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November 23, 2022

File: G22L1-005

Katie Oliver
General Manager, Environmental Consulting
KBL Environmental Ltd.
#17 Cameron Road
P.O. Box 1895
Yellowknife, NT X1A 2P4

Sent by email

Dear Katie,

Re: KBL Inuvik Soil Treatment Facility – Type B Water Licence G22L1-005 – Issuance Package

The Gwich'in Land and Water Board (Board) met on November 18, 2022, and considered the Type B water Licence Renewal Application Package submitted by KBL Environmental Ltd, for the deposit of waste in association with the Inuvik Soil Treatment Facility, in accordance with the *Waters Act*.

The Board has approved Water Licence (Licence) G22L3-001 (attached) for a term of five (5) years, effective November 18, 2022 and expiring November 17, 2027. The Licence is supported by the Board's Reasons for Decision. These documents are posted to the Board's Public Registry.¹

Submission Requirements

Please refer to Annex B of the Licence for a complete summary and timetable of submissions required for this Licence. The Board's decisions on submissions that were considered in conjunction with the renewal Application Package are set out below.

Part C: Updated Closure Cost Estimate

The Board directs KBL to submit an updated closure cost estimate using the current version of RECLAIM (or another method acceptable to the Board), within 30 days of Licence issuance.

This Licence includes standard conditions that allow the Board to request an updated closure cost estimate from the Licensee at any time, and to adjust the security amount at any time, based on available

¹ See GLWB Online Registry www.glwb.com for file [G22L1-005](#)

information. The Board expects the Licensee to work with the landowner during the development of any closure cost estimate revisions, to ensure their concerns and recommendations are addressed. Once submitted, the updated closure cost estimate will undergo a public review prior to Board decision.

Part F: Revised Waste Management Plan

The Board directs KBL to submit a revised Waste Management Plan for approval within thirty days of Licence Issuance. The Board understands that KBL has developed an updated WMP, as references to it were made during the responses to ENR comments submitted during the public review of the Application materials.

The Board has reviewed KBL's submissions and notes that WMP V.2.2 (last revised Feb 2021) was received from the Applicant as part of the Application package. It was this version that was posted to the GLWB public registry and subsequently uploaded to the ORS. This version does not contain the information referred to by KBL in its responses to ENR, and no more recent versions of the Waste Management Plan have been made available to the Board.

The revised WMP shall contain the information that was referred to during the regulatory proceeding. The Plan will be considered approved when the Licensee receives written confirmation of conformity from Board staff. A public review will typically not be required to confirm conformity; however, if the revised Plan includes additional information beyond what has been requested, a public review may be required before it can be considered by the Board.

Contact information for Inspectors and Analyst

Please note that the Inspectors referred to in the Licence can be contacted at the regional GNWT-ENR offices.² The Analyst referred to in the Surveillance Network Program annexed to the Licence can be contacted at the Taiga Environmental Laboratory.³

Licence Processes and Additional Information

Sections 5 and 6 of the Board's *Guide to the Water Licensing Process*⁴ (Guide) contain detailed information on Licence enforcement and potential post-issuance processes, such as amendments to conditions, and assignment to another company. Please be familiar with these sections of the Guide and reach out to Board staff with any questions about Board processes related to the Licence.

² See GNWT-ENR Regional Offices webpage (<https://www.enr.gov.nt.ca/en/regional-offices>) for regional contact information.

³ See GNWT-ENR Taiga Environmental Laboratory webpage (<https://www.enr.gov.nt.ca/en/services/taiga-environmental-laboratory>) for contact information.

⁴ See GLWB Policies and Guidelines webpage for MVLWB [Guide to the Water Licensing Process](#).

The full cooperation of KBL with the terms and conditions of this Licence is anticipated and appreciated. The Board emphasizes the importance ongoing engagement and compliance throughout the life of project, and trusts that KBL will carry out it's operations in an environmentally responsible manner.

Please contact Regulatory Specialist AlecSandra Macdonald at (867) 777-4954 with any questions or concerns regarding this letter.

Yours sincerely, Elizabeth Wright
Chair, Gwich'in Land and Water Board

BCC'd to: GLWB Distribution List
Attached: Water Licence G22L1-005
Reasons for Decision



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Water Licence G22L1-005

Pursuant to the *Waters Act* and the Waters Regulations,
the Gwich'in Land and Water Board grants this Water Licence to:

KBL Environmental Ltd.

(Licensee)

of 17 Cameron Road, P.O. Box 1895 Yellowknife, NT X1A 2P4

(Mailing Address)

hereinafter called the Licensee, to proceed with the following undertaking, subject to the annexed definitions and conditions contained therein:

Location:	Inuvik Soil Treatment Facility, Inuvik NT
Water Management Area:	Northwest Territories 03
Purpose:	Industrial – Deposit of Waste
Type:	B Renewal
Quantity of Water not to be exceeded:	Not Applicable
Effective Date:	November 18, 2022
Expiry Date:	November 17, 2027

Elizabeth Wright, Chair
Gwich'in Land and Water Board

Leonard Debastien, Witness

Type B Water Licence G22L1-005
KBL Environmental Ltd. – Inuvik Soil Treatment Facility

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	Part A: Scope and Defined Terms	
	Scope:	Condition Title
1.	<p>This Licence entitles the Licensee to deposit Waste for industrial activities at the Inuvik Soil Treatment Facility.</p> <p>The scope of this Licence includes the following:</p> <ul style="list-style-type: none"> a) Depositing of Waste; b) Construction, operation, and maintenance of the Inuvik Soil Treatment Facility; and c) Progressive Reclamation and associated Closure and Reclamation activities. 	SCOPE
2.	<p>This Licence is issued subject to the conditions contained herein with respect to the use of Water and the deposit of Waste 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. Any change made to the <i>Waters Act</i> and/or Waters Regulations that affects licence conditions and defined terms will be deemed to have amended this Licence.</p>	LEGISLATION SUBJECT TO CHANGE
3.	<p>Compliance with this Licence does not relieve the Licensee from responsibility for compliance with the requirements of any applicable federal, territorial, or municipal legislation.</p>	LEGISLATIVE COMPLIANCE

Defined Terms ¹
Analyst – an Analyst designated by the Minister under subsection 65(1) of the <i>Waters Act</i> .
Board – the Gwich'in Land and Water Board established under Part 3 of the <i>Mackenzie Valley Resource Management Act</i> .
Biotreatment Pad – the engineered infrastructure designed to contain and treat hydrocarbon contaminated soil as described in <i>Operations and Maintenance Plan: Inuvik Soil and Treatment Facility</i> .
Closure Cost Estimate - an estimate of the cost to close and reclaim the Project.
Closure and Reclamation – the process and activities that facilitate the return of areas affected by the Project to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and human activities.
Closure and Reclamation Plan (CRP) – a document, developed in accordance with this Licence, that clearly describes the Closure and Reclamation for the Project.
Composite Soil Sample – three or more discrete soil samples which have been collected by a qualified person and combined into a single sample, representing the average conditions in the soil.
Construction – any activities undertaken during any phase of the Project to construct, build, upgrade, or replace any structures, facilities, or components of, or associated with, the Project.
Discharge – a direct or indirect deposit or release of any Water or Waste to the Receiving Environment.
Effluent – a Wastewater Discharge.
Effluent Quality Criteria (EQC) – numerical or narrative limits on the quality or quantity of the Waste deposited to the Receiving Environment.
Engagement Plan – a document, developed in accordance with the MVLWB <i>Engagement and Consultation Policy</i> and the <i>Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits</i> , that clearly describes how, when, and which engagement activities will occur with an affected party during the life of the Project.

¹ Defined terms are capitalized throughout the License, including when used in other definitions.
Water Licence – KBL Environmental Ltd. – Inuvik Soil Treatment Facility – 2022 Renewal

Defined Terms ¹
Engineered Structure – any structure or facility related to Water Use or the deposit of Waste that is designed by a Professional Engineer.
Freeboard – the vertical distance between the Water or Wastewater line and the lowest elevation of the effective Water or Wastewater containment crest on the upstream slope of a containment structure.
Groundwater – as defined in section 1 of the Waters Regulations: all water in a zone of saturation below the land surface, regardless of its origin.
Inspector – an Inspector designated by the Minister under subsection 65(1) of the <i>Waters Act</i> .
The Inuvik Soil Treatment Facility (or Hydrocarbon-Contaminated Soil Treatment Facilities) – the area(s) and Engineered Structures designated to contain and treat hydrocarbon-contaminated sediments and soil.
Leachate – water that has percolated through the soil on the Biotreatment pad and may contain some of the constituents.
Licensee – the holder of this Licence.
Maximum Grab Concentration – the concentration of a parameter that cannot be exceeded in any one analytical result.
Minister – the Minister of the Government of the Northwest Territories (GNWT) – Environment and Natural Resources.
Ordinary High-Water Mark – the usual or average level to which a Watercourse rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing Watercourses (rivers, streams), this refers to an active channel/bank-full level, which is often the 1:2-year flood flow return level. In inland lakes, wetlands or marine environments, it refers to those parts of the Watercourse bed and banks that are frequently flooded by Water so as to leave a mark on the land and where the natural vegetation changes from predominantly aquatic vegetation to terrestrial vegetation (excepting Water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).
Professional Engineer – a person registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists to practice as a Professional Engineer in the Northwest Territories as per the territorial <i>Engineering and Geoscience Professions Act</i> and whose professional field of specialization is appropriate to address the components of the Project at hand.
Progressive Reclamation – Closure and Reclamation activities conducted during the operating phase of the Project.

Defined Terms ¹
Project – the undertaking described in Part A, Condition 1.
Receiving Environment – the natural environment that, directly or indirectly, receives any deposit of Waste from the Project.
RECLAIM – the Government of the Northwest Territories’ model for estimating Closure and Reclamation costs.
Remediation – the removal, reduction, or neutralization of substances, Wastes, or hazardous materials from a site in order to prevent or minimize any adverse effects on the environment and public safety, now or in the future.
Runoff – the overland flow of Water or Wastewater that occurs when precipitation, meltwater, or other Water is not absorbed by the land.
Seepage – any Water or Waste that drains, passes through, or escapes from any structure designed to contain, withhold, divert, or retain Water or Waste.
Spill Contingency Plan (SCP) – a document developed for the Project in accordance with INAC’s <i>Guidelines for Spill Contingency Planning</i> .
Surveillance Network Program (SNP) – a monitoring program required by this Licence and detailed in Annex A.
Unauthorized Discharge – a Discharge of any Water or Waste not authorized under this Licence.
<p>Waste – as defined in section 1 of the <i>Waters Act</i>:</p> <ul style="list-style-type: none"> a) a substance that, if added to water, would degrade or alter or form part of a process of degradation or alteration of the quality of the water to an extent that is detrimental to its use by people or by an animal, fish or plant, or b) water that contains a substance in such a quantity or concentration, or that has been so treated, processed or changed, by heat or other means, that it would, if added to other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water to the extent described in paragraph (a), <p>and includes</p> <ul style="list-style-type: none"> c) a substance or water that, for the purposes of the <i>Canada Water Act</i>, is deemed to be waste, d) a substance or class of substances prescribed by regulations made under subparagraph 63(1)(b)(i), e) water that contains a substance or class of substances in a quantity or concentration that is equal to or greater than a quantity or concentration prescribed in respect of that substance or class of substances by regulations made under subparagraph 63(1)(b)(ii), and

Defined Terms ¹
f) water that has been subjected to a treatment, process or change prescribed by regulations made under subparagraph 63(1)(b)(iii).
Waste Management Plan (WMP) – a document, developed in accordance with the MVLWB <i>Guidelines for Developing a Waste Management Plan</i> , that describes the methods of Waste management for the Project from Waste generation to final disposal.
Wastewater – any Water that is generated by Project activities or originates on-site, and which contains Waste, and may include, but is not limited to, Runoff, Seepage, Sewage, Minewater, and Effluent.
Water – as defined in section 1 of the <i>Waters Act</i> : water under the administration and control of the Commissioner, whether in a liquid or frozen state, on or below the surface of land.
Watercourse – as defined in section 1 of the Waters Regulations: a natural watercourse, body of Water or Water supply, whether usually containing Water or not, and includes Groundwater, springs, swamps, and gulches.
Water Management Area – a geographical area of the Northwest Territories established by section 2 and Schedule A of the Waters Regulations.
Waters Regulations – the regulations proclaimed pursuant to section 63 of the <i>Waters Act</i> .
Water Holding Tank – the above ground storage tanks designed to contain hydrocarbon contaminated water as described in <i>Operations and Maintenance Plan: Inuvik Soil Treatment Facility</i> .
Water Retention Pond – the engineered pond to contain hydrocarbon contaminated water, snow, and ice as described in <i>Operations and Maintenance Plan: Inuvik Soil Treatment Facility</i> .
<p>Water Use – as defined in section 1 of the <i>Waters Act</i>: a direct or indirect use of any kind, including, but not limited to,</p> <ul style="list-style-type: none"> a) a diversion or obstruction of waters, b) an alteration of the flow of waters, and c) an alteration of the bed or banks of a river, stream, lake or other body of water, whether or not the body of water is seasonal, but does not include a use connected with shipping activities that are governed by the <i>Canada Shipping Act, 2001</i>.

Defined Terms ¹

Water Use Fee – the fee for use of Water as per the Waters Regulations pursuant to section 63 of the *Waters Act* and the MVLWB *Water Use Fee Policy*.

	Part B: General Conditions	
	Condition	Condition Title
1.	The Licensee shall ensure a copy of this Licence is maintained on site at all times.	COPY OF LICENCE
2.	The Licensee shall take every reasonable precaution to protect the environment.	PRECAUTION TO PROTECT ENVIRONMENT
3.	In conducting its activities under this Licence, the Licensee shall make every reasonable effort to consider and incorporate any scientific information and Traditional Knowledge that is made available to the Licensee.	INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE
4.	In each submission required by this Licence or by any directive from the Board, the Licensee shall identify all recommendations based on Traditional Knowledge received, describe how the recommendations were incorporated into the submission, and provide justification for any recommendation not adopted.	IDENTIFY TRADITIONAL KNOWLEDGE
5.	All references to policies, guidelines, codes of practice, statutes, regulations, or other authorities shall be read as a reference to the most recent versions, unless otherwise noted.	REFERENCES
6.	The Licensee shall ensure all submissions to the Board: a) Are in accordance with the MVLWB <i>Document Submission Standards</i> ; b) Include a conformity statement or table which identifies where the requirements of this Licence, or other directives from the Board, are addressed; and c) Include any additional information requested by the Board.	SUBMISSION FORMAT AND CONFORMITY
7.	The Licensee shall ensure management plans are submitted to the Board in a format consistent with the MVLWB <i>Standard Outline for Management Plans</i> , unless otherwise specified.	MANAGEMENT PLAN FORMAT
8.	The Licensee shall comply with all Management Plans approved pursuant to the conditions of this Licence.	COMPLY WITH SUBMISSIONS AND REVISIONS

9.	The Licensee shall conduct an annual review of all Management Plans and make any revisions necessary to reflect changes in operations, contact information, or other details. No later than March 31 each year, the Licensee shall send a notification letter to the Board, listing the documents that have been reviewed and do not require revisions.	ANNUAL REVIEW
10.	The Licensee may propose changes at any time by submitting revised Management Plans to the Board, for approval, a minimum of 90 days prior to the proposed implementation date for the changes. The Licensee shall not implement the changes until approved by the Board.	REVISIONS
11.	The Licensee shall revise any submission and submit it as per the Board's directive.	REVISE AND SUBMIT
12.	If any date for any submission falls on a weekend or holiday, the Licensee may submit the item on the following business day.	SUBMISSION DATE
13.	The Licensee shall comply with the Schedules , which are annexed to and form part of this Licence, and any updates to the Schedules as may be made by the Board.	COMPLY WITH SCHEDULE(S)
14.	The Licensee shall comply with the Surveillance Network Program , which is annexed to and forms part of this Licence, and any updates to the Surveillance Network Program as may be made by the Board.	COMPLY WITH SURVEILLANCE NETWORK PROGRAM
15.	The Schedules, the Surveillance Network Program, and any compliance dates specified in this Licence may be updated at the discretion of the Board.	UPDATES TO COMPLIANCE DATE(S)
16.	The Licensee shall comply with all directives issued by the Board in respect of the implementation of the conditions of this Licence.	COMPLY WITH BOARD DIRECTIVES
17.	The Licensee shall ensure signs are posted at, or in close proximity, to all active Surveillance Network Program stations. All sign(s) shall be located and maintained to the satisfaction of an Inspector.	POST SURVEILLANCE NETWORK

		PROGRAM SIGN(S)
18.	The Licensee shall install, operate, and maintain meters, devices, or other such methods for measuring the volumes of Water used and Waste discharged to the satisfaction of an Inspector.	MEASURE WATER USE AND WASTE DISCHARGED
19.	Beginning March 31, 2023 and no later than every March 31 thereafter, the Licensee shall submit an Annual Water Licence Report to the Board and an Inspector. The Report shall be in accordance with the requirements of Schedule 1, Condition 1.	ANNUAL WATER LICENCE REPORT
20.	The Licensee shall comply with the Engagement Plan , once approved.	ENGAGEMENT PLAN
21.	The Licensee shall immediately provide written notification to the Board and an Inspector of any non-compliance with the conditions of this Licence.	NOTIFICATION – NON- COMPLIANCE WITH CONDITIONS
22.	The Licensee shall immediately provide written notification to the Board of any non-compliance with a Board directive issued in respect of the implementation of the conditions of this Licence.	NOTIFICATION – NON- COMPLIANCE WITH DIRECTIVES
23.	The Licensee shall ensure that a copy of any written authorization issued to the Licensee by an Inspector is provided to the Board.	COPY – WRITTEN AUTHORIZATION
	Part C: Security	
1.	The Licensee shall post and maintain a security deposit with the Minister in accordance with Schedule 2. The Licensee shall not commence activities until the security deposit has been accepted by the Minister.	POST SECURITY DEPOSIT
2.	Upon request of the Board, the Licensee shall submit an updated Closure Cost Estimate using the current version of RECLAIM or another method acceptable to the Board.	UPDATE CLOSURE COST ESTIMATE

3.	The amount of the security deposit required by Part C, Condition 1 may be adjusted by the Board: a) Based on an updated Closure Cost Estimate as per Part C, Condition 2; or b) Based on such other information as may become available to the Board.	ADJUSTED SECURITY AMOUNT
4.	If the amount of the security deposit is adjusted by the Board as per Part C, Condition 3, the Licensee shall post the adjusted amount with the Minister within the timeframe set by the Board. The Licensee shall not commence any new activities associated with a security adjustment until the additional security deposit has been accepted by the Minister.	POST ADJUSTED SECURITY AMOUNT
5.	Unless otherwise approved by the Board, the Licensee may not submit security adjustment requests except with any of the following submissions: a) Closure and Reclamation Plans; b) Closure and Reclamation Completion Reports; or c) Performance Assessment Reports.	SECURITY ADJUSTMENT REQUESTS
Part D: Water Use		
	<i>Intentionally left blank</i>	
Part E: Construction		
1.	The Licensee shall ensure that all structures intended to contain, withhold, divert, or retain Water or Waste are designed, constructed, and maintained to minimize the escape of Waste to the Receiving Environment.	OBJECTIVE – CONSTRUCTION
2.	The Licensee shall ensure that all the Inuvik Soil Treatment Facility is designed, constructed, maintained, monitored, and closed to meet or exceed the MVLWB/IWB/GNWT <i>Guideline for Design, Operation, Maintenance, and Closure of Petroleum Hydrocarbon-Contaminated Soil Treatment Facilities in the Northwest Territories</i> .	HYDROCARBON- CONTAMINATED SOIL TREATMENT FACILITIES – GENERAL
3.	The Licensee shall ensure that all Engineered Structures are constructed and maintained in accordance with the recommendations of the Professional Engineer responsible for the design, including, but not limited to, recommendations regarding field supervision and inspection requirements.	ENGINEERED STRUCTURES – GENERAL

4.	A minimum of 90 days prior to the commencement of Construction of any Engineered Structures, the Licensee shall submit to the Board, for approval, a Design and Construction Plan. The Licensee shall not commence Construction of the Engineered Structure(s) prior to Board approval of the Plan.	DESIGN AND CONSTRUCTION PLAN
5.	A minimum of 90 days prior to the commencement of Construction of any Engineered Structures, the Licensee shall submit to the Board, Design Drawings stamped and signed by a Professional Engineer. A minimum of 90 days prior to implementing any proposed changes to the Design Drawings, the Licensee shall submit revised Design Drawings to the Board.	CONSTRUCTION DESIGN DRAWINGS
6.	A minimum of ten (10) days prior to the commencement of Construction of any Engineered Structure(s), the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the Construction commencement date, and the name and contact information for the individual responsible for overseeing Construction. Written notification shall be provided to the Board and an Inspector if any changes occur.	NOTIFICATION – CONSTRUCTION – ENGINEERED STRUCTURE(S)
7.	<p>Within ninety (90) days of the completion of the Construction of each Engineered Structure, the Licensee shall submit to the Board, an As-Built Report stamped and signed by a Professional Engineer, which shall include, but not be limited to, the following information:</p> <ul style="list-style-type: none"> a) final as-built drawings of the Engineered Structure(s), stamped and signed by a Professional Engineer; b) documentation, with rationale, of field decisions that deviate from the Design and Construction Plans and/or Design Drawings c) any data used to support these decisions. 	AS-BUILT REPORT – ENGINEERED STRUCTURE(S)
	Modifications	
8.	<p>The Licensee may, without written approval from the Board, carry out Modifications to the Inuvik Soil Treatment Facility provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:</p> <ul style="list-style-type: none"> a) The Licensee has notified the Board and an Inspector 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 either the Licence or the Act; c) 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; d) An Inspector has authorized the proposed Modifications and provided a letter of notification to the Board; and e) The Board has not rejected the proposed Modifications. 	MODIFICATIONS NOT REQUIRING APPROVAL

9.	Modifications for which all of the conditions referred to in Part E, Condition 8 have not been met may be carried out only with written approval from the Board.	MODIFICATIONS REQUIRING APPROVAL
10.	A minimum of ten (10) days prior to the commencement of modifications referred to in Part E, Condition 8, the Licensee shall provide written notification to the Board and an Inspector.	NOTIFICATION - MODIFICATIONS
11.	Within ninety (90) days of the completion of the Modifications referred to in Part E, Condition 8, the Licensee shall submit to the Board final as-built drawings stamped and signed by a Professional Engineer.	AS BUILT DRAWINGS - MODIFICATIONS
	Part F: Waste and Water Management	
1.	The Licensee shall manage Waste and Water with the objective of minimizing the impacts of the Project on the quantity and quality of Water in the Receiving Environment through the use of appropriate mitigation measures, monitoring, and follow-up actions.	OBJECTIVE – WASTE AND WATER MANAGEMENT
2.	The Licensee shall minimize erosion by implementing suitable erosion control measures that shall be located and maintained to the satisfaction of an Inspector.	EROSION CONTROL
	Management and Monitoring Plans	
3.	The Licensee shall comply with the Operation and Maintenance Plan once approved.	OPERATIONS AND MAINTENANCE PLAN
4.	The Licensee shall comply with Environmental Monitoring Plan once approved. The plan, and any future revisions, shall be in accordance with Schedule 4.	ENVIRONMENTAL MONITORING PLAN
	Operation of Structures and Facilities	
5.	The Licensee shall construct, operate, and maintain the Inuvik Soil Treatment Facility to the design specifications and engineering standards, such that: a) Any constructed structures/facilities are maintained and operated so as to prevent structural failure;	HYDROCARBON- CONTAMINATED SOIL TREATMENT

	b) Seepage from the facility to the Receiving Environment is minimized, collected, and returned to the Facility; c) Any deterioration or erosion of constructed structures/facilities shall be reported immediately to an Inspector; d) Any deterioration or erosion of constructed structures/facilities that requires repair shall be reported to an Inspector and the Board, and repaired immediately; and e) Monitoring of the facility is sufficient to ensure that: i. Necessary changes in operation of the facility, including any additional mitigations, are identified.	FACILITIES - OPERATION
6.	The Licensee shall maintain a Freeboard limit of 0.9 metres at the Water Retention Pond or as recommended by a Professional Engineer and approved by the Board.	RETENTION POND FREEBOARD
	Inspection of Structures and Facilities	
7.	The Licensee shall conduct weekly inspections of the Inuvik Soil Treatment Facility , or as otherwise directed by an Inspector or the Board. These shall include, but not be limited to, the following: a) Inspections of drainage systems, to detect evidence of deterioration, malfunction leaks or improper operation; and b) Inspections of leachate collection systems to ensure proper functioning, and to determine if leachate is being generated or accumulating. Records of these inspections shall be included in the Annual Report and made available to the Board or an Inspector upon request.	WEEKLY INSPECTIONS
	Discharge and Disposal Locations and Rates	
8.	The Licensee shall deposit all Waste as described Waste Management Plan , once approved.	WASTE MANAGEMENT PLAN
9.	Within 30 days following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised Waste Management Plan.	REVISE WASTE MANAGEMENT PLAN
10.	The Licensee shall not discharge Waste, including Wastewater, to any Watercourse, or to the ground surface within 100 metres of the Ordinary High-Water Mark of any Watercourse.	DISCHARGE LOCATION –

		ORDINARY HIGH-WATER MARK																		
	Acceptance Criteria																			
11.	Only soils meeting the acceptance criteria outlined in Schedule 3, Condition 1 shall enter the facility.	SOIL ACCEPTANCE CRITERIA																		
12.	Prior to accepting soil to the Soil Treatment Facility, the Licensee shall submit soil analyses results to an Inspector.	SOIL ANALYSES - ACCEPTANCE																		
13.	Only snow and/or Water meeting the acceptance criteria outlined in Schedule 3, Condition 2 shall enter the facility.	SNOW/WATER ACCEPTANCE CRITERIA																		
14.	Prior to accepting snow and/or Water to the Soil Treatment Facility, the Licensee shall submit snow/Water analyses results to an Inspector.	SNOW/WATER ANALYSES - ACCEPTANCE																		
15.	The Licensee shall obtain representative samples of soil snow, and Water entering the facility as per Schedule 3, Condition 3, or as authorized in writing by an Inspector.	REPRESENTATIVE SAMPLES - SNOW																		
	Treated Soil Criteria																			
16.	<div>The Licensee shall ensure all treated soil from the Biotreatment Pad meets the following criteria for Industrial Use, unless otherwise authorized by the Board.</div> <table><tr><th>Parameter</th><th>Maximum Composite Sample</th></tr><tr><td>pH</td><td>6–8</td></tr><tr><td>Antimony</td><td>40 mg/kg</td></tr><tr><td>Arsenic (inorganic)</td><td>120 mg/kg</td></tr><tr><td>Barium</td><td>2000 mg/kg</td></tr><tr><td>Beryllium</td><td>8 mg/kg</td></tr><tr><td>Cadmium</td><td>22 mg/kg</td></tr><tr><td>Total chromium</td><td>87 mg/kg</td></tr><tr><td>Cobalt</td><td>300 mg/kg</td></tr></table>	Parameter	Maximum Composite Sample	pH	6–8	Antimony	40 mg/kg	Arsenic (inorganic)	120 mg/kg	Barium	2000 mg/kg	Beryllium	8 mg/kg	Cadmium	22 mg/kg	Total chromium	87 mg/kg	Cobalt	300 mg/kg	TREATED SOIL CRITERIA
Parameter	Maximum Composite Sample																			
pH	6–8																			
Antimony	40 mg/kg																			
Arsenic (inorganic)	120 mg/kg																			
Barium	2000 mg/kg																			
Beryllium	8 mg/kg																			
Cadmium	22 mg/kg																			
Total chromium	87 mg/kg																			
Cobalt	300 mg/kg																			

		Copper	91 mg/kg		
		Lead	600 mg/kg		
		Mercury	50 mg/kg		
		Molybdenum	40 mg/kg		
		Nickel	89 mg/kg		
		Selenium	2.9 mg/kg		
		Silver	40 mg/kg		
		Thallium	1 mg/kg		
		Tin	300 mg/kg		
		Uranium	300 mg/kg		
		Vanadium	130 mg/kg		
		Zinc	360 mg/kg		
		Petroleum Hydrocarbons	Soil Maximum Concentration (Fine-grained Soil)	Soil Maximum Concentration (Coarse Grained Soil)	
		Fraction 1 (C6 - C10)	660 mg/kg	310 mg/kg	
		Fraction 2 (>C10 - C16)	1500 mg/kg	760 mg/kg	
		Fraction 3 (>C16 - C34)	2500 mg/kg	1700 mg/kg	
		Fraction 4 (>C34)	6600 mg/kg	3300 mg/kg	
		Benzene	5.0 mg/kg	5.0 mg/kg	
		Toluene	0.8 mg/kg	0.8 mg/kg	
		Ethylbenzene	20 mg/kg	20 mg/kg	

		Xylene	20 mg/kg	20 mg/kg																											
	* If testing for particle size is not completed by the Licensee to determine if soil is Coarse or Fine-grained, soil must be treated to achieve the Coarse-grained soil criteria																														
17.	Treated soil meeting the re-use criteria outlined in Part F, Condition 16 shall only be used for the purpose of cover material at the Town of Inuvik Solid Waste Disposal Facility, unless otherwise approved by the Board and Inspector.				TREATED SOIL REUSE																										
18.	Treated soil not meeting the re-use criteria outlined in Part F, Condition 16 shall be disposed of at a registered hazardous waste receiving facility.				TREATED SOIL EXCEEDING CRITERIA																										
19.	Prior to removing soil from the Soil Treatment Facility, the Licensee shall submit soil analyses results to an Inspector.				SOIL ANALYSES - REMOVAL																										
20.	The Licensee shall obtain representative samples in accordance with the requirements of Schedule 3, Condition 3, or as authorized in writing by an Inspector.				REPRESENTATIVE SAMPLES - SOIL																										
	Effluent Quality Criteria																														
21.	The Licensee shall ensure that all effluent discharged from the Inuvik Soil Treatment Facility at Surveillance Network Program stations 0037-1 and 0037-2 has a pH between 6.5 and 8.5 and meets the following Effluent Quality Criteria (EQC): <table><tr><td>Parameter</td><td>Maximum Grab Concentration</td></tr><tr><td>pH</td><td>6.5-8.5</td></tr><tr><td>Antimony</td><td>0.006 mg/L</td></tr><tr><td>Arsenic</td><td>0.005 mg/L</td></tr><tr><td>Barium</td><td>1 mg/L</td></tr><tr><td>Beryllium</td><td>100 mg/L</td></tr><tr><td>Boron</td><td>1.5 mg/L</td></tr><tr><td>Iron</td><td>0.3 mg/L</td></tr><tr><td>Manganese</td><td>0.05 mg/L</td></tr><tr><td>Selenium</td><td>0.001 mg/L</td></tr><tr><td>Uranium</td><td>0.02 mg/L</td></tr><tr><td>Zinc</td><td>0.03 mg/L</td></tr><tr><td>Benzene</td><td>0.005 mg/L</td></tr></table>				Parameter	Maximum Grab Concentration	pH	6.5-8.5	Antimony	0.006 mg/L	Arsenic	0.005 mg/L	Barium	1 mg/L	Beryllium	100 mg/L	Boron	1.5 mg/L	Iron	0.3 mg/L	Manganese	0.05 mg/L	Selenium	0.001 mg/L	Uranium	0.02 mg/L	Zinc	0.03 mg/L	Benzene	0.005 mg/L	EFFLUENT QUALITY CRITERIA
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22.	Effluent meeting the Effluent Quality Criteria referred to in Part F, Condition 20 may be: a) Reapplied to the Biotreatment Pad; b) Used as a dust suppressant within the boundaries of the Inuvik Solid Waste Disposal Facility; and/or c) Discharged to the receiving environment at SNP 0037-1 or SNP 0037-2.	EFFLUENT MEETING CRITERIA																																																	
23.	Effluent exceeding the Effluent Quality Criteria referred to in Part F, Condition 20, and which exceeds the capacities of the Water Retention Pond and Water Holding Tanks may be: a) Reapplied to the Biotreatment Pad; b) Retreated to ensure it meets Effluent Quality Criteria; and/or	EFFLUENT EXCEEDING CRITERIA																																																	

	c) Transported to a registered hazardous waste receiving facility for disposal.	
24.	The volume of Effluent discharged from SNP 0037-1 and SNP 0037-2 must not exceed 50m ³ per discharge event at SNP 0037-3, or as authorized in writing by an Inspector.	MAXIMUM DISCHARGE VOLUME
25.	The rate of flow of Water discharged from SNP 0037-1 and SNP0037-2 must not exceed 300 L per minute at SNP 0037-3, or as authorized in writing by an Inspector.	MAXIMUM DISCHARGE RATE
26.	A minimum of five days prior to commencing or resuming Discharge of Effluent, the Licensee shall submit Water quality data for samples collected from Surveillance Network Program stations SNP 0037-1 and SNP 0037-2 to the Board and an Inspector. The Licensee shall not commence or resume the Discharge until the EQC are met and an Inspector has provided written authorization.	TESTING BEFORE DISCHARGE –
Part G: Aquatic Effects Monitoring		
	<i>Intentionally left blank.</i>	
Part H: Spill Contingency Planning		
1.	The Licensee shall ensure that Unauthorized Discharges associated with the Project do not enter any Water.	OBJECTIVE – PREVENT WASTE INTO WATER
2.	The Licensee shall comply with the Spill Contingency Plan , once approved.	SPILL CONTINGENCY PLAN
3.	<p>If a spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:</p> <p>a) Implement the approved Spill Contingency Plan referred to in Part H, Condition x;</p> <p>b) Report it immediately using the NU-NT Spill Report Form by one of the following methods:</p> <ul style="list-style-type: none"> • Telephone: (867) 920-8130 • Fax: (867) 873-6924 • E-mail: spills@gov.nt.ca • Online: Spill Reporting and Tracking Database <p>c) Notify the Board and an Inspector immediately; and</p>	REPORT SPILLS

	d) Within 30 days of initially reporting the incident, or within a timeframe authorized by an Inspector, submit a detailed report to the Board and an Inspector, including descriptions of causes, response actions, and any changes to procedures to prevent similar occurrences in the future. Written notification shall be provided to the Board and an Inspector if any changes occur.	
4.	The Licensee shall ensure that spill prevention infrastructure and spill response equipment is in place prior to commencement of the Project.	SPILL PREVENTION AND RESPONSE EQUIPMENT
5.	The Licensee shall restore all areas affected by spills and Unauthorized Discharges to the satisfaction of an Inspector.	CLEAN UP SPILLS
6.	The Licensee shall not establish any fuel storage facilities or refueling stations, or store chemicals or Wastes within 100 metres of the Ordinary High-Water Mark of any Watercourse.	MATERIAL STORAGE – ORDINARY HIGH- WATER MARK
Part I: Closure and Reclamation		
1.	The Licensee shall comply with the Closure and Reclamation Plan , once approved.	CLOSURE AND RECLAMATION PLAN
2.	A minimum of two years prior to the end of Project operations, the Licensee shall submit to the Board, for approval, a final Closure and Reclamation Plan . The Final Closure and Reclamation Plan shall be in accordance with Schedule 5.	CLOSURE AND RECLAMATION PLAN – FINAL

Signed on behalf of Gwich'in Land and Water Board



Elizabeth Wright, GLWB Chair



Leonard DeBastien Witness

Schedule 1: Annual Water Licence Report

	Condition
1.	<p>The Annual Water Licence Report referred to in Part B, Condition 19 of this Licence shall include, but not be limited to, the following information about activities conducted during the previous calendar year:</p> <ul style="list-style-type: none"> a) The generator, carrier, volume and analytical results of soil and snow/water accepted at the Inuvik Soil Treatment Facility ; b) The generator, carrier, volume, analytical results, of soil and snow/water refused from the Inuvik Soil Treatment Facility; c) The volume, analytical results, carrier, and destination of treated soil removed from the Inuvik Soil Treatment Facility; d) The monthly and annual quantities in cubic meters of all effluent discharged from the Water Retention Pond and Water Holding Tanks; e) The water level and remaining capacity of each of the Water Holding Tanks and Water Retention Pond; f) A description and volume or quantity of process additives used, with MSDS provided; g) Discharge location(s) and effluent quality test results (raw and summarized data) for each discharge event from the Water Retention Pond and Treated Water Tanks; h) Tabular summaries of all data generated under the Surveillance Network Program (SNP) in accordance with Part B, Condition 14, and Annex A of this Licence; i) Details and results of the Environmental Monitoring Program, in accordance with Part F, Condition 4 of this Licence; j) Laboratory reports for all samples collected for the Surveillance Network Program, attached as an appendix; k) For parameters that exhibit on-going or recurring exceedances of compliance criteria, provide: <ul style="list-style-type: none"> i. additional data analysis; ii. a comparison to monitoring data from previous years to detect trends or patterns; and iii. a review of field conditions in order to explain results l) A summary of Construction activities conducted in accordance with Part E of this Licence; m) A summary of major maintenance activities carried out during the previous calendar year; n) A copy of facility inspection reports referred to in Part F, Condition 7;

	Condition
	<ul style="list-style-type: none"> o) A list and description of all Unauthorized Discharges that occurred during the previous calendar year, including the date, NWT spill number, volume, location, and summary of the circumstances and follow-up actions taken, and the status (i.e. open or closed), in accordance with the reporting requirements referred to in Part H of this Licence; p) An outline of any spill training and communications exercises carried out during the previous calendar year; q) A summary of any closure and reclamation work completed during the year and an outline of any work anticipated for the next year; r) A summary of any studies requested by the Board that relate to Waste disposal or Reclamation, and a brief description of any future studies planned; s) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector; t) A summary of any updates or revisions to the Spill Contingency Plan, Waste Management Plan, Operation & Maintenance Plan, Environmental Monitoring Program, and Closure and Reclamation Plan; u) A summary of any updates or revisions to the Engagement Plan, including records of any engagement carried out during the previous year; and v) Any other details on Waste disposal, operating procedures, Construction, maintenance work, or other topics, requested by the Board on or before November 1 of the year being reported.

Schedule 2: Conditions Applying to Security

	Condition
1.	The amount of security referred to in Part C, Condition 1, shall total \$450,116.00.

Schedule 3: Soil and Snow/Water Acceptance Criteria

Condition																																									
1.	<p>As per Part F Condition 11 all soil entering the Inuvik Soil Treatment Facility shall meet the following criteria:</p> <table> <tr> <th>Parameter</th><th>Soil Composite Sample Maximum Concentration</th></tr> <tr> <td>pH</td><td>6–8</td></tr> <tr> <td>Antimony</td><td>40 mg/kg</td></tr> <tr> <td>Arsenic (inorganic)</td><td>120 mg/kg</td></tr> <tr> <td>Barium</td><td>2000 mg/kg</td></tr> <tr> <td>Beryllium</td><td>8 mg/kg</td></tr> <tr> <td>Cadmium</td><td>22 mg/kg</td></tr> <tr> <td>Total chromium</td><td>87 mg/kg</td></tr> <tr> <td>Cobalt</td><td>300 mg/kg</td></tr> <tr> <td>Copper</td><td>91 mg/kg</td></tr> <tr> <td>Lead</td><td>600 mg/kg</td></tr> <tr> <td>Mercury</td><td>50 mg/kg</td></tr> <tr> <td>Molybdenum</td><td>40 mg/kg</td></tr> <tr> <td>Nickel</td><td>89 mg/kg</td></tr> <tr> <td>Selenium</td><td>2.9 mg/kg</td></tr> <tr> <td>Silver</td><td>40 mg/kg</td></tr> <tr> <td>Thallium</td><td>1 mg/kg</td></tr> <tr> <td>Tin</td><td>300 mg/kg</td></tr> <tr> <td>Uranium</td><td>300 mg/kg</td></tr> <tr> <td>Vanadium</td><td>130 mg/kg</td></tr> </table>	Parameter	Soil Composite Sample Maximum Concentration	pH	6–8	Antimony	40 mg/kg	Arsenic (inorganic)	120 mg/kg	Barium	2000 mg/kg	Beryllium	8 mg/kg	Cadmium	22 mg/kg	Total chromium	87 mg/kg	Cobalt	300 mg/kg	Copper	91 mg/kg	Lead	600 mg/kg	Mercury	50 mg/kg	Molybdenum	40 mg/kg	Nickel	89 mg/kg	Selenium	2.9 mg/kg	Silver	40 mg/kg	Thallium	1 mg/kg	Tin	300 mg/kg	Uranium	300 mg/kg	Vanadium	130 mg/kg
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2.	As per Part F, Condition 13, all snow/water entering the Inuvik Soil Treatment Facility shall meet the following criteria: <table><tr><th>Parameter</th><th>Maximum Grab Concentration</th></tr><tr><td>pH</td><td>6-8</td></tr><tr><td>F1 (C6 – C10)</td><td rowspan="4">No free-phase hydrocarbon product</td></tr><tr><td>F2 (>C10 – C16)</td></tr><tr><td>F3 (>C16 – C34)</td></tr><tr><td>F4 (>C34)</td></tr></table>		Parameter	Maximum Grab Concentration	pH	6-8	F1 (C6 – C10)	No free-phase hydrocarbon product	F2 (>C10 – C16)	F3 (>C16 – C34)	F4 (>C34)	
Parameter	Maximum Grab Concentration											
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F1 (C6 – C10)	No free-phase hydrocarbon product											
F2 (>C10 – C16)												
F3 (>C16 – C34)												
F4 (>C34)												
3.	As per Part F, Condition 19, representative samples of soil and snow/water shall be collected according to the following criteria:											

Condition			
		Volume of Soil (m³)	Number of Composite Samples Required
		1 - 50	1
		51 - 500	2
		501 - 1000	3
		1001 - 2000	4
		2001 - 4000	5
		Volume snow/water (m³)	Number of Composite Samples Required
		1 - 50	1
		51 - 200	2

Schedule 4: Conditions Applying to Environmental Monitoring Plan

1.	<p>1. The Environmental Monitoring Program referred to in Part E, Condition 6 of this Licence shall include, but not be limited to, the following information:</p> <ul style="list-style-type: none"> a) Results of the geotechnical investigation; b) Proposed surface water monitoring program; c) Proposed groundwater monitoring program; d) Proposed soil monitoring program; e) Proposed permafrost monitoring program; and f) Proposed permafrost protection plan;
2.	<p>This information referred to in Schedule 4, Condition 1 shall include, but not be limited to:</p> <ul style="list-style-type: none"> i. A description of the underlying and surrounding hydrogeology, as assessed by a Professional Engineer, Hydrologist; Hydrogeologist or equivalent professional; ii. A description of how leachate related to the Biotreatment Pad and Water Retention Pond will be monitored, with appropriate maps or diagrams; iii. Baseline data that establishes existing concentration ranges of potential contaminants of concern (including but not limited to: benzene, toluene, ethylbenzene, and xylenes (BTEX); volatile organic compounds (VOCs); F1 to F4 hydrocarbon fractions; polycyclic aromatic hydrocarbons (PAHs); and total metals); iv. A schedule for the periodic monitoring of contaminants of concern (including but not limited to: benzene, toluene, ethylbenzene, and xylenes (BTEX); volatile organic compounds (VOCs); F1 to F4 hydrocarbon fractions; polycyclic aromatic hydrocarbons (PAHs); and total metals); v. Details of monitoring, including a rationale for each component of the Water management system; vi. A map and attached table or detailed legend illustrating monitoring and sampling locations; vii. A description, including detailed rationale, of the site-specific monitoring activities required to identify impacts from Project-related activities; viii. A description of monitoring protocols, methodologies, parameters, and frequency specific to each type of monitoring identified in Condition (iv) above; ix. A description of the quality assurance and quality control measures followed for each monitoring type; x. A description of responses to monitoring results and an explanation of how the Licensee will link the results of monitoring to those corrective actions necessary to ensure that the conditions listed in Part E, Condition 19 and 24 are met. This description shall include: <ul style="list-style-type: none"> a. definitions, with rationale, for Action Levels for parameters of concern that will be monitored under the

	<p>Environmental Monitoring Program; and</p> <p>b. for each Action Level, a description of actions taken in response to any Action Level exceedances under the Monitoring Program.</p> <p>xi. Reporting methods for Action Levels exceedances and actions taken during the year, as per the Annual Water Licence Report requirements outlined in Schedule 1 of this Licence.</p>
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Schedule 5: Closure and Reclamation

	Condition
1.	The Final Closure and Reclamation Plan referred to in Part I, Condition 2 of this Licence shall include, but not be limited to the following information:
	a) A description of the overall goals for Closure and Reclamation of the Project, including expected future land use;
	b) A description of engagement related to Closure and Reclamation planning, including a summary of completed and planned engagement, and links to the Engagement Plan referred to in Part B, Condition 20 for the Project;
	c) A list of any other regulatory authorizations required for Closure and Reclamation of the Project;
	d) A description of the pre-existing and current Project environment, including, but not limited to: <ul style="list-style-type: none"> i. climatic conditions; ii. physical conditions; iii. chemical conditions; iv. biological conditions; v. any physical or chemical assessments of soil, water, and permafrost; and vi. traditional uses.
	e) A description of the Project, including, but not limited to: <ul style="list-style-type: none"> i. site history; ii. Project development; iii. current status of the Project; iv. maps delineating all disturbed areas, borrow material locations, site facilities, hydrological features, and elevation contours; and v. photographs.
	f) For the Project site, a description of Closure and Reclamation plans, including, but not limited to: <ul style="list-style-type: none"> i. Closure Objectives and Criteria; ii. preferred Closure and Reclamation option and method for each Project component identified in Condition (h) above; iii. design drawings, signed and stamped by a Professional Engineer, for any Engineered structures; iv. Water management and restoration of natural drainage; v. predicted environmental effects during and after Closure and Reclamation activities; vi. post-closure monitoring, maintenance, and reporting; vii. uncertainties and contingencies; viii. climate change considerations; and

	Condition
	ix. Closure and Reclamation Research plans.
	g) A description of any planned Progressive Reclamation;
	h) A plan for Temporary Closure, including, but not limited to the following information: <ul style="list-style-type: none"> i. Temporary Closure goals and objectives; ii. a description of activities and methods; iii. a description of monitoring, maintenance, and reporting; iv. contingencies; and v. an implementation schedule.
	i) An implementation schedule that includes Progressive Reclamation and final Closure and Reclamation activities; and
	j) A Closure Cost Estimate.

Annex A:

Surveillance Network Program (SNP) Annexed to Water Licence G22L1-005

Table of Contents:

Part A: Reporting Requirements

Part B: Sampling and Analysis Requirements

Part C: Surveillance Network Program Station Descriptions

Part A: Reporting Requirements

1. The effective date of this Surveillance Network Program (SNP) is November 18, 2022
2. The Licensee shall include all of the data and information required in Part C of this Annex in the Annual Water Licence Report, as specified in Part B, Condition 10 of this Licence.
3. The Licensee shall also provide SNP data at other times, if requested by an Inspector or the Board.

Part B: Sampling and Analysis Requirements

1. More frequent sample collection or provision of data may be required at the request of an Inspector.
2. The location of sampling sites is subject to the approval of an Inspector. The Licensee shall work with an Inspector to confirm suitability of sampling sites. Signs shall be posted as per Part B, Condition 17 of this Licence.
3. All sampling, sample preservation, and analyses shall be conducted in accordance with methods prescribed in the current edition of American Public Health Association's (APHA) *Standard Methods for the Examination of Water and Wastewater* at the time of analysis, or by other such methods approved by an Analyst.
4. All analyses shall be performed in a laboratory accredited by the Canadian Association for Laboratory Accreditation (CALA) for the specific analyses to be performed or as approved by an Analyst.

Part C: SNP Station Descriptions and Monitoring Requirements

SNP #	Location	Sampling Frequency	Sampling Parameters	Rationale
0037-1	Water Retention Pond	a) Prior to proposed discharge b) daily, during discharge	- ICP-MS Metal Scan (Total) - Field parameters - Total Petroleum Hydrocarbons (F1, F2, F3, F4 CCME Fractions) - Benzene, Toluene, Ethylbenzene, and Xylene - Chemical Oxygen Demand (COD) - Extractable Petroleum Hydrocarbons (EPH) - Total Suspended Solids (TSS) - Oil and Grease - pH	Point of compliance, prior to and during discharge
0037-2	Water Holding Tank	a) Prior to proposed discharge b) daily, during discharge	- ICP-MS Metal Scan (Total) - Field parameters - Total Petroleum Hydrocarbons (F1 F2, F3, F4 CCME Fractions) - Benzene, Toluene, Ethylbenzene, and Xylene - Chemical Oxygen Demand (COD) - Extractable Petroleum Hydrocarbons (EPH) - Total Suspended Solids (TSS) - Oil and Grease - pH	Point of compliance, prior to discharge,
0037-3	Drainage Ditch	Daily, during discharge of water from Retention Pond or Water Holding Tanks	- total volume of water discharged - rate of flow	Flow rate monitoring
0037-4	Groundwater Well (North-East)	Twice annually (Spring and Fall)	- ICP-MS Metal Scan (Total) - Field parameters - Total Petroleum Hydrocarbons (F1 F2, F3, F4 CCME Fractions) - Benzene, Toluene, Ethylbenzene, and Xylene - Chemical Oxygen Demand (COD) - Extractable Petroleum Hydrocarbons (EPH) - Total Suspended Solids (TSS) - Oil and Grease - pH	Upgradient Monitoring Well

0037-5	Groundwater Well (South-East)	Twice annually (Spring and Fall)	<ul style="list-style-type: none"> - ICP-MS Metal Scan (Total) - Field parameters - Total Petroleum Hydrocarbons (F1 F2, F3, F4 CCME Fractions) - Benzene, Toluene, Ethylbenzene, and Xylene - Chemical Oxygen Demand (COD) - Extractable Petroleum Hydrocarbons (EPH) - Total Suspended Solids (TSS) - Oil and Grease - pH 	Downgradient Monitoring Well
0037-6	Groundwater Well (South)	Twice annually (Spring and Fall)	<ul style="list-style-type: none"> - ICP-MS Metal Scan (Total) - Field parameters - Total Petroleum Hydrocarbons (F1 F2, F3, F4 CCME Fractions) - Benzene, Toluene, Ethylbenzene, and Xylene - Chemical Oxygen Demand (COD) - Extractable Petroleum Hydrocarbons (EPH) - Total Suspended Solids (TSS) - Oil and Grease - pH 	Downgradient Monitoring Well
0037-7	Groundwater Well (South-West)	Twice annually (Spring and Fall)	<ul style="list-style-type: none"> - ICP-MS Metal Scan (Total) - Field parameters - Total Petroleum Hydrocarbons (F1 F2, F3, F4 CCME Fractions) - Benzene, Toluene, Ethylbenzene, and Xylene - Chemical Oxygen Demand (COD) - Extractable Petroleum Hydrocarbons (EPH) - Total Suspended Solids (TSS) - Oil and Grease - pH 	Downgradient Monitoring Well
0037-8	Surface Water Monitoring	Twice annually (Spring and Fall)	<ul style="list-style-type: none"> - ICP-MS Metal Scan (Total) - Field parameters - Total Petroleum Hydrocarbons (F1 F2, F3, F4 CCME Fractions) - Benzene, Toluene, Ethylbenzene, and Xylene - Chemical Oxygen Demand (COD) - Extractable Petroleum Hydrocarbons (EPH) - Total Suspended Solids (TSS) - Oil and Grease - pH 	Downgradient of Water Retention Pond

Annex B:
Concordance Table of Items Requiring Submission (Water Licence G221-005)

Licence Part	Item	Timeline for Submission
B	Submit Annual Review Notification Letter to Board	By March 31 of each year
B	Submit Annual Water Licence Report to Board	By March 31 of each year
B	Submit updated Engagement Plan to Board for Approval	Upon any revisions
B	Notify Board and Inspector of any non-compliance with Licence Conditions	Immediately
B	Notify Board and Inspector of any non-compliance Board Directives	Immediately
C	Post Security Deposit with Minister	Prior to the commencement of activities
C	Submit Updated Closure Cost Estimate to Board	Within sixty (60) days of Licence Issuance; and Upon Request by the Board
E	Submit Design and Construction Plan to Board for Approval	At least sixty (60) days prior to commencement of Construction
E	Notify Board and Inspector	At least ten (10) days prior to commencement of Construction
E	Submit As-Builts to Board	Within ninety (90) days of the completion of Construction
E	Notify Board and Inspector	At least sixty (60) days prior to commencement of Modifications
E	Submit As-Builts to Board	Within ninety (90) days of the completion of Modifications
F	Submit updated Operations and Maintenance Plan to Board for Approval	Upon any revisions

F	Submit updated Environmental Monitoring Plan to Board for Approval	Upon any revisions
F	Submit updated Waste Management Plan to Board for Approval	Within thirty (30) days of Licence Issuance; and Upon any revisions
F	Submit Soil Analyses to Inspector	Prior to acceptance of soil
F	Submit Snow/Water Analyses to Inspector	Prior to acceptance of snow/water
F	Submit Soil Analyses to Inspector	Prior to removal of soil
H	Submit updated Spill Contingency Plan to Board for Approval	Upon any revisions
H	Notify Board and Inspector in the event of a spill.	Immediately
H	Submit detailed Spill Report to Board and Inspector	Within (30) days of initial spill notification
I	Submit updated Closure and Reclamation Plan to Board for Approval	Upon any revisions
I	Submit Final Closure and Reclamation Plan to Board for Approval	A minimum two years prior to the completion of Project Activities

*Note: This table summarizes the information the Licensee is required to submit as per the Water Licence Conditions. In the event of a discrepancy between this table and the body of the Water Licence, the Water Licence condition will prevail.

Annex C:
Revisions Water Licence G221-005

Date	Location of Change	What has changed



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Reasons for Decision

Issued pursuant to section 72.25 of the *Mackenzie Valley Resource Management Act* (MVRMA) and subsection 26(1) of the *Waters Act*.

Water Licence Application	
File Number	G22L1-005
Company	KBL Environmental Ltd.
Project	Inuvik Soil Treatment Facility
Location	Inuvik, NT
Activity	Waste Deposit
Date of Decision	November 18, 2022

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1.0 DECISION

On November 18, 2022 the Gwich'in, Land and Water Board (GLWB or Board) met and considered the Application made by the KBL Environmental Ltd (Applicant) to the Board for Water Licence G22L1-005 for the use of water and the deposit of waste for municipal purposes. After reviewing the Application and the evidence gathered during the regulatory proceeding, the Board has made the following decisions:

- 1) Issue Water Licence G22L1-005 for a term of 5 years;
- 2) Approve Engagement Record and Plan V.2.1;
- 3) Approve Operations and Maintenance Plan V.2.2;
- 4) Approve Revised Spill Contingency Plan V.2.0;
- 5) Not approve Waste Management Plan V.2.2 and require revised Waste Management Plan to be submitted to the Board for approval a minimum of
- 6) Approve Environmental Monitoring Plan V.2.1; and
- 7) Approve Revised Closure and Reclamation Plan V.1.1., as an interim submission, and require a Final Closure and Reclamation Plan be submitted to the Board for approval a minimum of 2 years prior to the end of Project Operations.

These Reasons for Decision set out the Board's regulatory process for the Application and rationale for decisions regarding the Licence.

2.0 REGULATORY PROCESS

2.1 Description of Undertaking

KBL Environmental applied to renew its Water Licence G17L1-002, which authorizes the deposit of waste from the Inuvik Soil Treatment Facility.

Project activities involve the collection, storage, and treatment of petroleum hydrocarbon contaminated soil, snow and water, including the operation and maintenance of a soil treatment pad and a water retention pond. Treated soil meeting licence criteria will be transferred for use as daily cover at the Inuvik landfill. Soil determined through laboratory analysis to be unsuitable for re-use will be transported off site to an appropriate facility approved to accept the material for treatment or disposal. Treated water is reused onsite, discharged to the receiving environment, or transported offsite if it does not meet licence criteria. The Project was Licenced in June 2017, but construction was delayed and the facility did not start accepting waste until late 2021.

2.2 Contents of Application

1. [Licence Application Form and Project Description](#)
2. [Engagement Record and Plan V.2.1](#)
3. [Operations and Maintenance Plan \(including Spill Contingency Plan\) V.2.2](#)
4. [Waste Management Plan V.2.2](#)
5. [Environmental Monitoring Plan V.2.1](#)
6. [Closure and Reclamation Plan V.1.1](#)

2.3 Regulatory Timeline

The following table summarizes the regulatory process for application G22L1-005. Details are provided below.

Date	Step in Proceeding
June 2, 2022	Licence Application submitted
June 7, 2022	Application deemed complete and circulated for public review on ORS
June 23, 2022	KBL Licence G17L1-002 expires
June 28, 2022	Comments deadline (GWNT ENR and GTC commented)
July 7, 2022	Comment response deadline (KBL responded)
July 15, 2022	Information Request issued to GNWT ENR (Request for Inspection Report)

July 28, 2022	Deadline for response to Information Request
August 19, 2022	Response to Information Request (Inspection Report) received from GNWT ENR
August 23, 2022	Response to GNWT ENR inspection report received from KBL
September 7, 2022	GLWB meeting to decide on GTC request for public hearing
September 23, 2022	Draft Water Licence circulated for public review
October 7, 2022	Deadline for comments on Draft Licence (GNWT ENR and GTC commented)
October 14, 2022	Response Deadline for comments on draft Water Licence (KBL responded)
October 28, 2022	Late Submission (request to reconsider public hearing) received from GTC
November 10, 2022	Board Meeting to decide on acceptance of late submission - Adjourned
November 18, 2022	Board Meeting to decide on acceptance of late submission; and Board Meeting to decide on

On June 2, 2022 the Applicant submitted Type B Licence Application G22L1-005. The Application was deemed complete on June 7, 2022, and circulated to the Distribution List for public review, using the Online Review System (ORS).¹ As part of the public review, Board staff requested comments and recommendations to assist the Board in reaching its preliminary screening determination and developing appropriate terms and conditions for the licence.

Public notice of the Application was published in *the Inuvik Drum* during the weeks of June 16 and June 23 to fulfill paragraph 43(1)(a) of the [Waters Act](#).²

By June 28, 2022, the Board received comments and recommendations regarding the Application from the following Parties: Gwich'in Tribal Council (GTC) and GNWT Environment and Natural Resources (GNWT-ENR).³ The details of these comments are discussed further in section 2.4. As part of its

¹ See GLWB Online Review System for [KBL - Type B Water Licence Renewal - Inuvik STF \(G22L1-005\)](#)

² See GLWB Online Registry for [KBL - Inuvik Soil Treatment Facility - Notice of Application - Ju23 22](#)

³ See GLWB Online Review System for [KBL - Type B Water Licence Renewal - Inuvik STF \(G22L1-005\)](#)

submission, GTC requested that the GLWB hold a public hearing, as per Section 72.15(1)(a) of the Mackenzie Valley Resource Management Act.

On July 18, 2022, in accordance with Rule 61 of the Mackenzie Valley Land and Water Boards' Rules of Procedure, the Board issued an Information Request (IR) to GNWT ENR. The IR requested that GNWT ENR Water Resources Officers undertake an inspection of the Inuvik STF and provide a Water Licence Inspection Report by July 29, 2022, so that evidence regarding licence compliance could be available to the Board prior to it rendering a decision on GTC's public hearing request.⁴

On July 28, 2022, an ENR Water Resources Officer undertook the inspection, and on August 19, 2022, the Inspection Report was submitted to the Board.⁵ On August 23, 2022, KBL submitted responses to GNWT ENR inspection report.⁶

On September 7, 2022, the GLWB met to decide on GTC's request for a public hearing. The Board decided not to hold a public hearing.⁷

On September 23, 2022, GLWB staff circulated a draft Water Licence for two-week public review⁸.

By October 7, 2022 comments and recommendations were received from GTC and GNWT ENR. By October 14, 2022, KBL provided responses to reviewer comments.

On October 28, 2022, GTC submitted a letter requesting that the Board re-consider its decision to hold a public hearing in association with the application and provided new evidence to support this request.

On November 10, 2022, the GLWB met to consider GTC's late submission. The Meeting was adjourned without a decision.

On November 18, 2022, the GLWB re-convened to consider late GTC's submission. In accordance with the Board's rules of Procedure, the GLWB decided not to consider the submission. GTC's letter, along with the Reasons for the Board's Decision are available on the GLWB Public Registry.⁹

On November 18, 2022, the Board met to make decisions regarding the Application. These decisions and related reasons are described in sections [3.0](#) and [4.0](#), below.

⁴ See GLWB registry for [KBL - Inuvik Soil Treatment Facility - Information Request to ENR - Jul18 22](#)

⁵ See GLWB registry for [KBL Inuvik STF - GNWT ENR Response to Information Request \(Facility Inspection Report - Aug19 22\).pdf](#)

⁶ See GLWB registry for [KBL - Inuvik Soil Treatment Facility - KBL Response to GNWT ENR Inspection Report - Aug23 22.pdf](#)

⁷ See GLWB registry for [KBL - Inuvik Soil Treatment Facility - GLWB Decision on GTC Public Hearing Request - Sept 08 22.pdf](#)

⁸ See GLWB Online Review System for [KBL - Draft Water Licence - Inuvik STF \(G22L1-005\)](#)

⁹ See GLWB registry for [GTC Late Submission not Accepted - GLWB Reasons for Decision – Nov 23 22](#)

2.4 Public Review Comments – Application

During the public review of Application G22L1-005, the Board received comments and recommendations from the Government of the Northwest Territories Department of Environment and Natural Resources (ENR) and from the Gwich'in Tribal Council (GTC).¹⁰

During the public review of the application materials, GTC brought forward concerns regarding KBL's adherence to approved management plans. In particular, GTC had concerns storage and handling of large volume of contaminated soil from Aklavik; GTC representatives undertook a site visit observed soil being stockpiled in windrows that exceeded 4 m height allowed by the approved Operations and Maintenance Manual. GTC also noted that the soil contained pieces of plastic, and that the site was not fenced. GTC noted that it had discussed compliance concerns with KBL during pre-application engagement in April 2022 and was concerned that non-compliance was ongoing. GTC further noted that "although the past and current application addresses many of the concerns surrounding the operation and management of the soil treatment cell through various plans, the observed disregard for adhering to those plans is concerning" and "Based on the need for further clarity on this project, as well as to address concerns tied to current non-compliance issues GTC requests the Gwich'in Land and Water Board enacts Section 72.15 (1)(a) of the Mackenzie Valley Resource Management Act...and hold a public hearing this application."

In its response to GTC, KBL explained that the material heights had been exceeded as the soil was being received, but that the windrowing had being undertaken. KBL also clarified that fencing construction had been delayed but was scheduled to take place that summer, and that any garbage within the soil would be removed during the treatment process. KBL disagreed with the need for a public hearing and with the suggestions that KBL was not adhering to its approved management plans. KBL recommended that "any concerns with non-compliance follow the Boards and ENR's established routes of inspections and enforcement."

GNWT ENR provided comments to the Board regarding an incorrect link on the ORS (ENR#1). ENR recommended that KBL clarify which off-site facilities might receive waste that did not meet criteria (ENR#2). ENR recommended that KBL clarify if additional groundwater monitoring wells would be installed (ENR#3) and confirm the date of facility construction (ENR#4), and the dimensions of the facility as-built (ENR#5). ENR recommended updates to the Spill contingency Plan (ENR#6), and confirmation of details regarding lease particulars and planned geotechnical activities found in the Waste Management Plan (ENR#7, ENR#8). ENR recommended KBL provide details on step out sampling within the Closure and Reclamation Plan (ENR#9) and recommendations regarding adherence to Hazardous Waste Management Guidelines (ENR#10, ENR#11).

¹⁰ See GLWB Online Review System for [KBL - Type B Water Licence Renewal - Inuvik STF \(G22L1-005\)](#)

KBL responded to ENR comments, stating it was unable to provide a list of approved facilities as it would depend on the type of material and parameter of concern. KBL confirmed that no new ground water monitoring wells were planned, that the facility construction was complete, and updated the as-built dimensions in a revised application form. KBL made revisions to the Spill Contingency Plan to address ENR recommendations and provided clarifications on the Waste Management details, suggesting that ENR was reviewing an older version of its Waste Management Plan. KBL provided step out sampling details and an updated Closure and Reclamation plan, and provided responses regarding Hazardous Waste movements and end-receivers.

The Board has considered all comments, recommendations and responses and has updated the water licence where appropriate; please see Section 4 for detailed discussion and reasons pertaining to how these recommendations were incorporated into the updated Licence.

2.5 Public Review Comments – Draft Water Licence

During the public review of Draft Water Licence G22L1-005, the Board received comments and recommendations from GNWT ENR and from the Gwich'in Tribal Council - Department of Lands and Resources (GTC).¹¹

GNWT ENR's submission to the Board recommended the correction of clerical errors found within the draft licence (ENR#1). It also recommended the inclusion specific components of G17L1-002 which had not been carried over to the new Licence, including definition for Leachate (ENR#2), certain conditions pertaining to construction (ENR#3) and modifications (ENR#4), as well as schedules for Environmental Monitoring Program and Closure and Reclamation Plans (ENR#5). ENR recommended that sampling frequency in Annex A be clarified (ENR#6), and recommended that the Board undertake a security review post licence issuance (ENR#7). KBL's submission indicated they did not have any comments or responses to the ENRs recommendations.

GTC – Department of Lands and Resources provided recommendations on Licence definitions including Biotreatment Pad (GTC#1), Composite Soil Sample (GTC#2) Unauthorized Discharge (GTC#3), Approved facility (GTC#11, GTC#13). GTC also recommended alternative wording in conditions pertaining to traditional knowledge (GTC#4, GTC#5), licence submission requirements (GTC#6), SNP signage (GTC#7), and Engagement Plan compliance (GTC#8). GTC made recommendations pertaining to sharing of facility inspection reports (GTC#9). GTC recommend limitation on the Inspector's ability to authorize deviations from Board-approved soil criteria (GTC#10) and further recommended that any other Inspector authorizations should be in writing (GTC#14, GTC#15). GTC recommended that the Board revise the

¹¹ See GLWB Online Review System for [KBL - Draft Water Licence - Inuvik STF \(G22L1-005\)](#)

wording of “SUBMIT RESULTS” condition (GTC#12). GTC recommended that the Board-approval be included in the condition pertaining to Closure and Reclamation Plan (GTC#16), and provided suggestions for additions to Annual Water Licence report requirements (GTC#17, GTC#18), and SNP reporting requirements (GTC#19). KBL responded to the comments and recommendations.

The Board has considered all comments, recommendations and responses and has updated the water licence where appropriate; please see Section 4 for detailed discussion and reasons pertaining to how these recommendations were incorporated into the updated Licence.

3.0 REASONS - Legislative Requirements Related to Licence Issuance

This Project is located on non-federal lands within the Gwich'in Settlement Area and is subject to the [MVRMA](#), the [Waters Act](#), and the [Waters Regulations](#). As per the [Waters Regulations](#) the proposed use of water and the deposit of waste for this Project require a licence. Accordingly, the Board has jurisdiction to issue the Licence per subsection 60(1.1) and section 102 of the [MVRMA](#).

In conducting its regulatory process for the Application (as described in sections 2.0), the Board has ensured that section 62 of the [MVRMA](#) and all applicable legislative requirements have been satisfied as outlined in the subsections below. The Board has considered the people and users of the land and water in the Mackenzie Valley, and any Traditional Knowledge and scientific information that was made available to the Board during the regulatory proceeding, as per section 60.1 of the [MVRMA](#). The consideration of information provided to the Board is discussed in detail below and in Section 4.0.

3.1 Consultation, Engagement, and Public Notice

As per paragraph 60.1(a) of the [MVRMA](#), in exercising its authority, the Board must consider the importance of conservation to the well-being and way of life of Indigenous peoples of Canada, specifically those to whom section 35 of the *Constitution Act*, 1982, applies and who use an area of the Mackenzie Valley. Accordingly, the Board works with applicants, affected parties (including Indigenous governments and organizations), and other parties (such as other boards and regulators) to ensure that potential impacts of proposed projects, including impacts on rights under section 35, are understood and carefully considered before decisions are made with respect to the issuance of permits and licences.

The Board's requirements for engagement are set out in the MVLWB [Engagement and Consultation Policy](#) and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#). The Policy and Guidelines were developed to ensure that the Board's obligations for achieving meaningful consultation (as set out by land claims and applicable legislation) with all affected parties, including Indigenous groups in the Mackenzie Valley, are met and engagement and consultation results clearly

articulated. In accordance with the Policy and Guidelines, the Applicant's engagement efforts and proposed procedures are detailed in Engagement Record and Plan V.2.1, which was submitted as part the Application.¹² The Board has approved ERP V.2.1 and the Board's reasons for this decision are described below in Section 4.3. Following issuance, the Applicant must continue life-of-project engagement efforts as outlined in the Engagement Plan, and as required by the Licence.

The Application was posted to the Board's Public Registry and distributed through the ORS. As the Project is located in the Gwich'in Settlement Area the appropriate organizations, governments, First Nations, and Indigenous organizations were included in the Distribution List.¹³ The Distribution List was used throughout this proceeding to circulate submissions, information, and updates relevant to the proceeding; more information about the proceeding for the Application is provided above in Section 2.0.

In accordance with sections 63 and 64 of the [MVRMA](#), the Board is satisfied that notice of and access to copies of the Application were provided, and that a reasonable amount of time was given to communities, First Nations, and the public to participate in this proceeding and make submissions to the Board.

3.2 Land Use Plan Conformity

As per section 61 of the [MVRMA](#), where an approved Land Use Plan (GLUP) applies, the Board must confirm conformity with the Land Use Plan before issuing a permit or licence.

The Gwich'in Land Use Plan (GLUP) considers all lands within the Gwich'in Settlement Area.¹⁴ However, in accordance with Section 3.3 of the Plan, the GLUP does not apply to lands within the boundaries of a municipal government. The Board is thus satisfied that its referral obligations to the GLUP have been fulfilled.

3.3 Water Use Fees

KBL has not applied to withdraw water for the Inuvik Soil Treatment Facility, subsequently there are no water use fees associated with this Licence

3.4 Existing Licences

During the time period established in the Notice of Application, no licensees or applicants contacted the Board to identify potential effects from the Project on other projects, and there are no other applicants

¹² See GLWB Online Registry for See [glwb.com](#) for [KBL - Inuvik Soil Treatment Facility - Engagement Plan V.2.1 - Jun02_22.pdf](#)

¹³ To access the Distribution List, see the GLWB Online Review System [KBL - Type B Water Licence Renewal - Inuvik STF \(G22L1-005\)](#)

¹⁴ See [gwichinplanning.nt.ca](#) for [Nanh' geenjit gwitr'it t'igwaa'in/Working for the Land - Gwich'in Land Use Plan](#)

with precedence. Accordingly, with respect to paragraph 26(5)(a) of the [Waters Act](#), Board is satisfied that issuing the Licence to the Applicant will not adversely affect, in any significant way, any existing licensee or any other applicant, provided the Applicant complies with the conditions of the Licence.

3.5 Compensation to Existing Water Users

Paragraph 26(5)(b) of the [Waters Act](#) prohibits the issuance of the Licence unless the Board is satisfied that appropriate compensation has been or will be paid by the Applicant to persons who would be adversely affected by the use of waters, or deposit of waste proposed by the Applicant, at the time when the Applicant filed the Applications with the Board.

The Board received no claims for compensation either during the time period established in the Notice of Application, or during the remainder of the proceeding. Provided the Applicant complies with the Licence conditions, the Board is satisfied there are no water users or persons listed in paragraph 26(5)(b) of the [Waters Act](#) who will be adversely affected by the proposed use of waters or deposit of waste.

3.6 Water Quality Standards

With regards to subparagraph 26(5)(c)(i) of the [Waters Act](#) no water quality standards have been prescribed in the [Waters Regulations](#); however, the MVLWB [Water and Effluent Quality Management Policy](#) applies to the Licence, and the primary objective of the Policy is “protection of water quality in the receiving environment.” This objective is directly reflected in the Licence Condition OBJECTIVE – WATER AND WASTE MANAGEMENT, and in accordance with the Policy and this objective, the Board has set out conditions in the Licence regarding effluent quality criteria, water and waste management, and management plan requirements.

The Board is satisfied that the conditions set out in the Licence are consistent with the Policy and compliance with these conditions will ensure that waste will be collected and disposed of in a manner that will be protective of water quality in the receiving environment. These conditions and detailed rationale are described in Section 4.

3.7 Effluent Quality Standards

With regards to subparagraph 26(5)(c)(ii) of the [Waters Act](#) no effluent quality standards have been prescribed in the [Waters Regulations](#); however, as noted in section 5.9 above, the MVLWB [Water and Effluent Quality Management Policy](#) applies to the Licence. In the absence of prescribed standards, the Policy sets out when and how the Board will include EQC in a licence to protect water quality in the receiving environment, and Appendix 2 of the MVLWB/GNWT [Guidelines for Mixing Zones](#) describes the general principles and standard process the Land and Water Boards (LWBs) will apply in setting EQC for a project. The Board established the EQC for the Project based on both the evidence gathered during the proceeding and in accordance with the Policy and the principles and processes described in the Guidelines.

Accordingly, the Board is satisfied that compliance with these criteria and associated conditions will ensure that effluent from the Project is disposed of in a manner that will be protective of water quality in the receiving environment. These conditions and criteria, and detailed rationale, are further discussed below in Section 4.

3.8 Financial Responsibility

As per paragraph 26(5)(d) of the [Waters Act](#), before the Board can issue the Licence, it must be satisfied that the Applicant's financial responsibility is adequate to complete the Project, including any required mitigation measures, and the closure and reclamation of the site.

Part C and Schedule 3 of the Licence, and Condition SECURITY DEPOSIT in the Permit set out the security requirements for the Project, which must be met before Project activities begin. Under subsection 35(2) of the [Waters Act](#) and subsection 71(3) of the [MVRMA](#), the Minister can apply this security to carry out mitigations and remedial measures in the event of non-compliance with an Inspector's orders, or to carry out closure and reclamation if the site is abandoned. As detailed in [section 4.4](#) of these Reasons, the Board has carried over the security requirements from Licence G17L1-002, and upon recommendation from GNWT ENR, has subsequently directed the Licensee to provide an updated closure cost estimate to the Board, so that adjustments can be made to the Security Deposit amount, if required. The Board is satisfied that adequate financial resources will be in place to ensure that the Project site can be restored.

As a result, and for the reasons set out above, the Board is satisfied that the legislated requirement to establish the financial responsibility of the Applicant for the Project has been met.

3.9 Minimization of Adverse Effects

With regards to subsection 27(2) of the [Waters Act](#), the Board must ensure that the Licence conditions minimize potential adverse effects on other water and land users from the proposed use of water and deposit of waste.

The Board has set conditions in the Licence to regulate waste management for the purpose of protecting the receiving environment, and it has also set conditions regarding the use of water for the Project, including limitations on the sources and volumes of water the Licensee can use.

The Board notes that its regulatory process provides opportunities for potentially affected parties to make submissions to the Board. The Board did not receive notice of potentially adverse effects on other users of the water and lands in the Project during the public review comment period.

It is the opinion of the Board that compliance with the Licence conditions that have been set to protect the water sources and the receiving environment will also minimize any potential adverse effects on other water and land users in the Project area.

3.10 Time Limit

As required under section 48(1) of the [Waters Act](#), the Board made its decision on the Licence within nine months after receiving the complete Application.

3.11 Preliminary Screening

Preliminary Screening is the first level of Environmental Impact Assessment in the Mackenzie Valley; it is an initial examination of a proposed development's potential to cause significant adverse impacts on the environment and/or public concern. Section 125 of the [MVRMA](#), governs how a preliminary screener makes decisions. In most cases, the preliminary screener must "determine and report to the Review Board whether, in its opinion, the development might have a significant adverse impact on the environment or might be a cause of public concern." Proposed developments that might cause a significant adverse impact on the environment – or might cause significant public concern, and which cannot be mitigated through further studies or public hearings – must be referred to the Mackenzie Valley Environmental Review Board for an Environmental Assessment.

The GLWB may not issue a licence or permit for the carrying out of a proposed development unless the requirements of Part 5 of the [MVRMA](#), have been met. As a screener, the Board must ensure that the concerns of Aboriginal people and the general public are taken into account, and must consider the protection of the social, cultural, and economic well-being of residents of the Mackenzie Valley. In exercising its powers, the Board must also consider the importance of conservation to the well-being and way of life of the Aboriginal peoples of Canada to whom section 35 of the Constitution Act, 1982 applies.

On November 2, 2022 the Board met and confirmed that the activities associated with the renewal Application were exempt from preliminary screening based on Part 1, Schedule 1, section 2.1 of the Exemption List Regulations to the MVRMA. Under these regulations, a Project only needs to undergo preliminary screening once, at the time of initial application, provided that the scope and footprint of the Project have not changed. The Board reviewed Licence G17L1-002 preliminary screening report dated May 1, 2000 ¹⁵ and is satisfied that the requirements of Part 5 of the [MVRMA](#) have been met for the Project. Consequently, no preliminary screening was conducted for application G22L1-005.

¹⁵ See GLWB Online Registry for [G17L1-002 - KBL Environmental - Preliminary Screening Report - Jul25 17.pdf](#)

4.0 REASONS - Licence Terms and Conditions

The Board's determinations and reasons for this decision are set out below.

In making its decision and preparing these Reasons for Decision, the Board has reviewed and considered:

- 1) The Application as submitted by the Applicant for the Project;
- 2) The evidence and submissions received by the Board from the Applicant in relation to the Licence; and;
- 3) The comments and recommendations, evidence, and submissions received by the Board from Parties during the regulatory proceeding

Having due regard to the facts, circumstances, and the merits of the submissions made to it, and to the purpose, and provisions of the [MVRMA](#) and the [Waters Act](#), the Board has determined that Licence G22L1-005 should be issued, subject to the scope, defined terms, conditions, and term contained therein.

The Licence has been developed to address the Board's statutory responsibilities; to protect the receiving environment and minimize potential adverse effects on other water users; and to address issues within the Board's jurisdiction that were identified and investigated during the regulatory proceeding.

In developing the Licence, the Board considered the MVLWB [Standard Water Licence Conditions Template](#) (Standard Licence Conditions) and included a number of these standard conditions that are relevant to the Project. The Standard Licence Conditions have been established by the Land and Water Boards (LWBs) based on information from LWB policies and guidelines, other applicable guidelines and best practices, meetings with Inspectors, input from LWB staff, and feedback from a public review. Each standard condition has been evaluated against the following characteristics of an ideal condition:

- Clearly part of LWBs' authority;
- Has a clear purpose and rationale;
- Is practical and enforceable; and
- Does not conflict with existing legislation (i.e., is not less stringent).

As noted in [section 3.0](#), Board staff circulated a draft Licence for review. The Draft Licence was developed using previous Licence G1713-002, the MVLWB Standard Water Licence Conditions Template, and comments and recommendations submitted to the Board during the public review process. The intent of the draft licence to allow Parties to provide specific input to the Board on possible conditions, and the Board considered these review comments and recommendations in making its determination on the Licence conditions. The Standard Licence Conditions include general rationale for each standard condition, and as such, the language of any standard condition included in the Licence is only discussed in detail in the following sections of these Reasons for Decision when it specifically relates to concerns or recommendations raised during the regulatory proceeding. The Board's reasons for developing and

including Project-specific conditions, including discussion of any concerns and recommendations raised regarding these conditions, are detailed in the relevant sections below.

4.1 Term of Licence

Subsection 26(2) of the [Waters Act](#) allows for a licence term of not more than 25 years for a type B licence. GLWB granted a five-year licence term to KBL under G17L1-002,¹⁶ and Water Licences for similar Soil Treatment Facility in Yellowknife¹⁷ and Norman Wells have also been licenced for 5 year terms.¹⁸

After reviewing the submissions made during this regulatory process, the Board has determined an appropriate term for the Licence is 5 years.

4.2 Part A: Scope and Defined Terms

Part A of the Licence contains the scope and the defined terms used throughout the Licence.

4.2.1 Scope

The scope of the Licence is written to ensure the Licensee is entitled to conduct activities which have been applied for and have been subject to Part 5 of the [MVRMA](#). In setting out the scope of the Licence, the Board endeavoured to provide enough detail to identify and describe the authorized activities, without being unduly restrictive or prescriptive, and to allow for project flexibility, as contemplated in the Application, throughout the term of the Licence.

Based on the activities described in the Licence Application and on the scope outlined in the Standard Licence Conditions, Board staff included a draft scope in the draft Licence that was circulated for public review. The Board did not receive any comments or recommendations regarding the draft scope during the proceeding, so the Board accepted it as the scope of the Licence.

The conditions in Part A are consistent with the Standard Licence Conditions. These conditions ensure that the scope of the authorization includes all water use and deposits of waste associated with the Project. They also clarify that the Licensee must comply with applicable legislation, including any changes to legislation that are deemed to automatically amend the Licence.

¹⁶ See GLWB online registry for [G17L1-002 - KBL Environmental - Water Licence - Jul25_17.pdf](#)

¹⁷ See MVLWB online registry for [MV2019L1-0003 - KBL Environmental Ltd - Issuance - Type B Water Licence - May16-19.pdf](#)

¹⁸ See SLWB online registry for [S18L1-002 - Water Licence Cover Page - Nov 19_18.pdf](#)

4.2.2 Defined Terms

The Board defined certain terms in the Licence to ensure a common understanding of the conditions, to avoid future differences in interpretation of the Licence, to reflect Project-specific evidence, and to support consistency across licences and permits issued by the LWBs. For the most part, the Board selected applicable defined terms relevant to the Project from the Standard Licence Conditions. Part B: General Conditions and Schedule 1.

During the Public review of the draft Water Licence, ENR recommended that the definition for Leachate, which had been included in Licence G17L1-002 also be included in the new Licence. The Board has subsequently added Leachate to the list of defined terms.

During the Public review of the draft Water Licence, GTC recommended that the definition for Biotreatment Pad be updated to specify that the pad must be approved by the Board. The Board has not made this adjustment, as the requirements for Board approval for engineered structures are outlined in Part F Conditions 4 through 11.

During the Public review of the draft Water Licence, GTC recommended that the definition for Composite Soil Samples be updated to include “collected by a qualified person”, and the definition has been updated to reflect this recommendation.

During the Public review of the draft Water Licence, GTC recommended including a definition for Unauthorized Discharge, and the Board confirms that such a definition was included in the draft and is also on the final issuance.

4.3 Part B: General Conditions and Schedule 1

Part B of the Licence primarily contains general administrative conditions regarding implementation of the Licence, and compliance with the Licence conditions, Board directives, and LWB policies and procedures. This section also details compliance requirements and review and revision procedures for submissions required under the Licence. These conditions are consistent with the Standard Licence Conditions and are applicable to all licences. Conditions that were updated (or not) following the review of the draft Licence are discussed below.

TRADITIONAL KNOWLEDGE

Standard Conditions requiring the consideration and incorporation of traditional Knowledge were added to the Draft water Licence. These Conditions inform the Licensee that incorporation of scientific information and Traditional Knowledge is required throughout the life of the Project and compel the Licensee to demonstrate how the Traditional Knowledge requirement is being met.

During the draft Licence public review, GTC recommended that conditions INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE and IDENTIFY TRADITIONAL KNOWLEDGE be reworded

or combined to better clarify the intent of the conditions, which are related and potentially overlapping. The Board has decided not to update the conditions at this time, however GLWB staff will bring this recommendation to the LWB working group responsible for developing and updating the Standard Conditions template.

REVISE AND SUBMIT

A Board directive to revise a submission may be part of the Board's decision on the submission or may be initiated in response to other information made available to the Board (e.g., an inspection report or revisions to a related submission)

During the public review of the draft Licence, GTC recommended that the REVISE AND SUBMIT Condition be updated to "the Licensee shall revise any submission and submit it for Board approval". The Board has not changed this definition, as not all revisions will require Board approval.

ANNUAL WATER LICENCE REPORT

The requirements for the Annual Water Licence Report are outlined in Part B: ANNUAL LICENCE REPORT, and Schedule 1, Condition 1. The purpose of the Annual Water Licence Report is to provide the Board and all interested parties the opportunity to be annually updated on Project components and activities and compliance with Licence conditions, and to provide a platform for interested parties to submit comments, observations, feedback, and questions as necessary. The Report is also an important tool for evaluating the effectiveness of the Licence conditions.

In establishing the Annual Report requirements in the Licence, the Board primarily included requirements from the Standard Licence Conditions that are applicable to the Project and reflect the Licenced activities. All of these requirements are intended to provide clarity and summarize information already captured through existing submissions; they are not meant to be onerous. The Board organized these requirements to coincide with the layout of the Licence and to be consistent with the Standard Licence Conditions.

During the public review, GTC recommended that KBL's weekly facility inspection reports referred to in Part F: WEEKLY INSPECTIONS be posted to the GLWB public registry within 30 days of occurrence, KBL responded suggesting that the inspections be compiled and included in the annual report submission. The Board has subsequently updated the condition, as well as Schedule 1, Condition 1 (n) to require the submission of inspection reports as part of the Annual reporting requirements.

Please note that the Annual Water Licence Report is not subject to Board approval. The Annual Report is a submission of monitoring results and activities undertaken during the previous year. If Parties review and have concerns regarding the results reported or activities undertaken as reported in the Annual

Report, they can be discussed directly with the Licensee or addressed through the Board. Annual Reports are posted to the Board's registry, distributed for review and comment, and are presented to the Board, even if it is not for approval. Any issues identified can be addressed through a similar process as that with other plans.

For clarity, Annual Water Licence Reports are required each year, regardless of whether the Licensee has conducted any activity during the reporting year.

POST SURVEILLANCE NETWORK PROGRAM SIGN(S)

The intent of this Condition is to ensure consistency in sampling locations, and to allow the Inspector to easily locate sampling stations. Posting signs may also prevent disturbance of the sampling site(s).

During the Draft Licence public review, GTC recommended that this condition specify that SNP signs are “posted at or in close proximity to all SNP stations”. The Board has subsequently updated the condition to reflect this recommendation.

ENGAGEMENT PLAN

As explained in section 3.1 above, the Board assesses engagement adequacy through the MVLWB [Engagement and Consultation Policy](#) and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#).

In accordance with the Policy and Guidelines, the Applicant included an Engagement Record and Plan in the Application¹⁹ and these documents were distributed for public review as part of the Application package.

During the Draft Licence public review, GTC recommended updating the Standard Condition as follows: *“The Licensee shall, in cooperation with affected community stakeholders, design an Engagement plan and comply with the plan, subject to Board approval.”* The Board has not changed the Standard Condition at this time, because, as outlined in the Policy and Guide, there is a requirement for Applicants and Affected Parties to develop mutually agreeable Engagement Plans that span the life of a project. GLWB staff will, however, bring GTC’s recommendation for condition revisions to the LWB working group responsible for developing and updating the Standard Conditions template.

The Board has approved the Engagement Plan, Version 2.1 because it meets the requirements of the Policy and Guidelines and is appropriate for the Project activities.

¹⁹ See GLWB Online Registry for See GLWB Online Registry for See glwb.com for [KBL - Inuvik Soil Treatment Facility - Engagement Plan V.2.1 - Jun02 22.pdf](#)

4.4 Part C: Conditions Applying to Security Requirements

Under subsection 35(1) of the [Waters Act](#), the Board is authorized to require the Licensee to provide security to the Minister. Subsection 35(2) of the [Waters Act](#)/ 72.11(2) of the [MVRMA](#) specifies how the security may be applied. Part C of the Licence, by reference to Schedule 2, sets the amount of security to be maintained by the Licensee and sets out requirements related to posting and adjusting security. The conditions in this Section are consistent with the Standard Licence Conditions.

Licence G17L1-002 required that KBL provide and maintain with the Minister, a security deposit in the amount of \$450,116. The Licensee did not provide an updated RECLAIM model as part of the Application and no comments regarding security were submitted to the Board during the Application public review. Board staff subsequently carried over the security amount from G17L1-002 to the Draft Licence.

During the draft Licence public review, ENR recommended that security be updated to reflect cost changes between 2017 and 2022. Noting that the Board's process did not allow for the inclusion of new evidence at the time of draft Licence review, ENR recommended that a security update, including public review, be undertaken following the approval of the licence.

The Board has subsequently maintained the current security deposit of \$450,116; however, the Board has directed KBL to provide an updated Closure Cost Estimate to the Board for approval within 30 days of Licence issuance.

4.5 Part D: Conditions Applying to Water Use

Part D of the Licence has been intentionally left blank, as water use is not contemplated by the Licensee.

4.6 Part E: Conditions Applying to Construction and Schedule 2

Part E and Schedule 2 of the Licence contain conditions applying to Construction activities for the Project. These are consistent with the Standard Licence Conditions. These conditions ensure that Engineered Structures are built to appropriate standards and require the submission of design and engineering reports. The Board can ensure that monitoring requirements are in place prior to, during, and post-construction.

During the public review of the draft Licence, ENR recommended that the Board include four Standard conditions pertaining to construction that had been mirrored in Licence G17L1-0002, but were not included in the draft Licence: DESIGN AND CONSTRUCTION PLAN, CONSTRUCTION DESIGN DRAWINGS, NOTIFICATION – CONSTRUCTION – ENGINEERED STRUCTURE(S), and AS-BUILT REPORT – ENGINEERED

STRUCTURE(S). These conditions describe the submissions requirements for Engineered structures, and had been removed from the Licence, as Board staff believed them to pertain to the construction of new structures, while KBL's facility is already constructed. The Board has decided to include these conditions, because the definition of Construction, includes *"any activities undertaken during any phase of the Project to construct, build, upgrade, or replace any structures, facilities, or components of, or associated with, the Project"*, and thus contemplates future upgrades and replacements that may be required.

During the public review of the draft Licence, ENR recommended that the Board include four conditions pertaining to modifications that had been mirrored in Licence G17L1—0002, but were not included in the draft Licence: MODIFICATIONS NOT REQUIRING APPROVAL, MODIFICATIONS REQUIRING APPROVAL; NOTIFICATION – MODIFICATIONS, and AS BUILT DRAWINGS – MODIFICATIONS. These conditions specify when modifications to the Inuvik Soil Treatment Facility can be carried on without Board approval; they had been omitted from the Licence as an oversight during the re-formatting of existing licence G17L1-002 into the Standard Conditions template. The Board has subsequently included them in the Licence.

4.7 Part F: Conditions Applying to Waste and Water Management and Schedule 3

Part F and Schedule 3 of the Licence contain conditions applying to Waste and Water management activities for the Project. These are consistent with conditions from G17L1-002. The Licensee did not propose any changes that affect the conditions in this section, so the Board maintained all of the existing conditions; however, the Board made administrative updates to the following conditions, in response to reviewer recommendations, and/or for consistency with the Standard Licence Conditions:

WEEKLY INSPECTIONS: During the Draft Licence public review, GTC recommended that KBL's weekly inspection reports be submitted to the Board and posted on the Public Registry within 30 days of the inspection date. KBL responded suggesting that these in-house inspection reports be compiled and included as part of the Annual Report submission, as is consistent with other similar Licences.²⁰ The Board has subsequently updated this condition to specify that the inspection reports are to be included in the Annual Report. Schedule 1 was also updated to include this requirement as Condition (n).

REPRESENTATIVE SAMPLE: During the Draft Licence public review, GTC recommended removing the Inspector's authorization to allow for deviations from the collection of representative soil samples. The Board has not changed this condition, as Schedule 3, Condition 3 refers to the soil sampling methods, not the EQC itself. EQC and Soil reuse criteria are established by the Board in Schedule 3 Conditions 1 and 2 and there is no authority for the inspector to allow KBL to deviate from these criteria, but some flexibility with regards to how the soil is collected may be required.

²⁰ MV2019L1-0003 - KBL Environmental Ltd - Issuance - Type B Water Licence - May16-19.pdf

SOIL ANALYSES – REMOVAL - During the Draft Licence public review, GTC recommended updating this condition to better clarify its intention. The Condition has been changed from SUBMIT RESULTS to SOIL ANALYSES – ACCEPTANCE and to mirror SNOW/WATER ANALYSES – ACCEPTANCE. SOIL ANALYSES – REMOVAL. Each of these conditions requires the Licensee to submit appropriate analyses to the Inspector prior to moving materials in or out of the facility.

REPRESENTATIVE SAMPLES: During the Draft Licence public review, GTC recommended that all conditions allowing for inspector authorization should specify that the authorization be in writing. Conditions F.15 and F.20 have been updated to include this recommendation.

MAXIMUM DISCHARGE: During the Draft Licence public review, GTC recommended that all conditions allowing for inspector authorization should specify that the authorization be in writing. Conditions F.24 and F.25 have been updated to include this recommendation.

EXCEEDING CRITERIA: During the Application public review, ENR recommended that KBL specify which approved offsite facilities might receive Project waste. KBL replied that it could not provide a comprehensive list of receivers, as it would depend on type of material as well as contaminant type. Similar questions were raised during the review of the draft Water Licence; GTC requested clarity on the term “approved facility”. The Board has subsequently updated Conditions F.18 and F.23 to replace the term “approved facility” with “registered hazardous waste receiving facility”, to reflect the terminology used in the GNWT *Guidelines for Hazardous Waste Management*.²¹ For consistency, the name of Condition F.18 was changed from TREATED SOIL – DISPOSAL to TREATED SOIL EXCEEDING CRITERIA to mirror F.23, EFFLUENT EXCEEDING CRITERIA.

4.7.1 *Management Plans and Monitoring Programs*

These conditions are used to set out the management plan, and operations and maintenance plan, requirements for each licence. Original Plan requirements were established under Licence G17L1-002 based on LWB policies, guidelines, and information gathered during the regulatory processes.

OPERATIONS AND MAINTENANCE PLAN

The Applicant submitted Operation and Maintenance Plan (OMP) V. 2.2 as part of the Application. During the Public review the Board did not receive any recommendations pertaining to the OMP. The Board has approved OMP V.2.2 because is appropriate for the Project activities

²¹ See enr.gov.nt.ca for [Guideline for Hazardous Waste Management](#)

ENVIRONMENTAL MONITORING PLAN

The Applicant submitted Environmental Monitoring Plan (EMP) V.2.1 as part of the Application²². During the Public review the Board did not receive any recommendations pertaining to the EMP. The Board has approved EMP V.2.1 because it is in accordance with the requirements of Schedule 4 and is appropriate for the Project activities

WASTE MANAGEMENT PLAN

All applicants must submit detailed waste management information, identifying all types of waste that will be produced by the project (including quantity and quality) and describing the disposal methods that are proposed for each type of waste. For most applicants, this will be in the form of a Waste Management Plan, developed in accordance with the LWBs' [Guidelines for Developing a Waste Management Plan](#), and licences and permits will include standard conditions regarding compliance with the Plan, as approved by the Board. The Guidelines can be applied to a wide range of projects and are intended to ensure that all waste management activities are carried out in a way that is consistent with best practices and applicable guidelines to minimize waste released from a project.

The Licensee included a Waste Management Plan (WMP) in the Applications.²³ The Board considered this Plan as part of the Application Package.

During the Public Review of the Application, ENR recommended that KBL provide updates regarding potentially outdated information found in the WMP, including lease information from the Town of Inuvik, confirmation on whether proposed drilling programs had taken place, and references to an older version of the GNWT Hazardous Waste Guidelines. KBL provided responses, but also suggested that ENR was reviewing the Original WMP, and not the one provided in the Application package.

The Board has reviewed KBLs submissions and notes that WMP V.2.2 (last revised Feb 2021) was received from the Applicant as part of the Application package. It was this version that was posted to the GLWB public registry and subsequently uploaded to the ORS. This version does not contain the information referred to by KBL in its responses to ENR, and no more recent versions of the Waste Management Plan have been made available to the Board.

The Board requires that the Licensee submit the revised WMP referred to in the public review responses, for Board approval within 14 days of Licence issuance. The plan shall contain the information that was

²² See GLWB Online Registry for [KBL - Inuvik Soil Treatment Facility - Environmental Monitoring Plan V.2.1 - Jun02_22.pdf](#)

²³ See GLWB Online Registry for [KBL - Inuvik Soil Treatment Facility - Waste Management Plan V.2.2 - Jun02_22.pdf](#)

referred to during the regulatory proceeding. The Plan will be considered approved when the Licensee receives written confirmation of conformity from Board staff. A public review will typically not be required to confirm conformity; however, if the revised Plan includes additional information beyond what has been requested, a public review may be required before it can be considered by the Board.

4.7.2 Effluent Quality Criteria

The Board's approach to managing the deposit of waste to the receiving environment through water licence conditions is described in the MVLWB [Water and Effluent Quality Management Policy](#).

EFFLUENT QUALITY CRITERIA

The Licence includes EQC for the discharge of effluent from the Inuvik Soil Treatment Facility as per Part F: EFFLUENT QUALITY CRITERIA and Table 2 below.

Parameter	Maximum Grab Concentration
pH	6.5-8.5
Antimony	0.006 mg/L
Arsenic	0.005 mg/L
Barium	1 mg/L
Beryllium	100 mg/L
Boron	1.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Selenium	0.001 mg/L
Uranium	0.02 mg/L
Zinc	0.03 mg/L
Benzene	0.005 mg/L
Toluene	0.024 mg/L
Ethylbenzene	0.0024 mg/L
Xylenes	0.3 mg/L
Styrene	0.072 mg/L
F1	2.2 mg/L
F2	1.1 mg/L
Acenaphthene	0.0058 mg/L
Acenaphthylene	0.046 mg/L
Anthracene	0.000012 mg/L
Fluoranthene	0.00004 mg/L
Fluorene	0.003 mg/L
Naphthalene	0.0011 mg/L
Phenanthrene	0.0004 mg/L
Pyrene	0.000025 mg/L

Carcinogenic PAHs (as B(a)P TPE)	0.00001 mg/L
Benz[a]anthracene	0.000018 mg/L
Benzo[b+j]fluoranthene	0.00048 mg/L
Benzo[k]fluoranthene	0.00048 mg/L
Benzo[a]pyrene	0.000017 mg/L
Chrysene	0.0014 mg/L
Dibenz[a,h]anthracene	0.00028 mg/L
Indeno[1,2,3-c,d]pyrene	0.00023 mg/L
Phenol	0.004 mg/L
Polychlorinated biphenyls	0.0094 mg/L

Determination for EQC

The Applicant did not propose changes to the EQC in its Application. The Board subsequently carried over the EQC from licence G17L3-002 in the Draft Licence. During the Public review of the Draft Water Licence, the Board received no comments or recommendations to change the EQC. The Board has thus maintained these EQC

4.8 Part H: Conditions Applying to Contingency Planning

Part H of the Licence contains conditions related to spill contingency planning and reporting, reclamation of spills and unauthorized discharges, and emergency response for the Project. These conditions are consistent with the Standard Licence Conditions.

Part H: SPILL CONTINGENCY PLAN - REVISED

All applicants must describe spill contingency planning. Licences will include standard conditions regarding compliance with the Plan, as approved by the Board.

The Licensee included a SCP in the Application.²⁴ The Board considered this Plan as part of the Application Package. During the Application public review, ENR recommended that KBL provide information regarding the final disposal of materials used for spill cleanup. KBL responded to the comments and provided an updated SCP V.2.3²⁵

²⁴ See GLWB Online Registry [for KBL - Inuvik Soil Treatment Facility - Operations and Maintenance \(Including Spill Contingency\) Plan V.2.2 - Jun02_22.pdf](#)

²⁵ See GLWB Online Public Registry for [KBL - Inuvik Soil Treatment Facility - Operations and Maintenance \(Including Spill Contingency\) Plan V.2.3 - Jun02_22.pdf](#)

The Board has approved SCP, V.2.3 because it meets the requirements of the INAC [*Guidelines for Spill Contingency Planning*](#) and is appropriate for the Project activities.

4.9 Part I: Conditions Applying to Closure and Reclamation and Schedule 5

Part I and Schedule 5 of the Licence contain conditions applying to closure and reclamation, including progressive reclamation of the Project. These are consistent with the Standard Licence Conditions

Part I: CLOSURE AND RECLAMATION PLAN

All applicants must describe closure and reclamation planning. For most applicants, this will be in the form of a Closure and Reclamation Plan (CRP).

A CRP was included as part of KBL's Application. During the public review of the Application materials, ENR recommended that KBL provide updates to the CRP, describing the protocols for step out sampling. KBL Responded to the comments and provided an updated CRP V.2.1

During the Public review of the draft Water Licence, GTC recommended that CLOSURE AND RECLAMATION PLAN be revised from "The Licensee shall comply with the Closure and Reclamation Plan, once approved." to specify that approval by the GLWB is required. The Board has not made changes to the standard language in this condition at this time, but GLWB staff will bring GTC recommendations for condition revisions to the LWB working group responsible for developing and updating the Standard Conditions template.

The Board has reviewed updated CRP V.1.2 against the requirements outlined in Water Licence G17L1-002, Schedule 4. The Board has decided to approve the CRP as an interim submission. The Board has subsequently updated the Licence with Condition to require that KBL submit a Final CRP for Board approval, a minimum of 2 years prior to the end of Project operations. The requirements of the Final CRP are outlined in Schedule 5.

4.10 Annex A: Surveillance Network Program

Annex A of the Licence contains conditions applying to the Surveillance Network Program (SNP). The SNP details the sampling and monitoring requirements related to compliance with several conditions in the Licence. Requirements for measuring flows, volumes, and other data are based on standard licence conditions as are the reporting requirements.

SNP Stations were established in 2017 under Licence G17L1-005. No changes to the SNP were proposed by the Applicant. During the Public Review of the Draft Licence ENR recommended that GLWB updated the sampling frequencies for SNP stations 0037-1, 0037-2, and 0037-3. The Board has subsequently included a requirement for daily sampling, in the case that a discharge event spans multiple days.

4.11 Annex B: Table of Submissions

Annex B of the Licence contains a table that summarizes the submissions required by the Licence conditions.

4.12 Annex C: Table of Revision History

Annex C of the Licence contains a table which identifies updates and tracks changes made to the Licence. This table is currently blank because this is a new Licence, but it will be updated throughout the life of the Licence.

5.0 Conclusion

Subject to the scope, definitions, conditions, and terms set out in the Licence, and for the reasons expressed herein, the GLWB is of the opinion that water use, and waste disposal associated with the Project can be completed by the KBL Environmental Ltd. while providing for the conservation, development, and utilization of waters in a manner that will provide the optimum benefit for all Canadians and in particular for the residents of the Mackenzie Valley.

Water Licence G22L1-005 contains provisions that the Board deems necessary to ensure and monitor compliance with the MVRMA, *Waters Act*, and the Regulations made thereunder, and to provide appropriate safeguards in respect of the KBL Environmental Ltd. deposit of waste as authorized by the Licence.

SIGNATURE



November 23, 2022

Elizabeth Wright, Chair
Gwich'in Land and Water Board

Date