File No.: 2BE-ANG1823

May 18, 2018

Andrew Berry, Chief Operating Officer Kivalliq Energy Corporation Suite 1020-800 West Pender Street Vancouver, British Columbia V6C 2V6

Email: info@kivalliqenergy.com

RE: NWB Water Licence No. 2BE-ANG1823

Dear Mr. Berry:

Please find attached Licence No. **2BE-ANG1823** issued to Kivalliq Energy Corporation by the Nunavut Water Board (NWB) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Agreement)*. The terms and conditions of the attached Licence related to the use of Water and the deposit of Waste are an integral part of this approval.

If the Licensee contemplates the continuing of this Undertaking after the Water Licence expires, it is the responsibility of the Licensee to apply to for a new water licence. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the new Water Licence. Note that if the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee may be in contravention of the Nunavut Agreement and the Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA). However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the replacement of this Licence be filed at least three (3) months prior to the Licence expiry date. It should be noted that in accordance with s. 75(1)(a) of the Nunavut Planning and Project Assessment Act (NuPPAA), the Board is not allowed to issue a permit or authorization for any project proposal that has not been submitted to the Nunavut Planning Commission (NPC) in accordance with s. 76 of NuPPAA.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment, however,

a minimum of <u>sixty (60) days</u> is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and are acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received by Environment and Climate Change Canada (ECCC) and Fisheries and Oceans Canada (DFO) on issues identified. This information is attached for your consideration.¹

Sincerel	y	,
----------	---	---

Lootie Toomasie Nunavut Water Board, Chair

LT/kt/rqd

Enclosure: Licence No. 2BE-ANG1823

Comments – ECCC, DFO

Cc: Distribution List – Kivalliq

_

¹ Environment and Climate Change Canada (ECCC), April 19, 2018; and Fisheries and Oceans Canada (DFO), April 5, 2018;

TABLE OF CONTENTS

DECISIO	N	ii
WATER L	ICENCE	1
PART A:	SCOPE, DEFINITIONS AND ENFORCEMENT	2
1.	Scope	2
2.	Scope Definitions	2
3.	Enforcement	4
PART B:	GENERAL CONDITIONS	4
PART C:	CONDITIONS APPLYING TO WATER USE	6
PART D:	CONDITIONS APPLYING TO WASTE DISPOSAL	7
PART E:	CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND	
	OPERATIONS	8
PART F:	CONDITIONS APPLYING TO DRILLING OPERATIONS	
PART G:	CONDITIONS APPLYING TO MODIFICATIONS	9
PART H:	CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING	10
PART I:	CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OF	R
	TEMPORARY CLOSING	10
PART J:	CONDITIONS APPLYING TO THE MONITORING PROGRAM	12

DECISION

LICENCE NUMBER: 2BE-ANG1823

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated March 1, 2018 for a Water Licence made by:

KIVALLIQ ENERGY CORPORATION

to allow for the use of Water and the deposit of Waste during camp operations and activities related to exploration that include drilling, staking, geological mapping, rock and soil/till sampling, airborne and ground geophysics, trenching and the establishment of fuel caches at the Angilak Project located within the Kivalliq Region, Nunavut, generally located at the geographical coordinates as follows:

Project Extents:

Latitude: 62° 47' 14" N
Latitude: 62° 47' 10" N
Latitude: 62° 27' 35" N
Latitude: 62° 27' 38" N
Latitude: 62° 27' 38" N
Longitude: 99° 24' 15" W
Longitude: 98° 21' 40" W
Longitude: 98° 22' 00" W
Longitude: 99° 23' 55" W

Camp Location:

Latitude: 62° 34' 15" N Longitude: 98° 27' 20" W

DECISION

After having been satisfied that the Application is for a proposal that was previously reviewed by the NPC for which the conformity determination, dated April 29, 2008, remains applicable; that the activities were previously screened by the Nunavut Impact Review Board (NIRB file 08EN052); and the project proposal is exempt from the *Nunavut Planning and Project Assessment Act* (NUPPAA) under section 235 of that Act; the NWB decided that the application could proceed through the regulatory process¹. In accordance with s. 55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (*NWNSRTA* or *Act*) and Article 13 of the *Nunavut Agreement*, public notice of the Application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *Nunavut Agreement* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

Licence No. 2BE-ANG1318 be replaced as Licence No. 2BE-ANG1823 subject to the terms and conditions contained therein. (Motion #: 2018-B1-009)

ii

¹NPC Letter, dated March 13, 2018

Signed this <u>18th</u> da	y of	May, 2018	at Gjoa Haven, I	NU.

Lootie Toomasie Nunavut Water Board,

Chair

LT/kt/rqd

Background

The Angilak Project is a uranium exploration project located approximately 240 kilometres southwest of Baker Lake, within the Kivalliq Region of Nunavut. The Project is owned and operated by Kivalliq Energy Corporation.

The Project's exploration program includes: sampling and prospecting and geological mapping; drilling; trenching; and geophysical surveys. Project infrastructure includes: a fuel cache (up to 3000 drums of fuel) and fuel storage; camp which has accommodated up to 55 persons; and a 350 metre long airstrip.

Procedural History

On March 1, 2018 the Nunavut Water Board (NWB or Board) received from Kivalliq Energy Corporation the following documents in support of the renewal of Licence 2BE-ANG0813:

- Application for Licence renewal cover letter;
- Application for water licence renewal;
- Executive summary in English;
- Executive summary in Inuktitut;
- 2018 Angilak Property Workplan;
- 2013 NWB Renewal Licence;
- 2014 NWB Licence Amendment;
- 2016 NWB Licence Modification;
- Authorization Letter;
- Certificates of Incorporation Name Change;
- Financial Statement;
- Spill Contingency Plan;
- Fuel Management Plan;
- Environmental and Wildlife Management Plan;
- Abandonment and Restoration Plan;
- Emergency Response Plan;
- Waste Management Plan;
- Community Consultation Log;
- NPC documents;
- NIRB Amend Application Exempt;
- NIRB Screening Decision Report;
- Land Use Permit Inspection Form;

On March 15, 2018, the Abandonment and Restoration Plan and Spill Contingency Plan were resubmitted and on March 22, 2018 the NWB received a Renewal Application Clarification email regarding sewage disposal.

On March 23, 2018 the NWB acknowledged receipt and distributed the application to interested persons for a thirty-day comment and review period. On or before the deadline for comments, submissions were received from Department of Fisheries and Oceans Canada (DFO) and

Environment and Climate Change Canada (ECCC). DFO commented that the project is one that does not require a Fisheries Act authorization given that serious harm to fish can be avoided by following standard measures including the 'Freshwater Intake End-of-Pipe Fish Screen Guideline'. ECCC submitted that it had no comments at this time.

The original licence, 2BE-ANG0813, for the project was issued on August 5, 2008 with the expiry date set for March 31, 2013. The licence allowed for the use of fifty-eight (58) cubic metres of water per day in support of camp and exploration activities including drilling, prospecting, staking, and geological mapping. On January 22, 2010, following a request from the proponent, the NWB amended the licence (Amendment No.1) to allow for the relocation of the camp associated with the project to its current location. On July 21, 2010, the NWB amended that Licence once more (Amendment No. 2) to allow for an increase in water use from fifty-eight (58) cubic metres per day to one hundred (100) cubic metres per day to support additional drilling activities.

Licence 2BE-ANG0813 was renewed as 2BE-ANG1318 on March 4, 2013 with an expiry date set for March 3, 2018. On July 10, 2014, following a request from the proponent, the NWB amended the licence (Amendment No. 1) to increase the total quantity of allowable water use to two hundred and nine-nine (299) cubic metres per day (two hundred and ninety-six (296) cubic metres per day for drilling and three (3) cubic metres per day for domestic camp use.)

On May 20, 2016, the NWB issued an approval for a modification (Modification No. 1) to allow for the use of a small portable excavator to clean out and extend some historical trenches that were excavated within the project area in the 1980s.

Uranium Exploration Plan

The Board acknowledges receipt on September 12, 2014 of the Licensee's plan entitled "Uranium Exploration Plan 2014 Nunavut Water Board Licence No. 2BE-ANG1318" dated August 19, 2014, submitted in accordance with the previous Licence condition in Part F Item 1 as well as in accordance with an AANDC Inspection of July 22, 2014. On December 11, 2014, the NWB distributed the Plan to interested persons. The Board has updated the condition in Part F Item 1 of the renewal Licence accepting the 2014 Plan and requiring the Licensee to submit to the Board for approval, within sixty (60) days of issuance of this Licence, an updated Uranium Exploration Plan.

In addition, the Board reminds the Licensee of the condition in Part B Item 7 requiring the Licensee to review the Plans referred to in the Licence as required by changes in operation and/or technology, and to modify the Plans accordingly for inclusion with the Annual Report.

Spill Contingency Plan

The Board has updated the condition in Part H Item 1 of the Licence to approve of the Plan entitled "Spill Contingency Plan Angilak Property Kivalliq Energy Corporation" dated March 1, 2018 that was submitted as additional information with the Application.

In addition, the Board reminds the Licensee of the condition in Part B Item 7 requiring the Licensee to review the Plans referred to in the Licence as required by changes in operation and/or technology, and to modify the Plans accordingly for inclusion with the Annual Report.

Abandonment and Restoration

The Board has updated the condition in Part I Item 1 of the Licence to approve the Plan entitled "Abandonment and Restoration Plan Angilak Property Kivalliq Energy Corporation" dated March 1, 2018 that was submitted as additional information with the Application.

In addition, the Board reminds the Licensee of the condition in Part B Item 7 requiring the Licensee to review the Plans referred to in the Licence as required by changes in operation and/or technology, and to modify the Plans accordingly for inclusion with the Annual Report.

Part I of the Licence have been updated to include conditions allowing drill casing to be left on site for up to two (2) years if the Licensee intends to continue drilling in existing casings, provided that signage is posted; and requiring drill holes to be sealed by cementing the upper 30 metres of bedrock or the entire depth of the hole, whichever is less, or as otherwise approved by the Board.



NUNAVUT WATER BOARD WATER LICENCE

Licence No. 2BE-ANG1823

Pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

KIVALLIQ ENERGY CORPORATION

(Licensee)

1020 – 800 WEST PENDER STREET, VANCOUVER, BC, V6C 2V6

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water or dispose of Waste for a period subject to restrictions and conditions contained within this Licence:

Licence Number/Type: **2BE-ANG1318 TYPE "B"**

Water Management Area: KAZAN - 07

Location: ANGILAK PROJECT

KIVALLIQ REGION, NUNAVUT

Classification: MINING UNDERTAKING

Purpose: DIRECT USE OF WATER AND DEPOSIT OF WASTE

Quantity of Water use not

to Exceed: TWO HUNDRED AND NINETY-NINE CUBIC METRES

PER DAY

Date of Licence Issuance: MAY 18, 2018

Expiry of Licence: MAY 17, 2023

This Licence replacement, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

Lootie Toomasie

Nunavut Water Board, Chair

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. **Scope**

This Licence allows for the use of Water and the deposit of Waste for a Mining undertaking classified as per Schedule 1 of the *Regulations* at the Angilak Project, located approximately 240 km southwest of Baker Lake within the Kivalliq Region, Nunavut.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the deposit of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing *Regulations* are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. **Definitions**

"Act" means the Nunavut Waters and Nunavut Surface Rights Tribunal Act;

"<u>Addendum</u>" means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

"<u>Amendment</u>" means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

"Applicant" means the Licensee;

"Appurtenant Undertaking" means an undertaking in relation to which a use of water or a deposit of Waste is permitted by a licence issued by the Board;

"Board" means the Nunavut Water Board established under the *Nunavut Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

"Closure and Reclamation Plan" means a Plan developed to reach the closure goal and taking in account the "Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories" 2013;

"Effluent" means treated or untreated liquid Waste material that is discharged into the

environment from a structure such as a settling pond, landfarm or a treatment plant;

- "Engineer" means a professional engineer registered to practice in Nunavut in accordance with the Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2 and the Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12;
- "Greywater" means all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet Wastes;
- "High Water Mark" means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities);
- "<u>ICP Scan</u>" means the laboratory method for determining trace metals in water through Emission Spectroscopy using inductively coupled plasma (including from approximately 22 to 32 elements, depending on the laboratory performing the analysis);
- "Inspector" means an Inspector designated by the Minister under Section 85 (1) of the *Act*:
- "Licensee" means the holder of this Licence;
- "<u>Modification</u>" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;
- "Nunavut Agreement" means the "Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada", including its preamble and schedules, and any amendments to that agreement made pursuant to it;
- "Regulations" means the Nunavut Waters Regulations SOR/2013-69 18th April, 2013;
- "Secondary Containment" means an impermeable structure, external to and separate from primary containment, which prevents unplanned spills of hazardous materials and provides a minimum capacity of 110% of the original vessel. Where multiple vessels are stored within the containment, it must provide a minimum capacity equal to the sum of the largest vessel and 10% of the aggregate volume of all other vessels located in the containment. This structure shall also provide containment and control of hoses and nozzles;
- "Sewage" means all toilet Wastes and greywater;
- "<u>Spill Contingency Plan</u>" means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;

"Sump or Sumps" A structure or depression that collects, controls, and filters liquid Waste before it is released to the environment. This structure should be designed to prevent erosion while allowing percolation of liquid Waste;

"<u>Toilet Wastes</u>" means all human excreta and associated products, but does not include greywater;

"Waste" means, as defined in s. 4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means;

"Water" or "Waters" means waters as defined in section 4 of the Act.

3. **Enforcement**

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of Waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

PART B: GENERAL CONDITIONS

- 1. The fees payable to the Receiver General for Canada for the right to use Waters, shall be sent to the Board annually in accordance with Section 12 of the *Regulations*.
- 2. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31st of the year following the calendar year being reported, containing the following information:
 - a. A summary report of Water use and Waste disposal activities;
 - b. Quantity of Water (in cubic metres/day) obtained for domestic and other purposes from sources on, in or flowing through Inuit-owned lands for the reporting period;
 - c. Quantity of Water (in cubic metres/day) obtained for domestic and other purposes from sources on, in or flowing through Crown Lands reporting period;
 - d. Quantity of Waste disposed of on on-site Waste disposal facility;
 - e. Quantity of Waste backhauled to approved facility for disposal;
 - f. A list of unauthorized discharges and summary of follow-up actions taken;
 - g. Any revisions to the Spill Contingency Plan, Abandonment and Restoration Plan;

- and Uranium Exploration Plan, as required by Part B, Item 7, submitted in the form of an addendum;
- h. A description of all progressive and or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
- i. Report all artesian flow occurrences as required under Part F, Item 6;
- j. The depth of permafrost and location of the drill hole where drilling activity has penetrated below the permafrost layer;
- k. A summary of all information requested and results of the Monitoring Program;
- 1. Any other details on Water use or Waste disposal requested by the Board by the 1st November of the year being reported.
- 3. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
- 4. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of Water volumes as required under Part J, Item 1.
- 5. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.
- 6. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
- 7. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
- 8. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
- 9. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

(a) Manager of Licensing:

Nunavut Water Board P.O. Box 119

Gjoa Haven, NU X0B 1J0 Telephone: (867) 360-6338 Fax: (867) 360-6369

Email: licensing@nwb-oen.ca

(b) Inspector Contact:

Manager of Field Operations, INAC Nunavut District, Nunavut Region P.O. Box 100 Iqaluit, NU X0A 0H0

Telephone: (867) 975-4295 Fax: (867) 979-6445

- 10. The Licensee shall submit one (1) paper copy and one (1) electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.
- 11. The Licensee shall ensure that all documents or correspondence submitted by the Licensee to the NWB are received and acknowledged by the Manager of Licensing.
- 12. This Licence is assignable as provided for in Section 44 of the *Act*.
- 13. The expiry or cancellation of this Licence does not relieve the Licensee from any obligation imposed by the Licence, or any other regulatory requirement.

PART C: CONDITIONS APPLYING TO WATER USE

- 1. The Licensee shall obtain all Water for domestic camp use from Nutaaq Lake, not exceeding three (3) cubic metres per day. Drill water shall be obtained from sources, proximal to the drilling targets and shall not exceed two hundred and ninety-six (296) cubic metres per day. Total water use, for all purposes associated with the Angilak Project shall not exceed two hundred and nine-nine (299) cubic metres per day.
- 2. Streams cannot be used as a water source unless authorized and approved by the Board in writing.
- 3. If the Licensee requires water in sufficient volume that the source water body may be drawn down the Licensee shall, at least thirty (30) days prior to commencement of use of water, submit to the Board for approval in writing, the following: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.
- 4. The Licensee shall equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw Water at a rate such that fish do not become impinged on the screen.
- 5. The Licensee shall not conduct any work below the ordinary High Water Mark of any water body unless approved by the Board in writing.
- 6. The Licensee shall not cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.

7. Sediment and erosion control measures shall be implemented prior to and maintained during the undertaking to prevent entry of sediment into Water.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

- 1. The Licensee shall locate areas designated for Waste disposal at a minimum distance of thirty-one (31) metres from the ordinary High Water Mark of any water body such that the quality, quantity or flow of Water is not impaired, unless otherwise approved by the Board in writing.
- 2. The Licensee shall not practice on-site land filling of domestic Waste, unless otherwise approved by the Board in writing.
- 3. The Licensee is authorized to dispose of all acceptable food Waste, paper Waste and untreated wood products in an incinerator.
- 4. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of Waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding Waters, unless otherwise approved by the Board in writing.
- 5. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving wastes from the Angilak Project prior to any backhauling and/or disposal of wastes to those communities.
- 6. The Licensee shall backhaul and dispose of all hazardous Wastes, Waste oil and non-combustible Waste generated through the course of the operation at a licensed Waste disposal site.
- 7. The Licensee shall maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste. These records shall be made available to an Inspector upon request.
- 8. The Licensee shall contain all greywater in a Sump located at a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, unless otherwise approved by the Board in writing.
- 9. The Licensee shall contain all toilet wastes in latrine pits or use incineration, chemical, portable or composting toilets. Latrine pits shall be located at a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any water body, treated with lime and covered with native material to achieve the pre-existing natural contours of the land prior to abandonment.
- 10. The Licensee shall dispose of all toilet wastes through incineration, chemical or composting toilets. Any remaining residue generated through the course of the operation

PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

- 1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including the immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
- 2. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.
- 3. The Licensee shall construct all winter lake and stream crossings, including ice bridges, entirely of Water, ice or snow. The Licensee shall minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
- 4. Stream crossing shall be a minimum of five hundred (500) meters from spawning areas.
- 5. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter the Water.
- 6. The Licensee shall not mobilize heavy equipment or vehicles for trenching or other activities unless the ground surface is capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall be suspended if rutting occurs.

PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS

- 1. The Board has approved the plan entitled "Kivalliq Energy Corporation Uranium Exploration Plan, Angilak Property" dated February 2008 and accepted the plan entitled "Uranium Exploration Plan 2014 Nunavut Water Board Licence No. 2BE-ANG1318" dated August 19, 2014, that was submitted September 12, 2014 in accordance with Part F Item 1 of the previous licence. The Licensee is however, required to submit to the Board for approval, within sixty (60) days of issuance of this Licence, an updated Uranium Exploration Plan.
- 2. The Licensee shall not conduct any land based drilling within thirty-one (31) metres of the ordinary High Water Mark of any water body, unless otherwise approved the Board in writing.
- 3. The Licensee shall dispose of all drill waste, including Water, chips, muds and salts

(CaCl₂) in any quantity or concentration, from land-based and on-ice drilling, in a properly constructed Sump or an appropriate natural depression located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.

- 4. Drill mud solids or cuttings with a uranium concentration greater than 0.05 percent are to be collected and then disposed of down the drill hole and sealed.
- 5. Where drilling activity has penetrated below the permafrost layer, the NWB requests that the proponent record the depth of permafrost and location of the drill hole to be included within the Annual Report.
- 6. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface Waters. The Licensee shall report all artesian flow occurrences within the Annual Report, including the location (GPS coordinates) and dates.
- 7. Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the Water, or are demonstrated to be non-toxic.
- 8. For "on-ice" drilling where drill additives are not being used, return Water released must be nontoxic, and not result in an increase in total suspended solids in the immediate receiving Waters, above the Canadian Council of Ministers for the Environment, Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
- 9. The Licensee shall establish water quality conditions prior to and upon completion of any drilling program through lake ice.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

- 1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
 - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
 - c. such Modifications are consistent with the NIRB Screening Decision;
 - d. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
 - e. the Board has not rejected the proposed Modifications.

- 2. Modifications for which all of the conditions referred to in Part G, Item 1 have not been met can be carried out only with written approval from the Board.
- 3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

- 1. The Board has approved the Plan entitled "Spill Contingency Plan Angilak Property Kivalliq Energy Corporation" dated March 1, 2018 that was submitted as additional information with the Application.
- 2. The Licensee shall prevent any chemicals, petroleum products or Wastes associated with the project from entering Water. All Sumps and fuel caches shall be located at a distance of at least thirty-one (31) metres from the ordinary High Water Mark of any adjacent water body and inspected on a regular basis.
- 3. The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other Waste and contain potential spills.
- 4. If during the term of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a. Employ the approved Spill Contingency Plan;
 - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
 - c. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.
- 5. The Licensee shall, in addition to Part H, Item 5, regardless of the quantity of releases of harmful substances, report to the NWT/NU Spill Line if the release is near or into a Water body.

PART I: CONDITIONS APPLYING TO CLOSURE AND RECLAMATION OR TEMPORARY CLOSURE

- 1. The Board has approved the Plan entitled "Abandonment and Restoration Plan Angilak Property Kivalliq Energy Corporation" dated March 1, 2018 that was submitted as additional information with the Application.
- 2. The Licensee shall complete all restoration work prior to the expiry of this Licence.

- 3. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
- 4. The Licensee shall backfill and restore all sumps, sewage/ washwater pits to the preexisting natural contours of the land.
- 5. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, buildings and contents, docks, water intakes, pumps and lines, material and equipment prior to the expiry of this Licence.
- 6. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.
- 7. The Licensee shall remove any culverts and restore the drainage to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
- 8. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
- 9. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, 2010. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
- 10. The Licensee shall restore all drill holes and disturbed areas to natural conditions immediately upon completion of the drilling. The restoration of drill holes must include the removal of any drill casing materials and if having encountered artesian flow, the capping of holes with a permanent seal. Where drill casings cannot be removed the Licensee shall cut off the casings at ground level and identify with signage.
- 11. The Licensee may leave the casings on site, if it intends to continue drilling in existing casings, but shall add signaling to keep the area safe for the other territory users. The drill casings left cannot stay on the field for more than 2 years after the drilling.
- 12. The Licensee may store drill core produced by the appurtenant undertaking in an appropriate manner and location at least thirty one (31) metres above the ordinary High Water Mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created.
- 13. For the long term storage of drill core, radiation levels must be reduced to less than 1.0 μ Sv measured at 1 metre from the surface and in no instance is the level allowed to exceed 2.5 μ Sv.
- 14. Any drill hole that encounters mineralization with a uranium content greater than 1.0 percent over a length >1.0 metre, and with a meter-percent concentration >5.0, will be sealed by grouting over the entire length of the mineralization zone and not less than 10

meters above or below each mineralization zone.

- 15. Drill holes are to be sealed by cementing (grouting) the upper 30 metres of bedrock or the entire depth of the hole, whichever is less or as otherwise approved by the Board in writing.
- 16. If the radiation levels for the stored core exceed the levels identified in Part I, Item 13, the Licensee shall submit to the INAC Water Resources Inspector, a detailed report of the test results and the proposed long term core handling and mitigation measures for long term storage or removal.
- 17. The Licensee shall contour and stabilize all disturbed areas to reduce erosion and sedimentation to Water, upon completion of the undertaking and as per Part I, Item 3.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

- 1. The Licensee shall measure and record, in cubic metres, the daily quantities of water that are used from sources located on, in or flowing through Crown Land, utilized for camp, drilling and other purposes.
- 2. The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of Water are utilized for all purposes.
- 3. The Licensee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes associated with camp operations and drilling operations are deposited.
- 4. The Licensee shall obtain representative samples of the Water column below any ice where required under Part F, Item 9. Monitoring shall include but not be limited to the following:

Total Suspended Solids

pН

Electrical Conductivity,

Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and

Trace Arsenic and Mercury

- 5. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board in writing.
- 6. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.

- 7. Where uranium mineralization has been encountered, under Part F, Item 4 and Part I, Items 13 and 14, the Licensee shall monitor the drill Sumps and core storage areas to provide the necessary data needed in order to assess and ensure that the mitigation measures required for restoration under the Abandonment and Restoration Plan have been completed.
- 8. The Licensee shall include in the Annual Report required under Part B, Item 3 all data, monitoring results and information required by this Part.