

Contents

Order of Appearances	2
Enbridge Northern Gateway	2
Gitga’at First Nation Panel 1	2
Gitga’at First Nation Panel 2	2
Gitga’at First Nation Panel 3	2
Examination by Ms. Tracy Campbell of the Michel First Nation (continued).....	2
NGP’s definitions of Aboriginal groups	2
Métis Nation doesn’t fit the NGP criteria for Aboriginal group.....	3
Michel First Nation did not qualify for an equity offer	3
Introduction by Mr. Michael Ross for Gitga’at First Nation	3
Gitga’at First Nation Panel 1: Environmental Impacts.....	3
Examination by Mr. Bernie Roth for Northern Gateway Pipelines.....	4
Likelihood of spill and effect from LGL to Gregory	5
Length of affected shoreline from LGL to Gregory	5
NGP gives too much emphasis to spill response as a mitigation.....	5
Not enough baseline information.....	6
Pathways & concern about killing all the killer whales.....	6
Examination by the Chairperson, Sheila Leggett, of the Joint Review Panel	6
Re-examination by Mr. Ross	7
Introduction by Mr. Michael Ross for Gitga’at First Nation	7
Gitga’at First Nation Panel 2: Cultural Impacts	7
Examination by Mr. Bernie Roth for Northern Gateway Pipelines.....	7
Demographics of Hartley Bay and the Gitga’at Nation.....	7
Gitga’at culture	8
Economic stability, fuel costs and impacts on culture	8
Cultural impacts of perception.....	9
Introduction by Mr. Michael Ross for Gitga’at First Nation	9
Gitga’at First Nation Panel 3: Social Impacts.....	10
Examination by Mr. Bernie Roth for Northern Gateway Pipelines.....	10
Residents’ perceptions of the researchers and the impacts of oil spills.....	10
Suicides in communities affected by oil spills.....	11
Effect of litigation on chronic psychological stress after the Valdez spill	11
The second largest spill in Alaskan history, the Selendang Ayu spill.....	11
On mitigation strategies to preserve social capital in Hartley Bay	12
NGP employment as potential cause of conflict in Hartley Bay	12
Gitga’at worldviews and dependence on the natural world.....	12
History of commercial fishing in Hartley Bay.....	13
Negotiations and agreements between NGP and the Gitga’at Nation	13
Re-examination by Mr. Ross	14

Order of Appearances

Enbridge Northern Gateway

Mr. John Carruthers

Examination by Ms. Tracy Campbell of Michel First Nation (continued) 8603

Gitga’at First Nation Panel 1

Environmental Impacts

Mr. Robert Bocking

Mr. Michael Demarchi

Dr. Elmar Plate

Ms. Judy Muir

Introduction by Mr. Michael Ross for Gitga’at First Nation 8759

Examination by Mr. Bernie Roth for Northern Gateway Pipelines 8791

Examination by the Chairperson, Sheila Leggett, of the Joint Review Panel 9318

Re-examination by Mr. Ross 9326

Gitga’at First Nation Panel 2

Cultural Impacts

Dr. Theresa Satterfield

Dr. Leslie Robertson

Dr. Nancy Turner

Mr. Cameron Hill

Introduction by Mr. Michael Ross for Gitga’at First Nation 9453

Examination by Mr. Bernie Roth for Northern Gateway Pipelines 9527

Gitga’at First Nation Panel 3

Social Impacts

Mr. Cameron Hill

Dr. Duane Gill

Dr. Liesel Ritchie

Introduction by Mr. Michael Ross for Gitga’at First Nation 9888

Examination by Mr. Bernie Roth for Northern Gateway Pipelines 9917

Re-examination by Mr. Ross 10517

Examination by Ms. Tracy Campbell of the Michel First Nation (continued) 8603

NGP’s definitions of Aboriginal groups

Ms. Campbell said, “Our questions relate to primarily the corrections that were submitted by Northern Gateway following our questioning of them a couple of weeks ago.” She quoted, “Northern Gateway Pipelines Limited (NGP) Partnership is committed to ongoing engagement with First Nations and Métis belonging to a community, group or organization (Aboriginal groups) that may be affected by the project.” [[Exhibit B2-26](#), Adobe 11] She asked, What is the definition of an “Aboriginal group?” Mr. John Carruthers referred her to Section 2.5.2 [Adobe 17] and said, “Groups were consulted based on formal recognition as a: ‘... Band ... constitutionally protected Aboriginal

rights, lands and uses as defined by Section 35 ...” He said, ‘It’s that section that is what we consider “group”’. 8623

Ms. Campbell: “What we’re looking for is a definition of ‘Aboriginal Community, Aboriginal Group or Aboriginal Organization’.” Is there a difference between those three things?” Mr. Carruthers said that “they are not defined terms” and “they’re not interchangeable,” but “they would be inclusive as to what we considered First Nations and Métis.” 8651

This discussion continued in considerable detail, particularly with respect to the relationship of Aboriginal people and the land. Mr. Carruthers said there is a requirement for “a recognized and settled land base,” – recognized by NGP. 8663

Métis Nation doesn’t fit the NGP criteria for Aboriginal group

Ms. Campbell asked, “How do you reconcile that approach with the Métis Nation of Alberta or the Métis organizations in British Columbia because they don’t have a settled land base; they’re individual Aboriginal people living in public towns and I’m not talking about the Métis settlements in Alberta.” Mr. Carruthers: “We need to keep it to Alberta because that’s -- the criteria was slightly different between the two provinces.” 8673

Ms. Campbell asked, “If you take out Métis settlements, how does the definition of community fit in Alberta for individual Aboriginal people living in public towns?” Mr. Carruthers said, “It was intended to capture the settled land bases.” Ms. Campbell: “By that definition, Northern Gateway wouldn’t have consulted Métis people; correct?” Mr. Carruthers: “Right.” 8675

Michel First Nation did not qualify for an equity offer

Ms. Campbell asked, “How do you consult a non-land-based Aboriginal group?” Mr. Carruthers replied that the Metis “do have a formally recognized land base within the corridor.” Ms. Campbell: “Where would that be?” Mr. Carruthers said he can’t speak to that. Ms. Campbell asked if NGP believes there are no Michel First Nation members living in the project corridor.” Mr. Carruthers said, “They do not have a formally recognized and settled land base within the corridor.” 8686

Ms. Campbell said that, “In the same manner that Métis Nation would have a land base of Crown land, not like a reserve land or a Métis settlement. Métis people live in public communities and use Crown land to exercise their rights. Michel does the same thing.” Michel First Nation was not made an equity partnership offer. Mr. Carruthers said, “They did not have a formally recognized and settled land base within the corridor. And there was two other criteria, they had not expressed an interest in the economic opportunities and we had never made an offer. So they don’t qualify for the equity.” 8699

Introduction by Mr. Michael Ross for Gitga’at First Nation 8759

Gitga’at First Nation Panel 1: Environmental Impacts

[Note: The Gitga’at First Nation presented four panels dealing with Environment, Culture, Social, and Economic impacts.]

Mr. Ross introduced Mr. Robert Bocking, author of [Exhibit D71-7-04](#), the Gitga'at Environmental Impacts Report, and [Exhibit D71-17-2](#), Gitga'at reply to Northern Gateway Pipelines' (NGP) Information Request (IR). He was joined on the panel by Mr. Michael Demarchi, Dr. Elmar Plate, and Ms. Judy Muir, all of LGL Environmental Services Ltd. of Sidney, BC.

Examination by Mr. Bernie Roth for Northern Gateway Pipelines 8791

Mr. Roth examined the background of LGL's history of work performed for the Gitga'at First Nation. He expressed a special interest in work that Michael DeMarchi and LGL engaged in with the Gitga'at related to LNG projects (in 2012) and with respect to NGP (in 2011).

Mr. Roth asked, "When LGL was retained, was it understood that the Gitga'at were opposed to the project and they wanted to file reports provided by LGL with the JRP as evidence in support of that opposition or was that the understanding at the time?" Mr. Bocking replied, "We didn't have conversations about that. That may have been the position, but it had no bearing on the scope of our work. We were asked to provide an independent, unbiased opinion of the application." 8864

Mr. Bocking said that LGL agreed with Gitga'at to narrow the scope of its environmental report to just the area of the Confined Channel Assessment Area (CCAA) that overlaps with the Gitga'at Marine Use Area, and so it does not extend into the Open Water Area (OWA) 8878

Mr. Roth said, "You questioned the sufficiency of what NGP had filed to the date of your report? ... You comment on the utility of this information to the JRP in its role of providing recommendations to the government but you're just providing opinions, you're not reaching any conclusions regarding whether or not the project will or will not cause -- or will be likely to cause significant environmental effects." Mr. Bocking replied, "We ... draw some conclusions regarding the potential for adverse effects but we do not attempt to make a determination of significance mainly because the information ... is not fully there to allow that." 8897

Mr. Roth questioned Mr. Bocking extensively about Dr. Gregory's economics reports for Gitga'at [[Exhibits D71-7-9](#) and [D71-7-3](#)]. Mr. Roth said that he had not read or reviewed Dr. Gregory's reports. Mr. Roth sought to examine how Dr. Gregory had used the LGL report to come to his (Dr. Gregory's) conclusions and specifically addressed statements in Gregory relating to wake effects which are taken from the LGL report. 8924

Mr. Michael Demarchi challenged the appropriateness of this questioning. The Chairperson "encouraged" Mr. Roth to get directly to the questions that relate to the LGL report, but left some ambiguity in her direction: "so as far as seeking to understand if the LGL data has been incorporated into the report from these witnesses' perspective, the Panel is interested in hearing that aspect." 8972

Likelihood of spill and effect from LGL to Gregory

Mr. Roth canvassed specific statements in Dr. Gregory's report [Adobe 71] with respect to "high confidence that spill will occur, and high confidence that identified effect from spill will occur." Mr. Bocking said, "We're not expressing an opinion on that at all. Our work was not looking at the likelihood of a spill occurring. Our report was looking at, if a spill occurred of a certain size, how would that potentially affect Gitga'at interests." "That's Dr. Gregory's opinion in his report, and we didn't express an opinion on that matter." 8985

Length of affected shoreline from LGL to Gregory

Mr. Roth asked about the method used by LGL to obtain the area of affected shoreline which was to multiply the total length of shoreline affected by the Exxon Valdez oil spill (EVOS) by 0.75 "to account for the difference between diluted bitumen and, presumably, what you believe to be Alaska North Slope crude." Mr. Bocking said that is correct, they did not use a spill trajectory model, and "we used vary basic methods:" "We basically took the aerial extent of the Exxon Valdez after 14 days and overlaid it on the increased risk areas as put forward by Northern Gateway that are inside the Gitga'at Marine Use Area and inside the Confined Assessment Area." 9024-9087

NGP gives too much emphasis to spill response as a mitigation

Mr. Roth noted from the LGL report [Adobe 72] that "after quoting from a report that Mr. Anderson made [you] make a statement that the NGP submission places too much emphasis on spill response as a form of mitigation and not enough on preventative measures." He asked, "How did you come to that conclusion?" Dr. Elmar Plate provided an illustrative example. Mr. Bocking said that Mr. Anderson's comments were "...in the case of managing potential spill risks, prevention is a very important aspect of it and not just spill response." Mr. Roth cited a number of NGP's proposals with respect to tugs, tanker speeds, tanker vetting that could be considered mitigation or prevention, or both. 9089

Mr. Roth reiterated that other Gitga'at reports used the LGL as a foundation, specifically with respect to "a high likelihood ... that a major spill would occur and a high confidence level that if such a spill did occur, that 1,500 kilometres of shoreline in the Gitga'at assessment area would be affected." He said that LGL couldn't support either of those contentions or conclusions. Mr. Bocking repeated that LGL did not examine and expressed no opinion regarding likelihood. With respect to 1500 km of shoreline being affected, he said, "We stand by that estimate." 9139

Mr. Roth said, referring to the LGL report [[Exhibit D71-7-04](#)] that "there's a number of occasions where it's suggested that the NGP materials or submission has been misleading." Mr. Bocking said there was no suggestion that NGP intended to mislead anyone, rather, "that the conclusions drawn from the available evidence may not be appropriate ... and it relates back to the deficiencies in the baseline, primarily" 9154

Mr. Roth said LGL did two scenarios. He asked, would more scenarios have affected you conclusions? Mr. Bocking said, "The main thing we were trying to do here is express to Gitga'at visually with mapping what the potential effect on their resource harvesting

areas would be. ... We actually did six scenarios. ... There's uncertainty in those estimates but, in terms of concluding that Gitga'at areas would be affected, no, it would not change our conclusions." 9186

Not enough baseline information

Mr. Roth said, "LGL is somewhat critical of Northern Gateway for not having enough baseline information regarding species and population locations." Mr. Bocking said, "We're not taking issue with the list of species that were discussed in the report, however ... we took issue with the way the effects assessment was conducted on the KI (key indicator) species ... and suggesting they're representative of the other species. Discussion continued about NGP's selection of indicator species and LGL criticisms of it, and about pathways for effects to occur. 9217

The LGL report said, "diluted bitumen will sink and, after making landfall, it is more difficult to remove than crude oil." [Adobe 58]. Mr. Roth challenged LGL's understanding of the sinking characteristics of diluted bitumen, and says "you don't have any expertise in that area, you're just working on an understanding from reading?" Dr. Plate agreed. 9231

Mr. Roth suggested that in Table 15 [Adobe 74] LGL appears to have been inconsistent, or misleading, or incorrect in its calculations of amount of shore affected and the concentration of oil hitting the shore. 9242-9267

Pathways & concern about killing all the killer whales

Figure 2, "Potential pathways of adverse effects" [Adobe 28] is a diagram of pathways and linkage statements. Mr. Demarchi said this pertains to the Gitga'at assessment area. Mr. Roth asked why the linkage statements list specific types of activities. Mr. Demarchi said, "There's nothing specific in the Project description that describes those particular activities, but they're just listed as examples of a particular pathway." Mr. Roth stated, "There are very few pathways ... that are actually applicable." 9275

Mr. Roth put up [Transcript Volume 25](#), from Hartley Bay on March 3, 2012. "Mr. Henry Clifton is recounting having seen large numbers of killer whales in Wright Sound, and he expresses the concern that if there were ever a spill they would all be killed." [paragraph 15405-15408] Mr. Roth asked if there was anything in LGL's report that would cause the Gitga'at to have that concern. Ms. Judy Muir said, "The northern resident killer whales are a very small population, highly vulnerable. ... Any oil spill is a matter of concern for the health of this population, but we certainly did not state that an oil spill would eradicate the population or kill all of the members." 9304

Examination by the Chairperson, Sheila Leggett, of the Joint Review Panel 9318

The Chairperson asked Mr. Bocking about his statement that with "the selection of key indicators, LGL would have taken a different approach." Mr. Bocking replied, "Maybe I can just do this by way of example. We have five salmon species in the area plus

steelhead. They have somewhat similar life histories, in a generic sense, but they are not by any stretch identical. The selection of chum salmon as a representative species for the other salmon ... does not make sense to me. The life history of chinook, coho, sockeye, pink, they're all very different in terms of their exposure to the project area, their timing, the migration through the life stages at which they'd be vulnerable or not vulnerable. I would have addressed all five salmon species, as well as steelhead, as valued components." 9318

Re-examination by Mr. Ross 9326

Mr. Ross noted the discussion with Mr. Roth about pathways and his statement that many were not relevant to the geographic area. He asked, "Which ones do you consider relevant?" Mr. DeMarchi listed three, and expanded briefly on them: 9326

- where there are humans and vessels they'll be transiting the Gitga'at area;
- introduced species through the transfer of ballast water, hull fouling etc.;
- accidental spills or operational spills not associated with a tanker incident

Mr. Ross asked if the witnesses had any thoughts about the use of the word "potential" by itself, versus the phrase "just potential" or "merely potential" as it was used in questions posed earlier. Mr. Bocking said it "refers to the fact that we didn't complete a full formal environmental assessment." Dr. Plate said, "Potential should stand on its own and that's it. ... It's introducing some other meaning to potential that I don't want to interpret." Mr. Demarchi said it is "something that is within the realm of possibility. ... It has nothing to do with probability or a likelihood." 9351

Mr. Ross: "Were you ever told by anyone that either your report was going to be the foundation of their report?" Mr. Bocking: "No, we were never informed of that." 9380

Mr. Ross, Mr. Roth, the Chairperson, and Mr. Bocking embarked on a lengthy discussion about the appropriate use of redirect questioning, and Mr. Ross's question about whether "the 1500 kilometres had no anchor in Enbridge's own materials." 9386

Introduction by Mr. Michael Ross for Gitga'at First Nation 9453

Gitga'at First Nation Panel 2: Cultural Impacts

Mr. Ross introduced Dr. Theresa Satterfield, author of [Exhibit D71-7-07](#), the Gitga'at Cultural Impacts Report, and [Exhibit D71-17-2](#), Gitga'at reply to an NGP IR. He also introduced Councillor Cameron Hill, who contributed to [Exhibit D71-26-1](#), the Gitga'at reply to a JRP IR, and a number of other Gitga'at documents in evidence.

Examination by Mr. Bernie Roth for Northern Gateway Pipelines 9527

Demographics of Hartley Bay and the Gitga'at Nation

Mr. Hill confirmed for Mr. Roth that Hartley Bay was first settled in 1887 by 27 Tsimshian people and grew to about 644 Gitga'at members by 2005, only 250 of whom lived in Hartley Bay, and another 200 or so living in Prince Rupert. Mr. Hill thought that

the majority of the remaining 255 Gitga'at members are living in the lower mainland as well as across north and central coastal communities across BC. 9528

Discussion around demographics in Hartley Bay continued between Mr. Roth and Mr. Hill, including details of the student population of about 60, at the local school, which has been declining. 9574

Gitga'at culture

Dr. Satterfield indicated that she was contracted to work on the NGP project in 2011. Mr. Roth asked if she had initially understood that the objective of her work was to help the Gitga'at Nation file evidence in opposition to the NGP project. Dr. Satterfield disagreed and indicated that she had been sought out because of her ability to analyze the implications of the proposed project for the Gitga'at Nation in terms of culture. 9653

Mr. Roth asked about details of Dr. Satterfield's report, beginning with the dependence on marine and land resources, and maintaining a community at Hartley Bay, for Gitk'a'ata's cultural resilience. Dr. Satterfield agreed that the Gitk'a'ata's primary cultural practices are linked to the physical world, and that even people not living in Hartley Bay "consider it their cultural home". Discussion continued on the importance of coming home to the community of Hartley Bay, and the surrounding area, for the preservation of the Nation. 9665

Dr. Satterfield answered questions about fundamental Gitka'at cultural practices, including the return and sharing of harvest, feasting practices, place name practices, and knowledge transmission at the school and harvest sites. She referred him to Mr. Hill for questions on the school in particular. 9683

Mr. Hill was subsequently questioned on the cultural importance of school trips to traditional harvesting areas. He noted the importance of well-run school having direction from the community. 9692

Dr. Satterfield confirmed for Mr. Roth that her report indicated rising fuel costs as being a barrier to accessing traditional foods from marine resources and traditional lands. 9697

Economic stability, fuel costs and impacts on culture

Referring to Gitga'at oral evidence at [Volume 25](#), paragraph 14691, Mr. Roth pointed out Chief Robert Hill's comments about the poor economic conditions in the community, being largely dependant on the public service. He asked if Dr. Satterfield agreed that it is important for Gitga'at culture to have a more diversified economy. She agreed that access to fuel could help with the commercial fishing economy, which helps preserve a cultural practice as well as creating income, but declined to comment on "what the Gitga'at economy should be comprised of", stating only that the economy is very marine-dependant. 9699-9707

Mr. Roth spoke about the collapse of the commercial fishery in Hartley Bay, which now employs approximately 10 people, as opposed to 120 people in the mid 1980s. Mr. Hill added his thoughts about the transmission of Gitga'at culture, language, identity and

harvesting techniques, which can be done without fuel, as they were by his forefathers. 9711

In several ways, Mr. Roth asked Mr. Hill if he agreed with the importance of fuel and modern technology for the survival of his culture as well as a strong economy. Mr. Hill spoke about “the knowledge that has been passed down from generation to generation”, and about having the Gitga’at people work “within our territory without disturbing the territory. That is high on our priority list”. 9736-9740

Continuing in the same vein, Mr. Roth asked Dr. Satterfield for agreement that her report indicates “two essential factors to the maintenance of the Gitga’at culture”, including natural resources for food, and access to resources through economic means, not just through a subsistence economy. Dr. Satterfield explained that she didn’t think access to resources in the territory was impossible without the benefits of the formal economy. She spoke about poverty having different meanings, and that the Gitga’at often define it as not having a grandmother because of the resulting loss of knowledge. 9741-9746

Mr. Roth continued to seek agreement around the importance of an economy to enable access to fuel, and modern technology to access resources, for the resiliency of the Gitga’at culture. 9747

Cultural impacts of perception

Mr. Roth asked about details from Dr. Satterfield’s report in terms of methodology and scope. Bringing up page 81 of her report, [Exhibit D71-7-07](#), he asked whether her report addressed cultural impacts associated with perception. Dr. Satterfield explained that most of the report addresses “physical impacts as they affect cultural practices”, adding that “perception drives behaviour”. She described the literature on perception, explaining that it is sometimes ephemeral, and in other cases is “extremely enduring”, which is often the case in response to externally imposed threats or hazards. 9758-9838

Mr. Roth asked Dr. Satterfield if she thought the NGP project could make a positive contribution to the maintenance of the Gitga’at culture if it proceeded without significantly effecting the environment they rely on, created a new economy with good jobs from marine services, environmental monitoring, and emergency response; and if it provided other benefits such as investment income through equity ownership in the pipeline, marine services and tugs; allowing the community to have greater public expenditures. 9840

Dr. Satterfield indicated that she wasn’t comfortable answering the question, which was based on too many “ifs”, adding that the question of whether routine operations from the project would have impact on the community, was a good one to investigate. Mr. Roth restated his question with some adjustments, asking if such a scenario wouldn’t provide a “positive contribution to the maintenance of the Gitga’at culture”. Dr. Satterfield repeated that the question was beyond the content of her report, referring him to the economic report. 9841-9863

Introduction by Mr. Michael Ross for Gitga’at First Nation 9888

Gitga’at First Nation Panel 3: Social Impacts

Mr. Ross introduced Dr. Duane Gill, author of [Exhibit D71-7-02](#), the Gitga’at Social Impacts Report, and [Exhibit D71-17-2](#), Gitga’at reply to an NGP IR.

Examination by Mr. Bernie Roth for Northern Gateway Pipelines 9917

Mr. Roth asked Dr. Gill about his research on the project, how he became involved in it, and the methodology he used. 9918

Residents’ perceptions of the researchers and the impacts of oil spills

Calling up [Exhibit D71-7-02](#), Adobe 34, Mr. Roth asked Dr. Gill if he believed that the Gitga’at participants viewed him and Dr. Ritchie as experts on the effects of oil spills on communities. Dr. Gill indicated that he wasn’t sure how his expertise and qualifications were perceived. 9975

Mr. Roth continued with questions for Dr. Gill around his awareness of Hartley Bay residents’ perceptions and understandings of oil spills and whether he had expressed his own views of impacts of spills to them. Conversation continued around details of the film, “The Black Wave”, and whether 12 suicides had occurred as a result of the Valdez spill, as reported in the film. 9992

Mr. Hill interjected, stating that neither Dr. Gill nor his associates stated their beliefs or opinions about the impacts of the Valdez spill to the Hartley Bay community. He explained that while devising their marine use plan, the community “did their due diligence” and had speakers from communities affected by the Valdez spill come and speak about the impacts they experienced, at which time Hartley Bay residents were told about displacements and suicides as a result of the spill. Mr. Hill indicated these talks would have taken place two or three years before Dr. Gill and Dr. Ritchie came to do their research. 10028-10042

From the Information Response, [Exhibit D71-17-2](#), Dr. Gill pointed a segment on Adobe 27, *it is not the author’s ‘opinion’ that a spill is inevitable; rather, it is our observation that the Gitga’at community believes that a spill is inevitable*, which were based on interviews, meetings and conversations. Mr. Roth asked further questions about Dr. Gill’s opinion on the inevitability of oil spills and whether they would have been imparted to the Gitga’at community. Dr. Gill spoke about the qualitative methods used in his research, which were to be active listeners, not interjecting or “putting words in their mouth[s]” 10044-10077

Mr. Hill again interjected stating “well before Dr. Gill and his associates had been in our community... we’ve been dealing with the BC Ferries incident which still is putting forth contaminants into our community”, and also mentioned contaminants leaking from the Brigadier Zalinski, which shaped feelings about the project. 10079-10080

Suicides in communities affected by oil spills

Moving to Adobe 86 of the Information Response, Mr. Roth noted a statement indicating that empirical evidence from oil disasters pointed to the occurrence of suicides in affected communities. He learned that Dr. Gill had based the statements on previous research he did in other communities, as well as evidence from the BP spill in the Gulf of Mexico. 10082

Continuing to Adobe 88 of [Exhibit D71-7-02](#), Mr. Roth noted that Dr. Gill predicted “likely occurrence” of suicides amongst the Gitga’at in the event of a major oil spill. Discussion continued. 10101-10108

Effect of litigation on chronic psychological stress after the Valdez spill

Discussion continued around litigation as a primary contributor to chronic psychological stress and community disruption after the Valdez spill. Dr. Gill spoke about the collapse of the herring fishery in 1993 as being another contributor to stress in the impacted communities. 10112.

Mr. Roth asked Dr. Gill and Dr. Ritchie about their knowledge of the Canadian legal system in comparison to the type of litigation that followed the Valdez spill. Dr. Ritchie answered that the subject is outside of her expertise, and Mr. Roth asked if they were extrapolating from the case in Alaska and transposing it onto Canada without knowing how the legal issues would compare. Dr. Gill spoke about social science methods and indicated that he knows about the social impacts of spills, but that there are other types of impacts too. 10158

The second largest spill in Alaskan history, the Selendang Ayu spill

Mr. Roth continued with questions around Dr. Gill’s knowledge of the pipeline and tanker traffic associated with the Valdez and Selendang Ayu spills, confirming that the second spill occurred from a cargo ship, not a tanker. Mr. Roth then asked Dr. Gill about his study on the socio-cultural impacts of the Selendang Ayu spill. He pointed out details in that report stated there were no long-term social impacts from the incident. 10173

Dr. Gill spoke about resiliency, and the importance of recognizing the differences between Dutch Harbor, Alaska and Hartley Bay. He explained the economic diversity that had existed in Dutch Harbor at the time of the spill, as well as the smaller portion of the community being indigenous. He also pointed out that the ship was carrying soybeans, not oil. 10215

Dr. Ritchie pointed out that other studies have indicated that the Selendang Ayu spill had affected subsistence activities, native culture, tourism, and commercial fishing. 10221

Mr. Roth asked Dr. Gill if it were possible that the spill response in the Selendang incident, which would have been developed after the Valdez spill, resulted in the absence of socio-cultural impacts. Dr. Gill indicated that he thought it was possible, though again noted other factors, such as distance of the spill from the settlement, community make-up, and the relatively small amount of oil that spilled. He also noted that the response

plans developed after Valdez hadn't translated to changes in sill response for the Deepwater Horizon spill. 10224

On mitigation strategies to preserve social capital in Hartley Bay

Mr. Roth continued with questions about Dr. Gill's previous research in the field. He then moved to asking about a point in [Exhibit D71-7-02](#), Adobe 81, about needing improved infrastructure around the Hartley Bay harbour *to accommodate spill response vessels and equipment*, if the project were to go ahead. Dr. Gill agreed that such action would have the potential to preserve community and social capital in the event of a spill. Discussion on the subject continued. 10245-10290

Mr. Roth noted that Dr. Gill's survey in Hartley Bay indicates that 18 respondents suggested they would leave the area in the event that NGP proceeds. He asked if these respondents were "affected by high levels of emotion...and certain perceptions regarding the project that could potentially change in the coming years". Dr. Gill agreed that it was possible. 10292

NGP employment as potential cause of conflict in Hartley Bay

Mr. Roth then asked if Dr. Gill thought it was possible that if individuals did leave the community because of the project, and had been employed, then others could come to the community to fill those jobs. Dr. Gill then agreed that such a scenario was possible. 10295

Mr. Roth moved to asking about Dr. Gill's statements in his report that the project could potentially create community corrosion from conflicts around some members accepting employment from NGP and others rejecting such opportunities. He asked if employment opportunities resulting from upgrading of harbour facilities and spill response equipment- which Dr. Gill recommended- would create such conflict, pointing out that such jobs could be directly associated with protecting Gitga'at territory from spills. 10300

Gitga'at worldviews and dependence on the natural world

Dr. Gill responded that he believed community corrosion was anticipated as a result of community members taking any employment directly linked with the project. He also pointed out that such corrosiveness to a community was seen post Valdez spill in the Selendang Ayu case, as well as in the case of the Deepwater Horizon situation. He added that most First Nations, the Gitga'at included, have differing worldviews than traditional western culture, stating, "jobs and money, those kinds of mitigation strategies and development strategies, if they're not consistent with Gitga'at worldviews and Gitga'at respect for their bioregion, I think they have a potential for doing harm". 10323-10325

Mr. Hill stated that the depiction of his people as poor is inaccurate, "I believe that our people... are very, very rich in the simple fact that we have, and hopefully will always have, a way to self-sustain ourselves within our community." He described the generations of self-sustaining culture and identity, and the wealth of teachings from generation to generation, adding, "when you talk about putting forth the opportunity for Gitga'at people to clean up an oil spill, if that were to happen my culture's dead there...there's going to be a miscommunication between a set of cultures and beliefs

that's going to be tried to be passed down from the likes of my grandmother". 10328-10332

Dr. Gill added to Mr. Hill's statements, pointing out similar findings in the report, about the intimate link between social capital and the natural capital of the bioregion, which isn't linked to jobs, money or infrastructure. He stated that a spill would present a great threat to this natural capital that the Gitga'at cultural existence has depended on since "the beginning of time". 10335-10339

Mr. Roth stated to Mr. Hill that he was not suggesting that the Gitga'at culture is poor, and acknowledged the richness of the culture. Dr. Gill pointed out that Mr. Roth's referencing of Chief Bob Hill's testimony ignored his statements that economic development needed to come from the Gitga'at, and not be imposed from the outside. 10339

Dr. Gill spoke about resilience, stating, "any culture that has survived over 7,000 years, you have to say that's a resilient culture. But when you impose technological hazards, that's something that they're unprepared to deal with within their cultural history and their cultural experience". Discussion continued. 10347-10368

History of commercial fishing in Hartley Bay

Mr. Roth asked Mr. Hill about his history in the commercial fishery, and the large commercial fleet that existed in Hartley Bay and other surrounding communities from the mid 1960s to the 1980s. He asked about other industrial activities in the area throughout the decades and asked Mr. Hill about conflict between the commercial fishers and other industrial vessel traffic. Mr. Hill spoke about industry contributing to a harder fishing life, causing conflicts that sometimes resulted in litigation. 10369

Negotiations and agreements between NGP and the Gitga'at Nation

Mr. Roth described the funding agreement between NGP and the Gitga'at to negotiate a protocol agreement, and to develop work plans and budgets to review NGP's materials for the JRP, which resulted in a resolution signed by all Hereditary Chiefs and members of the Hartley Bay Band Council in 2011, providing agreement for ongoing engagement with NGP. Discussion continued around the provisions and details of the agreement. 10434

Mr. Roth indicated that despite the agreement between the parties, in December 2011, the Gitga'at Nation rescinded its participation. He stated that this was in part due to draft reports from the experts revealing "deep and serious flaws in [NGP's] information" around adverse economic, social and cultural impacts. He reviewed two other reasons for withdrawal from the agreement: stress on community members as a result of the project, and a sense that the equity offer and potential benefits didn't address the risks and impacts posed by the project on the Gitga'at Nation. 10461

Mr. Hill agreed with Mr. Roth's recounting of the events, and Mr. Roth sought the names of the consultants who had suggested the benefits for the community were insufficient.

Further details of why the Gitga'at withdrew their participation, and who potentially influenced this decision, were discussed. 10470

Mr. Roth asked Mr. Hill if he thought it possible that if the JRP were confident that the project could be carried out safely, and with an absence of significant adverse effects, that the Gitga'at would proceed with negotiations with the company. Mr. Hill described a lack of relationship prior to the Gitga'at withdrawing from the process. He spoke about NGP members being welcomed and respected when they visited Hartley Bay. 10488

Mr. Roth again spoke about the protocol agreement in 2009 and asked if it were possible to return to discussing an opportunity and benefits agreement should the JRP determine the project to be safe. Mr. Hill explained that in 2009 it was felt that the Gitga'at needed to have its voice heard. He stated, "I believe that the Gitga'at voice is there, but I don't believe it's being heard", adding that the concerns of his people are what provides him with direction and are the reason that the Nation withdrew from the agreement. 10497-10502

Re-examination by Mr. Ross 10517

Referring to the examination by Mr. Roth, Mr. Ross asked Dr. Gill if he agreed that a world-class oil spill response system had been implemented in Alaska following the Exxon Valdez spill. Dr. Gill indicated that he did not agree. 10518