

DRAFT
Type B Water Licence MV2014L8-0006
Canadian Zinc Corporation – Prairie Creek All Season Road Project

Legend for Reviewers:

Green Highlighting reflects items to be determined through the regulatory proceeding; seeking reviewer input

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Commented [JP-M1]: Pending development. Not included in this draft.

Part A: Scope and Definitions

1. Scope:

- a) This Licence entitles the Licensee to use Water and dispose of Waste for construction, operation, closure and reclamation of the Prairie Creek All Season Road Project, Northwest Territories as described in the Environmental Assessment [and subsequent Preliminary Screening Report dated X].

SCOPE

The scope of this Licence includes the following activities:

- i. [enter list of activities];
 - ii. Withdrawal of Water;
 - iii. Deposit of Waste;
 - iv. Construction, operation, and maintenance of a Winter Road and All Season Road;
 - v. Construction, operation, and maintenance of Watercourse crossing(s);
 - vi. Construction, operation, and maintenance of Watercourse training;
 - vii. Construction, operation, and maintenance of flood control structures;
 - viii. Construction, operation, and maintenance of Watercourse diversion structures; and
 - ix. Progressive Reclamation and associated Closure and Reclamation activities.
- b) This Licence is issued subject to the conditions contained herein with respect to the use of Water and the deposit of Waste of any type in any Water 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 Water. Whenever new Regulations are made or existing Regulations are amended by the Commissioner in Executive Council under the *Waters Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be automatically amended to conform with such Regulations.
- c) Compliance with the terms and conditions of this Licence does not relieve the Licensee from responsibility for compliance with the requirements of any applicable federal, territorial, or municipal legislation.

REGULATIONS
SUBJECT TO CHANGE

LEGISLATIVE
COMPLIANCE

2. Definitions¹:

Acid Rock Drainage – acidic Water, often with elevated sulphate concentrations, that occurs as a result of oxidation of sulphide minerals contained in rock or other materials that are exposed as a result of natural weathering processes, Construction, or Project activities.

Action Level – a predetermined qualitative or quantitative trigger which, if exceeded, requires the Licensee to take appropriate actions.

All Season Road –

Analyst – an Analyst designated by the Minister under subsection 65(1) of the *Waters Act*.

¹ Defined terms are capitalized throughout the License, including when used in other definitions.

Application – the Application for a type B Water Licence and all supporting documents as submitted to the Board.

Aquatic Effects Monitoring Program (AEMP) – a monitoring program designed to determine the effects in the aquatic Receiving Environment resulting from the Project; to evaluate the accuracy of impact predictions; to assess the effectiveness of impact mitigation measure; and to identify additional impact mitigation measures to reduce or eliminate environmental effects of the licensed Project.

Artesian Aquifer – a Water-bearing rock stratum which, when encountered during drilling operations, produces a pressurized flow of Groundwater that reaches an elevation above the Water table or above the ground surface.

Avalanche Professional – a person registered with the Canadian Avalanche Association to practice as an Associate Member, and whose professional field of specialization is appropriate to address the components of the Project at hand.

Average Concentration – the arithmetic mean/discrete average of four consecutive analytical results, **for if less than four analytical results, the arithmetic mean/discrete average of the analytical results collected during a batch decant,** as submitted to the Board in accordance with the sampling and analysis requirements specified in the Surveillance Network Program.

Board – the Mackenzie Valley Land and Water Board established under subsection 99(1) of the *Mackenzie Valley Resource Management Act*.

Closure Cost Estimate – has the same meaning as that in the Mackenzie Valley Land and Water Board, Government of the Northwest Territories, and Aboriginal Affairs and Northern Development Canada's *Guidelines for Closure and Reclamation Cost Estimates for Mines*.

Closure Criteria – has the same meaning as that in the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories*.

Closure Objectives – has the same meaning as that in the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advance Mineral Exploration and Mine Sites in the Northwest Territories*.

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, human activities, and the surrounding environment.

Option 1:

Closure and Reclamation Plan – a document, developed in accordance with this Licence and the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada's *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*, that clearly describes the Closure and Reclamation for the Project.

OR

Option 2:

Closure and Reclamation Plan – a document, developed in accordance with this Licence, that clearly describes the Closure and Reclamation for the Project.

Construction – any activities undertaken during any phase of the Project to construct or build any structures, facilities or components of, or associated with, the development of the Project.

Discharge – the direct or indirect release of any Waters 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 Mackenzie Valley Land and Water Board's *Engagement and Consultation Policy* and the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, that clearly describes how, when and which engagement activities will occur with an affected party during the life of the Project.

Engineered Structure – any structure or facility related to Water Use or the deposit of Waste that is designed by a Professional Engineer, including but not limited to the [enter list of structures/facilities] associated with the Project.

Environmental Assessment – the totality of the Mackenzie Valley Environmental Impact Review Board's Public Registry for Environmental Assessment EA1415-01, including the Report of Environmental Assessment.

Greywater – all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include Toilet Wastes.

Groundwater – all Water in a zone of saturation beneath the land surface, regardless of its origin.

Hydrocarbon-Contaminated Soil Treatment Facility – the area and lined, Engineered Structure designated to contain and treat hydrocarbon-contaminated sediments and soil.

Independent Technical Review Panel – the expert panel established by the Licensee to fulfill Measure 5-1 of the Report of Environmental Assessment.

Inspector – an Inspector designated by the Minister under subsection 65(1) of the *Waters Act*.

Licensee – the holder of this Licence.

Maximum Average Concentration – the concentration of a parameter that cannot be exceeded by the running average of any four consecutive analytical results.

Maximum Grab Concentration – the concentration of a parameter that cannot be exceeded in any one grab sample.

Metal Leaching – the production of leachate through Seepage or drainage from **Waste Rock, Quarry Rock, or overburden** in either disturbed or undisturbed conditions, that could lead to the release of metals to Groundwater and surface Water.

Minister – the Minister of the Government of the Northwest Territories – 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).

Potentially Acid Generating (PAG) Rock – any rock that has the potential to produce Acid Rock Drainage.

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 in accordance with the territorial *Engineering and Geoscience Professions Act*, and whose professional field of specialization is appropriate to address the components of the Project at hand.

Professional Geoscientist – a person registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists to practice as a Professional Geoscientist in the Northwest Territories in accordance with the territorial *Engineering and Geoscience Professions Act*, 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 period of the Project.

Project – the undertaking described in Part A, condition 1.

Quarry – an open pit blasted into the surface of bedrock to obtain aggregate for Construction.

Quarry Rock – aggregate produced in a Quarry.

Receiving Environment – the natural environment that, directly or indirectly, receives any deposit 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.

Report of Environmental Assessment – the Mackenzie Valley Environmental Impact Review Board's Report of Environmental Assessment and Reasons for Decision for the EA1415-01, dated September 12, 2017, and adopted by the Minister of Crown-Indigenous Relations on October 9, 2018.

Response Framework – a systematic approach to responding to the results of a monitoring program through adaptive management actions.

Response Plan – a document describing the actions that will be taken by a proponent in response to an Action Level exceedance.

Runoff – the overland flow of Water that occurs when excess precipitation, meltwater, or other Water is not absorbed by the land, and instead drains downslope towards a Watercourse.

Seepage – any Water or Waste that drains, passes through, or escapes from any structure designed to contain, withhold, divert, or retain Water or Waste.

Sewage – all Toilet Wastes and Greywater.

Sewage Disposal Facilities – the area and structures designated to contain and treat Sewage.

Significance Threshold – a limit of environmental change which, if reached, would likely result in significant adverse impacts.

Solid Waste Disposal Facilities – the area and structures designated to contain solid Waste.

Spill Contingency Plan – a document, developed in accordance with Aboriginal Affairs and Northern Development Canada's *Guidelines for Spill Contingency Planning*.

Surveillance Network Program (SNP) – a monitoring program established to define environmental sampling, analysis, and reporting requirements, as detailed in Annex A of this Licence.

Toilet Wastes – all human excreta and associated products, not including Greywater.

Traditional Knowledge – the cumulative, collective body of knowledge, experience and values built up by a group of people through generations of living in close contact with nature. It builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual, and political change.

Unauthorized Discharge – a release or Discharge of any Waters or Waste not authorized under this Licence.

Waste – any substance defined as Waste by section 1 of the *Waters Act*.

Waste Disposal Facilities – the area and structures designated for the disposal of Waste, including the [enter as relevant: Sewage Disposal Facilities, Solid Waste Disposal Facilities, Hydrocarbon Contaminated Soil Treatment Facility, and the Temporary Hazardous Waste Storage Facility]

Waste Management Plan – a document, developed in accordance with the Mackenzie Valley Land and Water Board's *Guidelines for Developing a Waste Management Plan*, that describes the methods of Waste management from Waste generation to final disposal.

Wastewater – any Water that is generated by Project activities or originates on-site, contains Waste, and includes but is not limited to, Runoff, Seepage, Sewage, and Effluent.

Water(s) – any Water as per section 1 of the *Waters Act*.

Watercourse – a natural watercourse, body of Water or Water supply, whether usually containing Water or not, and includes Groundwater, springs, swamps, and gulches.

Waters Regulations – the regulations proclaimed pursuant to section 63 of the *Waters Act*.

Water Supply Facilities – the area and structures designated to collect, treat, and supply Water for the Project.

Water Use – a use of Water as per section 1 of the *Waters Act*.

Water Use Fee – the fee for use of Water as per the Waters Regulations promulgated under section 63 of the *Waters Act* and the Mackenzie Valley Land and Water Board's *Water Use Fee Policy*.

Winter Road –

Part B: General Conditions

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| 1. The Licensee shall ensure a hard 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 to fulfill Report of Environmental Assessment Measures 10-1, 15-1, 15-4, and Suggestion 15-4. | INCORPORATE TRADITIONAL KNOWLEDGE |
| 4. In each submission required by this Licence or 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 denoted. | USE UP-TO-DATE REFERENCES |
| 6. The Licensee shall ensure all submissions to the Board:
a) are in accordance with the Mackenzie Valley Land and Water Board's <i>Document Submission Standards</i> ; and
b) Include a conformity statement or table which identifies where the pertinent requirements of this Licence, or other direction from the Board, are addressed. | SUBMISSION FORMAT |
| 7. For all submissions that include monitoring data, the Licensee shall also submit all raw data in Excel™ format. | SUBMIT RAW DATA |
| 8. The Licensee shall ensure management plans are submitted to the Board in a format consistent with the Mackenzie Valley Land and Water Board's <i>Standard Outline for Management Plans</i> , unless otherwise specified. | MANAGEMENT PLANS – USE STANDARD OUTLINE |
| 9. The Licensee shall comply with all [enter document types – plans, reports, programs, and submissions] approved as per the conditions of this Licence, including such revisions made as per the conditions of this Licence, and as approved by the Board. | COMPLY WITH SUBMISSIONS AND REVISIONS |
| 10. The Licensee may propose revisions at any time by submitting a revised [enter document types] to the Board for approval. Unless otherwise specified, a minimum of 90 days prior to implementing any proposed updates or changes in the [enter document types, as used above], the Licensee shall submit all revisions to the Board, for approval. Any revision submission shall include a revision history table and a summary of the revisions made. The Licensee shall not implement revisions until approved by the Board. | REVISIONS |
| 11. The Licensee shall revise any submission as per the Board's direction and resubmit it for approval. | REVISE AND RESUBMIT |
| 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 |

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| 13. The Licensee shall comply with the Schedules , which are annexed to and form part of this Licence, and any changes 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 changes 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. | CHANGES TO COMPLIANCE DATE(S) |
| 16. The Licensee shall ensure signs are posted for 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) |
| 17. The Licensee shall install, operate, and maintain meters, devices, or other such methods used for measuring the volumes of Water used and Waste discharged to the satisfaction of an Inspector. | MEASURE WATER USE AND WASTE DISCHARGED |
| 18. Beginning March 31, 2020 and no later than every March 31 thereafter, the Licensee shall submit an Annual Report to the Board and an Inspector. The Report shall be in accordance with Schedule x, condition x . | ANNUAL REPORT |
| 19. The Licensee shall comply with the Engagement Plan , once approved, to fulfill Measure 15-1, 15-4 and Suggestion 15-4 of the Report of Environmental Assessment . | ENGAGEMENT PLAN |
| 20. A minimum of [60 or 90] days prior to the commencement of [enter Project specific activities] , the Licensee shall submit to the Board, for approval, a revised Engagement Plan. The Licensee shall not commence [enter Project specific activities] prior to Board approval. | ENGAGEMENT PLAN – REVISED |
| 21. A minimum of ten days prior to commencement of the Project, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the commencement date, and the name and contact information for the Project superintendent. Any updates shall be provided to the Board and an Inspector in writing as changes occur. | NOTIFICATION – COMMENCEMENT |
| 22. The Licensee shall immediately provide written notification to the Board and an Inspector of any non-compliance with the conditions of this Licence or any direction from the Board pursuant to the conditions of this Licence. | NOTIFICATION – NON-COMPLIANCE |
| 23. The Licensee shall submit a revised Project schedule to the Board and an Inspector upon request. | SUBMIT REVISED PROJECT SCHEDULE |

Part C: Reclamation Security Requirements

1. The Licensee shall post and maintain a security deposit with the Minister in accordance with Schedule X, condition x.
2. Upon request of the Board, the Licensee shall submit an updated Closure Cost Estimate utilizing the current version of RECLAIM or another method acceptable to the Board.
3. The amount of the security deposit required by Part C, condition 1 may be adjusted by the Board:
 - a) Based on updated Closure Cost Estimates referred to in Part C, condition 2; or
 - b) Based on such other information as may become available to the Board.
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 90 days of the Board giving notice of the adjusted amount, or as otherwise directed by the Board.

**POST SECURITY
DEPOSIT**

**UPDATE CLOSURE
COST ESTIMATE**

**ADJUSTED SECURITY
AMOUNT**

**POST ADJUSTED
SECURITY AMOUNT**

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Part D: Water Use

1. The Licensee shall only obtain Water for the Project from the following sources:
 - a) Lake at Km 100-OR4;
 - b) Lake at Km 115;
 - c) Gap Lake;
 - d) Lake at Km 139; and
 - e) Lake at Km 141.
2. The Licensee shall withdraw Water using the Water Supply Facilities, unless otherwise authorized in writing by an Inspector.
3. Prior to obtaining Water from a licensed Water source, the Licensee shall post sign(s) to identify the intake for the Water Supply Facilities. All sign(s) shall be located and maintained to the satisfaction of an Inspector.
4. The Licensee may only withdraw up to 275 m³/day of Water from [enter Water source(s)].
5. In any single ice-covered season, the Licensee shall not withdraw greater than the following quantity(ies):

Water Source(s)	Quantity (m ³)
6. Prior to the effective date of this Licence and in advance of any Water use, the Licensee shall annually pay the Water Use Fee in accordance with the Mackenzie Valley Land and Water Board's Water Use Fee Policy.

WATER SOURCE

WATER WITHDRAWAL – FACILITIES

POST WATER INTAKE SIGN(S)

MAXIMUM WATER WITHDRAWAL VOLUME

MAXIMUM UNDER-ICE WATER WITHDRAWAL VOLUME

WATER USE FEE

Commented [KL2]: This information is from the Post-EA information Package document on page 45 (or 54 of the pdf page). We are seeking reviewer input for this condition.

Commented [JP-M3]: Board staff recommend an amount of 299m3/day; to be confirmed by CZN.

Commented [JP-M4]: Seeking Reviewer Input, including identification of water source(s).

Part E: Construction

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| <p>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.</p> | <p>OBJECTIVE –
CONSTRUCTION</p> |
| <p>2. 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.</p> | <p>ENGINEERED
STRUCTURES –
GENERAL</p> |
| <p>3. The Licensee shall ensure that all material used in Construction of the Project meets the geochemical criteria specified in the approved Geochemical Verification Program referred to in Part X, condition x.</p> | <p>CONSTRUCTION
MATERIAL –
GEOCHEMICAL
CRITERIA</p> |
| <p>4. The Licensee shall only use material that is clean and free of contaminants and is from a source that has been approved in writing by an Inspector.</p> | <p>CONSTRUCTION
MATERIAL –
SOURCE(S)</p> |
| <p>5. The Licensee shall maintain Construction records and geochemical records of Construction materials for all structures and make them available at the request of the Board or an Inspector.</p> | <p>CONSTRUCTION
RECORDS</p> |
| <p>6. A minimum of 90 days prior to the commencement of Construction of all structures, excluding Engineered Structures, intended to contain, withhold, divert, or retain Water or Wastes, the Licensee shall submit to the Board for approval, a Structure Description Report, in accordance with Schedule X, condition x. The Licensee shall not commence Construction prior to Board approval of the Report.</p> | <p>STRUCTURE
DESCRIPTION REPORT</p> |
| <p>7. A minimum of 90 days prior to the commencement of Construction of any Engineered Structures not referred to in Structure Description Report (Part E, condition X), excluding the Winter/All Season Road, the Licensee shall submit to the Board for approval, a Design and Construction Plan in accordance with Schedule X, condition x.</p> | <p>DESIGN AND
CONSTRUCTION PLAN</p> |
| <p>8. A minimum of 90 days prior to the commencement of Construction of any Engineered Structures not referred to in Structure Description Report (Part E, condition X), excluding the Winter/All Season Road, the Licensee shall submit to the Board, Design Drawings stamped and signed by a Professional Engineer.</p> | <p>DESIGN DRAWINGS</p> |
| <p>9. A minimum of 45 days prior to the commencement of Construction of [enter name of specific Engineered Structure(s)], the Licensee shall submit to the Board, a Design and Construction Plan, in accordance with Schedule X, condition x.</p> | <p>DESIGN AND
CONSTRUCTION PLAN
– [enter name(s) of
specific Engineered
Structure(s), where
applicable]</p> |

10. A minimum of ten 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 Construction superintendent. Any updates shall be provided to the Board and an Inspector in writing as changes occur.

NOTIFICATION –
CONSTRUCTION

11. Prior to detailed design of the Winter/All Season Road, the Licensee shall submit to the Board, for approval, recommendations for Independent Technical Review Panel members to fulfill Report of Environmental Assessment Measure 5-1.

INDEPENDENT
TECHNICAL REVIEW
PANEL –
ESTABLISHMENT

12. Within [enter time], the Licensee shall submit the final **Terms of Reference for the Independent Technical Review Panel** to the Board to fulfill Report of Environmental Assessment Measure 5-1. The Licensee shall submit a revised Terms of Reference 30 days prior to implementation of any changes to the Terms of Reference.

INDEPENDENT
TECHNICAL REVIEW
PANEL – TERMS OF
REFERENCE

13. A minimum of 90 days prior to the commencement of Construction of the Winter/All Season Road, the Licensee shall submit to the Board, the following:

INDEPENDENT
TECHNICAL REVIEW
PANEL – FINAL REPORT

- a) A **Design and Construction Plan** in accordance with **Schedule X, condition x**;
- b) **Design Drawings** stamped and signed by a Professional Engineer; and
- c) A **Final Report from the Independent Technical Review Panel** to fulfill Report of Environmental Assessment Measure 5-1 that indicates their review and acceptance of the Design and Construction Plan and Design Drawings.

14. The Licensee may propose revisions at any time to the Winter/All Season Road by submitting to the Board the following:

INDEPENDENT
TECHNICAL REVIEW
PANEL – REVISIONS TO
FINAL REPORT

- a) a revised Design and Construction Plan,
- b) revised Design Drawings stamped and signed by a Professional Engineer; and
- c) a revised Final Report from the Independent Technical Review Panel to fulfill Report of Environmental Assessment Measure 5-1 that indicates their review and acceptance of the revised Design and Construction Plan and Design Drawings.

Any revision submission shall include a revision history table and a summary of the revisions made. The Licensee shall not implement revisions until approved by the Board.

15. The Licensee shall ensure that all structures, excluding Engineered Structures, are constructed in accordance with the approved Structure Description Report(s).

CONSTRUCT AS
DESIGNED –
STRUCTURE(S)

16. The Licensee shall ensure that all Engineered Structures, including the Winter/All Season Road, are constructed in accordance with the [enter: Design Drawings and/or approved Design and Construction Plans].

CONSTRUCT AS
DESIGNED –
ENGINEERED
STRUCTURE(S)

17. Within 90 days of the completion of the Construction of each Engineered Structure, including the Winter/All Season Road, 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:
- 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 [enter: Design and Construction Plans and/or Design Drawings]; and
 - c) any data used to support these decisions.

**AS-BUILT REPORT –
ENGINEERED
STRUCTURE(S)**

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Part F: Waste and Water Management

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| 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. A minimum of ten days prior to depositing any Waste into a licenced municipal facility, the Licensee shall provide written notification to the Board and an Inspector. | NOTIFICATION – WASTE DEPOSIT |
| 3. The Licensee shall dispose of all Waste as described in the approved Waste Management Plan. | DISPOSE WASTE IN ACCORDANCE WITH PLAN |
| 4. 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 Submissions | |
| 5. The Licensee shall comply with the Waste Management Plan , once approved. The Plan shall be in accordance with the requirements of Schedule x, condition x. | WASTE MANAGEMENT PLAN |
| 6. A minimum of [60 or 90] days prior to the commencement of [enter Project specific activities], the Licensee shall submit to the Board, for approval, a revised Waste Management Plan. The Licensee shall not commence [enter Project specific activities] prior to Board approval. | WASTE MANAGEMENT PLAN – REVISED |
| 7. The Licensee shall comply with the Sediment and Erosion Control and Monitoring Plan , once approved. The Plan shall fulfill Part H, condition 1 and be in accordance with the requirements of [Schedule x, condition x]. | SEDIMENT AND EROSION CONTROL AND MONITORING PLAN |
| 8. A minimum of [60 or 90] days prior to the commencement of [enter Project specific activities], the Licensee shall submit to the Board, for approval, a revised Sediment and Erosion Control and Monitoring Plan. The Licensee shall not commence [enter Project specific activities] prior to Board approval. | SEDIMENT AND EROSION CONTROL AND MONITORING PLAN – REVISED |
| 9. The Licensee shall comply with the Permafrost Management and Monitoring Plan , once approved. The Plan shall fulfill Part H, condition 1 and be in accordance with the requirements of [Schedule x, condition x]. | PERMAFROST MANAGEMENT AND MONITORING PLAN |
| 10. A minimum of [60 or 90] days prior to the commencement of [enter Project specific activities], the Licensee shall submit to the Board, for approval, a revised Permafrost Management and Monitoring Plan. The Licensee shall not commence [enter Project specific activities] prior to Board approval. | PERMAFROST MANAGEMENT AND MONITORING PLAN – REVISED |
| 11. The Licensee shall comply with the Geochemical Verification Program , once approved. The Plan shall be in accordance with the requirements of [Schedule x, condition x]. | GEOCHEMICAL VERIFICATION PROGRAM |
| 12. A minimum of [60 or 90] days prior to the commencement of [enter Project specific activities], the Licensee shall submit to the Board, for approval, a revised Geochemical Verification Program. The Licensee shall not commence [enter Project specific activities] prior to Board approval. | GEOCHEMICAL VERIFICATION PROGRAM – REVISED |

13. The Licensee shall comply with the **Explosives Management Plan**, once approved. The Plan shall be in accordance with the requirements of **Schedule x, condition x**.

**EXPLOSIVES
MANAGEMENT PLAN**

14. A minimum of **[60 or 90]** days prior to the commencement of **[enter Project specific activities]**, the Licensee shall submit to the Board, for approval, a revised Explosives Management Plan. The Licensee shall not commence **[enter Project specific activities]** prior to Board approval.

**EXPLOSIVES
MANAGEMENT PLAN –
REVISED**

Operations of Structures and Facilities

15. The Licensee shall construct, operate, and maintain the **[enter name of structure/facility]** to the design specifications and engineering standards, such that:

**[ENTER NAME OF
STRUCTURE/FACILITY]**

a) Any constructed structures/facilities are maintained and operated so as to prevent structural failure and to the satisfaction of an Inspector; **OR** the specifications described in the **[facility name]** Design and Construction Plan, referred to in **Part E** are maintained at all times, and the structures/facilities are maintained and operated to the satisfaction of an Inspector;

b) Seepage from the facility to the Receiving Environment is minimized, collected, and returned to the **[facility name(s)]**; **OR** Any Seepage from the facility to the Receiving Environment that does not meet Effluent Quality Criteria, as specified in **Part F, condition x** shall be collected and returned to the **[structure/facility name(s)]**;

c) Any deterioration or erosion of constructed structures/facilities shall be reported to an Inspector and the Board, and repaired immediately;

d) Monitoring of the facility is sufficient to ensure that:

i. Performance design criteria, as described in the **Design and Construction Plan/Operation and Maintenance Plan**, referred to in **Part E** are being met;

ii. Necessary changes in operation of the facility, including any additional mitigations, are identified;

16. 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/DECANT
LOCATION –
ORDINARY HIGH
WATER MARK**

17. The Licensee shall operate and maintain the **Sewage Disposal Facilities and Solid Waste Disposal Facilities** to prevent structural failure and to the satisfaction of an Inspector.

**PREVENT STRUCTURAL
FAILURE**

Inspections of Structures and Facilities

18. The Licensee shall conduct **[enter frequency]** inspections of the **[enter names of structures/facilities]**, or as directed by an Inspector or the Board. Records of these inspections shall be made available to the Board or an Inspector upon request.

**[FREQUENCY]
INSPECTION OF [ENTER
NAME OF
STRUCTURES/FACILITIES]**

19. The Licensee shall conduct daily erosion inspections of Discharge locations during periods of Discharge, or more frequently as directed by an Inspector. Records of these inspections shall be made available to the Board or an Inspector upon request.

**DAILY INSPECTIONS OF
DISCHARGE
LOCATIONS**

20. The Licensee shall ensure that geotechnical [and geochemical] inspections of [enter either: a list of structures, or all Engineered Structures] are conducted annually, during the summer months, by a Professional Engineer [and Professional Geoscientist], and following any extreme events (such as earthquakes, flooding, cracks, sinkhole formation, etc.). The Licensee shall:
- a) A minimum of two weeks prior to the annual inspection, provide written notification to an Inspector; and
 - b) Within 90 days of completing the inspection, submit the Professional Engineer's and Professional Geoscientist's full **Geotechnical and Geochemical Inspection Report** to the Board and an Inspector. The Report shall include:
 - i. a covering letter from the Licensee outlining an implementation plan to respond to any recommendations made by the Professional Engineer and Professional Geoscientist, including rationale for any decisions that deviate from the Professional Engineer's [and Professional Geoscientist's] recommendations; and
 - ii. a summary of any actions taken by the Licensee to address the recommendations made following the previous year's inspection.

**ANNUAL
GEOTECHNICAL AND
GEOCHEMICAL
INSPECTIONS**

Effluent Quality Criteria

21. The Licensee shall ensure that [enter type of Effluent] from [enter structure/facility] at Surveillance Network Program station [enter SNP station number] has a pH value between [x and y] and meets the following Effluent Quality Criteria (EQC):

**EFFLUENT QUALITY
CRITERIA**

Parameter	EQC in mg/L	
	Maximum Average Concentration	Maximum Grab Concentration

22. The Licensee shall submit Water quality data for samples collected from Surveillance Network Program station [enter # (structure/facility name)] to the Board and an Inspector as follows:
- a) No later than five days prior to commencing or resuming [enter either: Discharge OR decant] of Effluent to [location]; and
 - b) No later than five days prior to commencing or resuming Discharge of Effluent to [location] following an exceedance of the Effluent Quality Criteria specified in Part F, condition x (the table).

**TESTING BEFORE
DISCHARGE – [ENTER
NAME OF
STRUCTURE/FACILITY]**

The Licensee shall not commence or resume the [enter either: Discharge OR decant] until authorized in writing by an Inspector.

23. If Water quality data from any sample collected at Surveillance Network Program stations [enter #] exceeds the Effluent Quality Criteria specified in Part F, condition x, or is determined to be acutely toxic as per Part F, condition y, the Licensee shall:
- a) Cease the [enter Discharge or decant];
 - b) Notify the Board and an Inspector within 24 hours;
 - c) Comply with Part H, condition 4(b);
 - d) Comply with the approved [enter appropriate management plan] referred to in Part F, condition x of this Licence; and
 - e) Submit a detailed report on the occurrence, including a summary of corrective actions taken, to the Board and an Inspector within 30 days.

EFFLUENT QUALITY
CRITERIA –
EXCEEDANCE – [ENTER
NAME OF
STRUCTURE/FACILITY]

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Part G: Comprehensive Effects Monitoring

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| <p>1. The Licensee shall design and implement a Comprehensive Effects Monitoring Program (CEMP) that fulfills Report of Environmental Assessment Measure 15-1 and Appendix B and meets the following objectives:</p> <ul style="list-style-type: none">a) To determine the effects of the Project on the Receiving Environment;b) To test the predictions from the regulatory process regarding the effects of the Project on the Receiving Environment;c) To assess the effectiveness of mitigation measures that are used to minimize the effects of the Project on the Receiving Environment;d) To identify whether there is any need for additional mitigation measures to reduce or eliminate Project-related effects;e) To provide an early warning system where the results of monitoring are used to prevent or avoid adverse environmental impacts through a Response Framework and regular evaluation of the CEMP; andf) To provide relevant data and information to support other monitoring initiatives (such as Aboriginal monitoring initiatives and government monitoring), where applicable. | <p>OBJECTIVE – CEMP</p> |
| <p>2. Within [enter timeline] of the effective date of this Licence, the Licensee shall submit to the Board, for approval, an Aquatic Effects Monitoring Program (AEMP) Design Plan. The Plan shall fulfill Report of Environmental Assessment Measure 8-1, satisfy the objectives of Part G, condition 1, and be in accordance with the Mackenzie Valley Land and Water Board and the Government of the Northwest Territories' <i>Guidelines for Aquatic Effects Monitoring Programs</i>.</p> | <p>AEMP DESIGN PLAN</p> |
| <p>3. Three years following implementation of the AEMP Design Plan, and every three years thereafter, or as directed by the Board, the Licensee shall submit an Aquatic Effects Re-evaluation Report to the Board for approval. The Report shall be in accordance with the Mackenzie Valley Land and Water Board and the Government of the Northwest Territories' <i>Guidelines for Aquatic Effects Monitoring Programs</i> and shall meet the following objectives:</p> <ul style="list-style-type: none">a) To describe the Project-related effects on the aquatic Receiving Environment as measured from Project inception and compared against predictions;b) To revise predictions of Project-related effects on the aquatic Receiving Environment based on monitoring results obtained since Project inception; andc) To provide supporting evidence, if necessary, for proposed revisions to the AEMP Design Plan. | <p>AEMP RE-EVALUATION REPORT</p> |
| <p>4. Every three years following the previous approval, or as directed by the Board, the Licensee shall submit to the Board, for approval, a revised AEMP Design Plan. The revised Plan shall satisfy the the objectives of Part G, condition 1 and shall be in accordance with the Mackenzie Valley Land and Water Board and the Government of the Northwest Territories' <i>Guidelines for Aquatic Effects Monitoring Programs</i>.</p> | <p>AEMP DESIGN PLAN – REVISED</p> |
| <p>5. Beginning [date, including year], and no later than [date] of each year thereafter, the Licensee shall submit to the Board, for approval, an AEMP Annual Report. The Report shall be in accordance with [Schedule x, condition x] and the Mackenzie Valley Land and Water Board and the Government of the Northwest Territories' <i>Guidelines for Aquatic Effects Monitoring Programs</i>. The Report shall include information relating to the data collected in the preceding calendar year.</p> | <p>AEMP ANNUAL REPORT</p> |

6. If any moderate or high Action Level established in the approved Aquatic Effects Monitoring Program (AEMP) Design Plan is exceeded, the Licensee shall:
- a) Within 30 days of initially detecting the exceedance, notify the Board and an Inspector; and
 - b) Within 90 days of initially detecting the exceedance, or as otherwise directed by the Board, submit an **AEMP Response Plan** to the Board for approval. The Response Plan shall be in accordance with the Mackenzie Valley Land and Water Board and the Government of the Northwest Territories' *Guidelines for Aquatic Effects Monitoring Programs*.
7. If any low Action Level established in the approved AEMP Design Plan is exceeded, the Licensee shall, at a minimum, implement the response actions described in the approved AEMP Design Plan, and report the exceedance in the AEMP Annual Report.

**MODERATE OR HIGH
ACTION LEVEL
EXCEEDENCE**

**LOW ACTION LEVEL
EXCEEDENCE**

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Part H: Contingency Planning

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| 1. The Licensee shall ensure that Unauthorized Discharges associated with the Project do not enter any Waters. | OBJECTIVE – PREVENT WASTE INTO WATER |
| 2. The Licensee shall comply with the Spill Contingency Plan , once approved. | SPILL CONTINGENCY PLAN |
| 3. A minimum of [60 or 90] days prior to the commencement of [enter Project specific activities], the Licensee shall submit to the Board, for approval, a revised Spill Contingency Plan. The Licensee shall not commence [enter Project specific activities] prior to Board approval. | SPILL CONTINGENCY PLAN – REVISED |
| 4. If, during the period of this Licence, a spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:
a) Implement the approved Spill Contingency Plan referred to in Part H, condition 2;
b) Immediately report it using the NU-NT Spill Report Form by one of the following methods: <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 | REPORT SPILLS |
| c) Within 24 hours, notify the Board and an Inspector; and
d) Within 30 days of initially reporting the incident, submit a detailed report, including descriptions of causes, response actions, and any changes to procedures to prevent similar occurrences in the future, to the Board and an Inspector. Any updates to this report shall be provided to the Board and an Inspector in writing as changes occur. | |
| 5. The Licensee shall ensure that adequate spill prevention infrastructure and spill response equipment is in place prior to commencement of the Project. | SPILL PREVENTION AND RESPONSE EQUIPMENT |
| 6. The Licensee shall restore all areas affected by spills and Unauthorized Discharges to the satisfaction of an Inspector. | CLEAN UP SPILLS |
| 7. The Licensee shall not establish any fuel storage facilities or refueling stations, or store chemical or deleterious substances within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector. | MATERIAL STORAGE – ORDINARY HIGH WATER MARK |
| 8. The Licensee shall comply with the Emergency Response Plan , once approved. | EMERGENCY RESPONSE PLAN |
| 9. A minimum of [60 or 90] days prior to the commencement of [enter Project specific activities], the Licensee shall submit to the Board, for approval, a revised Emergency Response Plan. The Licensee shall not commence [enter Project specific activities] prior to Board approval. | EMERGENCY RESPONSE PLAN – REVISED |

Part I: Closure and Reclamation

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| 1. Option 1:
Within 18 months following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a Closure and Reclamation Plan to fulfill Report of Environmental Assessment Suggestion 14-1. | CLOSURE AND
RECLAMATION PLAN |
| OR | |
| Option 2:
Within 18 months following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a Closure and Reclamation Plan to fulfill Report of Environmental Assessment Suggestion 14-1. The Plan shall be in accordance with the requirements of Schedule X, condition Y . | |
| 2. Option 1:
Every three years following the previous approval, or as directed by the Board, the Licensee shall submit to the Board, for approval, a revised Closure and Reclamation Plan. | CLOSURE AND
RECLAMATION PLAN –
REVISED |
| OR | |
| Option 2:
Every three years following the previous approval, or as directed by the Board, the Licensee shall submit to the Board, for approval, a revised Closure and Reclamation Plan. The Plan shall be in accordance with the requirements of Schedule X, condition Y . | |
| 3. Option 1:
Three years prior to the expiration of this Licence, or a minimum of two years prior to the end of operations, whichever occurs first, the Licensee shall submit to the Board, for approval, a final Closure and Reclamation Plan to fulfill Report of Environmental Assessment Suggestion 14-1. | CLOSURE AND
RECLAMATION PLAN –
FINAL |
| OR | |
| Option 2:
Three years prior to the expiration of this Licence, or a minimum of two years prior to the end of operations, whichever occurs first, the Licensee shall submit to the Board, for approval, a final Closure and Reclamation Plan to fulfill Report of Environmental Assessment Suggestion 14-1. The Plan shall be in accordance with the requirements of Schedule X, condition Y . | |
| 4. One year prior to Closure and Reclamation of any specific component of the Project, and until a final Closure and Reclamation Plan is approved, the Licensee shall submit to the Board, for approval, a component-specific Closure and Reclamation Plan. The Plan shall be in accordance with Schedule X, condition Y . | CLOSURE AND
RECLAMATION PLAN –
COMPONENT-SPECIFIC |
| 5. The Licensee shall endeavor to carry out Progressive Reclamation as soon as is reasonably practicable. | PROGRESSIVE
RECLAMATION |

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| <p>6. The Licensee shall conduct Progressive Reclamation in accordance with the most-recently approved Closure and Reclamation Plan, or as otherwise approved by the Board.</p> | <p>PROGRESSIVE RECLAMATION – CARRY OUT AS APPROVED</p> |
| <p>7. A minimum of ten days prior to the commencement of any Progressive Reclamation, the Licensee shall provide written notification to the Board and an Inspector. Notification shall include the name and contact information for the Construction superintendent.</p> | <p>PROGRESSIVE RECLAMATION – NOTIFICATION</p> |
| <p>8. Beginning [enter date], and no later than every [enter date] thereafter, the Licensee shall submit an Annual Closure and Reclamation Progress Report to the Board. The Report shall be in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada’s <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i>.</p> | <p>ANNUAL CLOSURE AND RECLAMATION PROGRESS REPORT</p> |
| <p>9. Within [] days of completing Closure and Reclamation of any specific component of the Project, the Licensee shall submit to the Board a Closure and Reclamation Completion Report. The Report shall be in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada’s <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i>.</p> | <p>CLOSURE AND RECLAMATION COMPLETION REPORT</p> |
| <p>10. Within [] days of completing Closure and Reclamation of any specific component of the Project, the Licensee shall submit to the Board for approval, a Performance Assessment Report. The Report shall be in accordance with the Mackenzie Valley Land and Water Board and Aboriginal Affairs and Northern Development Canada’s <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i>.</p> | <p>PERFORMANCE ASSESSMENT REPORT – COMPONENT-SPECIFIC</p> |
| <p>11. Within 90 days of completing Closure and Reclamation of the Project, or as otherwise directed by the Board, the Licensee shall submit to the Board for approval, a Post-Closure and Reclamation Monitoring and Maintenance Plan. The Plan shall be in accordance with Schedule X, condition Y.</p> | <p>POST-CLOSURE AND RECLAMATION MONITORING AND MAINTENANCE PLAN</p> |