

**NATIONAL ENERGY BOARD  
OFFICE NATIONAL DE L'ÉNERGIE**



**Public Review of the TGS NOPEC Geophysical ASA (TGS),  
Petroleum Geo-Services (PGS) and Multi Klient Invest (MKI)  
Northeastern Canada 2D Seismic Survey Application**

**Examen public de la demande d'autorisation de levés sismiques  
bidimensionnels dans le nord-est du Canada présentée par  
TGS NOPEC Geophysical ASA (TGS),  
Petroleum Geo-Services (PGS) et  
Multi Klient Invest MKI)**

**VOLUME 4**

**Meeting held at  
Réunion tenue à**

**St. Jude Parish Hall  
Iqaluit, Nunavut**

**May 2, 2013  
Le 2 mai 2013**

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**PUBLIC MEETINGS  
RÉUNIONS PUBLIQUES**

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**MEETING LOCATION/LIEU DE LA RÉUNION**

Meeting held in Iqaluit (Nunavut), Thursday, May 2, 2013  
Réunion tenue à Iqaluit (Nunavut), jeudi, le 2 mai 2013

**BOARD PANEL/COMITÉ D'AUDIENCE DE L'OFFICE**

D. Hamilton            Member/Membre

## APPEARANCES/COMPARUTIONS

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### APPLICANTS/DEMANDEURS

NEXUS Coastal

- Mr. Chris Milley

Petroleum Geo-Services (PGS)

- Mr. Garry Morrow

- Mr. Magnus Christiansen

TGS NOPEC Geophysical Company ASA (TGS)

- Mr. Troy Nelson

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**Opening remarks  
Member Hamilton**

--- Upon commencing at 7:11 p.m./L'audience débute à 19h11

1943.           **MEMBER HAMILTON:** Well, I think maybe we'll just get going.
1944.           Now they decide to go and get their coffee after I decided to get going. You're waiting for the red light, yeah.
1945.           Well, I'd like to welcome you here this evening. My name is David Hamilton and I am the Board Member with the National Energy Board who has been designated to consider the application by MKI for seismic.
1946.           The National Energy Board regulates oil and gas offshore activities in the Canadian Arctic. Companies can ask the NEB the permission to undertake these types of activities. One of the NEB's role is to review proposed projects and approves or denies them.
1947.           The NEB has been asked to consider the application by MKI and its partners who would like to undertake 2D seismic work in Baffin Bay and Davis Strait.
1948.           Before I ask MKI to make a brief presentation, I would like to introduce the people from the Board that we have with us this evening, and I would like to ask them to stand and be recognized in this large crowd. Okay, don't stand out too much.
1949.           We have Galina Doubrovina who is our Project Manager; Christy Wickenheiser is our Environmental Specialist; Marie-Anick Elie is our Northern Coordinator; Julie Fisk is our legal counsel with the Board, and Bharat Dixit is our Technical Leader, Exploration and Production.
1950.           We also have the assistance of four interpreters this evening if required. We have two Inuktitut interpreters, Mali Curley and Loseosie Paneak. And our French interpreters are Beatrice Demontmollin and Pierre Trudel.
1951.           You will see that we are using microphones for this hearing and this is for the use of interpreters, but also we are recording all the comments that we are receiving from not only here in Iqaluit but throughout the communities that we have visited. And it's important that we have a transcript so that we can have a record of the comments that were received that'll help shape the decision that I have to make on this application.

1952.           So if you are speaking this evening, it would help us if you identify who you are and -- for the transcripts.
1953.           And like the other communities that we have visited, Pond Inlet, Qikiqtarjuaq and Clyde River, if you wish a copy of the transcripts, they are -- will be available on the Board's website. And if you'd like a copy sent to you, you just need to ask one of the NEB staff and they will send them to you.
1954.           The purpose of the meeting is to hear from you on the proposal by MKI to conduct offshore marine seismic in Baffin Bay and Davis Strait. Your comments will help the NEB shape its decision.
1955.           In making your comments, please keep in mind that the NEB is an independent federal agency. It operates as a quasi-judicial federal Board and can approve or deny proposed seismic or drilling.
1956.           The *Canada Oil and Gas Operations Act* requires the Board to regulate activities associated with oil and gas operations in the Canadian Arctic, such as geophysical operations, such as seismic, drilling and well operations and production facility operations.
1957.           The purpose of the Act is to promote the safety of communities, the public, and workers, protection of the environment and conservation of the oil and gas resources.
1958.           Just to confirm, before a company like MKI can carry out its activities in the Canadian offshore, they need to have -- need to obtain a Geophysical Operations Authorization, which is GOA for short, from the NEB. They also need to obtain an Operating License also from the NEB. They must file a benefit plan with Aboriginal Affairs and Northern Development and they must obtain a Certificate of Fitness by a recognized certifying authority.
1959.           The NEB takes a lifecycle approach to regulating offshore programs. Perhaps a better way to explain that, and as we were told during the Arctic Review on offshore drilling in Inuvik, we are the watchdogs and that the communities will hold us accountable as we hold companies accountable.
1960.           What that means is that we are not just here today and you never see us again. The NEB approach includes assessing the application, which we are

**Opening remarks  
Member Hamilton**

- concluding with these meetings, and if approved, the NEB undertakes monitoring and inspection during operations and the review of the data and reports.
1961. Applications for projects are assessed to ensure they meet strict safety, environmental and geological standards and requirements. A company making an application must provide the NEB with a safety plan, a contingency plan, emergency plan, which is reviewed for technical effectiveness by the NEB.
1962. They must provide an environmental assessment that outlines the risks of the project and the mitigation measures. And they must proof -- they must have proof that other requirements have been fulfilled.
1963. Since MKI applied for the GOA, there has been a lot of material provided to the Board and to communities. We also require MKI to have consulted with affected communities. And we have received the reports from those committee meetings -- community meetings, I beg your pardon.
1964. We have received letters of comments from the following organizations: the Qikiqtani Inuit Association, Environment Canada, the Arctic Fisheries Alliance, the Baffin Fisheries Coalition, Fisheries and Oceans Canada, and the Government of Nunavut. Letters were also received from Shari Gearheard on behalf of Clyde River residents.
1965. The NEB has been conducting an environment assessment as part of the consideration for the project to assist organizations and residents in the communities. We've prepared a Discussion Paper that outlines the potential environmental affects that have already been identified by organizations and residents in the communities.
1966. The paper outlines the potential effects the proposed project may have and the various measures and actions that MKI are proposing to take to mitigate those potential impacts. Copies of the Discussion Paper and these overheads are available on the table.
1967. That brings us to why we are here this evening in Iqaluit. It is to allow you the opportunity to make comments on the proposed project. All the comments we will receive will assist me in making a recommendation to either approve the application with conditions that should be required to be followed or to deny it.



**Presentation**  
**Mr. Garry Morrow**

1968.           The MKI representatives are here to explain their project and to help us understand how they intend to mitigate activities that might concern you.
1969.           With that, I'd like to ask MKI to introduce themselves and to make a presentation on their project and then the floor will be open for you to ask questions or to make any comments you wish.
1970.           **MR. TROY NELSON:** Yes. My name is Troy Nelson. I work for TGS. We are a partner in the project. Regulatory and Compliance based out of Calgary. I'm from Halifax.
1971.           **MR. CHRIS MILLEY:** My name is Chris Milley. I'm a consultant with NEXUS Coastal Resource Management and I'm an Adjunct Professor at Dalhousie University where I teach Fisheries Management and Indigenous Rights and Resource Management.
1972.           **MR. GARRY MORROW:** My name is Garry Morrow. I'm with Petroleum Geo-Services, MKI, and I am the Project Manager for North and South America for the company.
1973.           **MEMBER HAMILTON:** Thanks, Garry.
1974.           If you could just go ahead and make your presentation. Thank you.
1975.           **MR. GARRY MORROW:** Thank you.
1976.           This here -- we're hoping to get our authorization and come up here and start the program, as you've heard just here earlier. We've been up in the community previous to this and, last December, we did some community consultations here in Iqaluit.
1977.           So, in those, we basically touched on the geophysical aspects of the program and so, as you heard today, what we'd like to do is just go over the operations and how the operations actually work and how we conduct the seismic survey.
1978.           What you see on this first photo here is the actual vessel that would be performing the survey here.

**Presentation**  
**Mr. Garry Morrow**

1979. The name of the vessel is the Sanco Spirit. It is a relatively new purpose-built research ship. It has been working in both Newfoundland and Labrador the last two years on projects and it also goes to other various parts of the world and then does the same type of survey work.
1980. The vessel itself is 88 to 89 metres in length. So it's a pretty sizeable vessel and, at the stern, the width of the vessel is 16 metres.
1981. We can go on to the next one. The proposed project area that you've probably seen on some of the maps that are in the handouts and have been distributed previously. This one here on the right-hand side shows the actual survey lines that we hope to acquire in 2013.
1982. The amount of survey lines adds up to a total of 5,000 line kilometres and what we are looking for right now is to start somewhere in September to October and that's about the amount of time it takes us to acquire that much data.
1983. The survey ship itself, when it's doing the survey work, travels at a relatively slow speed at 4.2 to 4.0 knots or 8 kilometres per hour. The surveys, you can see, is located pretty far offshore. I think the closest line is about 100 kilometres from the shoreline so it's well outside the 12 miles of the coastline and it's also outside the land fast ice area.
1984. When going in between these survey lines, the vessel is not always constantly surveying. We have what we call "line changes". So once it completes one of these lines that you see in black here, it has to transit to another one and during those periods of time, generally, the source is either reduced or it's not active at all during those periods.
1985. It's good to note that, when we do this, that at all times -- we can go to the next slide -- when we do this, at all times, everything is monitored and this is a picture of the control room inside the ship. So all aspects of the operation are monitored 24 hours a day and the room is always occupied, as you can see in this photo here.
1986. Marine mammal observers are on board the boat. We have accompaniment of marine mammal observers -- local observers on board the boat -- and if any marine mammals are sighted within the mitigation zone, then the vessel is required to stop production and stop surveying.

**Presentation**  
**Mr. Garry Morrow**

1987. To give you an idea of what we tow behind the vessel, is we tow a cable that has sensors in it. The sensors are relatively in between these little yellow blocks that you see inside there. For this particular project, the cable is going to be 8,100 metres. So the cable contains sensors which record the different sounds coming from the earth so the cable is highly sensitive.
1988. The -- what we call “hydrophones”, “geophones” that are located in the cable, are very sensitive to all the sound and that’s how it records the sound that comes from the earth. The cable itself is -- has an outer skin on it that is made of a plastic-type material and inside that plastic-type material is what we would refer to as a “safe-type gel” or actually kind of a foam that goes in there and it does not -- it sets up very solid so nothing, if it is punctured, would leak out into the environment and the filling in it is environmentally safe.
1989. To give you an idea, as I said, the cable that you saw there would be deployed from this upper deck here and, when it’s deployed, we add on what we call -- for better lack of things -- is “depth control devices” or “birds”, as we refer to them.
1990. Each one of those control the cable and they’re spaced about 300 metres apart. They are activated and they’re self-controlled once you activate them and they take the cable to the depth that you’re going to record at. And each one of those depth sensor devices also have a compass inside of them so you are able to get the position of the cable while it’s in the water and while it streams behind the boat.
1991. You can backtrack, I was -- yeah. No -- no worries.
1992. The sounds source that we use is deployed from the lower deck here and this is a picture of the sound source on the right-hand side and the elements of the sound source you can see here on the lower side. The stainless steel little devices there, they’re about a metre and a half in length and those go out -- there’s the bottom deck here and the top grey portion that you see is the actual flotation that keeps them suspended in the water.
1993. As you can see on this diagram here, you can see that the depiction of the boat here in the sea surface and then you have the “detectors”, as it’s called here or the cable, stream straight out behind the vessel. And then, you have the sound source which would be closer to the vessel and, once the sound source is activated, the sound obviously goes down through the earth and it comes back up

**Presentation**  
**Mr. Garry Morrow**

- and this is the type of mapping that we produce to look at the substructure.
1994. This next diagram here is just a depiction of the source itself and, as you can see, it's kind of piston activated. So when it gets a signal from the recording room there, a piston will move back and there are chambers along the sides and the air will release, as you can see from the two arrows on the other diagram right adjacent next to it.
1995. So that's how the compressed air is released into the water and, of course, the bottom part over here is the chambers that hold the air in it.
1996. It doesn't like to work does it?
1997. So it actually continued on with an animation to show how the sound waves go down and then come back up to the recording cable.
1998. So if you would like -- if you have any questions, we'd be more than happy to try and answer them for you.
1999. **MEMBER HAMILTON:** It's at this point that it's your opportunity to ask the company, who is the Applicant for this certificate to do the offshore seismic, if you have any questions, any comments of clarification, any comments you'd like to help put onto my record, so that the Board can make a determination on whether to grant them the request to undertake this work.
2000. So we'd be pleased to entertain any comments or questions to MKI or any questions you have of the National Energy Board on this process.
2001. We can pass the mic to you. You don't have to come up. Bharat, if you could pass the mic if people want to talk. Get him to stand.
2002. Someone's got to start.
2003. **MS. ROSANNE D'ORAZIE:** So this question is actually for you, David.
2004. **MEMBER HAMILTON:** Yes.
2005. **MS. ROSANNE D'ORAZIE:** I am curious to know how -- from my

## Question and answer session

- understanding is it's outside of the Nunavut settlement area that this is occurring, but how are you coordinating with the Nunavut Impact Review Board or how are they integrated into this process at all?
2006.           **MEMBER HAMILTON:** The responsibility for offshore is the responsibility for the National Energy Board for -- anything to do with offshore. But if it was within the 12-mile zone for the environmental aspect of it, it would be under the -- the Nunavut Impact Review Board would deal with that issue. But it was given to them and they referred it, knowing it wasn't their responsibility, because it was outside the 12-mile, but they did refer it. They knew they had it and they gave it to us naturally because it's our responsibility to do it.
2007.           **MS. ROSANNE D'ORAZIE:** So in your presentation at one point you said that the NEB will be making a recommendation. So who is that recommendation going to?
2008.           **MEMBER HAMILTON:** Yes, probably I should -- I'm a Board Member and they delegated -- it's a delegation to me as a Board Member to review the application and then to provide a recommendation to the full Board. And the full Board make the determination, based on my report and recommendations, whether to grant it with conditions or to deny it. And then the full Board makes that final decision.
2009.           **MS. JULIA LANDRY:** Okay, so in the discussion paper, there's a section 4.2 about other potential environmental effects. My question is how are those effects going to be monitored or is there going to be any other third-party responsible for ensuring that -- you know -- fish aren't disturbed or traditional harvesting areas aren't being altered by the seismic process?
2010.           **MR. CHRIS MILLEY:** The question is two-fold; one is when it comes to commercial fishing, there's the fishery liaison officers on the vessel, and they will report back the operations of the -- to the fishing industry. And there are marine observers on the boats who will be reporting back -- actually, the marine mammal observers have a little bit more authority than most people on the boat when it comes to their role in the operation because if they spot whales within a mitigation zone, they have the authority to cease the operation and wait until the whales have passed.
2011.           There's passive acoustic monitoring on the vessel as well, which makes sure that even when they've stopped activity, they can hear that the whales

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- have moved on. And when they're not operating the acoustic equipment, the passive acoustic monitoring is ongoing so that they know if there are whales in the area before they start up. Those observers, their information ends up going back to the communities.
2012.            There are also community liaisons in each of the communities who will be in communication with the operation as well.
2013.            **MS. JULIA LANDRY:** I guess my question also was trying to address not only the marine mammals that are impacted but other fish and invertebrates species as well.
2014.            **MR. CHRIS MILLEY:** Yes, that's -- the fishery liaison officers are the ones who report that. In the fishery, any commercial fishing activity, there's a lot of contact between -- this is a standard code of practice with the industry, that there's a close relationship with the fishing industry, because the fishermen are pretty astute at making sure that their activities aren't impacted.
2015.            **MR. SILAS KPOLUGBO:** My name is Silas Kpolugbo. I'm with the Department of Fishery Coalition.
2016.            It's already noted that DFC did make representations to NEB already, along with AFA and QIA. And DFC's concern was more towards the commercial fisheries.
2017.            In reviewing the notes here, we notice that there seemed to be quite substantial effort made towards, you know, putting some measures in place to mitigate any, you know, potential downside to the service. But what we notice here is that most of it seemed to be just in the near term, the immediate, you know, "avoidance of marine mammal in the immediate", during time of day, actual, you know, survey itself.
2018.            But has there been -- and I guess this question goes to you partly maybe to NEB, but has there been any study? I mean, this surveys I'm sure takes place all the time; have there been studies, like you know before and after studies, okay, that will address issues not necessarily immediate mortality but as well will address maybe changes in the migration, for example.
2019.            Because I believe a lot of the traditional knowledge seems to suggest that there's potential for that to happen, you know, for this seismic sound waves

## Question and answer session

- who affect maybe migration of marine mammal. There's also a potential that that might also affect maybe spawning of fish of marine mammal.
2020.                So for us, in the commercial fishing world, our concern would be not necessarily, you know, the immediate impact of the surveys but to the long-term impact.
2021.                So I guess my question is kind of two-fold; has there been studies to show what the -- you know, the migration patterns are at the time and would there be studies after the surveys to determine if there's been any negative impact, you know, by these surveys. That's the first part.
2022.                The second part is now, should there be negative impacts, how and when would that be measured because this survey is supposed to be a five-year survey I believe initially? Is there going to be any attempt to measure the impact of these seismic surveys after each year or is there going to be -- something that's going to be done after the -- you know, at the end of the five-year period?
2023.                And then finally, what happens if there is damage, okay, if it's determined that there's been damage to the -- you know, to maybe the marine ecology or maybe fish are not spawning properly or the marine life has altered its migration patterns. What sort of, I guess, guarantees are there, would there be bonds, would there be insurance or something like that to ensure that those who have been negatively impacted because this is an entire, really, I would say an entire nation could be affected by this.
2024.                You know, this -- the Davis Strait and, you know, Baffin Bay, that's an entire nation. So would there be, you know, steps -- some guarantees put in place that, if there are, you know, extreme negative impact that, you know, the communities impacted were -- receive some, you know, some compensation as well -- you know, leaving the community aside, the business, you know, in question.
2025.                BFC, we operate three of the five Inuit-owned vessels that fish in the, you know, in these waters. So that's a huge potential impact to our business. So I guess that's, you know, part of the question that -- maybe that question may go to NEB.
2026.                Thank you.

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2027.           **MEMBER HAMILTON:** ...the question is what -- there are three questions there and I think ...
2028.           **MR. CHRIS MILLEY:** Okay, as you know, the seismic activity and seismic surveys in other areas in Eastern Canada have been quite extensive and are ongoing as well. So this is not a new question.
2029.           A lot of the studies that have been done on seismic activity have been done at the fisheries biology level, not the -- on the biology of fish level. So it's usually looking at the effects on individuals and a lot of the research that's been done on pelagic, benthic, groundfish, the crustaceans, the lobster -- impacts on lobster and, most recently, the impacts on red crab or snow crab.
2030.           That -- those studies have shown that there's been no, you know, net negative impact on the biota. The question you're asking is more about the studies on the fisheries biology, the collective biology, the biological oceanography of it.
2031.           Studies have shown that if there's a spawning aggregate in the -- if it's a pelagic spawning aggregation, the survey usually stops to let the spawning aggregation go through. And that's -- that's like marine mammal populations.
2032.           Not because there's a net long term-effect, it's just that the perception is. So it's an industry standard that says: "Okay, we will have the same response to that as for whales going through". That's most recently with the Husky Project in -- off of the south coast of Newfoundland.
2033.           The long-term effects, I think, are much more complex to decide what is the effect on the biology. We have the issue now of: What causes the decline of the groundfish, the Northern cod stocks? What's caused the change in capelin distribution? What's cause the increase and abundance of lobster? What's caused the increase and abundance of snow crab? What's cause the decrease of turbot in the -- and groundfish in the Gulf of Saint Lawrence?
2034.           Those are complex issues that there's so many factors that, if you were to say: "It's caused by this" then you'd be probably wrong because it's multiple things.
2035.           So to separate out the one issue -- whether it' be seismic survey or whether it would be changes in climate distribution, of currents because of



- climate change, change in nutrient abundance, change in water quality because of, you know, other contaminants going into the ocean, those are all -- increased predation, seal predation, for example -- those are the things that people are trying to come to terms with.
2036.           And, as you know, in other regions, when people have looked at compensation, they've gone to the government saying, you know: "Compensate us for the loss of seals because you've stopped the seal fishery." It just doesn't fly because we don't know why there's been a change.
2037.           What you do end up having -- and this is where it's very important -- having the relationship -- and I know Baffin Fisheries Coalition's already had some public statements about the project and -- both positive and concern -- that it's the relationship with the company that is important. If it's about working together to make sure you avoid any problems. The information coming forward saying, you know: "This is the spawning aggregates." We want to avoid that. Or: "The fishing is taking place at this time so, you know, you can't be in the same place at the same time."
2038.           Those are the kind of things that are more important than the issue of compensation.
2039.           **MR. SILAS KPOLUGBO:** Thanks, Chris.
2040.           Part of the question I posed has to do with, I guess, the migration of marine life. There's a recent study -- and I can't -- I couldn't lay my hands on it I believe it was conducted by DFO -- of turbot and the inland fishery in, I believe, the -- anyway, that it appears as if it's the same stock in the inland fishery that also populates the turbot fishery. It's a very recent study, I think, over the last six months or a year, so that it came out.
2041.           So I guess part of the question is, you know: If there's -- if there's no study, you know, in terms, you know, maybe -- I don't know, a biomass study conducted before the seismic studies. Okay, I believe it would be beneficial if there's a biomass study done before -- a biomass study done sometime, you know, an intermediary period or maybe at the end of five years to see if -- yes, I do understand that, you know, there's -- there a multiple, you know, factors that might, you know, that would impact marine life.
2042.           But, you know, if there's -- if specific studies, a biomass study is done

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- before and after, I believe that will, you know, at least give some comfort to, you know, to I guess those, you know, who have an interest in the industry.
2043.           So that's basically, you know, where -- I mean fish, you know, whales, marine life generally know no boundaries, you know. So whatever is happening there, even though it's, you know, it's, you know, it's what 120, you know, miles or so from the coast. But whatever happens there also have an impact on, you know, on the East Shore as well.
2044.           **MR. CHRIS MILLEY:** I guess it's clear that DFO has a lot of work to do when it comes to understanding the stock dimensions here and there are long-term implications to what they are going to do.
2045.           The other side of it is there's -- DFO Science is one source of information. Another very important source of information which we're now globally understanding is the indigenous knowledge. And I think indigenous knowledge studies are something that is -- the company is actually talking about working on.
2046.           And that kind of information can also feed back into helping to understand the fishery as well as marine mammal distribution and other things. So it's taking a two-pronged approach.
2047.           **MR. SILAS KPOLUGBO:** I think I'm kind of beating too much on this point but is there going to be -- I guess my question is: Will there be a study done before and after? I guess, you know, to be more specific.
2048.           **MR. CHRIS MILLEY:** Not that I'm aware of, no.
- (A short pause/Courte pause)
2049.           **MR. NIGEL QAUMARIAQ (through interpreter):** I'm Nigel. I'm from Iqaluit.
2050.           **MR. NIGEL QAUMARIAQ:** My name is Nigel Qaumariaq. I'm born and raised -- I was born in Frobisher Bay and raised in Iqaluit.
2051.           And I cannot speak for QIA but I was on the community tour and, through my previous work, I have a lot of experience with this single file. So I'm going to speak from my heart. It doesn't represent QIA, it represents myself and

## Question and answer session

what I learned from other Inuit along this trip.

2052. I've learned a lot, very, very much and I thank you very much for coming and I thank you for coming to the communities and hearing us.
2053. And I'm going to start off: Inuit, we believe every single being we are all equal. We all deserve respect. Therefore, you get a lot of questions even beyond marine mammals, what we -- what Inuit harvest. They know the food chain and what it takes to require that food chain.
2054. So, therefore, that is our underwriting goal and I know that this is quite different from Canadian statement of practice for the mitigation of sound in the water. They only make a distinction at lethal effects, not sub-lethal effects because that's not monitored. There's no monitoring program for any sub-lethal effects which Inuit are saying. The sub-lethal effects are alteration of migration routes of marine mammals.
2055. Marine mammals, what does that mean? That's very big term. And we've been talking in a lot of big terms. We haven't been going down to the little things, the nitty-gritty. And I'm very glad that this will be an opportunity and I will learn a lot how the NEB operates and, in the future, how NEB will operate with Inuit. That is the biggest thing.
2056. And I'm a little bit worked up now. I'll slow down a bit and I'll start off right from Chris. Chris Milley, I probably dealt with him more than anybody else from the company or NEB. And I will say right now, Chris just right now in asking to BFC, hit the nail on the head; it's a complex issue to determine what effects will happen.
2057. The company has been dodging it and avoiding compensation issues that Inuit have been bringing up. They'll say, "The company will respond. Come talk to us". That's not acceptable. That is not acceptable because the company will say, "Prove it". Then you have to go to science to prove it. No other mechanism, no other mechanism to determine what the effects will be. NEB has to determine with Inuit and the affected communities how and what -- where it's affected.
2058. QIA, because I was there at that time, said that there needs to be an IQ study by independent people before it happens so you can determine what effects will happen.

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2059. The science up here is very scant, very scant compared to Gulf Coast -- or not Gulf Coast -- compared to the Gulf of St. Lawrence, tons of studies; B.C. coast, tons of studies; Beaufort, way more studies -- Beaufort Regional Environmental Assessment. If you want to go ahead -- and this is the first stage of oil and gas development, you need a study to happen before you go in and possibly affect marine mammals.
2060. So that's very -- I love that point; it's complex issue. And I loved it because I feel it's real politic. It's passing on responsibility.
2061. Okay, that's fine. Chris shook his head, but no, that's very fine.
2062. My first question, I was very interested to hear that the Nunavut Impact Review Board was consulted on this program. I guess that was originally in 2010. Okay, do you have an agreement with the Nunavut Impact Review Board for in the future oil and gas development?
2063. **MEMBER HAMILTON:** We have -- I understand we do have a Memorandum of Understanding with them. Yes, we do.
2064. **MR. NIGEL QAUMARIAQ:** Okay. This is a very interesting -- the Nunavut Impact Review Board is required to take into account Inuit -- how you might need to guide as part of their process. What process does NEB have to incorporate that?
2065. **MEMBER HAMILTON:** We don't have a process to do that. If a company submits that to us, that will be part of their application to us. We don't have a process that requires them, as part of an environmental impact review, to provide that. We don't have that as a criteria that they have to provide.
2066. **MR. NIGEL QAUMARIAQ:** That's very good because Inuit, as part of the Nunavut Land Claim Agreement, that was the central theme in what we negotiated. And that's very interesting and I'm glad that that is on record that -- so therefore, I would say NIRB, because of trans-boundary effects, can have a say. And my point would be, these are marine mammals that are protected for Inuit under the NLCA and therefore, I would say, NIRB has to be involved.
2067. **MEMBER HAMILTON:** Just to clarify, and Christy had brought to my attention, that it is in here. They were provided the opportunity to be involved

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- and to make comment on it, but they -- it was them that chose to -- not to provide that comment. They choose not to.
2068.           **MR. NIGEL QAUMARIAQ:** Okay. Thank you.
2069.           I'll talk a little bit now because I'm from Iqaluit and this is my area and this is what I know. I do not know the animals from Pond Inlet, Mittimatalik, Kugluktuk, Qikiqtarjuaq, Oniktu (ph). I don't know those areas but I know this is my area. And the time that the company is planning, September, October, that's a migration time for beluga whales, walrus that we rely on. They're not in that specific area; like we're outside of the NSA but it's very close and walrus data have said that they go into that area.
2070.           I want to know from the company what walrus -- because in October, my grandfather and my father would go to the mouth of Frobisher Bay and hunt walrus. I want to know from the company if it will affect walrus migration routes. And what information they have -- do not refer me to the environmental impact statement, please tell me. And I don't want to hear it afterwards.
2071.           **MR. GARRY MORROW:** (Off mic) Yes. We don't have the answer for you.
2072.           **MR. NIGEL QAUMARIAQ:** Okay. Thank you.
2073.           Seals, bearded seal, ring seal, ugjuk, bearded seal are very important to Inuit. That is a fall migration time. What effect will this project have on them?
2074.           **MR. GARRY MORROW:** We don't have an answer for you on that.
2075.           **MR. NIGEL QAUMARIAQ:** Okay. Thank you.
2076.           Polar bears; there's a lot of information, both traditional knowledge, scientific. Traditional knowledge, I've learned from Pond Inlet that there are polar bears that live on icebergs and they hunt from them. What affects will you have on them? Because that is more relevant than anything else because you will be directly affecting them.
2077.           **MR. GARRY MORROW:** As you probably know, we're here for the operations and so I know you didn't want to hear but the environmental assessment's been filed. So we're more the operations guys, you know. I'm an

operations person; so...

2078. **MR. NIGEL QAUMARIAQ:** Okay. It was already brought up but Inuit traditional harvesting, what is your understanding of it from each individual community, at this point?
2079. You've done -- I would say from my understanding, the company and the seismic or the two different consultants, they visited approximately 12 to 14 times. What have you learned in that time?
2080. **MR. CHRIS MILLEY:** I can say this, that one thing that is constantly coming out in meetings with communities, and in fact, as you probably know, we have a Dalhousie -- a very significant research project looking at traditional knowledge, is that the relationship between the Inuit communities in Qikiqtani and traditional resources is much stronger than almost anywhere else in the Americas and it's probably the last place where you're really seeing that close dependence.
2081. One of the reasons the community has probably done more community engagement than is the bare minimum and they would have been able to file and move forward is because they want to understand and develop that relationship.
2082. The use of traditional foods as a staple is much higher than in any other area that you'll find in the region. That said, the community is not interested in trying to cause problems. It is not interested in doing anything that's going to jeopardize that and I think you understand that we've had these conversations before.
2083. The inclusion of people from the community in, you know, the project as marine mammal observers.
2084. The use of community liaison is so that they will be able to avoid -- "mitigation" means avoiding any problems and that's what the intention is. It's not to -- I mean, it's easy to look at a project and say: "Oh, it's -- everybody's out there trying to change the world." but this is one project of many that's going to have an impact on Nunavut, Baffinlands, AREVA.
2085. You know, all the mining operations, the use of the Northwest Passage because of climate change by other nations, all of these are going to have an impact so it's -- what you're saying is: No change is the only acceptable change.

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And this project isn't trying to be the source of all the change.

2086.           The real question that you're asking is: Who gets to make the decision? NIRB and things like that.
2087.           The role of Nunavut in this? That's something outside the scope of this project. That's an issue that takes place at another table.
2088.           **MR. NIGEL QAUMARIAQ:** That is a very telling answer. I love that answer right there, very much.
2089.           That is an amazing answer because it comes down to a big issue that I already brought up, scientific information besides (in Inuktitut). That is a big question and it comes down to, you're saying: Okay, change is going to happen. It's going to happen no matter what.
2090.           Okay, maybe not that. But change is going happen but this is a big step that will happen. That anthropogenic sources, manmade sources of sound -- we're the last place in Canada. You've said it right there. We require subsistence harvesting way more than any other communities. You heard it in the other communities.
2091.           A dollar in Pond Inlet is worth 20 cents down south. You heard that. That's just the way it is and because of that, we have the highest wages in Canada but we also have the highest discrepancy between Aboriginals and non-Aboriginals because of that. And this step you're -- you're right, this is a larger issue that you feel that this company shouldn't talk about but this is what Inuit are talking about.
2092.           We do not want this company to come in and I would say very -- I do not want to use this word -- I would say "blow it" because they're used to doing things a certain way in other places around this world. And moving forward, you don't feel that this is a part of the process. You don't and I can understand that. You can separate out and you can -- I've already brought this up.
2093.           NEB will not -- or *Canadian Environmental Assessment Act* will not require an environmental assessment for seismic beyond this year or beyond 2012 but because this process started, the NEB felt that they had to continue. So I only heard about this project through CEAA. I did not hear this project through the NEB. There's no channels for the NEB to communicate with the authority until

- this project happened.
2094. TGS NOPEC, in 2008, already did some work in Baffin Bay and Davis Strait. They consulted some HTOs, which we heard about afterwards but we couldn't do anything until it came back up in 2010 and then, afterwards with this project.
2095. So I find it -- you're not thinking about that, the company? So that's fine.
2096. The communities, that's what they're thinking about. So the NEB will make a decision based on that.
2097. What affects you -- the company has agreed to follow the Canadian statement on the mitigation of seismic in the ocean. That makes a very big distinction at lethal effects.
2098. What sub-lethal effects will you monitor afterwards?
2099. **MR. CHRIS MILLEY:** I'm not absolutely sure what you're asking.
2100. You mean after the company has finished its work, what will they continue to do after?
2101. **MR. NIGEL QAUMARIAQ:** Yeah.
2102. I would say, based on the concerns from the communities, you have not done any IQ work to date.
2103. **MR. CHRIS MILLEY:** Yes.
2104. **MR. NIGEL QAUMARIAQ:** Yes, okay.
2105. Inuit have very much been saying that you need their knowledge to incorporate into your project design and to mitigate any effects. Pond Inlet has told you right now that they do not want it at that time because that is the fall migration.
2106. Will you take that into account?



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2107. **MR. GARRY MORROW:** ...and that's part of these meetings in listening to the community, as we have here in the last week.
2108. **MR. NIGEL QAUMARIAQ:** Okay.
2109. So will you put in a new project design based on what you've heard this week, to the National Energy Board to decide?
2110. **MR. GARRY MORROW:** What we look at from what we hear and the feedback that we get from the communities and from fisheries -- just as we've done in Newfoundland and Labrador -- is we can adjust our schedule and the timings of certain survey lines.
2111. **MR. NIGEL QAUMARIAQ:** But Inuit won't know this before the NEB decides -- what you've incorporated?
2112. **MR. GARRY MORROW:** Can you repeat that last one?
2113. **MR. NIGEL QAUMARIAQ:** I'm just saying, from this trip that we've had, there's still a lot of concerns. I haven't seen it gone away. I haven't seen it recede.
2114. And how are you going to incorporate that? How can you properly incorporate that? The NEB has a deadline of Friday for comments before it decides.
2115. How can that be?
2116. **MR. NELSON TROY:** Nigel, one thing I'd like to say is, after the -- if the permit is granted, after the fact, the company is not going to not come back up and engage with the communities. This is an ongoing process before operations, during operations, post project or post year.
2117. So that's how I'm going to answer that question.
2118. **MR. NIGEL QAUMARIAQ:** Okay.
2119. You said in the communities, that your community liaison will be your contact for the communities.

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2120. Will the actual company be going back besides the community liaison officer?
2121. **MR. NELSON TROY:** Yes, that's correct.
2122. We will be going back to the communities to identify people that the community feels is the proper person to speak for the community as a liaison.
2123. **MR. NIGEL QAUMARIAQ:** That wasn't my question.
2124. My question was: Your communication with the company and how you interact with them afterwards, will it be the company?
2125. Because what you said before at the earlier meetings was your community liaison officer would report back your activities to the community.
2126. **MR. NELSON TROY:** What you're referring to is during operations. They would communicate back to the community, via the company.
2127. **MR. NIGEL QAUMARIAQ:** Okay, that's good, I understand that now.
2128. The Baffin Fisheries Coalition person made a very good statement, and I'm going to draw that right now because that is the biggest concern for the Inuit.
2129. As I said before, the Canadian Statement of Practice looks at lethal effects. Lethal effects is immediate. You know that it's going to happen. It's a long-term effect. The effect of whale migration routes, narwhal migration routes, bowhead, killer whales, dolphins that is the big question for Inuits.
2130. In every scientific paper I've read, there's no definite proof because there's typically no long-term monitoring of it besides different regional studies. I've seen them. Norway is probably the best example of that, also U.K., but also the Beaufort, not in Canada but in the U.S. The U.S. regulations for seismic I would say are far and above way higher, especially now that NEB doesn't -- or CEAA doesn't require an environmental assessment.
2131. And I feel like the big question is you're asking Inuit to take a risk when you already know that there's a huge subsistence harvesting rate that goes

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- on in Baffin Bay and Davis Strait. You already know that. You've acknowledged that. It's very high. You know it's different from the rest of Canada.
2132. So, therefore, you're coming here, you have two different consultants from Nova Scotia, none Nunavut based, none Inuit and you're coming up here and you're offering MMOs -- four of them, possibly up to eight, with true rotation -- one fishery liaison officer and let's say, Pond, Clyde, Qik, Pang, Iqaluit, five community liaison officers, which is typically no more than two months for all of them once they're trained.
2133. You're asking for a project for five years. You're going to invest a lot of money. How much are you going to invest in this project for the first year?
2134. **MR. TROY NELSON:** That would come out in the Benefits Plan that we submit to AANDC in terms of how much money we're going to put forward.
2135. **MR. NIGEL QAUMARIAQ:** Okay, so for this project, you put it forward in a Benefits Plan. Okay.
2136. You're planning five years of work and I would say this exactly to the NEB and it would also be NEB as well: You have an office in Inuvik. You do not have an office in Nunavut at this point but we understand that this process is ramping up. AANDC is looking at opening up Baffin Bay and Davis Strait.
2137. Inuit want to see actual benefits. You heard it in Qik: They want an employee and, you know what, they have to be Inuit. You have to train them. You need Inuit monitors. You need Inuit inspectors. These are part of the larger questions and I know the company can't answer it, so it's not for the company, but the company they're doing this to make money. They're going into frontier areas because they know that there's a high possibility that there's oil and gas and they can make money off it.
2138. I've asked: Who are your sponsors beyond -- you have MKI. I asked: Who are the actual bodies behind that that are investing in that? You said there were two: TGS and PGS.
2139. So there's nobody beyond that?
2140. **MR. GARRY MORROW:** That is correct. We're talking all the risk.

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- Both companies, PGS and TGS are taking all the risk.
2141.           **MR. NIGEL QAUMARIAQ:** Okay. So you're taking the risk.
2142.           You didn't tell us how much money it's going to cost.
2143.           The Government of Canada, they proposed a study in 2010 which is, I would say, exactly the same lines, same -- well, actually, I think your newest plan it will be a little bit less than what Canada planned. But Canada's plan, they said to get the ship from Germany would cost about \$3 million. So you didn't tell us the amount now, so I can only assume and guess it's a very similar number.
2144.           So you're investing that amount of money, you're training up four different positions. You're planning right now for five years, you're only doing 2D but, of course, if you want to drill, you'll need a lot more highly accurate information and you'll have a higher degree 3D program. I'm just saying, in the future.
2145.           So, therefore, it's very likely that you'll be spending more time here. You need to do more to get Inuit involved. That's the biggest concern right now is: How can Inuit benefit?
2146.           Because, right now, Inuit will not get anything outside of the NSA, according to our Land Claim. It's just not there.
2147.           And from the last AANDC/SEAA trip, my understanding is Canada beyond the Canada Benefits Plan has no plans to share that royalty. It's been brought up the evolution and also our Chair -- not Chair but the Board Member from NEB brought it up as an issue if and when devolution happens. That's a big "if and when", a very big "if and when".
2148.           I personally -- my experience, my professional experience and, just me living as a person, I cannot see that happening within my lifetime. One, you don't have the non-Aboriginal population like Yukon or NWT has. We see a lot of effort to increase oil and gas development as well as large projects. We have GEMS, which is a \$200 million project here, and that's GEMS. That's geology for energy and minerals and then it's only conventional minerals.
2149.           It's only what's to take out and refine and process in other places. There's no value added. That's where the money comes from. These are all the

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- big issues and I know you don't want to deal with that and you want to punt it but this is what Inuit deal with and that's what we come to the NEB with.
2150. I'm very much at my lowest time and when I'm feeling insecure and not secure in who I am, I want to be like those other Inuit in the other communities and I say: "I don't want to see you again." I really do. I want to say that. But that's not how we work. Inuit know that. We know that. We rely on Canadians for a lot of our standard of living. We know that. We can't escape it.
2151. What we want is we want to become self-sufficient. We want to produce our own oil. We want to create our own steel. We want that value-added extra that you get. And the way that this process has unfolded, what I have learned from the NEB is I want an institution that's different. I do not want the National Energy Board.
2152. We have a government that is totally gutting what it is to be Canadian and what we care about. And I get very frustrated and that's why I'm leaving and -- I cannot just be angry anymore. I got to do something about it.
2153. And I will say the biggest issue is southerners do not want to give up responsibility and authority. Seriously, they create institutions and organizations. We have the Nunavut Impact Review Board that is required to take Inuit traditional knowledge into consideration. But right under that is they have to take into the considerations of rest of Canada.
2154. How do you determine the rest of Canada when we have organizations that are -- organizations that are -- basically their ear is bent towards industry because that's who has the power and authority. That's what you've seen all this week.
2155. You feel -- Chris has very much been very diplomatic when talking about what other communities think. And that was very -- I would say that's a very type of thing, but I commend him; I commend him very much. But Inuit way of decision-making, they want to know what other communities think. They're not a quasi-judicial board that has to be independent. They want to know what other communities are thinking.
2156. And to think that there's any support from any communities, that is very wrong. There has been moments where there's this tug and pull between modern and traditional way but I have not seen any support for this project.

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- There's no Inuit element in their project design, nothing, absolutely nothing. They have had two years since QIA said that, nothing.
2157.           There are scientific studies. That was an information request from QIA. How they actually incorporated it, the scientific information and mitigate it, nothing, nothing.
2158.           So therefore, I will say I will use my every last ounce of energy to make sure that this project doesn't go ahead until the communities are comfortable.
2159.           Qujannamiik.
2160.           **MR. BHARAT DIXIT:** Any follow-up?
2161.           **MR. ADAMEE ETUATSIAQ:** I'm still mixed about this -- but now anymore, when I heard five years, that's a heck of a time, a long time in one sense, in one -- but very short in another. I'm a bit pro-business but money tends to trump country food. Northeast, just one example, how you process.
2162.           I've got -- I'm similar to Nigel in some ways, but trying to keep an open mind as best I can. The way I -- the way I sort -- like for me, I really thank you for coming up here because I didn't know -- I didn't -- I've done -- I took environment program for a year with Arctic College and there's some things I didn't know that I picked up a little bit here and there. But there's some fundamentals that we cannot forget up here.
2163.           And the way I read it there was one part where they say they have data, what was it? The company believes a high quality modern regional dataset is required to complement historical data. The results of the survey may be used to inform new exploration activities.
2164.           I'm looking at it one's high definition and one's black and white. Am I wrong to sort of -- like poor man's interpretation of what I've read so far, I just -- because I would like to know what -- what they mean by that. If there's historical data with technology, I think we would have been able -- maybe improved on it, but five years is a long time.
2165.           Because I'm one of those who loves going -- while I was hunting down to Lock's land, down to Cyrus Field Bay, island area, that's -- that's where my

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- family is originally from , we're one -- we were one of the last families to pull out from having a sort of a semi-traditional lifestyle of the old days. But we had modern stuff like cabbage. Our house is now down there.
2166. But I could just see like -- you don't see a lot of -- you don't -- well you don't see any Elders here. They used to come a lot, I -- it used to be before they be -- these types of meetings were packed. But we've come to -- I guess -- sorry to say this, but we have come accustomed to saying some things but then when it gets -- goes against the scientific community, it sort of falls off the ledge. And then there's -- and it's frustrating seeing it over time and time again.
2167. Yes, there may be some compensation if something does happen, but when you hear Cairn Energy and these guys weren't ready for a spill. That's scary. This one is just a blueprint from my understanding to where I think -- like National Energy should look at making sure -- okay, before they can even do that, maybe they better be a bit better prepared, the industry.
2168. Because you -- once you give an industry a chance, you get -- like me, I'm business man. You give me an inch, hey, I'm going to make sure I can run 200 miles because one inch is not going to be enough. I'm going to go as far as I can and I'm an opportunist. When somebody else says it's no good, I'm going to look for something that's good out of it.
2169. But -- yeah, I know I'm a bit rambling. I forgot a couple other things I wanted to say. I know one thing, I'm ready to nerve and say hey, I thought you were created for this, but I know it's not -- it doesn't pertain to you guys. But they were created to put a safety valve or safety mechanism for us, a way to have voice when we have concerns.
2170. I had a lot of things to say and I should have done like Nigel, but I am partly supporting it. But I'm against it too because we need to have some checks and balances in place first before -- when you hear industry was -- if Cairn Energy had a blow-up, that would have been bad news because it takes so long up here to recover.
2171. It's -- look at us, we're -- my parents came in by dog team in 1965. Two weeks later they went out by skidoo. That's a heck of a transition. And for us to learn to read and write and go to school and seeing some of the stuff happening, we said "What's the rush".

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2172. I for one I looked at Nunavut like a bank. It's got a lot of -- you know, some of the saving graces that cost so much in one sense but in another it's not. That's why no wars have really been fought up here because it's a hard place but once something's damaged, it takes so long.
2173. When the ships start coming up here in the summer, I tend to go into the bays because that's where the seals and the belugas head out. They start driving away right away into shelters where there's less noise and noise pollution and whatnot.
2174. Anyway -- yeah, but I think I was more curious -- one of the things I wanted to know is if they got historical data can't that be used already? I don't know.
2175. **MR. GARRY MORROW:** One of the reasons it mentions historical data in here is that there isn't a lot of geophysical data available in here. And so in some of the earlier community talks prior to us coming around they went through some of the geophysical reasoning's behind this or the reasons for the survey.
2176. And I think since I'm not a geophysical but I'll explain it this way, you can use the old historical data to try and identify where you should do -- use survey lines. And I think the best comparison that I could give in a layman's term, for myself too, would be the equivalent of say looking at an old type of black and white TV versus one of the new high definition TVs.
2177. So the new survey techniques and the new equipment that we now use to do that survey, which is, you know, survey work, which is totally different than it was 20 years ago, 30 years ago, and even different than it was five years ago, makes that much difference in identifying where the potential of oil would be.
2178. And so it's quite a bit different in fidelity by using the old data to identify where the lines need to be and then coming through and acquiring new data. So it's a big difference.
2179. **MS. ROSANNA D'ORAZIE:** I just was wondering if you could clarify a bit more. I'm kind of curious as to the process I guess that happened between the National Energy Board and NERB when they -- when you mentioned that NERB chose not to provide comment into this process.



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2180. I guess I'm a little confused as to there seems to be trans-boundary impacts. You know, the project is only -- you're only doing your seismic testing with -- outside of the NSA, but it seems clear that there will be impacts within the NSA.
2181. So what kind of understanding was done -- or what kind of process or understanding happened with NERB so that they're completely separate processes and it's not involved at all? Because I think a lot of what Nigel is saying with the integration of IQ into the process and the consultations, that -- in a way that's kind of how the NERB -- where the NERB process would come into it all.
2182. **MEMBER HAMILTON:** I'll have Christy respond on behalf of the Board because she was involved in that at that time prior to it coming forward. So I'll allow Christy to confirm that process so you better understand the trans-boundary issue. I want to make sure that we reflect it properly.
2183. **MS. CHRISTY WICKENHEISER:** Yeah, for your reference, the last paragraph on page 3 is probably the most succinct way of speaking about it. What happens is actually the company had forwarded the project description to the Nunavut Planning Commission and they wrote back saying that their project falls outside the boundaries of the north Baffin regional land use plan and that no conformity review was required.
2184. Therefore, they did not forward the project to the NERB, which is their responsibility. So what our responsibility under the NEB to make sure they haven't said "yeah, we feel there might be trans-boundary effects", they didn't do that. So it was their option.
2185. Had they come back and said we feel there's trans-boundary effects we would have started a dialogue, and at that time CEAA was in place so we would have set up some kind of conversation about okay, we're going to work on something to make sure you understand what you wanted me to know in terms of trans-boundary effects. But it's up to them to say we feel there might be and they didn't in this case. So it's up to them not us. If that makes it clearer.
2186. **MS. ROSANNA D'ORAZIE:** Sorry, so you're saying that it was -- it's up to the planning commission to determine whether a project has trans-boundary impacts or not, and only under that circumstance will they forward it to NERB?

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2187. **MEMBER HAMILTON:** I think that's correct. That's their responsibility under the NSA under all the agreements, yeah.
2188. **MS. ROSANNA D'ORAZIE:** Which is when CEAA was in place? This is -- all this happened when CEAA ---
2189. **MEMBER HAMILTON:** Yes.
2190. **MS. ROSANNA D'ORAZIE:** --- was in place?
2191. **MEMBER HAMILTON:** That's right, 2011.
2192. **MS. ROSANNA D'ORAZIE:** CEAA was no longer in place in 2011?
2193. **MEMBER HAMILTON:** Yes. It was in -- I have that here. Yeah, it was in 2012 that it was -- that CEAA was no longer in place.
2194. And I may just take that opportunity in response to a comment on the understanding of environmental assessment. Under COGOA, under the Canadian Oil and -- *Canadian Oil and Gas Act* is we are -- we do have to conduct an environmental assessment. So just because CEAA doesn't apply we continue it because it was -- this project had started under that. We continue it, but if there's another project comes in under COGOA, we have to have an environmental assessment impact would have to be filed with us. So it's not lost it's just we still have that under the Act to have that -- require that. So another company comes in and wants to do it we -- they have to file an environmental impact assessment with us.
2195. **MR. NIGEL QAUMARIAQ:** That's very good clarification, because under the Nunavut Impact Review Board there has to be an authorizing agency to refer it to NERB. So I'm very glad you said that.
2196. And QIA is an authorizing agency and we have not referred it to the Nunavut -- or the QIA has not referred it to the Nunavut Impact Review Board. So I'm very glad you brought that to my attention so I can bring that to QIA's attention before we move forward, just based on the concerns that were expressed.
2197. Moving forward, for environmental assessment, in the communities you mentioned should it be granted for a year or for five years, you wanted

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- community concerns and you didn't get any response. You didn't get any response because there's so much concern that they didn't want to -- they didn't want to speak up. So don't think of that; you have to take into totality of what the communities express.
2198.           There was another point. I went back to the company but I cannot remember it at this time, so I'll give it up.
2199.           **MEMBER HAMILTON:** Thank you, Bharat.
2200.           **MS. MADELEINE REDFERN:** Sorry I'm late. I had another meeting I had to attend to. So if any of the comments or questions that I ask have already been answered, just let me know and you can provide that answer to me later so not to have to repeat it to everyone here.
2201.           I would like to echo something that Nigel said. You know, given the QIA injunction in the Lancaster Sound, I think there is maybe some perception by some members of the community is that there will be no future seismic testing in our region. So there's that perception in some people's minds.
2202.           Also, when the QIA was actually getting the Lancaster's injunction of seismic work for that area, I, myself had actually looked into the scientific submissions regarding seismic testing.
2203.           And I was actually surprised to the amount of -- to the lack of some scientific data regarding the effect on marine mammals, especially in areas of the Arctic region where there may be sounds or channels where the sound reverberates differently than in a larger, oceanic space. And I think that the number of times I read in that science, unknown, unknown. The effects of consequences in certain conditions, certain species, unknown was actually surprising to me.
2204.           So it brought to me that, you know, the Inuit comments about sort of, you know, their fears and concerns about the seismic testing was probably -- you know -- something that with the absence of information about those consequences is something that you know is serious and needs to be possibly further studied.
2205.           I looked at the 2012 report for, I guess, some of the community consultations or meetings that happened in the past. I noticed the Iqaluit HTO was not included. I don't know if they're present at this meeting or a separate

- meeting has been done.
2206.           Okay, they're meeting right now.
2207.           Because again, you know I look to our hunters in our community as one of the most knowledgeable about our environment and the marine environment. So I would have liked to have known what they -- what their thoughts and concerns are about this project. I did have a couple more -- those were, first of all, comments.
2208.           When I look at some of the information that's provided here, in some cases it doesn't seem as if there's enough emphasis and it kind of reads as if it's -- you know, that each of these comments from the public are, in some cases, I know where people have grave concerns, immense concerns.
2209.           Others are less but when you read it on a --you know, a page like comments from the public, it doesn't give you that sense of intensity that -- of what, you know, the environmental impacts, marine mammals, fish and invertebrates. It comes across as very, sort of, flat. I'm also concerned when I -- actually there was one young woman who came to the mayor and council when I was still mayor about I guess this potential project.
2210.           I'm not even absolutely certain. She was unable to answer almost every question that the council had, which was actually quite distressing. So again, if -- you know, I know this is the National Energy Board but you know, when you have the Proponent's coming before a community entity and they send a representative who -- a lovely young woman possibly from, you know, Toronto.
2211.           I don't know -- I don't recall even what area, but the quality of her presentation and information that she was presented to us was so cursory. It was a PowerPoint. She read it. She wasn't able to provide, you know, substantive comments to it and she wasn't able to answer any of our questions. I don't consider that consultation, let alone meaningful consultation.
2212.           For the most part, I think most of us felt like as if we'd had our time wasted and that is not the purpose and the intent. She couldn't say, you know, what the seismic testing work would be used for. She didn't say -- she couldn't say, you know, who the information or how it would be used or sold to. That wasn't helpful.

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2213.               So it's -- as I said, I apologize for being late. I guess mostly I've just made as comments. I did see from some online research that tomorrow is the deadline for written submissions.
2214.               Other than what you've provided tonight, is there any other written materials for review that actually permits, you know, enough information to actually provide a written response other than having to do independent research?
2215.               **MEMBER HAMILTON:** In response to the fact that today was -- tomorrow is the deadline, throughout this last week with our going to the communities, communities have asked for some more information to come back from the company. So that -- we are holding them to that and we'll be preparing a list to make sure it comes back to us, as well as, of course, to the communities that had requested that.
2216.               So at the end, I -- probably after today or this evening, tomorrow, and maybe early next week, we're considering issuing an extension to that so that that information can be in -- you know, come in from the communities because that's what we've heard.
2217.               So we will be extending it -- we haven't got the date yet -- to make sure that the company's commitments to get us more information, we get it before we make a -- you know, consider the final determination.
2218.               So on that aspect of it, you know, that's a benefit, I hope, from these last -- these four communities that we've been to. The other information is all on our website and has -- that's what the company has been doing for the last two years is consulting on it. So there is that information there. You said you researched some of it so I can only point to you what we have had received -- that we have received from the company.
2219.               **MS. MADELEINE REDFERN:** Okay. Well that was it. As I said, you know, there's just a tremendous amount of very vague statements, you know, like long-term and short term hearing damage but exactly what that extent of damage and -- it -- a lot of it, from my own independent research, just shows that there's just so many unknown quantities that it makes meaningful, you know, contributions or commentary very difficult.
2220.               And understandably, you know, while I understand the value of having the sea floor mapped, not just for the purpose of oil and gas but also for safe

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- navigation, is at the same time, you know, many of us are concerned about what are those real impacts and just -- you know a lot of just still seems to be unknown.
2221.           And that's it for me.
2222.           **MR. ADAMEE ETUATSIAQ:** Ada Etuatsiaq again.
2223.           Madeleine just pointed out a -- something I really do understand, unknown. You know, when we go hunting and we're not sure about the ice, we go check it out. I use a harpoon and if you're still uncomfortable, why go charging to something that potentially could cost your life?
2224.           In our case, it's our livelihood because I -- when you get Kanngiqtugaapik, Clyde River, Qikiqtaaluk, Pangnirtung, those are hard core seal meat consumers. And if they have unknowns so much, why should we rush into it? Maybe hold off or something for a year or two maybe, I don't know. I -- like I'm searching too just like companies answer.
2225.           I'd like to try and alleviate our concerns but our concerns are still going to be there because, guess what, we're the ones that are left here behind. We're the ones that have to quite often clean up the mess that's left behind.
2226.           Look, we're still dealing with the DEW Lines. When you find out -- I can't -- I couldn't believe like when they said -- when I read that they weren't prepared for a blowout, like, if a blowout had happened.
2227.           But anyway, HTO, tonight is their regular board meeting so I -- and most of those are -- most of the HTO board members are hard core hunters and it would have been nice to see it and play-offs are at the same time too, because a lot of us are hockey fanatics up here.
- (Laughter/Rires)
2228.           **MR. ADAMEE ETUATSIAQ:** Don't mess with our Stanley Cup.
2229.           Thank you.
- (A short pause/Courte pause)
2230.           **MR. NIGEL QAUMARIAQ:** Thank you.

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2231. Can you bring back that picture up of the seismic line and the -- or the seismic diagram of the ship and the line and then the water and then the -- yeah, yeah. Yeah, that one.
2232. That is a very good picture and I might be a little nitpicky but how realistic is it that fish would be under a sounding device? How realistic is that?
2233. Directly under -- that diagram makes it look like they're directly under the line and, well, the shots would come down to that first fish and then bounce up.
2234. How realistic would that be?
2235. **MR. CHRIS MILLEY:** It's not my diagram but I have no idea how realistic that is.
2236. And you got to understand that that's just to show that there's -- those fish are there just to show that it's water.
2237. **MR. NIGEL QAUMARIAQ:** Okay, because ---
2238. **MR. CHRIS MILLEY:** Just to illustrate -- I think the point of this is showing what kind of information comes from the seismic survey.
2239. **MR. NIGEL QAUMARIAQ:** Every scientific study that I've read, every fast-moving fish species will evacuate the area. They call that a "short-term effect".
2240. That is very misleading. Even though you don't show the lines coming down, I find that very, very misleading. That's just one of my points.
2241. I've said everything I want to say. Thank you very much for coming and, in the future, I'm sure you'll hear a lot from me.
2242. Qujannamiik.
2243. **MEMBER HAMILTON:** Thank you, Nigel.
2244. Before we close off, does anybody else would like to ask anything?

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2245. Or feel free to now.

--- (No response/Aucune réponse)

2246. **MEMBER HAMILTON:** Well, I'd like to, on behalf of the National Energy Board, thank those who have come tonight and who have prepared to make comment and ask questions of the company.

2247. I acknowledge the company that came and provided their responses. I'd like to thank our interpreters for being here this evening and our two sound guys that have been with us all week, JJ -- two Js, Joseph and Jimmy.

2248. And as I indicated, what happens now?

2249. Once we have -- now that we've finished the community visits this week and I will take into consideration all the material that has been filed: the comments from the community meeting, the responses from MKI and its partners and now the additional information that will be provided on the -- on what we call the "record" of this application.

2250. And I will prepare a report with -- that will have -- contain a recommendation to the full board of the National Energy Board whether this application should be approved or -- and approved with conditions or whether the application should be denied. And once that report has been prepared and the Board has made its decision, we'll ensure that that decision is communicated and is made available to the communities.

2251. You look like you have a follow-up on that. No, that's all right.

2252. So, qujannamiik. Merci beaucoup. Thank you for coming and I hope the wind stops and you all have a good weekend.

--- Upon adjourning at 8:55 p.m./L'audience est ajournée à 20h55