles
25 per day or five trips per day per long-haul truck,
26 approximately 154 trips on the road. But based on the

1 calendar, we'll not be -- we'll have -- we have
2 scheduled 28 days of shutdown, if required, based on
3 blizzards and also caribou migration, so that would be
4 a reduction of the 365. We -- we've calculated into
5 the numbers that we can reduce it by 28 if required.

6 There will be additional travel on that road,
7 light vehicle travel, pickups, cargo, our buses, moving
8 fuel, explosives. There will be a much lower frequency
9 than the haul trucks.

10 This slide shows two options that we're looking at
11 for the long hauler. And some -- mentioning some of
12 the new jobs would be related to driving one of
13 these -- one of these trucks once we decide on which --
14 which truck it would be. The payload is 150 metric
15 tonnes, so it's in the back of the truck in the boxes,
16 as shown in the upper photo and also on the photo
17 below. The only difference is the power to the wheels
18 of the truck. One is six wheels by six wheels and the
19 other ten wheels by ten wheels for total power and
20 traction. It's almost like a four-wheel drive pickup
21 or four-wheel drive ATV, but it's six and ten wheels.

22 This slide just highlights the alignment of the
23 road that's -- it's now connected between the Vault pit
24 location at Meadowbank to Whale Tail. The pinkish
25 colour, reddish colour is the Inuit-owned land, and the
26 white area in the middle is the Crown land.

1 So just a summary on the haul road: It's
2 approximately 64 kilometres -- oh, 64 kilometres, so
3 that's basically going from here to White Hill Lake,
4 doing that twice. That's about the distance. Two
5 thirds on Crown land, one third on Inuit-owned land,
6 and part of this application that we're discussing this
7 week is expanding the exploration road by another
8 3 metres from 6-and-a-half to 9-and-a-half. At this
9 time, we -- we've installed nine clear span bridges.

10 This slide is just the introduction to a video.
11 It's a very short video just showing what it looks like
12 now, our construction, operation window, and also
13 closure. Yeah.

14 So this shows the Whale Tail Lake. This is
15 Mammoth Lake. The water is flowing naturally from left
16 to right on the slide, on the screen, and flowing this
17 way to Mammoth, so it's going left to right and then
18 back to the left. Whale Tail Lake and Mammoth Lake.

19 This is during -- this is during operations. It
20 shows the Whale Tail dike, the attenuation pond,
21 Mammoth dike, the Whale Tail Pit, and the waste rock
22 storage facility. The attenuation pond is a collection
23 there of all the contact water, based on our
24 activities; where it's controlled; treated, if
25 required, before it's discharged to the environment.

26 Closure, our plan is to flood the Whale Tail Pit,

1 breach the dikes at Whale Tail and also Mammoth, and
2 the water will go back to its natural flow from Whale
3 Tail to Mammoth, but the dikes will not be breached --
4 will not be open until it meets certain water criteria.
5 It has to meet the certain recipe of water before we
6 release it. And that's the video. Thank you, Jen.

7 This slide shows the construction activities which
8 would be 2018 to 2019, and, as shown on the video, this
9 is the Whale Tail Lake/Mammoth Lake, location of the
10 waste rock storage facility. This is what will start
11 our Whale Tail dike and the Mammoth dike. And the
12 starting time of that construction for the Whale Tail
13 dike -- it's very important to start that in July 2018
14 to ensure that we can complete the construction for the
15 start of the pit. If we're delayed at startup, we can
16 lose additional time of startup.

17 This slide just highlights the activities for the
18 construction phase, dewatering phase, and the
19 operational phase. So the dewatering phase: Once we
20 have the dikes constructed, we'll dewater and have a
21 fish-out, similar to what has been done at Meadowbank
22 related to Bay Goose pits, Portage, Vault, and Phaser,
23 and Baby Phaser pits. This highlights the
24 infrastructure during the operations. We have the
25 Whale Tail dike, the attenuation pond, the open pit,
26 the waste rock storage facility, the Mammoth dike, our

1 camp area, ore stockpiles, and also overburden. And,
2 again, as Bertin mentioned, the 3-D model -- the model
3 on the table -- highlights this activity during an
4 operation. So you can see the dikes, the pits, and the
5 attenuation pond, and the stockpiles.

6 We'll have a camp at the Whale Tail Pit, eight
7 wings, 210 workers, and for those who have been to the
8 Meliadine exploration camp, the photo on the bottom
9 right of the slide shows the camp at Meliadine, the
10 exploration camp, and that would be the similar size to
11 the camp for Whale Tail for the operations.

12 There will be a kitchen there, a mine dry, an
13 office space. About 440 people will stay at
14 Meadowbank. We'll have a sewage treatment plant at
15 Whale Tail that would discharge into the attenuation
16 pond. We'll have freshwater removed from Nemo Lake for
17 our uses. The existing exploration camp, which is
18 smaller and different style, will be removed from the
19 property and utilized by exploration possibly down
20 south, someplace else in Nunavut, but that camp is not
21 applicable for the activities of an operation.

22 And other stuff -- other infrastructure we'll have
23 at the camp -- at the Whale Tail Pit, we'll have
24 250,000-litre tanks with secondary containments, power
25 plants generators -- two of those; they're about --
26 just under 2 megawatts in size. Hazardous material

1 will be temporarily stored at Whale Tail. That
2 material will be shipped to Meadowbank. And as we do
3 right now, Meadowbank and Meliadine, that will be
4 shipped down south with all the proper approvals by the
5 government agencies in sea containers on the return
6 trip with the ships. And hazardous material is basely
7 used oil filters, they use hoses on the equipment,
8 batteries, things like that. So none of that stays in
9 the north; that's all shipped down south.

10 This shows the closure phase where we're
11 re-flooding the pit. And this shows closure, as a
12 video, where the pit is now filled with water. It goes
13 back to its natural state, and the flow goes back
14 through Whale Tail south basin to the north basin
15 through the channel to Mammoth Lake and continues
16 north. And, again, those dikes are not broken or
17 breached, opened up until it meets the proper water
18 quality.

19 This shows the Meadowbank camp. This is the main
20 entrance. I think some of you have been there. Quite
21 a few of you. That's where you check in. This slide
22 just shows Meadowbank with the Bay Goose pit down at
23 the bottom right, the Portage pits, the tailings
24 facility, our airstrip, the camp, and also the mill.

25 Q3 2018, about a year from now, the pits will
26 be -- no more ore in the pits, so we're not mining from

1 those pits anymore. But for the Whale Tail Pit
2 Project, if approved, all the infrastructure, like the
3 camp, tailings facility, and such will continue.

4 This is the north basin of the tailings facility.
5 This is a photo of the south basin of the tailing
6 storage facility. That will still be in use. So
7 it's -- just the rock is coming from Whale Tail. It's
8 processed, broken up into flour; the gold is extracted;
9 the remainder of the flour goes into the tailing
10 storage facility.

11 At the north cell, we'll have to do a small raise,
12 and that's part of the amendment at the existing
13 Meadowbank licence. And this is just based on tailing
14 storage facility closure where we use clean waste rock
15 being placed over the north and east portions of the
16 north cell. It will be different thicknesses based on
17 the location. The bottom right just shows our
18 thermistors, which measures the temperature in the
19 ground to ensure it meets -- it still remains frozen,
20 and that dictates thickness of the material once we hit
21 that temperature that's required.

22 I will now pass it on to my colleague Ryan
23 Vanengen to continue with the presentation.

24 MR. VANENGEN: Okay. Thank you, Jamie. Ryan
25 Vanengen from Agnico Eagle.

26 For the next few minutes, I'll been presenting on

1 our environmental monitoring and focusing on our
2 caribou, as well as some water quality monitoring, and
3 air monitoring.

4 This figure here shows the areas that I just
5 described. We focus our monitoring on a number of
6 different areas, including the air -- and I'll -- I'll
7 show -- there'll be a few slides that will demonstrate
8 how we monitor the air. We also look at the
9 terrestrial environment, which is shown here in the
10 figure where we look -- we monitor the wildlife. We
11 also monitor the habitat that the wildlife depends on.

12 We also monitor around our mine site to make sure
13 our air emissions are meeting certain objectives but
14 also that our water quality is maintained within our
15 site and is recycled. And then there'll be a few
16 slides also on how we monitor our water quality in the
17 receiving environment to make sure that the fish, the
18 water, and the food that the fish survive on and
19 require is healthy.

20 Our monitoring is -- we collect data and use
21 fact-based decisions that inform our planning. The
22 monitoring also goes into different modelling
23 scenarios, and then we adjust our operations and
24 infrastructure according to the information that we
25 collect, and we do this on a continual basis and share
26 the information with the Nunavut Impact Review Board,

1 as well as with the Nunavut Water Board, and other
2 intervenors that are part of the review process for our
3 projects.

4 We also collect Inuit Qaujimajatuqangit, and we
5 collected a lot of Inuit Qaujimajatuqangit through the
6 course -- and at different intervals through the Whale
7 Tail Pit Project baseline studies and into the design
8 of the Whale Tail Project. In 2014, we hosted a number
9 of workshops -- or a workshop at the end of the year
10 that informed our baseline studies in 2015 that
11 informed, also, our design of the project, including
12 the Whale Tail Pit haul road in 2015; and it also
13 informed our baseline studies that were completed in
14 2014, 2015, and continued to be conducted prior to
15 operations.

16 Throughout the process, the Inuit
17 Qaujimajatuqangit have guided our baseline studies and
18 informed our design. These workshops provided a lot of
19 Inuit Qaujimajatuqangit, which was shared with Agnico
20 Eagle. An example of that are the maps that are
21 produced to inform some of our wildlife monitoring and
22 mitigation. These maps -- this map is shown here on
23 the slide, but it's also found on the walls in the hall
24 here and also in the Nunavut Impact Review Board
25 playbook as well -- or -- sorry -- map book.

26 The Inuit Qaujimajatuqangit workshops provided us

1 information on den sites and wolf activities, and it
2 also informed us on the interaction of caribou with the
3 Whale Tail Project. More specifically, elders and
4 hunters shared the direction of caribou movements with
5 us, and the next few slides will show some of the
6 information that was shared with us. It was shared
7 that the caribou move in the spring from the south to
8 the north through our project, represented with the
9 green arrow; and also in the fall, from the north to
10 the south, just south of our project and sometimes
11 toward the south of haul road -- or the proposed haul
12 road.

13 We used the Inuit Qaujimaqatuqangit to inform some
14 of our baseline studies, and we overlaid that
15 information with some of the western science tools,
16 such as the Government of Nunavut collaring data, and
17 that's what's shown in the figure here with the smaller
18 arrows, which show, in brown, caribou movements in the
19 fall and, in green, caribou movements of the collars in
20 the spring, and that information is provided to Agnico
21 Eagle by the Government of Nunavut.

22 What it has told us, both -- the GN collaring data
23 has told us that caribou spend less than 1 percent of
24 their time within the proposed project regional study
25 area which is 25 kilometres nearest to the project.
26 What that means is that the caribou herds in the area

1 are spending 99 percent of their time outside of our
2 regional study area.

3 So this is another figure with information
4 provided to us by the Government of Nunavut, and it
5 shows a kind of heat map of where the caribou are in
6 the spring. The darker areas in brown are where the
7 highest amount of caribou are found in the spring. You
8 can see the area from -- that I described, the arrow
9 that shows the Inuit Qaujimagatuqangit, shows the
10 movements in that direction in the spring. And this
11 shows the movements of caribou, based on the collars,
12 in the fall, with the heat signatures being in the dark
13 brown again, where what we see from the GN collaring is
14 that caribou moved through our project from the north
15 to the south.

16 This map here is similar to the other terrestrial
17 presentations, and we've replaced this figure with
18 the -- of the collaring tracking with Figure 7.1 that
19 are posted in the back of the room and also in the NIRB
20 map book, the Nunavut Impact Review Board map book.
21 And what you see on this figure -- it shows the ranges
22 of the different herds, and the colours here show where
23 the calving areas are. And as you can see from this
24 figure, our project is not located in any calving
25 areas.

26 Now, Jennifer's going to set up an animation that

1 puts in motion the GN collaring data for caribou, and
2 what we'll see is the movements of caribou over time
3 with different seasons in the top caption of the video.
4 So you can see the movements of caribou over time. The
5 date here is at the top with the season, and this is a
6 broad view around our project, and this is a more
7 close-up view of what's happening on the screen to the
8 right.

9 So what we see in the winter is that the caribou
10 are spread out from our site but then we get a pulse of
11 caribou movement in the spring through our project site
12 area and then the caribou tend to move outside of our
13 project area. And they gather in the calving areas
14 that I showed in the earlier figure, and that lasts
15 through the summer. And then we start to see movements
16 towards the end of summer where the caribou are
17 interacting more with our project as the fall arrives.
18 And we see in the fall caribou moving just south --
19 primarily just south of the Whale Tail Pit Project and
20 through the all-weather access road area. You can see
21 that pulse there of the caribou moving through our
22 all-weather access road area.

23 That's good, Jen.

24 THE CHAIR: And just information -- for
25 your information, you have a pen and notebooks in the
26 back of your binders.

1 MR. VANENGEN: So to ensure that we monitor
2 and protect the caribou, because it's our goal to have
3 zero harm to caribou herds that interact with our
4 project, we plan to continue monitoring using the tools
5 that we've used at the Meadowbank mine site for the
6 last ten years. And that includes contributing to the
7 caribou radio collaring program in collaboration with
8 the Government of Nunavut. We'll use our mine site and
9 surveys, and we'll continue working with the Baker Lake
10 Hunting and Trapping Organization and the Kivalliq
11 Inuit Association and elders. We will also hire local
12 field technicians, including a Baker Lake Hunting and
13 Trapping Organizational representative to be in the
14 field with us to conduct the monitoring.

15 We hosted a series of caribou and terrestrial
16 ecosystem management program workshops over the last
17 year with various participants, including those from
18 the Government of Nunavut, from the Kivalliq Wildlife
19 Board, from the Baker Lake Hunting and Trapping
20 Organization, as well as the Kivalliq Inuit
21 Association. And from those workshops, we made some
22 changes to an already effective monitoring program. We
23 made changes that included increasing our mine site and
24 haul road height-of-land surveys. We made a commitment
25 to hiring two dedicated wildlife technicians, one of
26 which is the Baker Lake Hunting and Trapping

1 Organizational representative. And we've also
2 committed to installing gates and alert signs, such as
3 red or green, yellow -- or green, amber, and red lights
4 at both the beginning of the haul road as well as the
5 end of the haul road and around our activities at the
6 Whale Tail Pit site.

7 Furthermore, we're looking to continually improve
8 our caribou monitoring techniques; and, therefore,
9 we're looking into RECONYX cameras in specific areas,
10 and those are the hunting cameras that -- I don't
11 know -- maybe some of you use. And we're also looking
12 at really high-end military-grade cameras that will be
13 able to detect caribou greater than 3 kilometres away,
14 and we're interested in looking into that technology to
15 see if it's effective.

16 As per our Meadowbank Nunavut Impact Review Board
17 project certificate, we meet with the Baker Lake HTO at
18 least annually and typically about quarterly, which
19 means every three months, to review our wildlife
20 monitoring. And we will do that as part of our Whale
21 Tail Pit Project as well.

22 Overall, we've received good feedback over the
23 years from the Hunting and Trapping Organization and
24 good feedback also during the workshops that we hosted
25 this past year in a group that we call our terrestrial
26 advisory group. Those workshops were held in November,

1 February, and June where we brought attendees,
2 including Baker Lake HTO, Hunting and Trapping
3 Organization, representatives. We brought them down
4 into Winnipeg, into Ottawa to meet with specialists in
5 wildlife -- in wildlife protection and monitoring and
6 caribou experts as well.

7 We're committed to protecting caribou throughout
8 our operations; so that's across all seasons. And
9 we're ultimately going to increase our protection and
10 monitoring in the fall and spring seasons, which are
11 the more sensitive seasons.

12 So for the next few slides, I'm going to present
13 the tiered approach to monitoring and mitigation. As I
14 described earlier, this tiered approach takes a kind of
15 green -- takes a green-, amber-, and red-light approach
16 to monitoring. Where under a green scenario, we would
17 have routine monitoring. Under an amber-alert
18 scenario, we would have heightened monitoring and
19 perhaps mitigation to reduce our activities on the haul
20 road, as an example, and to reduce our activities
21 around the Whale Tail Pit site as well. What it would
22 also mean is that we would notify the Kivalliq Inuit
23 Association and the Baker Lake Hunting and Trapping
24 Organization under a yellow or amber scenario.

25 Under a Level 3 or a red-light scenario, we would
26 have even more heightened monitoring. So we'd increase

1 the amount of monitoring that we would do around our
2 site. And during sensitive seasons in particular, it
3 may include mitigation, such as shutting down our road.
4 Under a red-light scenario, we would suspend vehicles
5 within 500 metres of a group of caribou. We would
6 suspend non-essential vehicles, such as our haul
7 trucks. And we may -- or have to close our road and,
8 at a minimum, reduce our speeds to 30 kilometres per
9 hour along the haul road. And in some cases, we
10 would -- we're committed to ceasing mine activities
11 altogether. And as my colleague Jamie presented
12 earlier, we've accounted for 28 days of shutdowns for
13 our Whale Tail Pit -- for our Whale Tail Pit
14 operations, 28 days per year that will be accounted for
15 through blizzard days, blizzard shutdown days, as well
16 as caribou protection shutdown days. And for both
17 those scenarios, we use the same kind of alert system
18 of green, amber, and red alert.

19 The next two slides will present the decision
20 trees that we developed with the terrestrial advisory
21 group, and these decision trees -- I'm not going to get
22 into too much detail on them, but what they are are
23 rules for our on-site managers for our environmental
24 technicians and our operators to make it clear and --
25 to make it clear and to have transparent decisions to
26 protecting caribou.

1 There will be training for our road operators.
2 And we will follow the rules, as I mentioned, using the
3 green-, amber-, and red-light alerts very similar, if
4 not identically, to our blizzard shutdowns.

5 So really quickly, what you'll see in the decision
6 tree is, under normal operations, we make sure that
7 wildlife have the right-of-way. That means, if a
8 vehicle is moving close to caribou, they're going to
9 stop, and they're going to yield to those caribou no
10 matter what, under all circumstances.

11 Then under other circumstances where we see one
12 caribou within 25 kilometres or that regional study
13 area that we use for our project, if we see one of --
14 one collared animal enter into the regional study area,
15 we will enter into a Level 1 monitoring. And what that
16 means is we heighten our monitoring and we notify,
17 through notifications with our dispatch, the haul truck
18 drivers on the road and the operators that there are
19 caribou in the area.

20 If caribou are observed of a certain group-size
21 threshold -- so a number of caribou are seen -- at
22 4 kilometres from our activities, we'll enter into a
23 Level 2 scenario which means, again, that we heighten
24 our monitoring and mitigation.

25 And then if caribou enter into a 1.5-kilometre
26 range and they exceed our group-size threshold of

1 caribou, we will -- we will perhaps -- and in many
2 cases, we'll enter into a red-light scenario, and we'll
3 cease operations in certain areas. We may reduce our
4 activities and begin our suspension protocols.

5 When I refer to the group-size thresholds, these
6 are number of caribou that are triggers. Or what it
7 does is it tells us that we need to shut down if
8 there's a number of caribou that interact with our
9 project at certain distances from our project. And
10 that group-size threshold was determined through our
11 terrestrial advisory group or through the workshops we
12 hosted with the caribou experts that I mentioned
13 earlier.

14 So for the next couple of slides, I'm going to
15 demonstrate the -- our shutdown procedure and convoy
16 procedure using that example of the green-, amber-, and
17 red-light-alert type of mitigation and monitoring.

18 So as I mentioned, under routine scenario, we
19 would -- where wildlife always have the right-of-way,
20 we would continue our operations. For this example,
21 I'm going to -- for this illustration and example, I'm
22 going to assume that there's 150 caribou represented by
23 these three caribou to the north. And for the purposes
24 of this demonstration, we can assume that this is
25 happening right now. So it's in the fall season.

26 So under a green-light scenario, haul trucks would

1 be hauling at a normal rate described by my colleague
2 Jamie from the Whale Tail Pit site to the Meadowbank
3 mill; and that's when caribou are well beyond our site,
4 beyond 25 kilometres from our regional study area.

5 If a single caribou that's collared enters our
6 25-kilometre regional study area, we would trigger an
7 amber alert. And what that means is we would heighten
8 our monitoring. So the height-of-land surveys would
9 increase, and our haul road surveys would increase.
10 And we would inform all of the operators on the road
11 that caribou are nearby and that they have -- need to
12 have heightened awareness that caribou could be
13 interacting with the road. That said, the operations
14 would continue under this scenario but with that
15 heightened awareness that caribou are nearing
16 potentially our project.

17 Step 2, we would increase our monitoring but we
18 would also notify the Baker Lake HTO if caribou enter
19 into 4 kilometres of our site. That would be done --
20 the way we would know that they're entering within
21 4 kilometres of our site is through the surveys that
22 are being conducted by the Baker Lake Hunting and
23 Trapping Organization and our field technicians as
24 well.

25 Remember that in this example it's in the fall,
26 which means that our caribou group-size threshold,

1 number of 140 caribou -- what that means is that the
2 observer here has seen 140 caribou within 4 kilometres
3 of the road which then, as I mentioned, initiates
4 additional monitoring; and we would do that in
5 collaboration with the Government of Nunavut as well
6 as -- so the Government of Nunavut conservation officer
7 might come to site as well as the Kivalliq Inuit
8 Association representative who would come to site along
9 with the Baker Lake Hunting and Trapping Organization
10 technician who would be doing the wildlife surveys with
11 us. They would come to site, and they would inform our
12 decisions when caribou are within 4 kilometres of the
13 site.

14 Under this scenario, the haul trucks would
15 continue, but we would have that heightened awareness
16 as well under a yellow/amber scenario.

17 It may be needed under an amber scenario that we
18 have to reduce our speeds on the haul road, and that's
19 exactly what we would do in this example -- is, when
20 caribou are within 4 kilometres of the site, we might
21 slow down our haul road traffic. And we would continue
22 to work with the Baker Lake Hunting and Trapping
23 Organization as well as the Kivalliq Inuit Association
24 and Government of Nunavut conservation officer to make
25 a decision for the next steps.

26 It may be through this consultation that the group

1 of stakeholders suggest that we use convoys to move our
2 equipment -- or to move our ore from Whale Tail Pit to
3 the Meadowbank mine. What that means is that a group
4 of haul trucks would leave the Whale Tail Pit site
5 together and go to the mill, and what that does is it
6 allows a break in our traffic for caribou to pass
7 through.

8 And, lastly, if the caribou are within
9 1.5 kilometres of our activities on the haul road, as
10 an example, we would enter into a red alert and based
11 on recommendations from the groups that are on-site,
12 like the Baker Lake Hunting and Trapping Organization,
13 we would shut down the road. What shutting down the
14 road means is that, the haul trucks that are still
15 moving ore from the Whale Tail Pit and are, let's say,
16 south of the caribou, they would continue their trip to
17 the mill, but the haul trucks that are waiting at the
18 Whale Tail Pit would stay at the Whale Tail Pit, and
19 they would not be moving the ore to the Meadowbank
20 mill. And we would continue to consult with the
21 stakeholders that are -- using this example -- that are
22 on-site with us, making decisions with us in realtime.

23 Nevertheless, the -- what's important is that
24 essential vehicles would still be on the road. So that
25 would include our emergency response team and our
26 monitoring team. Our wildlife monitoring team might

1 still be on the road under these scenarios to ensure
2 that the caribou are protected and to ensure that our
3 employees are also still protected and kept safe with
4 our ERT team.

5 Now, if we can imagine, after shutting down the
6 road, let's say for 24 hours, using this example,
7 through monitoring it's determined that the caribou
8 have now passed beyond 4 kilometres of our activities,
9 which means that we now move from a red alert into an
10 amber alert. And in this example, it's recommended
11 that the convoys continue and that the speed of our
12 traffic on our road is reduced through consultation
13 with stakeholders.

14 And in this example, again, assume that after
15 another 36 hours from the shutdown the caribou are
16 found to have moved well past our site, beyond the
17 regional study area of 25 kilometres, we would be in a
18 yellow/amber alert which would mean in this example
19 that perhaps our traffic -- because we're in the fall,
20 that our traffic would stay at a slower speed of
21 30 kilometres per hour but hauling would continue to
22 resume from the Whale Tail Pit operations to the
23 Meadowbank mill.

24 So in the interest of time, the next few slides,
25 I'm going to try to go through very quickly, and then
26 Bertin has -- will finish off the presentation.

1 So as I mentioned in the earlier slide, we have --
2 we monitor the air, as well as the water, as well as
3 the caribou, and this is an example of how we monitor
4 our air quality. And we monitor our air quality along
5 the entire all-weather access road at different
6 sections there. We call them transects for dustfall
7 monitoring. We monitor around our Meadowbank
8 operations, and we're proposing to monitor along our
9 haul road and around the Whale Tail Pit Project area as
10 well.

11 We will continue to monitor and make sure that
12 dust is not a problem, and we have some ways to do
13 that. We will use material with low silt content, and
14 we may need to use water and other dust suppressants,
15 such as TETRA Flakes.

16 We also monitor the water quality around the site,
17 and that means that we monitor the water quality in and
18 around the pit area but also in the receiving
19 environment to make sure that the fish and fish habitat
20 is clean -- are clean.

21 In order to control our water, we have -- we'll be
22 constructing dikes around our site, and we'll use the
23 lessons learned from our Meadowbank experience to
24 inform our dike construction at the Whale Tail Pit
25 site. What that means is that we will conduct
26 monitoring; we will evaluate the monitoring

1 information; and we will adjust our construction
2 practices to ensure the protection of the environment.
3 And we call that -- that's an example of adaptive
4 management.

5 Given the importance of fish to local Inuit, we
6 have developed a fisheries and offsetting plan, and
7 we've developed a fish-out protocol as well for the
8 Whale Tail Pit Project. As my colleague Jamie
9 mentioned, we'll be dewatering the north basin of Whale
10 Tail Lake by moving water from the north basin into the
11 south basin and also into Mammoth Lake. But before we
12 begin moving that water, we're going to complete a
13 fish-out, which means moving the fish from the north
14 basin into the south basin. And we'll use our
15 experience from the Meadowbank fish-outs to inform
16 this -- the fish-out at Whale Tail Pit.

17 Based on community feedback and in following
18 Department of Fisheries' guidance, we'll conduct the
19 fish-outs. And we believe our fish-out plan, as well
20 as our offsetting plan, will account for the loss of
21 fish habitat during operations and in closure.

22 Agnico Eagle is committed to the concepts
23 presented in our offsetting plan and are confident that
24 the loss of fish habitat due to Whale Tail Pit
25 operations is offset. And we will use a different -- a
26 number of different ways to offset for the fish losses,

1 including on-site habitat creation, improved connection
2 between Mammoth and Whale Tail Lake. And we'll also
3 complete complementary measures, which include research
4 and also sustainable projects that are intended to
5 provide direct benefit to the community of Baker Lake,
6 and that includes the sewage treatment and reclamation
7 plan -- or remediation. Sorry. Not reclamation.

8 Furthermore, we will continue to work with the
9 Kivalliq Inuit Association and other research groups,
10 such as the Arctic Research Foundation, to monitor the
11 long-term protection of Baker Lake.

12 And now I'm going to pass the controls over to
13 Bertin to finish off the presentation.

14 Mat'na.

15 MR. PARADIS: Thank you, Ryan. Bertin
16 Paradis from Agnico Eagle.

17 So it is one of our main objectives to develop a
18 skilled and sustainable labour -- local labour
19 workforce. To achieve so, we will be able to leverage
20 on many programs already in place and studies ongoing
21 in collaboration with our different stakeholders in
22 Nunavut. Some examples but not limited to: our labour
23 pool, our work and site readiness programs, specific
24 in-house training combined with our career path
25 program, the apprenticeship and pre-apprenticeship
26 programs -- all different programs aiming to this

1 objective.

2 I would like also to mention the following:

3 Extensive negotiation between Agnico Eagle and the
4 Kivalliq Inuit Associations; both parties agreed on the
5 term of the Whale Tail open-pit Impact Benefit
6 Agreement which has been signed in June of this year.
7 This agreement ensures Inuit benefit from the
8 development of the project through training, jobs, and
9 contracts.

10 In this Inuit Benefit Agreement, Agnico Eagle
11 agreed to a minimum of 50 percent Inuit employment
12 target. We also agreed to maintain a minimum of
13 3.6 million yearly in training spending. We also
14 agreed to create business opportunity with preference
15 for NTI-registered companies.

16 In this new agreement, Agnico Eagle also agrees to
17 the payment of a royalty directly to the Kivalliq Inuit
18 Association. We would like to mention that royalties
19 to the Kivalliq Inuit Association were not part of the
20 past Meadowbank Inuit Benefit Agreement signed at that
21 time with Cumberland. With that said, we believe the
22 past return -- past years' returns to the communities
23 did not represent well the future potential returns.

24 With now three Inuit benefit agreements in
25 place -- the Meadowbank one, the Meliadine one, and the
26 Whale Tail one -- Agnico Eagle evaluates total future

1 royalties payment to Nunavut Tunngavik Incorporated and
2 Kivalliq Inuit Association to be approximately
3 \$400 million. This evaluation is based on the actual
4 known resource and actual Agnico Eagle economic
5 evaluation.

6 Before conclusion, I would like to share a few
7 examples of success at our Meadowbank operation from
8 our training program. These four employees -- Devon,
9 Langway, Norman, and Nathaniel -- now have all
10 certification recognized across Canada which opened
11 them many potential opportunities for their future.

12 In conclusion, the Nunavut hub is an important
13 part of the actual development strategy for Agnico
14 Eagle. The Whale Tail Project is giving us an
15 important opportunity to extend the life of mine of the
16 Meadowbank site, maintain employment level, and keep
17 working with our different stakeholders to keep moving
18 forward in our vision to have one day our mine managed
19 by Inuits.

20 Thank you very much.

21 THE CHAIR: Thank you.

22 We just heard what they want to do -- Agnico
23 Eagle, what they would like to do. I know the people
24 from Baker Lake that are in the crowd, if you have any
25 questions, you would be able to ask questions; and the
26 people around the table will be able to ask questions

1 as well. I know some of them are questions that have
2 been asked by the directors and some of them just look
3 at what it would be like, how big it would be at
4 Meadowbank and Whale Tail, using their road. It'll be
5 just about the same size as Rankin or Baker Lake. The
6 land will change. There'll be hills built with waste
7 rock as well what was mentioned as well during this
8 hearing. And we asked questions about dust control and
9 noise control when they're in operation with the
10 vehicles, the drills, the motors, and blasting. And
11 some -- and other noise -- and other concerns that we
12 had, we asked questions. The vehicles that will be
13 used are 18, and they'll be running 24 hours a day,
14 7 days a week. And some of the questions we had
15 concerned those things. I'm sure we're going to ask
16 the questions again from the Board, and you'll be able
17 to ask the questions if you have any to Agnico Eagle.

18 In the morning, there -- Andre Tautu is leaving in
19 the morning. I'm going to let him speak first. He's
20 leaving in the morning for a funeral in Chesterfield.

21 So if you have any questions, Andre, it's open to
22 you now.

23 Community Roundtable

24 ANDRE TAUTU: Thank you, Madam Chair.

25 I will be speaking both languages, Inuktitut and
26 English. It's not that I'm unsatisfied with the

1 interpreters. They're doing a great job, and they've
2 been putting in many hours. So I'm your surprise
3 guest.

4 I'm going to speak in both languages. So I
5 want -- because I want to be clear and understood, and
6 our interpreters are working very hard.

7 I'm here on behalf of the Nunavut Surface Right
8 Tribunal. I cannot make any comments, concerns, or
9 questions to any of the parties because I'm bound with
10 our own rules, policies, regulations, and so forth.
11 So, therefore, I'm just an observer. Even if I tell
12 you about role and responsibility, I would just get
13 this hearing off the topic; so I won't, unless the
14 Board asks me to do so.

15 Now I'm here to listen. I'm on -- here on -- here
16 on behalf of the Nunavut Rights Tribunal. I am a
17 director. There's four of us -- or five of us on that
18 board. I cannot speak my concerns or I can't support
19 anything or I cannot oppose anything; I can't even ask
20 questions -- because it will create barriers. We have
21 rules and regulations as board of director for Surface
22 Rights Tribunal.

23 Thank you, Madam Chair.

24 THE CHAIR: If you have any questions,
25 just raise your hands, if you have any questions or
26 concerns. Anybody have a question or concern?

1 Elie.

2 Raise your hand so your name will be written.

3 ELIE KIMMALIARDJUK: Thank you. I'm just about to
4 fall asleep; however, I had to raise my hand.

5 I know the -- when the mine was opening, before it
6 was open, we were in support of it in Chesterfield
7 because we were -- would have community visits from the
8 company. We didn't know we were going to have that
9 mine open for over ten years. Our youth need jobs, for
10 our children and our grandchildren. Because of that,
11 we were in support of Meadowbank.

12 I'm sure I'm not going to be too clear, but I am
13 from Chesterfield, and I am here on behalf of my
14 community. And when I hear what your -- why I'm here,
15 I'm here on behalf of my community.

16 I want to ask the question. Today and yesterday
17 when you were talking about de-fishing or taking fish
18 out -- doing fish-outs to different lakes, when I heard
19 that yesterday and today and the day before, I had a
20 question about the fish-outs for one lake to another.
21 I want clarification.

22 The fish that are from the lakes -- I am not an
23 expert; however, I am more knowledgeable about the fish
24 from the ocean and how they are affected. Because up
25 inland it's warmer around Meadowbank -- I don't know
26 how -- it's how many miles away from here inland, and

1 when they were -- the one that you want to work on, I'm
2 sure it's going to be warmer because it's further
3 upland in July.

4 My question is -- what I heard from yesterday and
5 today, I have a question to get clarification, and I
6 hope you understand.

7 When you are doing fish-outs in the lake in July,
8 August, perhaps in June as well, it'll be very warm in
9 the summer, and the lakes are very warm following the
10 temperature of the lake. Without that in
11 consideration, you take the fish out during hot summer
12 days from one lake to another when you're doing
13 fish-outs. How -- the lakes that you are taking the
14 fish out of and how far is it from one to the other
15 before you put the fish in the other lake? Or is it
16 through the rivers? Or do you put them in tanks and
17 move them? What is the process? That's my question.

18 Because fish do get affected very easily, and they
19 die when they are handled too much. I don't know what
20 the fish are like up inland. I know the fish from the
21 ocean. I know more about them and how they are
22 affected when they are handled. In the past, when we
23 were making money with the fish, as a commercial
24 fisherman, I worked very hard; I slept very briefly.
25 And try to keep up with the fish that are still alive
26 in the nets because they are the only ones that the

1 people want. They're really hard because they do die
2 very easily when they are handled or in nets.

3 Now, up inland, when you're handling fish, they
4 probably are affected more -- even more easily than
5 char. I heard a few examples that, when you did
6 fish-outs, that only a few fish did not make it. I
7 know they are affected very easily and they die.

8 I hope you understand my question. My question is
9 more for the summertime in June, July, August, when
10 you're doing your fish-outs from one lake to another.
11 How many die? And how many are affected and injured?

12 I know some of the lakes are very large. Perhaps
13 some of the fish are different and there are different
14 types of fish in those lakes.

15 If you understand my comments and concerns I am
16 speaking -- because I want to be understood. If I can
17 get a brief answer. I would like to have an answer.

18 And I am talking too long. It may just get off
19 topic and nobody can understand me. So thank you.

20 THE CHAIR: Yeah, we understand your
21 question.

22 If you're going to ask a question, be brief.
23 There's a lot of people that want to ask questions. I
24 know you're going to be here all day tomorrow and be
25 able to ask questions. It's almost 9. So keep your
26 questions brief. Thank you.

1 Agnico Eagle.

2 MR. VANENGEN: Ryan Vanengen from Agnico
3 Eagle.

4 Thank you for your questions and mat'na for some
5 of the -- sharing some of your knowledge.

6 So the first question was how far is it from one
7 lake to another? That was the -- you have a series of
8 questions. That was one of the first questions. And
9 it's we'll be transferring -- during the fish-out,
10 we'll transfer fish from the north basin, which is in
11 the same lake, of Whale Tail Lake into the south basin
12 of Whale Tail Lake. So we're moving them from one part
13 of the lake into the same lake, into the south part of
14 the lake. And depending on the road length, it could
15 be about -- the fish will travel about -- in tubs about
16 1 kilometre or less than that. We haven't really
17 figured out those details.

18 The other question that you asked was what is the
19 process of the fish-out? And the process is to first
20 set nets in the lake, collect the fish, bring them in
21 alive in tubs of water that are cold and aerated. Then
22 those tubs of water are put onto a truck, brought to
23 the other part of the lake, and then the fish are
24 released alive after being measured for length and
25 weight.

26 The third question that was asked was how do you

1 protect the fish in the summer, in the warm seasons?
2 And we do that by making sure that the water in the
3 tubs that we're transferring the fish are cold. And
4 we've improved some of our fish-transfer methods
5 through consultation with the Baker Lake HTO, and we
6 also learned a lot of Inuit Qaujimajatuqangit from
7 those visits of the Baker Lake HTO in the past
8 fish-outs. But it's also learned -- we also learned
9 that in June and July is when the water's colder; the
10 fish do transfer better. So it's our experience as
11 well, and you make a very good point.

12 And then the last question was how many fish die?
13 And in some cases, 20 -- if there's 100 fish in a lake,
14 as an example, in some cases, 20 of those fish die and
15 up to 40 of those fish die, which means that in some
16 cases, 60 percent of them live and even up to 80
17 percent of the fish are successfully transferred.

18 So I hope I've answered your questions.

19 Mat'na.

20 THE CHAIR: Anybody else have questions?

21 Harry Aggark.

22 HARRY AGGARK: Harry Aggark, Chesterfield
23 HTO.

24 I have two questions. I'm sure there will be more
25 questions tomorrow. My questions are numerous, but the
26 time is short. The presentation that you gave, I have

1 questions from your presentation.

2 When you are in the closure mode, the pits that
3 you dewatered, you said you are going to monitor. I
4 understood that, what the water -- what quality is
5 like. Have you done that before, after you created the
6 pit and flooded it with water? And how has that been
7 over a period of time? That's my first question, what
8 the water is like in the pits.

9 As you said, when the wildlife is around your site
10 and the habitat and their food -- do you find out what
11 the caribou meat condition is like? Like, would you --
12 whether they're being affected by the dust or any of
13 the mine operations. Would you put them to sleep and
14 check their blood and stuff or skin? And how do you do
15 that with caribou to ensure that they're not being
16 affected by the mine?

17 MR. QUESNEL: Thank you, Madam Chair. Jamie
18 Quesnel, Agnico Eagle.

19 I'll just speak about the pit question, about the
20 re-flood; then my colleague Ryan will talk about the
21 wildlife.

22 Dealing with the re-flood, at Meadowbank we've --
23 we have the Bay Goose pit, which is not being mined
24 anymore, and the Portage pits and the Vault and
25 starting the Phaser. But with the re-flood, with the
26 Bay Goose pit, we've transferred some water into the

1 Goose pit. It's a small percentage. So it's just a
2 start of that. We just transferred some water, to work
3 out some of the aspects of that transfer. And that's
4 our experience in the north with re-flood of the pits.

5 And, again, it's all based on water quality. So
6 the water will stay in the pits, like a large bathtub;
7 and we will not open any ends of the bathtub until the
8 water meets that criteria. So that's a key aspect
9 of -- during the closure. We have to meet that target
10 for the water quality.

11 And, Ryan, if you don't mind answering the
12 wildlife. Yeah.

13 MR. VANENGEN: Ryan Vanengen from Agnico
14 Eagle.

15 And when it relates to -- your question was around
16 the -- whether or not wildlife would be around and if
17 their meat -- and if the condition of the meat would be
18 good to eat? Is that right? Yeah.

19 THE CHAIR: No. When you are --

20 HARRY AGGARK: Madam Chair, that's correct.
21 That was my question.

22 THE CHAIR: When you put an animal to
23 sleep just to test the blood or the condition of the
24 animal, are you -- can you ensure Harry that it is done
25 in a proper, safe way? How do you -- how do I say
26 it? -- test the animal? Like, when you put an animal

1 to sleep just to see the health of the animal.

2 MR. VANENGEN: So we don't do that type of
3 testing on wildlife. So we don't -- we don't put the
4 animals to sleep and then test their -- yeah, and we
5 don't test their meat. But perhaps our -- the
6 Government of Nunavut might be better to answer that
7 question.

8 So could we ask the Government of Nunavut to come
9 up and answer that question?

10 THE CHAIR: Yes, please.

11 HARRY AGGARK: Part of my question is, when
12 you're outside of the mine site area, the wildlife meat
13 do probably get affected. That was my question,
14 whether they are tested or not. That was my only
15 question. Thank you.

16 Government of Nunavut Responds

17 MR. PINKSEN: Thank you. Steve Pinksen,
18 Government of Nunavut.

19 We do have some sample collections that do take
20 place, but usually those programs are run by asking
21 hunters to bring in samples and they're tested. So,
22 for example, on some projects, the proponent, as a
23 condition of the project, is required to collect
24 samples; and they do that usually through requesting
25 that hunters bring in different samples -- so organ
26 samples and meat samples -- for analysis. So there is

1 programs like that around mining projects.

2 Thank you.

3 HARRY AGGARK: Thank you, Madam Chair.

4 Sorry for any confusion. When the proponent
5 mentioned that they do monitoring around the mine, with
6 animals, with vegetation, I thought they were doing the
7 same sample as the local hunters do as caribou meat.

8 Thank you, Madam Chair.

9 THE CHAIR: Thank you.

10 Martha Hickes.

11 MARTHA HICKES: Thank you. I am representing
12 the Hamlet of Rankin Inlet. My question -- I'm going
13 to speak English.

14 When you start up the Whale Tail Project, will you
15 be shutting down Meadowbank operation? Or will they
16 both be running?

17 And will you be building another road besides the
18 road you have now? Will the proponent be working with
19 the Hamlet -- i.e., location, gravel, and so on?

20 And haul trucks, are they the same as the ones
21 that are used at Meadowbank?

22 Thank you, Madam Chair.

23 MR. QUESNEL: Thank you, Madam Chair. Jamie
24 Quesnel, Agnico Eagle.

25 Thank you for your questions.

26 If we receive the approval for Whale Tail Pit, the

1 Meadowbank operation would continue except for the
2 extraction, taking the rock out of the ground. That
3 would happen at Whale Tail in that pit. So all other
4 activities at Meadowbank would continue -- the camp,
5 the airstrip, the mill where we break up the rock, and
6 the tailings where the leftover rock is pumped to.

7 The road, the -- part of the Whale Tail Pit
8 application, we built the -- an exploration road under
9 another approval that we have from the Vault pit at
10 Meadowbank to the Whale Tail/Amaruq area. So that's
11 been completed. And it's 6-and-a-half metres wide, and
12 part of this application is to -- is to widen that
13 road. And additional roads would be just smaller
14 access roads, a ring road around the operation to get
15 around the pit, and just access from the camp and those
16 type of thing, just smaller roads to link everything
17 together.

18 Dealing with the question regarding the Hamlet for
19 gravel -- that's my understanding of the question --
20 based on our existing licence right now for
21 construction of that exploration road, we have permits
22 to remove gravel from the eskers in those areas along
23 the road to Whale Tail; plus we have permits for
24 quarries where we would have to extract, break up rock
25 and crush it, and use it for construction purposes for
26 the road.

1 And I think this is your last question, just
2 dealing with the haul trucks. So the haul trucks right
3 now at Meadowbank -- most of the mining is at Vault.
4 Those trucks -- once the pit stops at Meadowbank, those
5 trucks will be moved to Whale Tail, and they'll move
6 the ore from the pit to surface, and then the new
7 trucks will be loaded with that rock that comes out of
8 the pit; they'll transfer that rock into the back of
9 that truck; and that will go down the haul road to
10 Meadowbank.

11 So hopefully I answered all your questions.

12 Thank you.

13 THE CHAIR: Thank you.

14 Lena Tapatai.

15 MS. TAPATAI: Thank you, Madam Chair.

16 I have a question. I am the mayor of Baker Lake.
17 I have a question with regards to one of your
18 presentations.

19 The CLARCs were -- whether or not -- who is --
20 what does -- what's the acronym for CLARC? And who do
21 they -- who have they been appointed to be on this --
22 how are they involved?

23 I think we, as a community that's going to be
24 impacted the most, we have to get more information from
25 the company so that members of our community can
26 understand what is going on and what you're planning to

1 do as you're progressively going to work -- do your
2 work.

3 Thank you.

4 THE CHAIR: Does anybody in the community
5 know if there still is a CLARC committee that would
6 help inform the community on the goings-on of the
7 mining company?

8 Luis, you have an answer? Okay. Thank you.

9 MR. MANZO: Thank you, Madam Chairman. My
10 name is Luis Manzo, director of lands of the Kivalliq
11 Inuit Association.

12 The CLARCs acronym means Community Land and
13 Resources Committee -- Community Lands and Resources
14 Committee. That come from the land-use plan that was
15 formed during the selections in the consultation of the
16 gwatee [phonetic] land-use plan. And by the
17 recommendation of the Nunavut Planning Commission, the
18 CLARC committee was created in each community to advise
19 the land departments on the issues regarding the lands.

20 So any permit who come to Inuit-owned lands is --
21 we have a committee which the chairperson of that
22 committee is the director of KIA -- on behalf of the
23 KIA, he is chairing the committee -- and has a member
24 from the HTO, selected by the Board of the HTO; has a
25 member by the Hamlet, appointed by the hamlet; has a
26 member of the youth, appointed by the youth; and has a

1 member by the elders; and a member of the women
2 appointed. If there's any other organization that also
3 are in the community, also is invited to come in.

4 The CLARC committee also, if they need specific
5 information for a file, depending on the geographic
6 location of that file, can invite people who used to
7 live in the area to advise them in regard to that
8 particular file -- if either there was any
9 archaeological signs, hunting areas, special areas or
10 special hunting areas or fishing areas. And that's the
11 first step in order to fulfill some of the reviews on
12 the Nunavut Planning Commission who are attached to our
13 files.

14 I hope I answered the question, Mr. Chair -- Madam
15 Chair.

16 THE CHAIR: So is there such a committee
17 in Baker Lake?

18 MR. MANZO: Thank you, Madam Chairman.
19 Luis Manzo, Kivalliq Inuit Association.

20 Yes, there is.

21 THE CHAIR: Lena, do you have any further
22 questions, additional questions?

23 LENA TAPATAI: Thank you, Madam Chair.

24 I have never heard of a committee, and I don't --
25 I have no -- I have no information as to what they do
26 and who is appointed to this committee. It's my first

1 time. I didn't even know they had representatives from
2 lady -- women and youth. I think there are some people
3 that have lived at outpost camps that are on this
4 committee as well.

5 THE CHAIR: (TRANSLATION LOST) and related
6 to the application. Mat'na.

7 (TRANSLATION LOST) Wynona tomorrow asking the
8 first question tomorrow because we've gone over 9:00
9 and our time limit. So we're going to return here
10 tomorrow at 9. We'll close for tonight and reconvene
11 tomorrow morning at 9:00, starting with Wynona Gibbons.

12 _____
13 PROCEEDINGS ADJOURNED UNTIL 9:00 AM, SEPTEMBER 22, 2017

14 _____

15

16

17

18

19

20

21

22

23

24

25

26

1 CERTIFICATE OF TRANSCRIPT:
2

3 We, Sara Anderson and Elizabeth Royal, certify
4 that the foregoing pages are a complete and accurate
5 transcript of the proceedings, taken down by us in
6 shorthand and transcribed from our shorthand notes to
7 the best of our skill and ability.

8 Dated at the City of Calgary, Province of Alberta,
9 this 11th day of October 2017.

10
11
12
13 Sara Anderson



14 Sara Anderson, CSR(A)
15 Official Court Reporter
16
17

18
19 Elizabeth Royal

20 Elizabeth Royal, CSR(A)
21 Official Court Reporter
22
23
24
25
26

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

EXHIBITS ENTERED
SEPTEMBER 21, 2017

PAGE NUMBER:

EXHIBIT 19 - Agnico Eagle hard copy	379
PowerPoint presentation entitled	
"Predevelopment Application"	
(English/Inuktitut)	
EXHIBIT 20 - Agnico Eagle hard copy	386
correspondence dated September 20, 2017,	
from the Baker Lake Hunters and Trappers	
Organization to the Chair of the Nunavut	
Impact Review Board and the Minister of	
Indigenous and Northern Affairs Canada	
regarding the proposed Whale Tail mine	
(English)	
EXHIBIT 21 - Agnico Eagle hard copy	391
terrestrial environment commitments in	
response to Government of Nunavut	
(English)	

1	EXHIBIT 22 - Agnico Eagle hard copy	391
2	terrestrial environment commitments with	
3	reference to Kivalliq Inuit Association	
4	final written submission comments, dated	
5	September 21, 2017 (English)	
6		
7	EXHIBIT 23 - Agnico Eagle hard copy	393
8	PowerPoint presentation of Whale Tail Gold	
9	Project, KIA/NTI technical review of the	
10	environment impact statement	
11	(English/Inuktitut)	
12		
13	EXHIBIT 24 - Baker Lake Hunters and	418
14	Trappers Organization hard copy revised	
15	final hearing presentation for the Whale	
16	Tail Pit Proposal (English)	
17		
18	EXHIBIT 25 - Baker Lake Hunters and	418
19	Trappers Organization hard copy revised	
20	final hearing presentation for the Whale	
21	Tail Pit Proposal (Inuktitut)	
22		
23	EXHIBIT 26 - Government of Nunavut hard	437
24	copy technical session regarding Agnico	
25	Eagle Whale Tail Pit Project for Nunavut	
26	Impact Review Board final hearing,	

1	September 19-22, 2017 (English/Inuktitut)	
2		
3	EXHIBIT 27 - Government of Nunavut hard	437
4	copy technical session regarding Agnico	
5	Eagle Whale Tail Pit Project for Nunavut	
6	Impact Review Board final hearing,	
7	September 19-22, 2017 (English/French)	
8		
9	EXHIBIT 28 - Government of Nunavut table	437
10	of proposed terms and conditions (English)	
11		
12	EXHIBIT 29 - Government of Nunavut table	437
13	of proposed terms and conditions	
14	(Inuktitut)	
15		
16	EXHIBIT 30 - Government of Nunavut table	437
17	of proposed terms and conditions (French)	
18		
19	EXHIBIT 31 - Environment and Climate	456
20	Change Canada hard copy PowerPoint	
21	presentation to the Nunavut Impact Review	
22	Board respecting the Whale Tail Pit	
23	Project (English/Inuktitut)	
24		
25		
26		

1	EXHIBIT 32 - Environment and Climate	456
2	Change Canada hard copy PowerPoint	
3	presentation to the Nunavut Impact Review	
4	Board respecting the Whale Tail Pit	
5	Project (French/English)	
6		
7	EXHIBIT 33 - Fisheries and Oceans Canada	479
8	hard copy PowerPoint presentation to the	
9	Nunavut Impact Review Board final hearing	
10	(English/Inuktitut)	
11		
12	EXHIBIT 34 - Fisheries and Oceans Canada	479
13	hard copy PowerPoint presentation to the	
14	Nunavut Impact Review Board final hearing	
15	(English/French)	
16		
17	EXHIBIT 35 - Indigenous and Northern	510
18	Affairs Canada hard copy PowerPoint	
19	presentation for technical session	
20	regarding Agnico Eagle Whale Tail Pit	
21	Project for Nunavut Impact Review Board	
22	final hearing (English)	
23		
24		
25		
26		

1	EXHIBIT 36 - Indigenous and Northern	510
2	Affairs Canada hard copy PowerPoint	
3	presentation for technical session	
4	regarding Agnico Eagle Whale Tail Pit	
5	Project for Nunavut Impact Review Board	
6	final hearing (Inuktitut)	
7		
8	EXHIBIT 37 - Indigenous and Northern	510
9	Affairs Canada hard copy PowerPoint	
10	presentation for technical session	
11	regarding Agnico Eagle Whale Tail Pit	
12	Project for Nunavut Impact Review Board	
13	final hearing (French)	
14		
15	EXHIBIT 38 - Indigenous and Northern	510
16	Affairs Canada hard copy PowerPoint	
17	presentation for community session	
18	regarding Agnico Eagle Whale Tail Pit	
19	Project for Nunavut Impact Review Board	
20	final hearing (English)	
21		
22	EXHIBIT 39 - Indigenous and Northern	510
23	Affairs Canada hard copy PowerPoint	
24	presentation for community session	
25	regarding Agnico Eagle Whale Tail Pit	
26	Project for Nunavut Impact Review Board	

1 final hearing (Inuktitut)

2

3 EXHIBIT 40 - Indigenous and Northern 511

4 Affairs Canada hard copy PowerPoint

5 presentation for community session

6 regarding Agnico Eagle Whale Tail Pit

7 Project for Nunavut Impact Review Board

8 final hearing (French)

9

10 EXHIBIT 41 - Agnico Eagle Mines and 511

11 Indigenous and Northern Affairs Canada

12 hard copy joint submission on suggested

13 terms and conditions, dated September 20,

14 2017 (English)

15

16 EXHIBIT 42 - Natural Resources Canada hard 550

17 copy PowerPoint presentation for final

18 hearing (English)

19

20 EXHIBIT 43 - Natural Resources Canada hard 550

21 copy PowerPoint presentation for final

22 hearing (Inuktitut)

23

24 EXHIBIT 44 - Natural Resources Canada hard 550

25 copy PowerPoint presentation for final

26 hearing (French)

1	EXHIBIT 45 - Natural Resources Canada hard	550
2	copy PowerPoint Presentation for community	
3	roundtable (English)	
4		
5	EXHIBIT 46 - Natural Resources Canada hard	550
6	copy PowerPoint Presentation for community	
7	roundtable (Inuktitut)	
8		
9	EXHIBIT 47 - Natural Resources Canada hard	550
10	copy PowerPoint Presentation for community	
11	roundtable (French)	
12		
13	EXHIBIT 48 - Agnico Eagle hard copy	563
14	PowerPoint presentation for community	
15	information session, introduction and	
16	overview (English/Inuktitut)	
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		

A				
ability (5) 384:26	account (8) 376:21 478:22	481:23,23 482:1	acts (2) 457:14	520:20 525:17
488:13 520:12	479:1 505:18	482:1,4,7,8,11	558:2	525:19 526:9
522:4 614:7	518:23 522:25	482:12,24	actual (12) 455:17	527:4 528:21,26
Abitibi (1) 565:13	533:13 594:20	483:12 492:14	461:24 566:13	530:19,23 533:3
able (31) 372:1,5	accounted (8) 486:6 487:1,26	502:11 553:12	566:16,21,25	535:8,14,19
376:17 389:7,18	489:4 494:15	553:21 569:10	567:17,24,25	543:1,15 546:18
409:15 416:23	531:5 586:12,14	569:18	597:3,4,13	552:18 556:13
416:25 421:19	accounting (1) 481:14	acting (1) 526:11	adamant (1) 424:4	558:18,22 559:9
426:21 432:15	accounts (2) 532:1 543:14	actions (5) 407:18	adaptive (15) 395:12 398:16	559:11 563:8
432:25 452:7,14	accrue (1) 425:9	407:18 466:11	399:5,11 447:15	570:12 571:13
452:21 474:13	accumulative (1) 549:5	467:3 536:5	447:21 463:7	572:6 574:16
485:18 494:17	accurate (1) 614:4	active (18) 415:19	469:23 491:15	590:4 609:13
505:11 506:13	achievable (1) 467:11	458:12 474:20	491:19 520:13	612:22
537:18,19 538:7	achieve (3) 441:3	474:22,22 476:3	532:22,24 533:3	Additionally (6)
539:1 562:21	acid (2) 555:19,23	476:8,15 513:2	594:3	519:9 522:24
584:13 595:19	acknowledge (5) 380:1 477:3	517:8,18,20	add (2) 389:25	527:8 529:11
597:25,26	acknowledged (1) 426:7	518:18 522:1,16	567:21	531:18 534:11
598:16 602:25	acknowledges (9) 460:13 464:6	523:10 538:8	added (2) 445:19	address (18)
ablupta (1) 441:2	466:6 485:5,21	566:9	530:22	419:26 424:11
aboriginal (5) 383:18 481:20	486:22 487:16	actively (1) 525:8	addendum (3) 518:9 526:2	425:22 426:17
482:3,15,19	491:17 493:25	activities (51) 374:10 377:4	528:26	459:1 461:8
absence (3) 396:5	acquire (2) 493:22 537:7	379:24 381:1,12	addendums (1) 515:13	469:20 485:14
469:5 486:13	acquired (2) 527:19 559:9	381:22 384:1,22	addiction (2) 426:1,22	485:22 492:13
absolutely (2) 385:9 423:26	acquisition (1) 566:5	385:2,4,5,6,7,11	additions (1) 426:20	494:13 496:18
accept (3) 407:6	acronym (2) 610:20 611:12	385:18 388:4	adding (2) 462:8	504:2 506:13
407:19 547:18	act (26) 385:10	389:20 392:12	466:3	509:4 530:24
acceptable (3) 419:9 445:21	441:20,20,21	398:11 401:15	addition (11) 458:17 478:23	531:9 533:18
518:20	458:6,7,8,9,10	402:21 486:22	488:20 491:18	addressed (8)
accepted (1) 426:12		487:9,14 515:1	492:2,16 509:25	383:23 385:23
accepts (6) 399:18		532:18 533:1	518:1,22 558:15	397:1 413:4
464:9,19 467:20		537:23 538:4	560:9	461:4 521:1
470:8,21		547:23 548:5	adequacy (1) 514:23	529:12 534:24
access (15) 380:15		566:9 567:10	adequate (8) 403:8 425:24	addresses (1)
395:8 396:19		569:22 570:1,7	440:22 497:26	513:25
398:2 399:25		570:10 573:24	484:22,25 485:1	addressing (6)
401:12,26 423:1		574:7,17 575:21	485:12 486:1,23	424:14 425:18
427:3 568:1		580:1 584:5	487:20 488:25	492:10 521:10
582:20,22 593:5		585:19,20	491:19 503:1	529:21 547:21
609:14,15		586:10 587:22	507:14 513:20	adequately (2)
accompanied (1) 480:12		588:4 591:9	513:21 515:12	484:11 519:6
		592:8 609:4		
		activity (8) 376:23 381:3		
		453:18 454:21		
		475:9 548:1		
		569:26 575:3		

adhere (1) 422:2	447:10,26	368:21 369:18	412:19 414:8	596:3,10,16,26
adhering (1)	454:24 584:26	369:26 393:6	420:7,16,22	597:4,13,22
443:19	586:20 588:11	418:13 439:8	421:1,3,15,19	598:17 603:1,2
adjacent (1)	AEM (13) 383:22	456:25 479:25	421:26 422:2,18	605:18 606:13
557:6	383:24 384:5	511:11 551:2	422:24 423:9	608:24 615:6,11
ADJOURNED ...	399:18 400:3	563:9,13	424:12 425:2,10	615:20 616:1,7
613:13	422:14 424:18	afternoon (7)	425:14 426:19	616:24 617:4
ADJOURNME...	431:24 434:21	371:26 372:7	428:26 429:2	618:20 619:4,11
390:14 417:3	473:25 474:10	382:6 416:26	430:22 432:18	619:18,25 620:6
456:2 506:4	474:13 566:8	457:5 480:7	432:24 437:9,14	620:10 621:13
540:25 562:12	aerated (1)	511:22	438:10 440:20	Agnico's (5)
adjust (2) 578:23	603:21	afterward (1)	442:3 443:15,18	410:9 423:4
594:1	aerial (1) 566:24	500:23	444:2 447:22	446:20 491:17
adjusted (2)	Affairs (73)	agencies (4) 417:7	449:8 453:6	493:2
518:15 559:8	359:12 361:7	418:25 431:20	472:11,14 475:3	ago (1) 566:26
administer (1)	364:16 365:26	576:5	476:25 477:1,9	agree (10) 404:21
394:4	368:24 369:7,10	agenda (3) 372:12	478:20 481:10	412:24 420:9,10
administration ...	369:13,16	374:2 382:22	481:11,12 484:2	420:17 434:25
394:9	373:16 385:24	Aggark (8)	484:3,5,11,15	443:22 470:15
advance (4)	386:13 387:5,6	362:22,23	484:22 485:5,11	519:17 531:26
384:21 456:11	387:9 388:12	604:21,22,22	485:21 486:3,12	agreed (41)
508:23 550:2	400:4 408:7,10	606:20 607:11	486:15,22,24	383:25 390:10
advanced (1)	427:26 428:1,3	608:3	487:3,8,17,23	392:6,6,7,19
382:1	448:21,23 472:1	Agnico (217)	488:3,10 489:1	395:22,26 397:6
advancement (1)	472:3 495:21	357:8 358:18	489:15,25 490:4	400:5 420:21
394:9	508:11,17,26	364:7,10,17	490:13,18,21	421:4 424:6
adverse (2) 378:9	509:7,18,26	365:11 366:5,15	491:8,11,14	443:17,24
381:15	510:2,7,12,17	367:22,26	492:1,17,23	446:18 447:14
advice (8) 414:11	510:22 511:1,7	368:14,18 369:9	493:10,24,25	454:22 458:15
421:20 422:3,9	511:18,21,25	370:5 371:12	494:3,11 496:5	460:9,26 461:7
432:2 440:22	512:20 514:8	374:6,13,14	496:6,9,22,25	468:19 477:9
513:4 553:13	536:15,23	376:14 379:6,10	497:4,9 498:16	481:10,12 484:3
advisable (1)	537:13 541:4	379:12,16,21	503:22 504:23	484:6 486:15
509:1	542:5,8,14,18	381:11 382:23	505:1 506:12,19	487:17 493:26
advise (2) 611:18	543:8 544:6	384:26 386:8	506:20 507:21	527:20 529:26
612:7	545:11 546:4	387:6,19,21	508:25 510:4,9	543:4,13 546:8
advisor (4)	547:5,15,24	390:3,7,17,19	510:14,19,24	558:4 596:4,11
358:14 360:4	548:9 549:9	391:16,20 392:3	511:3,6 542:3,4	596:12,14
394:2,26	560:7 561:12,14	392:6,19 393:13	543:21 552:15	agreed-upon (2)
advisory (24)	615:16 618:18	395:13 403:17	561:20,22	442:26 545:3
392:15,20	619:2,9,16,23	403:19,20	563:20 564:6,21	agreeing (2)
395:18 414:7	620:4,11	404:20,22	565:8,8,16,26	430:23 509:9
421:15,17,18,24	affect (3) 401:12	405:20 408:20	566:6 567:10	agreement (32)
422:2,4 424:3,5	484:19 556:23	408:22 409:3,10	568:6,25 569:1	384:20 385:9
430:22 432:1	affirmed (17)	409:14,25	569:3 577:25	389:8 392:14
443:13,24	364:21 365:20	410:15,21,23	579:19 580:20	394:5 395:17
445:20 446:3	366:17 367:9,17	411:13,19	594:22 595:16	400:6,12 414:25

416:5 420:12 428:7,15 429:7 443:10,11 448:5 467:5 483:7 509:15 515:7 532:10 543:6,12 543:12 557:26 559:19 596:6,7 596:10,16,20 agreements (2) 569:11 596:24 agrees (10) 467:21 469:25 517:17 518:18 534:25 554:24 555:5,10 557:3 596:16 ahead (6) 390:17 393:4 418:20 439:14 504:26 564:4 aid (1) 485:9 aim (1) 533:14 aiming (1) 595:26 air (27) 360:11 457:12 458:2,11 458:20,22 473:9 473:11,21,26 474:1,9,11,15 474:20 476:8,9 477:8 478:5 554:22 578:3,6 578:8,13 593:2 593:4,4 aircraft (3) 454:15,17 512:15 aircrafts (1) 436:15 airstrip (4) 567:26 570:19 576:24 609:5 Aksawnee (20) 359:24 365:19 372:21,22 403:13,14 404:2 406:1,16 417:15	418:12,23 432:3 433:20,21 436:5 436:6 495:10 541:6 560:23 Alberta (1) 614:8 alert (8) 584:2 586:17,18 589:7 591:10 592:9,10 592:18 alerts (1) 587:3 algae (3) 491:3,5 491:6 alignment (1) 572:22 aligns (1) 440:16 Alikut (19) 358:5 433:6,6 434:6 435:1 450:16,17 452:1 473:7,8 473:23,23 474:26 478:2,3 503:7,8 504:3,3 alive (4) 503:12 601:25 603:21 603:24 all-weather (9) 395:8 396:19 398:2 399:25 401:26 568:1 582:20,22 593:5 Allen (7) 413:13 413:16 501:11 501:12 502:14 546:25,26 allocation (1) 428:8 allow (6) 397:13 463:5 556:22 566:21 567:22 568:9 allowed (5) 383:19 384:24 385:3,7 528:2 allows (2) 482:7 591:6 alongside (1) 470:2	alteration (8) 481:1 482:6 486:20,20,21 487:10 488:2 501:24 altering (1) 490:15 alternative (5) 458:16 466:12 477:2,10 525:23 alternatives (4) 465:17,20,23 514:13 altogether (1) 586:11 amalgamating (1) 508:21 Amanda (1) 512:13 Amarook (1) 358:19 Amaruq (13) 380:18 413:20 414:22 419:22 422:9 429:19 474:19,21 565:22 567:1,2 567:11 571:16 amber (6) 584:3 585:24 586:18 589:7 590:17 592:10 amber- (3) 585:15 587:3 588:16 amber-alert (1) 585:17 amendment (1) 577:12 ammonia (1) 535:18 amount (7) 400:7 405:1 465:5 567:21 571:7 581:7 586:1 amphibian (2) 464:3,12 analyses (8) 397:1	397:2,24 410:14 411:5,7 470:22 526:9 analysis (26) 378:6 395:24 396:6 398:5 465:20,24 466:14 470:11 470:16,20 473:11,21 474:9 490:5 518:6 519:10 525:17 527:2 534:6 535:24 554:22 555:9 556:15 557:4,8 607:26 Analyst (2) 360:11 361:8 analyze (1) 470:18 analyzed (1) 425:14 and/or (6) 387:15 459:25 461:19 461:23 462:12 492:9 Anderson (3) 363:22 614:3,14 Andre (3) 598:18 598:21,24 Angotealuk (1) 363:5 animal (7) 402:4 587:14 606:22 606:24,26,26 607:1 animals (5) 377:18 396:22 403:8 607:4 608:6 animation (1) 581:26 anniversary (1) 565:9 annual (5) 396:8 396:24 460:16 463:12 529:22	annually (3) 534:13 558:23 584:18 answer (17) 377:15 402:11 405:16 446:1 452:1,2 453:23 471:6 475:21 504:10,24 506:14 602:17 602:17 607:6,9 611:8 answered (5) 475:15 549:10 604:18 610:11 612:14 answering (1) 606:11 answers (7) 373:13 414:19 416:18 433:2 434:4 439:23 560:15 anticipate (1) 388:6 anticipates (1) 466:10 anybody (6) 405:11 454:14 454:16 599:26 604:20 611:4 anymore (3) 452:19 577:1 605:24 apart (1) 433:9 apologies (4) 375:9 382:20 432:4 546:4 APPEARANC... 358:1 appeared (1) 522:15 Appendix (3) 378:12 518:10 526:3 applicable (4) 398:15 467:12

480:23 575:21 application (21) 364:11 374:8 379:8,11,15,17 379:19 380:9 381:2 383:16 384:3,5,8 483:10,17 563:1 573:6 609:8,12 613:6 615:8 applied (1) 379:21 apply (3) 537:23 537:26 538:3 appointed (5) 610:21 611:25 611:26 612:2,26 appointment (1) 500:19 appreciate (3) 447:18 454:19 539:13 apprenticeship ... 595:25 approach (17) 416:10 443:17 443:20 445:4 497:16 520:13 530:12 532:22 532:24,26 555:11 559:20 569:5,8 585:13 585:14,15 approached (2) 435:26 454:8 appropriate (10) 404:23 466:26 467:22 490:5 492:11 493:1,23 494:25 518:21 521:6 appropriately (1) 559:1 approval (8) 384:2,6 443:2 470:7 499:14 523:17 608:26	609:9 approvals (5) 570:9 571:5,15 571:19 576:4 approve (3) 384:4 385:17 544:22 approved (20) 381:4,10 382:1 383:26 385:13 385:18 444:24 477:15 488:1 489:5 490:6 492:15 494:25 527:7 529:24 531:18 534:22 562:18,18 577:2 approximately ... 396:17 464:24 465:10 524:2 571:26 573:2 597:2 aquatic (4) 465:23 469:16 483:3 494:19 Arcadis (2) 361:16 512:15 archaeological (...) 612:9 arctic (3) 469:9 469:10 595:10 area (65) 371:13 380:11 381:9 402:5 433:10 434:15,16 435:24 450:13 455:14 459:24 461:22 469:3 473:10,10,12,14 473:26 474:3 477:20 478:14 479:3 488:22 503:12 507:26 525:7 526:11,25 548:12 551:25 552:1,2 554:14 554:16,18,19,21 555:15 556:17	556:24 557:21 558:2 560:4 566:24 572:26 575:1 580:25,26 581:2,8 582:12 582:13,20,22 587:13,14,19 589:4,6 592:17 593:9,18 607:12 609:10 612:7 areas (23) 380:13 380:14 415:22 440:22 455:2 468:26 469:20 478:5 557:6,14 578:4,6 581:6 581:23,25 582:13 584:9 588:3 609:22 612:9,9,10,10 arguments (2) 383:25 384:6 Armstrong (15) 359:19 390:6,6 390:18,19 391:25,25 408:23,24 410:4 410:5 411:18 437:24,24 438:5 Armstrong's (1) 409:26 arrange (1) 562:10 arrangements (1) 533:5 arrives (1) 582:17 arrow (3) 554:9 580:9 581:8 arrows (1) 580:18 arsenic (31) 412:13,16 463:26 464:11 464:15,18,26 465:7 466:7 475:3,5 506:24 507:6,7,19 508:5 517:15,22	517:25 518:16 519:7,11,26 520:5 522:19 523:8 524:15 525:6,14 526:7 526:21 arsenic-leach (1) 522:4 arsenic-leachin... 518:4 Article (1) 483:7 Arviat (5) 362:17 362:18,19,20 513:19 Asher (13) 360:11 367:8 456:25 457:12 473:18 473:19 474:7,8 476:6,7,24 478:17,18 asked (11) 398:3 407:12 439:22 446:23 450:19 518:5 598:2,8 598:12 603:18 603:26 asking (17) 380:4 383:1,3 410:18 411:3,11,12 414:21,25 433:23 473:25 501:23 546:19 551:19 562:15 607:20 613:7 asks (1) 599:14 asleep (1) 600:4 aspect (3) 530:7 536:7 606:8 aspects (6) 376:1 485:20 516:6 530:20 532:1 606:3 assess (5) 440:17 465:22 491:20 531:8 559:1 assessed (3) 394:14 503:2,25	assesses (1) 440:14 assessing (4) 440:24 485:9 514:22 558:10 assessment (41) 358:13 360:17 360:22 361:1,12 361:15 362:3 378:2 385:10 394:15 398:16 398:21 440:20 441:7 442:12,13 442:14 446:26 457:9 462:10,16 462:21 463:6 465:18 474:9 483:6 502:25 512:10,12 513:1 513:3 514:14 519:3 527:1 528:10,19 535:25 536:11 552:7,7 555:4 assessments (5) 383:20 392:25 458:20 462:11 529:9 Assessor (1) 360:13 assign (1) 469:2 assist (1) 421:2 Assistant (2) 359:2 360:24 assisting (1) 452:16 associated (17) 375:12 384:18 392:11 402:10 450:12 454:25 459:20 469:3 481:15 487:8,22 488:21 515:18 517:24 521:4 535:26 548:5 Associates (5) 359:13,14,15,16

359:17	404:26 588:22	534:23 553:18	461:3,9,22	422:22,24,25
association (106)	588:24 592:14	559:25 601:8	Baby (1) 574:23	423:7,19 427:7
361:19 364:23	assumed (1)	602:9	back (37) 374:3	428:4 430:7,19
365:7,14,17	377:13	Auser (5) 360:12	377:2,3,17	431:9,14 433:8
366:21 372:14	assumes (2)	367:8 456:25	390:15 394:3	433:21 434:20
372:17 382:13	522:26 524:13	457:11 463:21	399:15 403:1	435:21 436:6,22
382:15,18,25	assumption (6)	authorization (...)	411:9 418:1	438:15,20
383:1,5 391:1,2	443:23 446:5	482:8,11 487:18	431:13 437:6	443:14,21 446:8
391:9,22 392:18	448:4 525:2,12	492:14 496:13	451:24,24	446:10,13
392:20,22 393:4	526:10	499:7,14,22,23	452:12 455:26	453:10,16,18
393:19,20 395:2	assumptions (5)	502:3,7,12	456:5 475:22	471:13,16 480:8
400:15,18 401:3	517:14 519:4	authorizations (...)	490:11,25	495:8 505:24
402:25 403:3,26	524:15 525:5	513:10,12,13	500:20 506:7	512:7 513:19
404:17,25,26	528:23	547:25 548:4	539:15,17,22	531:2 536:20,22
405:2,8 406:18	assure (2) 399:8	549:12	540:23 541:2	537:5,14 539:26
406:24 407:3,16	494:25	authorized (1)	551:11 567:11	541:5 549:6
407:19,24 409:3	Atkinson (3)	513:8	572:15 573:18	551:26 560:21
409:7,13,21	361:4 366:17	authors (1) 469:8	574:2 576:13,13	564:10 565:19
410:12,17 411:1	439:8	availability (2)	581:19 582:26	568:1 583:9,12
412:12,19,22	Atmospheric (1)	399:7 535:13	610:8	583:19,26
413:15 414:3,9	399:17	available (10)	background (7)	584:17 585:2,23
414:24 416:2,24	attached (2)	417:1 418:1	376:18,19 377:2	589:18,22 590:9
417:9 423:18	400:7 612:12	437:6 452:10	377:3,17 398:17	590:22 591:12
427:8,10 438:17	attendance (1)	471:1 485:26	411:4	595:5,11 597:24
443:14 445:10	508:8	517:13 526:10	backup (1)	598:5 604:5,7
445:14,16	attended (1)	529:14 537:4	434:16	610:16 612:17
446:23 447:7	513:17	Avatiliriniq (1)	Baffinland (1)	615:13 616:13
450:24 471:9,11	attendees (1)	361:3	424:26	616:18
486:3,25 487:24	585:1	average (1)	Baker (124)	balanced (2)
489:2 494:12,22	attention (2)	396:17	357:15 359:23	440:1 445:4
495:4,6 499:6	481:6 545:4	avoid (2) 481:24	362:13,14,15	barrier (2) 426:2
503:2 534:17	attenuation (9)	482:17	364:13 365:5,22	534:7
536:16,18 540:8	467:25,26	avoidance (1)	366:8,12,24	barriers (10)
543:11 548:11	468:16,21	483:17	369:5 372:20,22	420:1 424:9,11
548:20,23,24	573:20,22	awaiting (2)	375:3,25 377:22	424:14 425:14
560:18,20	574:25 575:5,15	420:8 549:6	383:7,9,12,15	425:16,18,23
568:20 583:11	attractive (1)	aware (2) 453:19	384:3 385:14,21	426:26 599:20
583:21 585:23	566:2	537:25	386:10 395:8	Barry (21) 358:12
590:8,23 595:9	ATV (1) 572:21	awareness (3)	399:24 400:16	375:7,8 382:20
596:18,19 597:2	audience (1)	589:12,15	400:17,20 403:4	382:21 388:23
611:11 612:19	384:17	590:15	403:14 404:7,18	388:24 409:22
616:3	August (16)	Azimuth (2)	406:3,15 413:23	409:23 430:9,10
Association's (1)	394:21 399:23	468:24 469:21	414:9 416:21	449:15,16
390:5	514:7 515:3,5		417:12,13,16,26	472:17,18 506:9
Associations (1)	515:24 520:22		418:4,8,21,25	506:10 543:26
596:4	523:19 527:14		419:2,11 420:21	544:1 561:25,26
assume (5) 403:4	529:25 531:24		421:1,5,12,16	base (5) 464:23

466:2,5 553:1,2	485:2,18 497:18	beneficial (1)	495:26 541:24	bit (11) 376:18
base-case (2)	576:14,14 577:4	569:4	541:24 551:2,8	397:26 411:4
524:12 525:11	577:5 594:9,10	benefit (13)	551:8,17,17,24	429:14,20,22
based (61) 374:19	594:11,14,14	384:16 404:10	552:4,6 560:2	506:23 517:2
374:20 375:16	603:10,11	419:7 542:17	best (8) 394:15	549:22 569:23
375:18,24 376:2	basins (3) 497:18	568:18,20	411:16 439:22	570:2
376:8,9,11	497:19,21	569:11 595:5	502:5 516:10	blast (2) 392:8
378:21 404:22	basis (3) 501:3	596:5,7,10,20	519:18 525:11	447:24
419:17 420:15	559:8 578:25	596:24	614:7	blast-distance (1)
422:9 429:9,21	bathtub (2) 606:6	benefits (7)	better (7) 424:20	392:9
431:18 434:24	606:7	394:10,13 419:4	424:24 459:22	blasting (3)
438:26 441:24	batteries (1)	441:5 465:9,22	475:15 504:24	444:11 554:1
446:4 467:10	576:8	526:7	604:10 607:6	598:10
469:24 486:13	battery (1) 477:13	benefitted (2)	Bev (11) 480:12	blizzard (3)
497:15 501:3	Bay (9) 363:5,6,7	404:12 538:8	496:16 498:13	586:15,15 587:4
505:11 509:14	363:8 505:9	Bennett (1)	499:11 500:25	blizzards (2)
512:24 515:11	574:22 576:22	385:23	501:26 502:21	439:4 572:3
517:13 518:11	605:23,26	berm (1) 380:21	503:20 504:19	blood (2) 605:14
519:3,22 522:14	bearing (1) 536:9	berms (1) 380:22	505:3,17	606:23
523:4 525:3,12	bed (1) 468:4	Bernauer (25)	BEVERLEY (2)	blowing (1) 478:8
526:4,19 528:13	began (1) 566:7	359:26 365:19	367:17 479:25	board (233) 358:3
529:2 530:25	beginning (6)	383:11,12	beyond (4) 589:3	358:11 364:19
533:26 542:9	388:8 423:16	400:19,20	589:4 592:8,16	365:13,16 366:7
546:21 559:3	566:19 568:10	402:13 418:12	big (2) 435:2	366:11 367:5,14
570:8 571:5,19	571:6 584:4	420:4 430:18,18	598:3	367:25 368:5,8
571:26 572:2	behalf (11)	431:23 434:19	biggest (1) 423:24	368:11,17
573:23 577:13	411:24 439:18	434:19 446:12	Bigue (1) 358:20	369:12,15
577:16 581:11	448:22 481:16	446:13 447:18	binders (1)	371:11,12 374:8
591:10 594:17	511:20,26 599:7	448:8 471:15,16	582:26	375:8 376:15
597:3 606:5	599:16 600:13	539:25,25	biologist (5) 360:3	379:3,13,17,22
609:20	600:15 611:22	540:15,18,20	360:5 373:12	381:13 382:21
baseline (17)	Belanger (2)	Bertin (11)	480:11,15	384:15,24
459:14 460:21	361:8 512:13	369:25 563:11	Biology (1)	385:17 386:12
461:1,20 502:24	believe (22)	563:13 568:26	361:24	388:22,24,26
524:26 529:6	377:21 382:2	570:17 571:11	biophysical (3)	389:1,3,6,6,13
548:13 554:13	407:3 419:4,5,8	571:14 575:2	440:3 513:26	389:14,17,18,22
554:17 558:12	421:8,22 425:21	592:26 595:13	536:6	390:2 391:12
558:16 579:7,10	434:12 447:8	595:15	biota (2) 469:16	393:9,22 394:21
579:13,17	474:22 477:23	Bertrand (1)	470:1	400:9,12 404:8
580:14	478:21 487:13	359:13	bird (6) 459:22	409:18,20,23
basely (2) 375:17	497:15,23	Besner (27) 362:2	461:21 462:7,26	412:7,10 413:3
576:6	548:22 549:10	369:18 373:22	463:2,9	413:7,9,12,14
basic (1) 428:9	566:1 594:19	373:22 388:16	birds (13) 376:22	413:23 414:13
basically (2)	596:21	388:16 408:14	377:4 458:9	414:14 415:13
516:2 573:3	believes (5)	408:14 428:19	459:4,8,9,17	416:11 417:23
basin (18) 468:1,3	381:11 383:23	428:20 449:1,2	460:6,11 461:4	418:16,26 420:5
468:5 470:2	445:5 494:8,16	472:6,6 495:26	461:7,16 463:6	426:25 430:5,7

430:10 431:3,5 431:7,9 432:9 432:12,22 433:4 433:7 435:19 437:2,11,16 439:10,19 443:9 449:14,16,19,21 449:23,25 450:2 450:17 451:20 456:11,18,23 457:6,6,18 461:11 471:4 472:15,18,25 473:1,3,5,8 475:2,19 476:1 477:26 478:3 479:12,19,23 480:2,8,17,25 496:21,22 498:4 498:7,24,25 499:2,17 500:3 500:5,8,19 501:9,13 502:15 503:8 506:1,10 506:15,24 507:21,24 508:15 509:23 510:6,11,16,21 510:26 511:5,13 512:25 513:1,5 513:7,14,17,23 514:9 515:3,10 515:13 521:10 524:1 529:22 531:23 532:4 534:10 537:19 539:12 540:7 542:24 543:4,24 544:1,4,5,8,21 544:22,23 545:8 545:10,13 546:16,16,24 547:16 549:15 550:1 551:4 552:5 561:24,26 562:2,4,5,20,21 563:7,16 564:16	565:25 578:26 579:1,24 581:20 583:19 584:16 598:16 599:14 599:18,21 611:24 615:15 616:26 617:6,22 618:4,9,14,21 619:5,12,19,26 620:7 Board's (8) 357:7 380:2,7 384:21 481:6 532:6 542:17 545:3 boat (1) 374:25 bodies (1) 556:21 body (1) 421:18 bolded (1) 410:6 book (3) 579:25 581:20,20 bosses (1) 451:25 bottles (1) 564:4 bottom (6) 516:15 554:8 557:22 575:8 576:23 577:17 bound (1) 599:9 boundaries (1) 440:19 boundary (1) 458:3 boxes (1) 572:15 Brad (6) 390:6,18 391:25 408:23 410:4 437:24 breach (1) 574:1 breached (2) 574:3 576:17 break (16) 390:8 390:13 500:18 500:20 506:3,6 540:21,23 549:20,20,22 562:8,9 591:6 609:5,24 breakdown (1) 442:2	breaks (1) 567:6 brevity (1) 481:5 Brian (7) 367:8 456:25 457:11 473:19 474:8 476:7 478:18 bridges (1) 573:9 brief (8) 391:4,26 549:20 562:9 564:22 602:17 602:22,26 briefly (4) 395:26 434:1 457:14 601:24 bring (5) 481:6 545:2 603:20 607:21,25 broad (1) 582:6 broad-scale (1) 398:19 broadening (1) 428:6 broader (1) 528:14 broken (2) 576:16 577:8 brought (5) 538:13 545:1 585:1,3 603:22 brown (5) 361:16 512:15 580:18 581:6,13 build (7) 381:8 397:7 422:18 452:6,7 530:17 553:1 building (6) 441:23 451:22 553:26 568:9,16 608:17 built (3) 501:22 598:6 609:8 bulk (1) 554:2 burdens (1) 423:22 buses (1) 572:7 business (1)	596:14 busy (1) 569:24 C c (10) 359:7,8,14 359:15,18 363:11,18 461:3 461:9,25 calculated (4) 439:2 487:4,21 572:4 calculation (2) 486:14,16 calculations (2) 487:6 489:23 calendar (1) 572:1 Calgary (1) 614:8 calibrate (2) 396:11 522:23 calibrated (1) 559:3 call (4) 535:17 584:25 593:6 594:3 called (4) 380:20 384:18 413:21 512:20 calling (1) 410:8 calls (3) 435:26 514:5 515:14 calving (3) 581:23 581:24 582:13 cameras (4) 397:22 584:9,10 584:12 camp (20) 380:12 426:20,22 566:25 570:16 570:18 575:1,6 575:8,9,10,11 575:17,20,23 576:19,24 577:3 609:4,15 camps (1) 613:3 Canada (329) 360:1,10 361:7	362:1,8,9 364:16 365:26 367:12,15,20,23 368:6,9,12,24 369:7,10,13,16 369:20,22 373:2 373:4,7,9,16,19 373:21,23,24,26 378:17,22 385:24 386:13 386:23,25 387:1 387:3,5,6,9 388:12,15,17,18 388:20 400:4 407:24,26 408:3 408:4,8,11,13 408:15,17,19 426:5 427:17,19 427:21,23,26 428:1,3,18,20 428:22,24 448:12,14,16,18 448:21,23,26 449:2,4,6 456:1 456:14,17,22 457:4,10 458:12 458:21,24 460:1 460:12 461:10 461:17 463:1,5 463:11,23 464:6 464:13,21 466:10,13 467:6 467:16,20 468:11,22 469:18 470:11 470:24 471:8,22 471:24 472:1,3 472:5,7,8,10,20 473:6,19 474:6 474:8 475:7,12 475:14,15,21 476:7 477:22,24 478:18 479:8,14 479:17,21 480:5 480:11,15 481:6 481:16 483:5,26 484:2,4,11,14

484:17,21 485:1 485:4,11,17 486:2,8,11,19 487:3,7,13,16 487:20 488:10 488:16,20 489:1 489:7,10,21 490:2,12,16 491:17,24 492:1 492:7,16,23 493:9,11,17 494:8,10,16 495:16,18,21,25 496:1,2,4,7,17 498:5,10,14,26 499:4,12,21 500:6,10,15,26 502:1,13,22 503:21 504:20 506:25 508:11 508:17,26 509:7 509:18 510:1,3 510:8,13,18,23 511:2,7,18,21 512:20 522:10 536:16,23 537:13 540:11 541:4,13,15,18 541:20,23,25,26 542:2,5,8,14,18 543:8 544:6 545:11 546:4 547:5,15,24 548:9 549:18,23 550:4,10,13,16 550:19,22,25 551:9,12,18 552:3,8,21,24 553:4,5,6,13,16 553:19,22 554:6 554:24,26 555:2 555:5,10,11 556:4,9 557:3 557:12,25 558:10,17,26 559:5,7,10,16 559:23 560:1,8	560:10,17 561:3 561:5,7,9,12,14 561:16,18 568:21 597:10 615:16 617:20 618:2,7,12,18 619:2,9,16,23 620:4,11,16,20 620:24 621:1,5 621:9 Canada's (16) 457:16,23,23 458:5 459:6 462:3,18 481:17 485:14 490:8 552:14,16,23 553:11,18 565:10 Canadian (1) 458:7 Candace (3) 369:25 563:12 563:13 canvass (1) 372:9 cap (1) 555:19 capacity (1) 568:16 caption (1) 582:3 captured (2) 492:12 544:21 captures (1) 461:12 capturing (1) 482:26 career (2) 568:14 595:24 cargo (4) 378:20 394:26 416:9 572:7 caribou (145) 392:10 394:2,23 395:4,6,19 396:1,2,4,6,9,10 396:18,23 397:5 397:13 398:3,5 398:8,12,15 399:3,14 400:22	400:25 401:5,10 401:11,20,22,24 402:8 404:13 406:26 410:7,19 411:8 413:19 415:9,10 419:24 421:3 422:13 423:6,8,14,21 423:24 433:10 433:13,15 434:7 434:15,23,23,26 435:23 436:8,9 439:3 442:20 443:8 444:1,3,5 444:7,14,16 445:18 454:1,4 454:5 455:2,11 455:14,17,20,23 572:3 578:2 580:2,4,7,18,19 580:23,26 581:5 581:7,11,14 582:1,2,4,9,11 582:12,16,18,21 583:2,3,7,15 584:8,13 585:6 585:7 586:5,16 586:26 587:8,9 587:12,19,20,21 587:25 588:1,6 588:8,12,22,23 589:3,5,11,12 589:15,18,26 590:1,2,12,20 591:6,8,16 592:2,7,15 593:3 605:11,15 608:7 Carolyn (1) 385:23 carry (2) 406:7,8 case (8) 381:9 385:1 389:5 464:23 466:3,5 476:10 546:7 case-by-case (1) 501:3	cases (6) 383:18 586:9 588:2 604:13,14,16 caught (2) 403:18 491:9 cause (2) 426:13 432:12 caused (2) 454:3 489:21 cease (1) 588:3 ceasing (1) 586:10 celebrating (1) 565:9 cell (3) 371:16 577:11,16 central (1) 549:6 centre (4) 362:10 453:16,19,21 certain (13) 384:22 394:5 409:8 412:25 430:26 454:23 515:8 574:4,5 578:13 587:20 588:3,9 certainly (8) 412:4 415:18,21 428:9 432:18,22 451:18 538:26 certificate (12) 370:13 421:7 422:17 461:12 462:23 463:17 528:1 531:18 547:19 554:5 584:17 614:1 certification (2) 410:24 597:10 certify (1) 614:3 cetera (2) 545:18 568:2 Chair (389) 358:4 371:2,9 372:16 372:19,21,24 373:1,3,6,8,15 373:20,24 374:1 374:16 375:7,15	376:13 377:20 378:13,24 379:1 379:5,13 382:4 382:20,26 383:4 383:7,11 384:12 384:13 385:23 386:7,11,16,21 386:24 387:1,4 387:20 388:14 388:18,21,23,26 389:2,10,11,26 390:1,6,12,15 390:18,20 391:10,15,25 392:2 393:1,7 393:12,18,22 400:14,19 403:13,24 404:2 404:16 406:1,13 406:14,17,21 407:8,10,12,15 407:22,25 408:2 408:6,9,12,16 408:18,20,23 409:16,17,22 410:4,25,26 411:18,26 412:7 412:9 413:5,8 413:11 415:5,25 416:1,19 417:4 417:15,18,19,21 417:24 418:14 418:18,23 427:6 427:11,12,16,18 427:21,22,25 428:2,16,17,19 428:22,23,26 429:3,14,24 430:4,9 431:2,4 431:7,12 432:7 433:2,3,20 434:5 435:18 436:5,20,21,26 437:24 438:3,9 438:11 439:7,11 439:13 445:12 445:15 446:8,12

448:10,13,16,17 448:20,25,26 449:1,4,8,10,13 449:15,18,20,23 450:1,8,15,16 452:26 453:2,25 455:22 456:4,9 456:11,26 457:2 457:5 471:7,13 471:15,18,22,26 472:2,5,8,9,11 472:13,15,17,24 472:26 473:3,7 474:5,24 475:1 475:11,18,26 476:22 477:17 477:25 478:2 479:5,10,12,26 480:3,7 494:7 495:3,6,8,10,12 495:15,17,20,22 495:24 496:2,5 496:17,20,24 497:7 498:6,14 498:21,23 499:1 500:2,7,13,17 500:26 501:8,11 501:12 502:1,8 502:14,20 503:5 503:7 504:12,14 504:20,23,26 505:26 506:5,9 506:17,22 507:23 508:3,6 508:13,16 509:11,17,21 511:14,16,19 512:2 536:14,20 536:24 537:11 537:12 538:12 539:5,7 540:17 540:19,21 541:1 541:6,8,12,14 541:17,19,22,26 542:3,6,13,26 543:7,20,23,26 544:3,7,19	545:7,12 546:1 546:2,23 547:14 548:24 549:8,14 549:25 550:1,5 551:4,6,12,16 551:22,25 552:4 552:5 560:16,21 560:23,25 561:2 561:4,7,8,11,15 561:16,19,21,23 561:25 562:2,5 562:13 563:5,10 563:14,17,24 564:1,3,9 568:24 582:24 597:21 598:24 599:23,24 602:20 604:20 605:17 606:19 606:20,22 607:10 608:3,8 608:9,22,23 610:13,15 611:4 612:14,15,16,21 612:23 613:5 615:14 chairing (1) 611:23 Chairman (5) 412:21 471:10 548:26 611:9 612:18 chairperson (3) 359:24 371:10 611:21 challenges (2) 426:8 537:6 challenging (1) 532:25 chance (1) 446:19 change (96) 360:10 367:12 367:15 373:1,4 386:22,25 407:23,26 427:16,19 429:21 448:11	448:14 451:14 451:17,20 452:8 456:1,7,14,16 456:21 457:4,10 457:16,22 458:5 458:11,21,23 459:6 460:1,12 461:10,17 462:3 462:18 463:1,5 463:11,23 464:6 464:13 466:2,9 466:13 467:6,16 467:20 468:11 468:22 469:18 470:11,24 471:8 472:20 473:6,19 474:5,8 475:6 475:11,14 476:7 477:20,22 478:18 487:15 489:9,13,16,22 489:26 490:1,3 490:10,23,24 491:12,14,21 495:15,18 506:25 522:8 541:13,15 545:17 551:12 551:26 561:2,5 598:6 617:20 618:2 changed (2) 452:9 570:5 changes (19) 374:3 378:19,22 394:1 395:24 438:23 447:15 481:2 489:7,12 490:9 491:16 494:19 514:18 522:25 548:14 558:16 583:22 583:23 changing (1) 562:9 channel (1) 576:15	char (1) 602:5 characteristics ... 400:24 characterizatio... 460:22 461:20 525:1 526:23 527:22 528:12 555:14 558:11 characterize (1) 459:22 characterized (2) 439:25 569:6 check (10) 516:16 535:6 542:11,17 545:22 569:9,14 569:18 576:21 605:14 chemically (1) 546:13 Chesterfield (10) 362:22,23,24,25 362:26 363:1 598:20 600:6,13 604:22 children (1) 600:10 choice (1) 385:17 choices (1) 501:3 choose (1) 477:6 chosen (2) 476:25 493:1 circular (1) 402:11 circumstances (2) 587:10,11 citizens (1) 553:3 City (1) 614:8 claim (1) 401:4 Claims (1) 414:25 CLARC (4) 610:20 611:5,18 612:4 CLARCs (2) 610:19 611:12 clarification (45) 375:16 403:21 406:2,12,23	408:25 409:15 409:25 412:11 413:18 429:4 433:14 437:26 438:6,13,26 446:15 450:3,4 450:5 473:9,13 473:15,20 474:3 486:23 489:11 490:21 499:3 501:14,17 503:9 503:15 504:20 516:18 527:19 532:7 535:11 542:7 543:18 544:9 547:2,8 600:21 601:5 clarifications (4) 374:26 439:5 470:16 535:16 clarified (3) 489:15 505:26 523:24 clarifies (1) 388:10 clarify (14) 378:19 382:19 388:13 410:2 412:15 414:26 431:15,20 446:21 459:8 487:4 531:19 532:3 544:16 clarity (2) 447:23 529:16 class (1) 508:9 classification (1) 375:17 classify (2) 375:3 376:3 clean (4) 518:3 577:14 593:20 593:20 cleanest (1) 517:13 cleanup (1) 429:22

clear (18) 407:22 411:3 412:14 420:11 422:2,6 423:11 443:22 459:11 491:2 499:18 536:11 542:17 573:9 586:24,25 599:5 600:12	565:19 567:7 586:7 587:8 613:10	collared (7) 396:6 396:10,23 398:5 455:23 587:14 589:5	combined (3) 549:4 568:3 595:24	366:15 383:9 389:1 391:23 406:20 407:9 408:22 428:1 429:2 438:10 439:21 446:24 478:13 480:18 480:24,26 487:8 500:24 514:1,3 514:9 515:4,25 521:10 528:3 542:21 553:15 562:14,19 599:8 602:15 616:4
clearly (5) 425:4 425:12 493:11 503:16 528:20	close-up (1) 582:7	collaring (8) 398:15 415:15 580:16,22 581:13,18 582:1 583:7	come (17) 386:5 392:14 404:23 404:24 432:5 448:4 452:14 500:22 539:1 568:15 590:7,8 590:11 607:8 611:14,20 612:3	commercial (5) 481:19 482:2,15 482:18 601:23
climate (73) 360:10 367:11 367:15 373:1,4 386:22,25 407:23,26 427:16,19 448:11,14 456:1 456:7,14,16,21 457:4,10,16,22 458:5,11,21,23 459:6 460:1,12 461:10,17 462:3 462:18 463:1,5 463:10,22 464:6 464:13 466:9,13 467:6,16,19 468:10,22 469:18 470:10 470:24 471:8 472:20 473:6,19 474:5,8 475:6 475:11,14 476:7 477:22 478:18 495:15,18 506:25 522:8 541:13,15 545:17 551:12 561:2,5 617:19 618:1	closed (1) 556:25 closely (2) 392:5 442:25 closest (1) 565:18 closing (1) 426:24 closure (41) 381:17 469:20 493:19 514:21 514:22 516:6 518:19 521:25 524:12,17 530:5 530:6,9,11,14 530:17,20,23 531:1,4,7,12,15 532:1,2,4 543:4 543:16 545:19 545:26 546:20 560:6 570:20 573:13,26 576:10,11 577:14 594:21 605:2 606:9	collars (17) 396:2 396:5,13 398:17 434:8,8,11,17 434:26 454:3 455:3,7,13,16 455:16 580:19 581:11	comes (3) 428:9 554:2 610:7	Commitment (2) 611:17 612:12
code (1) 522:10	Clyde (1) 540:11	colleague (11) 377:7 409:24 420:2 438:18 480:14 568:22 577:22 586:11 589:1 594:8 605:20	coming (7) 373:12 401:14 412:25 430:2 445:22 562:13 577:7	commit (6) 400:2 409:15 420:9 501:6 539:15 559:24
cold (2) 603:21 604:3	code (1) 522:10	colleagues (5) 385:25 453:22 475:25 543:11 563:11	commence (1) 570:8	commitment (18) 399:19 407:5 410:15,22 411:11 421:6 429:11 444:2 462:4 485:5 522:11 530:24 544:26 545:2 558:5 568:7 569:2 583:24
colder (1) 604:9	code (1) 522:10	collect (6) 470:20 578:20,25 579:4 603:20 607:23	COMMENCE... 371:1	commitments (...) 390:10,22,26 391:5,6,8,17,21 392:1,17 395:23 407:20 409:2,9 409:10,10 410:2 410:21 411:24 412:18 429:20 430:20 443:2,4 445:17 457:20 462:16,22 516:18 518:8 528:25 532:11 535:4 542:20
collaborate (3) 398:4 411:13 412:5	code (1) 522:10	collected (5) 380:23 396:16 522:22 556:11 579:5	commencement... 379:24 484:5	
collaboration (9) 395:19 411:15 411:20,21 534:16 560:10 583:7 590:5 595:21	code (1) 522:10	collection (1) 573:22	commended (1) 395:13	
collaborative (2) 395:16 430:15	code (1) 522:10	collections (1) 607:19	comment (34) 383:14 389:4 411:14 430:13 444:1,13,16,17 444:19,21 451:23 452:23 452:26 462:18 464:21 466:13 467:7 468:18 470:18 475:7 483:25 486:7,18 489:6 491:23 517:4 521:14,18 524:4,10 530:4 532:14 544:9 562:25	
collaboratively ... 415:11	code (1) 522:10	colonization (1) 426:10	comments (38) 364:13,19 365:9 365:11,25 366:5	
collar (6) 396:12 397:3 414:17 434:24 455:1,11	code (1) 522:10	colour (2) 572:25 572:25		
	code (1) 522:10	colours (1) 581:22		
	code (1) 522:10	combination (2) 416:7 554:22		
	code (1) 522:10	combine (1) 397:11		

552:19 615:21 616:2 commits (4) 444:25 520:24 521:15 524:5 committed (22) 387:14 411:19 414:7 425:5,16 443:18 462:6 467:17 474:15 474:18,19 477:1 493:24 521:8,11 525:25 533:7 535:2 584:2 585:7 586:10 594:22 committee (18) 405:19 421:13 442:13,15 533:8 534:9 611:5,13 611:14,18,21,22 611:23 612:4,16 612:24,26 613:4 communication... 569:7 communication... 442:15 communities (21) 372:1 375:26 405:7,22,25 415:12 416:21 435:11,13 453:11 455:7 459:23 461:21 494:23 504:1 513:18 515:1 560:11 563:3 564:14 596:22 communities' (1) 383:18 community (101) 358:26 359:8,12 362:12 370:6,9 371:20,20 372:6 372:12 375:1,12 382:7 383:21 385:15 404:4,10	404:11 405:4,6 405:9,10 406:4 406:5,7 417:5,7 417:11 419:5,7 419:20 421:10 422:10 423:25 428:8 429:12 431:16,17,18 457:6 480:8,9 500:22 503:14 508:20 510:19 510:24 511:3 512:4,7 514:23 514:25 528:6,12 528:14,15,20,24 529:8,11,14,19 531:2 537:8 538:14,16,22 539:2,17 549:21 550:4,20,23,26 552:11 562:11 563:1,21 564:7 564:10 594:17 595:5 598:23 600:7,14,15 610:23,25 611:4 611:6,12,13,18 612:3 619:17,24 620:5 621:2,6 621:10,14 companies (3) 383:19 565:11 596:15 company (18) 376:6 390:22 391:1 395:22 397:2,6,16,23 398:4,13 401:14 411:19 414:12 435:5 507:3 600:8 610:25 611:7 company's (1) 401:4 comparable (3) 492:9,12 493:23 compared (5)	381:18,22 466:6 467:1 470:5 comparison (1) 498:17 compensation (2) 400:10,12 competent (1) 483:2 competitiveness... 552:22 complained (1) 422:10 complaint (1) 501:4 complementary... 492:9,18 494:5 595:3 complete (16) 383:21 390:20 398:13 406:26 410:13,18 420:23 439:23 481:8 490:18 546:14 555:12 574:14 594:12 595:3 614:4 completed (9) 396:7 398:6 442:10 460:18 491:13 548:18 571:17 579:13 609:11 completely (3) 522:20 523:10 556:25 completing (1) 442:4 completion (3) 399:12 443:25 534:5 compliance (4) 440:26 501:2,4 547:12 compliant (1) 547:10 complicates (1) 477:8	comply (1) 507:3 component (2) 530:3 532:5 components (11) 378:8 481:1 486:8 502:25 513:11 530:13 531:4,12 533:25 535:22 555:16 composed (1) 565:16 compounding (1) 426:26 comprehensivel... 394:14 conceived (1) 447:11 concentration (3) 520:6 526:8,21 concentrations ... 467:10 519:11 520:1 522:19 523:9 524:15 525:15 Conceptionally ... 498:15 concepts (1) 594:22 conceptual (2) 521:25 522:15 concern (29) 375:13 383:23 395:4 424:12 454:6 455:23 459:7 462:4,9 462:14,25 463:25 468:6 476:3 479:3 485:14,17 491:24 516:15 527:1,15 530:21 535:13,15,21 538:13,16 539:13 599:26 concerned (12) 383:17 385:16 409:5 421:17	423:8 484:18 492:7 493:17 522:5 526:13 532:24 598:15 concerning (2) 525:16 526:8 concerns (55) 385:14 387:3 397:4 404:8,9 408:25 433:23 436:2 442:7 443:11 447:22 447:24 454:2 455:10 458:12 458:22,24 459:1 459:3 461:9,13 463:22 464:2,14 476:22,24 478:19 484:15 485:19 494:13 500:24 514:7 515:25 516:21 517:3 520:23 523:20 525:22 528:6,12,15 529:12,18,21 531:25 532:12 533:6 535:9,17 537:8 598:11 599:8,18,26 602:15 conclude (1) 426:18 concluded (8) 517:14 518:12 522:15 524:23 526:5 529:3 531:3 533:11 concludes (2) 471:3 528:14 concluding (1) 421:22 conclusion (12) 384:21 423:3 444:23 446:18 494:7 515:2 516:20 517:17

525:18 528:21 597:6,12 conclusions (5) 399:18 440:12 446:4 469:6 525:2 condition (20) 383:24 421:7 429:11 461:11 462:1 470:9 488:14 527:6,25 529:23 530:1 534:20,26 542:23 544:26 545:3 605:11 606:17,23 607:23 conditions (47) 387:23 396:9 410:1 413:1 416:5 420:11 421:23 422:16 437:19,21,23 441:14 443:1 454:23 457:24 466:15,16,25 468:14 469:5 499:13 502:7 509:13 511:9 516:19 532:11 535:4 544:18 547:7,10,20,22 548:14 549:11 553:14 554:11 554:13,18 555:7 555:14,21,26 558:13 617:10 617:13,17 620:13 conduct (20) 392:24 398:5 415:9 420:17 439:26 459:21 459:24,25 465:20 469:26 490:4 518:5 520:17 521:11	525:17 556:5 557:8 583:14 593:25 594:18 conducted (17) 397:2 424:23 440:19 442:10 460:24 470:2,13 491:20 503:22 526:24 534:13 548:6 554:21 556:2 557:4 579:14 589:22 conducting (5) 469:12,19 490:22 522:11 555:7 conducts (1) 553:4 confer (1) 390:11 conference (4) 463:24 514:2 515:14 559:13 confidence (2) 539:9,20 confident (2) 488:21 594:23 configuration (1) 525:23 confirm (16) 375:2,5 389:15 411:20,21 412:4 453:15 472:22 496:13 498:10 509:8,19 526:26 529:14 542:10 543:4 confirmation (3) 420:8 421:26 496:11 confirmed (1) 489:25 confirming (2) 390:9 542:22 confused (1) 491:6 confusion (3) 411:10 544:14	608:4 conjunction (1) 490:22 connect (1) 556:22 connected (2) 566:26 572:23 connection (4) 468:26 488:5 556:26 595:1 conservation (3) 483:18 590:6,24 conserve (1) 457:23 consider (17) 424:13 426:25 427:1 444:4,6,7 444:12,14,16,18 444:20,22 465:24 525:11 530:1 538:26 557:7 consideration (6) 440:2 461:19 485:25 509:14 552:20 601:11 considerations (...) 447:16 513:6 533:13 considered (18) 384:25 388:5 454:5 455:19 469:24 470:22 482:12 484:8 489:23 493:21 514:13,20 517:13 524:9 528:9,11 543:8 544:25 considering (3) 405:23 454:1 544:23 considers (8) 462:1,24 463:18 467:6 468:22 470:9 519:4 558:26	consistency (3) 493:16,18 494:1 consistent (4) 443:19 492:12 493:20 519:18 consisting (3) 479:14 508:17 550:2 constituents (2) 464:17 470:19 constructed (3) 477:3 518:2 574:20 constructing (1) 593:22 construction (39) 380:10,12,14,20 380:22 381:14 383:20 387:16 387:18 388:1,2 388:4,7,9 469:19 477:11 477:17 514:21 524:2 527:5,24 564:26 565:21 566:17,20 569:25 570:6,25 571:1,2 573:12 574:7,12,14,18 593:24 594:1 609:21,25 consult (2) 422:24 591:20 consultant (12) 359:13,14,15,16 359:17,26 361:4 361:16,17,24,25 512:15 consultation (17) 422:22 460:18 461:14,17 467:18 514:23 528:5,8,9,18,22 529:6 569:7 590:26 592:12 604:5 611:15 consultations (4)	405:4,5 529:3 537:7 consulted (1) 540:13 consumption (1) 505:25 contact (2) 557:24 573:23 containers (1) 576:5 containing (3) 464:25 465:3 535:10 containment (1) 468:13 containments (1) 575:24 contains (2) 442:12 460:23 contaminants (1) 468:9 contaminated (1) 558:9 contamination ... 514:16 518:3,7 519:10,15,19,20 520:1 content (2) 555:2 593:13 CONTENTS (7) 364:1 365:1 366:1 367:1 368:1 369:1 370:1 context (3) 506:23 507:14 568:16 contingencies (1) 543:15 contingency (6) 465:5 466:25 521:6 525:7,21 526:5 continual (1) 578:25 continually (1) 584:7 continuation (2)

569:26 571:12 continue (36) 371:17 381:7,8 392:23 402:2 443:3 460:4 461:15 463:19 470:18 494:3,11 494:20 497:26 516:8,23 556:10 558:2 570:17,23 577:3,23 583:4 583:9 588:20 589:14 590:15 590:21 591:16 591:20 592:11 592:21 593:11 595:8 609:1,4 continued (8) 381:2 399:21 445:1,6 457:26 565:1,4 579:14 continues (1) 576:15 continuing (1) 425:16 continuity (1) 379:26 continuous (1) 558:3 contracting (1) 440:24 contracts (1) 596:9 contradictory (1) 527:17 contrast (1) 536:2 contribute (1) 469:14 contributes (1) 441:15 contributing (1) 583:6 contribution (2) 482:13 553:8 control (4) 492:24 593:21 598:8,9 controlled (1)	573:24 controls (6) 375:19,22 376:7 376:12 419:9 595:12 Convention (1) 458:9 conversations (2) 421:10 537:22 convoy (1) 588:15 convoying (2) 397:18,21 convoys (3) 397:8 591:1 592:11 cooperative (1) 569:5 cooperatively (1) 494:20 coordinate (1) 457:25 coordinated (1) 416:10 coordinator (12) 358:15,20,22 359:7,12 360:14 360:18 361:3,13 361:15 457:9 512:12 copies (3) 456:13 456:13,13 Copland (3) 358:4 371:2,10 copy (59) 379:6 385:21 386:6,8 391:16,20 393:13 418:5,9 437:8,13 456:17 456:22 479:18 479:22 510:3,8 510:13,18,23 511:2,8 515:8 549:2,2 550:11 550:14,17,20,23 550:26 563:20 615:6,11,20 616:1,7,14,19 616:24 617:4,20	618:2,8,13,18 619:2,9,16,23 620:4,12,17,21 620:25 621:2,6 621:10,13 Coral (1) 363:3 core (12) 470:3,11 470:16,20 492:1 492:3 493:3,12 497:3,10,17,24 cornerstones (1) 569:9 corporate (1) 565:10 correct (4) 375:9 415:7 447:3 606:20 corrected (1) 570:6 corrections (1) 570:4 correctly (2) 403:21 447:9 correspondence... 386:9 615:12 corridor (1) 402:7 cost (9) 400:5,7 451:1,21,22 514:22 543:10 543:13,14 Costello (37) 361:9 368:20 408:9,10 428:2 428:3 448:22,22 472:2,3 495:22 495:23 509:3,6 509:6,17,18 511:11,19,20 537:12,13 539:6 542:13,14 543:7 544:19 546:2,3 547:14,15 548:25 549:8,9 560:7 561:13,13 costs (3) 381:17 384:6 543:5 counsel (41)	358:16 359:18 359:19 360:8 361:5,26 378:26 379:2 382:14 384:10,12,14 385:25 389:10 389:12,13 390:19 391:11 393:5,8 417:19 417:22 418:15 436:25 437:1 439:9 456:8,10 475:19 479:9,11 480:1 508:12,14 509:22 511:12 549:24,26 563:4 563:6,15 counter-analyse... 411:6 counter-rebutt... 411:6 counterbalance... 483:20 country (1) 434:13 couple (8) 374:26 429:4 499:4 536:26 542:7 569:21 570:4 588:14 course (4) 396:20 401:18,25 579:6 Court (6) 363:22 363:23 426:16 540:11 614:15 614:21 Cove (2) 363:15 513:19 cover (34) 440:6,6 466:25 517:9,10 517:15,25 518:2 518:7,15 519:10 519:16 520:2 521:20,22,24,25 522:5,17 523:6 523:15,25 524:7 535:13 554:14	555:17,20,23,25 556:3,8,15 559:18,22 covered (1) 429:8 create (6) 441:14 488:4 568:13,15 596:14 599:20 created (3) 469:8 605:5 611:18 creation (2) 485:23 595:1 criteria (10) 467:8 467:10,12,15,20 467:22 519:8 524:16 574:4 606:8 critical (1) 483:1 cross (5) 396:11 397:14 422:11 422:13 433:16 crossing (3) 380:14 416:13 433:10 crossings (2) 422:20,21 crowd (1) 597:24 Crown (9) 513:11 514:17 540:3,4 547:23 548:4 549:12 572:26 573:5 crucial (1) 533:17 crush (1) 609:25 CSR(A) (4) 363:22,23 614:14,20 cubic (1) 374:22 cultural (2) 394:11 440:3 culture (1) 440:23 Cumberland (2) 566:6 596:21 cumulative (4) 396:24 399:1,10 514:13 current (5) 430:13 447:22

558:26	538:9 566:11,15	decibel (1) 377:8	delayed (3)	534:17 535:1,8
currently (9)	582:5	decibels (4)	518:23 520:7	535:23 537:1,10
378:2 423:9	dated (10) 386:9	376:19,21,24	574:15	537:16 538:15
424:25 432:23	391:23 509:13	377:7	deliberate (1)	538:26 539:14
466:8 512:19	511:9 553:18	decide (1) 572:13	500:16	539:23 594:18
522:26 525:13	559:25 614:8	decision (11)	delivery (1)	department's (1...
542:23	615:12 616:4	380:3,4 512:23	380:16	457:13 462:25
cycles (1) 571:24	620:13	559:13 562:16	demand (1) 453:8	464:2 468:19
		562:19,21	demands (3)	512:16 515:11
D		586:19,21 587:5	453:16,19,20	518:9 535:15,21
		590:25	democratic (1)	538:1
D (1) 358:21	dates (3) 566:4,16	decision-makin...	394:8	departments (1)
D'Aguiar (25)	570:5	421:18,24	demonstrate (3)	611:19
360:2 367:17	day (14) 395:3	433:17 443:20	483:22 578:7	depend (1) 445:19
373:8,9 387:2,2	433:15 570:24	446:2	588:15	dependent (1)
408:4,5 427:22	571:4,6,8,24,25	decisions (8)	demonstrated (2)	547:26
427:23 448:17	571:25 597:18	419:21 421:11	468:12 484:12	depending (5)
448:18 471:23	598:13 600:19	421:14 446:2	demonstration ...	387:26 455:23
471:23 479:25	602:24 614:9	578:21 586:25	588:24	476:18 603:14
480:6,10 499:20	days (19) 394:1	590:12 591:22	den (1) 580:1	612:5
499:20 500:14	430:2 433:15	deck (1) 378:20	department (88)	depends (1)
500:14 541:19	439:1,2 445:22	decline (2) 435:22	360:1,7,18,22	578:11
541:20 561:8,9	462:22 463:16	436:8	360:25 361:2	deposit (1) 400:3
daily (1) 457:24	470:6 520:26	dedicated (1)	373:18 416:12	depth (3) 485:7
dark (1) 581:12	545:5 572:2	583:25	453:17 458:6,19	521:19 523:5
darker (2) 380:13	586:12,14,15,15	deem (1) 388:8	459:2,9,17,20	depth-integrate...
581:6	586:16 598:14	deeper (1) 556:26	460:5,10,19,21	485:8
data (32) 395:10	601:12	defer (1) 453:22	460:25 462:1,24	Deputy (1) 360:24
396:10,11,12,16	De (2) 359:14	deferred (15)	463:3,8,18	describe (1) 381:5
397:3,25 398:2	377:20	364:8 368:15	464:9,19 465:8	described (7)
399:7 411:6	de-fishing (1)	369:23 374:11	465:19 466:5,17	525:8 532:21
414:18 434:24	600:17	374:14,18	467:9,18 468:6	534:24 578:5
455:19 459:14	deal (4) 398:10	376:14 377:21	470:7,21 475:20	581:8 585:14
464:3,12 487:6	435:15 532:19	378:14 424:2	475:24 505:19	589:1
487:17 492:7,8	557:8	447:25 475:21	512:1,26 513:8	describing (1)
493:23 522:22	dealing (11)	506:14,20 560:1	513:9,11,20	396:12
523:13 524:6	374:24 429:5,12	defined (5) 378:3	514:1,12 517:17	description (11)
556:10,11	429:18,23	428:15 481:26	518:1,18 519:4	364:3 365:3
558:16 559:9	435:15 454:25	482:5 483:6	519:19 520:8,16	366:3 367:3
578:20 580:16	507:7 605:22	definitely (2)	521:2 522:15	368:3 369:3
580:22 582:1	609:18 610:2	428:5,13	523:7,11 525:16	370:3 391:4
data-gathering ...	deals (2) 421:10	definition (1)	526:5,13,22	530:22 564:21
529:6	424:9	491:9	527:3 528:21	565:7
date (13) 387:16	dealt (3) 451:3	defish (2) 503:11	529:3 530:12,19	design (33)
387:21 396:17	496:12 536:4	504:10	530:25 531:2,13	394:18 398:14
424:21 451:14	death (1) 482:5	degree (2) 518:3	531:19 532:3,23	399:7 420:21
518:11 522:14	decade (3) 404:4	519:20	533:11 534:4,15	464:23 465:20
529:2 533:11	404:5 567:20			
	decades (1)			
	566:10			

466:5 497:10,16 497:23 514:15 521:25 522:3,8 522:15,26 523:14,25 524:7 527:23 554:14 554:26 555:15 555:17 556:6,7 556:15 557:7 559:18,20 579:7 579:11,18 designed (1) 398:19 designs (1) 523:16 despite (1) 401:4 destruction (2) 482:6 483:1 detail (3) 555:15 559:20 586:22 detailed (9) 466:18 490:13 498:17 520:17 521:3 523:25 533:25 534:12 556:7 details (12) 397:18 415:24 461:25 463:11 470:5 484:22,26 498:18 502:4 535:14 570:3 603:17 detect (4) 399:9 403:8 494:18 584:13 determination (3) 394:17 502:23 529:7 determine (7) 377:23 405:5 415:17 422:26 546:12 548:14 557:5 determined (6) 378:9 404:23 422:21 482:10 588:10 592:7	determining (3) 467:17 503:2 543:9 deterrence (2) 459:26 461:24 develop (6) 442:26 447:8 461:15 557:20 567:24 595:17 developed (11) 421:15 458:25 461:14 485:3 520:11 534:18 567:19 568:10 586:20 594:6,7 developing (1) 499:13 development (26) 358:25 360:19 374:9 394:8 395:17 399:4 413:26 415:19 415:20,23 425:7 436:10 439:26 440:10 441:4 445:2,8 460:6 530:15 552:22 558:12 565:5 566:8 569:12 596:8 597:13 developments (1) 548:13 develops (1) 553:7 Devon (1) 597:8 dewater (5) 503:10,11 504:9 504:15 574:20 dewatered (1) 605:3 dewatering (6) 500:11 503:23 504:14 574:18 574:19 594:9 DFO (17) 484:6,9 484:26 485:4,21 486:17,22,24	487:23 489:19 494:20 495:14 496:10,11 500:12 501:14 501:17 DFO's (2) 499:19 499:22 dialogue (1) 516:11 dictates (1) 577:20 die (9) 503:13,26 601:19 602:1,7 602:11 604:12 604:14,15 died (1) 505:21 difference (3) 395:5 464:8 572:17 differences (1) 395:5 different (24) 492:4,5 502:24 537:23 557:14 565:12 570:3 575:18 577:16 578:6,22 579:6 581:22 582:3 593:5 594:25,26 595:21,26 597:17 600:18 602:13,13 607:25 difficult (5) 422:11,12 531:8 532:25 540:4 difficult-to-mea... 402:3 difficult-to-miti... 515:21 536:4 diffusion (10) 524:13,20 525:5 525:15,18 526:9 526:12,21,26 527:2 dike (13) 388:3,8 488:4 503:10	505:9 573:20,21 574:11,11,13,25 574:26 593:24 dikes (7) 570:7 574:1,3,20 575:4 576:16 593:22 diking (1) 501:22 diligent (1) 520:3 dimensions (1) 535:12 DINNER (1) 540:25 direct (4) 498:17 539:14 540:2 595:5 directed (2) 411:14 538:14 direction (3) 564:17 580:4 581:10 directions (1) 428:11 directly (5) 371:22 377:15 492:9 564:3 596:17 director (9) 358:12 361:9,20 361:22 511:23 599:17,21 611:10,22 directors (1) 598:2 disagreed (1) 530:12 discharge (6) 467:11,13 519:7 520:19 524:16 575:15 discharged (1) 573:25 discharges (2) 521:12 525:8 discharging (1) 467:24 discovery (1)	567:13 discuss (12) 407:6 414:11 424:9 447:26 453:22 516:14 521:5 530:9 552:16 555:17 557:18 558:25 discussed (10) 392:10 419:13 419:15 424:3 433:26 443:21 454:23 465:13 467:8 514:3 discusses (1) 491:24 discussing (12) 387:22,23 395:3 407:2,18 432:13 432:22,23 452:3 491:25 499:5 573:6 discussion (11) 383:22 390:23 391:2 433:22 438:22 481:8 490:17 521:5,7 527:20 535:20 discussions (24) 392:6,17,18 395:18 421:21 430:26 431:26 432:10,21 442:23 444:10 458:14 460:26 461:2 462:26 467:15 476:26 478:20 481:13 514:6 515:6 527:18 532:9 533:9 dispatch (1) 587:17 dispose (1) 468:20 disposed (1) 468:11 disposing (1)

468:6	600:18 601:7,12	420:18 429:6	443:18 444:2	537:22 546:5
disregarded (3)	602:10 608:6	dustfall (5)	447:23 449:9	551:12 560:8
409:11 410:15	domain (2)	399:23 474:17	453:6 472:12,14	582:14 585:14
410:20	474:10,12	474:18 476:19	476:25 477:1,9	586:12 588:13
dissected (1)	door (1) 512:17	593:6	478:20 481:10	593:1
505:23	downstream (4)	dynamic (1)	485:21 486:12	earliest-possibl...
distance (2)	491:16 517:22	439:24	486:15 487:4	530:14
376:26 573:4	519:2,12	dynamics (2)	489:25 492:1	early (5) 387:13
distances (2)	downwind (3)	399:3 469:14	494:11 496:5,6	463:5 536:5
444:14 588:9	476:26 479:1,2		496:9,23,25	542:15 548:16
distribute (1)	Dr (1) 385:23	E	497:4,9 498:16	earn (1) 451:16
549:3	draft (2) 399:13	E (6) 358:4	503:22 504:23	earth (1) 552:26
distributed (1)	410:18	359:10 361:3,5	505:2 506:12,19	easier (2) 395:20
404:15	drained (1)	362:24 363:23	506:20 507:21	570:2
distribution (11)	467:26	EA (1) 360:13	508:25 510:4,9	easily (4) 601:18
400:25 401:12	drawn (1) 387:17	Eagle (169) 357:8	510:14,19,24	602:2,4,7
401:20,22,24	drilling (3) 381:7	358:18 364:7,10	511:3,6 542:3,4	east (1) 577:15
402:4,8 514:17	381:8 567:12	364:17 365:11	543:21 561:20	eat (1) 606:18
554:16 556:17	drills (1) 598:10	366:5,15 367:22	561:22 563:20	ecologically (1)
557:5	drive (2) 572:20	367:26 368:14	564:6,21 565:8	378:4
disturbance (4)	572:21	368:18 369:9	565:8,16,26	economic (5)
398:12 401:14	driver (1) 415:20	370:5 374:6,13	566:6 567:10	360:19 394:10
436:13,15	drivers (1) 587:18	374:14 376:14	568:25 569:3	425:7 445:2
disturbances (1)	driving (1) 572:12	379:6,10,13,16	577:25 579:20	597:4
443:8	dropped (1) 425:1	379:21 381:11	580:21 594:22	economy (1)
disturbing (3)	dry (3) 426:20,21	382:23 384:26	595:16 596:3,10	553:9
454:7,15,20	575:12	386:8 387:7,20	596:16,26 597:4	ecosystem (16)
diving (1) 458:26	due (13) 406:9	387:21 390:17	597:14,23	395:15 396:14
division (4) 513:1	435:23 481:4	390:19 391:16	598:17 603:1,3	397:17 402:26
552:8 564:24,26	485:19 486:21	391:20 392:3,6	605:18 606:14	410:9,11 438:24
document (11)	487:11,12	392:19 393:13	608:24 615:6,11	460:16 462:14
390:9,21,25,25	490:24 529:16	395:13 403:17	615:20 616:1,7	462:20 463:15
391:5 409:4,9	531:6 557:1	403:19 404:20	616:25 617:5	481:2 489:8,22
409:11 410:6	565:26 594:24	404:22 405:20	618:20 619:4,11	490:24 583:16
520:23 531:25	dumb (1) 435:6	408:21,22 409:3	619:18,25 620:6	ecosystemic (2)
documentation ...	duplication (1)	409:10,14,25	620:10 621:13	381:16 443:11
523:1 528:11	416:17	410:15,21,23	Eagle's (11)	education (1)
530:5	duration (1)	411:13,19	371:12 390:3	568:14
documents (8)	397:19	412:19 414:8	424:12 440:20	effect (1) 549:5
387:15 390:20	dust (10) 374:19	420:7,16,22	442:3 475:3	effective (8) 378:4
409:1 417:25	399:20 420:20	421:1,4,15,19	481:11 485:5	398:24 468:13
441:9 528:17	458:14 476:20	421:26 422:18	552:15 568:7	483:14 522:9
533:10 535:10	476:21 593:12	422:24 425:10	569:2	569:6 583:22
doing (14) 425:2	593:14 598:8	425:14 426:19	ear (1) 403:18	584:15
548:19 560:4,6	605:12	429:1,2 430:22	earlier (13)	effectively (4)
569:13,15 573:4	dust-monitorin...	432:24 437:9,14	395:21 438:18	476:19 484:15
590:10 599:1	419:17 420:15	438:10 443:15	460:24 506:6	529:20 532:25

375:21 376:11 392:13 397:22 459:18,26 460:2 461:24,26 528:23 529:14 532:26 effects (25) 377:24 378:10 395:10 396:25 397:4 398:8,10 399:1,9,10 401:19 410:17 426:9 436:8 455:20 459:16 468:8 487:11 514:13 520:14 531:10,16 532:19 533:22 534:1 efficiently (1) 531:9 effluent (10) 467:8,9,22 506:26 507:4,9 507:9,10,11,16 effluents (1) 508:5 effort (1) 445:1 efforts (3) 399:5 440:15 485:21 eight (1) 575:6 EIS (2) 376:25 425:18 either (1) 612:8 elaborate (3) 435:25 453:4 517:2 elders (8) 406:7 422:9,26 457:6 552:11 580:3 583:11 612:1 element (1) 530:7 elephant (1) 401:21 elevated (3) 519:26 522:18 525:6 elevation (2)	465:16 488:6 Elie (2) 600:1,3 eliminated (1) 401:16 eliminates (1) 519:15 eliminating (1) 372:10 Elizabeth (3) 371:10 614:3,20 emergency (1) 591:25 emerging (1) 520:12 emissions (2) 479:2 578:13 employ (1) 565:11 employability (1) 426:19 employed (1) 531:20 employee (2) 358:19 565:11 employees (4) 425:3,6 592:3 597:8 employment (21) 379:26 381:14 419:6 420:1 424:10,11,15,19 424:25 425:11 425:15 426:3,21 427:1 431:16 440:24 531:6 566:22 567:18 596:11 597:16 encapsulate (1) 521:22 encapsulation (1) 516:2 enclosure (1) 466:8 encompasses (1) 474:10 encourage (4) 405:14,18 445:2 454:14	encourages (1) 445:6 end-pit (6) 485:9 485:13,15,20,23 488:24 ends (1) 606:7 energy (1) 552:25 enforce (2) 458:3 513:12 enforcement (1) 428:8 engagement (5) 516:5 528:19 536:8 569:2,8 Engaging (1) 463:4 Engineer (1) 359:11 English (27) 386:15 391:19 391:24 418:7 437:19 456:15 456:15 479:14 479:15 510:6,21 511:10 550:5,12 550:21 598:26 608:13 615:18 615:23 616:5,16 617:10 618:22 619:20 620:14 620:18 621:3 English/French... 437:17 479:24 617:7 618:15 English/Inuktit... 379:9 393:17 437:12 456:20 479:20 563:23 615:9 616:11 617:1,23 618:10 621:16 enhance (2) 458:1 552:21 enhanced (2) 533:12 553:7 enormous (1) 566:3	ensure (43) 372:10 375:22 379:22,25 380:16 394:12 394:16 440:1,15 440:26 443:4 444:26 445:3 460:3 463:9 482:22 486:5,26 487:25 488:17 489:3 492:17 494:4 501:2 520:3,9 522:8 536:10 544:20 547:9 555:24 558:12 562:24 563:25 571:12 574:14 577:19 583:1 592:1,2 594:2 605:15 606:24 ensures (1) 596:7 ensuring (3) 481:21 494:1,14 entanglement (1) 458:25 enter (8) 557:21 587:14,15,22,25 588:2 589:18 591:10 ENTERED (1) 615:1 entering (1) 589:20 enters (1) 589:5 entire (2) 465:24 593:5 entities (1) 405:21 entitled (2) 379:7 615:7 entrance (2) 567:7 576:20 environment (1... 358:24 360:10 360:23,25 361:2 367:11,15 373:1 373:4 386:22,25	391:17,21 393:16 399:17 399:26 400:3 401:5 407:23,26 427:16,19 442:14 448:11 448:14 455:26 456:6,13,16,21 457:4,9,16,22 458:2,5,6,11,21 458:23 459:6,12 460:1,12 461:10 461:17 462:3,17 463:1,5,10,22 464:6,13,16,21 465:23 466:9,13 467:5,16,19 468:10,21 469:6 469:9,10,18 470:3,10,24 471:8 472:19 473:5,19 474:5 474:8 475:6,11 475:13 476:7 477:21 478:18 495:15,18 506:25 507:12 517:23 541:12 541:15 551:12 561:2,5 568:5 568:13 573:25 578:9,17 593:19 594:2 615:21 616:2,10 617:19 618:1 environmental ... 359:6,9 360:13 360:17 361:1,12 361:14 362:2 381:15 394:19 396:8 398:16,20 398:22 401:19 419:8 424:13 425:15 440:11 440:14,21 441:18,20 442:3 442:5,11 457:9

465:9 468:8 483:6 492:2,4 493:3,13 497:3 497:11,17,25 512:10,12 513:24 514:15 515:12,17 517:7 517:20 521:21 524:23 528:7 532:17 533:23 535:11,26 552:6 552:7 565:3 578:1 586:23 environments (4) 440:4 491:16 494:19 530:16 envision (2) 387:14 503:15 equal (3) 440:2 486:12,16 equally (1) 486:11 equipment (8) 371:14,15 376:20 380:17 476:9 477:5 576:7 591:2 equivalent (1) 399:5 eroded (1) 383:19 ERT (1) 592:4 eskers (1) 609:22 especially (5) 398:1 425:26 429:5 435:23 568:7 essential (1) 591:24 essentially (1) 478:24 establish (2) 432:25 569:4 established (1) 552:24 establishment (1) 533:4 estimate (3) 543:10,13,14	estimated (2) 381:18,19 estimates (1) 514:22 et (2) 545:18 568:2 eutrophic (6) 489:17 490:11 490:25 491:4,13 491:14 evaluate (14) 392:21,22,24 444:3 458:16 484:16,23 485:6 490:14 497:18 519:6 520:18 535:18 593:26 evaluated (2) 466:2 514:12 evaluates (1) 596:26 evaluating (5) 392:8,12,13 486:9 490:10 evaluation (8) 460:17 484:12 485:13 521:3 526:16 535:21 597:3,5 evaluations (2) 466:1 527:4 evening (4) 403:18 416:26 541:1 552:5 event (4) 376:10 381:3 385:18 525:4 events (6) 375:22 375:23 376:3,8 528:8 529:6 everybody (6) 371:2 404:6,6 435:3 511:22 567:5 everyone's (2) 389:4 411:16 evidence (4)	528:22 531:3 546:14,17 evident (1) 478:9 evidently (1) 381:17 evil (1) 455:19 evolution (1) 559:4 exact (2) 474:12 503:21 exactly (2) 434:14 590:19 examination (1) 396:7 examine (3) 397:7 397:16,21 examined (1) 399:7 example (23) 402:20 476:18 505:13 548:17 555:1 569:10 579:20 585:20 588:16,20,21 589:25 590:19 591:10,21 592:6 592:10,14,18 593:3 594:3 604:14 607:22 examples (4) 507:25 595:22 597:7 602:5 excavated (1) 556:18 exceed (1) 587:26 exceedances (1) 519:12 exceeded (1) 467:4 excellent (1) 567:15 exception (10) 381:1 384:18,23 385:1,18 387:11 389:6,16,20 424:22 exchanges (1)	463:24 excludes (1) 464:11 exclusively (1) 517:11 excuse (4) 395:2 395:25 540:17 564:2 executive (3) 358:12 361:20 405:3 exemption (11) 379:15,18,20,22 380:9 381:13 383:16,24 384:3 384:4,8 exemptions (1) 374:9 exercise (1) 539:16 exercises (1) 529:6 exhibit (75) 370:14 379:4,6 384:11 386:1,2 386:6,8 391:7,9 391:16,20 392:16 393:11 393:13 409:2 418:4,8 437:8 437:13,18,20,22 456:16,21 479:17,21 509:2 510:2,7,12,17 510:22 511:1,6 532:13 535:5 550:10,13,16,19 550:22,25 563:18,20 615:6 615:11,20 616:1 616:7,13,18,23 617:3,9,12,16 617:19 618:1,7 618:12,17 619:1 619:8,15,22 620:3,10,16,20 620:24 621:1,5	621:9,13 exhibits (10) 391:13 407:4 412:18 418:2 437:4 456:12 479:13 550:1,6 615:1 exist (1) 556:21 existing (12) 389:16 395:8 398:2 413:1 507:15 568:2 571:7,12,15 575:17 577:12 609:20 expanded (1) 571:19 expanding (3) 380:17,18 573:7 expansion (1) 380:15 expect (2) 503:4 516:19 expectation (2) 503:24 545:1 expectations (1) 509:4 expected (3) 411:23 451:20 483:19 expenditures (1) 425:8 experience (10) 376:9 453:5 505:11 519:14 530:15 567:18 593:23 594:15 604:10 606:4 expert (5) 457:11 457:12 513:4 553:13 600:23 expertise (6) 430:25 431:14 431:19 440:22 552:26 567:18 experts (2) 585:6 588:12

explain (3) 453:4 453:7 476:4	F	falls (1) 532:5	386:2 390:9,20	556:15 557:7
explained (1) 491:12	F (1) 359:5	familiar (1) 491:1	456:12 479:13	559:20,25
explanation (1) 385:20	faces (1) 426:9	family (1) 533:15	509:2 517:1	565:25 566:18
exploration (25) 374:10 380:15 380:18 381:3,6 381:7,8 382:1 441:9,13 565:17 566:9,25,26 567:10,12 571:14,15 573:7 575:8,10,17,19 609:8,21	facets (1) 401:11	far (10) 376:16 402:19 428:11 431:23 432:3 433:22 473:13 565:23 601:14 603:6	550:6 612:5,6,8	616:4,15,20,26 617:6 618:9,14 618:22 619:6,13 619:20 620:1,8 620:17,21,25
exploration-pro... 378:20	facilitate (2) 425:24 430:21	fauna (1) 458:3	filed (8) 379:4 386:1 409:1 412:18 437:5 509:5 529:1 535:4	finalize (2) 481:13 487:19
explored (1) 486:2	facilities (6) 381:1 381:26 401:9 553:5 555:9 565:2	favourable (1) 568:14	files (1) 612:13	finalized (2) 445:22 446:3
explosive (2) 535:19 554:6	facility (43) 394:24 412:17 426:23 459:5 462:8,13 465:15 466:23 468:15 468:15,21 516:1 516:4 517:5,26 521:20 522:12 522:25 523:2,5 523:15 535:12 545:14 554:4,15 555:18,22 556:1 556:7,13 559:19 559:21 567:26 570:19 573:22 574:10,26 576:24 577:3,4 577:6,10,14	feasible (1) 423:21	filing (3) 443:8 509:24 530:23	finally (14) 398:25 400:5 424:8 513:7 520:14 521:9 533:17 534:15 535:19 564:18 565:3,14,22 566:15
explosives (8) 553:12,20,21,23 553:24 554:1,2 572:8	fact (1) 566:1	features (1) 498:18	fill (1) 421:16	find (3) 434:10 446:5 605:10
expose (1) 567:7	fact-based (1) 578:21	February (1) 585:1	filled (1) 576:12	findings (1) 539:17
exposed (3) 464:25 465:5,10	factor (2) 436:9 524:20	federal (7) 427:2 457:26 506:14 549:4,6 553:11 553:20	filters (1) 576:7	fine (1) 509:19
expressed (3) 402:14 485:17 518:1	factoring (1) 554:2	fee (1) 406:11	final (101) 374:7 380:7 391:13,22 394:5 404:9 417:24 418:2,5 418:9 429:26 437:11,16 440:11,20 441:18 442:3,5 457:17 459:2,7 460:8 464:24 465:6,26 467:7 479:19,23 480:18,19,25 481:7,11 484:1 485:5,15 486:14 486:23 487:2 488:9 489:14,20 489:24 490:20 491:8,11 492:22 493:2 510:6,11 510:16,21,26 511:5 514:8,9 514:10 515:2 516:12 517:4 521:14,18 523:14,16 524:4 524:10 528:3 530:3 532:2,3 532:14 534:21 535:2 550:7,11 550:14,17 553:18 555:15	finish (2) 592:26 595:13
extend (4) 552:10 567:15 571:10 597:15	factory (1) 554:2	feel (10) 376:8 386:5 429:8,19 435:23 475:14 496:18 538:22 562:14,15	final (101) 374:7 380:7 391:13,22 394:5 404:9 417:24 418:2,5 418:9 429:26 437:11,16 440:11,20 441:18 442:3,5 457:17 459:2,7 460:8 464:24 465:6,26 467:7 479:19,23 480:18,19,25 481:7,11 484:1 485:5,15 486:14 486:23 487:2 488:9 489:14,20 489:24 490:20 491:8,11 492:22 493:2 510:6,11 510:16,21,26 511:5 514:8,9 514:10 515:2 516:12 517:4 521:14,18 523:14,16 524:4 524:10 528:3 530:3 532:2,3 532:14 534:21 535:2 550:7,11 550:14,17 553:18 555:15	Finland (1) 565:13
extensive (3) 447:14 567:12 596:3	fair (1) 394:7	fees (1) 568:17	field (10) 459:21 459:24 460:15 460:23 461:8,22 554:23 583:12 583:14 589:23	first (49) 371:25 383:1 390:21,25 400:23 401:13 401:26 404:19 409:25 410:7 420:14 422:18 433:11,16,18 436:25 438:14 446:15 454:13 459:6 480:16,21 483:25 489:8 503:10 508:7 517:4 518:13 519:26 524:2 526:23 528:4 531:13 534:3 554:12 564:10 564:10,21
extent (2) 379:25 401:16	fall (14) 387:13 403:1 476:20 548:16 580:9,19 581:12 582:17 582:18 585:10 588:25 589:25 592:19 600:4	fifth (1) 410:22	figure (14) 380:21 403:19,23 434:2 540:4 578:4,10 580:17 581:3,17 581:18,21,24 582:14	
external (2) 569:16,19		figured (1) 603:17		
extract (1) 609:24		file (12) 357:11		
extracted (1) 577:8				
extraction (1) 609:2				

565:12 566:5 567:10 598:19 603:6,8,19 605:7 612:11,26 613:8 fiscal (1) 442:18 fish (116) 378:3,8 378:10 404:13 469:16 475:8,16 481:14,25,25 482:2,3,5,14,18 482:19,22,22 483:15,18,19,20 483:20 484:13 484:19 485:10 485:17,24,26 486:5,5,10 487:1,1,12,15 487:21,25,25 488:26 489:3,3 490:4 491:21 492:19 494:6,9 494:9,14,14 501:16,17,20 502:2,2,10,10 502:17,24,26,26 503:1,4,11,16 503:26 504:4,16 504:17,18 505:6 505:7,8,9,12,15 505:17,21,22,23 578:17,18 593:19,19 594:5 594:13,21,24,26 600:17,22,23 601:11,14,15,18 601:20,20,23,25 602:3,6,13,14 603:10,15,20,23 604:1,3,10,12 604:13,14,15,17 fish-out (13) 458:26 503:22 505:8,10,20,21 574:21 594:7,13 594:16,19 603:9 603:19	fish-outs (11) 503:23 505:3 594:15,19 600:18,20 601:7 601:13 602:6,10 604:8 fish-transfer (1) 604:4 fisheries (149) 360:1,2,5 367:19,23 368:6 368:8,12 373:7 373:9 378:5 387:1,2 408:3,4 427:21,23 448:16,18 458:8 470:4 471:22,23 479:7,14,17,21 480:5,10,11,13 480:14,15,17,22 481:5,9,13,17 481:17,20,20,23 481:26 482:1,4 482:7,8,11,12 482:15,16 483:2 483:4,5,8,9,11 483:11,12,21,24 483:25 484:1,3 484:10,14,17,21 484:26 485:4,11 485:14,16 486:2 486:8,10,11,18 487:3,7,13,16 487:19 488:9,15 488:15,20,26 489:6,10,20 490:2,8,12,14 490:16,20,23 491:16,21,23,26 492:7,14,16,23 493:5,9,10,17 493:25 494:2,7 494:10,16 495:4 496:6,16,26 498:4,9,13,25 499:3,11,20 500:5,9,14,25	501:1,26 502:11 502:11,12,20,21 503:20 504:19 505:19 506:2 541:17,20 561:7 561:9 594:6 618:7,12 Fisheries' (1) 594:18 fisherman (1) 601:24 fishermen (1) 436:1 fishery (6) 482:3 482:4,19,20 486:9 501:6 fishes (1) 491:7 fishing (2) 508:1 612:10 five (6) 379:14 390:16 397:12 456:4 571:25 599:17 five-minute (1) 390:13 fix (1) 435:10 fixtures (1) 378:20 Flakes (1) 593:15 flood (3) 461:22 488:11 573:26 flooded (7) 459:23 469:20 524:11 527:12 557:15,19 605:6 flooding (13) 459:4,8,16 460:3 461:25,26 468:26 469:3 486:21 487:9,11 487:14 488:21 flora (1) 458:2 flour (2) 577:8,9 flow (13) 416:8 491:25 492:3,6 492:21,25 493:15 556:22	557:24 558:19 559:12 574:2 576:13 flowing (2) 573:15,16 focus (2) 420:18 578:5 focused (4) 428:7 492:5 554:10 557:13 focusing (2) 529:7 578:1 follow (8) 421:20 432:4 475:21 498:9 499:14 539:1 540:1 587:2 follow-up (6) 402:18 432:5 494:26 499:16 529:20 539:2 followed (2) 447:9 523:22 following (23) 371:19 399:21 440:6,7 461:19 462:23 463:16 470:6 481:22 514:4,14 516:11 522:9 523:23 526:26 527:18 528:24 533:9 555:10 570:1 594:17 596:2 601:9 follows (2) 408:25 461:13 food (10) 400:26 402:16,22 423:25,26 434:14 447:2 504:6 578:18 605:10 footprint (2) 556:18 571:16 footprints (1) 381:26	force (2) 425:25 565:5 forced (1) 435:12 forces (1) 426:11 forecast (1) 457:24 forecasting (2) 387:26 442:22 foregoing (1) 614:4 forests (1) 552:25 forget (2) 372:4 436:25 forgetting (1) 417:20 form (2) 489:12 513:21 formal (2) 372:8 537:17 formation (2) 443:12 525:24 formations (1) 524:13 formed (2) 443:14 611:15 forth (3) 411:9 538:21 599:10 forward (12) 395:12,16,20 404:20 405:11 407:5 439:21 441:2 470:26 477:14 545:1 597:18 found (8) 378:11 527:16 528:18 535:23 540:12 579:23 581:7 592:16 foundation (2) 554:20 595:10 four (12) 413:18 413:25,25 415:1 437:3 482:11 513:18 548:3 565:12 569:9 597:8 599:17

four-wheel (2) 572:20,21	568:1 572:8	441:24 451:3	477:7	globally (1) 564:22
fourth (1) 429:18	fulfill (4) 440:17	458:20 492:10	generators (1) 575:25	GN (15) 392:24
fractions (1) 476:11	484:6 535:3	493:23 564:25	geographic (1) 612:5	407:13 411:26
frame (1) 533:14	fulfilled (4) 443:5	596:23,26	geological (2) 553:16 566:3	419:14 426:4
framework (6) 399:14 406:26	518:8 522:11	597:11	Geology (1) 361:25	438:8 444:1,13
410:19 516:7	528:25	G	geotechnical (4) 358:22 359:10	444:16,17,19,21
532:15,20	fulfills (1) 460:13	G (3) 358:5,20	555:8,12	580:22 581:13
free (1) 386:5	full (6) 430:25	361:20	Gerard (1) 358:21	582:1
freeze (2) 545:15	470:12,14,15,19	gain (1) 488:23	getting (10) 403:6	GN-06 (1) 444:5
545:15	562:26	gained (2) 519:14	403:12 404:12	GN-07 (1) 444:7
freeze-thaw (2) 517:9 522:1	fully (10) 430:21	530:15	428:11 429:25	GN-09 (1) 444:11
freezer (1) 505:24	461:4 465:12	gains (3) 486:9	432:15 452:4,18	go (41) 371:7
freezing (2) 516:3	486:6 487:2,26	487:8,22	540:19 542:24	372:13,13
521:23	489:4 494:15,15	gains-and-loss (1) 481:14	Gibbons (2) 362:17 613:11	382:24 390:17
French (13) 437:23 456:15	function (1) 447:10	game (1) 436:18	Gilson (5) 361:26	393:4 394:3
479:15 510:16	functions (1) 428:14	gap (2) 379:22	372:16,17	395:12,26
511:5 550:5,18	funding (16) 406:9 427:3	570:25	404:16,17	418:20 436:17
551:1 617:17	430:24 431:16	gaps (1) 397:19	give (14) 376:18	439:14 455:22
619:13 620:8,26	432:2 434:22	Garlik (1) 361:20	382:15 391:4	455:25 457:13
621:11	537:4,17,23,26	gates (1) 584:2	393:23 418:20	457:15 472:21
French/English... 456:24 618:5	538:3,7 540:2,6	gather (2) 534:11	452:12 461:19	491:9 503:14,17
frequency (7) 493:17,18,21	540:10,16	582:13	486:12 506:16	504:5,26 506:11
494:2,4 547:26	funds (1) 421:1	gathering (2) 415:22 533:15	507:14 537:25	508:1 538:18,23
572:8	funeral (1) 598:20	Gatineau (1) 512:14	551:14 566:23	546:10 551:11
fresh (1) 399:26	further (28) 383:22 390:9	general (9) 359:4	567:8	564:9,21,22,24
freshet (1) 548:16	396:6,13 397:1	371:21 373:19	given (21) 381:24	565:2 566:3
freshwater (2) 399:26 575:16	397:7 398:5	414:16 430:11	399:19 400:23	567:6 570:2,4
front (2) 503:21	406:16 410:13	535:23 538:1	455:1,15 459:12	574:2 591:5
509:10	421:9 429:15	540:3 551:20	465:13 466:3	592:25 610:9
frontline (1) 434:13	432:1 447:20	generally (5) 470:25 505:4	488:23 489:26	goal (3) 425:12
frozen (9) 505:23	448:8 453:23	515:15 532:21	500:23 504:16	441:13 583:2
517:10,18 522:5	454:23 463:6	554:24	519:26 520:5,14	goals (2) 432:12
522:20 523:10	474:4,14 481:12	generate (1) 553:5	522:4,18 523:8	432:21
555:21,25	514:6 515:6	generated (2) 492:8 556:10	532:23 534:3	goes (4) 576:12,13
577:19	532:6 535:20	generating (3) 517:12 555:19	594:5	577:9 578:22
frustrations (1) 537:6	551:19 552:20	555:23	gives (2) 381:20	going (75) 371:4
fuel (4) 374:24,26	601:2 612:21	generation (1) 568:15	571:22	371:24 382:7,9
	Furthermore (2) 584:7 595:8	generator (1)	giving (4) 418:26	393:26 394:3
	future (11) 380:11,23		471:5 567:17	395:6,20,25
			597:14	405:1 415:1,2
			glad (1) 435:14	416:15,22
				418:18 420:12
				423:11 425:13
				426:21 431:13
				433:9,12,16,25
				452:5,5,11

478:10 497:5 500:10,12 503:10 504:15 506:6 516:9 540:23 549:17 562:8,9,10,16 562:17,18,19 566:13 568:23 571:8 573:3,17 581:26 585:9,12 586:21 587:8,9 588:14,21,22 592:25 594:12 595:12 598:15 598:19 599:4 600:8,12 601:2 602:22,24 605:3 608:12 610:23 610:26 611:1 613:9 goings-on (1) 611:6 gold (5) 393:14 565:8 571:9 577:8 616:8 Golder (5) 359:13 359:14,15,16,17 good (31) 371:2 372:16 374:1 379:13 389:24 395:21 398:23 408:9 417:15 418:24 424:16 434:6 452:2,13 457:5 469:1 480:7 504:6,7 505:5 511:22 535:25 541:1 552:5 562:6 567:8 582:23 584:22,24 604:11 606:18 Goose (6) 505:9 574:22 576:22 605:23,26 606:1 gotten (1) 433:22 governed (1)	458:6 governing (1) 389:17 government (161) 360:16 365:9 366:19,22,25 367:6 370:11 372:24,26 373:19 386:17 386:19 390:23 390:24 391:6,18 392:5 397:3,23 398:4,18,26 399:13 403:3 406:19,20,22,25 407:17,20 408:26 409:7,13 410:13,18 411:12,13,14,22 411:25,26 412:3 412:4 414:5,9 414:18 415:3,5 415:7,8 417:10 419:26 423:17 424:10,14 425:22,26 426:11 427:12 427:14 428:12 429:17 431:20 435:8 436:24 437:5,8,13,18 437:20,22 438:17 439:15 439:17,18,24 440:4,8,13,16 440:17,19 441:3 441:12,18,23 442:2,6,16,19 442:25 443:3,16 444:24 445:3,5 445:10,13,18,21 445:26 446:11 446:17,25 447:5 447:21 448:3 449:25 450:10 451:5,9,10 452:11,12 453:5	453:7,8,10,14 453:20,26 454:4 454:7,12 457:26 463:4 471:19,21 481:16 495:12 495:14 506:14 534:16 541:9,11 549:4,7 560:9 560:25 561:1 568:21,21 576:5 580:16,21 581:4 583:8,18 590:5 590:6,24 607:6 607:8,16,18 615:22 616:23 617:3,9,12,16 governments (1) 427:2 grab (1) 470:19 Grade (2) 508:8,9 gradient (1) 557:11 gradients (5) 524:21,24 525:14 526:20 526:25 Granchinho (7) 358:13 412:9,10 496:24 498:6,7 498:21 grandchildren (1) 600:10 grant (1) 416:3 granted (4) 384:23 385:1 389:16 443:2 grants (1) 389:6 gravel (3) 608:19 609:19,22 great (6) 398:10 401:21 402:9 496:14 499:25 599:1 greater (2) 397:13 584:13 greatly (2) 381:13 519:18	green (8) 380:13 580:9,19 584:3 584:3 585:15,16 586:18 green- (3) 585:15 587:3 588:16 green-light (1) 588:26 Groleau (1) 358:22 Grondin (1) 358:23 ground (7) 376:22 555:2,6,14 557:10 577:19 609:2 groundwater (16) 514:19 526:11 556:22 557:1,7 557:15,16,16,21 558:7,8,14,21 558:25 559:1,3 group (32) 392:15 392:21 395:18 414:7 421:16,18 421:18,24 422:2 422:4 424:3,5 430:22 432:1 442:11 443:13 443:13,24 444:5 445:20 446:3 447:10,26 454:24 538:4 584:25,26 586:5 586:21 588:11 590:26 591:3 group-size (10) 392:10,23 402:20 447:24 450:4 587:20,26 588:5,10 589:26 groups (4) 426:7 426:15 591:11 595:9 growth (3) 491:3 491:3,5 Gruda-Dolbec (5)	360:8 373:17,17 475:23,23 guess (10) 401:20 402:18 414:17 450:3 455:18 507:25 536:26 537:9 538:12,14 guest (1) 599:3 guidance (4) 481:24 483:10 483:14 594:18 guide (1) 483:13 guided (3) 441:8 483:8 579:17 guides (1) 441:22 guiding (1) 441:24 Guy (12) 433:5,6 450:15,16 473:4 473:7,23 478:1 478:3 503:6,7 504:3 Guy's (1) 455:23 guys (1) 547:9 gwater (1) 611:16
H				
H (3) 358:9 359:25 362:22 habitat (40) 399:6 481:1,1,14,25 482:6,6 483:2 483:19,20,26 484:10,13,20 485:16,26 486:5 486:19,20 487:1 487:8,12,21,26 488:2,23,26 489:3 494:9,15 501:23 502:2,10 502:26 578:11 593:19 594:21 594:24 595:1 605:10 half (4) 465:6,10 549:19 565:22 hall (1) 579:23				

hamlet (6) 405:11 608:12,19 609:18 611:25 611:25	569:24 599:6 601:24 602:1 615:6,11,20 616:1,7,14,19 616:23 617:3,20 618:2,8,13,18 619:2,9,16,23 620:4,12,16,20 620:24 621:1,5 621:9,13	588:26 589:9 590:14,18,21 591:4,9,14,17 593:9 608:20 610:2,2,9	418:3,5,9 424:6 437:4,11,16 443:6,26 445:23 446:19 467:19 479:19,23 510:6 510:11,16,21,26 511:5 516:20 527:19 532:9 535:2 537:3 538:6 539:13 541:2 545:4 550:7,12,15,18 552:12 563:18 564:12,15,17 565:25 598:8 599:13 616:15 616:20,26 617:6 618:9,14,22 619:6,13,20 620:1,8,18,22 620:26	424:11 427:3 428:5 431:24 461:2 506:13 562:19,21 611:6 helped (3) 411:2 452:20 472:21 helpful (1) 430:23 helps (2) 505:25 507:18 Henry (3) 500:4,7 501:8 herd (11) 396:25 398:19 399:6,11 414:5,16 415:8 415:15 416:13 433:12 434:9 herds (11) 396:3 399:6 413:19,25 415:1,10 450:7 450:12 580:26 581:22 583:3
hand (5) 371:5 415:2 463:19 600:2,4	harder (1) 404:13	hauler (1) 572:11	hearings (4) 379:4 400:9,13 423:16	heritage (1) 440:24
handing (1) 542:15	harm (11) 401:4 402:15 423:14 447:1 482:2,5 482:18 483:15 492:19 494:6 583:3	hauling (4) 401:6 433:10 589:1 592:21	heat (2) 581:5,12	Hi (1) 540:19
handle (1) 398:23	harming (1) 482:25	headed (1) 410:16	heavy (2) 433:25 478:25	Hickes (3) 363:10 608:10,11
handled (3) 601:19,22 602:2	Harry (7) 604:21 604:22,22 606:20,24 607:11 608:3	headings (1) 410:6	height (1) 522:26	high (8) 395:11 396:24,25 403:10 441:15 451:23 452:19 518:4
handling (1) 602:3	harvest (2) 396:8 404:13	healing (1) 426:1	height-of-land (3) 396:10 583:24 589:8	high-end (1) 584:12
handouts (1) 542:9	harvested (1) 402:1	health (15) 426:1 435:2,4,9,16 441:21 442:14 453:16,17,19,21 475:15,21 505:20 607:1	heighten (3) 587:16,23 589:7	high-level (3) 525:3 530:22 532:20
hands (1) 599:25	harvesting (13) 401:13,21,23,25 402:1,4,7,10 428:8,9 436:10 475:9,17	healthy (3) 423:25 485:23 578:19	heightened (5) 585:18,26 589:12,15 590:15	higher (5) 395:7 451:12 464:26 491:4,5
handy (1) 563:26	haul (43) 374:22 377:14,16 380:16 392:11 392:12 395:6 397:5 398:3,8 398:11 402:5 423:11 433:8 570:8,15 571:20 572:9 573:1 579:12 580:11 580:11 583:24 584:4,5 585:19 586:6,9 587:17	hear (18) 371:25 372:5,8 376:17 377:3,6,17 382:8 405:22 407:10 432:17 434:10 435:14 538:22 539:13 549:13,17 600:14	held (5) 357:14 461:1 523:23 527:18 584:26	highest (2) 395:4 581:7
HAP (1) 452:15		heard (17) 382:5 395:21 403:16 403:20 406:11 454:2,6 515:5 531:22 537:21 541:3 545:15 597:22 600:18 601:4 602:5 612:24	helicopter (4) 444:13 454:7,13 454:24	highlight (2) 466:15 565:4
happen (4) 488:19 518:7 524:21 609:3		hearing (66) 357:7,14 380:7 386:1 390:16 391:14 393:11 404:9 417:17,24	helicopters (2) 436:2 454:20	highlighted (1) 442:7
happened (2) 375:23 452:8			Hello (1) 516:26	highlighting (1) 569:1
happening (2) 582:7 588:25			help (10) 381:13	
happens (1) 520:2				
happy (4) 407:6 471:6 537:24 549:13				
harassing (1) 482:26				
harassment (1) 454:14				
Harbour (1) 363:3				
hard (60) 379:6 386:6,8 391:16 391:20 393:13 406:9 418:5,9 437:8,13 456:17 456:22 479:18 479:22 510:3,8 510:13,18,23 511:2,7 550:10 550:13,16,19,22 550:25 563:20				

highlights (6) 441:19 570:22 572:22 574:17 574:23 575:3	452:8,15 569:14 housing (5) 450:21,24 451:10,23 452:4	377:22 383:7,9 383:12 385:22 386:10 400:16 400:17,20 403:4 403:14 404:7 406:3,5,15 413:23 414:10 415:11 417:13 417:26 418:4,8 418:21 419:2 422:10,22,25 423:7,20 427:7 430:8,12,19 431:10,14 433:21 435:21 436:1,6,14,22 438:15,21 443:15,21 446:9 446:10,13,15 454:2 471:14 486:3,25 487:24 489:2 494:12,22 495:9 536:20,22 537:14 538:2 539:26 560:21 580:4 607:21,25 608:7 615:13 616:13,18	hydrologic (1) 556:26	367:25 368:5,11 368:17 369:15 371:11 374:8 375:8 379:2,21 380:6 381:12,16 382:21 384:14 384:23 386:12 388:22,24 389:5 389:12 391:11 393:8,16 394:15 394:17,19,20 400:25,26 401:10 404:8 405:15 409:18 409:20,23 412:7 412:10 413:12 413:14 417:22 418:15,26 420:5 424:13 425:15 426:24 430:5,7 430:10 431:9 433:7 437:1,10 437:15 439:10 439:19 440:12 440:21 441:7,19 442:4,5 443:9 449:14,16,25 450:2,17 456:10 456:18,23 457:17 461:11 471:4 472:15,18 473:3,5,8 475:2 475:19 478:3 479:11,19,23 480:1,17,25 490:3 494:18 496:21,22 498:4 498:7 500:5,8 501:9,13 502:15 503:8 506:10 507:21,24 508:14 509:22 510:5,10,15,20 510:25 511:4,13 512:25 513:1,17 513:24 515:12 515:17,22 517:5
highly (1) 439:24 Hill (1) 573:3 hills (1) 598:6 hinges (1) 422:5 hire (2) 421:2 583:11 hired (1) 431:24 hiring (3) 425:2 433:24 583:25 history (3) 501:4 501:4 564:23 hit (1) 577:20 hold (2) 415:15 547:19 honest (1) 414:16 honestly (1) 424:16 hope (14) 388:10 402:11 414:19 416:18 430:20 433:2 505:25 543:18 549:8 560:15 601:6 602:8 604:18 612:14 hopefully (4) 423:3 446:6 507:18 610:11 hoses (1) 576:7 hosted (4) 579:8 583:15 584:24 588:12 hosting (1) 395:13 hosts (1) 565:23 hot (1) 601:11 hour (3) 549:19 586:9 592:21 hours (5) 571:24 592:6,15 598:13 599:2 house (3) 450:20 452:12,17 houses (5) 452:6,6	HTO (42) 383:15 383:17,23 384:3 384:7 385:14 405:10 416:11 417:16 419:11 420:21 421:1,5 421:12,16 422:15 424:4,12 428:4,15 430:21 432:8 433:8 434:20 435:2,23 435:26 438:5,7 447:7 471:16 537:5 538:13 541:5 584:17 585:2 589:18 604:5,7,23 611:24,24 HTOs (4) 428:7 434:12 537:4 540:8 hub (2) 565:16 597:12 hubs (1) 565:12 huge (1) 454:3 Hugh (5) 365:19 418:12 432:4,7 536:24 Hugh's (1) 540:1 human (4) 358:20 359:2 376:16 442:14 humming (1) 377:9 hundred (3) 455:13,15 505:12 hunter (1) 455:5 hunters (81) 359:23 364:13 365:5,22 366:8 366:12,24 369:5 372:20,22	377:22 383:7,9 383:12 385:22 386:10 400:16 400:17,20 403:4 403:14 404:7 406:3,5,15 413:23 414:10 415:11 417:13 417:26 418:4,8 418:21 419:2 422:10,22,25 423:7,20 427:7 430:8,12,19 431:10,14 433:21 435:21 436:1,6,14,22 438:15,21 443:15,21 446:9 446:10,13,15 454:2 471:14 486:3,25 487:24 489:2 494:12,22 495:9 536:20,22 537:14 538:2 539:26 560:21 580:4 607:21,25 608:7 615:13 616:13,18 hunting (15) 400:26 583:10 583:12,19,26 584:10,23 585:2 585:23 589:22 590:9,22 591:12 612:9,10 hydraulic (4) 524:21,24 526:20,25 hydrodynamic ... 520:17 521:11 521:16 hydrogeological... 525:1 526:23 527:22 558:1,11 hydrogeology (3) 552:17 553:14 557:13	I i.e (1) 608:19 ice (3) 555:2,6,14 idea (5) 381:20 452:16 504:8 566:23 567:8 ideas (2) 405:12 553:5 identically (1) 587:4 identified (19) 442:6 465:4 466:26 467:2 469:12,21 502:18 515:24 517:3 518:24 521:18 524:10 525:20 526:14 528:4 529:19 530:4 532:14 557:23 identify (2) 467:21 520:12 IIBA (1) 359:7 IIBAs (1) 425:20 Iksivautaq (11) 413:16 414:1,20 415:4 431:11 453:12 475:10 501:25 502:19 508:2 546:26 illustration (1) 588:21 illustrations (2) 484:3,7 imagery (1) 554:23 imagine (2) 474:13 592:5 impact (183) 357:7 358:3,11 358:13 360:21 365:13,16 366:7 366:11 367:5,14	367:25 368:5,11 368:17 369:15 371:11 374:8 375:8 379:2,21 380:6 381:12,16 382:21 384:14 384:23 386:12 388:22,24 389:5 389:12 391:11 393:8,16 394:15 394:17,19,20 400:25,26 401:10 404:8 405:15 409:18 409:20,23 412:7 412:10 413:12 413:14 417:22 418:15,26 420:5 424:13 425:15 426:24 430:5,7 430:10 431:9 433:7 437:1,10 437:15 439:10 439:19 440:12 440:21 441:7,19 442:4,5 443:9 449:14,16,25 450:2,17 456:10 456:18,23 457:17 461:11 471:4 472:15,18 473:3,5,8 475:2 475:19 478:3 479:11,19,23 480:1,17,25 490:3 494:18 496:21,22 498:4 498:7 500:5,8 501:9,13 502:15 503:8 506:10 507:21,24 508:14 509:22 510:5,10,15,20 510:25 511:4,13 512:25 513:1,17 513:24 515:12 515:17,22 517:5

517:7,20 521:21 524:23 528:7,12 528:18,22 529:7 531:23 532:17 533:23 534:10 535:11 537:19 540:7 543:24 544:1,22 545:10 545:13 546:15 547:16 549:26 551:4 561:24,26 563:6,15 564:16 565:25 569:11 578:26 579:24 581:20 584:16 596:5 615:15 616:10,26 617:6 617:21 618:3,9 618:14,21 619:5 619:12,19,26 620:7	implementation... 399:13 416:12 442:20 460:6 533:1 538:4 implemented (7) 376:7 401:1 459:1 466:19 495:1 518:19 531:9 implementing (1) 559:24 implication (1) 527:23 implications (2) 514:15 518:26 imply (1) 425:18 importance (3) 399:20 534:3 594:5 important (15) 380:26 492:10 534:11 539:8,16 539:19 556:20 565:14,26 566:11,15 574:13 591:23 597:12,15 impose (1) 423:22 impossibility (1) 401:6 impoundment (2) 469:11,15 improve (8) 464:18 469:15 483:23 521:24 530:17 532:26 569:16 584:7 improved (5) 376:6 464:16 529:10 595:1 604:4 improvement (1) 425:5 improvements (1) 465:17 improving (2) 376:9 568:11	in-house (1) 595:24 INAC (5) 387:22 416:7 527:25 542:18 547:2 INAC's (1) 513:15 inadequate (1) 522:6 incident (3) 436:19 459:5 462:26 incidents (2) 463:10,11 include (23) 392:8 396:7 405:24 419:13 428:10 442:18 461:18 462:11,16 463:17 466:21 482:13 492:24 492:26 502:16 521:3 523:26 530:6 543:15 548:7 586:3 591:25 595:3 included (8) 381:1 414:14 421:6 461:12 463:12 502:6 514:9 583:23 includes (8) 379:19 380:9 409:2,4 481:8 494:14 583:6 595:6 including (24) 414:8 426:15 441:9 444:25 458:2 462:15,20 470:1 487:6 488:13 492:8 494:1 514:17,19 514:20 556:8 558:20 571:16 578:6 579:11 583:12,17 585:2	595:1 inclusion (1) 558:22 income (1) 451:17 income-based (4) 451:11,18,19,21 incomes (1) 451:12 incomplete (3) 516:2,3,5 inconsistent (1) 527:17 incorporate (6) 522:8 527:11 531:15 534:19 547:24 549:11 incorporated (8) 394:17 426:4 441:26 528:1 530:11 540:7 568:19 597:1 incorporates (1) 534:5 incorporating (3) 528:11 529:17 533:12 incorporation (2) 528:5 529:10 incorrect (2) 525:5 526:16 increase (17) 397:13 431:16 431:17 451:16 451:17 453:4,9 453:15 465:15 488:19,22 568:18 585:9,26 589:9,9,17 increased (6) 453:8,18 465:2 469:2 488:17 493:21 increases (1) 488:15 increasing (4) 397:9 399:4 427:2 583:23	increasingly (1) 398:20 independent (5) 419:16,19 420:17,26 429:6 Index (1) 370:14 Indian (1) 400:4 indicate (3) 420:23 457:18 524:15 indicated (14) 385:26 420:16 422:14 453:17 459:3 460:9 462:19 463:14 470:17 506:12 517:8,19 547:6 554:7 indicates (1) 460:14 indicating (3) 384:8 454:2 493:11 indication (1) 397:15 indicator (1) 380:2 indicators (1) 569:17 indigenous (74) 361:7 364:16 365:25 368:23 369:6,10,12,16 373:16 385:24 386:13 387:4,6 387:9 388:12 408:7,10 427:25 428:1,3 448:20 448:23 471:26 472:3 495:20 508:10,17,25 509:6,18,26 510:2,7,12,17 510:22 511:1,7 511:18,20,24 512:19 514:7 536:15,23 537:1

537:13 541:3 542:4,8,14,18 543:8 544:5 545:10 546:4 547:5,15,23 548:9 549:9 560:7 561:11,13 569:2,4 615:16 618:17 619:1,8 619:15,22 620:3 620:11 individuals (2) 396:21 451:12 industry (3) 425:19 441:15 530:16 infection (1) 454:3 inflow (2) 481:3 557:21 influence (8) 397:25 398:6 401:20,22,24 402:3 411:7 525:13 influencing (1) 401:19 inform (11) 461:2 469:22 493:23 578:21 579:21 580:13 589:10 590:11 593:24 594:15 611:6 information (65) 375:4 378:11 389:5 415:22 454:21 455:8 461:20 463:17 466:9,10 468:25 469:5 470:25 471:1 473:21 485:12,25 488:11,18 500:17 513:21 513:21 515:13 515:17 518:11 519:5 522:14	526:2,4 528:22 528:26 529:2,13 530:19,25 531:7 533:3,15 534:12 535:8,20,24 537:8,25 544:21 552:18 556:13 558:18,20 559:11 563:22 578:24,26 580:1 580:6,15,20 581:3 582:24,25 594:1 610:24 612:5,25 621:15 information-pr... 529:5 information-re... 559:5 informed (6) 538:20 579:10 579:11,13,18 580:2 informing (1) 560:13 infrastructure (8) 458:18 554:20 568:2 570:18 574:24 575:22 577:2 578:24 infrastructures ... 567:25 ingestion (1) 462:12 initially (6) 383:15 398:18 464:1 465:4 467:23 571:4 initiated (1) 405:3 initiates (1) 590:3 initiatives (1) 445:2 injured (1) 602:11 inland (4) 600:25 600:26 601:20 602:3 Inlet (15) 362:22	362:23,24,25,26 363:1,10,11,12 363:13 375:10 424:22 513:19 565:20 608:12 innovative (1) 553:4 input (5) 405:18 429:24 514:25 529:10,17 inputs (1) 404:22 insignificant (1) 517:15 insisted (1) 447:13 inspect (2) 513:12 538:18 inspected (1) 548:2 inspection (2) 547:26 548:3 inspections (8) 416:6 538:24 539:3,10,11,18 548:4,6 Inspector (2) 361:21,23 installed (2) 556:12 573:9 installing (1) 584:2 insufficient (3) 459:15 470:14 519:5 integrating (1) 396:9 intend (1) 484:23 intended (4) 460:4 483:18 492:13 595:4 intends (1) 553:25 intensive (2) 520:10 527:11 intent (5) 397:9 465:7 544:20 545:2 546:11 intentionally (1)	451:13 interact (3) 378:7 583:3 588:8 interacting (2) 582:17 589:13 interaction (1) 580:2 interactions (2) 463:2,9 interdepartmen... 442:11 interest (8) 405:11 411:16 420:13 428:6 482:20 506:15 531:5 592:24 interested (3) 460:5 461:18 584:14 interests (1) 439:25 interim (2) 531:14,26 internal (2) 569:17,18 interpretation (3) 371:15 544:15 554:22 interpreters (2) 599:1,6 INTERPRETE... 363:17 interrupt (2) 437:25 562:26 intervals (1) 579:6 intervenor (4) 419:1 501:15 512:26 537:18 intervenors (18) 359:21 371:19 371:23 372:9,11 374:6 382:12 393:23 418:25 419:14 432:18 447:6 512:6 514:6 536:12	538:20 564:18 579:2 intervenors' (1) 393:2 introduction (5) 370:6 563:22 564:7 573:10 621:15 Inuit (152) 361:19 364:23 365:6,14 365:17 366:21 372:14,17 382:12,15,18,24 383:1,5 390:5 391:1,8,22 392:18,20,22 393:3,19,20 394:4,7,16 395:2 400:15,18 401:3 402:25 403:3,25 404:17 404:25,26 405:2 405:8 406:18,24 407:2,16,19,24 409:3,7,12,21 410:12,17 411:1 412:12,19,22 413:14 414:3,8 414:24 416:2,24 417:9 419:17 420:15,18 423:17 424:15 424:19,24 425:3 425:6,11,20 426:3,5,5,10 427:3,8,9 431:18 434:11 435:6 436:10 438:17 441:22 441:25,25 443:14 445:6,7 445:10,14,16 446:23 447:7 471:9,11 478:6 486:3,25 487:23 489:1 494:12,21 495:4,6 499:6

531:20 533:24 534:6,17 536:16 536:17 540:8,12 543:11 548:10 548:19,23,24 560:18,19 568:19 569:11 579:4,5,16,19 579:26 580:13 581:9 583:11,20 585:22 590:7,23 594:5 595:9 596:4,7,10,11 596:17,19,20,24 597:2 604:6 611:11 612:19 616:3 Inuit-owned (3) 572:25 573:5 611:20 Inuits (1) 597:19 Inuktitut (19) 363:18,19,20 418:11 437:21 456:15 479:15 510:11,26 550:5 550:15,24 598:25 616:21 617:14 619:6 620:1,22 621:7 investigate (1) 436:18 investigated (1) 376:5 investigation (1) 469:13 investigations (2) 555:8,13 investment (2) 483:12 568:8 invitation (1) 552:9 invite (3) 374:10 405:9 612:6 invited (1) 612:3 involved (12) 396:26 421:13	430:15 433:24 438:16,21,22,25 467:23 483:5 564:19 610:22 involvement (2) 432:26 438:14 Iqaluit (1) 511:25 isolate (1) 525:7 isolated (1) 375:24 isolation (1) 468:13 issuance (6) 462:23 463:16 482:10 513:10 531:17 544:17 issue (41) 386:20 389:7,18 394:23 400:1 420:14,25 421:8 422:7 424:8 425:5 435:2,25 444:4 444:6,8,10,12 444:14,16,18,20 444:22 451:6 452:3 454:8,13 457:19 462:2,24 463:18 467:6 468:22 470:9,22 478:22 482:8 484:8 489:18 516:14 547:25 issued (9) 380:6 499:10 502:12 513:13 519:25 523:7 526:22 528:1 534:2 issues (32) 394:21 399:20 412:6,25 419:12 420:6 422:5 423:18 424:2,9 426:18 435:16 440:10 442:18,24 443:22 446:4 452:22 466:6 472:21,22 481:9	499:4 518:12 520:12 529:18 531:1 533:24 542:19 553:22 554:12 611:19 issuing (1) 547:6 Issumatarjuak ... 362:18 it'll (2) 598:4 601:8 item (4) 406:23 419:25 429:18 543:1 items (7) 419:15 429:5,10 481:7 496:12,19 515:8 iterations (1) 458:20 J J (12) 359:6,16,17 361:10,12,21,23 362:13,20,25 363:13,20 James (1) 512:13 Jamie (15) 374:16 377:8 438:11 449:10 472:13 543:20 561:21 568:23,24 577:24 586:11 589:2 594:8 605:17 608:23 jar (1) 476:19 Jeff (3) 364:21 393:6 399:15 Jen (2) 574:6 582:23 Jennifer's (1) 581:26 job (1) 599:1 jobs (9) 567:21 568:13 570:11 570:12,13 571:13 572:12 596:8 600:9 Johnson (1)	360:17 joined (2) 457:7 512:9 joining (1) 480:9 joint (6) 508:24 509:8,12,19 511:8 620:12 jointly (2) 548:15 549:7 Jonart (1) 362:6 Jr (1) 363:5 judging (1) 446:24 judgment (1) 528:13 Julia (1) 512:11 July (12) 379:16 387:26 518:8 522:13 526:3 529:1 530:24 574:13 601:3,7 602:9 604:9 June (11) 388:3,7 399:23 488:8 566:15,20 585:1 596:6 601:8 602:9 604:9 Junior (1) 358:14 jurisdiction (1) 566:2 jurisdictional (1) 440:18 Justice (5) 360:7 373:18 426:16 475:20,24 K K (7) 358:7 359:2 359:12 360:17 361:9,24,26 Kadlun (5) 358:6 450:1,2 545:12 545:13 Kalluk (1) 362:13 Kaluraq (8) 358:7 431:11 453:2,3 475:1,2 507:23	507:24 Kanatami (1) 426:5 Karen (32) 368:20 369:25 389:2,24 408:10 413:8 428:2 431:4 448:22 449:20 472:2,26 495:22 499:1,16 509:6,17 511:11 511:19 516:26 521:22 537:12 542:13 544:7 546:3 547:14 549:9 560:7 561:13 562:3 563:12,13 Karen's (1) 389:15 Kaviq (6) 431:8 453:1,2 474:25 475:1 507:23 Kaviq's (2) 376:15,16 keep (9) 382:6 417:19 568:9,11 568:23 597:16 597:17 601:25 602:25 keeping (2) 381:25 509:3 kept (2) 419:9 592:3 key (6) 469:12,13 469:21 481:6 539:22 606:8 Kharatyan (20) 389:2,3 413:8,9 431:4,5 449:20 449:21 472:26 473:1 499:1,2 499:16,17 500:1 544:7,8 545:6 562:3,3 KIA (24) 394:4,7 399:18,20 400:2

400:4,22 403:20	383:5 390:4	474:2 501:20	362:14,15	521:12 525:3
404:14,21,26	391:1,8,22	503:13 504:8,10	364:13 365:5,22	531:2 536:20,22
405:13 407:8	392:18,19,22	506:12 537:6	366:8,12,24	537:5,14 539:26
408:16 410:25	393:3,19,20	538:8,19 539:4	369:5 372:20,22	541:5 549:6
413:12 414:26	394:6 395:2	549:3 554:8	375:3,25 377:22	551:26 556:19
415:26 416:11	400:15,18 401:2	569:23 584:11	383:7,9,12,15	560:21 564:10
416:12 419:14	402:24 403:3,25	589:20 597:23	384:3 385:14,22	565:19 568:1
548:21 611:22	404:17,25,26	598:1 600:5,8	386:10 395:8	573:3,14,15,18
611:23	405:2,6,8	600:25 601:19	399:24 400:16	573:18 574:9
KIA/NTI (2)	406:18,24 407:2	601:20,21 602:7	400:17,20 403:4	575:16 576:15
393:15 616:9	407:16,19,24	602:12,24 611:5	403:14 404:7,19	583:9,12,19,26
killing (1) 482:25	409:3,7,12,20	613:1	406:3,15 413:23	584:17 585:2,23
kilometre (4)	410:12,17 411:1	knowing (1)	414:10 416:21	589:18,22 590:9
374:20,23 401:7	412:12,19,22	545:19	417:12,13,16,26	590:22 591:12
603:16	413:14,22 414:2	knowledge (10)	418:4,8,21,25	594:10,11 595:2
kilometres (24)	414:8,14,24	394:16 414:13	419:2,11 420:21	595:5,11 597:24
377:2,6,10,16	415:12 416:2,24	434:11 441:24	421:1,5,12,16	598:5 600:20
401:26 474:14	417:9 423:17	441:26 478:6,9	422:22,25,25	601:7,10,12,15
567:1 573:2,2	427:8,9 438:17	553:1 559:9	423:7,19 427:7	602:10 603:7,11
580:25 584:13	443:14 445:10	603:5	428:4 430:7,19	603:11,12,13,13
586:8 587:12,22	445:14,16	knowledgeable ...	431:9,14 433:8	603:14,20,23
589:4,19,21	446:23 447:7	600:23	433:21 434:20	604:5,7,13
590:2,12,20	453:7,11 471:9	known (5) 442:11	435:21 436:6,22	610:16 612:17
591:9 592:8,17	471:11 478:12	512:19 530:9	438:15,20	615:13 616:13
592:21	486:3,24 487:23	566:14 597:4	443:15,21 446:9	616:18
Kim (10) 364:21	489:1 494:11,21	Kowbel (1)	446:10,13	Lake/Mammot...
393:6 394:26	495:4,6 499:6	359:18	453:10,16,18	574:9
395:1 401:2	531:6,16 533:7	Krako (1) 362:25	465:8 468:1,2,4	lakes (26) 475:7
402:24 406:2	534:1,9,14,17	Kreelak (1)	468:5,10,17	485:10 488:24
410:26 414:2	536:16,17	362:26	469:4 470:2	492:26 493:4,6
445:15	543:11 548:10		471:14,16 480:8	493:7,12 497:2
Kimberley (2)	548:19,23,24	L	481:2 484:19,25	497:11,20,21,26
372:17 404:17	560:17,19	L (10) 358:23	485:2,13,15,18	498:12,20
Kimmaliardjuk...	564:14 568:19	360:5,21 361:22	485:20,23 488:6	501:19 503:9
362:24 600:3	583:10,18,20	362:6,14,15,18	488:7,12,17,22	504:10 505:24
kind (6) 377:12	585:22 590:7,23	363:6,19	489:7,9,10,14	507:26 600:18
398:19 537:2	595:9 596:4,17	La (2) 359:14	489:22 490:11	600:22 601:9,13
581:5 585:14	596:19 597:2	377:20	490:11 491:2,13	602:12,14
586:17	611:10 612:19	labour (6) 425:25	492:24 493:8,14	land (22) 360:26
kitchen (1)	616:3	442:21 534:6	495:9 497:2	361:21,23
575:12	Knapp (1) 361:17	595:18,18,22	500:11 501:22	374:25 414:23
Kivalliq (120)	know (41) 373:11	lack (4) 425:26	503:11,18 504:5	414:25 435:12
361:19 364:23	415:24 430:23	426:17,25	504:6,15,15	483:7 513:10,11
365:6,14,17	433:24 434:4,12	529:16	505:7,14,14	514:17 547:3,23
366:21 372:14	434:14 435:3	lady (1) 613:2	507:12 512:7	548:4 549:12
372:17 382:12	450:25 452:8,10	lake (204) 357:15	513:19 519:3	572:25,26 573:5
382:15,17,24,26	452:20 473:25	359:23 362:13	520:16,19	573:5 598:6

611:12,19	leave (6) 397:3	541:1 565:7	544:25	426:9
land-use (3)	452:23 476:17	591:15 592:6	life (8) 399:22	link (1) 609:16
422:19 611:14	547:12 568:22	letter (3) 384:7	441:16 465:24	linked (2) 533:18
611:16	591:4	385:21 386:5	532:23 558:3	571:17
landmass (1)	leaving (2) 598:18	level (28) 377:7,8	567:15 571:10	list (5) 380:25
553:2	598:20	395:11 399:6,12	597:15	390:21,26 404:7
lands (8) 361:22	Leclair (1) 358:26	403:10 405:6	lifecycle (1)	528:8
416:6,12 547:7	led (2) 395:9	414:5 419:10	444:23	listed (5) 412:17
611:10,13,19,20	567:13	462:10,15,21	lifespan (1)	420:10 482:26
language (3)	left (5) 425:13	467:17 469:2	424:18	483:3 501:18
421:23 446:2	457:10 573:15	488:12,18	light (2) 531:11	listen (4) 371:12
547:1	573:17,18	497:18 524:20	572:7	372:2 421:19
languages (2)	leftover (1) 609:6	526:8 531:11	lights (2) 378:15	599:15
598:25 599:4	legacy (1) 404:9	538:14 547:26	584:3	listening (2)
Langway (1)	legal (41) 358:16	566:21 567:17	likelihood (7)	371:14 439:21
597:9	359:18,19 360:8	585:25 587:15	375:13,18	literature (2)
large (9) 396:3,22	361:5,26 378:26	587:23 597:16	376:10 469:2	459:25 461:23
401:8,16 465:13	379:2 382:13	levels (16) 377:17	525:18 526:12	litre (7) 464:2,11
548:1 556:21	384:10,12,14	395:7 396:8	526:26	475:5 507:7,10
602:12 606:6	385:25 389:10	412:13,16	limit (3) 477:3	507:13,17
largely (1) 529:5	389:12,13	424:15,26	555:22 613:9	litres (1) 375:5
larger (2) 453:17	390:19 391:11	464:15 465:7	limitations (1)	little (12) 376:18
525:24	393:5,8 417:19	467:11,20 475:3	477:4	390:16 411:4
lastly (1) 591:8	417:22 418:15	475:7 525:3,6	limited (35)	429:14,20,22
lasts (1) 582:14	436:25 437:1	535:18	358:18 364:7,10	454:3 506:23
late (1) 456:4	439:9 456:8,10	leverage (2)	364:17 365:11	517:2 549:22
latest (1) 523:1	475:19 479:9,11	567:18 595:19	366:5,15 367:22	569:23 570:2
Laura (1) 480:14	480:1 508:12,14	liaison (4) 528:16	367:26 368:14	live (3) 435:13
lay-down (1)	509:22 511:12	528:24 529:15	368:18 369:9	604:16 612:7
380:10	549:24,26 563:4	529:19	370:5 374:14	lived (1) 613:3
layer (1) 522:17	563:6,15	licence (17)	379:10,25 387:7	living (1) 435:12
layers (2) 557:20	legislation (8)	379:19 388:6	406:9 408:22	loaded (1) 610:7
557:23	389:17 440:5,9	389:7,19 413:3	429:2 434:1	loadings (4)
leach (2) 464:26	441:1,17 457:15	467:19 470:7	438:10 470:12	517:22,24
517:25	480:23 553:21	499:10 521:17	481:4 496:6,23	518:16 519:7
leachable (1)	Lena (3) 610:14	524:8 527:13	506:20 507:22	local (14) 402:16
523:9	612:21,23	539:11 544:17	508:25 531:3,7	402:22 421:13
lead (4) 512:11	length (2) 603:14	544:17,24	542:4 555:25	431:24 432:14
517:1 519:12	603:24	577:13 609:20	564:6 595:22	432:26 436:14
568:4	lengthy (1)	licence's (1)	LIMITED'S (1)	447:2 525:3
leader (1) 552:24	385:20	547:10	357:8	555:4 583:11
learned (7) 376:7	lessons (4) 376:7	licences (4) 547:3	limnological (1)	594:5 595:18
530:10,18	530:10,17	547:7 548:5	485:8	608:7
593:23 604:6,8	593:23	553:22	line (3) 387:17	localized (1)
604:8	let's (9) 372:2	licencing (5)	567:3 568:6	455:6
leases (2) 416:3	390:12,15	499:24 520:21	lines (1) 380:12	located (8) 380:21
565:17	455:25 506:3	523:18 544:12	lingering (1)	467:26 485:2

497:12 511:25 513:11 567:3 581:24 location (18) 400:23 422:21 458:12 468:7 476:3,25 477:12 478:20,23 494:4 566:23 567:11 571:18 572:24 574:9 577:17 608:19 612:6 locations (9) 458:16 474:16 474:23 476:23 477:2,10 494:2 522:17 558:23 logistics (2) 378:18 478:22 long (9) 403:1 451:4 536:10 545:18,24,25 546:19 572:11 602:18 long-distance (1) 455:4 long-haul (2) 571:23,25 long-term (11) 485:19 488:24 518:20 525:20 530:8 531:10 557:14,18 568:8 568:13 595:11 longer (3) 434:15 452:9 491:13 look (17) 376:2 386:5 398:19 410:6 435:3,5 439:20 454:16 454:21 477:10 477:11 516:13 547:19 551:22 578:8,10 598:2 looked (5) 376:4 514:18,23,25 554:11	looking (18) 397:10 402:12 402:14 405:25 421:25 435:2,8 473:20 475:24 477:1,14 504:21 507:25 572:10 584:7,9,11,14 looks (3) 376:1 470:26 573:11 lose (3) 503:17,18 574:16 loss (6) 381:14 483:20 487:12 488:25 594:20 594:24 losses (15) 481:1 483:26 484:10 485:16 486:5,9 487:1,21,25 489:3,21,23 490:15 494:14 594:26 LOST (6) 415:26 500:21 547:3 562:26 613:5,7 lot (17) 396:26 397:4 411:8,9 411:10 422:5 425:12 426:6 450:21,24 452:7 452:10 516:11 579:5,18 602:23 604:6 low (8) 396:1,1 491:2,3,3 505:12 517:12 593:13 low-flying (1) 436:15 low-powered (1) 458:17 lower (1) 572:8 lower-income (1) 451:11 Luis (15) 364:21 383:4 393:6	399:16 412:21 416:1 427:9 471:11 495:5,6 536:17 560:19 611:8,10 612:19 lunch (1) 455:25 LUNCHEON (1) 456:2 lunchtime (1) 455:25 M M (5) 358:22 360:2,13 363:8 363:10 Mablik (1) 363:6 Madam (213) 372:16,21 373:3 373:8 374:16 375:7,15 376:13 377:20 378:13 379:1,5,13 382:20 383:4,11 384:13 385:23 386:7,24 387:20 388:23 389:2,11 389:26 390:6,18 390:19 391:10 391:15,25 392:2 393:7,12,21 400:19 403:13 403:24 404:2,16 406:1,13,21 407:10,15,25 408:9,18,23 409:16,22 410:4 410:26 411:18 412:9,21 413:8 416:1 417:15,18 417:21,24 418:14,23 427:11,18,22 428:2,16,19,23 429:3,14,23 430:9 431:4,12 432:7 433:2,20 434:5 436:5,20	436:26 437:24 438:9,11 439:11 445:15 446:12 448:13,17,25 449:1,10,15,20 450:1,8,16 453:2 456:9,11 456:26 457:5 471:10,15 472:2 472:9,13,17,26 473:7,18 474:7 475:1,18 476:6 478:2,17 479:10 479:12,26 480:7 494:7 495:5,10 495:17,22 496:17,24 497:7 498:6,14,21 499:1 500:7,13 500:26 501:8,12 502:1,14 503:7 504:20 506:9,22 507:23 508:3,13 508:16 509:11 509:17,21 511:14,19 512:2 536:24 537:11 537:12 538:12 539:5,6 541:6 541:14,19 542:6 542:13,26 543:7 543:20,26 544:7 544:19 545:12 546:1,2 547:14 548:26 549:8,25 550:1,5 551:4 551:11 552:4,5 560:23 561:4,8 561:15,21,25 563:5,10,14,17 564:1,8 568:24 598:24 599:23 605:17 606:20 608:3,8,22,23 610:15 611:9 612:14,18,23 magazines (1)	554:7 Maghagak (10) 358:8 413:16,17 414:20 501:12 501:13 502:14 502:15 546:26 547:1 magnitude (2) 399:1 459:15 main (11) 384:22 385:5,12 395:5 406:10 466:6 483:4 524:20 565:17 576:19 595:17 mainland (2) 455:2,14 maintain (9) 422:19 426:21 481:18 483:23 553:1 555:21 566:21 596:12 597:16 maintained (2) 482:23 578:14 maintaining (1) 451:22 maintenance (1) 555:25 major (6) 375:2,3 376:4 422:4 534:14 548:13 majority (1) 422:3 majority-based ... 443:19 making (11) 383:25 384:6 427:1 509:9 512:23 513:18 539:21 562:23 591:22 601:23 604:2 Maksagak (1) 358:14 mammal (1) 373:12

mammals (4) 377:24 378:3,8 378:10	362:6,9 480:13	mark (17) 367:17 373:8 384:10 387:2 391:7 408:5 418:2 427:22 437:3 448:17 471:23 479:25 480:10 499:20 500:14 541:19 561:8	matter (5) 422:15 436:16 476:12 479:2 587:10	591:3,19 592:23 593:7,23 594:15 596:20,25 597:7 597:16 598:4 600:11,25 605:22 608:15 608:21 609:1,4 609:10 610:3,4 610:10
Mammoth (21) 380:14 488:4,5 489:10 501:19 507:12 519:3 520:16,19 521:12 573:15 573:17,18,21 574:1,3,11,26 576:15 594:11 595:2	managers (1) 586:23	marked (3) 391:3 391:13 393:10	matters (13) 379:5 393:12 407:2 418:17 439:12 442:22 443:7 457:1 476:11 480:2 511:15 551:5 563:19	Meadowbank's... 524:6
Man (1) 435:13	mandate (11) 428:7 440:9,17 441:3 457:14,23 458:5 477:23 480:22 481:16 552:14	market (2) 442:21 534:6	maximize (2) 520:12 567:24	Meadows (44) 358:16 379:1,2 384:13,14 389:11,12 391:10,11 393:7 393:8 417:18,21 417:22 418:14 418:15 436:26 437:1 439:9,9 456:9,10,26 475:18,18 479:10,11,26 480:1 508:13,14 509:11,21,22 511:12,12 549:25,26 551:3 551:3 563:5,6 563:14,15
manage (2) 433:13 468:8	Manitoba (1) 490:23	marking (1) 563:17	maximum (2) 521:19 523:5	mean (6) 385:5,16 499:9 544:16 585:22 592:18
managed (3) 414:24 528:15 597:18	manner (3) 394:8 440:1 441:5	marks (5) 516:16 535:5,6 542:11 542:17	mayor (1) 610:16	meaningful (2) 537:7,7
management (54) 361:9,10 362:5 376:1,10 395:12 395:16 396:15 397:17 398:16 399:5 400:6 402:26 410:9,11 413:23 415:9 438:24 440:23 447:15,21 462:14,20 463:7 463:15 466:11 466:18,20 467:2 467:23 469:23 482:16 491:15 491:19 492:3 511:23 514:16 515:22 519:14 520:3,13,24,25 527:24 532:22 532:24 533:4 543:6,12 558:14 558:21 568:3 583:16 594:4	manufacturer (1) 553:22	Martha (2) 608:10,11	Mayrand (1) 359:2	means (21) 381:5 396:2 491:2 521:23 539:21 580:26 584:19 587:7,16,23 589:7,26 590:1 591:3,14 592:9 593:17,25 594:13 604:15 611:12
map (8) 554:7 555:2 579:22,25 581:5,16,20,20	Manzo (28) 361:22 364:21 383:4,5 393:6 393:21 399:17 407:9 412:21,22 416:1,2 427:9,9 471:10,11 495:5 495:5,6 536:17 536:17 548:26 560:19,19 611:9 611:10 612:18 612:19	Mary (3) 371:4,6 425:1	Meadowbank (...) 358:19 374:21 379:23 380:18 395:9 396:16,19 399:24 404:5 413:20 414:22 419:22 422:8,20 423:1,12 424:16 429:19 433:26 453:6 468:15 474:17,19,23 493:4,7 497:13 497:13,19 498:1 505:4 507:15 519:15 522:22 523:13 534:19 551:25 556:11 560:5 564:26 565:2,6,18,23 566:6,13,22 567:1,15,16,19 567:23,25 570:1 570:15,18,22,23 571:11,17,21 572:24 574:21 575:14 576:2,3 576:19,22 577:13 583:5 584:16 589:2	meant (1) 458:13
mapping (2) 554:21,25	maps (3) 555:1 579:20,22	matched (1) 399:4		measurable (1) 488:14
Mare (2) 359:14 377:20	marginal (1) 526:7	material (21) 380:10,16 465:11 470:14 513:23 517:13 517:18,26 518:3 519:16 520:4 522:20 523:9 535:13 555:26 556:14 575:26 576:2,6 577:20 593:13		
marine (11) 362:10 373:11 377:24 378:3,3 378:4,5,8,8,10 378:10		materials (3) 384:18 456:14 509:25		

measure (4) 465:5 476:21 526:14 526:18	460:10 513:18 514:4 569:14	596:2,18	488:7,13 518:16 521:26 523:1,3 555:20 556:4 573:8 586:5 609:11	596:13 597:3
measured (1) 603:24	meets (4) 574:4 576:17 577:19 606:8	mentioned (19) 371:10 398:10 424:7 438:18 505:4,17 521:23 543:2 570:17 571:14 575:2 587:2 588:12,18 590:3 593:1 594:9 598:7 608:5	metric (1) 572:14 metrics (1) 503:26 Mexico (1) 565:13 mic (2) 371:6 407:14	mind (1) 606:11 mine (40) 379:23 386:14 396:19 402:8 414:6 424:16,22 465:24 474:21 497:14 498:1,2 505:4 514:15 524:2 545:25 554:3 557:24 558:12 565:2,18 565:23 567:16 571:10 575:12 578:12 583:5,8 583:23 586:10 591:3 597:15,18 600:5,9 605:13 605:16 607:12 608:5 615:17
measurements (...) 477:8 503:25	megawatts (1) 575:26	mentioning (2) 571:11 572:11	micrograms (2) 464:1,10	558:12 565:2,18 565:23 567:16 571:10 575:12 578:12 583:5,8 583:23 586:10 591:3 597:15,18 600:5,9 605:13 605:16 607:12 608:5 615:17
measures (39) 399:23 401:1 402:16,19 405:24 419:25 423:7,9,21 442:21 444:1,3 444:26 447:2,8 447:9 454:9 459:18 460:3 461:26 466:25 482:17 483:14 483:16,17,23 486:1 488:25 492:18 494:5 503:3 518:22 521:6 525:19 529:21 531:8 532:19 577:18 595:3	Meliadine (8) 403:26 416:10 534:20 565:19 575:8,9 576:3 596:25	mercury (8) 467:18,22 468:25 469:11 469:14,15,22,26	mid-November ... 380:5	mine's (1) 558:3 mine-related (1) 467:13
measuring (1) 492:5	Melissa (13) 367:8 373:4 386:25 407:26 427:19 448:14 456:25 457:8 475:13 477:21 495:18 541:15 561:5	meromixis (2) 526:17 527:3	middle (2) 515:3 572:26	mined (1) 605:23 mineral (3) 441:9 441:13 548:13
meat (7) 605:11 606:17,17 607:5 607:12,26 608:7	member (16) 358:5,6,7,8,9 376:15 450:2 500:19 501:13 502:15 545:13 611:23,25,26 612:1,1	mesotrophic (1) 489:17	migrating (1) 413:20	minerals (2) 441:15 552:26
mechanisms (1) 488:16	member's (1) 432:9	message (2) 539:14,22	migration (4) 413:24 455:2 468:9 572:3	Mines (39) 357:8 358:18 364:7,10 364:17 365:11 366:5,15 367:22 367:26 368:14 368:18 369:9 370:5 374:14 379:10 387:7 408:22 429:1,2 438:10 443:16 443:18 449:9 472:12 496:5,6 496:23 504:23 506:20 507:22 508:25 511:6 542:3,4 561:20 564:6 569:3 620:10
media (1) 404:6	members (25) 371:21 379:13 385:15 386:3,4 393:22,24 405:9 406:5 414:8 457:6,6 480:7,9 491:1 500:22 537:8 538:17,22 539:2 540:22 552:5,10 562:20 610:25	met (2) 395:11 402:11	migrations (1) 421:3	Minimal (1)
medical (1) 500:19	memorandum (3) 429:7,9 548:10	Metal (2) 507:3 507:10	migratory (17) 423:13 458:9 459:4,8,9,16,22 460:6,11 461:4 461:7,16,21 462:26 463:2,6 463:9	
meet (5) 537:24 574:5 584:17 585:4 606:9	mental (5) 426:1 435:2,4,9,16	metal-leaching ... 517:12 519:16 522:20	miles (1) 600:26	
meeting (14) 371:5 460:24 461:6 462:5,6 470:10 514:2 515:9,9,15 535:7 552:20 558:6 578:13	mention (6) 406:23 475:4 478:15 507:2	metals (5) 470:12 470:21 507:5,5 552:26	military-grade ... 584:12	
meetings (4)		meter (2) 376:23 377:5	mill (13) 423:12 433:25 570:16 570:18 571:8,21 576:24 589:3 591:5,17,20 592:23 609:5	
		method (1) 455:3 methodology (3) 514:12 528:19 535:18	milligrams (5) 475:5 507:6,9 507:13,17	
		methods (4) 454:1 454:5 468:12 604:4	million (7) 381:19 401:6 403:20 404:14,20	
		methymercury... 468:25 469:3		
		metres (15) 374:22 376:4 380:19 465:16		

529:13	mitigation (48)	557:17 558:25	419:19,21	559:12 560:3,3
minimize (2)	392:11 394:17	578:22	420:26 421:3,12	560:4,5,6,11,13
467:11 568:4	395:19,24 397:7	models (6) 464:4	421:14 423:19	565:3 568:3
minimized (1)	399:11 400:26	464:8 522:24	424:18 429:7,13	569:16 578:1,2
455:17	402:16,19 403:9	523:12,14,16	430:16 431:25	578:3,5,20,22
minimum (3)	405:23 419:21	modern (1)	432:15,17,19,26	579:21 583:4,14
586:8 596:11,12	421:11,14	441:26	433:17 434:17	583:22 584:8,20
mining (20) 359:5	423:15,19	modest (1) 465:16	438:23 442:19	585:5,10,13,16
379:23 401:9,15	442:21 444:19	modification (1)	444:7,15,26	585:17,18,26
425:19 435:24	444:21,26 447:2	534:26	447:14,20 454:1	586:1 587:15,16
436:3 441:9,13	447:8,9 459:18	modifications (1)	454:5 455:7	587:24 588:17
507:2,3,10	460:3,17 461:26	378:15	458:13,18,21	589:8,17 590:4
530:11,16 559:9	483:17 494:25	moisture (1)	460:17 461:25	591:26,26 592:7
568:12 576:26	515:1 518:21,22	470:21	462:6,7 466:21	593:7,26,26
608:1 610:3	521:6 525:19	moment (3)	466:26 469:26	608:5
611:7	526:14,18 529:7	432:24 434:3	470:3,4,6	months (3)
minister (10)	529:21 531:8	506:16	474:15,17,18,20	395:15 451:15
360:24 385:24	532:18 543:3	moments (1)	474:23 476:3,18	584:19
386:12 482:13	565:3 579:22	500:15	477:20 481:3,15	morning (13)
483:3 512:18,19	585:13,19 586:3	money (4) 383:26	485:8 491:15,18	371:2,3 372:16
512:21 547:17	587:24 588:17	405:1,12 601:23	491:25,26 492:2	379:13 395:21
615:15	mix (2) 557:20,22	monies (2) 404:24	492:4,6,11,13	408:9 409:1
ministerial (1)	mixed (1) 436:9	405:7	492:17,21,24,25	417:16 418:24
384:2	mixes (1) 554:1	monitor (30)	493:3,13,16,20	598:18,19,20
ministers (2)	mixing (6) 412:26	394:4 413:24	493:26 494:4,17	613:11
512:23 547:18	484:16,24 485:6	416:4 433:24	494:26 497:3,17	mortalities (1)
Minster (1) 482:7	519:3 520:18	434:22,23	498:1 500:10	463:3
minute (2) 411:9	mode (2) 371:17	440:26 458:14	502:2,4,10,16	mortality (1)
512:17	605:2	460:2 484:16	514:26 515:22	463:9
minutes (8)	model (17) 377:13	533:26 538:19	516:7 518:22	motion (2) 553:26
379:14 390:11	464:5 467:1	547:12 557:23	520:9,10,10	582:1
390:16 397:11	470:5 522:21,23	578:8,10,11,12	521:3 527:10,11	Motions/Object...
401:8 433:9	522:26 524:6	578:16 583:1	527:12 529:8,11	364:5 372:15
456:4 577:26	557:9 558:14,21	593:2,3,4,7,8,11	532:15,18,20	motors (1) 598:10
minutes' (1)	559:1,2,8 567:7	593:16,17	533:1,5,8,12,17	MOU (3) 416:7
390:8	575:2,2	595:10 605:3	533:24 534:4,7	421:4 429:11
mislabelling (1)	modeled (1)	monitored (3)	534:9,12,18	move (12) 438:8
375:10	466:15	416:13 545:18	536:8 537:26	503:12,17 504:4
missing (1)	modelling (24)	546:22	538:1,17,24	571:20 580:7
538:21	377:1,12 464:14	monitoring (196)	539:3,18 543:15	582:12 591:1,2
mission (1) 394:7	466:20 469:11	392:13,21	545:25 546:7,8	592:9 601:17
mitigate (2)	469:22 474:11	394:18 395:19	546:10,11,15,18	610:5
481:25 482:17	474:20 518:13	395:24 398:23	546:20 548:12	moved (4) 395:15
mitigated (6)	519:1 520:17,20	399:8,11,21	548:21 549:5	581:14 592:16
381:25 401:16	521:12,16 522:2	402:21 403:8	551:13,20 552:1	610:5
401:17 515:19	522:7,12 523:26	405:19 413:18	556:11 557:26	movement (3)
530:8 536:2	556:3,6 557:8	414:4,16 415:1	558:3,19,22	434:23 555:22

movements (13) 396:7 398:6,19 455:5,6 580:4 580:18,19 581:10,11 582:2 582:4,15	428:18,20 448:26 449:2 458:1 472:5,6 477:24 495:24 495:26 522:10 541:22,24 549:18,23 550:4 550:10,13,16,19 550:22,25 551:7 551:8,17 552:3 552:8,13,16,21 552:23,23 553:4 553:6,8,10,12 553:17,19,21 554:5,24,26 555:5,9,11 556:4,9 557:3 557:12,25 558:9 558:17,26 559:4 559:7,10,16,23 560:1,10,17 574:2 576:13 620:16,20,24 621:1,5,9	need (33) 371:14 390:11 403:7 415:24 419:16 419:19,20,22,24 419:26 420:14 420:26 422:8 423:1 424:6 429:10,12,18 435:10 450:5 454:18 485:2 518:23 526:24 533:26 540:21 563:26 564:2 588:7 589:11 593:14 600:9 612:4 needed (1) 590:17 needs (3) 428:9 540:22 545:22 negative (3) 419:9 487:11 524:25 negatively (2) 404:4 484:19 negotiated (1) 431:24 negotiation (1) 596:3 Nemo (2) 501:19 575:16 net (1) 419:4 nets (3) 601:26 602:2 603:20 network (1) 560:14 never (1) 612:24 Nevertheless (1) 591:23 new (7) 378:20 395:11 413:26 567:21 572:12 596:16 610:6 newly (3) 489:11 518:15 525:26 news (1) 404:6 nice (1) 395:16 Nicoll (1) 363:25 night (1) 378:18	nine (2) 514:9 573:9 NIRB (18) 379:15 379:17 381:4 383:16 384:1,4 384:7,9 413:17 453:3 473:24 494:24 504:3 528:2 531:17 547:13,18 581:19 NIRB's (1) 509:14 nitrate (1) 535:18 no-diffusion (2) 524:19 525:10 noise (11) 376:19 376:23 377:1,5 377:7,11,13,13 377:17 598:9,11 noise-monitori... 376:20 non-acid (1) 517:11 non-essential (1) 586:6 non-mining (1) 402:6 non-mixing (3) 484:16,24 485:7 non-potentially... 555:19,23 non-renewable ... 441:5 normal (3) 464:5 587:6 589:1 normally (1) 554:2 Norman (1) 597:9 north (31) 464:22 465:3,10,11,14 465:21 466:3,4 468:1,3,5 485:18 526:1 568:7,16 576:9 576:14,16 577:4 577:11,15,16	580:8,9 581:14 588:23 594:9,10 594:13 603:10 606:4 Norther (2) 369:10 542:5 northern (75) 361:7 362:5 364:16 365:25 368:23 369:7,13 369:16 373:16 385:24 386:13 387:4,6,9 388:12 400:4 408:7,10 427:25 428:1,3 448:20 448:23 468:13 469:15 471:26 472:3 495:20 508:10,17,25 509:7,18,26 510:2,7,12,17 510:22 511:1,7 511:18,20,24 512:20 514:8 530:16 536:15 536:23 537:1,13 541:3 542:8,14 542:18 543:8 544:5 545:11 546:4 547:5,15 547:24 548:9 549:9 560:7 561:11,14 615:16 618:17 619:1,8,15,22 620:3,11 northwest (2) 478:6,11 Notably (1) 524:26 note (8) 380:26 428:5 447:11 455:12 481:10 485:24 487:19 540:10 notebooks (1)
N				
Nakoolak (1) 363:6 name (8) 457:8 480:10 516:26 546:5 550:9 552:6 600:2 611:10 Nanordluk (1) 363:7 Nateela (9) 359:25 365:20 418:12 432:4,7 432:8 536:24,25 538:11 Nathaniel (1) 597:9 national (1) 555:1 Nations (1) 401:13 natural (79) 362:1 369:20,22 373:21,22 388:15,16 408:13,14	naturally (1) 573:15 nature (3) 516:5 533:16,18 Naujaat (4) 363:5 363:6,7,8 near (3) 376:23 377:4 481:21 nearby (2) 377:18 589:11 nearest (1) 580:25 nearing (1) 589:15 Neary (2) 361:10 512:14 necessarily (4) 396:20 404:21 421:20 544:16 necessary (4) 425:26 455:19 494:17 554:3 necessity (1) 451:21			

582:25	587:21 588:6,8	410:13,18	499:2 500:5,8	Nunavut-wide (1)
noted (5) 442:18	590:1 594:26	411:12,14,15,22	501:9,13 503:8	450:13
465:8 470:11	615:4	411:25 412:1,3	506:10 507:21	NuPPAA (1)
496:26 533:22	numbered (1)	412:5,7,10	507:24 508:14	379:20
notes (10) 469:7	410:3	413:3,7,9,11,14	509:22 510:5,10	nutrient (1)
479:16 484:11	numbering (1)	414:6,9,18,25	510:15,20,25	489:22
486:8 492:1	411:2	415:3,5,7,8,10	511:4,13,24	nutrients (1)
515:9 530:25,26	numbers (7)	417:11,22	512:24 513:2,13	491:4
554:26 614:6	396:1,2 450:6	418:15,26 420:5	513:17 521:10	
notice (2) 435:22	455:20 487:4	423:17 424:21	524:1 531:23	O
566:11	503:21 572:5	425:7,9 426:4	532:4 534:10,16	objection (2)
notifications (1)	numerous (2)	426:16,23,24	537:19 538:1	372:18,23
587:17	447:22 604:25	427:12,14 428:6	540:6,7 541:9	objections (8)
notify (3) 585:22	Nunavummiut ...	428:15 429:17	541:11 543:24	372:10,26 373:5
587:16 589:18	426:8 441:6,16	430:5,7,10	544:1,3,5,22,23	373:10,18,23,26
noting (1) 428:13	Nunavut (347)	431:3,5,9 433:7	545:10,13	385:26
November (2)	357:7,15 358:3	436:24 437:1,5	547:16 549:26	objective (9)
380:5 584:26	358:11,21	437:8,10,13,15	551:3,20 560:9	463:26 464:10
NRCan (2)	360:16 364:19	437:18,20,22	560:11,13,25	464:18 507:1,13
500:21 559:16	365:9,13,16	438:17 439:10	561:1,23,26	507:16 518:17
NRCan's (1)	366:7,11,19,22	439:15,17,18,19	562:2 563:6,15	520:11 596:1
559:25	366:26 367:5,6	439:24 440:13	564:16 565:5,15	objectives (6)
NTI (1) 403:26	367:14,25 368:5	440:19 441:3,23	565:16,25,26	464:20 467:3
NTI-registered ...	368:8,11,17	442:6,16,25	566:1,7 568:7	482:16 507:4
596:15	369:12,15	443:3,9,16	568:10,13,18,21	578:13 595:17
number (55)	370:11 371:11	444:24 445:3,5	575:20 578:26	obligations (1)
371:3 374:19	372:24,26 374:8	445:11,13,21,26	579:1,24 580:16	407:20
375:24 390:22	375:8 379:2,17	446:11,25 447:5	580:21 581:4,20	observational (2)
391:13 392:7	379:21,26 380:6	447:21 448:3	583:8,18 584:16	522:22 523:12
395:9 396:21,22	381:12 382:21	449:13,16,18,21	590:5,6,24	observations (3)
397:8 399:19	384:14,19,23	449:25,26 450:2	595:22 597:1,12	420:20 455:5,6
404:19,21,23	385:9,10 386:11	450:6,10,17	599:7,16 607:6	observe (1)
410:8,10,14,20	386:17,19	451:5,9 453:7	607:8,16,18	434:23
410:24 411:3,5	388:21,24,26	453:14,26 454:4	611:17 612:12	observed (2)
412:13 423:11	389:1,5,6,8,12	454:8,12 455:3	615:14,22	396:18 587:20
442:7 443:6	389:14,17,18,22	456:10,18,23	616:23,25 617:3	observer (2)
444:2,13,17,19	390:23,24 391:7	457:17 461:11	617:5,9,12,16	590:2 599:11
444:21 454:18	391:11,18 392:5	463:4 471:4,19	617:21 618:3,9	obtain (1) 405:1
455:16 462:4	393:8 394:5,20	471:21 472:15	618:14,21 619:5	obtained (2)
464:21 466:14	397:3,23 398:5	472:18,24 473:1	619:12,19,26	383:21 461:20
467:7 468:18	398:18,22,26	473:3,5,8 475:2	620:7	obviously (1)
469:12 475:3	400:9,12 403:4	475:19 478:3	Nunavut's (11)	423:20
505:3 507:6	404:8 405:15	479:11,19,23	399:13 426:14	occasionally (2)
514:5 521:14	406:19,20,22,25	480:1,16,25	440:8,16 441:12	389:13 454:19
524:4 525:12	407:17,21	483:7 495:12,14	441:24 442:2	occur (11) 375:22
530:24 558:5	408:26 409:8,13	496:20,22 498:4	445:18 446:17	375:25 378:23
578:5 579:8	409:18,20,23	498:7,24,25	451:10 453:5	399:2 486:21

489:26 490:1 493:19 520:6 545:21 546:20 occurred (2) 378:19 529:4 occurring (1) 398:22 occurs (3) 526:9 526:22 554:19 ocean (2) 600:24 601:21 Oceans (112) 360:1 367:19,23 368:6,9,12 373:7,9 387:1,3 408:3,4 427:21 427:23 448:16 448:18 471:22 471:24 479:7,14 479:17,21 480:5 480:11,13,15,17 481:5,9,13,17 482:7 483:2,5 483:26 484:1,4 484:11,14,17,21 485:1,4,11,14 485:17 486:2,8 486:11,19 487:3 487:7,13,16,20 488:10,16,20,26 489:7,10,21 490:2,8,12,16 490:21 491:17 491:24,26 492:7 492:16,23 493:5 493:9,10,17,25 494:3,7,10,16 495:4 496:7,16 496:26 498:5,9 498:13,25 499:4 499:11,21 500:6 500:9,15,25 501:1,26 502:13 502:20,21 503:20 504:19 505:19 506:2 541:18,20 561:7	561:9 618:7,12 Oceans' (1) 480:22 October (1) 614:9 office (6) 362:5 436:16 511:24 512:14 513:2 575:13 officer (9) 360:12 361:10 362:3 436:18 500:12 501:7 552:7 590:6,24 officers (2) 501:1 548:7 Official (2) 614:15,21 offline (1) 537:24 offset (15) 399:10 481:25 482:17 483:15 486:6 487:2,26 488:25 489:4 492:18 494:6,8,15 594:25,26 offsetting (18) 470:4 481:15 483:13,16,23 485:1 486:1,14 487:19,22 488:8 489:24 492:10 494:13 503:3 594:6,20,23 oh (3) 502:9 508:7 573:2 Ohokannoak (5) 358:9 500:7,8 501:8,9 oil (1) 576:7 okay (32) 374:2 383:3 390:4,12 390:15,17 393:2 400:14 402:18 403:12 407:22 416:19 417:4 429:20 430:4 436:21 439:7	455:25 456:4 476:23 477:25 491:10 504:23 506:5 508:5,7 540:20 541:1 551:16 562:8 577:24 611:8 oligotrophic (6) 489:17 490:11 490:12,25,25 491:2 omit (1) 487:8 on-site (5) 501:7 586:23 591:11 591:22 595:1 once (14) 450:22 450:26 458:18 473:15 477:2,10 477:15 482:10 543:12 571:4 572:13 574:19 577:20 610:4 one-dimensiona... 556:2 ones (8) 410:2 420:11 434:12 539:12 547:22 566:4 601:26 608:20 ongoing (11) 378:5 405:4 415:9 442:15 481:18 482:14 517:21 533:16 534:4 536:7 595:20 onset (2) 518:23 520:7 open (20) 371:5 371:13 401:8 402:1,6 404:5 407:1,18 556:19 557:1 562:16 563:2 567:14 569:13 574:4,25 598:21 600:6,9 606:7	open-pit (4) 565:24 566:14 566:17 596:5 opened (2) 576:17 597:10 opening (2) 371:8 600:5 operate (3) 424:25 570:23 571:3 operated (2) 424:21 533:19 operating (4) 399:22 439:1 548:2 571:23 operation (21) 507:15,15 514:21 518:19 520:26 521:13 554:4,6 564:22 565:1 566:14 568:18 570:14 573:12 575:4,21 597:7 598:9 608:15 609:1,14 operational (6) 466:10 515:18 536:1 570:9,11 574:19 operations (28) 387:25 440:26 444:9 469:20 487:10 493:19 503:24 531:9,21 534:14 559:10 571:1 573:19 574:24 575:11 578:23 579:15 585:8 586:14 587:6 588:3,20 589:13 592:22 593:8 594:21,25 605:13 operators (4) 586:24 587:1,18 589:10 opinion (3)	400:24 519:20 530:13 opportunities (3) 419:6 432:25 597:11 opportunity (14) 371:22 393:23 416:23 419:1 439:20 471:5 480:18 500:23 512:3 567:6,15 567:17 596:14 597:15 oppose (1) 599:19 opposed (1) 383:15 optimal (1) 466:24 optimistic (1) 525:12 optimize (1) 520:13 options (5) 460:18 469:23 485:1 490:17 572:10 order (11) 383:24 465:21 469:22 474:14 482:8 534:11 548:13 555:20 558:13 593:21 612:11 ore (10) 401:7 567:22 570:14 571:23 575:1 576:26 591:2,15 591:19 610:6 organ (1) 607:25 organization (75) 359:23 364:14 365:6,23 366:9 366:13,25 369:6 372:20 377:23 383:8,10,13 385:22 386:11 400:16,17,21 403:5 405:21 406:4,15 414:10

417:13,26 418:5 418:9,22 419:2 422:23,25 423:8 423:20 427:8 430:8,12,19 431:10,15 435:4 435:21 436:7,23 438:15,21 439:25 443:15 443:22 446:9,10 446:14 471:14 486:4,26 494:22 495:9 536:21,22 537:15 539:26 560:22 564:17 583:10,20 584:23 585:3,24 589:23 590:9,23 591:12 612:2 615:14 616:14 616:19 Organization's ... 446:16 Organizational ... 583:13 584:1 organizations (3) 415:12 425:20 538:2 original (4) 464:23 521:20 530:5 535:10 Ottawa (2) 438:20 585:4 ought (1) 405:8 outcome (2) 537:3 538:6 outcomes (2) 483:18 534:3 outdated (1) 426:6 outline (1) 552:13 outlined (3) 457:16 459:7 532:17 outlines (1) 441:17 outlining (2)	484:23 493:11 outpost (1) 613:3 Outreach (1) 358:15 outside (10) 426:11 473:10 473:13 485:2 497:13,14 532:6 581:1 582:12 607:12 outstanding (25) 419:12 420:6,25 421:8 422:5 423:18 440:10 442:24 443:7,10 457:20 458:22 459:3 461:13 463:22 472:21 472:23 481:7 496:12,18 514:7 515:25 517:2 518:12 542:19 overall (4) 415:8 487:14 514:12 584:22 overarching (1) 441:8 overburden (1) 575:1 overlaid (1) 580:14 overloading (1) 489:23 overseeing (1) 421:14 oversight (2) 425:17,21 overtime (1) 545:21 overview (7) 370:6 480:22,24 563:23 564:7,26 621:16 owes (1) 450:26 owned (1) 531:21 oxidation (2) 545:20 555:22	P P (3) 358:6 362:23 363:3 package (7) 520:23 521:9 523:20 527:15 529:26 531:25 532:8 pads (1) 570:7 page (9) 364:3 365:3 366:3 367:3 368:3 369:3 370:3 509:10 615:4 pages (1) 614:4 panel (3) 437:26 438:6,7 Panigoniak (1) 362:19 Paradis (6) 359:4 369:25 563:13 564:8 595:15,16 parameters (3) 492:5 507:5 557:9 parnautiit (1) 441:12 Parsons (1) 361:11 part (39) 399:2 415:1 433:17 434:21 436:9,10 445:1 455:2 461:3,9 462:7,9 482:2,18 500:10 502:23 520:20 523:17 527:13 530:14 540:13 544:12 557:12 558:5 560:6 565:10 569:8 573:6 577:12 579:2 584:20 596:19 597:13 603:12,13,23 607:11 609:7,12	partially (1) 521:1 participant (9) 415:17 513:3 537:4,17 538:6 540:2,6,10,15 participants (3) 384:16 386:4 583:17 participate (5) 430:14,25 431:25 533:7 537:20 participated (2) 514:1,4 participates (1) 405:20 participating (3) 430:22 470:26 512:6 participation (10) 419:20 421:11 425:25 429:12 431:17 441:7,22 513:15 538:9 564:12 particular (13) 400:7 416:5 419:5 424:10 425:23 430:16 432:14 459:10 529:4 531:5 537:5 586:2 612:8 particularly (6) 443:7 447:6 482:24 531:1 533:23 539:11 particulate (7) 458:13,18 476:3 476:11,12,14 479:1 parties (12) 372:9 412:6 423:10 429:25 443:25 457:7 460:5 461:18 463:13 509:15 596:4	599:9 partnering (1) 569:7 partnership (3) 548:19 568:10 569:3 parts (1) 460:13 pass (8) 394:25 399:15 420:2 439:5 451:24 577:22 591:6 595:12 passage (1) 482:22 passed (1) 592:8 passive (2) 476:16 519:6 path (1) 595:24 pathway (1) 378:7 patiently (1) 417:6 pay (3) 450:22 451:2,12 payload (1) 572:14 payment (2) 596:17 597:1 PC (1) 429:11 pen (1) 582:25 pending (2) 516:17 542:22 people (33) 358:25 371:24 371:26 382:8 416:20,21,25 418:24 423:25 431:17 432:14 432:14 450:21 450:25 451:16 452:3,5,7,16 455:10 504:9,16 508:1 538:20 569:2,4 575:13 597:23,26 602:1 602:23 612:6 613:2

people's (1) 425:24	permitted (2) 385:9 565:20	464:15,19 489:13 490:17	456:25 457:5,8 475:13,13	577:1 579:7,12 582:19 584:6,21
percent (23) 424:17,19,24 425:1,6,8,11 430:26 447:12 450:23 464:24 504:5,6,7 505:15 518:2 519:10 539:15 580:23 581:1 596:11 604:16 604:17	permitting (1) 387:26	photo (5) 554:22 572:16,16 575:8 577:5	477:21,21 495:17,18 541:14,15 561:4 561:5	585:21 586:13 586:13 589:2 591:2,4,15,18 591:18 592:22 593:9,18,24 594:8,16,24 605:6,19,23,26 606:1 608:26 609:3,7,9,15 610:4,6,8 616:16,21,25 617:5,22 618:4 618:20 619:4,11 619:18,25 620:6
percentage (2) 504:17 606:1	perpendicular (1) 399:24	physical (1) 485:20	pit (154) 357:9 376:26 377:10 377:11 379:25 380:3,7,11 381:4,9,18,23 388:9 398:11 399:22 401:8 414:22 418:6,10 422:16 423:12 433:26 437:10 437:15 439:1	Pit/Meadowba... 564:23
perform (1) 524:26	perpetuity (2) 468:5 488:18	physically (1) 546:12	456:19,24 458:14 464:22 464:23,24 465:6 465:8,11,20 476:26 479:3 484:17,18,24 485:7,26 497:15 497:20 498:2 503:23 507:16 510:5,10,15,20 510:25 511:4 512:24 513:3,16 516:4 524:11,14 524:21,22 525:4 525:14,23 526:10,16,20,25 527:5,12,23,24 552:15 553:15 554:1,11 556:18 556:24,26 557:2 557:5,15,19,20 558:2 564:19,25 565:1 567:14 569:22,26 570:13,15,23 571:3,10,18 572:23 573:21 573:26 574:15 574:25 575:6,23 576:11,12,22	pits (12) 574:22 574:23 575:4 576:23,25,26 577:1 605:2,8 605:24 606:4,6
performance (1) 569:17	Perrin (1) 360:21	pickup (1) 572:20		place (18) 375:19 375:26 397:17 401:23,25 411:15,24 415:23 421:10 423:15 432:1 447:23 458:19 545:25 548:11 595:20 596:25 607:20
performed (2) 522:2 527:3	pertaining (1) 400:22	piece (2) 569:13 569:15		placed (1) 577:15
period (4) 397:13 500:13 546:6 605:7	Pertrucci (1) 359:5	pile (6) 400:1 517:21 519:23 522:18 535:14 555:23		places (1) 507:26
periodic (2) 466:22 545:22	pH (1) 470:21	Pingushat (1) 362:20		plan (75) 395:16 396:15 397:17 402:26 410:9,9 410:11 438:24 451:19 458:21 458:26 460:7,12 460:13,14 461:5 461:7,16,18 462:10,11,15,16 462:20,21 463:15 470:4 481:3,15 487:19
permafrost (23) 477:19,20,23 514:18 551:13 551:20,26 552:1 552:17 553:14 554:10,12,13,15 554:18,19 555:1 555:3 556:16 557:5 560:3,12 560:13	phase (36) 471:2 484:5,8 486:4 486:26 487:18 487:25 488:1 489:3,5 490:6 492:16 494:24 496:13,19 499:7 499:7,9,12,19 499:19,22,24 500:11 515:19 517:16,23 518:15 536:1 543:16 557:25 574:18,18,19,19 576:10	Pinkish (1) 572:24		
periodic (2) 466:22 545:22	Phaser (5) 505:7 505:14 574:22 574:23 605:25	Pinksen (44) 360:24 366:17 372:25,25 386:18,18 406:21,22 407:15 408:26 409:5 412:2,2 415:6,6 427:13 427:13 439:8,16 439:16 445:25 445:25 447:4,4 448:2,2 450:9,9 451:8,8 453:13 453:13 454:11 454:11 471:20 471:20 495:13 495:13 541:10 541:10 560:26 560:26 607:17 607:17		
permanent (2) 482:5 488:19	phases (5) 487:4 501:21 514:20 558:23 570:3	Pinto (25) 360:13 367:8 373:3,4 386:24,25 407:25,26 427:18,19 448:13,14		
permanently (3) 488:6,11 517:10	Phillip (4) 449:24 450:1 545:9,13			
permission (1) 380:1	phones (1) 371:16			
permit (3) 470:14 571:20 611:20	phonetic (1) 611:16			
permits (3) 566:18 609:21 609:23	phosphorous (4)			

487:22 488:3,8 488:11 491:25 492:2,3,4,5,6,13 492:21,25 493:4 493:13,16 494:13 504:18 519:14 520:25 530:5,6 531:15 531:17 532:1,2 532:4 546:20 557:23,26 558:14,19,21 559:12 567:24 569:9 573:26 583:4 594:6,19 594:20,23 595:7 611:14,16 planned (5) 460:15 491:26 508:20 555:13 565:21 planning (19) 360:26 385:10 466:24 490:18 490:22 516:5 529:17 530:17 530:20,23 531:11 536:5 568:14 569:10 569:12 578:21 610:26 611:17 612:12 plans (30) 375:20 423:19 433:11 438:23 447:22 466:18,21 488:19 492:8 514:22 520:3,9 520:11,19,25 521:3,6 527:10 527:24 530:11 530:14 531:7,19 532:8 534:7,8 535:14 558:15 560:6 568:3 plant (4) 491:3 567:23,26	575:14 plants (2) 467:24 575:25 platform (1) 569:13 playbook (1) 579:25 please (14) 371:6 371:16 386:5 389:4 417:7 435:25 476:4 499:3 502:8 550:9 562:13,24 563:12 607:10 pleasure (1) 511:25 plus (3) 435:26 571:12 609:23 PM (4) 456:2,3 540:25,26 PM10 (1) 476:13 PM2.5 (1) 476:11 point (14) 378:2 389:24 416:3 426:6 438:7,26 446:15 450:3,4 458:22 501:6 516:9 558:1 604:11 pointed (1) 377:25 pointer (1) 554:9 points (4) 429:4 438:13 481:7 542:7 Poksiak (1) 363:15 policies (6) 440:9 457:25 480:23 483:9 553:7 599:10 policy (4) 440:5 483:9,12 569:12 political (1) 394:10 politically (1) 566:2	Pollution (1) 458:7 pond (11) 466:23 467:25,26 468:1 468:16,21 573:20,22 574:25 575:5,16 pool (1) 595:23 Poole (10) 361:24 364:21 393:6 395:1 401:2 402:24 410:26 414:2 445:15,16 Poolee (6) 394:26 395:1 401:2 402:24 411:1 414:2 population (3) 399:3 453:18 485:24 populations (3) 378:5 455:18 485:10 Portage (3) 574:22 576:23 605:24 portion (3) 372:12 484:25 488:4 portions (1) 577:15 posed (1) 551:11 position (1) 446:16 positive (2) 487:15 524:25 possibility (1) 396:4 possible (7) 379:25 415:20 423:24 440:18 463:7 494:8 501:5 possibly (2) 477:13 575:19 post-closure (22) 465:25 484:14	485:19,26 493:19 515:20 517:6,16,23 518:15,25 519:23 530:10 536:3 543:2,16 546:7,8,10,11 557:25 570:21 posted (3) 389:21 539:12 581:19 potential (52) 394:13 395:3 397:24 398:7 399:20 402:15 403:10 423:14 447:1,15 458:24 459:16 462:12 464:26 465:4,22 466:16 468:8 484:24 485:9 486:9 489:9 513:25 514:16 514:25 515:18 516:1 517:5,12 518:4,23 519:15 519:23,26 520:7 522:18 523:6,8 526:14,21 527:1 531:10,15 532:18 533:21 535:26 536:8 543:17 556:19 566:3 596:23 597:11 potentially (2) 494:23 589:16 power (12) 398:14 399:8 476:17 477:5,6 477:7,13 478:23 478:26 572:17 572:19 575:24 powered (1) 477:13 PowerPoint (39) 379:7 393:10,14 456:17,22	479:18,22 510:3 510:8,13,18,23 511:2 550:11,14 550:17,20,23,26 563:21 615:7 616:8 617:20 618:2,8,13,18 619:2,9,16,23 620:4,17,21,25 621:2,6,10,14 powers (2) 421:24 428:14 practices (5) 374:20 394:15 441:26 519:18 594:2 Prather (1) 359:15 prayer (2) 371:5,8 pre-apprentices... 595:25 pre-constructio... 387:12,17 precedent (2) 383:17 385:19 predelivery (1) 380:10 predevelopmen... 364:11 379:8,11 379:15,18,24 380:2,4 381:12 381:17,21,22 384:1,25 385:7 388:5 524:24 615:8 predictable (1) 381:25 predicted (11) 424:19 459:23 461:22 466:17 489:26 490:1,3 491:20 517:25 522:1 525:14 prediction (2) 525:26 528:23 predictions (10) 464:15 466:11

466:23 467:2 469:16 470:5 494:18 524:14 526:15 527:8 predicts (2) 377:1 557:19 prefer (1) 446:1 preference (1) 596:14 preferred (3) 459:18 461:24 466:5 prehearing (3) 463:23 514:2 559:12 preliminary (1) 397:24 preparation (2) 379:18 381:13 prepared (1) 412:5 prepositions (1) 429:21 presence (5) 486:13 564:15 565:26 566:7,19 present (12) 393:24 396:4 400:11 471:5 480:18 508:10 511:26 512:4 548:1 552:9 585:12 586:19 presentation (1... 364:10,23 365:22 366:19 367:11,19 368:23 369:20 370:5 374:7 378:25 379:3,7 379:10 382:5,9 382:16,17,23,24 383:2,6,14 387:11 390:3,5 390:21 392:10 393:3,10,14,20 393:26 403:15	403:17,22,23 406:24 407:16 412:14 417:10 417:14,16,25 418:6,10,20,21 420:2,22 423:4 428:4 436:23 437:3 439:14,15 439:20 440:8 442:1,9 443:9 446:20,24 455:26 456:12 456:14,17,22 457:3,4 459:12 463:20 471:3 479:6,12,13,16 479:18,22 480:4 480:5,21 496:26 500:22 501:19 502:18 506:3,26 509:1,25 510:3 510:8,13,18,23 511:2,17,18 514:10 516:9,10 516:13,24 532:13 535:24 536:10 539:22 541:3,4 542:10 542:15 549:16 549:18,23 550:2 550:3,11,14,17 550:20,23,26 551:10,15 552:3 552:13 559:26 562:6,23 563:21 564:6,9,20 568:23 577:23 592:26 595:13 604:26 605:1 615:7 616:8,15 616:20 617:21 618:3,8,13,19 619:3,10,17,24 620:5,17,21,25 621:2,6,10,14 presentations (...) 371:18,25 372:3	372:6,8,11 374:5 382:11 456:6 508:16,18 508:19,20,22 515:6 581:17 610:18 presented (28) 399:18 400:8 403:19 416:16 437:6 439:2 459:14 483:26 486:19 489:7 491:24 518:11 519:5,17 522:14 522:21 524:12 525:2,10,16 526:4 528:10 529:2 533:2 546:21 552:18 586:11 594:23 presenter (1) 506:12 presenting (3) 379:14 552:11 577:26 presents (1) 526:6 preserve (1) 458:1 president (5) 358:21,23 405:3 405:13 425:9 pretty (1) 455:18 prevailing (4) 478:7,10,12,15 Prevention (1) 458:8 previous (5) 424:7 437:26 487:7 527:9 559:4 previously (5) 424:4 442:18 446:23 458:24 490:13 primarily (5) 411:7 426:11 434:26 443:12 582:19	primary (2) 479:3 491:5 Principal (1) 359:10 principles (1) 445:5 print (1) 569:24 printed (1) 542:9 prints (1) 570:5 prior (19) 387:15 387:25 443:6,25 446:18 461:24 467:18 484:4 501:21 515:5 520:26 521:13 524:1 527:5,24 532:13 544:16 558:12 579:14 priorities (2) 415:18 440:2 priority (1) 415:14 privy (1) 414:15 proactive (3) 466:24 525:19 536:5 probably (7) 385:15 402:2 504:9,22,24 602:4 607:13 problem (3) 434:2 435:10 593:12 problematic (1) 525:24 problems (3) 426:14 434:25 466:16 procedural (8) 393:12 418:17 439:12 457:1 480:2 511:15 551:5 563:19 procedure (2) 588:15,16 procedures (3) 375:20 376:2,6 proceed (26)	378:24 380:1 382:9,11 384:24 385:1,3,6,7 393:19 395:23 438:1 457:2 471:2 480:3 482:9 488:1 489:5 490:7 492:15 499:15 511:17 513:8 528:2 547:17 551:7 proceedings (5) 371:1 456:3 540:26 613:13 614:5 process (26) 384:19 405:15 413:24 414:26 415:2 441:19 442:16 483:6 513:1,6 520:21 524:8 527:13 537:20 544:13 544:25 554:26 558:9 564:19 567:23,26 579:2 579:16 601:17 603:19,19 processed (1) 577:8 processes (1) 441:7 produce (2) 387:14 517:19 produced (2) 465:14 579:21 producer (1) 565:9 producers (1) 491:6 production (5) 379:23 565:12 565:21 570:23 570:25 productive (3) 421:21 488:23

569:5	project (216)	532:20,23	608:1	515:14,16
productivity (21)	357:9 360:12,21	533:14,18,19	Prokopick (2)	516:12,22 517:7
378:6 481:2,19	362:6 375:2	534:1 535:25	361:12 512:12	517:14 518:5,8
482:14 483:12	378:1,6,7 380:3	536:11 538:9,19	prolonged (1)	519:13 520:2,8
483:21,24	380:8 381:4,10	539:4 544:23	520:9	520:17,22,24
487:12,15	381:16,19,20,23	546:3,6 547:17	promote (1)	521:7,11,15,21
488:15,24 489:8	381:24 383:26	547:19 548:6	394:10	522:7,10 523:2
490:4,14,24	384:9,22 385:3	551:21 552:15	proper (5) 400:26	523:11,19,24,24
491:3,5,7,21,22	385:5,10,12	553:10,15,25	540:15 576:4,17	524:5,13,18,23
503:1	388:9 393:15	554:14,16,18,19	606:25	524:26 525:9,17
products (1)	395:5,11 396:16	554:20 555:9,15	properly (2)	525:22,25
552:23	397:20,25 399:1	555:16 556:17	533:26 540:13	526:15,24
professional (1)	399:22 400:24	558:24 560:4	properties (3)	527:14,20,26
528:13	401:10 402:5	562:17,17,24	556:14 557:10	528:7,14,25
profile (1) 485:7	410:24 416:10	564:24,25	565:18	529:9,13,16,25
program (36)	419:3,4,6,12	565:19,24 566:6	property (6)	530:6,9,22
451:10,11,19	421:6 422:16	566:8,17,20,24	413:21 414:22	531:14,19,21,24
452:9 462:7	423:22 424:17	567:3,8,9,23,24	565:22 567:2,11	531:26 532:7,10
470:1,3,6	424:20,24 425:1	568:5,6,8,17	575:19	532:17,21 533:6
481:18,20,23	430:16 437:10	569:23 577:2	proponent (162)	533:10,19 534:5
483:4,5,8	437:15 439:1	579:7,8,11	358:18 371:22	534:13,25 535:2
494:17 497:4,11	440:15,16,18,25	580:3,8,10,24	374:7 383:6	535:7 546:7,14
497:17,25 502:5	443:2,11 444:24	580:25 581:14	384:26 387:14	546:21 552:18
527:12 533:12	447:1 450:11,12	581:24 582:6,11	393:23 400:1,11	553:25 555:5,7
533:13 534:18	453:6 454:22,25	582:13,17,19	407:3 412:24,24	555:10,12,18
537:17 538:2	454:26 456:19	583:4 584:17,21	416:11 419:14	556:2,5,10,24
556:11 560:5	456:24 461:12	587:13 588:9,9	423:23 440:26	557:3,6,19,23
567:12,13 568:4	462:23 463:16	589:16 593:9	442:17,23,26	558:4 559:23
583:7,16,22	469:23 471:2	594:8 596:8	443:4 444:26	560:4 562:23
595:25 597:8	477:15 480:20	597:14 607:23	447:7 454:22	607:22 608:4,18
programmings ...	482:9 483:22	608:14 616:9,25	457:21 458:15	proponent's (23)
406:8	487:5 488:1	617:5,23 618:5	458:15,25	440:11 442:5
programs (19)	489:4,12 490:6	618:21 619:5,12	459:12,14,19,21	460:8 462:17
427:3 432:16,17	492:15 493:5,7	619:19,26 620:7	460:2,9,14,20	463:13 470:17
432:19 433:1	493:14,22	project's (1)	460:25 461:6,14	483:13 494:18
457:26 494:26	494:10,24	444:23	461:15 462:6,19	501:18 502:18
518:22 529:8	499:15 502:4	Project-toleran...	463:2,8,14,25	513:24 519:2
534:19 537:26	510:5,10,15,20	444:17	464:3,17 465:4	523:21 525:5
538:18 553:7	510:25 511:4	projects (19)	465:19 466:1,14	527:16 528:20
595:20,23,26,26	512:11,21,24	362:5 383:20	466:18 467:4,9	530:26 534:23
607:20 608:1	513:4,7,10,16	398:21 403:26	467:14,17,21	542:19 557:26
progressively (1)	513:25 514:20	406:6,10 424:21	468:18 469:25	558:8 559:15,17
611:1	515:1 517:24	425:7,11 453:6	470:13,18,26	proponents (4)
prohibit (1)	528:1,2,6,9	481:21 497:22	473:22 494:21	416:4 481:24
482:25	529:4,11,18	530:11 548:1	499:6 502:5	483:22 514:5
prohibits (1)	530:8,21 531:12	565:17 579:3	513:22 514:14	proportion (3)
482:1	531:18 532:16	595:4 607:22	514:24 515:4,7	396:3,25 525:24

proposal (11) 357:9 418:6,10 512:11,13,22 513:4 542:20 552:15 616:16 616:21	360:2,5 394:8 394:18 400:22 419:24 423:6,8 423:21,23 440:23 441:20 442:21 444:1,3 458:7,26 460:7 460:11 461:4,7 461:16 480:11 480:15 481:17 481:20 483:4,8 483:9,11 585:5 585:9 586:16 594:2 595:11	523:17 526:2 527:5,13,14 528:7,17 531:13 535:8 540:16 542:21 544:12 553:13 558:18 558:20 559:11 559:14 564:5 579:18,26 580:20 581:4	452:6 purchasing (1) 452:17 purpose (3) 394:12 405:5,21 purposes (3) 398:21 588:23 609:25 pushback (9) 464:22 465:2,12 465:14,21 466:3 466:4 526:1,7 put (17) 371:16 398:17 401:6 404:20 407:5 415:21 475:4 478:7,9,14 601:15,16 603:22 605:13 606:22,26 607:3 puts (1) 582:1 putting (3) 405:11 478:23 599:2	463:21,26 464:10,14 465:17 466:7,24 467:3,8,10,22 469:17 473:9,11 473:21 474:1,1 474:9,11,15,20 475:4,6 477:8 478:5 481:3 484:13,18 485:20 491:25 492:3,6,21,25 493:15 514:19 515:26 516:4 517:6 518:17,20 519:24 520:9,15 521:24 523:6 524:11 525:26 527:10 556:23 557:14,15,16,18 557:24 558:8,18 558:22 559:3,11 568:13 576:18 578:2,14,16 593:4,4,16,17 605:4 606:5,10
propose (4) 421:5 422:15 491:15 550:6	protocol (1) 594:7 protocols (3) 505:19 519:17 588:4 provide (38) 374:11 391:26 414:11 419:7 421:1,23 430:23 432:5 434:21 439:23 440:21 455:8 468:12 480:21,24 482:21 483:18 484:2,22 485:12 487:17 488:10 488:14 493:10 497:5 498:16 499:23 506:15 506:23 518:6 521:15 522:7 526:17 527:21 531:26 532:7 554:20 595:5	provides (5) 468:24 469:1 481:24 483:10 483:14 providing (8) 425:23 442:2 480:17 484:7 487:5 512:3 515:8 528:25 Province (1) 614:8 provisions (4) 389:25 394:5 458:8 483:11 proximity (1) 567:16 public (27) 371:21 386:1,3 393:11,24 418:24 420:8 437:4 440:23 441:21 476:4 482:20 516:5 528:5,8,18 529:3,10,17 536:8 539:9,21 539:21 545:4 563:18 569:8,14	Q Q3 (1) 576:25 Qaqimat (1) 363:18 Qaujimajatuqa... 419:18 420:16 420:19 431:18 441:22,25 445:6 579:4,5,17,19 579:26 580:13 581:9 604:6 Qikiqtani (2) 540:8,12 Qiyuk (1) 362:26 qualified (2) 435:9 469:7 quality (85) 360:11,12 412:26 416:6,8 416:8 441:16 457:11,12 458:1 458:11,20,22	463:21,26 464:10,14 465:17 466:7,24 467:3,8,10,22 469:17 473:9,11 473:21 474:1,1 474:9,11,15,20 475:4,6 477:8 478:5 481:3 484:13,18 485:20 491:25 492:3,6,21,25 493:15 514:19 515:26 516:4 517:6 518:17,20 519:24 520:9,15 521:24 523:6 524:11 525:26 527:10 556:23 557:14,15,16,18 557:24 558:8,18 558:22 559:3,11 568:13 576:18 578:2,14,16 593:4,4,16,17 605:4 606:5,10 Quana (6) 413:16 414:1,20 415:4 450:1 546:26 Quanqutit (2) 501:25 502:19 quantified (1) 465:12 quantitative (1) 527:2 quantity (3) 416:8 514:19 559:3 quarries (1) 609:24 quarry (3) 380:20 380:20 381:7 Quarrying (1) 380:19 quarter (6) 524:3 566:12,12 570:24,26 571:6

quarterly (1) 584:18	551:11,19,23 560:2,15 562:15	435:18,20 439:21 445:10	592:25	ranges (1) 581:21
Quebec (1) 565:14	562:25 599:26 600:16,20 601:4	445:13 446:8,10 446:22 448:9,11	Quinangnaq (1) 362:14	Rankin (12) 363:10,11,12,13
Quesnel (32) 359:6 374:16,17 375:15 378:13 403:24 429:3 437:25 438:11 438:12 449:10 449:11 472:13 472:14 506:22 508:3 542:6,26 543:20,21 561:21,22 563:8 563:10 564:1 568:23,24,25 605:17,18 608:23,24	601:5,17 602:8 602:8,21,22 603:6,18,26 604:12 605:7,19 606:15,21 607:7 607:9,11,13,15 608:12 609:18 609:19 610:1,16 610:17 612:14 613:8	448:15,19,24 449:3,7,8,12,13 449:17,18,22,23 449:25 453:25 471:6,8,11,13 471:17,19,21,24 472:4,7,10,11 472:14,19,24 473:1,5 475:26 477:26 495:3,7 495:8,11,14,19 495:23,24 496:1 496:4,6,20,22 498:4,24,25 500:1,3,5 506:1 506:21,24 507:21 536:15 536:19,22,26 537:9 541:4,5,7 541:9,11,12,16 541:17,21,22,25 542:2,4 543:24 544:2,3,5 545:6 545:10 546:23 549:10,15,20 560:1,17,20,24 561:1,6,10,14 561:18,20,22,23 562:1,4,5,6,15 563:2 597:25,25 597:26 598:1,8 598:12,14,16,17 598:21 599:9,20 599:24,25 602:23,25,26 603:4,8,8 604:18,20,24,25 604:25 605:1 608:25 610:11 612:22,22	quite (9) 395:13 397:26 403:12 423:10 424:16 426:15 478:4 537:24 576:20	375:1,10,25 424:22 513:19 565:20 598:5 608:12
question (103) 374:18,24 376:14,15,16 377:15,21 378:14,16 383:2 383:13 387:10 401:3,9 403:15 404:3,13,18 405:17 409:24 409:24 412:11 414:4,19,21 416:18 430:11 430:11 432:9 433:2,8,11,18 434:4,7 435:1 435:20 436:12 447:20 450:18 450:19 452:24 453:26 473:17 475:14 476:2 484:23 496:10 496:25 501:14 501:23 503:19 504:2 507:18 531:22 532:22 537:15 538:5 539:8 540:1,9 545:8,14,17,24	questioned (1) 406:11 questions (232) 364:8,17 365:6 365:14,16 366:8 366:11,21,25 367:5,14,22,26 368:6,8,11,15 368:17 369:6,9 369:12,15,23 371:22 372:2,3 372:5 373:13 374:11,15 382:17,22 383:6 386:19,22,26 387:3,6 388:17 388:20,21,25 390:2 400:15,17 400:21 406:14 406:16,18 407:23 408:1,3 408:5,7,11,13 408:15,16,19,20 408:24 409:18 409:20 413:5,7 413:9,11,14 415:26 416:23 416:26 417:2,6 417:8 427:7,11 427:15,20,24 428:18,21,25,26 430:5,7 431:3,6 431:7,9 433:4	quick (2) 564:20 565:7 quickly (2) 587:5	R R (8) 358:12 359:9,24 361:14 361:17 362:2,26 363:5 Rachel (9) 368:20 387:8 388:11 511:11 512:9 516:8,14,23,26 Rachelle (14) 369:18 373:22 388:16 408:14 428:20 449:2 472:6 495:26 541:24 542:16 551:2,8,17 552:6 radar (1) 451:6 radio (1) 583:7 radiuses (1) 447:24 raise (4) 577:11 599:25 600:2,4 raised (6) 404:3 408:25 447:21 464:14 468:6 535:9 raising (3) 488:6 488:12 540:9 Ramcharan (3) 359:7 369:25 563:13 ramping (1) 571:7 range (5) 359:16 466:15 505:12 524:24 587:26 ranged (1) 424:17	raptor (2) 442:21 444:21 rate (3) 396:24 505:5 589:1 rates (1) 444:15 rationale (11) 464:4 487:5 488:13 492:26 493:6,10 497:1 497:5 498:11,16 498:18 rationalization ... 487:21 raw (2) 487:6,17 re-flood (4) 605:20,22,25 606:4 re-flooded (3) 484:17 516:4 526:20 re-flooding (2) 468:3 576:11 re-slope (2) 422:8 429:18 reach (2) 520:19 543:11 reached (4) 443:10,12 509:15 515:7 read (3) 544:10 544:11 569:24 readiness (1) 595:23 ready (1) 390:4 realize (1) 539:10 really (10) 404:12 429:10 433:25 451:23 455:8 503:16 584:12 587:5 602:1

603:16	543:13,14 595:6	527:6 529:23	reddish (1)	522:21 556:8
realtime (1)	595:7	531:14 534:21	572:25	559:21
591:22	recognition (3)	547:20 558:10	reduce (13)	refinements (1)
reason (6) 404:3	385:2,11 426:15	559:7 592:10	381:14 398:7	403:2
406:10 414:21	recognize (3)	recommends (23)	403:10 465:5,7	refining (1)
450:24 565:24	375:11 455:10	384:4 459:21	519:19 525:20	396:14
566:18	556:24	460:2 461:10	572:5 585:19,20	reflect (3) 374:2
reasonable (3)	recognized (1)	463:8 466:17	586:8 588:3	462:22 467:15
498:15 555:11	597:10	467:9 468:11	590:18	reflected (3)
557:4	recognizing (1)	469:18 491:18	reduced (2) 527:9	413:1 416:14
reasonably (1)	481:7	493:9 520:8,16	592:12	553:17
483:19	RECOMMEN...	523:11 527:4,25	reduction (1)	refrain (2) 383:25
rebuttals (1)	456:3 540:26	534:4,15 536:7	572:4	384:5
411:6	recommend (8)	555:12 556:5,9	reevaluate (1)	refrigerator (1)
recalibrate (2)	399:9 426:24	558:1	525:25	377:9
523:11 524:6	494:24 520:2	reconfigured (1)	refer (3) 388:1,3	regard (8) 416:9
recall (1) 474:12	527:2 529:18	488:4	588:5	486:19 488:3
receipt (1) 566:18	534:12 547:16	recontoured (1)	reference (26)	489:7 490:9
receive (3) 484:4	recommendatio...	423:2	391:22 422:1	492:21 493:16
538:3 608:26	398:25 457:18	reconvene (3)	424:5 429:23,26	612:7
received (4)	459:10,20	500:18 506:5	443:24 445:20	regarding (48)
385:20 405:7	460:14 461:3,9	613:10	446:17 448:6	357:7 374:7,24
515:3 584:22	462:18,19	RECONYX (1)	492:8,22,26	386:14 394:24
receivers (1)	463:14 467:5,14	584:9	493:4,6,7,12	436:2 437:9,14
563:25	468:19 469:25	record (6) 391:12	497:2,2,11,20	443:10 444:11
receiving (19)	475:2 486:15	420:9 509:24	497:21,26	447:20 461:25
388:6 464:16	521:14 527:21	546:5 550:9	498:12,20	462:4,25 464:14
465:23 467:1,12	534:24 547:18	568:12	507:25 616:3	475:16 485:15
470:3 492:2,4	558:4 559:19,24	recorded (2)	referenced (8)	488:11 506:24
493:3,12 497:3	611:17	463:12 529:20	385:21 410:1	507:19 508:5
497:10,17,25	recommendatio...	recreation (1)	441:18 444:1	510:4,9,14,19
507:11 517:23	390:24 407:11	475:16	492:1 493:3	510:24 511:3
570:8 578:17	409:6 427:1	recreational (5)	508:26 545:16	515:20 518:26
593:18	440:11 445:18	475:8 481:19	references (1)	526:19 529:4
receptor (1) 462:9	457:15 460:10	482:3,15,19	485:13	535:13,21 536:2
receptors (1)	463:7 480:19	recreationally (1)	referencing (1)	551:13,19 555:6
462:13	512:24 519:25	508:1	375:11	609:18 611:19
recharge (2)	521:1 523:8,21	recycled (1)	referred (2) 526:1	615:17 616:24
526:11 558:2	524:4 526:22	578:15	526:16	617:4 618:20
recipe (1) 574:5	527:10 529:26	red (5) 584:3,3	referring (3)	619:4,11,18,25
recipients (1)	531:13 534:2	586:18 591:10	388:2 410:3	620:6
452:13	535:3 542:22	592:9	459:9	regardless (1)
reclaimed (2)	553:16 559:4,16	red-light (5)	refers (1) 486:20	396:22
385:4,12	591:11	585:15,25 586:4	refine (3) 466:11	regards (10)
reclamation (9)	recommended (...)	587:3 588:2	556:14 557:7	375:13 436:1,3
389:21,22 400:5	464:16 465:18	red-light-alert (1)	refined (1) 527:8	436:12 459:4,8
514:21 543:10	465:19 521:2	588:17	refinement (3)	501:16 539:2

540:6 610:17 regime (1) 557:10 region (16) 394:6 404:15 415:18 419:5 453:7 478:12 531:6,16 531:22 533:20 534:1 560:12 564:14 565:14 568:11,12 regional (11) 413:22 480:12 511:24 513:2 580:24 581:2 587:12,14 589:4 589:6 592:17 registered (5) 371:18 372:11 374:5 382:12 393:2 registering (1) 537:17 regular (1) 375:12 regularly (2) 415:15 422:18 regulated (1) 532:4 regulates (1) 553:19 Regulation (2) 507:4,10 regulations (4) 378:21 553:12 599:10,21 regulator (4) 501:15 513:9 539:20 547:4 regulators (5) 432:18 538:16 538:18,23 547:21 regulatory (22) 471:2 480:13 481:26 484:5,7 486:4,26 487:25 488:1 489:2,5 490:6 492:15	494:24 496:19 499:7,9,18,19 499:24 553:11 564:23 reiterated (1) 487:7 relate (3) 401:13 403:15 440:2 related (56) 373:13 374:18 375:1,19 376:15 377:23 378:15 387:10,22 392:16 411:7 412:13,16 413:2 429:25 437:26 438:4,14,23 443:7 444:15 486:7 489:8 506:25,26 508:4 515:26 517:4 518:9 519:22 521:19 523:4 524:11,19 528:4 530:4,7 531:1,4 532:15 533:24 535:15 547:23 552:17 554:12 569:10,13,16,22 569:25 570:7,13 570:22 572:12 574:22 613:5 relates (9) 414:6 438:7 440:9 464:21 482:21 483:26 553:11 553:15 606:15 relating (3) 394:22 458:3 513:22 relation (3) 438:5 490:9 552:19 Relations (2) 359:1,8 relationship (1) 569:5 relatively (1)	396:23 release (2) 549:7 574:6 released (1) 603:24 relevant (8) 457:14 463:12 482:14 522:22 523:12 527:23 531:4 547:22 reliable (1) 455:4 reliance (1) 525:20 rely (1) 440:4 relying (1) 434:25 remain (5) 451:21 472:22 488:17 517:10 570:11 remainder (5) 440:7 442:1,8 484:19 577:9 remaining (8) 394:21,23 442:8 443:19 505:17 505:22 516:17 526:19 remains (10) 375:14 376:11 396:5 457:20 526:8,12,13 527:1 529:13 577:19 remark (1) 409:26 remarks (1) 440:10 remediation (1) 595:7 remember (3) 371:3 451:14 589:25 reminded (1) 463:2 remodel (1) 419:22 remote (2) 473:26 564:2	removal (1) 465:2 remove (1) 609:22 removed (3) 464:3 575:16,18 removing (3) 465:9 525:23 526:6 renewable (1) 441:4 renewal (1) 389:19 renewed (1) 389:8 rent (5) 450:23 451:1,2,18 452:18 repair (1) 422:8 replaced (1) 581:17 replied (3) 520:22 523:19 531:24 report (16) 380:7 424:26 454:15 460:17,22,23,26 468:24 469:7,22 475:4 529:22 534:8 539:16 546:15 549:2 reported (7) 376:24 436:16 436:19 460:16 463:3,10 529:22 Reporter (4) 363:22,23 614:15,21 reporting (8) 436:13 459:5 462:26 466:22 532:16 533:2,25 569:17 reports (7) 424:18 436:14 454:19 463:12 538:21 548:20 549:1 represent (5) 394:4,7 396:3 396:20 596:23 representation ...	396:13 representative (4) 438:20 583:13 584:1 590:8 representatives ... 362:12 372:6 405:10 417:5 421:13 422:3 512:5 549:21 564:13 585:3 613:1 represented (2) 580:8 588:22 representing (3) 406:3,5 608:11 Repulse (4) 363:5 363:6,7,8 request (19) 379:20 387:11 407:1,17 410:12 470:15 484:6,10 488:2 489:8 490:4,8 492:20 493:15 518:9 522:9 527:17 528:24 539:19 requested (32) 384:20 385:8 387:13 397:16 397:20 398:12 406:25 420:26 434:21 470:12 484:2,2,7,22 485:11 486:12 487:3 488:10 489:11,21 490:13,21 492:23 493:20 513:20 522:6 525:16,19 528:21 530:19 531:19 533:3 requesting (3) 396:6 397:6 607:24 requests (6) 409:5 409:6 420:10

481:11 493:26 513:22 require (11) 432:1 476:16 477:7,13 478:25 487:20 522:21 543:3 549:3 554:4 578:19 required (18) 389:21 430:21 430:25 482:11 483:22 488:26 499:22 515:23 524:17 529:8 543:17 546:18 556:4 572:2,5 573:25 577:21 607:23 requirement (3) 482:21 502:3,11 requirements (4) 478:26 481:22 492:11,14 requires (3) 395:11 477:5 488:18 requiring (1) 384:5 research (15) 407:1 415:14,18 415:21 424:23 490:10,14 492:18 494:5 535:14,16 553:17 595:3,9 595:10 research-priorit... 415:16 researcher (1) 420:20 reservoirs (1) 469:8 residence (1) 483:1 resident (1) 426:22 residents (1)	425:9 residents' (1) 420:19 resolve (2) 452:22 532:12 resolved (38) 400:1 405:15 412:15 420:7 442:17,25 443:23 444:4,6 444:8,10,12,14 444:16,18,20,22 446:4 457:19 462:2,24 463:18 463:24 467:6 468:23 470:9,23 472:23 484:8 486:17 489:18 524:9 535:9,12 535:15,17,20 542:12 resolving (1) 421:9 resource (12) 358:20 361:9,10 415:19,22 439:26 440:10 511:23 548:7 553:8 571:9 597:4 resources (85) 359:2 361:8,11 362:1 369:20,22 373:21,23 388:15,17 408:13,15 415:21 428:18 428:20 430:14 434:1 441:5 448:26 449:2 457:24 472:5,7 477:24 495:25 496:1 522:10 541:23,25 549:18,23 550:4 550:10,13,16,19 550:22,25 551:7	551:9,18 552:3 552:8,14,16,21 552:23,24 553:4 553:6,10,12,17 553:19,22 554:5 554:24,26 555:5 555:9,11 556:4 556:9 557:3,12 557:25 558:10 558:17,26 559:5 559:7,10,16,23 560:1,10,17 611:13,13 620:16,20,24 621:1,5,9 respect (10) 378:21 404:19 412:12,15 416:4 469:10 479:13 485:16 503:22 552:14 respecting (7) 456:18,23 484:15 485:22 493:26 617:22 618:4 respond (5) 432:9 446:19 447:15 497:5 560:2 responded (4) 442:8 467:4 470:13 491:12 Responds (8) 364:7 368:14 369:22 370:11 374:14 506:20 560:1 607:16 response (47) 377:22 390:24 391:6,8,18 399:19 446:20 447:19 460:8 462:17 463:13 464:2 467:13 468:18 470:8,17 486:15,24 491:17 498:8,11	501:10 506:13 506:16,19 520:23 521:1,9 523:20,21 525:22 527:14 527:15 529:25 530:2,21 531:25 532:8 533:6 534:23 538:11 551:13 559:15 559:15,17 591:25 615:22 responses (17) 374:11 410:7 465:26 481:12 485:6 489:15,25 491:8,11 493:2 494:1 514:24 515:4 527:16 533:4 542:21 559:14 responsibility (6) 414:6 424:11 425:19,22 532:6 599:12 responsible (10) 415:8 441:4 481:21 512:20 512:22 513:9 547:6,17 552:22 565:10 responsibly (1) 445:4 rest (3) 371:11 413:2 514:10 result (12) 384:2 401:12 468:4 483:21 487:14 488:22 489:13 494:9 515:21 518:26 536:3 557:6 resulted (1) 464:24 resulting (2) 525:15 526:21 results (22)	460:23 461:1,22 464:8 466:22,26 469:24 470:4 518:6,13 519:9 521:13,16 522:13 523:13 523:26 524:7 525:6 527:21 534:6,8 548:20 resume (1) 592:22 resupply (2) 375:1,12 retaining (1) 425:3 return (4) 485:18 576:5 596:22 613:9 returns (2) 596:22 596:23 revegetation (1) 535:16 revenues (1) 568:20 review (194) 357:7,8 358:3 358:11 365:13 365:16 366:7,11 367:5,14,25 368:5,11,17 369:15 371:11 374:8,9 375:8 379:3,22 380:6 381:12 382:21 384:2,15,19,22 384:23,24 386:12 388:22 388:24 389:5,13 391:12 393:9,15 394:12,19,20 398:13 404:8 405:15 409:18 409:20,23 412:7 412:10 413:12 413:14 416:15 416:15 417:23 418:16,26 420:5 426:25 430:5,7

430:10 431:9	581:20 584:16	573:16,17 575:9	591:9,13,14,24	role (13) 421:16
433:7 437:2,11	584:19 615:15	576:3,23 577:17	592:1,6,12	424:14 430:15
437:16 439:10	616:9,26 617:6	582:8 588:25	593:5,9 598:4	430:15 440:8,13
439:19 441:19	617:21 618:3,9	599:7 606:18	603:14 608:17	440:17 481:26
442:3,4,10,12	618:14,21 619:5	609:20 610:2	608:18 609:7,8	512:26 513:8
442:16 443:9	619:12,19,26	right-of-way (2)	609:13,14,21,23	552:14 553:11
449:14,16,25	620:7	587:7 588:19	609:26 610:9	599:12
450:2,17 456:11	reviewed (3)	rights (4) 383:18	road-survey-m...	room (5) 401:21
456:18,23	513:23 558:17	394:9 599:16,22	396:11	425:4 562:10
457:17 458:19	559:10	rigorous (1)	roads (15) 374:22	567:5 581:19
459:25 461:11	reviewing (3)	497:24	380:12 381:6,8	root (2) 426:8,13
461:23 463:13	471:1 527:15	ring (1) 609:14	401:23,24	Ross (23) 360:4
469:1 471:4	528:17	risk (9) 381:14	419:23 422:9,20	367:17 479:25
472:15,18 473:3	reviews (6)	458:9 462:10,11	423:1 429:19	480:12 496:16
473:5,8 475:2	397:24 440:1	462:15,21 469:2	570:8 609:13,14	496:16 498:13
475:19 478:3	441:23 569:19	481:23 482:24	609:16	498:13 499:11
479:12,19,23	569:19 612:11	risks (5) 463:6	Robinson (1)	499:11 500:25
480:2,17,25	revise (3) 422:1	465:9,22 519:19	360:26	500:25 501:26
496:21,22	520:8 531:14	521:4	robust (4) 375:26	501:26 502:9,21
497:24 498:4,7	revised (11)	River (2) 425:1	376:9 494:16,26	502:21 503:20
500:5,8 501:9	416:16 417:24	540:12	rock (77) 380:21	503:20 504:13
501:13 502:15	418:5,9 464:9	rivers (1) 601:16	394:24 400:1	504:19,19,24
503:8 506:10	467:14,20	road (85) 376:17	412:14,16,25	roughly (1) 465:6
507:21,24	523:13 532:11	377:14,16,16	464:25,26 465:3	round (1) 548:17
508:15 509:23	616:14,19	380:16,16,17	465:6,13,15	roundtable (17)
510:6,11,16,21	revision (1)	392:11,12 395:6	466:7,19,20,23	370:7,9 371:20
510:26 511:5,13	564:19	395:8 396:19	468:14,20 516:1	371:20 372:12
512:7,11,16,21	revisit (1) 452:16	397:14 398:3,3	516:3 517:5,8,9	382:7 508:21
512:25 513:6,16	revisiting (2)	398:8,11 399:25	517:11,21,26	550:21,24 551:1
513:17 514:1,3	477:14 478:21	401:7,26 402:5	518:4,14 519:1	562:11 563:1
515:2,11 521:18	Richard (8)	402:10 411:8	519:7,11,23	564:7 598:23
523:17 524:10	365:19 372:22	421:3 422:11,12	520:3,6,15,18	621:3,7,11
525:3 527:5,24	403:14 418:12	433:12 434:22	520:24 521:20	roundtable's (1)
528:4 531:23	420:4 432:3	436:2 444:9	521:22,23 522:4	417:7
532:15 533:10	433:21 436:6	455:7 474:18	522:12,18,19,25	routine (2) 585:17
534:10 535:10	right (37) 372:2	566:26 568:1	523:5,15 524:13	588:18
536:7 537:19	382:5 397:10	570:15 571:14	525:24 526:6,6	Royal (3) 363:23
540:7 543:24	402:16,19	571:17,19,20,26	535:12 545:14	614:3,20
544:1,22 545:10	403:12 419:8	572:6,23 573:1	554:15 555:18	royalties (4)
545:13 546:16	424:1 429:24	573:7 579:12	555:19,21,26	403:25 568:17
547:16 550:1	434:1 435:7	580:11,12	556:7,12 559:18	596:18 597:1
551:4 552:16	447:2 457:12	582:20,22	559:21 570:14	royalty (3) 404:14
554:10 557:12	508:22 540:21	583:24 584:4,5	571:8,21 573:21	406:11 596:17
557:13 561:24	540:23 546:9,20	585:20 586:3,7	574:10,26 577:7	rules (5) 458:3
561:26 563:7,16	549:1 563:11	586:9 587:1,18	577:14 598:7	586:23 587:2
564:16 565:25	566:14,25 567:3	589:9,10,13	609:2,5,6,24	599:10,21
578:26 579:2,24	567:4 569:15	590:3,18,21	610:7,8	ruling (1) 540:11

run (3) 392:7 415:17 607:20 running (4) 397:8 406:10 598:13 608:16 runs (1) 426:19 Ryan (29) 375:7 376:13 379:12 382:19,20 387:19,21 388:23 392:2 409:22 430:9 438:18 449:15 472:17 496:8 497:8 504:21 505:1 506:8,9 543:26 561:25 577:22,24 595:15 603:2 605:20 606:11 606:13	476:10,10 548:8 548:8,21 558:8 558:12 607:21 607:24,25,26,26 sampling (22) 412:26 477:4,5 478:21,24 485:8 493:16,18,21,22 494:2,2 501:16 501:17,20 502:17,24 503:1 503:4 548:17 557:15 558:9 sandpiper (1) 462:9 Sara (2) 614:3,14 satellite (6) 554:5 554:23 565:24 567:14,23 570:13 satisfaction (3) 484:9 486:17 489:18 satisfactory (2) 530:2 535:1 satisfied (12) 466:8 470:25 498:10 516:17 516:21,21 521:15 524:5 542:20 558:19 559:13,17 saw (1) 403:16 scale (8) 381:16 381:20,23,24 455:12 555:1,3 555:4 scared (1) 372:4 scenario (25) 377:12 465:21 469:15 484:14 489:16 503:19 524:12,19 525:10,11,15,26 585:16,18,24,25 586:4 587:23 588:2,18,26	589:14 590:14 590:16,17 scenarios (7) 485:13,15 518:6 559:2 578:23 586:17 592:1 schedule (3) 466:21 533:2 569:25 scheduled (2) 387:15 572:2 school (1) 508:8 science (4) 360:4 552:24 553:5 580:15 sciences (3) 426:13 508:9 553:1 scientific (2) 394:14 553:13 scientists (1) 553:17 scoping (1) 513:18 screen (2) 573:16 582:7 screening (3) 462:10,15,21 sea (1) 576:5 season (4) 459:24 461:8 582:5 588:25 seasonal (2) 442:20 555:24 seasons (6) 582:3 585:8,10,11 586:2 604:1 second (13) 390:25 391:9 409:2 422:24 438:26 462:3 484:10 492:20 521:18 548:17 565:13,22 566:11 secondary (1) 575:24	Secondly (2) 404:24 520:5 secretary (1) 549:5 section (7) 394:2 400:10 402:4 424:7 429:19 482:1,21 sections (4) 422:8 422:26 482:24 593:6 sector (2) 439:26 553:8 secure (3) 400:6 567:17 568:12 security (14) 389:20,21,25 400:3,8,26 402:17,23 423:26 447:2 543:5,6,12 553:3 sediment (7) 462:12 469:16 470:1,11,16,19 470:20 see (32) 403:5 416:16,17 423:4 429:10 432:24 436:8 477:19 489:16 503:16 516:14,15 549:7 566:24 567:2 569:15 575:4 581:8,13,21,23 582:2,4,9,15,18 582:20 584:15 587:5,11,13 607:1 seeing (2) 451:17 508:21 seeking (1) 431:15 seeks (1) 552:21 seen (7) 384:17 386:4 453:8 540:22 567:14	587:21 590:2 seepage (26) 466:20 516:1 517:5,16,19,22 518:14,18,24,24 519:2,7,12,23 520:1,6,7,10,15 520:18 521:2,4 521:24 522:19 523:9 545:20 sees (5) 404:6,6 441:25 454:14 454:17 segments (1) 397:20 segregation (3) 466:19 519:17 520:4 select (1) 497:18 selected (4) 422:26 466:4 497:19 611:24 selecting (1) 464:5 selection (1) 498:11 selections (1) 611:15 self-sustaining (3) 378:4 485:10,24 semipalmated (1) 462:8 senior (10) 358:23 359:7 360:2,4 361:14 362:2 457:8 480:10 512:10 552:6 sensitive (2) 585:11 586:2 sensitivity (6) 466:14 518:5 519:9 555:3,4 557:8 sensory (1) 443:8 sent (4) 460:20 505:22,23,24 separate (3)
S				
S (8) 358:13,15,26 360:8,24 361:4 362:9 363:22 Sadoway (19) 362:9 373:25,25 388:19,19 408:18,19 428:23,24 449:5 449:6 472:9,10 496:3,3 542:1,1 561:17,17 safe (3) 380:16 592:3 606:25 safety (3) 362:10 440:23 553:2 sample (6) 398:15 399:6 476:15 477:5 607:19 608:7 sampler (6) 476:8 476:8,15,16 478:25 479:2 samples (14) 470:19,20				

469:19,26 476:16 September (21) 357:17 386:9 391:23 437:11 437:16 460:20 460:25 461:6 509:15 511:9 515:9 521:8 523:24 527:18 613:13 615:2,12 616:5 617:1,7 620:13 series (6) 381:6 400:21 405:4 516:15 583:15 603:7 serious (6) 482:2 482:4,18 483:15 492:19 494:6 seriously (1) 539:19 service (1) 380:12 services (9) 425:24,26 426:1 426:2,17,26 453:9,10,20 session (24) 403:18 437:9,14 439:22 480:20 508:18 510:4,9 510:14,19,24 511:3 550:3,4 563:22 616:24 617:4 618:19 619:3,10,17,24 620:5 621:15 sessions (2) 371:17 529:5 set (6) 376:20 383:17 425:8 467:10 581:26 603:20 setting (2) 415:14 428:13 seven (4) 397:11 401:8 433:9	442:24 sewage (2) 575:14 595:6 Sexton (1) 361:25 Shane (9) 373:25 388:19 408:18 428:23 449:5 472:9 496:3 542:1 561:17 share (3) 478:19 578:25 597:6 shared (6) 377:8 385:15 579:19 580:4,6,6 sharing (1) 603:5 shell (2) 464:25 465:6 shipped (4) 570:14 576:2,4 576:9 shipping (3) 376:6 377:26 378:16 ships (1) 576:6 shorebirds (1) 462:7 short (9) 382:6 390:12 446:1 532:23 533:14 545:5 562:23 573:11 604:26 short-term (2) 389:7,18 shorter (1) 390:26 shorthand (2) 614:6,6 shortly (1) 542:25 shoulders (1) 422:12 show (10) 371:6 391:12 401:23 509:24 518:16 519:11 578:7 580:5,18 581:22 showed (1) 582:14 showing (2) 555:2	573:11 shown (7) 385:25 542:10 572:16 574:8 578:9 579:22 580:17 shows (16) 572:10 573:14,20 574:7 575:9 576:10,11 576:19,22 577:17 578:4 581:5,9,9,11,21 shut (3) 439:3 588:7 591:13 shutdown (5) 572:2 586:15,16 588:15 592:15 shutdowns (2) 586:12 587:4 shutting (4) 586:3 591:13 592:5 608:15 shy (1) 372:4 sic (8) 375:3 394:18,22 400:4 400:8 412:21 438:19 471:10 side (3) 411:21,22 428:11 sighting (1) 396:24 sightings (1) 396:21 sign (1) 403:11 signatures (1) 581:12 signed (5) 400:6 421:5 543:5 596:6,20 significance (1) 528:13 significant (8) 377:23 378:9 381:15 382:2 434:25 464:7 533:21 567:21 signs (2) 584:2 612:9	silent (1) 371:16 silt (1) 593:13 similar (7) 443:20 444:5 568:15 574:21 575:10 581:16 587:3 Simon (2) 373:17 475:23 simplified (1) 519:4 simply (1) 411:20 simultaneously ... 380:6 single (1) 589:5 sit (4) 372:1,7 549:21 562:11 site (60) 377:1,6 377:10,11 379:18 380:18 381:13,26 458:18 474:16 474:21,21 477:2 477:6 478:21,24 497:14,19,20 498:2,2 501:2 505:4 546:12,17 546:17 548:1 554:5 556:14 557:24 570:7,7 578:12,15 582:10,11 583:5 583:8,23 584:6 585:21 586:2 589:2,3,19,21 590:7,8,11,13 590:20 591:4 592:16 593:16 593:22,25 595:23 597:16 605:9 607:12 site-specific (4) 463:26 464:10 518:17 558:11 sites (6) 416:4 545:18 547:9,12 549:11 580:1 sits (1) 476:20	sitting (3) 371:24 406:3 416:22 situations (1) 540:5 Sivumut (1) 441:2 six (11) 394:21 397:11 401:8 508:16 509:25 515:24 550:1,6 572:18,18,21 sixty (1) 462:22 size (10) 398:15 400:23 455:1 474:11,12 476:10 567:8 575:10,26 598:5 sizes (2) 399:6 444:5 skepticism (1) 518:1 skill (1) 614:7 skilled (2) 565:5 595:18 skim (1) 420:12 skin (1) 605:14 skipping (1) 417:11 sleep (4) 605:13 606:23 607:1,4 slept (1) 601:24 slide (24) 380:25 412:13 423:6 441:17 476:2 512:18 543:2 554:17 556:16 558:7,25 569:1 569:23 571:22 572:10,22 573:10,16 574:7 574:17 575:9 576:21 579:23 593:1 slides (13) 377:26 394:3 516:13 544:10 569:21 570:1 578:7,16 580:5 585:12

592:24 slight (1) 534:25 slightly (2) 524:25 524:25 slope (1) 422:12 slow (1) 590:21 slower (1) 592:20 sludge (7) 467:23 467:24 468:4,7 468:9,11,20 small (11) 381:17 381:23,26 387:10 389:4 455:18 476:12 555:3 569:24 577:11 606:1 smaller (8) 385:6 476:12,13 489:25 575:18 580:17 609:13 609:16 smooth (1) 452:5 snowmobile (2) 422:11,19 social (12) 394:10 425:24 426:7,12 426:14,26 428:11 450:21 451:10,22 452:4 508:9 societal (1) 445:7 socioeconomic (...) 394:15 405:19 424:9 440:3,14 442:13,19,24 513:26 514:26 516:6,7 528:3 528:10 530:3,7 530:13,20,23 531:4,10,12,15 532:1,5,14,19 533:7,11,21,26 534:9,18 535:22 536:6,7 568:11 socioeconomic-... 443:1 socioeconomics ...	528:26 soil (1) 458:2 sole (1) 525:21 solely (1) 425:19 solution (1) 499:5 solutions (1) 452:14 somebody (2) 371:5 426:20 someplace (1) 575:20 soon (1) 388:7 Sophia (3) 409:24 412:10 498:7 sorry (18) 396:1 398:9 399:16 417:11 437:25 438:3 484:26 485:4 486:10 491:9 502:9 506:18 530:4 556:6 557:16 579:25 595:7 608:4 sort (2) 432:9 538:17 sought (1) 432:2 Sound (2) 363:25 540:14 sounds (1) 498:15 source (4) 423:24 477:7 517:15,21 sources (1) 455:9 south (20) 469:4 470:2 557:1 575:20 576:4,9 576:14 577:5 580:7,10,10,11 581:15 582:18 582:19 591:16 594:11,14 603:11,13 southeast (1) 567:1 space (1) 575:13 spacing (2) 397:9 397:13	span (1) 573:9 speak (9) 387:20 394:24 407:14 502:8 598:19 599:4,18 605:19 608:13 Speaker (4) 473:18 474:7 476:6 478:17 speaking (4) 515:16 549:19 598:25 602:16 special (2) 612:9 612:10 specialist (1) 512:10 specialists (1) 585:4 specialized (1) 553:26 species (11) 455:11 458:9 481:23 482:24 482:26 483:3 486:10,13,16 501:18 502:17 specific (16) 374:9 446:1 448:5 450:11 451:14 454:22 454:26 527:6 529:23 533:13 534:20 538:4 553:10 584:9 595:23 612:4 specifically (9) 453:10 454:17 469:11 475:16 489:12 522:21 546:19 551:21 580:3 specify (2) 474:13 481:4 speculate (1) 538:7 speculative (1) 404:22	speed (2) 592:11 592:20 speeds (2) 586:8 590:18 spell (1) 550:8 spend (1) 580:23 spending (2) 581:1 596:13 spent (3) 384:1 405:8,12 spill (9) 374:26 375:3,10,11,18 375:20 376:4,5 376:5 spills (5) 374:25 375:6,13,17,23 spirit (1) 481:5 spoke (3) 378:18 380:26 537:22 SPOKEN (1) 547:1 spot (1) 436:14 spraying (1) 374:22 spread (1) 582:10 sprig (1) 548:16 spring (10) 514:3 515:15 548:15 580:7,20 581:6 581:7,10 582:11 585:10 Squires (1) 359:8 squirrels (1) 376:22 Sr (1) 362:19 stability (1) 555:8 stable (5) 527:3 546:12,13,17 566:2 staff (44) 358:11 365:13 366:7 367:25 368:5 375:8 382:21 384:9 388:22,24 393:22 409:19 409:20,23 412:8 421:2 430:6,7	430:10,24 431:3 449:14,16,19 457:6 472:16,18 472:25 480:8 496:21,22 498:4 498:24 506:10 512:3 531:23 543:25 544:1,4 561:24,26 562:2 562:8,10 staffing (1) 431:13 stage (4) 554:25 557:4 559:6 570:20 stages (2) 445:7 530:15 stakeholders (8) 444:25 494:21 569:20 591:1,21 592:13 595:21 597:17 stand (2) 402:21 452:20 standards (1) 482:17 stands (1) 424:15 staples (1) 434:14 start (24) 371:4 382:13 387:12 388:2 432:13,15 433:24 438:25 450:22 457:13 515:5 535:2 551:10 565:7,21 566:16 571:4,5 574:10,13,15 582:15 606:2 608:14 started (4) 403:1 417:4 450:26 452:4 starting (6) 382:12 393:3 571:18 574:12 605:25 613:11 startings (1)

380:22	step (2) 589:17	410:19 441:8	425:16 429:6	513:20,23,26
startup (3) 571:1	612:11	strategies (1)	469:19,24	515:2,13,16
574:15,16	STEPHEN (2)	515:23	490:10,14,19,22	523:1 524:1
starving (1) 454:4	366:17 439:8	strategy (8)	491:12 497:10	526:3 529:22,25
state (2) 550:8	stepping (1) 441:2	399:14 406:26	497:16,23 534:7	530:5 532:12
576:13	steps (1) 590:25	425:7 441:10,10	580:24 581:2	533:10
stated (5) 435:22	Steve (21) 366:17	441:11,13	587:12,14 589:4	subsequent (2)
499:4 519:13	372:25 386:18	597:13	589:6 592:17	463:24 533:9
559:24 560:8	406:21 412:2	stratification (1)	stuff (2) 575:22	subsequently (1)
statement (28)	415:6 427:13	526:16	605:14	460:11
387:24 389:15	439:8,16 445:25	stream (2) 487:10	style (1) 575:18	substantial (2)
393:16 394:20	447:4 448:2	487:12	subcommittees ...	419:7 426:2
424:13 425:15	450:9 451:8	strengthen (1)	442:13	subsurface (1)
431:13 440:12	453:13 454:11	403:5	subject (3) 389:19	556:23
440:21 441:19	471:20 495:13	strengthened (1)	512:14 566:18	subsurface-own...
442:4,6 483:10	541:10 560:26	399:12	submerged (1)	414:23
513:24 515:12	607:17	stretch (2) 401:7	468:2	success (4) 503:3
515:17 517:7,20	stick (1) 417:7	426:18	submission (45)	505:5 565:4
521:21 524:23	Stockley (1) 361:5	strict (2) 423:9,14	383:16 391:23	597:7
528:7 532:17	stockpiles (2)	strictly (1) 469:9	457:17 459:2,7	successful (1)
533:23 535:11	575:1,5	stringent (1)	467:7 480:19,26	485:22
544:10,15,20	stop (2) 451:1	464:20	481:8,11 484:1	successfully (4)
616:10	587:9	strive (1) 440:1	485:6,16 486:14	505:14,16
states (2) 509:13	stops (1) 610:4	strong (4) 396:25	486:23 487:2	528:15 604:17
523:2	storage (44)	441:14 568:3,9	488:9 489:15,20	suffers (1) 426:20
statically (1)	394:24 412:16	stronger (1)	489:24 490:20	sufficient (6)
464:7	459:5 462:8,13	419:24	491:8,11 492:22	399:8 402:22
stating (2) 466:2	465:15 466:23	strongest (2)	493:2 494:1	430:14 482:22
546:5	468:14,15,20	423:21,23	508:24,24 509:8	485:25 543:19
station (4) 458:13	516:1,3 517:5,9	strongly (2)	509:12,20 511:8	suggest (3) 402:9
458:16,18 476:4	517:21 518:14	405:13 566:1	514:8,11 515:24	414:5 591:1
stations (6)	521:20 522:12	structured (1)	516:12 517:3	suggested (6)
491:26 492:11	522:25 523:5,15	451:13	521:5 527:7	377:25 421:12
492:22,24	535:12 545:14	studies (26) 392:7	529:24 534:21	509:12 511:8
493:20,22	545:18 553:19	392:8 401:22	553:18 559:25	555:19 620:12
statistical (3)	553:23,26	409:14 459:22	616:4 620:12	suggestions (1)
398:14,14	554:15 555:18	460:15,23 461:1	submissions (4)	395:23
410:23	555:21,26 556:7	473:14 474:1	437:3 460:8	suggests (4)
statistics (1)	556:13 559:18	491:19 493:23	465:26 513:5	396:17 532:2
464:4	559:21 567:26	505:18,20 525:1	submit (6) 430:1	556:3 559:23
status (4) 489:10	568:1 570:19	526:9,23 527:22	466:18 520:25	suitability (1)
489:14 490:3,9	573:22 574:10	533:17 534:4	521:13 531:16	484:13
stay (5) 554:3	574:26 577:6,10	579:7,10,13,17	532:2	suitable (1)
575:13 591:18	577:14	580:14 595:20	submitted (21)	493:13
592:20 606:6	stored (1) 576:1	study (25) 359:5	379:16 384:7,9	suite (3) 470:12
stays (1) 576:8	straight (1) 564:3	419:17 420:15	392:16 394:20	470:14,19
steams (1) 487:11	strategic (2)	420:18,20	404:7 458:26	summarize (2)

summarized (2) 457:22 466:1	384:3 405:25 419:3 423:20	506:11	437:10,15 439:1 456:19,24	597:14 598:4 603:11,12
summarizes (1) 380:25	492:17 494:4	switch (1) 393:26	458:14 460:22	608:14,26 609:3
summarizing (1) 392:17	suppose (1) 426:6	sworn (1) 563:9	464:22,23 465:8	609:7,23 610:5
summary (10) 380:9 391:26 464:4 470:24 508:19 564:20 564:24 569:21 571:22 573:1	suppressants (2) 374:19 593:14	synthesis (1) 468:24	465:11 467:25	615:17 616:8,16
summer (7) 376:23 460:15 582:15,16 601:9 601:11 604:1	Supreme (1) 540:11	system (10) 376:1 397:7 401:19 476:5 528:16,24 529:15,19 557:1 586:17	468:1,2,5,10,16 469:4 470:2 474:3 480:20 484:25 485:2,18 488:5,6,12 493:8,14 494:10 497:15,20 498:2 498:19 500:11 501:19,22 507:7 510:5,10,15,20 510:25 511:4 512:11,13,21,23 513:3,16 528:9 530:21 533:18 534:19 535:25 552:15 553:15 554:4,11 556:12 556:17,19 557:20 562:17 564:19,23,25 565:1,23 566:17 566:20 567:2,13 567:16,22 568:6 568:8 569:22,25 570:10,13,15,16 570:22 571:3,10 571:16,18,21 572:24 573:14 573:18,20,21,26 574:1,3,9,11,12 574:25 575:6,11 575:15,23 576:1 576:14 577:1,7 579:7,8,12 580:3 582:19 584:6,21 585:21 586:13,13 589:2 591:2,4,15,18 591:18 592:22 593:9,24 594:8 594:10,16,24 595:2 596:5,26	616:21,25 617:5 617:22 618:4,20 619:4,11,18,25 620:6
summertime (1) 602:9	sure (20) 380:23 382:6 403:7 405:16 414:15 416:12 417:5 499:8 551:24 570:6 578:12,17 587:6 593:11,19 598:15 600:12 601:2 604:2,24	systems (1) 376:10	Tail/Amaruq (1) 609:10	Tail/Amaruq (1) 609:10
sump (3) 380:22 380:24 384:6	surface (8) 467:13 488:5,22 514:18 556:22 599:7,21 610:6	T	tailings (7) 459:4 462:8,13 567:26 577:5,9,13	tailings (7) 459:4 462:8,13 567:26 577:5,9,13
Superintendent... 358:26 359:3,6 359:9	surprise (1) 599:2	T (4) 358:14,16 360:12 361:16	take (21) 386:5 390:12 411:15 411:24 421:10 431:26 451:23 479:1 497:16 506:3,6 539:15 539:19,22 545:25 548:8 562:8,9 567:6 601:11 607:19	take (21) 386:5 390:12 411:15 411:24 421:10 431:26 451:23 479:1 497:16 506:3,6 539:15 539:19,22 545:25 548:8 562:8,9 567:6 601:11 607:19
superiors (1) 451:25	surrounding (6) 407:1 463:11 519:24 523:7 524:14 557:21	table (31) 364:1 365:1 366:1 367:1 368:1 369:1 370:1 371:24 372:1,7 372:13 382:8,23 394:22,23 416:25 437:7,18 437:20,22 549:22 559:13 564:4 566:11,15 567:6 575:3 597:26 617:9,12 617:16	taken (3) 483:16 503:26 614:5	taken (3) 483:16 503:26 614:5
supplemental (1) 458:17	survey (1) 553:16	tables (1) 562:11	takes (5) 401:23 401:25 546:8 585:14,15	takes (5) 401:23 401:25 546:8 585:14,15
supplementary ... 477:12 478:24	surveys (11) 397:22 415:9,15 534:13 554:23 583:9,24 589:8 589:9,21 590:10	tackle (1) 434:2	talik (5) 554:15 556:17,19,24 557:1	talik (5) 554:15 556:17,19,24 557:1
supplied (1) 414:18	survive (1) 578:18	Tail (195) 357:9 371:13 376:26 377:10,11 378:1 379:24 380:3,7 380:11 381:3,9 381:18,23 383:26 384:9 386:14 388:8,9 393:14 398:11 399:22 402:5 404:1 413:21 414:23 418:6,10 419:3,12 422:16 422:20 423:1,13 424:20 433:26	talk (4) 436:17 556:16 558:7 605:20	talk (4) 436:17 556:16 558:7 605:20
support (24) 381:2 383:21 384:8 435:14 445:2 482:4,20 485:10,23,25 522:3 523:14 525:17 526:10 526:17 553:2 555:8,15 556:6 556:6 559:20 599:18 600:6,11	suspend (2) 586:4 586:6	tables (1) 562:11	talked (1) 451:4	talked (1) 451:4
supported (1) 512:16	suspended (1) 476:14	tackle (1) 434:2	talking (5) 375:6 452:3 554:17 600:17 602:18	talking (5) 375:6 452:3 554:17 600:17 602:18
supporting (2) 528:17,20	suspension (1) 588:4	tail (195) 357:9	tanks (2) 575:24 601:16	tanks (2) 575:24 601:16
supports (6)	sustain (1) 488:14 sustainability (1) 481:18 sustainable (7) 358:24 441:14 441:16 484:12 569:12 595:4,18	swearing (1)	Taparti (1) 363:19	Taparti (1) 363:19

Tapatai (4) 362:15 610:14 610:15 612:23	technologies (1) 553:6	527:6,25 529:23 530:1 534:20,26	427:2 441:1	417:15,21
Tapirisat (1) 426:5	technology (2) 552:25 584:14	542:23 544:25 545:3 596:5	territory's (1) 441:4	418:14,18,23,26
Taptuna (1) 358:15	teleconference (3) 514:5 523:23 535:17	terms (43) 395:22 400:2 410:1 415:14 416:16	test (4) 606:23,26 607:4,5	420:4,4 427:5,6
target (5) 425:6,8 566:16 596:12 606:9	telephone (1) 515:14	420:10 421:23 422:1,16 424:5 425:2 429:23,26	tested (3) 397:21 607:14,21	427:13,18,22
Tartak (1) 363:11	tell (2) 432:3 599:11	437:19,21,23 443:1,4,23 445:20 446:17	testing (4) 466:19 470:13,15 607:3	428:2,4,16,17
Tattuinee (2) 363:12,13	tells (1) 588:7	448:5 455:12 475:5 491:2 499:13 509:12	tests (2) 459:24 461:22	428:19,23 429:3
Tautu (3) 363:1 598:18,24	temperature (3) 577:18,21 601:10	511:8 516:19 532:11 535:4 537:1 544:17	TETRA (1) 593:15	430:3,4,9,18
tax (1) 568:20	temporarily (1) 576:1	547:7,10,11,20 547:22 549:11 617:10,13,17 620:13	thank (391) 371:7 371:9 372:19,21 372:25 373:3,6	431:2,4,11,22
team (8) 378:18 381:6 442:12 567:19 591:25 591:26,26 592:4	temporary (3) 487:9,10,14	terrain (7) 553:14 554:10,13,18,21 554:25 555:4	373:8,14,15,20 373:25 374:1,16 375:7,15,16 376:12 377:20	432:7 433:3,6
technical (49) 358:14 371:17 382:11 393:15 394:2,12,19,26 395:22 417:17 430:25 431:14 431:19 432:2 437:9,14 442:3 442:4 462:5,5 470:10 480:26 483:25 486:7,18 489:6 491:23 508:18 510:4,9 510:14 512:16 513:5,26 514:2 514:3 515:11,15 535:7 550:3 552:16,19 558:5 616:9,24 617:4 618:19 619:3,10	ten (12) 395:7,14 402:2 404:11 548:11 560:10 566:7 572:19,19 572:21 583:6 600:9	terrestrial (41) 391:17,21 392:15,20 395:15,17 396:14 397:17 402:26 410:8,10 410:11 414:7 421:15,17 422:1 424:3,5 438:24 443:13,24 445:20 446:3 447:10,26 454:24 459:11 460:16,21 462:14,20 463:15 468:26 578:9 581:16 583:15 584:25 586:20 588:11 615:21 616:2	378:13,23,24 379:1,5 382:4 383:6,11 384:11 384:13 386:7,16 386:18,21,24 387:18 388:13 388:14,19,23 389:2,9,11,25 390:1,3,18 391:10,15 393:1 393:7,18,21 395:1 399:15 400:14,19 402:13 403:13 403:24 404:2,16 404:18 405:26 406:13,17,21 407:7,15,21,22 407:25 408:2,6 408:11,12,18,23 409:16,17,22 410:26 411:2,17 411:18 412:2,6 412:9,20 413:4 413:6,8 414:4 415:6,24,25 416:1,19 417:9	433:19,20 434:5 434:6,18,19 435:1,17 436:4 436:5,20,21,22 436:26 438:2,9 438:11 439:6,7 439:11,13,16,19 445:9,12,15,24 445:25 446:7,12 447:4,17,18 448:2,7,8,10,13 448:17,25 449:1 449:5,10,15,20 450:8,9,14,16 451:7,8,26 452:1,25 453:2 453:13,24 454:10,11 455:21,22,24 456:9,26 457:2 471:4,6,7,15,18 471:20,25 472:2 472:4,9,13,17 472:19,23,26 473:7,16,18,23 474:4,7,24,26 475:1,25 476:6 477:16,25 478:2 478:16,17 479:4 479:5,10,26 480:3,6,16 495:2,3,5,7,10 495:13,17,22 496:4,17,24 497:6,7 498:6,8 498:12,14,21,23 499:1,26 500:1 500:2,7,13,26
technician (2) 363:25 590:10	term (21) 383:24 384:5 413:1 416:5 421:7 426:6 429:10 461:11 462:1 470:8 478:22	territorial (2)		
technicians (4) 583:12,25 586:24 589:23				
techniques (1) 584:8				

501:8,10,12	471:10 552:10	420:11 423:10	392:9,9,11,23	457:7,10 500:18
502:1,14 503:5	560:20 564:16	426:18 432:21	396:14 397:18	500:19 511:26
503:7 504:11,20	564:18 568:26	435:8 442:17	402:20 447:24	512:5 537:22
505:26 506:2,9	thaw (4) 521:19	451:14 452:14	450:11 467:2	565:15 600:16
506:22 507:20	523:5 545:16	452:21 478:4	588:5	600:19 601:5
507:23 508:3,6	555:2	504:13 506:15	throughputs (1)	told (2) 580:22,23
508:13 509:11	thawing (1)	544:14 545:21	571:7	tomorrow (7)
509:17,21	555:24	576:20 610:1,23	thrown (1) 504:7	373:14 602:24
511:14,16,19	Theoret-Gosseli...	613:2	Thursday (1)	604:25 613:7,8
512:2,4 516:25	361:14 368:20	third (15) 410:10	371:3	613:10,11
536:9,14,24	387:8,8 388:11	462:25 488:2	tiered (2) 585:13	tonight (6) 373:12
537:11,12,14	388:11 511:11	490:8 493:15	585:14	552:9,12 564:20
538:9,11 539:5	512:9 516:25	524:10 565:13	time (58) 374:12	569:14 613:10
539:6,8,24,25	517:1	566:12,12,14	382:22 386:26	tonnes (6) 401:7
540:24 541:6,8	thermal (16)	570:24,26 571:6	394:22 397:14	570:24 571:4,5
541:10,14,19	466:20 516:2	573:5 603:26	404:12 407:9	571:8 572:15
542:1,6,13,25	522:2,7,11,23	thirds (1) 573:5	408:1,11 413:10	Tony (1) 512:15
542:26 543:6,7	523:12,16,26	thorough (3)	416:14 420:13	tools (2) 580:15
543:18,20,22,23	524:6 556:14	440:20 459:25	426:3 427:11	583:4
543:26 544:7,19	557:9,10,10,11	461:23	431:1,6 448:15	top (3) 565:10
545:6,7,12	560:5	thoroughly (1)	448:24 451:4	582:3,5
546:1,2 547:13	thermistors (2)	472:20	455:15 459:15	topic (4) 492:20
547:14 548:26	556:12 577:18	thought (3)	468:10 471:12	540:19 599:13
549:14,16,25	thick (1) 555:24	389:24 428:12	471:17 472:20	602:19
551:4,6 552:2,4	thicker (1) 522:17	608:6	473:2 481:5	topics (3) 440:7
552:9 559:26	thickness (12)	thoughts (2)	487:18 495:7,19	513:22 514:14
560:16,16,23,26	518:16 521:26	537:2 538:5	495:23 509:2,5	total (7) 400:5,7
561:4,8,10,15	522:3,6 554:14	thousand (2)	516:16 533:14	464:11 476:14
561:17,19,21,22	555:17,20 556:3	455:14,15	536:19 537:16	571:9 572:19
561:25 562:3,6	556:8 559:18,22	three (24) 394:1	539:21 541:16	596:26
562:7,13 563:5	577:20	395:14 397:12	546:13,15 548:8	totally (1) 407:12
563:10,14,24	thicknesses (1)	397:19 411:5	548:8 561:6	touch (3) 457:14
564:1,8,10,13	577:16	418:19 438:18	562:4 573:9	480:26 514:10
568:24 574:6	thing (2) 452:13	455:14 456:12	574:12,16	tourism (1)
577:24 595:15	609:16	501:21 508:18	580:24 581:1	441:10
597:20,21	things (14) 388:10	508:19 519:25	582:2,4 592:24	town (1) 416:20
598:24 599:23	401:18 403:6	523:7 526:22	596:21 604:26	track (5) 397:22
600:3 602:19,26	409:8,12,14	534:2,14 535:5	605:7 613:1,9	454:18 491:15
603:4 605:17	428:10 435:7,14	554:12 557:13	times (2) 395:7	548:13 568:11
607:15,17 608:2	516:23 537:21	565:17 584:19	548:3	tracking (3) 455:4
608:3,8,9,11,22	569:15 576:8	588:23 596:24	timing (1) 527:16	472:22 581:18
608:23,25	598:15	threshold (8)	title (1) 509:9	traction (1)
610:12,13,15	think (29) 378:14	450:4 451:16,18	today (22) 371:17	572:20
611:3,8,9	382:8 385:14	570:12 587:21	372:9 393:24,25	traditional (7)
612:18,23	395:18 401:3	587:26 588:10	426:9,14 435:10	394:16 406:7
thanks (10) 383:4	402:14,22 403:3	589:26	437:6 439:20	422:19 434:11
406:1,2 416:18	403:7,17 411:16	thresholds (11)	442:17 446:6	441:25 478:6,8

traffic (14) 377:26 395:7 397:5,19 398:8 402:8 444:9,15 571:22 590:21 591:6 592:12,19,20	transparent (1) 586:25	615:13 616:14 616:19	554:2 571:25 572:14,15,18 587:17 603:22 610:9	406:26 409:1,4 409:4 417:24 418:2 422:15 429:9 435:20 438:13,19,19 442:12 456:13 456:13 464:8 474:22,22 479:12 483:8 492:8,24 497:2 497:11,22 498:12 524:9 531:13 563:11 572:10 573:4 575:25 583:25 586:19 604:24
traffic's (1) 433:25	Transport (22) 362:8,9 373:24 373:26 378:16 378:22 388:18 388:20 408:17 408:19 428:22 428:24 449:4,6 472:8,10 496:2 496:3 541:26 542:2 561:16,18	Trapping (11) 583:10,13,19,26 584:23 585:2,23 589:23 590:9,22 591:12	trucks (22) 374:21 397:8,10 397:12 423:11 433:9,14 571:23 572:9,13 586:7 588:26 590:14 591:4,14,17 608:20 610:2,2 610:4,5,7	two-and-a-half ... 571:24
training (8) 375:21 432:13 565:4 587:1 595:24 596:8,13 597:8	trans-indicate (1) 467:3	trauma (2) 426:7 426:17	truly (1) 566:5	two-dimension... 556:5
transcribed (1) 614:6	transportation ... 360:20 441:10 567:22	treated (1) 573:24	try (8) 382:6 406:6,8 436:18 439:26 516:10 592:25 601:25	two-way (1) 569:6
transcript (3) 370:13 614:1,5	transporting (1) 571:23	treatment (22) 426:1,10,22 464:17,18,20 467:24 489:13 490:17 507:8,8 518:14,18,21 519:1 524:17 525:21 526:15 526:18 543:17 575:14 595:6	trying (9) 398:1 403:21 407:13 432:11 434:2 435:15 504:8 537:6,23	types (2) 465:1 602:14
transects (2) 399:24 593:6	trappers (73) 359:23 364:14 365:5,23 366:8 366:12,24 369:5 372:20,22 377:22 383:8,9 383:12 385:22 386:10 400:16 400:17,21 403:5 403:14 404:7 406:4,6,15 413:24 414:10 415:11 417:13 417:26 418:4,8 418:21 419:2 422:23,25 423:7 423:20 427:7 430:8,12,19 431:10,15 433:21 435:21 436:6,22 438:15 438:21 443:15 443:21 446:9,10 446:13,16 471:14 486:4,25 487:24 489:2 494:12,22 495:9 536:21,22 537:14 538:2 539:26 560:22	tree (1) 587:6	tubs (4) 603:15,21 603:22 604:3	typical (3) 475:7 507:26 508:4
transfer (8) 374:25 376:2 505:12 553:6 603:10 604:10 606:3 610:8		trees (2) 586:20 586:21	Tucktoo-Lacass... 363:20	typically (3) 503:24 548:2 584:18
transferred (9) 504:18 505:6,7 505:9,13,15 604:17 605:26 606:2		Tribunal (3) 599:8,16,22	Tuktudjuk (1) 363:8	
transferring (3) 505:6 603:9 604:3		tries (1) 469:1	Tukturjuk (2) 371:4,6	
transfers (2) 375:20,24		trigger (1) 589:6	Tulugak (1) 361:23	
transition (2) 531:20 532:8		triggers (1) 588:6	tundra (2) 376:20 423:13	
translate (1) 398:1		trip (2) 576:6 591:16	Tunngavik (4) 426:4 540:7 568:19 597:1	
TRANSLATIO... 415:26 500:21 547:4 562:26 613:5,7		trips (2) 571:25 571:26	turn (6) 371:16 374:6 417:7 436:17 516:8,23	
translator (4) 363:18,19,20 491:10		Trish (4) 367:8 456:25 457:11 463:19	Turner (1) 363:15	
		trophic (8) 489:9 489:14,22,26 490:1,3,9 491:21	tweaks (1) 403:7 twice (3) 473:15 548:15 573:4 two (38) 375:5 390:20 394:3	
		truck (13) 397:5 397:11 401:8 402:8 553:26		ultimate (1) 380:3 ultimately (3) 385:3 468:2 585:9 ultramafic (5) 464:25 465:3,6 465:10 526:6 unaware (1) 469:8 uncertain (1) 430:20 uncertainties (15)

395:9 469:12,13 469:21 515:20 519:22 520:5,14 523:4 524:19 526:19 536:2 543:3,9 557:9 uncertainty (16) 396:26 397:4,26 398:7,10,26 399:10 410:7,16 447:12 485:22 488:23 526:12 527:9 545:16 555:6 unclear (8) 488:16 490:2,16 493:6 497:1 516:6 523:20 529:13 uncontrolled (1) 520:15 understand (11) 445:17 459:15 473:16 478:13 503:19 601:6 602:8,15,19,20 610:26 understanding ... 393:9 399:2 420:7 429:8,9 443:18 446:26 469:14 496:11 499:8 508:23 548:10 609:19 understood (9) 423:16 504:13 515:19 533:22 536:1 558:13 599:5 602:16 605:4 undertake (2) 407:17 490:13 undertaken (2) 481:22 514:24 undertaking (1) 483:14 underway (2)	477:11,18 undisturbed (1) 397:14 undue (1) 423:22 unforeseen (1) 494:19 unfortunate (1) 376:8 unfrozen (1) 556:20 unintended (2) 515:21 536:3 unique (1) 469:6 University (1) 490:23 unknown (1) 525:13 unprecedented ... 423:13 UNREPORTA... 540:14 unsatisfied (1) 598:26 unsure (1) 459:17 untested (1) 469:10 update (9) 374:2 460:22 461:7 516:10 520:2,24 524:7 555:13 558:13 updated (15) 462:14,22 463:15 467:15 485:12 520:19 521:2 522:24 523:16,26 526:2 527:11,12 531:16 559:2 updates (2) 387:14 534:8 updating (2) 466:22 558:20 upland (1) 601:3 upper (2) 557:22 572:16 usage (2) 455:1	455:11 use (39) 360:26 374:18,22 381:6 381:7 397:8 402:6 434:11 445:7 454:25 455:5 475:8 486:16 497:1 503:10 504:1 524:7 535:19 552:22,26 553:23 565:1 567:25 568:2 576:7 577:6,14 578:20 583:8 584:11 586:17 587:13 591:1 593:13,14,22 594:14,25 609:25 useful (3) 396:12 498:1 509:10 uses (1) 575:17 usually (3) 416:6 607:20,24 utilize (1) 556:10 utilized (1) 575:19 utilizing (2) 374:21 381:26 V V (1) 359:13 validate (2) 525:1 526:24 validated (1) 559:8 validation (1) 529:9 valuable (1) 455:19 value (2) 404:20 404:24 valued (2) 481:1 486:7 values (1) 445:7 Vanengen (28)	359:9 376:13,13 379:12,12 387:19,19,21 391:4,26 392:2 392:2 496:8,8 497:8,8 504:21 505:1,1 577:23 577:24,25 583:1 603:2,2 606:13 606:13 607:2 variability (1) 522:16 variation (1) 396:8 variety (2) 439:25 440:4 various (11) 441:17 442:23 474:16 476:10 502:17 513:22 524:18 528:25 531:21 559:1 583:17 vast (1) 455:1 Vault (10) 414:22 505:8,14 507:16 571:18 572:23 574:22 605:24 609:9 610:3 vegetation (3) 459:23 461:21 608:6 vehicle (2) 572:7 587:8 vehicles (5) 586:4 586:6 591:24 598:10,12 verification (1) 502:25 verify (1) 494:17 verifying (1) 558:2 version (1) 479:15 versions (1) 479:15 vessel (1) 378:16 Vice (2) 358:21	358:23 vicinity (2) 524:22 525:4 video (6) 573:10 573:11 574:6,8 576:12 582:3 view (6) 388:5 505:5 558:1 566:24 582:6,7 Virgl (1) 359:17 vision (3) 425:10 568:9 597:18 visit (2) 501:1 549:11 visiting (2) 547:9 547:11 visits (2) 600:7 604:7 visually (1) 434:24 vital (1) 423:26 voice (1) 500:23 volume (7) 357:16 374:19 376:25 377:26 378:11 465:13 557:24 Voyer (1) 359:10 W W (3) 359:26 362:17 363:25 wages (1) 425:8 waiting (3) 417:6 421:25 591:17 walking (2) 432:6 512:17 wall (9) 464:22 465:3,10,12,14 465:21 466:3,4 526:1 walls (1) 579:23 want (34) 373:11 384:10 403:11 406:6,8 423:22 423:23 432:3 433:13 446:22 450:19,25

473:9,12,15 474:2 503:9 509:5,8 542:10 547:2 570:5 597:22 599:5,5 600:16,21 601:1 602:1,16,23 wanted (13) 375:5 405:16 406:12 438:6 439:5 446:21 451:1 452:5 478:15 496:10 507:2 536:10 551:10 wants (1) 409:13 warm (3) 601:8,9 604:1 warmer (2) 600:25 601:2 warnings (1) 457:25 warrant (1) 522:17 Warren (10) 365:19 383:12 400:20 418:12 420:3 430:18 434:19 446:13 471:16 539:25 wasn't (1) 412:14 waste (65) 380:21 380:23 394:24 399:26 412:13 412:16,25 465:13,15 466:7 466:19,20,23 467:24 468:4,14 468:20 514:16 515:26 516:3 517:4,8,9,11,21 517:26 518:4,13 519:1,7,11,13 519:23 520:3,4 520:6,15,18,24 521:19,22,23 522:4,12,18,19 522:25 523:5,15	535:12 545:14 545:18 554:14 555:18,21,26 556:7,12 559:18 559:21 573:21 574:10,26 577:14 598:6 wasted (1) 504:17 water (167) 360:12 361:8,11 361:21,23 364:19 368:8 369:12 374:18 374:20,22 379:17,19 388:6 388:26 389:1,3 389:6,14,17,18 389:22 400:9,10 400:11,12 412:25 413:3,7 413:9 416:6 431:3,5 432:16 449:19,21 457:11,23 458:2 462:12 463:21 463:26 464:10 464:14 465:17 466:7 467:3,19 469:17 470:1,7 472:25 473:1 475:3,6 478:5 481:2,22 482:22 484:12,18 485:20 488:12 488:18 491:4,25 492:3,6,20,25 493:15 498:24 498:25 499:2,17 499:24 513:13 515:26 516:4 517:6 518:17,20 518:20 519:24 520:9,15,21 521:10,16,24 523:6,17 524:1 524:8,11,16 525:20,25	526:15,18 527:10,13 532:4 532:6 539:11,12 544:4,5,8,12,23 544:24,25 545:3 546:16 547:3,7 548:5,7,8 555:22 556:21 556:23,23 557:14,18,19,24 558:14,18,21,22 559:11 562:2,4 564:5 573:15,23 574:2,4,5 576:12,17 578:2 578:14,16,18 579:1 593:2,14 593:16,17,21 594:10,12 603:21,22 604:2 605:4,6,8,26 606:2,5,6,8,10 water's (1) 604:9 waterbird (2) 458:24,26 waterbirds (1) 459:10 waterbodies (5) 490:15 519:2,13 519:24 523:7 waters (6) 458:4 467:1,12,13 475:16 484:24 watershed (7) 493:8 497:12,13 497:14,15 498:18,19 Watkinson (2) 360:5 480:14 way (15) 385:16 395:16 400:25 404:26 434:22 451:13 452:15 468:7 478:11 490:15 503:13 529:12 573:17 589:20 606:25	ways (5) 403:1 434:17 537:25 593:12 594:26 we'll (48) 372:8 374:3 382:6,7 382:13 392:23 407:6 416:17 475:24 500:20 549:20 556:16 557:18 558:7 562:21 564:21 564:22,24 565:2 565:4 569:21 570:16,17 571:24 572:1,1 574:20 575:6,14 575:16,22,23 577:11 582:2 583:8,9 587:22 588:2,2 593:21 593:22 594:9,14 594:18 595:2 603:9,10 613:10 we're (64) 371:24 375:6 377:1 381:21 382:7,9 387:25 388:1 390:4 393:26 394:3 398:1 403:6,12 407:1 415:16 416:22 421:9,22,25,25 425:13 429:13 429:15,24,25 434:1 435:7,8,9 452:3 456:4 472:22 506:6 507:2 516:20 540:19,22 542:20,23 546:9 549:17 562:8 566:7 569:15 572:10 573:6 574:15 576:10 576:26 584:7,9 584:11,14 585:7 585:9 586:10	592:19 593:8 594:12 598:15 603:12 604:3 613:9 we've (39) 378:2 387:22,23,24 392:4,13 395:26 397:20 404:3,5 411:5 421:21 431:23 434:21 443:17 447:13 455:3,13 497:19 497:24,24 505:3 505:6 516:9,21 545:15 560:11 572:4 573:9 581:17 583:5 584:1,22 586:12 594:7 604:4 605:22,26 613:8 weakness (1) 399:2 weather (1) 457:24 website (3) 539:12 548:22 548:23 week (8) 400:9 413:4 480:9 548:18 564:11 566:19 573:7 598:14 week's (1) 565:24 weeks (3) 392:4 411:5 566:25 weight (1) 603:25 weighted (1) 486:11 weighting (1) 486:16 weights (1) 486:12 welcome (6) 405:14 418:25 456:5 508:9 562:14 564:11 welcoming (1)

512:7	556:12,17,18	378:5 395:20	women (2) 612:1	532:8 533:15,24
welfare (1) 452:13	557:20 562:17	402:7 413:22,22	613:2	534:12 571:12
well-being (1)	564:19,23,25	414:13,14	wonder (1) 390:7	595:19
394:11	565:1,23 566:17	415:10,13	wonderful (1)	working (18)
wellness (1)	566:20 567:2,13	416:11 419:19	425:12	392:4 400:11
533:16	567:16,22 568:6	420:26 429:6	wondering (5)	413:21 429:24
went (1) 382:26	568:8 569:22,25	430:15 432:16	430:12 497:4	432:12,20
western (1)	570:10,13,15,16	434:13 435:22	537:2 538:25	435:11 444:25
580:15	570:22 571:3,10	436:13 440:22	551:14	450:22,26 451:1
Whale (198)	571:16,18,21	441:20 443:7	word (2) 387:16	460:4 499:5
357:9 363:15	572:24 573:14	444:17 445:19	407:4	542:24 583:9
371:13 376:26	573:18,20,21,26	454:7,14,15,20	wording (16)	597:17 599:6
377:10,11 378:1	574:1,2,9,11,12	458:23 462:9,10	406:25 420:24	608:18
379:24 380:3,7	574:25 575:6,11	462:13,15,21	423:5 429:13,15	works (3) 384:25
380:11 381:3,9	575:15,23 576:1	578:10,11	429:16,22,26	389:22 414:15
381:18,23	576:14 577:1,7	579:21 583:18	442:26 445:19	workshop (2)
383:26 384:9	579:6,8,12	583:25 584:19	445:22 446:5	547:19 579:9
386:14 388:8,9	580:3 582:19	585:5,5 587:7	448:5 461:13	workshops (15)
393:14 398:11	584:6,20 585:21	588:19 590:10	516:18 542:23	395:14,14
399:22 402:5	586:13,13 589:2	591:26 605:9,21	work (42) 387:12	412:23 415:16
404:1 413:21	591:2,4,15,18	606:12,16 607:3	387:17 392:14	438:16,19,25
414:23 418:6,10	591:18 592:22	607:12	392:19,23	579:9,18,26
419:3,12 422:16	593:9,24 594:8	willing (1) 422:14	405:19 410:23	583:16,21
422:20 423:1,13	594:9,16,24	willingness (1)	422:15 425:13	584:24,26
424:20 433:26	595:2 596:5,26	530:26	429:14 431:17	588:11
437:10,15 439:1	597:14 598:4	wind (5) 376:22	440:21 443:3	world (1) 565:12
456:19,24	603:11,12	377:4,18 478:8	447:6 450:20,25	worldwide (1)
458:14 460:22	608:14,26 609:3	478:10	452:11,18,19,21	565:8
464:22,23 465:7	609:7,10,23	window (6)	460:4 467:21	worst-case (2)
465:11 467:25	610:5 615:17	569:26 570:9,11	484:6 486:2,24	377:12 489:16
468:1,2,4,10,16	616:8,15,20,25	570:26 571:2	487:18,23 489:1	worthwhile (2)
469:4 470:1	617:5,22 618:4	573:12	492:17 494:3,3	428:13 478:26
474:3 480:20	618:20 619:4,11	windows (1)	494:11,20	wouldn't (4)
484:25 485:2,18	619:18,25 620:6	442:20	530:26 569:3	376:3 403:11
488:5,6,12	whatnot (1) 491:6	winds (4) 478:7	590:22 595:8,23	501:5,6
493:8,14 494:10	wheels (6) 572:17	478:10,12,15	601:1 606:2	Write (1) 372:3
497:14,20 498:2	572:18,18,19,19	wings (1) 575:7	611:1,2	writing (1) 446:25
498:19 500:11	572:21	Winnipeg (2)	worked (4)	written (24)
501:19,22 507:7	white (4) 435:13	438:19 585:4	442:25 527:26	384:17 391:23
510:5,10,15,20	567:3 572:26	winter (1) 582:9	543:10 601:24	457:17 459:2,7
510:25 511:4	573:3	wish (2) 424:8	worker (2) 533:15	467:7 480:19,25
512:11,13,21,23	wide (2) 474:14	562:14	534:7	481:8 484:1
513:3,16,19	609:11	wishes (1) 371:12	workers (3)	485:15 487:2
528:9 530:21	widely (1) 426:12	witness (1) 550:8	434:13 531:20	488:9 489:20
533:18 534:19	widen (1) 609:12	witnesses (1)	575:7	490:20 492:22
535:25 552:15	wider (1) 528:19	563:8	workforce (8)	514:8 517:3
553:15 554:4,11	wildlife (52) 361:4	wolf (1) 580:1	427:4 531:20	521:5 527:7

529:24 534:21 600:2 616:4 Wynona (2) 613:7 613:11	531:22 537:22 600:16,19 601:4 yesterday's (1) 403:16 yield (1) 587:9 Yip (3) 359:12 369:26 563:13 young (1) 432:14 youth (8) 406:8 450:19 452:10 452:20 600:9 611:26,26 613:2	476:13 10,000 (2) 396:18 396:20 100 (8) 425:11 430:26 447:12 503:11 504:4 518:2 539:15 604:13 11 (4) 394:21 444:16 508:8,9 11,000 (3) 570:24 571:4,8 11th (1) 614:9 12 (4) 412:13 444:17 451:15 483:7 12.5 (1) 425:1 12:04 (1) 456:2 13 (1) 444:19 14 (3) 444:21 462:4,22 140 (2) 590:1,2 14th (11) 379:16 460:25 461:6 514:7 515:9,24 521:8 523:24 527:18 553:18 559:25 15 (2) 462:4,22 15-minute (1) 506:3 150 (4) 570:13 571:13 572:14 588:22 154 (1) 571:26 16 (2) 462:4,22 16MN056 (1) 357:11 18 (2) 571:22 598:13 19 (2) 379:6 615:6 19-22 (4) 437:11 437:16 617:1,7 1930s (1) 426:12 1950s (1) 424:22 1970s (1) 426:12	2 2 (13) 380:20 409:9 410:10 419:19 429:5 512:18 519:10 521:26 524:4 555:20 575:26 587:23 589:17 2-and-a-half (2) 377:10 476:12 2.5 (1) 377:6 20 (9) 386:8,9 482:21 511:9 604:13,14 615:11,12 620:13 200 (2) 375:4 376:4 2007 (2) 559:25 566:5 2008 (1) 560:12 2012 (2) 375:4 376:3 2013 (2) 505:8 567:11 2014 (3) 560:12 579:8,14 2015 (4) 505:7 579:10,12,14 2017 (26) 357:17 374:26 386:9 387:13 391:24 394:21 437:12 437:17 460:15 460:21,26 468:24 470:20 509:16 511:9 546:9 553:18 565:9 613:13 614:9 615:2,12 616:5 617:1,7 620:14 2018 (14) 388:3,7 459:24 524:3 566:12,13,15,20 570:9,24,26	574:8,13 576:25 2019 (7) 387:26 565:22 570:9,10 571:2,6 574:8 2020 (1) 571:9 2022 (2) 570:10 570:20 2023 (1) 571:9 2029 (1) 570:20 2030 (1) 570:21 2046 (3) 546:9,22 570:21 20th (1) 509:15 21 (7) 357:17 391:13,16,24 615:2,20 616:5 210 (1) 575:7 22 (4) 391:13,20 613:13 616:1 23 (2) 393:13 616:7 24 (6) 418:4 530:24 571:23 592:6 598:13 616:13 25 (7) 418:8 464:10 580:25 587:12 589:4 592:17 616:18 25-kilometre (1) 589:6 250,000-litre (1) 575:24 26 (3) 437:8 543:2 616:23 26.2 (1) 381:19 27 (2) 437:13 617:3 28 (8) 437:18 439:2 464:1 572:2,5 586:12 586:14 617:9 28th (6) 520:22 523:19 527:14 529:25 531:24 534:23 29 (3) 437:20

464:24 617:12 29th (1) 515:5	389 (1) 364:19 39 (2) 510:22 619:22 391 (2) 615:20 616:1 393 (3) 364:21,23 616:7	439 (2) 366:17,19 44 (2) 550:16 620:24 440 (1) 575:13 445 (1) 366:21 446 (1) 366:24 449 (1) 367:5 45 (2) 550:19 621:1 456 (3) 367:8 617:19 618:1 457 (1) 367:11 46 (2) 550:22 621:5 47 (2) 550:25 621:9 473 (1) 367:14 479 (3) 367:17 618:7,12 48 (2) 563:20 621:13 480 (1) 367:19 496 (2) 367:22,25 498 (2) 368:5,8	621:9 551 (1) 369:18 552 (1) 369:20 560 (1) 369:22 563 (2) 369:25 621:13 564 (1) 370:5 58 (1) 482:25 598 (1) 370:9	604:16 800 (1) 570:12 85 (1) 401:26 8th (1) 460:20
3 3 (12) 357:16 378:11 409:10 410:2,3,14,20 411:3 419:20 573:8 584:13 585:25 3-D (2) 567:7 575:2 3(a) (1) 378:12 3.6 (1) 596:13 30 (9) 376:19,21 376:24 424:24 437:22 546:10 586:8 592:21 617:16 31 (2) 456:16 617:19 32 (5) 424:17 456:21 482:24 558:5 618:1 33 (3) 479:17 482:25 618:7 34 (2) 479:21 618:12 35 (4) 450:23 482:1 510:2 618:17 35,000 (1) 450:26 36 (3) 510:7 592:15 619:1 365 (4) 433:15 439:1,3 572:4 37 (2) 510:12 619:8 372 (1) 364:5 374 (1) 364:7 379 (2) 364:10 615:6 38 (3) 424:17 510:17 619:15 383 (1) 364:13 386 (1) 615:11 387 (1) 364:16	4 4 (21) 376:25 409:11 410:2,3 410:20,20 419:22 444:2 464:21 475:3 518:16 521:26 555:20 556:4 587:22 589:19 589:21 590:2,12 590:20 592:8 4:19 (1) 540:25 4:30 (3) 500:18,20 506:7 40 (4) 377:7 511:1 604:15 620:3 400 (10) 365:5 403:19,19,22,23 404:14,14,14,20 597:3 406 (1) 365:9 408 (1) 365:11 409 (1) 365:13 41 (2) 511:6 620:10 413 (1) 365:16 418 (4) 365:19,22 616:13,18 42 (3) 424:19 550:10 620:16 428 (1) 365:25 429 (1) 366:5 43 (2) 550:13 620:20 430 (1) 366:7 431 (1) 366:11 437 (5) 616:23 617:3,9,12,16 438 (1) 366:15	5 5 (7) 409:9 410:24 419:24 466:14 488:7 507:11 519:10 50 (6) 425:6,8 455:16 523:1 565:10 596:11 500 (2) 368:11 586:5 506 (1) 368:14 507 (1) 368:17 510 (5) 618:17 619:1,8,15,22 511 (4) 368:20,23 620:3,10 536 (1) 369:5 542 (1) 369:9 544 (1) 369:12 545 (1) 369:15 550 (6) 620:16,20 620:24 621:1,5	6 6 (2) 419:26 467:7 6-and-a-half (3) 380:19 573:8 609:11 6(h) (2) 518:10 526:3 6:00 (4) 500:18,20 506:7 540:23 6:06 (1) 540:26 60 (4) 463:16 470:6 520:26 604:16 607 (1) 370:11 60th (1) 565:9 614 (1) 370:13 615 (1) 370:14 64 (2) 573:2,2 65 (2) 401:7 505:13 66 (2) 465:16 523:3	9 9 (2) 602:25 613:10 9-and-a-half (2) 380:19 573:8 9,500 (1) 571:5 9:00 (3) 613:8,11 613:13 9:06 (1) 371:1 99 (1) 581:1
		7 7 (6) 374:22 377:2 377:16 399:19 468:18 598:14 7-kilometre (1) 376:26 7,500 (1) 565:11 7.1 (1) 581:18 714,000 (1) 381:18 74 (1) 567:1	8 80 (3) 505:15,15	