



**Nunavut Water Board
(NWB)
Nunavut Imaligiyyit Katimayit**



Community Session

Presentation

for the

Type “A” Water Licence

No. 2AM-DOH1323

Amendment Application

by TMAC Resources Inc.

Nunaliuyuni Katimaniq

Hatqiqtitat

taphumunga

Qanugittunia “A” Imaqmun

Laisa

Nappaa 2AM-DOH1323

Ihuaqhigiagut Tukhigaut

TMAC Risuasis Nanminiliknit



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NWB Background Info

NWB-kut Unniqtutai Tuhaghitit

- Institution of Public Government (IPG) established under Article 13 of the *Nunavut Land Claims Agreement* (NLCA)
- Kavamagiyauqatauyut Inungnut (IPG-kut) pinguaqtauyut malikhugit Nakataani 13 tapkunani *Nunavutagutitut Angigutit* (NLCA)
- Responsibilities and powers over the regulation, use, and management of freshwater in the Nunavut Settlement Area...
- Havalgit Hakugiknilgitlu maligainut, atuqni, aulataunilu imigaulat imait Nunavutagauyup Iluani ...



NWB Background Info (Cont.)

➤ Objects of the NWB are to:

Provide for the conservation and utilization of waters in Nunavut, except in national parks, in a manner that provides optimum benefit for the residents of Nunavut in particular and Canadians in general.

Sec.35 Nunavut Waters And Nunavut Surface Rights Tribunal Act

➤ Pinahuaqtai NWB-kut tapkuat :

Piqaqtitni nunguttailininut atuqtauninutlu imait Nunavutmi, kihimiungittuq nunaqyuap minnguiqhivini, piplugit piqaqtitini nakuuniapamik ihuaqutaunit nunaliuyunut Nunavutmi piluaqtumik Kanatamiunutlu tamaitnut.

Nakataani.35 Nunavut Imaliqutit Nunavutlu Nunap Qangani Piyungnautiligiyyit Apiqhuiyigalaat Piquyat



Authorizations NWB may Issue Pilagutit NWB-kut Tunilaqtai

- Based on its mandate, the NWB may issue any of the following authorizations to regulate the use of water and/or the deposit of waste for activities or undertakings occurring within Nunavut Settlement Area:
 - Approval Without a Licence
- Piplugu havagiyait, tapkuat NWB-kut tunihilat kitunikliqak tahapkuninga pilagutiniq aulaninut atuqnit imait tamnalu/tamnaluᓂiit iqaqni iqakut hulinuqut havanguyutluniit atuqtauyut Nunavutagaup iluani:
 - Angigut Laisaittumik



Authorizations NWB may Issue (Cont.)

Pilagutit NWB-kut Tunilaqtai (Huli)

- o Type “B” Water Licence
- o Type “A” Water Licence
- This week’s Technical Meeting, Community Session, and Pre-Hearing Conference are for a Type “A” water licence application filed to amend TMAC’s Type ‘A’ water licence 2AM-DOH1323
- o Qanugittunia “B” Imaqmun Laisa
- o Qanugittunia “A” Imaqmun Laisa
- Uumani havaguhiup Pitquhiliqutit Katimaniq, Nunaliuyunut Katimaniq, Naalaktititinagitlu Katimaniq taphumunga Qanugittunia “A” imaqmun laisa tukhigaut ihuaqhigianut TMAC-kut Qanugittunia ‘A’ imaqmun laisa 2AM-DOH1323



NWB Type “A” Licensing Process

NWB-kut Qanugittuni “A” Laisanut Pityuhit

Application
Received

Tukhigaut
Piyauyuq

Concordance and
Preliminary Technical
Review

Malikhaqnianut
Hivullitlu Pitquhit
Naunaiyaqni

Notice of Application
and Request for Tech
Review

Tuhaqhit
Tukhigautmun
Tukhiqnilu Pitquhit
Naunaiyaqni

We are here
Hamanittugut

Technical Meeting
Pitquhit Katimanit

Community Meeting
Nunaliuyut Katimani

Parties submit written
representations
Piqatauyut tuniyai
titigaqhimayut hatqiqtitnit



Type “A” Licensing Process Qanugittunia “A” Laisanut Pityuhi



Pre-Hearing Conference
Naalaktitiniahaqtitlugit
Katimaniq

PHC Decision Issued
Naalatitiniahaqtitlugit
Ihumaliugut Tuniyat

Notice of Public Hearing
(60 days minimum)
Tuhaqhit Naalakvikmik
(60 ublut ikitniahamik)



If directed in PHC
Decision applicant
provides additional info

Tiliuqtaukpat
Naalaktitiniahaqtitlugit
Ihumaliugutmi
tukhigaqtuq piqaqtitiyuq
ilagiagutininik tuhagakhat



Parties exchange written
interventions

Piqatauyut himmiqtautai
titigaqhimayut pityutit





Type “A” Licensing Process Qanugittunia “A” Laisanut Pityuhi



NWB holds Public Hearing

NWB-kut atuqtitat Inungnik Naalakvik



NWB issues decision to approve
Application and a draft licence to
Minister

NWB-kut tuniyat ihumaliugut
angiqtauyanga Tukhigaut uuktutlu laisa
Minihitauyumun

NWB issues decision not to approve
Application with reasons to Minister

NWB-kut tuniyat ihumaliugut
angingitnianik Tukhigaut pityutailu
Minihitauyumun



Minister approves (or does not) the
issuance of the WL

Minihitauyuq angiqta (angingita)
tuniyaunia Imaqmun Laisaittumik

Minister approves (or does not) NWB
Decision

Minihitauyuq angiqta (angingita)
NWB-kut Ihumaliuguta



Licences Issued to the Project

Laisauyut Tuniyauyut Havanguyumun

2AM-DOH0713

- Issued by the NWB on September 19, 2007 expired on September 30, 2013
- Authorized use of water of 480,000 cm/year and the deposit of Waste in support of a Mining and Milling undertaking
- Three approved Amendments:
 - No. 1 relocation of the Explosives Mixing and Storage Facility
 - No. 2 infrastructure expansion, set new monitoring stations
 - No.3 conditions applying to waste rock management

2AM-DOH0713

- Tuniyauyuq tapkunanga NWB-kut talvani Saptaiqa 19, 2007 nunguttuq talvani Saptaiqa 30, 2013
- Pilaqtitauyuq atuqnia imaq 480,000 cm/ukiumun iqaqnilu Iqakut ikayuqtuqhugu Uyagakhiurniq Havikhaliurniqlu havagiyauni
- Pingahut angiqtauhimayut Ihuaqhigiagutit :
 - No. 1 nuktigutit Qagaqtautitut Akuttivik Tutqumaviklu Havagutit
 - No. 2 Havagutit attaqtuhivalliqni, ihuaqhini nutat munaqhityutit havakvit
 - No.3 ayugakhat atuqnilgit iqakunut uyaqat aulataunit



Licences Issued to the Project (Cont.)

Laisauyut Tuniyauyut Havanguyumun (Huli)

2AM-DOH1323

- Issued by the NWB on August 16, 2013 will expiry on August 15, 2023
- Authorizes the use of 480,000 cm of Water/year and Waste disposal
- A mining rate of 720 tonnes per day of ore
- The subaqueous deposition of tailings into the Tail Lake (TIA as per Schedule 2 of MMER)
- The controlled discharge of effluent to Doris Creek from the TIA Security furnished \$13.090 million

2AM-DOH1323

- Tuniyauyuq tapkunanga NWB-kut talvani Aagasi 16, 2013 nungutniaq talvani Aagasi 15, 2023
- Pilagutit atuqinut 480,000 cm tapkuat imaq/ukiumun Iqakutlu iqaqni
- Uyakakhiurniqmun aktilat 720 tonnes ubluqmun havikhanik
- Tapkuat immap iluani ilauqaqnit uyagaktaqnikut talvunga Uyakaktaqnikut Tahiq (TIA-nga Atugakhalianga 2 tapkunani MMER)
- Tamna munagiyauyuq kuvittaqvut imaqtait halumaittut talvunga Doris Kuugauyaq talvunga TIA-nga Nautiumatit pipkaqtat \$13.090 milian



Doris North Project

Doris North Havanga

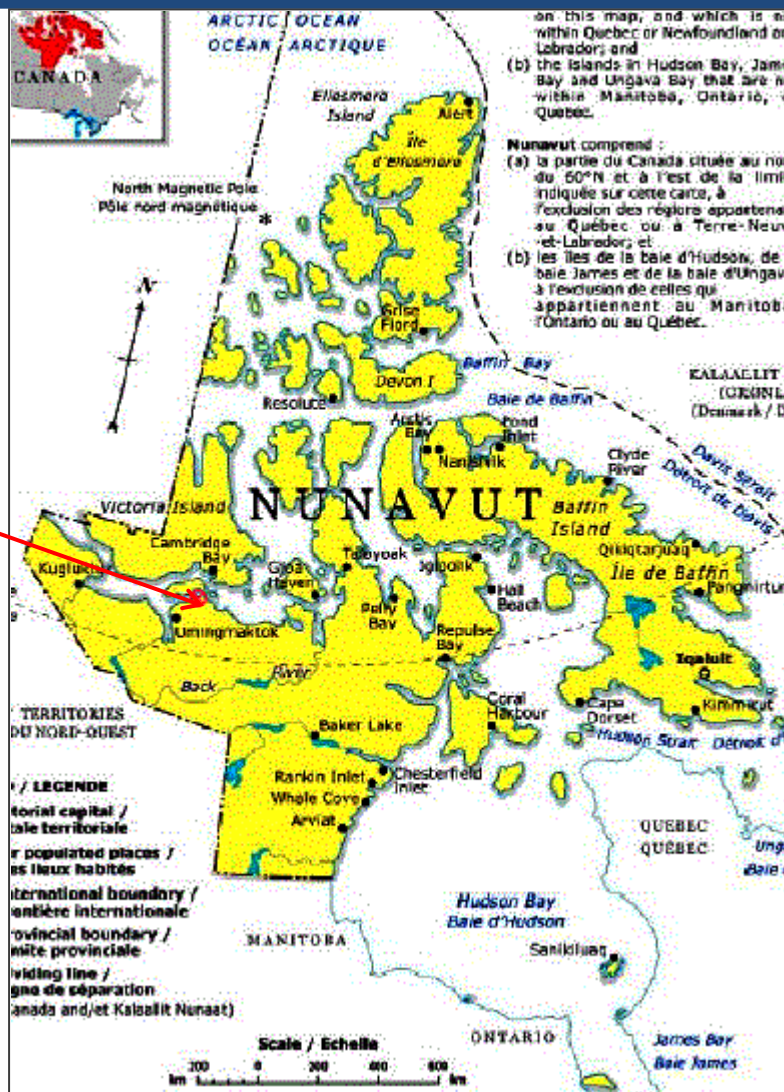




Project Location

Havap Inigiya

Doris North Project
Doris North Havanga





Project Overview

Havanguyuq Tamaat Takunia

Location:

- DNP is located on IOL in the Kitikmeot region South of Robert's Bay ~ 125 km SW of Cambridge Bay

General Description :

- Underground gold mine
- LOM 2 years
- Water sources: Doris & Windy Lakes
- Cyanide leaching process
- Gold Dore bars final product

Inigiya:

- DNP-kut inilik tahamani IOL-mi Kitikmeotni Nigiani Robert's Bay ~ 125 kilaamitat Nigingata Pingangnaani Ikaluktutiak

Tamaitnut Unniqtutit:

- Nunap iluani guulinut uyagakhiuqvik
- Uyagakhiuqviup Atuqnikha 2 ukiuk
- Imiqtaqviuyut: Dori tamnalu Windy Tahiit
- Cyanide maqininut pityuhit
- Guulit Kikagiknit kingulliappaq hanayat



Project Overview (Cont.)

Havanguyuq Tamaat Takunia (huli)

Current status of the Project:

- The Project was under C&M (temporary closure) from Jan 2009 until Summer 2015
- On April 2015 TMAC provided the Boards with notification of its intention to re-start construction activities at site
- Construction re-started in summer 2015
- Operations to start in Jan 2017

Tatya qanugitni Havanguyup:

- Tamna Havanguyuq maliktai Munagiyauyuq Ihuaqhihimanitlu (umikhimallakni) talvanga Januari 2009 Auyanut 2015
- Aipurumi 2015 TMAC piqaqtitai Katimayit tuhaqhitninik pigiaphaqniaqhihimanianik hanayauni huliniit havakvikmi
- Hanayaunia atulitqiktuq auyaani 2015
- Aulataunia pigiaqtukhaq Januari 2017



Application Scope – General Tukhigaut Havangi - Tamitnut

Proposed Changes: General

- LOM 6 years
- Initial mining and milling rate of 1,000 tpd up to 2,000 tpd
- Camp expansion (up to 280 personnel)
- Expanded laydown areas at Roberts Bay to better support sealift
- New landfill location (in a quarry site) for operational and closure waste

Uuktutit Ahianguqnit: Tamaitnut

- LOM 6 ukiunut
- Hivulliq uyagakhiurniq Havikhaliurniqlu aktilanga 1,000 tpd tikitlugu 2,000 tpd
- Hiniktaqvik attaqtuhigiaqnia (tikitlugu 280 havaktinut)
- Attaqtuhivalliqnia iliuqaqvik nuna talvani Roberts Bay nakuutqiyamik ikayuqtugianga umiakkuqnit
- Nutaq nunami iqaqvik inikha (iluani tuapaktaqviuyup) aulatyutikhainut hiamalaittumiklu iqakuqvik



Application Scope: Tailings

Tukhigaut Havakhai: Uyagaktaqviup Kuvittaqvia

Proposed Changes: Tailings Managment

- Subaerial tailings deposition
- Process gravity tailings (94%) to TIA
- Treated cyanide tailings (6%) underground
- South Dam design to include a frozen foundation
- New tailings retention structure:
 - Interim Dike constructed accross the midpoint of TIA

Uuktutit Ahianguqnit: Uyagaktaqnikut Kuvittaqvia Aulania

- Hilainaqhiqtut uyagaktaqnikut kuvittaqvi
- Havaknit kivittaqtut uyagaktaqnikut kuvittaqnit (94%) Kuvittaqvikmun
- Halumaqhaqhimayut cyanide kuvittaqnit (6%) nunap iluani
- Nigiani Haput hanatyuhikha ilalik qiqumayumik tunngavikha
- Nutaq kuvittaqvik huniumaitnia hanatyuhia :
 - Atulaktuq Haputa hanania ikaqhugu qitiqpaani Kuvittaqviup



Application Scope: Water Management

Tukhigaut Havakhai: Imaq Aulataunia

Proposed Changes: Water Managment

- Additional PCP
- Excess reclaim water
(up to 4,000 cum/day in summer) is treated for TSS, mixes with the saline groundwater and discharges to Roberts Bay (up to 7,000 m³/day summer)

Uuktutit Ahianguqnit: Imaq Aulataunia

- Ilagiaqnii PCP-ngi
- Avatqumani utiqtitait immait
(tikitlugu 4,000 cum/ubluqmun auyami) halumaqtiqhimayut Katitlugit Puktalaqtut Naptunit, akutni tagiuvaluknut maniqami imaqtainut kuviyauyutlu talvunga Roberts Bay (tikitlugu 7,000 m³/ubluqmun auyami)



Application Scope: Water Management (Cont.)

Tukhigaut Havakhai: Imaq Aulataunia (Huli)

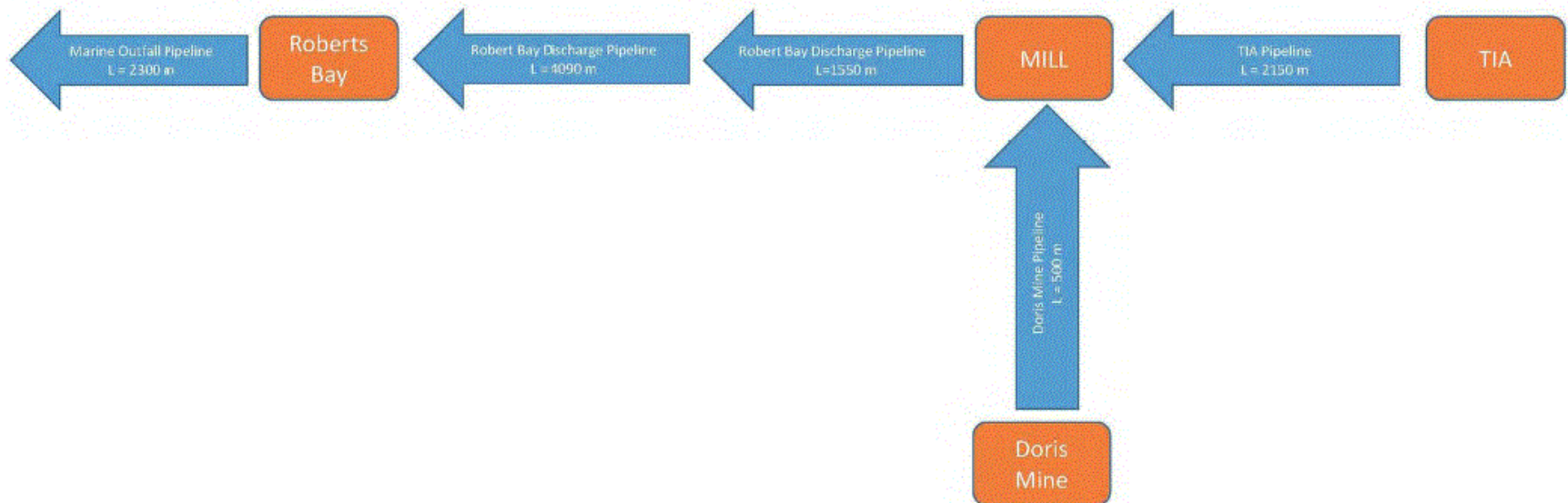
- Groundwater: discharge directly to Roberts Bay from mine (up to 3,000 cm per day, year round)
- Effluent:
 - MMER-compliant at end of pipe
 - CCME PAL (marine)-compliant at the end of the mixing zone
 - No onsite laboratory
- Maniqami Imaq: kuvigaqni tugaqpiaqhugu Roberts Bay uyagakhiurvikmin tikitlugu 3,000 cm ubluqmun, ukiunga tamaat)
- Imaqta Halumaittuqt:
 - MMER-nut malikhaqni ihuani huplup
 - CCME PAL-ngi (tagiumi)-malikhaqni ihuani akuttiviup
 - Piittuq havakvikmi naunaiyaivikmik



Application Scope: Water Management (Cont.)

Tukhigaut Havakhai: Imaq Aulataunia (Huli)

Roberts Bay Discharge System





Application Scope: C&R

Tukhigaut Havakhai: Umiknia Halumaqtinqnialu

Proposed changes: Closure & Reclamation Plan

- Tailings: 0.3 m rock cover and breaching of the North Dam
- TIA effluent: once compliant, discharge to Doris Creek (post-closure)
- All Waste Rock disposed of underground, none on surface
- Closure cost estimate: \$25M

Uuktutit Ahianguqnit: Umiknia Halummaqtinqnialu Upalungaiyaut

- Kuvittaqvut: 0.3 miitat uyaqat haunia nakataunialu tamna Ungalaani Haput
- Kuvittaqviup Imaqta Halumaittuq: malikhaliqat, kuvipkaqlugu talvunga Doris Kuugauyaq (umiqaqtitlugu)
- Tamaita Iqakut Uyagait iliuqaqnit nunap iluanut, piqalaittuq nunap qangani
- Umiknianut akitunia mikhautnia : \$25M



Application Procedural History Tukhigaut Pitquhit Atuqhimani

Current Status of the Application

- On June 15, 2015 the NWB received TMAC's application for amendment of Water Licence 2AM-DOH1323
- On June 23, 2015 the NIRB received a submission from TMAC which requested a reconsideration of the terms and conditions of the Doris Project Certificate No.003
- TMAC stated its desire for the NIRB's reconsideration process and the NWB's licensing process to proceed as a NIRB/NWB coordinated process

Tatya Qanugitnia Tukhigaut

- Talvani Juni 15, 2015 tapkuat NWB-kut pitaqtai TMAC-kut tukhigauta ihuaqhigiarnianut Imaqmun Laisa 2AM-DOH1323
- Talvani Juni 23, 2015 tapkuat NIRB-kut piyat tuniyaunia tapkunanga TMAC-kut tapkuat tukhiqni ihuamgitqikhaqnianut maligait atugialgitlu taphumunga Doris Havanguyuq Titigartaq No.003
- TMAC-kut uqaqtat piyumanit tapkununga NIRB-kutihumagitqikhaqnia pityuhit tapkuatlu NWB-kut laisaliqutinut pityuhi kayuhiquplugit NIRB-kut/NWB-kut ikayuqtigilutik pityuhi



Application Procedural History (Cont.) Tukhigaut Pitquhit Atuqhimani (Huli)

- On November 4, 2015 the NIRB and the NWB jointly provided notice that TMAC submissions to both Boards had complied with the NIRB and the NWB requirements
- As a result, the NIRB and the NWB commenced a coordinated public technical review period
- Details of the submissions received for the application were provided during the technical meeting today
- Talvani Nuvipa 4, 2015 tapkuat NIRB-kut tapkuatlu NWB-kut katutyiqatigikhutik piqaqtitat tuhaqhit tamna TMAC-kut tunihini tamatkiknut Katimayik malikhaqninik tapkununga NIRB-kut tapkuatlu NWB-kut piyaqaqtitnitnut
- Piplugu, tapkuat NIRB-kut tapkuatlu NWB-kut pigiaqtitat ikayuqtigikhutik inungnut pitquhiliqutit naunaiyaivikhat
- Unniqtuttiaqni tuniyauyut piyauni tukhigautmun piqaqtitauyut atuqtitlugu tamna pitquhiqnut katimaniq ublumi



Interveners' Participation Pityutilgit Piqatauni

- All submission are available on the NWB's FTP site
- Throughout the review process the Applicant, KIA, INAC, EC and DFO have all contributed in assisting the NWB moving the application to this stage of the process
- The NWB recognizes and appreciates the participation of the various parties and request that they continue to do so and work together for the remaining stages of the process
- Tamaita tuniyauyut piyaulat talvani NWB-kut FTP qagitauyakkuviani
- Atuqtitlugu naunaiyaqnia pityuhit tapkuat Tukhigaqtut, KIA-kut, INAC-kut, EC-kut tapkuatlu DFO-kut tamaqmik tunihiyut ikayutininik tapkununga NWB-kut nutitnia tukhigaut uumunga atugakhanut pityuhit
- Tapkuat NWB-kut ilittugiyai quyagiyailu piqatauni allatqit piqatauyut taimainginaquplugitlu havaqatigiknit iniqhalugu tamna pityuhit



Public Participation Inungnit Piqatauni

- This meeting is for the Board to obtain feedback and comments related to the application from members of the community
- The NWB encourages everyone in attendance to ask questions about the application and related issues
- If you would like to provide your questions in written form, please contact Ida Porter
- Una katimaniq piyuq Katimayit pitaqninik kiutyutit uqauhiuyutluis tugangayut tukhigautmun ilauyunit nunaliuyuni
- Tapkuat NWB-kut pinahuaquyai tamaita piqatauyut apiqhuiniq apiqutininik taphumunga tukhigautmun tugangayutlu pityutit
- Piqaqtitiumaguvit apiqutininik titiqatigut, tugaqvigilugu Ida Porter



Next Steps – NWB Process

Tukliit Atuqtakhat – NWB-kut Pityuhi

- With respect to the NIRB and NWB coordinated technical review approach, until the NIRB reconsideration process is complete the NWB will not proceed beyond this technical review stage of the Application
- The NWB will await the completion of the NIRB consideration of the Project Certificate Amendments before proceeding to the next step in the NWB's processing of the Application: the scheduling of the Pre – Hearing Conference
- Piplugu tapkuat NIRB-kut tapkuatlu NWB-kut ikayuqtigikhutik pitquhiliqutit naunaiyaqni pityuhiq, utaqilugulu tamna NIRB-kut ihumagitqikhaqnia pityuhiq iniaqtitlugu tapkuat NWB-kut kayuhilaittut avataanut uuma pitquhiquit naunaiyainiq Tukhigautmik
- Tapkuat NWB-kut utaqiniaqtat tamna iniqtaunia tamna NIRB-kut ihumagitqikhania tamna Havanguyumun Titigaqtaq Ihuaqhigiagut kayuhiniahaqlutik tuklikhanut atuqtakhat tapkunani NWB-kut pityuhit Tukhigautmun: tamna atugakhaliat Naalaktitiniahaqlutik Katimaniq



Next Steps – NWB Process (Cont.)

Tukliit Atuqtakhat – NWB-kut Pityuhi (Huli)

- Should the NIRB and/or the Minister conclude that the Project Certificate not be amended, the amendment process for the Water Licence would be suspended and would not proceed to the next stage
- Pikpata tapkuat NIRB-kut naunaiqhini tamna Havanguyuq Titigartaq ihuaqhigiangitpat, tamna ihuaqhigiagut pityuhiq Imaqmun Laisaliqutit nuqagatlakniaq kayuhilaittuqlu tuklikhainut atuqtakhat



NWB Staff Contact Information

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Any Questions or Comments? Kitutliqak Apiqutit Uqauhitluniit?

**THANK YOU!
QUANAQUTIN !**

