



COMMISSION OF INQUIRY  
RESPECTING THE MUSKRAT FALLS PROJECT

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Transcript | Phase 2

Volume 25

*Commissioner: Honourable Justice Richard LeBlanc*

Thursday

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**CLERK (Mulrooney):** This Commission of Inquiry is now open.

The Honourable Justice Richard LeBlanc presiding as Commissioner.

Please be seated.

**THE COMMISSIONER:** All right.

Good morning.

Just before we begin, I had mentioned yesterday afternoon that the plan was today that we would hopefully finish with the witnesses this morning and then we would have Mr. Mulcahy testify this afternoon. For personal reasons, he has asked not to testify today. So, as a result, I have said yes to that. And depending what everyone's plans are because we had scheduled the break to run right through to May the 3rd, so we would be beginning on May 3, which is a Friday, I'd like to start on May the 2nd now, as opposed to May the 3rd, and we will call Mr. Mulcahy on the 2nd of May.

So unless there's somebody has a very good reason why we can't start on May the 2nd, you could let Commission counsel know, we will be starting now on May the 2nd with Mr. Mulcahy.

So having said that, Mr. Learmonth, when you're ready.

**MR. LEARMONTH:** The witnesses today are Derek Tisdal and Aaron Rietveld, both of Barnard. And they were Barnard company in – headquartered in Bozeman, Montana, that partnered with Pennecon Heavy Civil in a partnership known as Barnard-Pennecon, and the partnership, limited partnership, were the contractors for CH0009 package for the North and South Dams, and CH0009 was one of the contract packages investigated by GT – Grant Thornton. However, because there are still some contractual issues outstanding, much of the documentation in the Grant Thornton report, in terms of the numbers, has been redacted. And for those who were interested, the Grant Thornton report is P-01677, and page 53 is the chart showing the redactions.

Now, I'd first like to enter, before the witnesses are sworn, I'd like to enter Exhibits P-02844 to P-02851, P-02864 to P-02873 and P-02969.

**THE COMMISSIONER:** All right, those exhibits will be marked as entered, as numbered.

**MR. LEARMONTH:** Yes.

**THE COMMISSIONER:** I'll ask Mr. Tisdal to stand up first, please. And, Sir, do you wish to be sworn or do you wish to affirm with regards to telling the truth here at this Inquiry? Either –

**MR. TISDEL:** Sworn.

**THE COMMISSIONER:** – either is equally – sworn? Just grab the Bible, then, put it in your right hand, please.

**CLERK:** Do you swear that the evidence you shall give to this Inquiry shall be the truth, the whole truth and nothing but the truth, so help you God?

**MR. TISDEL:** I do.

**CLERK:** Please state your name.

**MR. TISDEL:** Derek Tisdal.

**CLERK:** Thank you.

**THE COMMISSIONER:** Right, and Mr. Rietveld, if you could stand up, please. And do you wish to be sworn or affirmed?

**MR. RIETVELD:** Sworn.

**THE COMMISSIONER:** Sworn as well?

**CLERK:** Do you swear that the evidence you shall give to this Inquiry shall be the truth, the whole truth and nothing but the truth, so help you God?

**MR. RIETVELD:** I do.

**CLERK:** Please state your name.

**MR. RIETVELD:** Aaron Rietveld.

**CLERK:** Thank you.

**THE COMMISSIONER:** Mr. Learmonth.

**MR. LEARMONTH:** Thank you.

Mr. Tisdel, what – where do you live, what city and country do you live in?

**MR. TISDEL:** Bozeman, Montana, the United States.

**MR. LEARMONTH:** Yes.

And Mr. Rietveld?

**MR. RIETVELD:** Same.

**MR. LEARMONTH:** Same, okay.

I'm gonna ask you some questions about your background – Mr. Tisdel first. Can you confirm that you're the vice-president operations manager for Barnard?

**MR. TISDEL:** Yes, I am.

**MR. LEARMONTH:** Yeah.

And could you provide us with a brief overview of your education and – since high school and your work history after you completed your education?

**MR. TISDEL:** Yeah.

I graduated from Central Washington University in 1997 with a Bachelor of Science degree in construction management and a minor in business. I immediately started working for Barnard Construction in June of '97. I travelled with the company for 14 years, working my way up from a project engineer to a project manager.

In about 2011, I became vice-president operations manager. Continued working overseeing construction projects where, as a vice-president operations manager, I'm responsible for project selection, for contract negotiation, owner relations, oversee the estimate all the way through physical construction. And working with the project managers, superintendents, business development and estimators report to me.

**MR. LEARMONTH:** All right.

Please provide us with an overview of the type of work that Barnard has carried out in the past and carries out now. What is the type of work that Barnard is engaged in?

**MR. TISDEL:** Mostly large heavy civil projects: dams, reservoirs, heavy earth moving, really anything that would fall into a specialty heavy civil category. In addition to that, we have overhead transmission line group. We have oil and gas group, we have underground tunneling group as well. But they all generally fall into the heavy civil category.

**MR. LEARMONTH:** And in the past, prior to the Muskrat Falls Project, had Barnard worked on RCC dams?

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** Okay.

The – how many employees approximately does Barnard have?

**MR. TISDEL:** Close to 300 salaried employees. The amount of total employees is probably a couple times that and – but varies depending on the season and –

**MR. LEARMONTH:** Yes.

**MR. TISDEL:** – yeah, and how much work we have going on. But it could be –

**MR. LEARMONTH:** Okay.

So what is the – you formed a limited partnership with Pennecon. When did your relationship – Barnard's relationship with Pennecon start to build? In other words, have you done other projects, other than the Muskrat Falls Project with Pennecon, or is this the first time that you've formed a business relationship with Pennecon?

**MR. TISDEL:** This is the first time.

**MR. LEARMONTH:** Okay.

And so the Barnard Pennecon Limited Partnership, that's incorporated under the laws of Newfoundland. Is that correct?

**MR. TISDEL:** I'm not sure.

**MR. LEARMONTH:** Okay.

But, anyway, who is the general partner or limited partner, do you know? Like, the managing partner?

**MR. TISDEL:** Of the LP?

**MR. LEARMONTH:** Yes.

**MR. TISDEL:** Barnard is.

**MR. LEARMONTH:** Yes.

And is it true that the LP is – well, it's 65 per cent Barnard and 35 per cent Pennecon, as far as you know?

**MR. TISDEL:** Yes, correct.

**MR. LEARMONTH:** Okay.

Please give me an overview of the – your understanding of the strengths that Barnard brought to the partnership and then what strengths did Pennecon bring to the partnership, generally.

**MR. TISDEL:** Barnard brought the large, again, heavy civil project experience: the dams, the reservoirs, RCC in particular. And Pennecon brought the local Canadian experience along with earthmoving, aggregate processing ...

**MR. LEARMONTH:** Okay.

Now, I mentioned earlier RCC dam and I just want you – wanted you to give a brief description of what a – the term roller-compacted concrete means. My understanding, generally, is it's a special blend of concrete that, you know, has many of the same ingredients as conventional concrete but in different ratios. Is that true?

**MR. TISDEL:** Yes, that's true.

**MR. LEARMONTH:** And also the – there's a substitution of fly ash for Portland cement to some degree. Is that correct?

**MR. TISDEL:** To some degree, yes.

**MR. LEARMONTH:** Okay.

Well, maybe, I should ask you – you know a whole lot more about it than I do – give your description of what is meant by roller-compacted concrete.

**MR. TISDEL:** As you mentioned, it is the same general ingredients as in with the conventional concrete, perhaps more fly ash, less cement, but it has both. It is batched in such a way that it is a drier mix so that when it's placed, you place it with conventional earthmoving equipment so that when it's placed and compacted it can become a better, stronger product with not – without the high heat of conventional concrete.

**MR. LEARMONTH:** So does that mean that it wouldn't crack as much –

**MR. TISDEL:** Correct.

**MR. LEARMONTH:** – as conventional concrete?

**MR. TISDEL:** Correct.

**MR. LEARMONTH:** Yeah. And what's the difference in cost of RCC as opposed to conventional concrete?

**MR. TISDEL:** Generally, RCC is less expensive.

**MR. LEARMONTH:** Yeah. Is there any component that makes it less expensive? In other words, is it the substitution of fly ash for Portland cement the factor that makes it less expensive?

**MR. TISDEL:** Yeah, and your ability to place it continually and the methodology of placing it and without forming and things of that nature.

**MR. LEARMONTH:** Yes. And you – your company has extensive experience with RCC.

**MR. TISDEL:** Yes, we do.

**MR. LEARMONTH:** Okay.

Could we please turn to tab 4, which is Exhibit P-02845 – if that could be brought up on the screen – page 1? Okay. Now, if we could blow

up the first picture a little bit, if that's possible. The top – yeah, okay, that's fine.

So the – page 1, do you see the exhibit there, Sir? The – is that the – what the North Dam looks like?

**MR. TISDEL:** This is a picture of one of Barnard's past projects, the Saluda Dam.

**MR. LEARMONTH:** Okay. So that isn't the – that's a previous construction project.

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** But is the – we see that it's stepped up, like the concrete, the face of it is stepped up – if you know what I mean?

**MR. TISDEL:** Yes. Correct.

**MR. LEARMONTH:** Yeah. So is that the same type of construction that was used in constructing the North Dam? Generally?

**MR. TISDEL:** Generally.

**MR. LEARMONTH:** Generally.

**MR. RIETVELD:** Pre-cast (inaudible) –

**MR. LEARMONTH:** Do you want to add to that, Mr. Rietveld?

**MR. RIETVELD:** Oh, I was on that project. The – generally, they're both stepped faces but that had a pre-cast panel on that that was – essentially, served as the form and it was left in place, so we just placed up against that pre-cast panel. At the North Dam, at Muskrat, we used – placed conventional concrete concurrently with the RCC up against forms and then stripped the forms off. So while they're both stair steps, the methodology was a bit different.

**MR. LEARMONTH:** Yeah. So if someone – a layperson – looking at this would get a good idea of what the construction of the North Dam looked like.

**MR. TISDEL:** What it looks like, yes.

**MR. LEARMONTH:** Yeah. All right.

So what's the purpose of the stepping? Because I think there's another way you can do it where it's just a flat face. Is that correct?

**MR. TISDEL:** Mm-hmm.

**MR. LEARMONTH:** Is that – am I correct in that?

**MR. TISDEL:** A battered, yes.

**MR. LEARMONTH:** A battered face.

**MR. TISDEL:** Yeah.

**MR. LEARMONTH:** Yeah. What are the pros and cons of this stepped face in RCC construction as opposed to a battered face? Either one of you can –

**MR. RIETVELD:** Well, I think, that gets into some of the – as far as I understand – some of the engineering. Obviously with steps as this – most of the North Dam was a spillway structure other than the very north abutment.

And so with steps there's, I think, some advantages from a hydraulic standpoint that dissipates the energy of water as it's flowing down, so by the time that the water gets to the base of the dam the velocities aren't as high. So that's one advantage of the steps, whereas if you have a batter, you know, just think of – kind of a ski jump, if you will, for the water –

**MR. LEARMONTH:** Right.

**MR. RIETVELD:** – the velocities. So there's some design considerations into steps versus batter, but both options were evaluated and considered for the Muskrat Falls Project.

**MR. LEARMONTH:** Yeah. And the step was chosen, would the battered alternative have been a reasonable alternative or was it discounted for good reasons?

**MR. RIETVELD:** Well, Derek, you know, gave you some of the procurement stuff early on, and I can speak to what eventually transpired or played out.

**MR. TISDEL:** The step is what was originally contemplated in the RFP, which is what we

proposed on. We offered an alternative to go to the battered or sloped faced, at a potential cost savings. But the – again, as Aaron mentioned, the engineering behind it is ultimately the owner’s decision, you know, to decide which to go with.

**MR. LEARMONTH:** And that was acceptable to you, was it? It wasn’t a –

**MR. TISDEL:** Yes, either method was acceptable –

**MR. LEARMONTH:** All right.

**MR. TISDEL:** – as we mentioned, we offered a savings to do one versus the other.

**MR. LEARMONTH:** Okay.

Now, I would like Mr. Rietveld to give your – first, confirm that you were the project manager for this project, is that correct?

**MR. RIETVELD:** That’s correct. I first started out – first year I was a project manager and –

**MR. LEARMONTH:** Yeah. And then you were promoted to vice-president –

**MR. RIETVELD:** Essentially, Derek’s position and then while he was still involved in the project for the remainder I kind of took the primary role of executive vice – or vice-president, operations manager for the project that Derek had assumed for that – during the tender phase in the first year.

**MR. LEARMONTH:** Yes.

Did you spend – tell us a little bit about how much time you actually spent on site as opposed to, you know, managing the project from Bozeman.

**MR. RIETVELD:** Well, when I was a project manager, I was on site full-time that first year, and then after that I would’ve been on site – at least probably every month I would go out there for a week or so.

**MR. LEARMONTH:** Okay.

Could you tell – could you give us some information on your education after high school?

**MR. RIETVELD:** Mm-hmm.

Yeah, so I graduated in 2001 from Montana State University in Bozeman, Montana, with a Bachelor of Science in Construction Engineering Technology. That’s part of the school of – or the college of civil engineering. And then I worked – right out of college, I worked for a vertical contractor on the West Coast of the US for about a year and a half before I hired on with Barnard in 2003. And since that time I’ve – so from 2003 up until, really, 2016, when I was promoted, I was, you know, all over the US and on this job in Canada, on four or five dam projects. You know, Saluda Dam, it was one of the bigger jobs I was on in 2003 through 2005. I was on a big mass concrete dam project in New York in 2011 through ’14 –

**MR. LEARMONTH:** That was Gilboa?

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** So it was not RCC, but it was mass concrete. And it had many of the same features as Muskrat. It was – it had a stair-stepped downstream face, similar climatic conditions, some of the same kind of, you know, schedule constraints with the weather and things of that nature – congested work site. So very similar to the Muskrat Falls Project.

**MR. LEARMONTH:** Yeah.

And the Saluda Dam, was that a RCC?

**MR. RIETVELD:** It was.

**MR. LEARMONTH:** Yeah. And you were involved in that?

**MR. RIETVELD:** Yup.

**MR. LEARMONTH:** So this wasn’t your first exposure to this type of –

**MR. RIETVELD:** No.

**MR. LEARMONTH:** – construction? Okay.

The – Mr. Tisdell, the – I'd like you to turn to – it's tab 4, P-02845, that's the exhibit that we were just looking at a photograph (inaudible). If we go to page 7 of that exhibit, this is a proposal form letter dated October 22, 2014, and on page – yeah, the amount is in paragraph 1 on page – this page 7. Total lump sum is \$315,797,500. Is that correct?

Was this the first proposal or your first response to the request by Nalcor to put a – start the bid process for this project?

**MR. TISDELL:** Yes, it was.

**MR. LEARMONTH:** Okay. And how did that come about? Were you – did you receive a letter and then – I guess you got a request for proposal; that's referred to in paragraph 1 on page 7. Yeah.

Did you have any – or you must've had some interaction with Nalcor before that. They didn't send their request for proposals out of the blue, I take it?

**MR. TISDELL:** I wasn't involved with the process much prior to this date. However, I do understand that we had a – there was a pre-qualification process that we went through. We were pre-qualified and ultimately requested to submit a proposal for it.

**MR. LEARMONTH:** All right.

Now, I understand there was a lump-sum component that would include your indirect costs and a component that is unit price. Is that correct?

**MR. TISDELL:** Yes, that's correct.

**MR. LEARMONTH:** Okay.

Now, we can see a breakdown if we turn to page 22 and 23, which is appendix – excuse me, tab 4, P-02845, page 22 and 23. That's a breakdown. The numbers, by the way, are sort of smaller, and they're on the top left side. Do you see that?

**MR. TISDELL:** Yes.

**MR. LEARMONTH:** So just describe generally what, what information is contained in pages 22 – starting at pages 22, what is this?

**MR. TISDELL:** This is a schedule of a price breakdown of that \$315-million number. These are all the different lump-sum and unit-price components that make up that total bid amount.

**MR. LEARMONTH:** Okay.

And so – so most of the – it appears that most of the work is broken down into units. Is that correct?

**MR. TISDELL:** Yes that is correct.

**MR. LEARMONTH:** So that – in this situation, with a unit price, you multiply the price by the estimated number of units and get an estimated amount for the unit price portion of the contract. Is that generally correct?

**MR. TISDELL:** That is.

**MR. LEARMONTH:** Yeah.

Is this a standard type of presentation that you'd make? Is this – or was this a unique type of presentation?

**MR. TISDELL:** This is standard.

**MR. LEARMONTH:** It's standard, okay.

Now, was this just a proposal, like, a bid? Is that generally what it is? Just a first shot at the deal.

**MR. TISDELL:** Yeah. With a proposal, obviously, there – in addition to pricing, we're typically providing other pertinent technical information: schedules, execution plans, organizational charts, résumés, things of that nature.

**MR. LEARMONTH:** Okay.

Now, we know that the limited partnership was not willing to take on the risk of labour and travel cost. Is that right?

**MR. TISDELL:** Yes, that's correct.

**MR. LEARMONTH:** Okay. Why was that?

**MR. TISDEL:** We were very concerned about the availability of skilled labour at the Muskrat Falls site. In particular, because of the amount of other general contractors that were sharing that same site, we'd be in competition with them for the same labour pool and the same labourers, operators, carpenters. In addition, there was quite a bit of work going on across Canada where, again, the same labour pool would be potentially pulled to other places. So our concern was the availability of the skilled –

**MR. LEARMONTH:** Yeah.

**MR. TISDEL:** – trades labour.

**MR. LEARMONTH:** So you wouldn't put in a fixed price. You wanted Nalcor to take on a substantial portion – not 100 per cent, but a substantial portion of the risk if your labour costs went over and above what you committed to. Is that correct?

**MR. TISDEL:** Yeah, that's correct.

**MR. LEARMONTH:** Yeah.

Is that a standard feature in construction contracts of this kind? That the owner keeps most of the risk for labour productivity.

**MR. TISDEL:** I'm not sure if it's standard. It is – it does happen. I'm not sure if I'd – it's standard.

**MR. LEARMONTH:** All right.

Does – you've seen it before, have you?

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** Yes.

And so the concerns were that – as I understand your evidence – that there were already a lot of the skilled workers that were committed to other contractors on this job. That was the first thing. And, secondly, there were other projects in Canada that would attract skilled – the type of skilled workers that you would need to complete this project.

**MR. TISDEL:** Yes, that's correct.

**MR. LEARMONTH:** Sort of two reasons, right?

**MR. TISDEL:** Yeah.

**MR. LEARMONTH:** And, you know, we know that there were bid clarifications and later proposals from Barnard-Pennecon, which we'll review, but can you confirm that the – Barnard-Pennecon maintained that position throughout that you were not prepared to take on the risk of labour productivity?

**MR. TISDEL:** Generally, yes.

The scope – or, excuse me, the terms of that arrangement were ultimately negotiated, but yes.

**MR. LEARMONTH:** All right.

Now, we'll get into this later, but we know that the – wasn't the – the contract was dated until – on August 20, 2005, so there were roughly 10 months of negotiations between the first bid proposal and the signing of the contract. Is that right?

**MR. TISDEL:** Yes, about 10 months.

**MR. LEARMONTH:** Yeah. Is that an unusually long period of time or would it be standard for negotiating a contract of this kind?

**MR. TISDEL:** I would say that's a little unusually long.

**MR. LEARMONTH:** Yeah.

Was there any reason why it took so long, that you can put your finger, or your interpretation of it, anyway?

**MR. TISDEL:** Not really. It was – that was out of our control. There were things that were changing in that 10 months that we continued to provide revised pricing on schedules and –

**MR. LEARMONTH:** Okay.

Next, we'll turn to tab 17, which is Exhibit P-02773, and if you could turn to page 7 of that 02773, tab 17. This is a letter from Barnard-Pennecon dated March 6, 2015 to Ed Over, I guess was the representative of Nalcor at this



stage – or Nalcor, the Muskrat Falls Corporation. Is that right, you were dealing with Ed Over?

**MR. TISDEL:** Yes, that's correct.

**MR. LEARMONTH:** Okay. So what were the considerations when you arrived at – you know, why did you submit this revised proposal? What had happened between the first proposal and this that had caused you to submit a revised proposal?

I just that – I know that – I see at the top at page 7 of the Exhibit P-02773, that there's a – it says: "In follow-up to our phone conversation on February 27 ... Barnard-Pennecon ... is pleased to offer the following cost savings for the project." And then: "Cost Savings identified:

"1. The optimization of RCC per the revised RCC ...."

So, was there a determination made by Muskrat Falls that you had to refine or reduce your price? They were looking for reduction?

**MR. TISDEL:** I believe this was a request for what those potential cost savings would be.

**MR. LEARMONTH:** Yeah. And in this document on page 8, we see a reference to a labour target model. Could you take us through that? That's in paragraph 3 on page 8.

What is a labour target model? And just give us some description about the information starting in paragraph 3 on page 8, down to the bottom. Can you give us some observations on what you're talking on there?

**MR. TISDEL:** Yeah. So, the – this was part of the negotiation I was talking about, about the labour risk.

So, we offered a labour target model whereby the labour on the project would be paid on an actual cost basis, and the labour, within our proposal, would become the target price.

We would be paid G&A, or our corporate overhead, over and above the actual cost of labour, and we'd also be paid a fee or a profit over and above the actual cost of labour as well.

At the point – if the project were to come under the labour target, we'd be paid the actual cost of labour, plus G&A, plus our fee, only on the actual amount of labour expended. And any delta between where we ended and our labour target, we would split with the owner 50/50.

If it were to go over, we would stop being paid G&A at the point in which we went over the labour target model, and we would begin to lose 50 cents on the dollar until our profit portion was eroded.

**MR. LEARMONTH:** Okay.

So, I mentioned earlier that the transfer of risk was not complete, that there was still some element of risk on Barnard- Pennecon in this arrangement because you had to pay for your indirect labour costs. So, it wasn't a complete transfer of risk, you know, that was accepted by Nalcor.

Is that correct?

**MR. TISDEL:** That is correct.

**MR. LEARMONTH:** Yeah. And, so, it was still very much in your interest, in Barnard-Pennecon's interest, to, you know, have as few labour hours as possible. Is that right?

**MR. TISDEL:** Absolutely.

**MR. LEARMONTH:** And there was a financial incentive for you to do that?

**MR. TISDEL:** Absolutely.

**MR. LEARMONTH:** You were incentivised for that, yeah?

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** Okay.

If we just turn back to page 7 of that exhibit, paragraph 1 that I referred to, earlier.

"Cost Savings identified: ... The optimization of RCC per the revised RCC specifications, including the elimination of the CVC batch plant, minimized cooling requirements" – excuse me – "battered DS slope vs. stepped,

drive-on/-off the lift, one mixer vs. two mixers, and elimination of saw-cutting of the test section will reduce the overall cost of the project by \$9,400,000.”

So just give us some discussion about the – some information on the points you raised here about the battered DS slope versus the stepped slope, which is eventually what you constructed. Is that true?

**MR. TISDEL:** The ultimate construction methodology was the stepped face; however, in this paragraph what we were offering was a \$9.4-million credit to do a battered downstream face in lieu of steps.

In addition to the other things mentioned, eliminating a batch plant; I believe there were two required or maybe even three, a backup plant, we were offering a credit to eliminate a plant. The drive-on/drive-off the lift is – was an offer to also change the specification where they had conveyers and a Creter Crane’s required. We provided an alternate to batch into trucks, and drive-onto the placement and -off the placement as well.

So there was a combination of many things.

**MR. LEARMONTH:** But Nalcor wanted to stay with the stepped, is that right?

**MR. TISDEL:** Yes. At the end of the day, the stepped is what was built.

**MR. LEARMONTH:** Okay.

And you mentioned you didn’t – you don’t know the reason why. It was just a choice made by Nalcor and you didn’t argue with it or anything like that?

**MR. TISDEL:** That’s correct.

**MR. LEARMONTH:** All right.

Now if we go to – okay, tab 17. Here we are, page 8 of Exhibit P-02773.

So what’s the total price in this proposal? Initial Proposed Cost, right at the bottom. You can just read that out, please. Two hundred and eighty-six –

**MR. TISDEL:** \$286,733,836.00.

**MR. LEARMONTH:** Okay. (Inaudible.)

On page 9 – okay, well, this is – well this deals with the labour target and all the information that you gave us a little earlier about labour productivity. Is that – that’s all reflected in these figures?

**MR. TISDEL:** It is. This is an early model that included more than the craft labour risk; this was updated over the period of those 10 months.

**MR. LEARMONTH:** Yes.

Okay, now this wasn’t the last – this was the second proposal but not the last one. There was also another one on June 30, 2015, and that’s at tab 5, Exhibit 02846. Can you turn to that? Page 1 is the letter that you’re sending to Ed Over.

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** So why was it necessary or why did you choose to send revised proposal options at this stage? There’s more than one, isn’t there?

**MR. TISDEL:** Yes, there were a few in this period of time, as I just mentioned. Through continued negotiations from that March date through this June date, one – the major change here in the craft – in this labour target model is that we took on the responsibility of all salaried labour. In the previous model, that included all labour; this is craft only labour, so that was one of the big changes here. And you can see that our G&A, and I believe our fee percentages, were reduced or – as well, so this was part of an ongoing negotiation.

**MR. LEARMONTH:** So this was – there were two options and you were asked to put forward two proposals – different models?

**MR. TISDEL:** Yes.

In addition to that, I believe in this June 30 there were other changes that had been made. I believe this letter addresses the Option 1 and Option 2 delayed spillway ready for diversion and delayed river diversion. So this was a – we, you know – more than just the craft labour

target, it was a re-pricing for the project that included other options, included some of the value engineering that we had offered in March. It included a selection of a few of those items or most of those items.

**MR. LEARMONTH:** Okay.

So – okay, we’re doing craft labour target price is \$52 million, (b) is 7.9 G&A fee – that’s general and administrative, is that right, G&A?

**MR. TISDEL:** G&A, yeah.

**MR. LEARMONTH:** Yeah.

**MR. TISDEL:** That’s the corporate overhead.

**MR. LEARMONTH:** That covers your corporate overheads.

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** And then (c) is the – the next thing is 8.3 at-risk fee. That’s profit, is it?

**MR. TISDEL:** Yes, it is.

**MR. LEARMONTH:** Yeah.

Is that just a substitution for the word profit? Is there any difference between profit and at-risk fee?

**MR. TISDEL:** No, there is no difference.

**MR. LEARMONTH:** No, okay.

And so just to clarify, if the craft labour came in higher than the \$52 million, then Nalcor and Barnard-Pennecon would split the overruns such that 50 cents of every dollar overrun would come out of your 8.3 per cent profit. Have I got that right?

**MR. TISDEL:** Yes, that’s correct.

**MR. LEARMONTH:** All right.

Now, in this same exhibit, P-02846 on page 1, in the first paragraph there’s a suggestion that it hasn’t been fully decided as to when the river diversion would be done. There’s reference to a

river diversion, July 15, 2016; another one in 2017.

Can you explain or perhaps – well, either one of you, can you explain what type of discussion was ongoing with respect to 2016 or 2017 for the river diversion? It was either –

**MR. TISDEL:** I believe the original proposal that was submitted in October ’14 had a river diversion that might’ve been in 2015. That is one of the things that changed between that point and here. And then, in addition to that, we were being asked to provide optional pricing for a ’16 or a ’17 diversion. Aaron can probably talk about the particulars but I do believe the river was diverted in 2016 – I know it was.

**MR. RIETVELD:** Yeah, no, there was the Option 1, which is ultimately what our base contract was predicated on was the river diversion in ’16. And then there was an option price that would be, I guess, included on our contract under a change order if the river diversion was pushed to 2017 as per this Option 2.

Ultimately, the river was diverted in ’16. That option wasn’t necessarily exercised but the price that came with Option 2 – the completion date of the projects was still very similar and so that price for Option 2 was basically to perform more condensed work later on in the project and still finish the project near the end of 2018.

And, ultimately, that’s what transpired; we were in large part done with the North Dam in accordance with that Option 2, even though that price option was never exercised.

**MR. LEARMONTH:** Yeah, and the North Dam was built before the South Dam, correct?

**MR. RIETVELD:** No, the South Dam was completed before the North Dam.

**MR. LEARMONTH:** Oh, I got it wrong then.

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** Okay, south was first. Okay, sorry.

Okay, just returning, before we leave this page with the P-02846, page 1 – so just carrying on – is it correct that once the – your profit was depleted, then you would be paid for every hour additional craft labour in full. Then, at that point, the risk would shift back to Nalcor, is that right?

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** Once your 8.3, your profit was gone?

**MR. TISDEL:** Yes, once the profit –

**MR. LEARMONTH:** Yeah.

**MR. TISDEL:** – was eroded, it was – we were paid the actual – just the actual cost of labour without G&A.

**MR. LEARMONTH:** Yeah, no indirect labour or –

**MR. TISDEL:** Correct. Yeah.

**MR. LEARMONTH:** – G&A. That's included in –

**MR. TISDEL:** And we still had the risk of –

**MR. LEARMONTH:** Yeah.

**MR. TISDEL:** – on-site –

**MR. LEARMONTH:** Yeah.

**MR. TISDEL:** – expenses for labour and –

**MR. LEARMONTH:** And that's what I talked about. You were still – you were incentivized throughout this process, or throughout this payment plan, to get the work done with as – the lowest number of labour hours as –

**MR. RIETVELD:** Absolutely.

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** The indirect labour is – to be clear, the indirect labour was still reimbursed on an actual-cost basis, but we – once these thresholds were met, we did not get fee or profit and, in fact, we're – because we're still incurring payroll costs and some of those –

**MR. LEARMONTH:** Yes.

**MR. RIETVELD:** – general administrative expenses, those were all to our account and not passed through to Nalcor.

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** In addition, we were at risk for the support of all those labour overruns, be it, you know, medical testing, training, safety expenses, PPE, things of that nature. We were always at risk for them.

**MR. LEARMONTH:** Yeah.

But the – at most, your 8.3 profit on the craft labour target hours was at risk, right, and then the other – anything above that was Nalcor bore the responsibility, subject to just what you said about the G&A expenses.

**MR. TISDEL:** Yeah, that's correct.

**MR. LEARMONTH:** So it – we've heard, you know, some people say that this – Nalcor assumed all the risk when it hired you, but would it be fairer to say that there was a risk sharing –

**MR. TISDEL:** Oh yes, absolutely.

**MR. LEARMONTH:** – for labour, yeah. It wasn't that Nalcor said we're – all the risk is on us, it was a risk-sharing –

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** – arrangement for labour.

**MR. TISDEL:** Yes. Correct.

**MR. LEARMONTH:** Okay.

And just to confirm – so this labour target mechanism was what was adopted in the final contract, correct?

**MR. TISDEL:** Yes, it was.

**MR. LEARMONTH:** Yeah.

And did you – ultimately, did you exceed the craft labour target?

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** Yeah.

So your 8.3 risk fee or profit was exhausted, was it?

**MR. RIETVELD:** It's been exhausted, correct.

**MR. LEARMONTH:** Yeah.

Do you know or can you make a reasonable estimate as to how much over, the craft labour target has been to date? Do you have that information?

**MR. RIETVELD:** I don't have, I mean, an accurate number. It's in excess of the target –

**MR. LEARMONTH:** 8.3.

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** All right.

And next I'd ask you to turn to tab 19, which is Exhibit 02796, page 3. This is another revised proposal dated July 9, 2015.

How did it come about that you submitted this document, Mr. Tisdell? It's under your signature.

**MR. TISDELL:** Yeah, as it says here on paragraph two, we had – continued to have discussions with Nalcor, including on July 8, we were asked to re-evaluate our proposal again or our approach to certain things such as the staging areas, aggregate processing, RCC batching. We were asked to specifically look at the zone 3 rock fill and whether we would screen or rake that material. We were asked to look at our equipment and labour, schedule efficiencies, so we did all those things. We provided then a revised proposal for \$284,979,825.

**MR. LEARMONTH:** And that would also have a lump sum portion and an estimated unit price portion that we discussed earlier?

**MR. TISDELL:** Yes, same –

**MR. LEARMONTH:** Okay.

At this time were you aware, or were you informed as to whether Nalcor was having similar discussions with any other bidder? In other words, did you think that you were the only company that was dealing with Nalcor for this contract or did you believe that there other – at least one other bidder who Nalcor was communicating with?

**MR. TISDELL:** Yeah, we believed we were in a competitive process with other bidders.

**MR. LEARMONTH:** Okay.

The – can you turn to tab 20, which is Exhibit P-02864? Is this your handwriting, this note, Mr. Tisdell?

**MR. TISDELL:** It is.

**MR. LEARMONTH:** Okay.

And it's 7-8-15 so this July 8, 2015. Is this a record of a telephone conversation?

**MR. TISDELL:** I believe it is.

**MR. LEARMONTH:** Yeah.

And can you read it and tell us what the substance of it – of your record is?

**MR. TISDELL:** We were having a discussion. I believe this is what our letter on the previous document was referring to. We were having a discussion with –

**MR. LEARMONTH:** That's the discussion referred to in the earlier exhibit, is it?

**MR. TISDELL:** Yes, I believe so.

**MR. LEARMONTH:** Yeah, okay.

**MR. TISDELL:** And we were having a technical discussion regarding our – as it says – our staging area, crushing and processing, you know, the 3D/3C, the material – that's the rock fill material – the screening versus raking, you know, what schedule efficiencies, what cost contingencies, you know, what equipment efficiencies could be gained from these potential changes.

We were requested to take a look at, and that's again what affected the July 9 letter.

**MR. LEARMONTH:** But at that point you're getting close, are you, or you thought you were getting close to making a deal?

**MR. TISDEL:** We would hope so, we would've assumed so.

**MR. LEARMONTH:** Yeah.

This process, I take it, it would've taken a lot of your company's time, is that right, to go through this – a proposal of this kind it must be very – a big expense in itself, is it?

**MR. TISDEL:** It can be, yes.

**MR. LEARMONTH:** Yeah.

And if you don't get the contract you have to eat the loss, don't you?

**MR. TISDEL:** That's absolutely correct.

**MR. LEARMONTH:** Yeah, but that's part of the business, right?

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** Yeah.

Now, the – so after that, the next document I wanna turn to is at tab 31, which is Exhibit P-02969. This is a Limited Notice to Proceed dated August 13, 2015. Now, we know that the contract was dated August 20, 2015, so it's only a short period of time, a week later, but anyway, what is a Limited Notice to Proceed?

**MR. TISDEL:** Well, a contract typically has a full notice to proceed. In this case, oftentimes in the contract it might allow for this or it might be an owner's prerogative to provide us, I'll call it a jump-start, to get started while we're maybe working up the finer points of a contract, or not necessarily sure all the reasons between a limited and a full, but this would allow us to get started on planning our work, potentially purchasing equipment, long-lead equipment or materials that might affect the schedule, so it would usually have a cap or some limitation.

Yeah, there's a payment cap on page 9 of \$24.5 million.

**MR. LEARMONTH:** So, could I put – would you agree with this way of describing it, that it's used in a situation where it's very likely, not for sure, but very likely there's gonna be a contract entered into, and the confidence is there that the – that in this situation Nalcor will say, okay, look, we're gonna give you an advance of money, we're gonna have the contract done soon, go ahead and do the work and then we'll be that further ahead by the time the contract is signed.

Is that a fair way of putting it?

**MR. TISDEL:** That is a fair way of putting it.

**MR. LEARMONTH:** Okay, thank you.

Now, can we turn to tab 8? That's Exhibit P-01864. Can you identify that document?

**MR. TISDEL:** I believe this is our contract.

**MR. LEARMONTH:** This is your contract. Now, it seems on the surface, anyway, that it's a very – well, it's a very short time between the Limited Notice to Proceed and the date of the contract, so why would you bother to – why would there be a Limited Notice to Proceed when there's such a short interval between the Limited Notice to Proceed and the signing of the contract?

**MR. TISDEL:** I'm not sure. There might've been a thought that it was going to take longer.

**MR. LEARMONTH:** Yeah, yeah. Did you do much work in that one week period, or ...?

**MR. TISDEL:** I wouldn't.

**MR. LEARMONTH:** You wouldn't?

**MR. TISDEL:** It's hard to say, but I – hard to remember – but I would doubt we, in a week's time, had done a whole lot.

**MR. LEARMONTH:** You would've spent the whole \$24 million, right?

**MR. TISDEL:** No.

**MR. LEARMONTH:** No. Okay.

Now, the information we have is that August 20, 2015 was approximately eight months longer than when Nalcor had planned to enter this contract. Did Nalcor ever communicate to you, or did you ever obtain any understanding as to the reason why there was such a long delay?

**MR. TISDEL:** Not as of the reasoning, but we were asked along the way to extend our bid validity or things of that nature, but ...

**MR. LEARMONTH:** Okay.

The next document is P-01889, which is in tab 9. And if you could turn to page 5 and tell me what the target cost of trades labour was.

**MR. TISDEL:** The amount is \$46,810,389.05.

**MR. LEARMONTH:** Okay.

And the next paragraph under the line that you just read is: "An Adjusted Target Cost of Trades Labour shall be calculated with the issue of each Change Order." Is that consistent with the information you gave earlier about target cost of trades?

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** Or is that a separate item?

**MR. TISDEL:** I believe the adjustment is referring to that that amount can be adjusted if there are changes that affect the craft labour, that that amount of \$46 million can be adjusted upward or downward based on change orders.

**MR. LEARMONTH:** Okay, thank you.

Mr. Rietveld, I understand that you had no involvement at all in the contract negotiations; is that correct?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** Okay.

And you said earlier that you started as project manager once the contract was signed and the work began. Is that correct?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** So when did you start on site? Or did you do work before you came to site?

**MR. RIETVELD:** No, I was – I started getting involved in August, that month that the contract was signed, but when we mobilized the site was in September, I believe, of '15.

**MR. LEARMONTH:** Yeah.

And so you remained project manager until you were promoted to vice-president, operation manager, in 2017. Correct?

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** So you moved to Goose Bay, did you?

**MR. RIETVELD:** No, we were – I was part of the staff contingent that we and Pennecon had where – I mean, there's an accommodations complex on site, so we were much like all the other contractors where the staff would stay at the accommodations complex and fly – on their turnaround they would fly home, wherever that might be in the world.

**MR. LEARMONTH:** But what was your rotation? Three weeks on, one week off or –?

**MR. RIETVELD:** Yeah, we started the project – half the project we were – staff was on a 21 and 10 – 21 days on, 10 days off. And then we changed that in '18 to an 18 on and nine days off.

**MR. LEARMONTH:** Okay, now, when you were project manager why did you see fit to actually be on the site as opposed to, you know, being – acting as project manager from Bozeman? Why would you be on site?

**MR. RIETVELD:** Well, it's just – I mean that's typically how most of these bigger contractors perform their work. It's certainly how we perform our work. Our project managers and superintendents that are assigned to the project are always there where the work is taking place and actively managing it, obviously construction

– you know, construction projects, especially of this magnitude.

A lot of things happen every single day; issues come up that you need to be there to make sure they're addressed and it's just not really, from our standpoint, viable if had I been in, you know, Montana, say, to be able to manage the project effectively or participate. There's meetings – you know, lots of meetings every day and just to see the work. It's – you know, it's just important that you're there on this job site.

**MR. LEARMONTH:** And is it also important because – well, there must be someone – there should be someone on site who can make decisions as they arise?

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** Problems that arise every day?

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** Okay, after you became vice-president, how often did you visit the site? I understand that you weren't on site after that – after you were appointed. How often did you visit the site after you became vice-president? So that would be through 2017 into 2018.

**MR. RIETVELD:** Yeah, '17 and for the most – 2017 I would say I was there at least once a month. Maybe not so much in the winters when there wasn't – you know, the winter periods, the shutdowns, when there wasn't as much going on. And then in 2018 I visited the site a handful of times.

**MR. LEARMONTH:** Okay.

So who replaced you? You weren't there on site. Who replaced you?

**MR. RIETVELD:** A gentleman by the name of Koehler Anderson.

**MR. LEARMONTH:** Yeah. Did he assume the official role as project manager?

**MR. RIETVELD:** Basically, yeah.

**MR. LEARMONTH:** And he – would you have been in communication with him on a regular basis?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** Okay, daily?

**MR. RIETVELD:** Both Brad – and then obviously I had, you know, my counterpart with Pennecon. We had – you know, we would have had an executive management component that would've been in touch with the project management team.

And, you know, with the rotations, you know, there would've been a complement to Koehler so that when he was off-site on his, you know, nine or 10 days, whatever they might've been, there would've been someone that would've been in his stead that could've made – you know, that would have the decision-making ability, you know, to make decisions at the project level.

**MR. LEARMONTH:** Okay.

But is it important that there's someone on site or someone on site who has access to someone else that can make decisions, if not on the spot, on a timely basis?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** Yeah. And why is that?

**MR. RIETVELD:** Well, I mean, it's with the way things – you know, with this – a job where the schedule is pretty compressed. You're working towards a lot of different milestones, there's a lot going on, decisions again.

You'd be amazed at how many issues come up during the course of the day, whether they're minor or major, that need a decision to be made and you need the appropriate level of decision-making ability at the site where you can actually see what's going on and what – and then make an appropriate decision.

**MR. LEARMONTH:** Okay.



So you're going to the site – being physically at the site. That was consistent with your – or that was an implementation of your company policy?

**MR. RIETVELD:** Yeah, when I was the project manager. Correct.

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** You always – Barnard always operates –

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** – in this manner? Okay.

Was that standard practice with other companies, as far as you know? I mean, you've worked on a lot of large projects. Is that a practice you followed in – Barnard followed in that regard, would that be industry standard or would there be variations of that?

**MR. RIETVELD:** I believe so. It's generally industry standard.

**MR. LEARMONTH:** Yeah.

Okay. Exhibit – the same exhibit we referred to earlier, P-02846, which is tab 5 in your documents, if you could turn to page 69 in the top right – left-hand corner?

This is an organization chart. Do you see that?

**MR. RIETVELD:** Mm-hmm.

**MR. LEARMONTH:** Okay, can you explain – give some idea about who was Barnard and who was – who were the Pennecon representatives, by looking at that.

**MR. TISDEL:** Starting from the top, myself, Barnard; Brad Cole, Pennecon. Matt Wagley and Sam were both Barnard. Tracey and alternate RJ are both Pennecon – or excuse me Barnard. Rob Hewitt was Pennecon. Andrew, down on the bottom left there, survey – Andrew was Pennecon. Again, Sam was Barnard. Lorne was Pennecon. Dave Hunt and John Lehman both were Barnard. Dustin Burke and Shawn Perrin were both Barnard.

Above that, Mike Flynn was Barnard. Erin Hickey was Pennecon. Kathi was Barnard. Neville Kean was Pennecon. Lee Costello was Pennecon and Shawn Dunn was Pennecon.

**MR. LEARMONTH:** Okay.

There was a third party hired by the limited partnership, Tom Reynoldson?

**MR. RIETVELD:** Reynoldson, yeah.

**MR. TISDEL:** Reynoldson.

**MR. LEARMONTH:** Reynoldson. What was his role? Well, what type of work did he do?

**MR. TISDEL:** He was RCC mix design, a third party –

**MR. RIETVELD:** Technical expert.

**MR. TISDEL:** – technical expert.

**MR. LEARMONTH:** Yeah, on the mix design?

**MR. TISDEL:** Mm-hmm.

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** Does the mix design for the concrete you were using – is there a process involved in getting that right?

**MR. TISDEL:** Yes.

**MR. LEARMONTH:** What is the process?

**MR. RIETVELD:** Well, with RCC, like Derek mentioned, it's got lower cementitious contents typically than conventional concrete. So, oftentimes, the designers will give a design, if there's a design strength requirement that may be for conventional concrete, you need to meet this design requirement at 28 days. Oftentimes, because of the lower cement properties of RCC, that the design strength is out, you know, to six months or even a year.

So, consequently, when you're running your mix designs in the lab you're performing lots of different mixes, but you don't know what the – if the breaks on a particular mix are going to meet the design strengths until maybe six

months or even a year later. And so, because of that, it makes that mix design process – can be quite lengthy for RCC.

**MR. LEARMONTH:** Okay. So you had a third party expert, what, to verify your work? Would that be the purpose of that, of Mr. Reynoldson?

**MR. RIETVELD:** We would've been given – the mix design that Nalcor – or the owner did some mix design testing prior to our award of the contract. In our scope of work, we had to take the work that they had done and, more or less, refine it and then propose a final mix design for acceptance by the engineer.

So, they did some (inaudible) –

**MR. LEARMONTH:** That would be Nalcor's engineer?

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** It'd have to be approved by Nalcor engineers.

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** Yeah. And for this type of concrete, is it – am I correct that there's little or no slump as opposed to Portland?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** It is?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** So, it's much more –

**MR. RIETVELD:** It is just thicker.

**MR. LEARMONTH:** – much thicker.

**MR. RIETVELD:** Just thicker, like, a dry aggregate road base that you see that, you know, on a side of a road that a bulldozer is spreading out –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – in one-foot lifts. It's much the same as, you know, grey because of the cement, but it acts kind of the same.

**MR. LEARMONTH:** Yeah. So, once you put a layer on, then you just – like a bulldozer would spread it?

**MR. RIETVELD:** Spread it with a bulldozer and roll it with a compactor, and then keep placing lift after lift after lift and never stop, is the goal.

**MR. LEARMONTH:** Yeah. How thick is each layer?

**MR. RIETVELD:** After compaction, it's like 12 inches, plus or minus an inch or two.

**MR. LEARMONTH:** And then you go another step into the – and then – is that right?

**MR. RIETVELD:** Yeah. One-foot lifts –

**MR. LEARMONTH:** Yes.

**MR. RIETVELD:** – all the way to the – from the bottom to the top.

**MR. LEARMONTH:** Yeah. Does the angle of the – of this construction, is there something in the engineering that makes it stronger when you're going up sort of on an angle as opposed to straight up?

**MR. RIETVELD:** (Inaudible) an angle.

**MR. LEARMONTH:** Well, you're sort of on an angle, right, at the face of it – of the construction with the step?

**MR. TISDEL:** Are you asking about the downstream face or are you asking about the placement?

**MR. LEARMONTH:** The face. Just the way it's structured so you get triangles, sort of, isn't it?

**MR. RIETVELD:** Oh, the shape of the dam?

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** Yeah. It just has – it's all engineering-based, you know, for reasons for why it's thicker at the bottom than it is at the top.

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** Obviously, the water pressures at the bottom of a reservoir are higher than at the top, so the dam needs to be wider. But that's an engineering function, that's not anything that –

**MR. LEARMONTH:** Yeah. Okay.

**MR. RIETVELD:** – we have control.

**MR. LEARMONTH:** Okay.

So, on this page 69, you've included this in a proposal. Is that a standard document to have that you're showing who are the members of your team. Is that a standard in construction proposals? Would that be a standard document –

**MR. TISDEL:** It's fairly standard. Yes.

**MR. LEARMONTH:** – that you'd require?

And was there any objection expressed by Nalcor as to the composition of your team?

**MR. TISDEL:** Not I – not that we're aware of.

**MR. LEARMONTH:** Okay.

So, when did you mobilize to site? When, you know, what – I don't need to know the exact date, but roughly when?

**MR. RIETVELD:** September of 2015.

**MR. LEARMONTH:** All right. And, please, give us a description, an overview of the – how the work progressed through 2015.

**MR. RIETVELD:** Right. So, by the time the contract was signed and, you know, in August and then mobilization in September, the onset of winter, we knew, was right around the corner, and so we didn't have ambitious plans for, you know, the very end of 2015, but there were a few things we wanted to get accomplished before the onset of winter to set ourselves up for the 2016 construction season.

So we mobilized a contingent of people and equipment, and we built the intake cofferdam was one of the key components, and that was

upstream of the powerhouse intake, so it would ensure water-tight protection of the powerhouse for that winter should, you know, ice levels cause a rise in water.

And then, in addition, we constructed the south abutment of the bridge. We would construct – in '16, we would construct a big, structural steel bridge over the spillway channel for access to the North Dam in subsequent years. And so, in '15, we wanted to get that south abutment completed, there was some concrete associated with that.

So those were kind of the major features of work we wanted to get done in '15, which we did. We worked, I think, roughly up until Christmas to accomplish that work, and then we shut it down for the winter.

**MR. LEARMONTH:** So, this was in preparation for the planned river –

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** – diversion in 2016?

**MR. RIETVELD:** Yup.

**MR. LEARMONTH:** And, you mentioned that – the word “cofferdam.” Can you explain what a cofferdam is, as opposed to a dam?

**MR. RIETVELD:** It's basically the same principle; it's to hold – a cofferdam is used to hold back water, but it's generally temporary in nature, so that the design standards are robust enough to provide a level of protection needed, but they're not long-term design standards, and so it's – you know – generally cheaper in the long run than a – and so you build, typically, a cofferdam around a permanent feature of work to keep the water off you while you're building the permanent dam.

**MR. LEARMONTH:** Yes. Yeah. So, eventually, once the construction is done, it's torn down. Is that right?

**MR. RIETVELD:** It's torn down, or left in place, in our case. Some of the cofferdams we built for this project get removed, and some stay in place, so it just depends which one –

**MR. LEARMONTH:** But, it's not as strong as a real dam, we'll say. Is that right?

**MR. RIETVELD:** That would be my – yeah, I would –

**MR. LEARMONTH:** Yea.

**MR. RIETVELD:** – agree with that.

**MR. LEARMONTH:** Because it's just for –

**MR. RIETVELD:** Well, it's every bit as strong, it needs to be designed to hold back the water. It just doesn't have the long-term –

**MR. LEARMONTH:** Yes.

**MR. RIETVELD:** – sort of design –

**MR. LEARMONTH:** Okay.

**MR. RIETVELD:** – considerations.

**MR. LEARMONTH:** Okay. Thank you.

So, were you satisfied with the progress that you made in 2015?

**MR. RIETVELD:** We got what we wanted to get completed, yeah. So, I would say that was mission accomplished in '15.

**MR. LEARMONTH:** Okay.

If you could just turn to tab 30, Exhibit P-00136, just so people may be able to follow this, this is at tab – page 19, yeah, just so people may be able to follow this a little better.

Is that, in your view, an accurate description of the generation facility layout?

**MR. RIETVELD:** Yup.

**MR. LEARMONTH:** Is it?

**MR. RIETVELD:** Yes, it is.

**MR. LEARMONTH:** Okay.

All right, so the river diversion proceeded at some point in 2016. Could you, please, explain how the river diversion was carried out? How

the work progressed? What were the steps taken in 2016? I think this photograph may be of assistance to –

**MR. RIETVELD:** Yeah, so if you imagine where the North Dam is located, that's where the original Churchill River flowed over. You can kind of see the low spot where the North Dam is, that's the original Churchill River channel.

Our – we were tasked with pushing that river, building a temporary upstream cofferdam in front of the river so that we could build that North Dam in the dry and thereby pushing the river through the spillway. And so river diversion was tied to – you know, spillway had to be sufficiently complete so as to enable flows to be diverted through the spillway. And so we had some interface milestone dates that whereby the spillway would be complete and then we could proceed with the river diversion.

Again, the goal was to do that in 2016. Well, there was – Nalcor and us had contemplated the consequences of whether that would – might be pushed to 2017, and there were commercial implications. Ultimately, at the end of the day, we were able to proceed as planned, with river diversion in 2016.

And so that would have constructed building a large cofferdam that primarily consisted of rock fill, you know, with heavy equipment pushing rock fill out into the river; rock-fill groins we call them, one, then they're separated by, you know, maybe 50 metres or so. Once the rock fill was pushed all the way across, we would fill, in between those rock-fill groins, with till or a clay-like material that would, basically, cut off seepage through that cofferdam and thereby push, more or less, 100 per cent of the water through the spillway channel.

We always had some amount of water, you know, that we had to deal with through the foundation but – with pumping and stuff, but ...

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** But that's the general, sort of, concept.

**MR. LEARMONTH:** So, would you have to set up a batch plant and crushing facility for that?

**MR. RIETVELD:** For the cofferdam, not necessarily. For the work associated with the upstream cofferdam, it was the till – the clay was all brought in. There was a site on site that we were able to pull that from. The rock fill was – there was a stockpile of rock fill. When we showed up to the site, I believe, from the bulk excavation, there was some of the filter materials that went into the cofferdam that we had to screen, but we didn't have to crush anything.

**MR. LEARMONTH:** All right.

Did the – so in 2016, what work was done on the temporary spillway bridge?

**MR. RIETVELD:** Well, like I said, we got the south abutment completed in 2015, and then in the spring of 2016, we constructed the spillway bridge and see – you can't see it on this picture. It would've been on the other side of the –

**MR. LEARMONTH:** No.

**MR. RIETVELD:** – spillway.

**MR. LEARMONTH:** It's on the other side.

**MR. RIETVELD:** It's on the other side. It was just a big structural steel bridge that spanned that spillway intake channel, and that allowed us to access the North Dam from the upstream side. That was our primary access point. So that took us – we accomplished that bridge construction in March through June or July of '16.

**MR. LEARMONTH:** Okay.

And did the river diversion start at around the end of July?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** Yeah.

And when was it finished?

**MR. RIETVELD:** I believe the – well, the initial – the cofferdam was kind of constructed

in two stages: a lower stage that pushed all the water through the spillway and then an upper section that – you know, that would provide the level of protection in subsequent years when the water would come up. So that first portion, I'll call it, was finished in probably September, and I think the upper portion maybe in October –

**MR. LEARMONTH:** All right.

**MR. RIETVELD:** – of '16.

**MR. LEARMONTH:** So at that point, then, the river was running primarily through the spillway channel. Is that correct?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** Yeah, all right.

Did you do any work on the preparation of the foundation for the North Dam in October of 2016?

**MR. RIETVELD:** We began in October – towards the end of September and early October – we began the foundation preparation for the North Dam, yes.

**MR. LEARMONTH:** All right.

Now, we know that there were protests in October 2016 which forced the closing down of the site. Is that – excuse me. So there were protests in October 2016 which closed down the site for a period of time. Is that correct?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** What impact, if any, did that have on the – on your work?

**MR. RIETVELD:** Well, we – we weren't able to advance the work for that period of time. I believe it was maybe three weeks or so was the closure at the site. We – you know, we responded in the manner that Nalcor requested, whatever that might've been. There was – you know, whether it was, you know, support operations, but generally we stood down the advancement of the permanent works until the matter was resolved.

**MR. LEARMONTH:** And so Nalcor directed you to stand down?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** And did that result in your ending your work during that year, 2016, at an earlier date than you had anticipated or –

**MR. RIETVELD:** With –

**MR. LEARMONTH:** – planned?

**MR. RIETVELD:** – respect to the North Dam, yes, it did.

**MR. LEARMONTH:** Okay.

Did that have any effect on schedule or progress generally?

**MR. RIETVELD:** Sure. I mean, whatever we didn't get completed at the end of '16 got pushed into a subsequent construction season, so then it would've been pushed into early 2017, after –

**MR. LEARMONTH:** All right.

**MR. RIETVELD:** – the winter.

**MR. LEARMONTH:** So at any time when – while working on this project, did you plan to work through the winter?

**MR. RIETVELD:** Not entirely, no.

We – our work season was always, you know, generally early April until – you know, through mid-November. But we all know that weather is highly variable out there, so it was unknown exactly how late we could work into the season on any given year. But generally we would've planned on working into November.

**MR. LEARMONTH:** Okay.

I understand there was a problem with the upstream cofferdam that became apparent sometime in November 2016 which forced some work to be done in the winter. Is that correct?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** Can you explain what happened, as far as you can recall, with respect to this problem?

**MR. RIETVELD:** Yeah, there was always a risk that was contemplated that the construction of the cofferdam might not – because a lot of the construction was done in the wet, right? You're closing a river and you're pushing rock fill and clay materials into the river in a wet condition and hoping that it'll seal at the bottom, and so there's certainly – I mean, you do your best to – you know, you do your best, but there was always a risk that it might not – that it might leak. And there was an option bid item in our contract for jet grouting. In the event that, you know, it did leak, there was a jet-grouting option, and that's a – there's a geotechnical method to inject, under high pressure, high-pressure grout to try to seal up some of those, you know, some of those issues.

And so when it did – we did experience some leakage in the November of 2016. The jet grouting wasn't – was discussed with Nalcor. They – at the end of the day, they went away from that option. I think they were worried about maybe some of the pressures or – for whatever reason, they decided to have us go with a different type of grouting, more or less, than the jet grouting. But the point is there was a risk that had been identified prior, and it came to pass and we – they – you know, they chose to have us perform some remedial work with some grouting and some civil work to, you know, to stabilize the cofferdam.

**MR. LEARMONTH:** Did that do the trick?

**MR. RIETVELD:** It did.

**MR. LEARMONTH:** It did. And were you paid for that extra work?

**MR. RIETVELD:** We were.

**MR. LEARMONTH:** Okay.

Do you have any understanding as to what the cause of the cofferdam failure or leaking was? You know, do you know whether it was a design issue or construction issue or any –?

**MR. RIETVELD:** We – well, we don't – we would argue it's not a construction issue, and I think the fact that they paid us –

**MR. LEARMONTH:** Yes.

**MR. RIETVELD:** – to remediate it would – you know, you can take from that what you will. But –

**MR. LEARMONTH:** Yes.

**MR. RIETVELD:** – there was never any disputes or any discussions about who was responsible. We worked with Nalcor to, you know, identify the problem and address it.

**MR. LEARMONTH:** And they asked you to do the work and you did it –

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** – did the work and you got paid for it.

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** Okay.

The – now, we're moving into – I want to move now into 2017.

**MR. RIETVELD:** Mm-hmm.

**MR. LEARMONTH:** Can you describe how the work proceeded in 2017.

**MR. RIETVELD:** So the repairs to the upstream cofferdam would have taken us into February or March –

**MR. LEARMONTH:** That was change order work –

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** – correct?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** Yeah. Yeah, okay.

**MR. RIETVELD:** And then in the spring of 2017, we would have resumed foundation

cleaning for the North Dam and foundation preparation activities.

**MR. LEARMONTH:** There was – in – so the foundation preparations in May, June, the better part of July, was that – did that involve cleaning rock, dental concrete and levelling concrete?

**MR. RIETVELD:** Yeah, it involved excavating deteriorated rock, cleaning the rock, filling cracks with grout, sometimes hand packing cracks with, you know, with a hard cement-sand mixture and then filling in the bigger voids with levelling – we call it levelling concrete, but it's just a structural concrete to fill in the big fissures and foundations. With RCC you can't start – because of the requirement to use earthmoving equipment, you can't place RCC in really tight congested areas. And so down in the foundation, where you have these big, kind of, openings, you need to fill those with conventional concrete until the area works up or is open enough to start RCC placement.

**MR. LEARMONTH:** Okay.

And you – is it correct that you started placing the RCC around the end of July?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** I think it was July 28 –

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** – is the date I read. Is that correct?

**MR. RIETVELD:** I believe that's the date.

**MR. LEARMONTH:** And in 2017, was work on the South Dam completed?

**MR. RIETVELD:** Yeah, so it's – 2016 we would've built the bottom portion of the South Dam, and then we finished it in 2017, yes.

**MR. LEARMONTH:** Okay.

Now, for – with respect to the foundation cleaning and dental and levelling of concrete, did you have any overruns on the estimated units for that scope of work?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** Okay.

So the – for the foundation, would you say that the overruns were minor, major or moderate?

**MR. RIETVELD:** I would say they were – for the most part, they were significant.

**MR. LEARMONTH:** Significant? And what about on the cleaning?

**MR. RIETVELD:** The cleaning was – the cleaning efforts were, you know, they were quite substantial as well.

**MR. LEARMONTH:** There were significant overruns on the units for that also?

**MR. RIETVELD:** Well, with the cleaning, the cost – the labour cost to perform the cleaning was more than we had anticipated.

**MR. LEARMONTH:** Oh, okay.

But you got paid for all these items, right?

**MR. RIETVELD:** Well, we got, as –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – based on our discussions earlier with –

**MR. LEARMONTH:** With the labour, subject to –

**MR. RIETVELD:** – they took the direct cost of the craft labour expenses, and we had the –

**MR. LEARMONTH:** Yes.

**MR. RIETVELD:** – balance of the costs.

**MR. LEARMONTH:** Yeah.

So maybe you could explain what – I referred to the term cleaning; can you just give us a brief description of what we're talking about?

**MR. RIETVELD:** Yeah, so once the riverbed was – I mean, just imagine the riverbed is flowing over this rock for however long and

there's, you know, there's sand; there's – in some cases the rock is no good, so you have to hammer it out, and that creates, you know, that creates kind of a mess. And so the expectation is that when you're placing this concrete on the foundation of a dam that the rock is clean; more or less you could eat off of it. They don't want anything left on it, which is generally, you know, it's industry practice to clean the foundation of a dam in such a way. But it takes a fair bit of effort.

**MR. LEARMONTH:** Okay.

So why is necessary to have it clean?

**MR. RIETVELD:** Well, again, that would be – that's generally the, that's for the engineers to decide that and the geotechnical inspectors to decide the level of cleanliness. But, you know, you don't want any kind of layer between your concrete or the dam and the rock. You want that to be a good, cohesive bond. So you don't want anything to break that bond.

**MR. LEARMONTH:** Right, so it's for a bonding issue, is it? Like, you know, to make sure it will –

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** – adhere properly?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** Is that – now, I understand that the actual volume of concrete to – that was required to fill in the fissures in the rock to get to the point where it was level was almost triple the estimate. Is that your recollection?

**MR. RIETVELD:** I believe that's correct.

**MR. LEARMONTH:** And the same for the dental concrete overrun – triple?

**MR. RIETVELD:** I'm not sure about the dental concrete, but it overran.

**MR. LEARMONTH:** Okay.

Now, is it fair to say that these overruns – the ones we've just been speaking of – they



happened because until you drain the river, there's no way you can tell with any degree of precision as to what you're gonna encounter underneath and that's – you just don't know how porous the rock will be or how many cracks and fissures you will encounter? Is that a fair statement?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** Yeah, you just have to – it's just something that you really can't plan for; you have to do the work and then whatever you're faced with you have to deal with. Is that a fair comment?

**MR. RIETVELD:** Yeah, correct.

**MR. LEARMONTH:** Yeah.

Is there any type or form of geotechnical surveying or examinations that can be carried out to give you a better handle on what is actually – what you're gonna find at the bottom?

**MR. RIETVELD:** There is some underwater surveying technology, bathymetric surveying, and I think that was performed where the upstream cofferdam was, but it only gives you just kind of a rough understanding of the contours, you know, how deep is the water. It doesn't give you a thorough idea and representation of the quality of the rock or how big some of these fissures or fractures might be.

And because of where the North Dam was located right at the – basically right at the top of the falls, the water velocities at that location – I'm not sure if you could even really do a good, detailed bathymetric survey. And so, consequently, you're, you know, it's kind of just an educated guess, I suppose.

We, you know, we just – we bid off of the quantities for levelling concrete, dental concrete, slush grout, all the different work items that go into preparing the foundation, you know, presuming all the bidders bid off the same quantities that were given to us from Nalcor and I would guess they would have just made an educated guess of what those quantities should be.

**MR. LEARMONTH:** Okay, there is a limited range of testing that can be done. Is that correct? Or is there no testing that can be done to –

**MR. RIETVELD:** Testing for what?

**MR. LEARMONTH:** Testing to see what's at the bottom.

**MR. RIETVELD:** Yeah, again, I'm not aware of a good way that you could really determine the geology and the – what's underneath the riverbed at the location the North Dam was –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – constructed.

**MR. LEARMONTH:** It's because of the flow of water is that –

**MR. RIETVELD:** That's –

**MR. LEARMONTH:** – that's what makes it –

**MR. RIETVELD:** – that I think had a lot to do with it.

**MR. LEARMONTH:** – almost impossible to –

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** – do anything other than take an educated guess?

**MR. RIETVELD:** I think so, yeah.

**MR. LEARMONTH:** Where the flow of water isn't as intense, perhaps different – a higher level of testing could be carried out, is that a fair comment?

**MR. RIETVELD:** Again, I'm not aware of –

**MR. LEARMONTH:** Okay.

**MR. RIETVELD:** – the technology that could be employed to get a good understanding of the –

**MR. LEARMONTH:** Okay.

**MR. RIETVELD:** – conditions there.

**MR. LEARMONTH:** So then, based on what you're saying, is it correct that this – the type of risk is difficult to mitigate because, I mean, you don't know what you're gonna be faced with, and it can significantly add to more labour, more concrete, because there's no way you can anticipate it.

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** So, would it be standard to – in your experience – to have a contingency built in for that, because it's such an unknown factor?

**MR. RIETVELD:** Would it be standard for us, as the contractor?

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** To have a contingency?

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** Well the – our contingency is more or less the fact that that item is a unit-price item and so if –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – it's estimated that 1000 yards of concrete needs to go in but it ends up being 5000 –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – that the fact that it's unit-price would make us whole –

**MR. LEARMONTH:** Yes.

**MR. RIETVELD:** – is the concept.

**MR. LEARMONTH:** But – yeah okay, are you able to or willing to give your – give a opinion as to whether you would expect an owner dealing with this issue would build in a contingency into the – their project estimate? Do you feel comfortable commenting on that?

**MR. RIETVELD:** Oh, I wouldn't –

**MR. LEARMONTH:** You wouldn't?

**MR. RIETVELD:** – I wouldn't know.

**MR. LEARMONTH:** (Inaudible) okay, fair.

So – here, where the risk materialized and additional concrete was required, additional work was required, the – Nalcor was responsible to pay the actual units of the additional concrete placed, is that right?

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** So it didn't – the additional – the application of more concrete did not – was not an expense that you – had any affect on you, is that right?

**MR. RIETVELD:** Well, somewhat. It's – the requirement that we had to put in all these additional units in the foundation, where – the North Dam was the critical path of our schedule, so the quantity adjustment, we were made whole for our direct expenses to place that additional concrete or –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – there was the fact that it did push the schedule out some, and so there was a commercial implication with some of those – with the schedule impacts.

**MR. LEARMONTH:** Yeah, and it was a cost to you, I take it, because on the craft labour the risk was to be shared 50/50 until the point that your profit was exhausted. So, it did have some bearing on your budget –

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** – I take. Correct?

Okay. After the foundations were completed and the RCC placement started, were there any further overruns of any significance, to your recollection?

**MR. RIETVELD:** Again, depending on your interpretation of significance the – I mean the – because of a – generally the foundation was a little bit deeper, you know, and required more concrete, more levelling concrete, it ended up requiring a little bit more RCC, so I do think the RCC quantity overran some as well.

In terms of the other unit price work, I'm not recalling – well, the drilling and grouting quantities – so after the RCC dam was constructed, we had to go back and drill – construct a grout curtain from the drainage gallery that was inside the dam. We had a speciality subcontractor – the same contractor that did the drilling and grouting remedial fix on the upstream cofferdam was under contract to perform this drilling and grouting from the gallery. And their scope of work overran as well.

**MR. LEARMONTH:** Okay.

**MR. RIETVELD:** And that was all unit price work that overran.

**MR. LEARMONTH:** All right.

2018, can you take us through what – how the work progressed in 2018? I understand that the RCC – you replaced the RCC. It was the middle of October that the RCC was – okay, in October 2017 what was the status of the RCC?

**MR. RIETVELD:** In October – so we stopped placing RCC in I think the middle of October 2017. We were probably 35 per cent complete with the RCC at that point in time. We placed some conventional concrete and in 2017, you know, all the way until maybe November and we shut down – for the most part – for the winter, and then resumed construction of the North Dam in 2018 in April sometime.

And we finished the RCC, placing RCC on the North Dam in, I want to say, August of 2018 and then there was some conventional concrete work at the crest of the dam that we – would have taken us into I think October, November of 2018. So, by October of 2018 the North Dam – what you see today was, for the most part, was complete. And then from that point, up until just really January of this past year, the drilling and grouting work was kind of the last piece of the work on the North Dam.

**MR. LEARMONTH:** Okay.

And there was some work required to do with the gallery, which is a tunnel that runs inside the dam. Is that right?

**MR. RIETVELD:** Mm-hmm.

**MR. LEARMONTH:** When was that carried out?

**MR. RIETVELD:** Well, it was actually constructed with pre-cast panels. Those were put in place concurrently with RCC placement. So the drain – the gallery itself runs horizontally along the length of the dam and then at the north abutment it rises, as the rock rises.

The majority of the gallery was constructed in 2017 with the RCC. The remainder would have been constructed as RCC was finished in 2018. So by October or September, really, of 2018, the gallery itself would have been in place and constructed. Then the drilling and grouting within the gallery started in the lower section that had been completed in 2017. It started in June or July of 2018. And then extended again all the way 'til January of 2019.

**MR. LEARMONTH:** Yeah. Okay.

Just to return to the overruns we talked about on foundation drilling and grouting –

**MR. RIETVELD:** Mmm.

**MR. LEARMONTH:** – and I think you've said that there were significant overruns on that and that you explained that there was – you know, the fact that it's difficult to do good geotechnical investigation on the rock underneath and that was – there was not a lot of data, geotechnical data.

Did that additional work, those overruns that I just referred to, did they result in or cause any delay in your schedule?

**MR. RIETVELD:** Well, certainly, you know, we had contemplated the original drilling and grouting scope based on the original quantities to be a – take three or four months and, you know, as it turns out it took, you know, from June of '18 to January of '19. So it took quite a bit longer.

I don't know that, that in and of itself, really affected our overall schedule, as we're still doing ancillary work, but it certainly impacted our drilling and grouting subcontractor.

**MR. LEARMONTH:** Okay.

And on that geotechnical work that I've mentioned a few times, once you get into project execution, who determines how many boreholes would need to be drilled? Would they be dictated by or directed by Nalcor or, you know, would Nalcor control the issues such as the pressures of the grout, the volumes of the grout, how much – you know, would that be something that you would decide or something that Nalcor would be responsible for directing you on?

**MR. RIETVELD:** Well if you're asking about the geotechnical investigations, you know, that would've been early on in the design phase. That obviously would've been – but if you're asking about who directs with this – with respect to this drilling and grouting program that our –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – subcontractor performed, the grout volumes, the grout pressures, how many holes to drill and where, that would've all been directed by the engineer.

**MR. LEARMONTH:** Nalcor's engineer?

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** Okay.

So you just carry out the instructions you're given on that, is that correct?

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** All right.

So, please explain what remaining work do you have under the contract?

**MR. RIETVELD:** Very little at the current time.

We have the intake cofferdam that I mentioned – one of the features of work I mentioned that we were – that we got in place in 2015. One of the first features of work in is now kind of the last feature to come out, so we're starting work on removal of the intake cofferdam.

So over the next month, month and a half, that should be complete, and then after that, really, it's just final demobilization.

**MR. LEARMONTH:** Okay.

Can you give me an approximation of how many personnel would be on site working on this contract at the present time?

**MR. RIETVELD:** For craft, less than 50.

**MR. LEARMONTH:** Less than 50, so you're really getting towards the end, are you?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** Okay.

And what was the schedule? Are you – where are you on – in terms of schedule?

**MR. RIETVELD:** In terms of the original schedule or –

**MR. LEARMONTH:** Yes.

**MR. RIETVELD:** – 'cause we've – we'd – we have a time extension, but the original schedule we were to have substantial completion in August of '18, and right now we're shooting for, well it's gonna be April.

**MR. LEARMONTH:** Yeah.

But –

**MR. RIETVELD:** But –

**MR. LEARMONTH:** – the –

**MR. RIETVELD:** – the North Dam itself, which was the primary – I mean the North and South Dams, the primary components of work for us, they were essentially completed, you know, more or less in December of '18, and so –

**MR. LEARMONTH:** But the extension is – was agreed to by Nalcor –

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** – is that correct? Yeah.

In the execution of your work under the contract, did you have any interface issues with other contractors that, you know, prevented you from doing the work as you had planned to do it?

**MR. RIETVELD:** In a few instances.

**MR. LEARMONTH:** Pardon?

**MR. RIETVELD:** Yeah, in a few instances. Yes.

**MR. LEARMONTH:** Can you give me examples?

**MR. RIETVELD:** The South Dam. The first season we were constructing the South Dam, so that would've been the zoned earth-fill embankment on the south side of the spillway. We had always contemplated constructing – excavating for the foundation and then building back the embankment and, you know, in a continuous unobstructed fashion. And there was a haul road through that footprint that we had contemplated cutting off and then access would be by other haul routes around that.

We were directed to maintain the haul route, the existing haul route, through that South Dam footprint and so, consequently, it required us to excavate and build that South Dam in kind of a staged or sequenced manner. You'd build half of it and then move the haul road over on to that half and then do the other half kind of thing. So it complicated our approach to building the South Dam.

**MR. LEARMONTH:** Is it correct that any delay – any costs that were occasioned by delays of this kind were ultimately resolved by the issuance of a change order and a payment of a recognition by Nalcor?

**MR. RIETVELD:** Yeah, I mean we still have – we're still working through some –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – commercial items, but for the most part –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – those types of issues, the one I just referenced has been resolved, yes.

**MR. LEARMONTH:** Yeah.

Just so everyone knows, the reason that the figures are redacted in the Grant Thornton report is that there are some contractual issues that are unresolved. And like we have said on many occasions, we don't want any evidence – we're not going to present any evidence on those issues because they could affect the negotiation in some way. So just so people will know that that's why I'm sort of silent and pressing you on details like that.

Now, we know that from the start that you, Barnard-Pennecon, did not want to take on labour productivity risk. And, Mr. Tisdell, you gave the reasons, the fact that he was – there are already a lot of workers that would've been – you know, that you could've used that are already working for other contractors on site. And, also, there were other projects on the go that would take away workers that would otherwise be available.

So you're – so you had concerns about labour productivity for that reasons. Ultimately, how did the productivity that you achieved compare to what you anticipated at the time you signed the contract?

**MR. RIETVELD:** I mean, on the whole, some of our concerns were – you know, were realized. Certainly, there was – you know, and with our partnership with Pennecon we were able to bring out some really good and outstanding folks. And so there was no shortage of really good, you know, exceptional, skilled tradesmen at – on the site. And the access to some of those folks was difficult and, on the whole, we didn't – just didn't experience the, you know, the productivity in a lot of cases that we had anticipated. And so, consequently, you know, that did cause some of the labour overruns.

But, in a lot of cases, too, we were quite, you know, simply asked to perform more work for certain scopes of work than we had, you know, anticipated and for which we had accounted in our target labour price, you know. So, you know, for instance, the levelling concrete that we've been talking about that overran. Not only did the quantity overrun, but what ultimately transpired was the need, on account of direction from the client, to – you know, to form the levelling concrete at the limits of the dam footprint. There was a tremendous amount of

forming just for the levelling concrete which we – in a lot of dams, you don't really ever form the levelling, you just – you kind of fill in these big voids and fissures.

But we – so we had a lot of forming for the levelling concrete, you know, had to put in joints at all the construction joints in the levelling concrete, a lot of that. A lot of those minor, minute details weren't, you know, identified in the contract documents and so that also contributed, in a lot of cases, to additional labour that we just hadn't contemplated.

**MR. LEARMONTH:** Okay.

And was there a jurisdictional issue among the unions that – especially on the batch plant set-up that may have contributed to lower productivity?

**MR. RIETVELD:** Well, I mean, certainly, you know, the jurisdictional lines were pretty – I mean there was – they were pretty rigid and, you know, we followed them and never really had any issues. But the reality is, you know, you have – you know, you have a lot of trades, you know, just setting up a batch plant, you know, with a lot of tradesmen, a lot of different union – you know, classifications to, you know, to set up a batch plant.

So the batch plant and crusher, I mean, once those speciality scopes of work were completed, for the most part, you know, we had really three or four unions that we dealt with it and it was just fine.

**MR. LEARMONTH:** Yeah.

And the Labourers' Union was doing the work on the crews for the concrete placement, is that right?

**MR. RIETVELD:** Well, it was a combination depending – I mean the forming would've been, you know, the carpenters –

**MR. LEARMONTH:** Yes.

**MR. RIETVELD:** – and all the equipment would've been operating engineers, but the labourers accounted for a large, a big –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – portion of our workforce (inaudible).

**MR. LEARMONTH:** And you had many really hard-working labourers, is that correct?

**MR. RIETVELD:** Oh yeah.

**MR. LEARMONTH:** Yeah.

Now, this is in the union contract so it exists and it's binding and there's no discretion on it and there's no criticism of it, but there were breaks, we understand – you know, lunch breaks and so on – that the workers were entitled to under the collective agreement and there were breaks – there had to be time given to get to the lunch –

**MR. RIETVELD:** Mm-hmm.

**MR. LEARMONTH:** – shacks and so on. I know concrete work is difficult to start and stop and if you have disruptions because of breaks and that, am I correct in understanding that that could be a problem?

**MR. RIETVELD:** Well, I mean, with concrete you never really, you never want to stop, you always want to keep placing. And so break and lunch management is – gets a little bit more, you know, difficult with concrete placement where you're trying to continue the work non-stop and so ...

But you need to be able to give your crafts the breaks that they –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – are entitled to and need so that they're not getting worn out. And so I guess, consequently, you know, you need to be able to – when a person takes a break you need to be able – someone else needs to be able to step in and perform their function. And so you need –

**MR. LEARMONTH:** Right.

**MR. RIETVELD:** – to be staffed – your crews need to be staffed sufficiently to be able to kind of work through all those breaks and downtime.

**MR. LEARMONTH:** Yeah, so there's no stoppage.

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** Yeah. Okay.

Now, on the crusher and batch plant, did you find that the code requirements were greater than you expected or anticipated?

**MR. RIETVELD:** The cold requirements?

**MR. LEARMONTH:** The code.

**MR. RIETVELD:** Oh, the code requirements.

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** Yeah, with respect to the electrical codes, they were.

**MR. LEARMONTH:** They were more than you – or they were –

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** – tighter, or ...?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** Yeah. More rigorous than you –

**MR. RIETVELD:** Than we expected, yes.

**MR. LEARMONTH:** – had encountered in other positions. Did that affect the labour productivity, the existence of those codes?

**MR. RIETVELD:** Oh, sure.

**MR. LEARMONTH:** Yeah.

How? Explain that, please.

**MR. RIETVELD:** Well, we just – you know, we considered them to be temporary structures, the batch plants and the crusher. These are big, you know, equipment – you know, a big set of equipment, you know, a lot of crushing gear and batch plant, and they have a huge power demand and so we're accustomed to temporary electrical distribution, bundles of cable, you know, bundled together. When we got into the set-up of this it was, you know, it was made clear that those installations would – that the electrical

distribution would be in such a way as if they were a sort of more permanent installation. And so instead of the cables kind of all being bundled together and (inaudible) they all needed to have separation and things of that nature.

And so it added time and cost to setting up the batch plant and the crusher.

**MR. LEARMONTH:** Right.

Now, the RCC – that's a new – I think this is the first RCC dam that's built in this province. I believe that's true. I'll be corrected, I hope, if I'm wrong, but is that a factor – in other words, if the craft labour are new at a task like an RCC dam, if it is a new task – something they're not used to – as opposed to being familiar with that type of construction, is that something that would affect the labour productivity until the workers, you know, got up to speed with it so much (inaudible)?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** Yeah.

And that just speaks for itself, I guess –

**MR. RIETVELD:** I think so.

**MR. LEARMONTH:** – there's some learning and education that –

**MR. RIETVELD:** There's always a learning curve typically on wherever you go.

**MR. LEARMONTH:** Yeah, okay.

Now, with respect to the work associated with this contract, can you give me any sense as to whether it was, you know, more equipment-driven or labour-intensive, or can you give me some breakdown between the two?

**MR. RIETVELD:** I mean, it depends on the work scope itself. I mean, if you look at the upstream cofferdam that we talked about earlier where we were pushing, you know, rocks out into the river and clay, it was predominantly, mostly equipment-based, you know, with obviously operators on the equipment, but not a lot of labour.

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** Then – but then if you look at the other functions, like, you know, that most of the activities associated with the North Dam construction would have been more labour-intensive with the forming, the foundation cleaning, the placement of concrete, obviously some equipment, like with the placement of the roller-compacted concrete, but more labour driven.

**MR. LEARMONTH:** Okay.

So more – would you – you mean more than 50 per cent?

**MR. RIETVELD:** More than – of the –

**MR. LEARMONTH:** Well, the – with respect to the North Dam, would you say that most of the work, i.e., more than 50 per cent was labour-intensive as opposed to equipment –

**MR. RIETVELD:** Yeah, for the North Dam, yes.

**MR. LEARMONTH:** All right.

Okay, you've already confirmed that there are commercial items outstanding between BP and Nalcor and that's why I'm not getting into –

**MR. RIETVELD:** Correct.

**MR. LEARMONTH:** And, but yeah, I will ask you this – that – are some of the outstanding items, just the broad issues, indirects for change-order work and GA markup? Would they fall within the category of the commercial items in dispute?

**MR. RIETVELD:** Yes.

**MR. LEARMONTH:** Yeah, okay. And there may be others, is that correct?

**MR. RIETVELD:** Right.

**MR. LEARMONTH:** Yeah.

Okay, I think the Commissioner has a confidential exhibit, which will be kept

confidential, but I'm not gonna ask you any more about that.

At any time during your work on the project, did either of you ever sense or become aware that Nalcor was not happy with your performance? Was there any indication provided to you at any time about that?

**MR. RIETVELD:** I mean, there were – there would be what I would consider to be my inner concerns it would've raised. I mean, I do recall where they asked about our, you know, some of our RCC specialists – the contract required us to have a, you know, an RCC specialist and so they – that was a point of discussion for a time. They thought we should have a more, you know, more robust RCC specialist and so – we worked through that though, we did bring in some additional help to, you know, to satisfy that concern. But really, I mean, beyond that, I don't recall any –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – issues or concerns raised.

**MR. LEARMONTH:** And that would be typical in a contract like this –

**MR. RIETVELD:** Yeah.

**MR. LEARMONTH:** – wouldn't it? It never goes 100 per cent smooth or anything –

**MR. RIETVELD:** No.

**MR. LEARMONTH:** – like that. There's always back and forth, is that true?

**MR. RIETVELD:** That's right – I would say, yeah.

**MR. LEARMONTH:** Yeah.

Now, during the course of the contract, did Nalcor ever raise a concern about the invoicing, particularly that lump-sum work was being billed out as a reimbursable cost? Was that ever an issue?

**MR. RIETVELD:** I don't recall –

**MR. LEARMONTH:** Don't recall.



**MR. RIETVELD:** – that being an issue.

**MR. LEARMONTH:** Okay.

Getting back to your relationship with Nalcor throughout the execution of this contract, did it – how did it evolve, you know, there – I know there were – there’s always items of conflict, but at the beginning, was your relationship the same as it was at the end in terms of collaboration and working together, or was there any change as the work progressed?

**MR. RIETVELD:** I would say it changed. I – in 2015 – well, we didn’t a whole lot in 2015, but 2016 it was – you know, there was a fair number of letters and things that were, you know, that we felt could’ve been addressed more in a, you know, more on a, you know, on a call or something of that nature. But we didn’t feel like we had maybe the attention of some of the senior leadership at Nalcor that first year, and so consequently I know some frustrations arose.

In early 2017, we began executive-level steering committee meetings with – between Barnard-Pennecon and Nalcor. For a while, I think, they were every month or every two months and that – we all agreed in 2017 that – you know, to kind of reset the relationship. They did acknowledge that they had been somewhat, you know, sidetracked in 2016 with some of the other things that were happening on site. But then, moving forward, in really 2017, 2018, all the way up ’til now, it was – I mean, I think the relationship has been fine. It’s been good. The communication improved, and so I think that was kind of the turning point, early 2017, for us.

**MR. LEARMONTH:** Yeah.

If it had been your choice, would you have preferred more empowerment to the individuals on site – Nalcor representatives – to make decisions as problems arose? We spoke about that a little earlier. Was that a problem? Or what is your comment on that?

**MR. RIETVELD:** Well, I don’t feel I see it as a problem. I do think, based on all the things I explained earlier, that the more decision-making authority that’s on site with whatever entity is always a good thing.

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** I mean, we’ve had problems with sub-contractors before where they don’t have enough decision-making authority on site, and consequently, you know – not necessarily on this job, but on other jobs. So it’s – I think we think it’s always best if decisions – you know, there always is a level at which decisions need to be escalated to a more executive level, but there’s a lot of decisions that should stay at the job level and – so if I’m answering your question, yes, it can only be a good thing to have more decision-making authority at the project level.

**MR. LEARMONTH:** Would you have preferred if Scott O’Brien had been on site more often? Do you think that would have assisted you in delivering your work?

**MR. RIETVELD:** Well, again, I mean, he’s the one that signed all the letters and – but I don’t – I’m not naive enough to think that he’s the – was always the one making the decisions, and so I don’t know if having him personally on site would have helped or he would have – it would have been the same issue where everything would have still had to go to – you know, to St. John’s –

**MR. LEARMONTH:** Yeah.

**MR. RIETVELD:** – per se. But I do think that they could have been this – their site guys could have been empowered, you know, more to make more timely and – more timely decisions, sure.

**MR. LEARMONTH:** Okay. Mr. Tisdell, do have anything to say – add to that – those comments?

**MR. TISDELL:** No, I would agree that it’s – generally speaking, it can only be better, you know, but it – I’m not saying there was a problem but ...

**MR. LEARMONTH:** Okay.

**MR. TISDELL:** We ask for that on any jobs we work on.

**MR. LEARMONTH:** Ask for what?

**MR. TISDEL:** We would ask for, you know, authority people from all levels to be on any project, you know, at the site.

**MR. LEARMONTH:** All right.

So, do you have any further information to provide on cost and schedule overruns? Anything further in addition to what you've already said?

**MR. RIETVELD:** I don't, unless you have anything specifically.

**MR. LEARMONTH:** Yeah. Mr. Tisdel?

**MR. TISDEL:** I think Aaron covered it.

**MR. LEARMONTH:** Okay, it's covered.

Okay, those are my questions. Thank you very much, both of you.

**UNIDENTIFIED MALE SPEAKER:** Thank you.

**THE COMMISSIONER:** I think we'll take our break here now then, and we'll begin cross-examination in 10 minutes.

**MR. RIETVELD:** Okay. Thank you.

**CLERK:** All rise.

### Recess

**CLERK:** Please be seated.

**THE COMMISSIONER:** All right, cross examination.

Government of Newfoundland and Labrador.

**UNIDENTIFIED MALE SPEAKER:** No questions, Commissioner.

**THE COMMISSIONER:** Okay.

Nalcor Energy.

**MR. SIMMONS:** Thank you, Commissioner, and good morning, gentlemen.

My name is Dan Simmons; I'm the lawyer for Nalcor Energy here. A few questions for you arising out of your evidence this morning. First is just a – kind of a picky point. Can we come to Exhibit 01864, please? You had been asked some questions about the length of time between the signing of the LNTP and the contract date, and it was fairly close together.

**THE COMMISSIONER:** Tab 8.

**MR. SIMMONS:** This is the contract here, and I just want to bring you to page 83, which is the signature page, please, Madam Clerk.

And if you look at this page you'll see that the contract, although it's dated – I think it's August 20<sup>th</sup>, was actually signed on the 29th of October, correct? Yeah.

**MR. TISDEL:** Yes that's correct.

**MR. SIMMONS:** Okay.

And Mr. Tisdel, this is your – you've signed there as a representative of Barnard-Pennecon.

**MR. TISDEL:** Yes, I did.

**MR. SIMMONS:** Yup, okay. All right.

So you've described this morning some of the process that went on from the time that you were first qualified with your joint venture to make a proposal to do this work at the Muskrat Falls site until the negotiations were completed and the final terms were arrived at.

And if I understand correctly, your original position on the first proposal that was made was that the Barnard-Pennecon Joint Venture did not want to take any of the labour productivity risk and wanted the owner, in this case, to retain all the labour productivity risk. I have that correct?

**MR. TISDEL:** Yes.

**MR. SIMMONS:** Yes.

And then through the course of negotiations and the presentation of several revised proposals and some change, I think, in the manner in which the work was to be carried out, am I correct that ultimately what was settled on was, as Mr.

Learmonth described it, some sharing of the labour productivity risk. So in fact Barnard-Pennecon did end up taking some of the risk associated with labour productivity.

**MR. TISDEL:** Of the salary –

**MR. SIMMONS:** Yes.

**MR. TISDEL:** – risk.

**MR. SIMMONS:** Yes.

**MR. TISDEL:** And the craft was what remained in the labour target model.

**MR. SIMMONS:** Right.

And you've described how if the craft – even if the craft labour went over the labour target model, there would still be costs to Barnard-Pennecon associated with administrative costs, loss of profit and so on. So, in that sense there was some risk assumed even for the craft labour overruns by Barnard-Pennecon. Is that correct?

**MR. TISDEL:** That is correct.

**MR. SIMMONS:** Okay.

And that was a change that was negotiated through this process compared to what the original proposal was.

**MR. TISDEL:** Yes, that's correct.

**MR. SIMMONS:** Yeah, okay.

When you were engaged in these negotiations, were you aware – did you have any knowledge of what type of labour productivity was being experienced on the site, particularly by Astaldi who were building the powerhouse and spillway in 2014?

**MR. TISDEL:** Yes I believe we did. We had been to the site; we'd seen the – had a site visit. I was not part of it at that time.

**MR. SIMMONS:** Mm-hmm. Right.

So we've heard here that 2014 was a very difficult year on the – on that contract for Astaldi and that their productivity was not very

good. Was that knowledge something that Barnard-Pennecon took into account when you were looking at the position you would take on labour and as you negotiated what the target labour amount would be on this project?

**MR. TISDEL:** I believe that was the crux of it. Again, I was not involved at that time but that was the crux of the –

**MR. SIMMONS:** Right, okay.

So at the point when the contract was ultimately signed in October of 2015, there was a number for the target labour hours and that was the cut-off point. If it was – if the labour hours turned out to be below that, it was going to be a benefit to both parties; if it was above that there was going to be some detriment to both parties.

So, because Barnard-Pennecon stood to lose something if the labour went over that target number, can I take it from that that you were comfortable and had determined that that number was a genuine estimate of where you thought the labour hours would be on this project?

**MR. TISDEL:** Yes.

**MR. SIMMONS:** Yes, okay.

Okay. The subject of mix design came up earlier this morning and I understand, I think, that your evidence – that for the RCC type of construction, the design of the concrete mix, while it's always important, is quite important here, and that it takes time to work it out. I'm correct so far? Okay.

And do I understand you also to have said that the work of designing the mix had been started by Nalcor and was taken over by Barnard-Pennecon once the contract was awarded?

**MR. TISDEL:** Yes.

**MR. SIMMONS:** Okay.

**MR. TISDEL:** I believe that's correct.

**MR. RIETVELD:** Yes.

**MR. SIMMONS:** Right.

But Barnard-Pennecon had the contractual responsibility for finally determining – finally working out a concrete mix that could be submitted to Nalcor and approved.

**MR. TISDEL:** Yes.

**UNIDENTIFIED MALE SPEAKER:** Yes.

**MR. SIMMONS:** Yeah, okay.

And am I also correct that I've heard from you that the time it took to settle on a concrete mix for this project, in your view, did not have any impact on the ultimate schedule for completion of the work?

**MR. RIETVELD:** As it turns out, it did not.

**MR. SIMMONS:** It did not.

And you've been asked some questions about labour productivity and how it worked out once the contract was awarded and the job started. As you progressed through the work, were there concerns expressed by anyone from the Lower Churchill Project management team about the labour productivity that was being achieved by Barnard-Pennecon on the job.

**MR. RIETVELD:** Yeah, it became a topic of discussion regularly. In fact, we had labour productivity management meetings in the latter half of the project –

**MR. SIMMONS:** Yes.

**MR. RIETVELD:** – either – I think every other week –

**MR. SIMMONS:** Mm-hmm.

**MR. RIETVELD:** – where we discussed labour productivity and some of the performance indicators that we had. In fact, I mean, Nalcor oftentimes had, you know, audits – labour audits where they would have someone come out and just watch us and see if we were doing everything that we should. And I believe the results of those labour audits were always very positive and we were always commended for our, you know, managing the labour.

So – and then we have, you know, we had third parties look at, you know, look at some things and at the end of the day, nothing – I mean, we were – I think we were always kind of commended for our efforts, for how we're managing the labour. But, obviously, labour productivity was a concern with some of the, you know, with some of the costs that were discussed, but I – so it was always a discussion, to answer your question, with Nalcor.

**MR. SIMMONS:** Okay.

Can we have a look at Exhibit P-02866, please?

So, Mr. Tisdell, these are your notes of a steering committee meeting, I think?

**MR. TISDEL:** Yes, they are.

**MR. SIMMONS:** Okay, is that February 7, '17, or July 2, 2017 – the date.

**MR. TISDEL:** That's February.

**MR. SIMMONS:** February 7, okay.

So this – the steering committee – you've told us before the steering committee was set up. This is a high-level committee in order to, I guess, to deal with important issues in order to manage this contract and see it through.

And if we can go, please, to page 4.

Did you have an opportunity to review these before giving evidence here today?

**MR. TISDEL:** I don't remember, no.

**MR. SIMMONS:** Okay. All right.

But these are your notes.

All right, scroll down please, Madam Clerk, here on page 4 a bit further.

Okay, we can stop there.

There's a section there headed labour and the note on the side says: Lance C. Would that be Lance Clarke, the commercial manager for the Lower Churchill Project?

**MR. TISDEL:** I believe so.

**MR. SIMMONS:** Yeah. Okay.

And I'm not gonna go through exactly what all this says, but you can scan through here. It seems to be a discussion about the labour projections and them not being in accordance with the estimate, and that Nalcor wanted to take advantage of opportunities to improve labour productivity – an offer to get Dave Clark, Lorne Bennett involved to talk about lessons learned on labour productivity.

And if you go over to page 5, there appears to be a continuation of this discussion. So does this seem familiar with you – to you?

**MR. TISDEL:** It does.

**MR. SIMMONS:** Yeah, and at top of page 5 it actually says: “BPLP concerned with labor, we have profit tied to it” and “don’t want to lose it. Also, BPLP had indirects tied to labour that we’re overrunning and losing.”

So, that’s – I think that’s consistent with what you’ve said earlier.

**MR. RIETVELD:** Mm-hmm.

**MR. TISDEL:** Yeah, that’s correct.

**MR. SIMMONS:** Okay.

So, what kind of interventions did Nalcor make, then, to try and help you deal with improving labour productivity this time?

**MR. RIETVELD:** Well I can maybe – I don’t know –

**MR. TISDEL:** Yeah.

**MR. RIETVELD:** – I can speak to that.

I think the result of this and some of the notes that we’re reviewing here was – and some of the discussions that were – started to happen with these steering committee meetings, was this third party, this Ben Swan group; I think there’s some documents –

**THE COMMISSIONER:** Could you just speak up just a bit? I’m having trouble –

**MR. RIETVELD:** Yeah I’m –

**THE COMMISSIONER:** – hearing you.

**MR. RIETVELD:** – sorry, this Ben Swan was a – is a gentleman, a third party that came in and was tasked with – and with agreement between us and Nalcor to look, you know, sort of look at things, look at how we’re managing some of our processes and reporting and provide recommendations.

Ultimately, his recommendations – he didn’t have a whole lot to – because, quite honestly, he didn’t see that we were doing a lot of things that really could be improved upon out in the field. I mean, a lot of his recommendations had to do with, you know – you know, improvements in reporting and things of that nature, but tangible benefits or tangible improvements. I’m not recalling anything that really came –

**MR. SIMMONS:** Mmm.

**MR. RIETVELD:** – from that effort.

But the fact that we started talking about it more and it was more of a – it was a priority discussion topic, would in and of itself mean that we were collectively trying to improve that process wherever possible out in the field, real time.

**MR. SIMMONS:** Whose idea was it to bring in the consultant?

**MR. RIETVELD:** I think it was maybe suggested by maybe Scott –

**MR. SIMMONS:** So it was a Nalcor initiative.

**MR. RIETVELD:** – it was a – yeah, and asked if we would be open to it and we were.

**MR. SIMMONS:** Okay.

Exhibit P-02871, please.

Is this some of the work of that consultant?

**MR. RIETVELD:** It is.

**MR. SIMMONS:** Okay.

**THE COMMISSIONER:** That's tab 27.

**MR. SIMMONS:** And if we go to page 5, please.

I'm not gonna work through the detail of this with you, but I just note that on page 5 there's a section that begins general findings, and I think this goes for a couple of slides, and there's – if we can go back to 5, please. For example, the first bullet says: "Superintendents shift changed to align with crew shift, ending ... crew tensions that were occurring last year and increasing crew cohesiveness; Field engineers shift is offset with superintendents shift ..."

And this is kind of on-the-ground detail of how the crews are managed and the supervision is managed. These are all things that are – fall on Barnard-Pennecon's side of doing the work as opposed to Nalcor's side of doing the work (inaudible).

**MR. RIETVELD:** Right.

**MR. SIMMONS:** Yeah, they are. Okay. And were these – is this Mr. – you said, Mr. Swan?

**MR. RIETVELD:** Right.

**MR. SIMMONS:** Yeah, so this is Mr. Swan's work here, is it?

**MR. RIETVELD:** Right.

I think he's referring to things that – these were things we had initiated in '18, which was – when I was talking about the rotation schedule for staff earlier –

**MR. SIMMONS:** Yeah.

**MR. RIETVELD:** – the 2110. We changed – we went – we changed all of our superintendents and the craft, 'cause the craft early on were on a 14 and seven; our management was on a 21 and 10, and so there wasn't continuity between people coming and going. We changed everything to an 18 nine, both craft and staff, so our superintendents – the crew that – they were only ever going to work with one superintendent

in that 18 days, not multiple superintendents. And so those were some of the tweaks that we made during the course of the project to help improve, you know, productivity, help – just improve communication, safety, everything.

**MR. SIMMONS:** Good.

Thank you very much. I don't have any other questions.

**THE COMMISSIONER:** Okay.

Concerned Citizens Coalition.

**MR. HISCOCK:** Well, it's still good morning. Good morning.

**UNIDENTIFIED MALE SPEAKER:**  
(Inaudible.)

**MR. HISCOCK:** My name is Will Hiscock. I am here on behalf of the Concerned Citizens Coalition to ask a few questions. I think all of these questions are actually for yourself, Mr. Rietveld, as related to things on site.

As you know, in May of 2017 the community of Mud Lake sustained severe flooding to an extent where the water rose around the houses and many residents had to be evacuated. As I understand the sequence of events, on May 20, 2017, a blockade of buses to the site – the Muskrat Falls site – by local residents occurred, at the same time the flooding was occurring. Residents of the area were of the view that the problem was caused by the actions of Nalcor. One consequence – and I'd like you to confirm this – is that there was – that the blockade caused a delay in workers arriving at your work site. Is that correct?

**MR. RIETVELD:** I believe so, yes.

**MR. HISCOCK:** As a consequence, the company submitted an invoice to Nalcor subsidiary Muskrat Falls Corporation for the labour costs associated with delayed arrival of the workers. Is that correct?

**MR. RIETVELD:** I mean, it would – I don't know that it would have been a specific invoice specific to that item, but that would have been

captured in our, you know, our monthly billing report.

**MR. HISCOCK:** Okay.

And Nalcor declared a force majeure, did it not, the result of which put Nalcor out of the reach of such a claim, said they wouldn't pay because it was an act of nature, basically. Is that correct?

**MR. RIETVELD:** A force majeure declaration would have had commercial implications. Yes.

**MR. HISCOCK:** Okay.

And did you send a letter to Scott O'Brien, the project manager, in May of 2017 on that issue?

**MR. RIETVELD:** We did.

**MR. HISCOCK:** Okay. And that declaration by Nalcor of force majeure, that did not sit well with you, did it?

**MR. RIETVELD:** Not necessarily. We wanted to reserve our rights under the contract in the event that it wasn't a force majeure event.

**MR. HISCOCK:** I'm gonna read out a couple of statements there and just see if these are things that you would have felt at the time: Missing from the company's force majeure declaration is an explanation of justification as to why the gate blockade constitutes a force majeure event. The gate blockade does not constitute a force majeure event as set out in article 28 of the contract.

And that was something that you would have thought at that time, correct?

**THE COMMISSIONER:** Okay. So, can I get reference to where you're – what you're referring to?

**MR. HISCOCK:** Well, we have –

**THE COMMISSIONER:** A particular exhibit.

**MR. HISCOCK:** Unfortunately, we weren't able to provide a source for this letter at the time that we had received this letter – a copy of it – a couple of years ago. And it wasn't able to be entered in an exhibit because we don't have a

source for the letter to be able to identify it for the Commission.

So, I'm going to speak to it in general terms and without an exhibit.

**THE COMMISSIONER:** Just a minute, now, before we do.

**MR. HISCOCK:** Okay.

**THE COMMISSIONER:** So first of all – I'm just going to make this reminder because yesterday Mr. Simmons raised a document that was also not an exhibit at the time, which was an expense plan. So, I'm going to just remind everybody that we do have a set of rules here that require disclosure.

Like, I don't like the fact that – for instance, I don't think this witness has seen this document. They didn't know it was going to be referred to. So, I don't like the fact that witnesses are not – don't know – what it is they're actually going to be questioned on. So I want that to be in everybody's mind from here on out. I want those – that disclosure to be done in accordance with the rules.

So, now we're talking about a document that you have. So, where – do you have the document?

**MR. HISCOCK:** I do have a copy of it –

**THE COMMISSIONER:** So –

**MR. HISCOCK:** – here.

**THE COMMISSIONER:** So, can we get a copy of this document so that everybody has it and –

**MR. HISCOCK:** I'm not sure what the rules are around having it entered as an exhibit, but, yes, I'd be happy to provide it to the Commission. Absolutely.

**THE COMMISSIONER:** Okay.

**MR. HISCOCK:** We have emailed the Commission staff.

**THE COMMISSIONER:** Mr. Hiscock, you need to look at the rules to make sure that, from here on out, we don't have this problem to discuss 'cause, again, we're going to have a lot of time pressures on us as we move forward. But for this point, what I'd like to have happen – and in the fairness to the witnesses and also to other counsel here – I think they should receive a copy of what it is you're referring to so that it can be reviewed by them.

So we're going to take a couple of minutes. I'll get it copied – hopefully enough copies for everybody – and then we can proceed from there.

As to whether it's entered as an exhibit, if the witness identifies it as a letter that he sent, then we'll enter it as an exhibit.

**MR. HISCOCK:** Perfect. That would be ideal.

**THE COMMISSIONER:** All right, so let's take a couple minutes just to get this done. If there's any others that you have, then produce them.

**CLERK:** All rise.

### Recess

**CLERK:** All rise.

Please be seated.

**THE COMMISSIONER:** All right. Everybody have a copy of whatever – of this document? I just see one on my table here, so, okay.

So, go ahead, Mr. Hiscock.

**MR. HISCOCK:** Thank you.

And just before I ask my last question there, I did want to mention that we did submit and have conversations with Commission staff on this. It wasn't that we were bringing it – or attempting to discuss it without having it entered as an exhibit.

**THE COMMISSIONER:** Right. But there obviously was an issue with Commission staff, was there?

**MR. HISCOCK:** That's correct.

**THE COMMISSIONER:** So that should've been ironed out before we get here today. But anyway, that's – it's water under the bridge now, so go ahead.

**MR. HISCOCK:** So in this letter, obviously you didn't think that Nalcor had the right to invoke a force majeure, and the letter went on to say: "The blockade was formed as the protesters believed that the Company's" – and that would be Nalcor's – "recent release of water or failure to properly manage the downstream flows resulted in the flooding of the Mud Lake community." And goes on to say that the contract "... only allows the Company to claim a Force Majeure event if such event is 'beyond the control'" – or without the negligence and fault of Nalcor. However – and then you go on to say –

**MR. GOSSE:** (Inaudible.)

**MR. HISCOCK:** – sorry.

**MR. GOSSE:** (Inaudible) Mr. Commissioner, I don't know that the letter's been (inaudible) –

**THE COMMISSIONER:** If you want to just hit your mic so I (inaudible).

**MR. GOSSE:** Apologies. I'm not sure that the letter has been put to the witness and identified that it's his letter or his position. I think there's some steps that we're skipping here.

**MR. HISCOCK:** Absolutely, yes.

Sorry, was there a copy of the letter that's been provided to you guys up there?

**MR. RIETVELD:** I have it.

**MR. HISCOCK:** Do you have a copy there? And do you recognize that letter?

**MR. RIETVELD:** I do.

**MR. HISCOCK:** Okay.

So this is the letter that we discussed that you had written to Nalcor in May of 2017. Would that be right? Is that accurate?



**MR. RIETVELD:** Well, to be clear, my understanding of this letter, I didn't personally sign it. This was a draft of a letter we had prepared after that event that was signed by someone underneath me in error and was submitted. The intent of the letter was to reserve our rights commercially and dispute the fact that it was a force majeure.

**MR. HISCOCK:** So this –

**MR. RIETVELD:** Upon further review of this language, however –

**MR. HISCOCK:** Yes.

**MR. RIETVELD:** – we realized we were making some rather bold assertions here. This letter was rescinded, and subsequently, the letter was reissued a day or so later after this. And so I consider this letter to be non-binding of our position and that the second letter, which is missing, I guess – I don't know if it's in the –

**MR. HISCOCK:** Okay.

**MR. RIETVELD:** – it's the letter by which we should be looking at and has our formal position on the matter.

**MR. HISCOCK:** Okay.

Perhaps I could ask you just about this last sentence and whether this is something you still hold to or was your view at the time, anyways. That's really the crux of it, I suppose. And whether it's in the letter or not, this is really the question, which is: Further – and this is the third or the last sentence of the last large paragraph there: "Further, the Company, by exercising reasonable diligence, could have prevented the blockade by properly managing the downstream flows."

Is that the part of the letter that you felt was –

**MR. RIETVELD:** Yeah.

**MR. HISCOCK:** – too much and was restricted –?

**MR. RIETVELD:** It was.

**MR. HISCOCK:** Okay.

**MR. RIETVELD:** We have no exact knowledge of whether that was case or not. We were – in our second letter, reiterated that our understanding of events in the public domain is that this is what the protestors were claiming, and based on what they were claiming, if that were to be true, it wouldn't be a force majeure event. So that's not our position on the matter as it stands.

**MR. HISCOCK:** Okay. And that was – my next question is, did you – were you witness to anything that would lead you to believe that that flooding was caused by their management of the downstream flows?

**MR. RIETVELD:** I'm not aware of anything.

**MR. HISCOCK:** Okay.

Thank you. Those are all my questions.

**THE COMMISSIONER:** Okay. So we should (inaudible) we should have this exhibit marked – or this document marked as an exhibit. So I'll ask (inaudible) outside if you're listening there now (inaudible) – sorry. We'll ask the staff outside to give this a number because it's been referred to now, and it will become an exhibit at this stage.

If there is a second letter, I think I'd like to see that letter as well. I'm not sure if we have it in our system or not, but we will check it, and that, too, will be added as an exhibit. And if we don't have it in our system, maybe if you have it, Mr. Rietveld, you could let us know, and we can take it from there.

Did you want to say something, Mr. Simmons?

**MR. SIMMONS:** (Inaudible.) Yes. I have no doubt that Nalcor would have that, the letter that was actually sent, and if the Commission doesn't have it, it will be no problem at all to get it, and I think it would be appropriate to make that an exhibit, as well.

**THE COMMISSIONER:** Anyway, so there will be two exhibits that we will mark, likely, when we begin our next witness. One will relate to this letter, because I don't have the next number, and the other will be with regard to the second letter. And in the event, as I say, that

Nalcor doesn't have the letter or we can't access it, then I'm going to ask you to produce it for us. You are – you're vice-president, so I think you probably have enough weight to get that for us –

**MR. RIETVELD:** Yeah.

**THE COMMISSIONER:** – and we'll take that from there.

All right, thank you, Mr. Hiscock.

Edmund Martin.

**MR. SMITH:** No questions.

**THE COMMISSIONER:** Kathy Dunderdale.

**MS. E. BEST:** Thank you, Commissioner. I'm Erin Best. I'm counsel for Kathy Dunderdale, former premier of Newfoundland and Labrador.

Commission counsel had asked you if there were any significant overruns associated with your contract. And I think significant is a bit of a subjective term, so I just wanted to ask you if you could please outline approximately what the overruns were? And then we can judge, I guess, with respect to the significance.

**MR. RIETVELD:** The overruns in – with – change orders or just – I mean, what – could you be a little more specific in terms of what overruns you're –

**MS. E. BEST:** If you could give me a general overview and approximate the overruns.

**THE COMMISSIONER:** So, can I just help with this, too –

**MS. E. BEST:** Yes.

**THE COMMISSIONER:** – Ms. Dunderdale – Ms. Best, rather? There is an exhibit that I saw there, P-02668, which is the change order one that explains – I think it's a document that sets out the change orders –

**MS. E. BEST:** Okay. Thank you.

**THE COMMISSIONER:** – for this – so – I'm just saying this so that the witness can refer to

that for the change order part, and then if there's others, he can also refer to those, too.

**MS. E. BEST:** Okay. Thank you.

**THE COMMISSIONER:** 02668, I'm sorry. It's tab 24.

**MR. SIMMONS:** 02868, Commissioner.

**THE COMMISSIONER:** 02868. Sorry. Tab 25.

**MS. E. BEST:** 02868? Or – tab 24?

**THE COMMISSIONER:** Twenty-five.

**MS. E. BEST:** Tab 25.

**THE COMMISSIONER:** No, that's not it.

**MR. TISDEL:** It is 24, I believe.

**THE COMMISSIONER:** Twenty-four, okay.

**MR. RIETVELD:** Yeah, so this – I mean, this is our log, our change order log. I'm not sure what the date on this is but it's probably fairly current. But I mean you can see on this we have, you know, over \$60 million in executed change orders –

**MS. E. BEST:** Okay. And so – okay. Sorry, can you show me where that is there? That's – on the top there, it says change order, and then –

**MR. RIETVELD:** At the – it's at –

**MS. E. BEST:** – under the word log 62.

**MR. RIETVELD:** At the bottom of page 3 of that exhibit –

**MS. E. BEST:** Bottom, okay.

Okay, so \$62 million is the total value of the change orders.

**MR. RIETVELD:** That includes – at this point in time, yes.

**MS. E. BEST:** And this point in time is – just is it –

**MR. RIETVELD:** Again, I think this is –

**MS. E. BEST:** Can you confirm it for me that –

**MR. RIETVELD:** There's no date on it, but the last date of the last change order was – okay, yeah, so this would have been – 6th of February, '19, is when this log was produced.

**MS. E. BEST:** Okay, I see that here in the upper left-hand corner.

Okay, thank you. Those are my questions.

**THE COMMISSIONER:** Now, there were other change – there were other overruns as well, right? Aside from the change orders.

**MR. RIETVELD:** Well, this accounts for the labour overruns and allowance overruns. There are other things that are not necessarily – this is not an all-inclusive list, yes.

**THE COMMISSIONER:** Okay. Do we know, approximately, what the total of those would be?

**MR. RIETVELD:** I don't know off the top of my head because this is – it gets a little tangly with what that – what's separate from what's in this log and –

**THE COMMISSIONER:** I just wanted to add that 'cause ...

**MS. E. BEST:** Well, I mean – I think that it is something that we're interested in as the Inquiry goes on is the breakdown of the overruns and – as we go through each contract, and so, I mean, do you have any – are you able to tell me approximately what the value in total of the other overruns are? Besides the \$62 million here?

I mean, it seems to me this would be a very relevant question –

**MR. RIETVELD:** Right.

**MS. E. BEST:** – in this Inquiry.

**MR. GOSSE:** Excuse me, Mr. Commissioner.

I think part of the hesitation on the part of the witness is because this is an ongoing contract,

and, obviously, there are concerns of commercial sensitivity that led to a significant amount of redaction in the Grant Thornton report and why some of these details have not been pressed and are not put forward. And I don't know that it's fair to press the witness on the overall overruns and cost implications while the work is still ongoing.

**MS. E. BEST:** Perhaps, then, I could ask, for example, up to the date of the 6th of February, 2019?

**MR. RIETVELD:** I don't – well, this is, again, \$60 million in – plus or minus in approved change orders –

**MS. E. BEST:** Yeah, I'm – I think we have that evidence, so I just wanna know besides these change orders.

**MR. RIETVELD:** What is the cost of the project up to that point in time?

**MS. E. BEST:** The overruns, the other overruns besides what we've already discussed here, the \$62 million.

**MR. RIETVELD:** Well, there were labour overruns; there were allowance-item overruns; there was – you know, I don't know off the top of my head, but it's – I mean, I – the target labour cost, if that's what you're asking –

**MS. E. BEST:** So I'll be clear; that's not what I'm asking. I'm asking about the – my first question about the total amount of overruns. And so you've told me about one component, which we see here on the screen, of \$62 million, up to the date of 6th of February, 2019. So I'm wondering about the rest of the overruns that make up that total, also up to the date of 6th of February 2019.

And perhaps, if you are unable to approximate that right now, I wonder, Commissioner, if that's something that might be provided to us at a later date. I – it seems relevant to me as part of this Inquiry.

**THE COMMISSIONER:** So I wanna be – I agree this is relevant. I have more documents than you have. So what I am concerned about as a result of what Mr. Gosse said is potential for

any impact on Nalcor and the province, ultimately, in the day with regards to ongoing negotiations.

So what I need to do is try to figure out whether what you're asking is something that would fall within that realm or if it's outside of that realm. And I'm not – I'll be honest with you: I don't know at this stage of the game whether it is – is or isn't. And I'm not sure, Mr. Learmonth, if you can assist me with this or Mr. Simmons or alternatively even Mr. Ralph here – I just don't know.

**MR. LEARMONTH:** I intentionally took a very hands-off approach on this because I'm very concerned about commercial sensitivity. There could be overlaps between other change orders that were agreed to in the past. They could be connected to further claims, potentially – I'm not sure if that's the case. But I know you have more documentation than we have, and my position is that we should be very careful and conservative when dealing with this issue.

**MR. SIMMONS:** Commissioner, it's a – as the witness has said, these things are often interconnected and he's – the witness has said that there are outstanding claims that are unresolved that are gonna have to be either negotiated or, if they can't be resolved, could result in some other form of legal process in order to resolve them.

And on these projects, these things are often interconnected with things such as these change orders, so without getting into the substance of what every claim is, it's very challenging to be able – I understand how the witness is having difficulty being able to give numbers without take – having an opportunity to look more in-depth into it. And I'm assuming – 'cause I don't know what information you have confidentially from the contractor here, Barnard-Pennecon, but I'm assuming you've been provided with some sort of information about what their positions are on these sorts of things, and that, in their hands, is certainly commercially sensitive, as would Nalcor's position on those issues.

**THE COMMISSIONER:** I see this as being relevant to Phase 2 of the Inquiry.

Ms. Best, I'm just wondering whether you would be satisfied with, as opposed to providing a number, whether a range or how – you know, like is it – I'm thinking to myself is it – like, what – is what we're talking about over and above the \$60-odd million? Is it more than \$60 million, less than \$60 million, that sort of question? Would that get for you what it is you're thinking about?

Otherwise, I'm trying to wrestle with this whole idea of how much do we – I don't want to negatively impact the witnesses' company, and I don't want to negatively impact Nalcor in these negotiations in any way – I don't want to impact them at all in any way, shape or form. That's the problem I'm trying to wrestle with.

**MS. E. BEST:** Yes, and I fully understand that problem and how it adds a complication to what we're trying to determine at the Inquiry.

However, I do think that the source of the overruns – I'm hoping that there will be some balance struck between commercial sensitivity and determining what the source of the overruns is. With respect to providing a range, depending on what that range is, certainly a range would be acceptable.

**THE COMMISSIONER:** Mr. Gosse?

**MR. GOSSE:** Mr. Commissioner, I wonder if – if the concern is identifying the source of the overruns, then I think that might be something that the witness can speak to generally. If it's coming out of the fact of this circumstance, this occurrence, these are things that led to the cost being more ultimately than what was anticipated at the beginning, the witness can speak to that. But getting into – even getting into ranges makes it very complicated.

As Mr. Simmons has indicated, there's often an interconnection. And as the contractors and the owners work together to conclude a specific contract, there's often a lot of give and take in negotiating so that they can resolve that without having to go outside to an arbitrator or to a court to resolve what is fairly due.

And so I think, for our purposes today, speaking to the sources of the overruns should be adequate.

**MS. E. BEST:** Commissioner, I think when I said the phrase source of the overruns I was more so referring to the connection with the dollars figures. I'm not sure that is meaningful without that. I mean, perhaps a range would be meaningful, but without that just describing the source I don't think would be meaningful.

**THE COMMISSIONER:** Ms. Best, would you and your client be satisfied if I were to know what the position is right on overruns by BP, Barnard-Pennecon, as opposed to it being released publicly?

**MS. E. BEST:** Yes.

**THE COMMISSIONER:** Okay.

So, I think the way I'm going to answer this problem – and I know there are some people from the public who are out there watching this – is – you know, my main concern here is that I don't want to improperly impact in any way the ongoing negotiations where there are ongoing contracts. I made that very clear early on with regards to the issues of limiting what was commercially sensitive or not. Obviously, I don't want to see – most importantly, I don't want to see the people of this province incur any more costs than are needed to get this project done.

So, in that regard, I think what I'm going to do here is require you, Mr. Gosse, through your witnesses, to provide to the Commission the present position of Barnard-Pennecon – because it's not there in one document that I've seen – the present position of Barnard-Pennecon and any claims that it has outside – over and above the contract price. And I would like that document filed and as a – it will be marked as a confidential exhibit for me for the purposes of this Inquiry, and at least I will have that.

I do have some material, but I don't have one document, so this will help me as well.

**MS. E. BEST:** Okay.

**THE COMMISSIONER:** Is that satisfactory?

**MS. E. BEST:** Yes. Thank you.

**THE COMMISSIONER:** Thank you.

Okay, and that's satisfactory to you, Mr. Gosse? Oh, sorry.

**MR. GOSSE:** It is, Mr. Commissioner.

Certainly to the extent that a figure can be identified, because some of these will still be estimates, we'll put them in as best as we can.

**THE COMMISSIONER:** So the figure and an explanation of what it is that the claim is, that's all I want. I just want to be able to get a general idea of what it is that's outstanding between Barnard-Pennecon and Nalcor. So the undertaking that I have is that this will be provided and hopefully within, perhaps, seven days. Okay.

All right. Anything else, Ms. Best?

**MS. E. BEST:** No, thank you, those are my questions.

**THE COMMISSIONER:** Okay. All right. Thank you.

Julia Mullaley, Charles Bown, not present.  
Robert Thompson's not present.

Former Provincial Government Officials.

**MR. J. KING:** No questions.

**THE COMMISSIONER:** Consumer Advocate.

**MR. HOGAN:** Hello, gentlemen, my name is John Hogan. I'm counsel for the Consumer Advocate. So, the Consumer Advocate represents the ratepayers involved with regards to this project.

Mr. Rietveld, I think most of my questions are going to be directed to you.

So first of all, you did give evidence this morning to Mr. Learmonth that you had worked on hydro projects in similar cold-climate weather conditions, correct?

**MR. RIETVELD:** Yes.

**MR. HOGAN:** And in your interview – I'm not sure if you talked about it today, but you did use

the words aggressive and tight with regards to the Muskrat Falls schedule. Do you recall that?

**MR. RIETVELD:** I don't recall, but if that was in my transcript that –

**MR. HOGAN:** Well, that's – I'll ask you now. Do you think that the schedule was aggressive and tight?

**MR. RIETVELD:** Sure. I mean, considering that, you know, you really only have five or six months of good ideal working conditions out at the site, you know, it's an ambitious goal to try to get this project – not just our contract, but the whole project as a whole done in the time frame that was originally contemplated. Not undoable, but ambitious.

**MR. HOGAN:** Yeah, okay. So my question is in relation to other similar projects. Was it on par in terms of what could be expected in terms of the schedule? Or was this more aggressive and tight?

**MR. RIETVELD:** Well, I mean, I think it was on par, yeah.

**MR. HOGAN:** And when you say aggressive and tight, can you give some examples of what sort of effects this would have with regards to your work or any work on the site?

**MR. RIETVELD:** Well, when you're assuming that you can start, you know, say, RCC placement in April, you're kind of – you're assuming that the weather is going to be, you know, conducive to that. And if in fact you can't start until May, you know, there's an impact. And so some of that – again, not undoable, but some of those things are outside of your control. And so during the planning and the, you know, the preparatory phases, you're kind of – you're just – you know, you're kind of guessing on when – weather's one of the bigger risks, right, that we just didn't know.

And so within the purview of the climatic conditions at the site, I think if I were to have said aggressive, it's because of the unknown conditions with respect to the weather and trying to accomplish this amount of work knowing that there are some risks that the weather may not be in your favour.

**MR. HOGAN:** So are those risks built into your bid? And I guess I'll put it more to you this way: knowing that when you evaluated the schedule, would you have said: This is aggressive. We need to build it into the bid?

**MR. RIETVELD:** We –

**MR. HOGAN:** Or do you say because it's a weather risk, the owner bears that schedule cost?

**MR. RIETVELD:** – we had assumed – and in our contract, the owner had assumed the weather risk.

**MR. HOGAN:** Okay.

And had the schedule been less aggressive, would the owner have to bear less risk in terms of your bid?

**MR. RIETVELD:** If – say that again.

**MR. HOGAN:** If the schedule had have been less aggressive, would you have – would the owner had to have bid – had to have borne less risk in terms of what you were bidding?

**MR. RIETVELD:** Whether it –

**MR. HOGAN:** If it's a less risky project, I guess, less schedule risk –

**MR. RIETVELD:** Right.

**MR. HOGAN:** – would the owner then – would you have asked the owner to bear less risk than you did. Does that make sense?

**MR. RIETVELD:** Not entirely, but I don't know.

Are you understanding this?

**MR. HOGAN:** Do you understand it? You look like you sort of understand it.

**MR. TISDEL:** Well, what he said prior to that was the owner had the risk of weather, so it wouldn't transfer –

**MR. HOGAN:** Regardless.

**MR. TISDEL:** Right.

**MR. HOGAN:** Okay.

**MR. TISDEL:** So it wouldn't have made it –

**MR. HOGAN:** A difference to you guys.

**MR. TISDEL:** Right.

**MR. HOGAN:** Okay, thanks.

Mr. Tisdell, I will ask you because you did talk about a little bit that you were aware that there was a shortage of labour expertise when you were bidding on this project, correct?

**MR. TISDEL:** Correct.

**MR. HOGAN:** Okay.

And how did you become aware of this? You guys are in Montana.

**MR. TISDEL:** But we visited the site. We are generally aware of the amount of construction going on at the site as well as other things in Canada.

**MR. HOGAN:** So how do you become aware of that? This – like, if you could just give the Commission some more detail rather than just saying we – well, we knew there was labour shortage – labour expertise shortage. How do you come to know that information specifically?

**MR. TISDEL:** Again, through research of knowing how much work is contemplated at this location again, as what's contemplated elsewhere. I guess, again, it was a concern that we had. I wouldn't necessarily say it was a known fact X number of people – you know, how many we need, how many everybody else had. But it was a concern that this much labour, this many general contractors on one – in one place sharing the same labour pool as well as a labour pool being shared across other provinces in Canada.

**MR. HOGAN:** Okay.

And if – is that a typical risk when you guys are doing your bids on other projects or would – did it stand out more with regards to the Muskrat Falls Project?

**MR. TISDEL:** It can be. It stands out more when there's, again, this many – this big of a project going on in this area –

**MR. HOGAN:** Okay.

And is that – in terms of talking about the labour risk and who was taking it, and you've been through all that with Mr. Learmonth in detail, is this an example of a project where you would've asked the owner to take on more risk than you would for other projects, let's say, in terms of labour?

**MR. TISDEL:** Can you repeat that?

**MR. HOGAN:** Just in terms of the labour risk, and you've been through with Mr. Learmonth –

**MR. TISDEL:** Mm-hmm.

**MR. HOGAN:** – how you guys agreed to split up the risk of labour?

**MR. TISDEL:** Mm-hmm.

**MR. HOGAN:** Is this project any different, compared to other projects you have done? And specifically, did the owner take on more risk for labour than other projects you have done? Or was it about the same?

**MR. TISDEL:** I'm gonna say every project's different and –

**MR. HOGAN:** Okay.

**MR. TISDEL:** – scenarios are different. This is not – it's never not been done before.

**MR. HOGAN:** Okay.

Mr. Rietveld, you did talk about with Mr. Learmonth interfacing with other contractors on site. I'm not sure he specifically asked you about your interactions with Astaldi. Can you discuss that at all, and the – whether Astaldi's presence on the site had any effect on your work?

**MR. RIETVELD:** Somewhat. Like, the example I gave with the South Dam, the – maintaining the access through the South Dam that was primarily to maintain access for

Astaldi, which then affected the construction, as I discussed.

**MR. HOGAN:** Okay.

**MR. RIETVELD:** The – because they were constructing the spillway and we had an interface milestone by which Nalcor was contractually obligated to turn over the spillway to us, but that was all predicated on the spillway work being done by Astaldi, we couldn't do the river diversion until the spillway was turned over to us. There were some minor delays with the spillway, I mean, we're talking weeks not months in – you know, I think the spillway or the river diversion was supposed to start in July, July 15 of 2016. It happened, more or less, a few weeks later.

Then, once the river was diverted, really our – we didn't have a whole lot of interface issues with Astaldi, moving forward. We were kind of on our own, so to speak.

**MR. HOGAN:** But that South Dam issue – that was an Astaldi issue when you were speaking to Mr. Learmonth –

**MR. RIETVELD:** Well, it was a site-wide issue, I mean, there was – it wasn't just Astaldi. It was all – everybody was using that access road. But I think, primarily, it was – I mean, Astaldi was the big contractor on site at the time, so –

**MR. HOGAN:** Right.

**MR. RIETVELD:** – they probably are the, you know ...

**MR. HOGAN:** Okay.

Now, I know you – are you aware of what the estimates were – now? I know you wouldn't have been aware of it at the time that you bid, the estimates for this contract?

**MR. TISDEL:** The engineer's estimate?

**MR. HOGAN:** The estimate from (inaudible) – by Nalcor?

**MR. TISDEL:** I don't know. I don't, I don't –

**MR. HOGAN:** Okay. That's fine, I'm not expecting you necessarily to know, but if we could please turn to P-01677, please, page 53.

**THE COMMISSIONER:** You don't have that in your book so it's just gonna be on the screen.

**MR. HOGAN:** It'll be on the screen.

**THE COMMISSIONER:** This is the GT report, Grant Thornton.

**MR. HOGAN:** So this is a reconciliation, much of which is redacted as the Commissioner and Ms. Best were talking about.

**THE COMMISSIONER:** Page number?

**MR. HOGAN:** Fifty-three.

**THE COMMISSIONER:** Thank you.

**MR. HOGAN:** So we just see here the base estimate is \$117 million. That would've been the estimate at – well, we don't see the revised DG3 estimate so it would've been different than that, and the contract awarded to you was \$287 million.

So, were you aware at all, at anytime, of this number, the 117 number?

**MR. TISDEL:** I don't believe so.

**MR. HOGAN:** Okay. Looking at it now, obviously, it's quite a bit lower than what the award of the contract was. So I'm wondering if, looking at this now and looking back at what happened, are you able to comment on anything with regards to the fact that your contract award was so much greater than the base estimate?

**MR. TISDEL:** No.

**MR. HOGAN:** Okay.

I guess I'll ask specifically to you, Mr. Rietveld, you talked about things like lack of geotechnical data, unaware of certain quantities, et cetera, et cetera. I guess that information wasn't available to you when you did your bid, correct?



**MR. RIETVELD:** No, I mean, again, that's why a lot of that work was unit price is because it was unknown to all parties.

**MR. HOGAN:** So I guess my question is: Would it make sense then that the base estimate was lower than the contract bid because that information wasn't available at the time? I mean, is that – it might be common sense to you guys, but is that – just for the general public, does that make sense?

**UNIDENTIFIED MALE SPEAKER:**  
(Inaudible.)

**MR. RIETVELD:** You'll have to say that one more time.

**MR. HOGAN:** So you spoke about things like the lack of geotechnical data and things like the quantities were not what you thought they were.

**MR. RIETVELD:** Right.

**MR. HOGAN:** So I assume that means that that information wasn't available in the tender package to you. So I'm submitting to you that, is that why the base estimate was much lower than the contract award amount because –

**MR. RIETVELD:** It could be, but we have no –

**MR. HOGAN:** Okay.

**MR. RIETVELD:** – we don't know how the base estimate was developed.

**MR. HOGAN:** And that's my question: Can you comment now, looking at that estimate, why it's so much different than the contract award amount?

**MR. RIETVELD:** I don't know if it's even an apples-to-apples comparison. That wouldn't be for us – I would have no way of knowing.

**MR. HOGAN:** Okay.

The last question I have is: Who – you did – Mr. Scott O'Brien's name was mentioned, who did you deal with, on the project team, other than Mr. O'Brien – project management team?

**MR. RIETVELD:** On site or –?

**MR. HOGAN:** Both. Let's do the on site first.

**MR. RIETVELD:** Yeah, on site, I mean, there was a team of individuals depending on the – but generally we had – do you want some names or –

**MR. HOGAN:** Yes, please.

**MR. RIETVELD:** Jeff Reid and Jason O'Brien were probably the two main points of contact that we dealt with on site. You know, there was Peter Tsekouras for a time, for probably the first half of the project, and then it was more Jeff Reid and Jason O'Brien. You know, there's a lot of inspector names, and, you know, they kind of escape me at the moment but –

**MR. HOGAN:** Let's think about more management-level –

**MR. RIETVELD:** Yeah.

**MR. HOGAN:** – people, I guess.

What about in terms of – I guess you dealt with people out of the St. John's office as well.

**MR. RIETVELD:** Well, and certainly Scott –

**MR. HOGAN:** Yeah.

**MR. RIETVELD:** You know, there was a number of individuals that we worked with on the engineering team out of St. John's in a lot of these constructability discussions, you know, that we worked with. But at the executive level, when we started taking on those executive, the steering committee meetings, you know, it was usually Scott O'Brien, Lance Clarke, Peter [sp. Paul] Harrington and Gilbert I think were usually the four that were – would go to those.

**MR. HOGAN:** Okay.

That's all the questions I have. Thank you.

**THE COMMISSIONER:** The Innu Nation is not present.

Former Nalcor Board Members.

Thank you.

Newfoundland and Labrador Building Trades Council.

Not present.

Oh yeah, there you are. Any questions?

**MS. QUINLAN:** No.

**THE COMMISSIONER:** You keep moving around.

Dwight Ball, Siobhan Coady. Not present either.

All right, counsel for Barnard-Pennecon.

**MR. GOSSE:** Nothing (inaudible) redirect.

**THE COMMISSIONER:** Redirect, Mr. Learmonth.

**MR. LEARMONTH:** No. Thank you.

**THE COMMISSIONER:** Okay.

I just want to go back to one question if I can.

Mr. Simmons asked you a question about the mix – the issue of the mix for the RCC, and you indicated that, you know, you had received some of the work that was done by Nalcor and then it was your responsibility to finish up finding out what the proper mix was going to be. And he asked you whether or not, the fact that it takes time to do that, whether it impacted your schedule at the end or was there any impact on schedule. I think that was the jest of the question.

And you said that as it turned out, it didn't. So what did you mean, as it turned out?

**MR. RIETVELD:** Well, I guess there was the existed potential that it could have. I mean, we performed a lot of – quite an extensive mix design process. We ran lots of different mixes. You know, I think we ran the initial round of mixes in – right after we were awarded the contract in November of '15, we started the mix design program, and then – but then again you're waiting for, you know, six-month breaks until you kind of decide which mix and, you know – or group of mixes you may wanna continue to pursue further.

The mix design testing went all the way into early '17. I mean, a mix was ultimately – there was the potential that RCC could've started in early 2017, based on our original schedule, and because of some of the foundation challenges that we discussed earlier, the RCCs – the commencement of RCC was pushed out into July, and it was, you know, shortly before we started RCC in July that a final mix was selected.

Now, playing it out, if we would've been in a position to start RCC in, say, May or April of 2017, would we have all come together and selected a mix so that it didn't impact the work? I think that would probably be the likely outcome. But we did a lot of mix design testing and that was – as it turns out, the way the schedule aligned, it didn't ultimately – it wasn't one of the drivers of our schedule.

**THE COMMISSIONER:** Okay.

Good, thank you very much for that clarification.

**MR. LEARMONTH:** The exhibit that Mr. Hiscock presented, could it be entered as P-02972?

**THE COMMISSIONER:** (Inaudible) Hiscock (inaudible) P-02972.

**MR. LEARMONTH:** Yeah.

**UNIDENTIFIED FEMALE SPEAKER:** Microphone.

**THE COMMISSIONER:** (Inaudible.)

**MR. LEARMONTH:** Your microphone.

You need to put your microphone on.

**THE COMMISSIONER:** So that one's marked 02972. Do we have the other – we don't have that yet.

**MR. LEARMONTH:** (Inaudible), but as soon as we get it, we'll enter it.

**THE COMMISSIONER:** All right, good. Thank you, gentlemen.

We have no further witnesses for today. The next witnesses are with ANDRITZ, and they're gonna be here ready tomorrow. So, little bit of a break time, but it's been a busy week, so we'll say thank you for that and we'll move on.

And as I said earlier, we are gonna be starting then on May 2 with Mr. Mullaley – or Mr. Mulcahy, rather.

All right, we're adjourned then until tomorrow morning, 9:30.

**CLERK:** All rise.

This Commission of Inquiry is concluded for the day.