ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 5373-DEWHG7
Issue Date: April 17, 2026

Great Bear Resources Ltd.
25 York Street, Suite 15th Floor
Toronto, Ontario
M5J 2V5

Site Location: The Great Bear Property located in the Unorganized Townships of Faulkenham Lake, South of Byshe, Dixie Lake and Bruce Lake near Highway 105, approximately 23 kilometre (km) southeast of the Municipality of Red Lake and 37 km northwest of the Township of Ear Falls

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

establishment, use, and operation of sewage works for the collection, transmission, treatment, and disposal of stormwater and wastewater from the Advanced Exploration Program site, discharging via a pipeline and an offshore diffuser at a maximum rate of 4,080 cubic metres per day to the Chukuni River, consisting of the following:

CONSTRUCTION PHASE SEWAGE WORKS

one (1) or more mobile sewage treatment Works for the treatment and disposal of effluent from the Construction Phase activities at the site, each mobile sewage works treatment train consisting of the following, if and as required to comply with the effluent limits in Schedule B:

Pre-treatment System(s)

- one (1) or more pre-treatment system(s) (i.e. settling / separation tank(s), sand filter unit(s), bag filter(s), multimedia filter unit(s), grit removal unit(s), chemical addition unit(s), oil-water separator unit(s) etc.), receiving wastewater from the construction site for physical and/or chemical pre-treatment;

pH Adjustment System

- one (1) or more pH adjustment system consisting of a storage tank;

Coagulant / Flocculant Addition System

- one (1) or more coagulant and/or flocculant addition systems potentially consisting of a mixing tank and conditioning tank;

Specialty Media Filter System

- one (1) or more filter(s) with a sacrificial or regenerative filter media that consists of media pellets, granules or powder:
  - Organo Clay Filtration Systems(s): one (1) or more organo clay pressure vessel(s) each vessel containing organo clay filter media.
  - Granular Activated Carbon Filtration System(s): one (1) or more granulated activated carbon pressure vessel(s) each vessel containing granular activated carbon media, for the removal of dissolved organic contaminants;

Miscellaneous System(s):

- including instrumentation, piping, valves and appurtenances essential for the operation of the sewage works, housed within a mobile treatment trailer or mobile skid temporarily located on-site.

- additional pumping system(s) if required depending on the elevation of the discharge point relative to the treatment unit.

- additional solids de-watering equipment required to process separated solids including bulking agents, backwash water tanks, and regenerant wastewater generated where filtrate is returned to the inlet of the treatment plant and processed through the treatment plant prior to discharge to the environment.

- regenerant and chemical recycle equipment, used in conjunction with the above processes.

- pressure gauge, compressor, flow meter and flow regulators, sample ports, oil storage drums, and all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the sewage works all housed in a secured mobile trailer, an enclosed trailer, a sea can or a skid.

Effluent Discharge

- Treated effluent from the Construction Phase Sewage Works to be pumped to the lined Treated Water Pond (TWP).

- Water from the TWP to be conveyed to the Chukuni River Discharge Pipeline and discharged to the Chukuni River via a diffuser.

ADVANCED EXPLORATION PHASE SEWAGE WORKS

Site Pad Area (Ditching, Sumps and Conveyance System)

Water Management System, designed for the 1:100 wet year and 1:100 year 30-day rain-on-snow event consisting of:

Mine Rock Stockpile area [Ore Stockpile, PAG (Potentially Acid Generating) and NPAG/ML (Non-Potentially Acid Generating/Metal Leaching) Stockpile, NPAG/NML (Non-Potentially Acid Generating/Non-Metal Leaching) Stockpile] that is lined with a suitable synthetic impermeable liner, and includes two (2) Mine Rock Stockpile Sumps bordering the south side of the stockpile area, with site grading, lined ditching, and pump systems for collecting water in the Mine Rock Stockpile area, and the east Overburden Stockpile area, with seepage and surface water run-off conveyed to the Settling Pond.

The Site Pad Perimeter Ditch, with sediment control sumps, around the perimeter of the Site Pad with site grading and ditching and pump systems for collecting water in the Site Pad area and toe slope surface run-off that is conveyed to the Settling Pond and/or Mine Water Pond.

West Overburden Stockpile Perimeter Ditch, with sediment control sumps, around the perimeter of the west Overburden Stockpile with site grading and ditching for collecting run-off and seepage and conveying it to the Sediment Pond for management of Total Suspended Solids (TSS) and subsequent conveyance to the Settling Pond for further treatment.

Sediment Pond

One (1) Sediment Pond, excavated at the south-east corner of the west Overburden Stockpile with approximate surface area of 2,500 square meters and approximate storage capacity of 2,700 cubic metres, for management of total suspended solids (TSS), receiving runoff from the west Overburden Stockpile. Effluent from the Sediment Pond to be discharge to the Settling Pond.

Settling Pond (Area and Conveyance System)

One (1) Settling Pond, excavated to a bottom elevation of approximately 372 metres above sea level (masl) and top elevation of approximately 375 masl and lined with compacted soil or suitable impermeable liner, and having a designed storage capacity of approximately 1,600 cubic metres, with pump and pipeline systems for receiving underground de-watering water, mine rock stockpile run-off, overburden stockpile run-off, pad site stormwater run-off and discharging to the Mine Water Pond (MWP).

Mine Water Pond (Area and Conveyance System)

One (1) excavated (dug) pond (MWP), with a total footprint of approximately 38,000 square metres and top elevation of approximately 375 masl and lined with a suitable synthetic impermeable liner,

with a storage capacity of approximately 140,000 cubic metres, equipped with pump and pipeline systems for receiving water from the Settling Pond and the Perimeter Contact Water Ditch (i.e. West Overburden Stockpile Perimeter Ditch and Site Pad Perimeter Ditch). Effluent from the Mine Water Pond is to be conveyed to the Effluent Treatment Plant (ETP).

An uplift protection system (under-drains), to prevent damage to the pond liner from groundwater uplift, if water table is encountered during pond construction. Pumping water back to the MWP as required.

Effluent Treatment Plant

Effluent Treatment Plant for treating effluent from the Mine Water Pond, consisting of:

Metal Precipitation Unit #1 - consisting of a metals' precipitation circuit, a 59.5 cubic metre capacity reactor complete with inlet/outlet piping, mixers and chemical addition pumps, where reagents are added to promote metals precipitation as a hydroxide and sulfide sludge, along with ferric coagulant addition to enhance arsenic removal, with overflow neutralized slurry being transferred to the Clarification Unit #1 for clarification.

Clarification Unit #1 - neutralized slurry from Metals Precipitation Unit #1 will be directed to a Actiflo clarification unit, a 46 cubic metre capacity tank complete with inlet/outlet piping, mixers, scrapper, hydrocyclones and chemical addition, where a flocculant (anionic polymer) will be added to aid in settling of the suspended solids generated through the Metals Precipitation Unit #1, with clarified overflow being sent to an Inter-Coagulation step, while the Actiflo Clarification Unit #1 under-flow will be sent to Geo-tubes for dewatering.

Coagulation Unit (Inter-Coagulation) - a 38 cubic metre capacity tank complete with inlet/outlet piping, mixer and chemical addition pumps, adding coagulant to the clarified overflow from Clarification Unit #1 to protect the Ultrafiltration membranes from clogging.

Ultrafiltration (UF Membranes) - effluent pumped from the Inter-Coagulation to be pumped through a self-cleaning strainer, with subsequent flow through the UF membranes to remove residual TSS from the Clarification Unit #1, with filtrate sent to the Ultrafiltration Filtrate Tank, a 15 cubic metre capacity tank complete with inlet/outlet piping, and pumps.

Biological Ammonia Removal (if and as applicable) - a 462 cubic metre capacity reactor complete with inlet/outlet piping, air blowers, media and chemical addition pumps for the treatment of filtrate from the Ultrafiltration Tank using a heated Moving Bed Biofilm Reactor (MBBR) system for nitrification, with the use of air and phosphorus to enable bacterial activity, along with an ammonia removal bypass line for added process flexibility.

Metal Precipitation Unit #2 (if and as applicable) - a 59.5 cubic metre capacity tank complete with inlet/outlet piping, mixers and chemical addition pumps for the treatment of effluent from the Biological Ammonia Removal, using alkali and ferric coagulant, as needed, for the removal of residual phosphorus and TSS prior to discharge to the environment, with the resulting overflow being

transferred to Clarification Unit #2 for Clarification.

Clarification Unit #2 (if and as applicable) - neutralized slurry from the Metals Precipitation Unit #2 will be directed to a Actiflo clarification unit, a 39 cubic metre capacity tank complete with inlet/outlet piping, mixers, scrapper, hydrocyclones and chemical addition, where a flocculant (anionic polymer) will be added to aid in settling of the suspended solids generated through the Metals Precipitation Unit #2, with clarified overflow being sent to an Inter-coagulation step, while the Actiflo Clarification Unit #2 underflow will be sent to Geo-tubes for dewatering.

Geo-tubes - sludge from the Clarification Unit #1 and Unit #2 under-flows being directed to a Sludge Holding Tank, a 23.2 cubic metre capacity tank complete with inlet/outlet piping, and mixer, for which the slurry will then be pumped into Geo-tubes for dewatering using a cationic polymer injected in-line prior to the Geo-tubes to improve dewatering, with geo-tube filtrate being directed to the Mine Water Pond, and solid waste will be transported off-site for final disposal.

Polishing - Overflow from Clarification Unit #2 will be sent to a Disc filter, if needed, for the further reduction of phosphorus and TSS polishing.

Treated Water Pond (Area and Conveyance System)

One (1) Treated Water Pond (TWP) excavated to a pond bottom elevation of approximately 371.0 masl and top elevation of approximately 374.5 masl and lined with a suitable synthetic impermeable liner, with storage capacity of approximately 19,700 cubic metres, equipped with pump and pipeline systems for receiving effluent from the Effluent Treatment Plant and conveying it to the Chukuni River Discharge Pipeline for discharge via a single port diffusor, with overflow spillway to the Mine Water Pond.

Chukuni River Discharge Pipeline and Off-Shore Diffuser

One (1) screened single-port diffuser system discharging to the Chukuni River via an approximately 13.0 kilometres, 8 inches DR 17 High Density Polyethylene (HDPE) pipeline with a diffuser at the end to provide even distribution and mixing in the Chukuni River, having a maximum flow capacity of approximately 4,080 cubic meters per day, with the pipeline including three (3) or more low point drains to support pipeline operation and maintenance.

DOMESTIC SEWAGE WORKS FOR WORK CAMP/CONSTRUCTION CAMP

Three (3) temporary interconnected precast concrete holding tanks for the storage of domestic sewage generated from the work camp/construction camp with a daily maximum sewage flow of 28,500 L/day, providing a total storage volume of 86,800 L, equipped with vents, high liquid level alarms with audible and visual alerts and an access riser to surface, with the domestic sewage to be hauled off site to a licensed treatment facility, consisting of:

- two (2) precast concrete holding tanks, each with a storage volume of 29,357 L;
- one (1) 28,101 L precast concrete septic tank, serving as a holding tank;

Including all other controls, electrical equipment, instrumentation, piping, valves and appurtenances essential for the proper operation of the aforementioned sewage works.

All in accordance with the supporting documentation submitted to the Ministry as listed in the **Schedule A** of this Approval.

For the purpose of this environmental compliance approval, the following definitions apply:

1. "Approval" means this entire document and any schedules attached to it, and the application.
2. "Commissioning" means the construction is complete, and the system is being tested, inspected, and assessed to operate according to the design intent.
3. "Maximum Daily Concentration" means the concentration of a contaminant in the effluent discharged over any single day, as measured by a composite or grab sample, whichever is required.
4. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA.
5. "District Manager" means the District Manager of the appropriate local District Office of the Ministry, where the Works are geographically located.
6. "Environmental Representative" means a person knowledgeable, through instruction and/or practice, in relevant environmental legislation, regulations and guidelines, relevant Environmental Management Plans associated with the undertaking, environmental concerns pertaining to sewage works, emergency response procedures and the requirements of this Approval.
7. "EPA" means the *Environmental Protection Act, R.S.O. 1990, c.E.19* , as amended.
8. "Equivalent Equipment" means alternate piece(s) of equipment that meets the design requirements and performance specifications of the piece(s) of equipment to be substituted.
9. “Licensed Engineering Practitioner" means a person who holds a license, limited license or temporary licence under the *Professional Engineers Act,* R.S.O. 1990, c. P.28.
10. “Limited Operational Flexibility” (LOF) means any modifications that the Owner is permitted to make to the Works under this Approval.
11. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf.

12. "Maximum Monthly Average Concentration" means the arithmetic mean of all Maximum Daily Concentrations of a contaminant in the effluent sampled or measured, or both, during a calendar month.

13. "Notice of Modifications" means the form entitled "Notice of Modifications to Sewage Works".

14. "Owner" means Great Bear Resources Ltd., and its successors and assignees.

15. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended.

16. "Qualified Person" means a person holding at minimum a bachelor degree with specialization in hydrology, aquatic ecology, limnology, biology, physical geography and/or water resource management or engineering.

17. "Rated Capacity" means the Monthly Average Daily Flow for which the Works are approved to handle.

18. "Works" means the sewage works described in the Owner's application, and this Approval, and includes modifications made under Limited Operational Flexibility.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL CONDITION

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

2. Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.

3. Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.

4. Where there is a conflict between the documents listed in Schedule A, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.

5. The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

6. The issuance of, and compliance with the conditions of, this Approval does not:

    a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation, or other legal requirement, including, but not limited to, the obligation to obtain approval from other provincial units, the federal government, municipal authority, etc., necessary to construct, operate or maintain the Works; or

    b. limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

2. CHANGE OF OWNER

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:

    a. change of Owner or operating authority, or both.

    b. change of address of Owner or operating authority or address of new Owner or operating authority.

    c. change of partners where the Owner or operating authority is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Partnerships Registration Act, R.S.O. 1990, c. P.5* shall be included in the notification.

    d. change of name of the corporation and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C.39* shall be included in the notification.

2. In the event of any change in ownership of the Works, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager.

3. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

3. EXPIRY OF APPROVAL

1. This Approval will cease to apply to those parts of the Works which have not been constructed within five (5) years of the date of this Approval.

2. If completion and Commissioning of any portion of the Works is anticipated to be more than five

(5) years, the Owner shall submit an application for extension at least twelve (12) months prior to the end of the five (5) years from the day of issuance of this Approval. The application shall include the reason(s) for the delay, whether there is any design change(s) and a review of whether the standards applicable at the time of Approval of the Works are still applicable at the time of request for extension, to ensure the ongoing protection of the environment.

3. This Approval applies only to the Advanced Exploration stage of the Great Bear Project (i.e. Great Bear Advanced Exploration (AEX) Program). Any proposal for the project to proceed beyond the Advanced Exploration stage will require the Owner to submit to the Ministry a new Environmental Compliance Approval application for review and consideration that shall be accompanied by all records required under the conditions of this Approval.

4. The Construction Phase Sewage Works shall be decommissioned after the successful Commissioning of the Advanced Exploration Phase Sewage Works.

4. CHANGES IN PROCESSES OR PROCESS MATERIALS

1. The Owner shall give written notice to the District Manager of any plans to change the processes or process materials in the Owner's enterprise serviced by the Works where the change may significantly alter the quantity or quality of the influent to or effluent from the Works, and no such change(s) shall be made unless with the written concurrence of the District Manager and approval of the Director.

5. CONSTRUCTION OF WORKS

1. Upon the completion of construction of the Works, the Owner shall prepare a statement, certified by a Licensed Engineering Practitioner, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry personnel.

2. Within one (1) year of completion of construction of the Works, a set of as-built drawings showing the Works “as constructed” shall be prepared. These drawings shall be kept up to date through revisions undertaken from time to time, and a copy shall be retained at the Works for the operational life of the Works.

6. OPERATION AND MAINTENANCE

1. The Owner shall make all necessary investigations, take all necessary steps and obtain all necessary approvals to ensure that the physical structure, siting and operations of the Works do not constitute a safety, health or flooding hazard.

2. The Owner shall undertake an inspection of the condition of the Works, at least once a year, and undertake any necessary cleaning and maintenance to ensure that sediment, debris and excessive decaying vegetation are removed from the Works to prevent the excessive build-up of sediment, oil/grit, debris and/or decaying vegetation, to avoid reduction of the capacity and/or permeability

of the Works, as applicable. The Owner shall also regularly inspect and clean out the inlet to and outlet from the Works to ensure that these are not obstructed.

3. The Owner shall prepare an operation's manual prior to the Commissioning of the Advanced Exploration Phase Sewage Works, that includes, but not necessarily limited to, the following information:

    a. operating procedures for routine operation of the Works,

    b. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary,

    c. repair and maintenance programs, including the frequency of repair and maintenance for the Works,

    d. contingency plans and procedures for dealing with potential spills, bypasses and any other abnormal situations and for notifying the District Manager, and

    e. complaint procedures for receiving and responding to public complaints.

4. The Owner shall maintain the operations manual up to date through revisions undertaken from time to time and retain a copy at the location of the Works. Upon request, the Owner shall make the manual available for inspection and copying by Ministry personnel.

5. The Owner shall maintain a logbook to record the results of these inspections and any cleaning and maintenance operations undertaken and shall keep the logbook at the Works for inspection by the Ministry. The logbook shall include the following:

    a. the name of the Works;

    b. the date and results of each inspection, maintenance and cleaning, including an estimate of the quantity of any materials removed and method of clean-out of the Works; and

    c. the date of each spill within the catchment area, including follow-up actions and remedial measures undertaken.

6. The Owner shall retain for a minimum of five (5) years from the date of their creation; all records and information related to or resulting from the operation and maintenance activities required by this Approval.

7. The Owner shall ensure that the linear velocity of water discharged does not produce scouring, erosion or flooding of the land or receiving waterbody. The Owner shall take all necessary measures for sediment and erosion control to limit the de-gradation of the water quality and shall take continuous care to properly maintain the siltation control devices.

8. The Owner shall ensure that adequate spill clean-up equipment and/or contingency supplies are available at the site for fuel, oil and lubricant spills, and that all on-site operators are familiar with the use of such equipment and/or supplies.

9. The Owner shall designate one or more Environmental Representative to ensure that all environmental safeguards are in place, utilized and effective in protecting the environment. At least one Environmental Representative shall be available for the duration of the Approval.

10. The Owner shall routinely operate the MWP below the assigned Maximum Operating Water Level (MOWL) to ensure that a minimum 98,500 cubic metres of active storage (contingency storage) is always available in the MWP to manage the peak of the 1:100 wet year 30-day rain-on-snow (ROS) condition. If the MOWL is exceeded, the Owner shall notify the District Manager immediately and take all reasonable actions to bring the water level down to below the MOWL within a reasonable timeframe.

11. The Owner shall maintain and have readily available for inspection by a Provincial Officer for a minimum of two (2) years from the date of their creation, daily logbooks or an electronic file format which records the following information:

    a. the name and signature of the person that conducted the inspection;

    b. the date and time of the inspection;

    c. the list of any deficiencies discovered;

    d. the recommendations for remedial action; and

    e. the date, time and description of actions taken.

12. The Owner shall ensure that the quality of water being supplied for flow supplementation shall not impair the quality of water in the receiving watercourse. The Owner shall assess the water quality of the Advanced Exploration Supplementation Wells and the Mine Water Pond uplift protection system (under-drains) prior to beginning flow supplementation and monthly during flow supplementation to the affected watercourses.

    a. the Owner shall compare the water quality results with the background water quality in Unnamed Watercourse 3 and Dixie Creek, respectively; and the water quality guidelines for the protection of aquatic life as specified in the Water Quality Guidelines for the Protection of Aquatic Life Table listed in Schedule B of this Approval, to confirm that the supplementation water will not impair the quality of the receiving watercourse. With respect to dissolved oxygen, supplementation water quality results shall be compared against the Provincial Water Quality Objective.

    b. where the applicable water quality guidelines or background conditions (whichever concentration is higher) cannot be met, the Owner shall immediately provide notice in

writing to the Director and the District Manager, identifying such anomalies, and proposed mitigation measures, including treatment, to achieve the objective.

13. Effluent from the effluent pipeline emergency low-point drains and the sediment pond shall not be discharged directly or indirectly to any surface feature (i.e. watercourses, waterbodies or wetlands with surface connection to a watercourse or waterbody), shall not be discharged within 50 metres of any surface water feature, and shall be controlled to prevent erosion, scouring, pooling, or channelization of water.

7. EFFLUENT LIMITS

1. For both Construction Phase and Advanced Exploration Phase, the Owner shall design, construct and operate the Works such that the concentrations of the materials listed as effluent parameters in the effluent limits table in Schedule B are not exceeded in the effluent discharged from the Works.

2. For the purposes of determining compliance with Condition 7.1:

   a. non-compliance with respect to a Maximum Concentration Limit is deemed to have occurred when any single (composite, grab) sample analyzed for a parameter named in Column 1 of Effluent Limits Table 1 listed in Schedule B is greater than the corresponding maximum concentration set out in Column 2 of Effluent Limits Table 1 listed in Schedule B;

   b. non-compliance with respect to an Maximum Monthly Average Concentration Limit is deemed to have occurred when the arithmetic mean concentration of all samples taken in a month analyzed for a parameter named in Column 1 of Effluent Limits Table 1 listed in Schedule B is greater than the corresponding maximum monthly average concentration set out in Column 3 of Effluent Limits Table 1 listed in Schedule B;

   c. non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the indicated range.

3. No effluent shall be discharged from the Works unless the Chukuni River is flowing at 1.8 cubic metres per second (155,520 cubic metres per day) or greater as measured at Water Survey of Canada hydrometric station Chukuni River Near Ear Falls (05QC001) or as measured at the back-up on-site station, as specified in the Surface Water Monitoring Plan.

4. Flows measured at the Chukuni River shall be measured at Water Survey of Canada hydrometric station Chukuni River Near Ear Falls (05QC001), corrected for drainage area, with a back-up station being Long-Legged River below Long-Legged Lake (05QE012), corrected for drainage area, to the effluent discharge point. The backup station (05QE012) will be used until such time that the rating curves at the onsite hydrometric station have been established. The stations specified in this condition will be used in duplicate / to validate flows for effluent discharge, unless specified by the District Manager, in writing.

5. The Owner shall discharge treated effluent in accordance with the following conditions:

    a. When flow is measured in the Chukuni River above 1.8 cubic metres per second (155,520 cubic metres per day) the maximum effluent flow rate is 2,640 cubic metres per day, and the maximum daily effluent limit is 20 mg/L for Sulphate.

    b. When flow is measured in the Chukuni River above 6.94 cubic metres per second (600,000 cubic metres per day) the maximum effluent flow rate is 4,080 cubic metres per day, and the maximum daily effluent limit is 100 mg/L for Sulphate.

6. Notwithstanding any other condition in this Approval, the Owner shall ensure that the effluent from the Works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters.

8. MONITORING AND RECORDING

1. The Owner shall, upon commencement of the operation of the Works, carry out a monitoring program and all samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream and the receiving water over the time period being monitored.

2. Samples shall be collected and analyzed at the sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed in the Effluent Monitoring Tables included in Schedule B.

3. The Owner shall, upon commencement of the operation of the Works, carry out a monitoring program and all samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality of the receiving water over the time period being monitored.

4. Samples shall be collected and analyzed at the sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed in the Receiving Waters Monitoring Table included in Schedule B.

5. The methods and protocols for sampling, analysis, toxicity testing, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

    a. The Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions.

    b. The publication "Standard Methods for the Examination of Water and Wastewater" (21st edition) as amended from time to time by more recently published editions.

c. The Environment Canada publications, as follow:

i. "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (EPS 1/RM/13 Second Edition - December 2000), as amended.

ii. "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna* " (EPS 1/RM/14 Second Edition - December 2000), as amended.

iii. "Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows" Report EPS1/RM/22 (Second Edition, February 2011), as amended.

iv. "Biological Test Method: Test of Reproduction and Survival Using the Cladoceran *Ceriodaphnia dubia* ", Report EPS 1/RM/21 (Second Edition, February 2007), as amended.

d. In respect of any parameters not mentioned in the publications listed in Conditions 8.5.a to 8.5.c of this Approval, the written approval of the District Manager, shall be obtained prior to sampling.

e. The temperature and pH of the effluent from the Works shall be determined in the field at the time of sampling for total ammonia. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).

f. Continuous water level loggers and water level alarms shall be installed and maintained at the Mine Water Pond to ensure adequate contingency storage.

g. A continuous flow measuring device(s) shall be installed and maintained to measure the flowrate of the effluent from the Works, with an accuracy to within plus or minus +/- 15% as confirmed during the initial discharge and then on an annual basis by a Licensed Engineering Practitioner, complete with an audible and visual alarm with alarm limits set to ensure compliance with discharge volume limits. The Owner shall measure, record, and calculate the flowrate for the effluent stream on each day of sampling.

6. Toxicity test shall be carried out during periods of discharge. The minimum monitoring frequency with respect to acute lethality to Rainbow Trout and *Daphnia magna,* shall be monthly during periods of active discharge. The minimum monitoring frequency with respect to acute lethality to Rainbow Trout and *Daphnia magna* shall, after twelve (12) consecutive non-lethal results during periods of active discharge, be reduced to quarterly. If any effluent sample indicate acute lethality to Rainbow Trout or *Daphnia magna* , the monitoring frequency shall revert back to monthly. If any Effluent sample indicates acute lethality to Rainbow Trout or *Daphnia magna,* the Owner shall carry out the following immediately:

a. Review the following:

i. plant operations around the time of the toxicity event; and

ii. all data available regarding plant operations and Effluent quality.

b. An investigation shall be undertaken to determine the cause or source of the toxicity.

c. Upon determination of cause or source of acute lethality to Rainbow Trout or *Daphnia magna* , the Owner shall, in consultation with District Manager, identify appropriate measures to achieve non-acutely lethal effluent, specify timelines for the implementation of these measures, and carry out their implementation.

7. The Owner shall carry out the Great Bear Advanced Exploration Program Groundwater Monitoring and Supplementation Trigger Plan and commitments described in the following document listed in Schedule A. The groundwater monitoring locations, parameters, frequencies, and assessment criteria outlined in the Groundwater Monitoring Tables in Schedule B shall take precedence over those listed in Schedule A.

a. "Great Bear Project, AEX Program ECA ISW, Groundwater Monitoring and Supplementation Trigger Plan", prepared by WSP Canada Inc., prepared for Great Bear Resources, November 2025.

8. The Owner shall carry out the Great Bear Advanced Exploration Program Metal Leaching and Acid Rock Drainage Monitoring Plan for Kinetic Testing and commitments described in the following document listed in Schedule A.

a. "Great Bear Advanced Exploration Program, ML / ARD Monitoring Plan – Kinetic Testing", prepared by WSP Canada Inc., prepared for Great Bear Resources, September 2025.

9. The Owner shall carry out the Great Bear Advanced Exploration Program Mine Rock and Overburden Management and Monitoring Plan and commitments described in the following document listed in Schedule A.

a. "Great Bear Project, Advanced Exploration Program Mine Rock and Overburden Management and Monitoring Plan", prepared by WSP Canada Inc., prepared for Great Bear Resources, November 2025.

10. The Owner shall carry out an Effluent Mixing Zone Field Validation Study as described in the following document:

a. Memorandum – Subject: "Proposed Terms of Reference: Chukuni River Mixing Zone Field Validation Study", from WSP Canada Inc., to Great Bear Resources, dated September 4, 2025.

11. The Owner shall carry out the Great Bear Advanced Exploration Program Surface Water Monitoring and Supplementation Trigger Plan and commitments described in the following document and requirements, with monitoring parameters, locations and frequencies outlined in the Surface Water Monitoring Tables in Schedule B of this Approval, and outlined in sub-conditions a and b below:

    a. "Great Bear Resources Limited, Great Bear Advanced Exploration Program, ECA ISW – Surface Water Monitoring Plan", prepared by WSP Canada Inc., November 2025.

    b. in addition to the surface water and sediment monitoring required by the aforementioned Surface Water Management Plan, the Owner shall carry out additional monitoring to assess the magnitude and scale of exceedances of the British Columbia Ambient Water Quality Guidelines for Total Mercury in the Chukuni River, and potentially leading to the development of a long-term mercury threshold for the Chukuni River. At a minimum, monitoring must include the following:

        i. a monitoring location shall be established at the approximate center of the sulphate mixing zone within the Chukuni River. The following surface water quality sampling shall be carried out.

            1. monthly surface water quality monitoring for the same parameters required for monitoring stations designated as Chukuni River – (CR-FDP-DS), as identified in the aforementioned monitoring plan.

            2. the surface water quality monitoring frequency for sulphate, total mercury, methylmercury, conductivity, pH, hardness, alkalinity, chloride, dissolved organic carbon, temperature, nitrates and ammonium, total nitrogen, total phosphorus, and total suspended solids shall increase to weekly from July 1st to August 31st of each year.

        ii. the surface water quality monitoring frequency for sulphate, total mercury, methylmercury, conductivity, pH, hardness, alkalinity, chloride, dissolved organic carbon, temperature, nitrates and ammonium, total nitrogen, total phosphorus, and total suspended solids shall increase to weekly from July 1st to August 31st of each year for monitoring stations designated as Chukuni River – (CR-REF), Chukuni River – (CR-FDP-DS) and Chukuni River – (CR-DS), as identified in the aforementioned monitoring plan.

        iii. following one summer of weekly sampling, surface water quality sampling frequency may return to monthly, should results not demonstrate exceedances with the British Columbia Ambient Water Quality Guidelines for Total Mercury.

        iv. should average concentrations of mercury in the surface water sampling data, as measured over a 30-day period (based on five weekly samples), exceed the applicable British Columbia Ambient Water Quality Guidelines for Total Mercury, the following additional

monitoring shall be triggered to support development of a long-term mercury threshold for the Chukuni River.

1. sediment and sediment pore water sampling at the mixing zone sampling station required by condition 8.11.b.i, and CR-REF-SED, CR-FDP-SED, and CR-DS-SED sediment quality monitoring stations shall be carried out. Sediment and sediment porewater sampling shall involve bulk sediment sampling to ensure the collection of collocated samples and easier interpretation of the relationship between total sediment and sediment porewater.

2. forage fish tissue sampling shall be carried out at the mixing zone sampling station required by condition 8.11.b.i and monitoring stations designated as CR-REF, CR-FDP and CR-DS, as identified in and as directed by the Great Bear Advanced Exploration Program Aquatic Effects Monitoring Plan listed in Schedule A of this approval.

v. should additional monitoring be triggered and a long-term mercury threshold for the Chukuni River be developed, the Owner shall submit an assessment, as described below, and proposed long-term mercury threshold to the Ministry for review and approval.

1. development of this threshold shall include an assessment of the above-required surface water quality, sediment quality, sediment pore water quality, and forage fish tissue results, inconsideration of sampling station locations. The assessment shall compare results from the upstream reference, effluent discharge, and downstream monitoring stations to distinguish between upstream influences and the Owners discharge to the Chukuni River.

12. The Owner shall carry out the Great Bear Advanced Exploration Program Aquatic Effects Monitoring Plan and commitments described in the following document and in accordance with the additional requirements below:

a. "Great Bear Advanced Exploration Program, ECA ISW – Aquatic Effects Monitoring Program", prepared by WSP Canada Inc., prepared for Great Bear Resources, dated August 2025.

b. In addition to the requirements included in the aforementioned Aquatic Effects Monitoring Plan, aquatic effects monitoring shall also include the following:

i. fish monitoring and fish tissue sampling of fish collected from Two Island Lake and Pakwash Lake. This requirement may be modified with written permission from the Director.

ii. analysis of fish tissue monitoring results shall also include comparison of fish tissue total mercury results against the risk-based guideline of 0.2 ug/g.

iii. analysis of fish tissue monitoring results shall also include comparison of fish tissue methylmercury results against a methylmercury tissue residue guideline of 0.062 ug/g.

c. This biological monitoring program can be harmonized with requirements of the federal Environmental Effects Monitoring (EEM) program, but the provincial requirement is not limited by the federal program. The study design report shall be submitted to District Manager in advance of each study and the final interpretive report shall be submitted to District Manager following each study, providing District Manager with the opportunity to provide technical input and requirements that are not necessarily confined by the federal EEM program.

13. The Owner shall conduct weekly inspection of the Works to ensure the operation of the Works is not causing an adverse impact to the natural environment and that the site is being operated in compliance with this Approval.

    a. The inspection of safeguards covered by this Approval shall include but not be limited to:

        i. receiver flow triggers,

        ii. spill clean-up equipment,

        iii. maintenance of contingency storage in MWP,

        iv. compliance with the effluent limit conditions,

        v. compliance with the monitoring conditions, and

        vi. erosion and sediment control measures.

    b. Any deficiencies discovered as a result of the inspection shall be remedied immediately, including temporarily ceasing operations if needed. The Owner shall document any deficiencies and the applied remedies in the site logbook.

14. Should the inspections required by condition 8.13 detect observable erosion, the Owner shall immediately notify the District Manager, and erosion controls shall be implemented to mitigate the identified erosion issue. Discharge shall be recommenced once the District Manager is satisfied that adequate mitigation measures have been applied to minimize the occurrence of erosion and associated impacts from this discharge.

15. The Owner shall retain for a minimum of five (5) years from the date of their creation; all records and information related to or resulting from the monitoring activities required by this Approval.

9. REPORTING

1. One (1) week prior to the Commissioning of the Advanced Exploration Phase Sewage Works,

the Owner shall notify the District Manager (in writing) of the pending start-up date.

2. The Owner shall, upon request, make all manuals, plans, records, data, drawings, procedures and supporting documentation available to Ministry staff.

3. The Owner shall report to the District Manager or designate, any exceedance of any parameter specified in Condition 7 Effluent Limits orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance.

4. In addition to the obligations under Part X of the EPA and Ontario Regulation 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within fifteen (15) days of the occurrence of any reportable spill as provided in Part X of the EPA and Ontario Regulation 675/98, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.

5. The Owner shall prepare and submit to the District Manager a monthly activity report by the last day of the month following the month being reported upon. The first monthly activity report shall cover the first two (2) months following the date of issuance of this Approval and monthly activity reports shall be submitted to cover successive monthly intervals thereafter. The monthly activity report shall contain the following in a format that is acceptable to the District Manager:

    a. Estimate of total effluent discharged from the Works during the reporting period.

    b. Status of storage capacity occupied and remaining in the Works.

    c. A summary and interpretation of all monitoring data collected relative to the Works during the period being reported upon, including statistical evaluation (minimum, maximum and average), evaluation of compliance with this Approval and Ministry guidelines.

    d. A description of any operating problems and the corrective action taken during the reporting period, including anomalies in data due to change in, or upset of the Works.

    e. Any other information the District Manager requires from time to time.

6. The Owner shall prepare performance reports on a calendar year basis and submit to the District Manager in an electronic format by April 30th of the calendar year following the period being reported upon. The first such report shall cover the first annual period following the Commissioning of the Advanced Exploration Phase Sewage Works and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

    a. A summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 7 Effluent Limits, including an overview of the success and adequacy

of the Works.

b. A description of any operating problems encountered and corrective actions taken.

c. A summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works.

d. A summary of any effluent quality assurance or control measures undertaken in the reporting period.

e. The Owner shall:

   i. include a quarterly comparison of the Effluent Treatment Plant's influent water quality to the original predicted water quality characteristics presented in the supporting documentation for this Approval and the updated water quality predictions under Condition 9.11;

   ii. provide a follow-up plan including response timelines and escalation measures, where required, to address any significant deviations from the predicted Effluent Treatment Plant's influent water quality;

   iii. summarize the results of any updated metal leaching and acid rock drainage (ML-ARD) assessment completed during the reporting period, as described in Condition 9.8; and

   iv. update the Ground Monitoring and Supplementation Trigger Plan, Metal Leaching and Acid Rock Drainage Monitoring Plan for Kinetic Testing, and the Mine Rock and Overburden Management and Monitoring Plan, if required, based on the results of the comparison described in condition 9.6.e.i. and the requirements listed under Condition 9.8.

f. A summary of the calibration and maintenance carried out on all effluent monitoring equipment.

g. A copy of all Notice of Modifications submitted to the District Manager as a result of Schedule C, Section 1, with a status report on the implementation of each modification.

h. A report summarizing all modifications completed as a result of Schedule C, Section 3.

i. any other information the District Manager requires from time to time.

7. The Owner shall prepare and submit an annual Groundwater Monitoring Report for the Great Bear Advanced Exploration Program by April 30th of each year to the Director and District Manager, that includes the monitoring data for the 12-month period ending December 31st of the previous year. This report must be prepared by a licensed independent Professional Geoscientist or Professional Engineer qualified in the field of hydrogeology. The report shall be in a format

acceptable to the Director, with the first report submitted by April 30th, 2027, and as a minimum must contain the following information:

a. scaled site plans of the entire site illustrating significant site features such as mine facilities, stockpiles, water management facilities, collection and treatment facilities, discharge pipeline corridor, roadways, seeps, sumps, ditches, ponds, surface waters, and all groundwater and surface water monitoring and sampling locations;

b. a section of text explaining the current status of the site, including: location, size, detailed construction history, infrastructure, discharge locations, significant maintenance of the water management or treatment facilities, any other details which may be critical to assessment and understanding of the site construction and operations;

c. a summary of the current groundwater monitoring program, and any operating problems or corrective actions during the reporting period;

d. a section detailing the data collection methods, analytical procedures, and quality assurance and quality control (QA/QC) measures and outcomes;

e. scaled location maps illustrating the site relative to nearby surface water and groundwater features (i.e. watercourses, creeks, wetlands, water bodies, water supply wells, open drill holes, fault/shear zones, seeps), including detailed topographic contours;

f. scaled groundwater water table/level/elevation contour maps, including current and baseline contour maps for comparison purposes, with groundwater flow directions and divides identified; where multiple groundwater flow regimes exist, a contour map for each groundwater flow regime shall be included;

g. scaled stratigraphic cross-sections based on borehole logs, which clearly illustrate the subsurface distribution of geological materials;

h. borehole/installation logs for all monitoring, pumping and supplementation wells, and vibrating wire piezometers in the current groundwater monitoring program;

i. tables illustrating the most recent annual groundwater chemistry data (i.e. wells, pond subdrains, sumps, uplift protection system (under-drains), identified seeps, major water producing features in the Advanced Exploration Program ramp and underground workings), and groundwater level/elevation data, with digital spreadsheets (Excel or equivalent) including historical data;

j. figures illustrating historical groundwater quality trends with time (baseline and pre-construction to present) for applicable groundwater quality sample parameters listed in the Groundwater Quality Monitoring Table in Schedule B (i.e. general parameters, anions and nutrients, dissolved metals, methylmercury);

k. assessment of the baseline and pre-construction groundwater quality in the overburden and bedrock units within the Great Bear Property and down-gradient environments (e.g. organic deposits, glaciofluvial sands/silty sand, glaciolacustrine clay/silt, glacial till, and mineralized and unmineralized bedrock at shallow, intermediate and deep depths);

l. assessment of the groundwater monitoring data and any exceedances of groundwater quality trigger criteria, to evaluate the effectiveness of the designed seepage collection systems, groundwater seepage from site materials and infrastructure/ponds/ditches, and potential impacts on down-gradient receptors; with discussion of any implemented mitigation and contingency measures;

m. validation of the groundwater quality trigger criteria described in the Great Bear Advanced Exploration Program Groundwater Monitoring and Supplementation Trigger Plan, based on the most recent results from the water quality monitoring programs for: groundwater, surface water, mine rock, overburden, drainage ditches, and metal leaching and acid rock drainage kinetic testing;

n. estimation of groundwater flows, gradients, subsurface travel times, seepage quality, parameter attenuation, and mass loadings to the various receptors, with comparison to conditions predicted through model simulations;

o. results and discussion of the current numerical groundwater model and associated simulation results, including: i) residuals between simulated and measured groundwater levels for individual monitoring well locations, ii) groundwater gradients and, flows, iii) particle tracking, iv) predicted dewatering radius of influence within the overburden and bedrock units (including underground workings and identified faults and shear zones), v) predicted dewatering volumes and rates, vi) flow reduction thresholds and flow supplementation rates, and vii) closure and post-closure conditions; with model updates, calibration and reassessment completed following the first full calendar year of dewatering activities and thereafter at a frequency of once every two years during the Advanced Exploration stage and after any associated closure activities;

p. status and timelines for grouting of open drillholes within 200 m of the proposed and existing underground workings;

q. discussion of any implemented flow supplementation to Unnamed Watercourse 3, Dixie Creek or other watercourses, including: dates, times, volumes, rates, sources and water quality monitoring results;

r. assessment of locations for emergency overflows from the Sediment Pond, Mine Water Pond, and Chukuni River Pipeline low-point drain holding ponds, including: soil descriptions (test pit/borehole logs), infiltration rate measurements, down-gradient hydrogeological conditions and receptors; contingency plans and proposed mitigation measures to monitor emergency overflows and address any reductions in infiltration capacity and/or overland flow conditions;

discussion of any discharge monitoring results and implemented mitigation measures;

s. recommendations for future monitoring, updates to the groundwater triggers or model, contingency planning, remedial actions, and/or mitigation measures, as applicable; and

t. any other information the District Manager may require from time to time.

8. The Owner shall prepare and submit an annual Metal Leaching and Acid Rock Drainage Monitoring Report for the Great Bear Advanced Exploration Program by April 30th of each year to the Director and District Manager, that includes the monitoring data for the 12-month period ending December 31st of the previous year. This report must be prepared by a licensed Professional Geoscientist. The report shall be in a format acceptable to the Director, with the first report submitted by April 30th, 2027, and at a minimum must contain the following information:

a. scaled site plans of the entire site illustrating significant site features such as mine facilities, stockpiles, water management facilities, collection and treatment facilities, discharge pipeline corridor, roadways, seeps, sumps, ditches, ponds, surface waters, and all groundwater and surface water monitoring and sampling locations;

b. a section of text explaining the current status of the site, including: location, size, detailed construction history, infrastructure, discharge locations, significant maintenance of the water management or treatment facilities, any other details which may be critical to assessment and understanding of the site construction and operations;

c. a summary of the metal leaching and acid rock drainage monitoring programs, and any operating problems or corrective actions during the reporting period;

d. a section of text detailing the data collection methods, analytical procedures, and quality assurance and quality control (QA/QC) measures and outcomes;

e. scaled location maps illustrating the site relative to nearby surface water and groundwater features (i.e. watercourses, creeks, wetlands, water bodies, water supply wells, open drill holes, fault/shear zones, seeps), including detailed topographic contours;

f. tables illustrating the most recent annual water chemistry, geochemistry, and geology data, with digital spreadsheets (Excel or equivalent) including historical data, for the following programs:

i. metal leaching and acid rock drainage laboratory and field kinetic testing programs, as described in the Great Bear Advanced Exploration Program Metal Leaching and Acid Rock Drainage Monitoring Plan for Kinetic Testing;

ii. mine rock monitoring/field screening and confirmatory sampling programs and the drainage ditch monitoring programs, as described in the Great Bear Advanced

Exploration Program Mine Rock and Overburden Management and Monitoring Plan;

iii. overburden confirmatory sampling program, as described in the Great Bear Advanced Exploration Program Mine Rock and Overburden Management and Monitoring Plan;

g. figures illustrating historical water chemistry trends with time (baseline and pre-construction to present) for all groundwater quality sample parameters listed in the Groundwater Water Monitoring Table in Schedule B;

h. assessment of the most recent metal leaching and acid rock drainage laboratory and field kinetic testing results for mine rock and overburden materials (humidity cell tests, trickle leach column tests, on-site field leach barrels/test cells) as per the Great Bear Advanced Exploration Program Metal Leaching and Acid Rock Drainage Monitoring Plan for Kinetic Testing; discussion of the implications for: lag times to metal leaching and acid generation, water quality estimates, and the management of mine rock, overburden, contact water and stockpile seepage; and mitigation measures to address potential impacts to groundwater and surface water quality, and development of seeps from site materials/site infrastructure and through hydraulic connections to the underground workings;

i. assessment of the most recent results from the mine rock and overburden monitoring and confirmatory sampling programs and the drainage ditch monitoring program, as per the Great Bear Advanced Exploration Program Mine Rock and Overburden Management and Monitoring Plan; discussion of any changes with respect to the monitoring, management and use/re-use of mine rock and overburden materials; and mitigation measures to address potential impacts to groundwater and surface water quality, and the development of seeps;

j. validation of the metal leaching rock segregation parameters and criteria described in the Great Bear Advanced Exploration Program Mine Rock and Overburden Management and Monitoring Plan, based on the most recent results from the: metal leaching and acid rock drainage kinetic testing, mine rock monitoring and confirmatory sampling programs, and drainage ditch monitoring program;

k. development of metal screening parameters and updated criteria for overburden use/reuse, if metal leaching is demonstrated from overburden materials as part of the confirmatory sampling program or groundwater quality trigger criteria are exceeded as part of the groundwater monitoring program;

l. discussion of proposed and applied explosives management measures to reduce ammonia, nitrate and nitrite concentrations in the underground dewatering discharge and on-site contact water;

m. discussion of proposed and applied dust management measures for ore, mine rock, and overburden stockpiles;

n. discussion of any implemented contingency or mitigation measures during the reporting

period, and recommendations for future monitoring, contingency planning, remedial actions, and/or additional mitigation measures, as applicable; and

o. any other information the District Manager may require from time to time.

9. The Owner shall prepare and submit to the Ministry, annual Surface Water Monitoring (including Hydrology Monitoring), Aquatic Effects Monitoring, and Erosion and Sedimentation Control Management Monitoring Reports for the Great Bear Advanced Exploration Program by April 30th of each year to the Director and District Manager, that assesses the monitoring data for the 12-month period ending December 31st of the previous year. The report shall be prepared and signed by a Qualified Person with the first reports submitted by April 30, 2026, and shall contain, but shall not be limited to, the requirements of the Surface Water Monitoring Plan and Aquatic Effects Monitoring Plan listed in Schedule A, and the Erosion and Sedimentation Control Management Plan referred to in Condition 11.4 of this Approval. The Reports shall be submitted in accessible, unprotected electronic formats, accompanied by all monitoring data included as Excel files, and at a minimum must contain the analysis, reporting and communication commitments included in the aforementioned monitoring plans. In addition to the reporting requirements included in the aforementioned Aquatic Effects Monitoring Plan, the Aquatic Effects Monitoring Report shall at a minimum also contain the following information:

   a. in addition to the fish tissue monitoring metrics, triggers, and associated mitigation/contingency measures set out in Table 3-2: Aquatic Resources Trigger Criteria, the Owner shall also assess the following trigger and associated mitigation/contingency:

      i. where concentrations of total mercury and/or methylmercury in large-bodied fish tissue are statistically significantly greater than concentrations measured in the reference area (where applicable) and/or exceed baseline conditions, and the monitoring results indicate a change in fish consumption advisory levels for sensitive and/or general population group(s), for any fish size class, based on a single monitoring event, the Owner shall implement the following mitigation/contingency measure; re-sampling of fish tissue in the subsequent monitoring year to confirm whether the observed change in fish consumption advisory levels for sensitive and/or general population group(s), for any fish size class, is sustained.

   b. definition of “multiple years”, as it relates to triggering of an Investigation of Cause study.

   c. analysis of fish tissue monitoring results shall also include comparison of fish tissue total mercury results against the risk-based guideline of 0.2 µg/g.

   d. analysis of fish tissue monitoring results shall also include comparison of fish tissue methylmercury results against a methylmercury tissue residue guideline of 0.062 ug/g.

10. The Owner shall submit to the District Manager, an updated Aquatics Resources Baseline Report accompanying the first annual Aquatic Effects Monitoring Report to be submitted by April 30, 2027, The report shall compile all baseline small- and large-bodied fish tissue contaminant data,

including data from fish collected from Gullrock Lake, Two Island Lake, Pakwash Lake, and lake and stream reference monitoring locations, and an interpretive analysis of the results. This data may be supplemented with data collected by the Ministry, to ensure adequate sample sizes to accommodate the requirements outlined in Section 3.2 Methods and Section 5 Data Analysis and Reporting, of the following document and requirements:

a. "Great Bear Advanced Exploration Program, ECA ISW – Aquatic Effects Monitoring Program", prepared by WSP Canada Inc., prepared for Great Bear Resources, dated August 2025.

b. in addition to the requirements included in the aforementioned Aquatic Effects Monitoring Plan, the Aquatics Resources Baseline Report shall at a minimum also contain the following information:

   i. analysis of fish tissue monitoring results shall also include comparison of fish tissue total mercury results against the risk-based guideline of 0.2 μg/g.

   ii. Analysis of fish tissue monitoring results shall also include comparison of fish tissue methylmercury results against a methylmercury tissue residue guideline of 0.062 ug/g.

11. The Owner shall prepare and submit an annual Water Quality Modelling Report for the Great Bear Advanced Exploration Program to the Director and District Manager, with the first report submitted by April 30th, 2027, and subsequent updated reports submitted by April 30th of each year. This report must be prepared and signed by a Qualified Person, shall be in a format acceptable to the Director, and as a minimum must contain the following information:

    a. contaminant transport modelling with incorporation of the most recent: site water balance, numerical groundwater flow model, scaled and un-scaled metal leaching and acid rock drainage (ML-ARD) laboratory and field kinetic testing results for rock and overburden materials (including both total and dissolved metal concentrations in leachate), predicted and measured nitrogen species concentrations associated with blasting residuals, recent climate data and future climate predictions;

    b. surface water hydrologic modelling, with incorporation of the most recent runoff estimates, contact water pond routing, and assessment of water storage capacity under typical and extreme precipitation and snowmelt scenarios;

    c. updated predictions of source terms for groundwater, contact water and effluent quality changes from baseline conditions, during development of the underground workings and on-site ore/waste rock/overburden stockpiles, upon cessation of dewatering, and following post-closure flooding of underground workings;

    d. source terms must include:

       i. incorporation of cumulative scaling factors for waste rock and overburden stockpiles to

provide full-scale estimates for contact water quality; and

ii. assessment parameters: metals (also including barium and mercury), pH, ammonia, chloride, nitrate, nitrite, phosphorous and sulphate;

e. updated estimates of mass loading over time to groundwater and surface waters from discharges and seepage;

f. all model input data;

g. sensitivity analyses to assess the impacts of scaled versus un-scaled ML-ARD kinetic testing results, total versus dissolved metal concentrations in leachate, and varying climate conditions (typical, extreme precipitation, drought);

h. quarterly field validation assessment to confirm predictions with respect to contact water quality, down-gradient groundwater quality (including seeps), and effluent quality;

i. Summary of the water quality comparison completed under Condition 9.6.e.i; and

j. triggers for specific mitigation and additional treatment measures, including response timelines and escalation measures.

10. LIMITED OPERATIONAL FLEXIBILITY

1. The Owner may make modifications to the Works in accordance with the Terms and Conditions of this Approval and subject to the Ministry's "Limited Operational Flexibility Criteria for Modifications to Works", included under Schedule C of this Approval, as amended.

2. Works under Limited Operational Flexibility shall adhere to the design guidelines contained within the Ministry's publication "Design Guidelines for Sewage Works 2008", as amended.

3. The Owner shall ensure at all times, that the Works, related equipment and appurtenances which are installed or used to achieve compliance are operated in accordance with all Terms and Conditions of this Approval.

4. For greater certainty, the following are <u>not</u> permitted as part of Limited Operational Flexibility:

   a. modifications to the Works that result in an increase of the approved Rated Capacity of the Works.

   b. modifications to the Works that may adversely affect the approved effluent quality criteria or the location of the discharge/outfall.

   c. modifications to the treatment process technology of the Works, or modifications that involve

construction of new reactors (tanks) or alter the treatment train process design.

d. modifications to the Works approved under s.9 of the EPA.

e. modifications to the Works pursuant to an order issued by the Ministry.

5. Implementation of Limited Operational Flexibility is not intended to be used for piecemeal measures that result in major alterations or expansions.

6. If the implementation of Limited Operational Flexibility requires changes to be made to the Emergency Response, Spill Reporting and Contingency Plan, the Owner shall, provide a revised copy of this plan to the local fire services authority prior to implementing Limited Operational Flexibility.

7. For greater certainty, any modification made under the Limited Operational Flexibility may only be carried out after other legal obligations have been complied with, including those arising from the *Environmental Protection Act, Niagara Escarpment Planning and Development Act, Oak Ridges Moraine Conservation Act, Lake Simcoe Protection Act* and *Greenbelt Act* .

8. At least thirty (30) days prior to implementing Limited Operational Flexibility, the Owner shall complete a Notice of Modifications describing any proposed modifications to the Works and submit it to the District Manager.

9. The Owner shall not proceed with implementation of Limited Operational Flexibility until the District Manager has provided written acceptance of the Notice of Modifications or a minimum of thirty (30) days have passed since the day the District Manager acknowledged the receipt of the Notice of Modifications.

11. TEMPORARY EROSION AND SEDIMENT CONTROL

1. The Owner shall install and maintain temporary sediment and erosion control measures during construction and conduct inspections **once every two (2) weeks** and after each significant storm event (a significant storm event is defined as a minimum of 25 millimetres of rain in any 24 hours period). The inspections and maintenance of the temporary sediment and erosion control measures shall continue until they are no longer required and at which time they shall be removed and all disturbed areas reinstated properly.

2. The Owner shall maintain records of inspections and maintenance which shall be made available for inspection by the Ministry, upon request. The record shall include the name of the inspector, date of inspection, and the remedial measures, if any, undertaken to maintain the temporary sediment and erosion control measures.

3. Soil stripping and excavation shall only be conducted when there is no precipitation occurring that is substantial enough to cause uncontrolled erosion and run-off.

4. The Owner shall submit to the satisfaction of the District Manager within sixty (60) days of the issuance of this Approval, a site-specific Erosion and Sediment Control Management Plan that details measures to be put in place to reduce impacts from erosion and sedimentation during the length of the Advanced Exploration Phase.

    a. the Site-Specific Erosion and Control Management Plan shall build upon the following document, while also incorporating the requirements listed below under sub-conditions i-vii.

        i. "Erosion and Sediment Control Management Plan", prepared by Kinross - Great Bear, dated September 2024, last revised July 10, 2025.

        ii. dust management practices for the control and management of fugitive dust from site stockpiles, including at a minimum, proposed measures and monitoring.

        iii. the use of minor water conveyance and retention structures (ditches, storm sewers, catch basins, gutters, culverts etc.) shall be appropriately designed to accommodate at least 2-year to 10-year storm events, depending on the level of service and risk tolerance.

        iv. A clear definition of work areas considered to be "high-risk" for erosion and sedimentation.

        v. the Owner shall carry out inspection of other work areas and erosion and sediment control features not considered to be high-risk work at least once every two (2) weeks and after each significant storm event (a significant storm event is defined as a minimum of 25 millimetres of rain in any 24 hours period).

        vi. The Owner shall monitor the site for any evidence of runoff leaving the AEX site and at risk of not being captured for collection, transmission and treatment under this Approval. Mitigative measures shall be employed to prevent such escape. Should runoff continue to leave the site, the Owner shall monitor said runoff once every two (2) weeks and after each significant storm event for total suspended solids (TSS) and ensure the runoff does not exceed 25 mg/L TSS.

        vii. the Owner shall maintain a detailed log of daily weather and precipitation, to supplement the record of erosion/sedimentation occurrences.

    b. following review and acceptance of the site-specific Erosion and Sediment Control Management Plan by the District Manager, the Owner shall carry out the plan and commitments described in the plan.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.

2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to approved Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.

3. Condition 3 is included to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.

4. Conditions 4 regarding changes in process or materials is included to ensure that the Works are operated in accordance with the information submitted by the Owner relating to the process and materials which are served by the Works, and to ensure that any contemplated changes in them which could potentially affect the characteristics of effluent from the Works will be properly reviewed and approved.

5. Condition 5 is included to ensure that the Works are constructed in accordance with the approval and that record drawings of the Works “as constructed” are maintained for future references.

6. Condition 6 is included to ensure that a comprehensive operation’s manual governing all significant areas of operation, maintenance and repair is prepared, implemented, and kept up to date by the Owner and made available to the Ministry. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the owner's operation of the Works.

7. Condition 7 is imposed to ensure that the effluent discharged from the Works to the Chukuni River meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver. A conservative approach is used to develop the site-specific effluent limits, and this condition requires the Owner to meet these enforceable compliance limits for effluent discharged to Chukuni River. Effluent limits for sulphate under different flow conditions are imposed such that any sulphate levels will meet background concentration of the receiving environment at the edge of a short mixing zone.

8. Condition 8 is included to require the Owner to demonstrate on a continual basis that the quality and quantity of the effluent from the approved Works is consistent with the effluent limits

specified in the Approval and that the approved Works does not cause any impairment to the receiving watercourse. Comprehensive wastewater treatment plant effluent monitoring, receiver water monitoring, hydrometric monitoring, groundwater monitoring, and toxicity testing are imposed to ensure compliance and environmental protection.

9. Condition 9 is included to provide a performance record for future references and to ensure that the Ministry is made aware of problems as they arise, so that the Ministry can work with the Owner in resolving the problems in a timely manner.

10. Condition 10 is included to ensure that the Works are operated in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider. These Conditions are also included to ensure that a Professional Engineer has reviewed the proposed modifications and attests that the modifications are in line with that of Limited Operational Flexibility and provide assurance that the proposed modifications comply with the Ministry's requirements stipulated in the Terms and Conditions of this Approval, MOE policies, guidelines, and industry engineering standards and best management practices.

11. Condition 11 is included as installation, regular inspection and maintenance of the temporary sediment and erosion control measures is required to mitigate the impact on the downstream receiving watercourse during construction until they are no longer required.

Schedule A

1. Application for Environmental Compliance Approval submitted by Ian Russell, Site Manager, Great Bear Resources Ltd. received on April 12, 2024 for the proposed sewage works, including design report, final plans, specifications and all supporting documentation.

2. Email from Aaron MacDonell to the Ministry about "Expected Dewater Quality, Construction Phase of the AEX Program" at 3:00 pm on May 29, 2025.

3. “Great Bear Resources Limited, Great Bear Project, AEX Program ECA ISW, Groundwater Monitoring and Supplementation Trigger Plan”, prepared by WSP Canada Inc., November 2025.

4. “Great Bear Advanced Exploration Program, ML / ARD Monitoring Plan – Kinetic Testing”, prepared by WSP Canada Inc., prepared for Great Bear Resources, September 2025.

5. “Great Bear Project, Advanced Exploration Program Mine Rock and Overburden Management and Monitoring Plan”, prepared by WSP Canada Inc., prepared for Great Bear Resources, November 2025.

6. “Great Bear Advanced Exploration Program, ECA ISW - Surface Water Monitoring Plan”, prepared by WSP Canada Inc., prepared for Great Bear Resources, November 2025.

7. Memorandum – Subject: “Proposed Terms of Reference: Chukuni a. River Mixing Zone Field Validation Study”, from WSP Canada Inc., to Great Bear Resources, dated September 4, 2025.

8. "Erosion and Sediment Control Management Plan”, prepared by Kinross - Great Bear, dated September 2024, last revised July 10, 2025.

9. "Great Bear Advanced Exploration Program, ECA ISW – Aquatic Effects Monitoring Program”, prepared by WSP Canada Inc., prepared for Great Bear Resources, dated August 2025.

10. “2026 Supplementation Well Pumping Test Results”, prepared by WSP Canada Inc., sent to Kinross, dated March 17, 2026.

Schedule B

Effluent Limits Table 1

Effluent discharge limits from the Treated Water Pond (TWP) to the effluent pipeline with discharge to Chukuni River.

Effluent Limits (from the TWP)		
Effluent Parameter	**Maximum Daily Concentration ***	**Maximum Monthly Average Concentration ***
Column 1	Column 2	Column 3
Total Suspended Solids	30	15
Un-ionized Ammonia	0.64	0.32
Copper	0.2	0.1
Nickel	0.5	0.25
Lead	0.16	0.08
Zinc	0.68	0.34
Arsenic	0.018	0.009
Sulphate **	100	100
Phosphorus	0.44	0.22
pH of the effluent maintained between 6.5 to 8.5, inclusive, at all times		

* means milligrams per litre unless otherwise indicated

** means When the Chukuni River flow is less than 600,000 cubic metre per day, the maximum allowable discharge rate is 2640 cubic metre per day with a maximum sulphate effluent limit of 20 mg/L. When the river flow exceeds 600,000 cubic metres per day, the maximum allowable discharge rate is 4080 cubic metre per day with a maximum sulphate effluent limit of 100 mg/L.

Schedule B

Water Quality Guidelines for the Protection of Aquatic Life – Off-site Monitoring Stations

Parameter	Units	Guideline Values		Notes
		Criterion	Source[1,2,3,4]	
General Parameters and Nutrients				
pH		6.5 – 8.5	PWQO	**1.** Provincial Water Quality Objectives (PWQO) and interim PWQO (iPWQO).
Sulphate[10]	mg/L	Local Background	Off-site watercourse / waterbody	**2.** Canadian Council of Ministers of the Environment (CCME) water quality guidelines for the protection of aquatic life (long-term exposure).
Un-ionized[9] Ammonia	mg/L	0.02	PWQO	**3.** Federal Environmental Quality Guidelines (FEQG); these are issued to support federal environmental quality monitoring and risk assessment for parameters for which CCME guidelines do not yet exist or are not reasonably expected to be updated in the near future.
Chloride	mg/L	120	CCME – CWQG	
Nitrate (as N)	mg/L	3.0	CCME – CWQG	**4**. British Columbia long-term exposure guidelines (BC WQG; freshwater) are accessed here in the absence of available suitable Ontario or Federal guidelines.
Nitrite-N	mg/L	Calculated[7]	BC WQG	
Total Metals				**5**. Existing arsenic concentrations in the Chukuni River (the receiving environment) are greater than available water quality guidelines; most appropriate environmental benchmark is baseline condition (75th percentile arsenic = 0.0096 mg/L)
Aluminum	mg/L	Calculated[7]	FEQG	
Antimony	mg/L	0.02	iPWQO	**6**. There is no guideline for concentrations of total chromium; it is most common to adopt the iPWQO and CCME guidelines for trivalent (0.0089) chromium
Arsenic[5]	mg/L	0.005	PWQO	
Boron	mg/L	0.005	CCME – CWQG	**7.** Parameters with guidelines listed as Calculated means that their guideline value are dependent on hardness, pH and / or dissolved organic carbon concentrations, or chloride in the case of nitrite, or the Biotic Ligand Model in the case of copper. Guidelines are expected to be calculated on a sample-by-sample basis to support annual compliance reporting.
Beryllium	mg/L	Calculated[7]	PWQO	
Cadmium	mg/L	Calculated[7]	CCME – CWQG	
Chromium[6]	mg/L	0.0089[6]	iPWQO	**8.** British Columbia Ambient Water Quality
Cobalt	mg/L	Calculated[7]	FEQG	
Copper	mg/L	Calculated[7]	FEQG	
Iron	mg/L	Calculated[7]	FEQG	
Lead	mg/L	Calculated[7]	FEQG	

Total Mercury[8]	ng/L	As a Function of the Percentage of MeHg[8]	BC WQG
Molybdenum	mg/L	31	Saskatchewan WQG
Nickel	mg/L	Calculated[7]	CCME – CWQG
Phosphorus	mg/L	0.03 (Rivers) 0.02 (Lakes)	iPWQO
Selenium	mg/L	0.001	CCME – CWQG
Strontium	mg/L	2.5	FEQG
Silver	mg/L	0.00025	CCME – CWQG
Thallium	mg/L	0.006	CCME – CWQG
Uranium	mg/L	0.015	CCME – CWQG
Vanadium	mg/L	0.12	FEQG
Tungsten	mg/L	0.03	iPWQO
Zinc	mg/L	Calculated[7]	CCME – CWQG
Zirconium	mg/L	0.004	PWQO

Guidelines for Mercury to protect aquatic life from chronic effects of mercury. Should repeated monthly results demonstrate exceedance of total mercury guidelines based on a function of the percentage of methylmercury, a long-term threshold may be established to better address concerns with bioaccumulation and biomagnification within the receiving environment.

9. The calculation of un-ionized ammonia is based on pH and temperature

10. Ongoing Chukuni River sulphate monitoring data from stations outside of the effluent mixing zone will be compared against the Chukuni River background value of 6.4 mg/L, while sulphate monitoring data from other off-site monitoring stations will be compared to local background sulphate values for each waterbody/watercourse.

Schedule B

Effluent Monitoring Table 1

Final Effluent discharged from Treated Water Pond UTMs: Zone 15 U, 455192 m E, 5634491 m N*******		
Effluent Parameter	**Frequency**	**Sample Type**
pH (Field)	Thrice Weekly	Grab
Total Suspended Solids (TSS)	Thrice Weekly	Grab
Arsenic (As)	Weekly	Grab
Copper (Cu)	Weekly	Grab
Lead (Pb)	Weekly	Grab
Nickel (Ni)	Weekly	Grab
Zinc (Zn)	Weekly	Grab
Total Phosphorus*****	Weekly	Grab
Total Ammonia Nitrogen	Weekly	Grab
Un-ionized Ammonia****	Weekly	Grab
Sulphate (SO_4)	Weekly	Grab
Total Dissolved Solids (TDS)	Weekly	Grab
Hardness	Weekly	Grab
Alkalinity	Weekly	Grab
Acidity	Weekly	Grab
Conductivity (Field and Lab)	Weekly	Grab
Field Temperature	Weekly	Grab
ICP - MS Metal Scan (unfiltered and filtered) (*) (**)	Weekly	Grab
pH (Lab)	Monthly	Grab
Chloride (Cl)	Monthly	Grab
Fluoride (F)	Monthly	Grab
Dissolved Oxygen (DO)	Monthly	Grab
Dissolved Organic Carbon (DOC)	Monthly	Grab
Turbidity	Monthly	Grab
Total Nitrogen	Monthly	Grab
Nitrite-Nitrogen	Monthly	Grab
Nitrate-Nitrogen	Monthly	Grab
Oil and Grease	Monthly	Grab
Water Soluble Sulphate and Sulphide	Monthly	Grab
Ultra Low-Level Total and		

Methyl Mercury (unfiltered and filtered and samples)	Monthly	Grab
Acute Toxicity to Rainbow Trout	Monthly***	Grab
Acute Toxicity to Daphnia magna	Monthly***	Grab
Chronic Toxicity to Fathead Minnow	Semi-annual******	Grab
Chronic Toxicity to Ceriodaphnia dubia	Semi-annual******	Grab

* means ICP-MS metals (unfiltered and filtered) scan shall include: ICP-MS metals: Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Boron (B), Bismuth (Bi), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Sulphur (S), Thallium (Tl), Tungsten (W), Uranium (U), Vanadium (V), Zinc (Zn) and zirconium (Zr).

** means Metals analysis shall be both total and dissolved (0.45 micron filter) metals.

*** means All samples picked up for toxicity tests shall be picked up on the same day as effluent samples.

**** means Un-ionized Ammonia shall be calculated based on Total Ammonia Nitrogen, and Field pH and Temperature measurements.

***** means Phosphorus detection limits will be less than or equal to 0.005 mg/L.

****** means All samples picked up for toxicity tests shall be picked up on the same day as effluent samples. There shall be an interval of at least 90 days between successive pick-up days for the semi-annual chronic toxicity testing.

******* means Coordinates are approximate; exact UTM to be field fitted based on site assessment and will be provided in annual reporting.

Schedule B

Effluent Monitoring Table 2

Effluent leaving the Mine Water Pond - UTMs: Zone 15 U, 455260 m E, 5634514 m N*** **Underground water pumped to surface - UTMs: Zone 15 U, 455332 m E. 5634513 m N***** **Sediment Pond – UTMs: Zone15 U, 455304 m E. 5634459 m N*****		
Effluent Parameter	**Frequency**	**Sample Type**
pH (Field and Lab)	Weekly	Grab
Temperature (Field)	Weekly	Grab
Conductivity (Field)****	Weekly	Grab
Total Suspended Solids (TSS)	Weekly	Grab
Total Ammonia Nitrogen	Weekly	Grab
Un-ionized Ammonia**	Weekly	Grab
Nitrite-Nitrogen	Weekly	Grab
Nitrate-Nitrogen	Weekly	Grab
Sulphate (SO_4)	Weekly	Grab
ICP - MS Metal Scan (filtered)*	Weekly	Grab
Total Dissolved Solids (TDS)	Weekly	Grab
Dissolved Organic Carbon (DOC)****	Weekly	Grab
Total Phosphorus (***) (****)	Weekly	Grab
Chloride (Cl)****	Weekly	Grab
Fluoride (F)****	Weekly	Grab
Hardness****	Weekly	Grab
Alkalinity****	Weekly	Grab
Acidity****	Weekly	Grab

* means Weekly ICP-MS metals (filtered) scan shall include: ICP-MS metals: Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Boron (B), Bismuth (Bi), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Sulphur (S), Thallium (Tl), Tungsten (W), Uranium (U), Vanadium (V), Zinc (Zn) and zirconium (Zr).

** means Un-ionized Ammonia shall be calculated based on Total Ammonia Nitrogen, and Field pH and Temperature measurements.

*** means Phosphorus detection limits will be less than or equal to 0.005 mg/L.

**** means only required for sampling of the Underground water pumped to surface.

***** means Coordinates are approximate; exact UTM to be field fitted based on site assessment and will be provided in annual reporting.

Schedule B

Effluent Monitoring Table 3

Effluent Pipeline Emergency Low Point Drain Holding Pond Monitoring Sampling Locations:

Final Effluent discharged from DV1 – Western Effluent Pipeline Emergency Discharge Low Point Holding Pond - UTMs: Zone 15 U, 458557 m E, 5636261 m N***

Final Effluent discharged from DV2 – Central Effluent Pipeline Emergency Discharge Low Point Holding Pond - UTMs: Zone 15 U, 461492 m E, 5634910 m N***

Final Effluent discharged from DV3 – Eastern Effluent Pipeline Emergency Discharge Low Point Holding Pond - UTMs: Zone 15 U, 463472 m E, 5634004 m N***

Effluent Parameter	Frequency	Sample Type
Field pH	At least 2 weeks prior to each discharge (upon receipt of lab result to confirm quality of water) and Weekly during discharge	Grab
Field Temperature		
Total Suspended Solids (TSS)		
Arsenic (As)		
Copper (Cu)		
Lead (Pb)		
Nickel (Ni)		
Zinc (Zn)		
Total Phosphorus**		
Sulphate (SO_4)		
Total Ammonia Nitrogen		
Un-ionized Ammonia*		
Total Dissolved Solids (TDS)		
Hardness		
Alkalinity		
Acidity		
Oil and Grease		

* Un-ionized Ammonia shall be calculated based on Total Ammonia Nitrogen, and Field pH and Temperature measurements.

** Phosphorus detection limits will be less than or equal to 0.005 mg/L.

*** Coordinates are approximate; exact UTM to be field fitted based on site assessment and will be provided in annual reporting.

Schedule B

Receiving Water Monitoring Table

Sampling Location/I. D.	UTMs	Type and Purpose	Frequency	Sample Parameters (Grab samples)
Chukuni River – (CR-REF)	Zone 15 U 466338 m E 5637635 m N	Receiving water, US reference station	Monthly	ICP-MS metals (filtered and unfiltered)*, lab pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include field pH, temperature, conductivity and dissolved oxygen. Late-summer pH, temperature, dissolved oxygen, and conductivity at 1.0 m intervals Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Chukuni River – (CR-FDP-US)	Zone 15 U 465230 m E 5633878 m N	Receiving water, ~ 100 m US of ETP discharge to Chukuni River	Monthly	ICP-MS metals (filtered and unfiltered)*, lab pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Late-summer pH, temperature, dissolved oxygen, and conductivity at 1.0 m intervals Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Chukuni River – (CR-FDP-DS)	Zone 15 U 465472 m E 5633137 m N	Receiving water, ~ 100 m DS of ETP discharge to Chukuni River; point effluent	Monthly	ICP-MS metals (filtered and unfiltered)*, lab pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature,

		plume is estimated to be full chemically and physically mixed.		conductivity and dissolved oxygen. Late-summer pH, temperature, dissolved oxygen, and conductivity at 1.0 m intervals Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Chukuni River – (CR-DS)	Zone 15 U 466758 m E 5631707 m N	Receiving water, downstream of ETP discharge and confluence with Dixie Creek	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Late-summer pH, temperature, dissolved oxygen, and conductivity at 1.0 m intervals Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Pakwash Lake – (PL-01) – Chukuni River inflow bay	Zone 15 U 467217 m E 5630976 m N	Receiving water, far-field, ~15 km downstream of proposed discharge	Quarterly, including surface and bottom sampling in late summer when lake is stratified**	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Late-summer pH, temperature, dissolved oxygen, and conductivity at 1.0 m intervals Quarterly ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Pakwash Lake – (PL-04) – Mid-lake, deep	Zone 15 U 465033 m E 5621970 m N	Receiving water, far-field, deep spot	Quarterly, including surface and bottom sampling in late summer when lake is stratified**	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen.

				Late-summer pH, temperature, dissolved oxygen, and conductivity at 1.0 m intervals Quarterly ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Dixie Creek – (DC-US)	Zone 15 U 453398 m E 5631681 m N	US reference site, monitoring quality of inflows from Dixie Lake	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen.
Dixie Creek – (SW-03)	Zone 15 U 455164 m E 5633648 m N	US Reference site, directly upstream of AEX footprint	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Dixie Creek – (SW-04)	Zone 15 U 456037 m E 5633962 m N	Peripheral water body, near-field DS of AEX footprint	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Dixie Creek – (SW-08)	Zone 15 U 457441 m E 5633348 m N	Peripheral water body, mid-field DS of AEX footprint	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen.

				Field parameters to include pH, temperature, conductivity and dissolved oxygen. Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Dixie Creek – (SW-09)	Zone 15 U 459049 m E 5632708 m N	Peripheral water body, mid-field DS of AEX footprint	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Dixie Creek – (SW-15)	Zone 15 U 463537 m E 5632126 m N	Far-field station, DS of Unnamed Waterbody 6 outflow	Quarterly (and quarterly for ultra-trace Hg analysis).	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Quarterly ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Dixie Creek – (SW-15a)	TBD Proximal to DC-04 - SED	Far-field station, US of Unnamed Waterbody 6 outflow	Quarterly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, sulphate/water soluble sulphate, sulphide/water soluble sulphide, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and unionized ammonia****, nitrate, nitrite and temperature. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Quarterly ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Unnamed Waterbody 6 – (SW-14)	Zone 15 U 460888 m E 5633463 m N	Peripheral water body, DS of potential future site	Quarterly, including surface and bottom sampling in	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite,

		facilities if a future mine is developed	late summer when lake is stratified** (and quarterly for ultra-trace Hg analysis).	temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Quarterly ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Genessee Lake – (SW-GL)	Zone 15 U 450067 m E 5636010 m N	AEX Reference Lake System	Monthly, including surface and bottom sampling in late summer when lake is stratified**	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Unnamed tributary to Gullrock Lake – (SW-GL01)	Zone 15 U 452587 m E 5639028 m N	AEX Reference Tributary	Quarterly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Gullrock Lake – (GRL-03)	Zone 15 U 451206 m E 5645803 m N	Far US reference station	Quarterly, including surface and bottom sampling in late summer when lake is stratified**	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Unnamed Waterbody	Zone 15 U 454220 m	Unnamed Waterbody	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate,

1 – (SW-01)	E 5634854 m N	1 outflow, near to west margin of AEX footprint		BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen.
Unnamed Tributaries – (SW- 07)	Zone 15 U 456454 m E 5634578 m N	Unnamed Watercourse 3, upstream of confluence to Dixie Creek, potential effects from underground and AEX site development	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Quarterly ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Unnamed Tributaries – DCT-03a)	Zone 15 U 455710 m E 5634203 m N	As per MECP's request (January 25, 2024) a monthly water quality sampling location at approximately located at DCT03a;	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen.
Unnamed Tributaries – (SW- 08a)	Zone 15 U 457413 m E 5633512 m N	On Unnamed Watercourse 3, upstream of confluence to Dixie Creek, potential effects	Monthly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen.

		from underground development		
Unnamed Tributaries – (SW- 11)	Zone 15 U 458231 m E 5634440 m N	Peripheral waterbody, Tributary to Unnamed Waterbody 6.	Monthly (and quarterly for ultra-trace Hg analysis).	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen. Quarterly ultra-trace analysis for total and methyl mercury on both unfiltered and filtered samples.
Unnamed Tributaries – (SW- 12)	Zone 15 U 459525.9 m E 5635921.66 m N	Peripheral waterbody, adjacent to proposed discharge pipeline	Quarterly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen.
Unnamed Tributaries – (SW- 17)	Zone 15 U 458914 m E 5637970 m N	North Flowing Tributary	Quarterly	ICP-MS metals (filtered and unfiltered)*, pH, TSS, TDS, Cl, F, sulphate/water soluble sulphate, BOD5, DO, DOC, TP***, acidity, hardness, alkalinity, conductivity, turbidity, total and un-ionized ammonia****, nitrate, nitrite, temperature, sulphide/water soluble sulphide, total nitrogen. Field parameters to include pH, temperature, conductivity and dissolved oxygen.

* means ICP-MS metals (unfiltered and filtered) scan shall include: ICP-MS metals: Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Boron (B), Bismuth (Bi), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Lead (Pb), Magnesium (Mg), Manganese (Mn), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Selenium (Se), Silver (Ag), Sodium (Na), Strontium (Sr), Sulphur (S), Thallium (Tl), Tungsten (W), Uranium (U), Vanadium (V), Zinc (Zn) and zirconium (Zr).

** means Quarterly top and bottom sampling is to occur to provide information on stratification effects, with at least one of the quarterly samples to be carried out in late summer between the dates of August 15 and September 15, every year.

*** means TP: Total phosphorus to be analyzed using a low-level test method such as that modified from EPA 365.3 and ESS310.2, or equivalent, with the reporting limit to be 1/5 or less of the total phosphorus iPWQO concentration.

**** means Un-ionized ammonia concentrations to be determined on the basis of field temperature and pH values collected

at the time of total ammonia sampling, and laboratory total ammonia values.

DS means Downstream

US means Upstream.

Schedule B

List of Hydrometric Monitoring Stations

Station ID	Station Name	Data Collected	Date Installed	UTM Coordinates
WSC-Chukuni	WSC station 05QC001: Chukuni River Near Ear Falls	Level, Manual Flow Measurements	N/A	N/A
WSC Long-Legged River	WSC station (05QE012): Long-Legged River near Long-Legged Lake	Level, Manual Flow Measurements	N/A	N/A
HF-01	Dixie Creek at Tote Road	Level, Manual Flow Measurements	June 1, 2022	15U 463528, 5632124
HF-02	Unnamed Waterbody 6 outflow above dixie creek	Level, Manual Flow Measurements	August 20, 2022	15U 461760, 5633610
HF-02A	Unnamed watercourse 6A	Level, Manual Flow Measurements	June 9, 2024	15U 459040, 5634093
HF-03	Dixie Creek DS of LP Tributary	Level, Manual Flow Measurements	May 31, 2022	15U 456019 5633939
HF-04	LP Fault Tributary US of Dixie Creek	Level, Manual Flow Measurements	June 4, 2022	15U 457433 5634011
HF-06	Unnamed Waterbody 1 outflow	Level, Manual Flow Measurements	June 1, 2022	15U 454168, 5634674
HF-07	Dixie Lake Outflow	Level, Manual Flow Measurements	June 2, 2022	15U 453381 ,5631660
HF-08	Genessee Lake Tributary towards Dixie Lake	Level, Manual Flow Measurements	June 3, 2022	15U 451486, 5634791
HF-09	Unnamed Tributary towards Gullrock Lake	Level, Manual Flow Measurements	September 23, 2023	15U 451734, 5638946
HF-10	Stone Lake Outflow	Level, Manual Flow Measurements	June 1, 2022	15U 448619, 5638645
HF-11	Unnamed watercourse 7A	Level, Manual Flow Measurements	June 12, 2024	15U 457355, 5631032
HL-01	Genessee Lake	Level	June 3, 2022	15U 449174, 5636085
HL-02	Gullrock Lake	Level	June 4, 2022	15U 446845, 5642924

HL-03	Chukuni River	Level	June 3, 2022	15U 465475, 5635260
HL-04	Chukuni River	Level	June 13, 2024	15U 464912, 5633648
HL-05	Chukuni River	Level	June 13, 2024	15U 466112, 5631851
HL-06	Unnamed Waterbody 1	Level	September 19, 2023	15U 454213, 5635360
HL-07	Unnamed Waterbody 5	Level	June 10, 2024	15U 455762, 5636344
On-site Station 1	Settling Pond	Flow Measurements	-	-
On-site Station 2	Mine Water Pond	Flow Measurements	-	-
On-site Station 3	Effluent Treatment Plant	Flow Measurements	-	-
On-site Station 4	Treated Water Pond	Flow Measurements	-	-

Notes:

Van Essen TD Diver instruments were fixed to a plate weight and installed at stream or lakebed.

Van Essen TD Diver instruments were set to record water level every 15 minutes.

Van Essen TD Diver instruments will be downloaded quarterly at minimum.

Manual flow and water level measurements will be completed monthly during open water season until sufficient points are developed for rating curve development, as applicable. Winter measurements will be conducted a minimum of once a year, providing the site can be safely accessed and taking into consideration winter safety protocols for working on ice. Once a suitable rating curve has been developed the frequency of manual flow measurements can be amended to with approval of the District Manager such that monitoring frequency may be reduced to an amount that is sufficient to maintain an accurate rating curve.

Schedule B

Ground Water Monitoring Table

Ground Water Quality Monitoring Table	
Sampling Location[1] (Groundwater Quality)	AEX Supplementation Well 1 (PW26-108), AEX Supplementation Well 2 (PW26-104), AEX Supplementation Well 3 (PW26-102), PTL1MW1/22D, PTL1MW2/22, PTL1MW3/22D, PTL1MW4/22D, AEX Potable Well, 23-AEX-25, 23-AEX-29, 23-AEX-32G, 23-AEX-39, MW2/22D, MW10/22 I&D, MW11/22 S&D, MW12/22D, MW24-AEX-101, MW24-AEX-102, MW24-AEX-103, MW25-01, MW25-02, MW25-03 S&D, MW25-04 S&D, MW25-05, MW25-06, MW25-07, Pond Subdrains (M.H. #1, M.H. #2), Sumps (PAG, Phase 1 Stockpile, Portal, Perimeter Ditch), Mine Water Pond uplift protection system (under-drains), identified seeps, major water producing features in Advanced Exploration Program ramp and underground workings.
Sample Type	Grab
Sample Frequency	Three (3) times per year (spring freshet, summer, fall), with a minimum of 60 days between sampling events. Prior to beginning flow supplementation and monthly during flow supplementation to affected watercourses, for AEX Supplementation Wells and Mine Water Pond uplift protection system (under-drains) as applicable. During and following emergency overflow events for applicable groundwater sampling locations down-gradient of the Sediment Pond, Mine Water Pond, and Chukuni River Pipeline low-point drain holding ponds.
Sample Parameters[2,3]	Field Measurements Static groundwater levels, well stick-up height, calculated groundwater elevations reported in metres above sea level; and Temperature, pH, conductivity, turbidity. Laboratory Parameters General parameters [Conductivity, Hardness (as $CaCO_3$), pH, Total Dissolved Solids, Total Suspended Solids, Turbidity, Acidity (as $CaCO_3$), Total Alkalinity (as $CaCO_3$), Dissolved Organic Carbon]; Anions and Nutrients [Chloride, Nitrate (as N), Nitrite (as N), Total Ammonia (as N), Un-ionized Ammonia (as N), Total Phosphorous, Sulphate, Total Cyanide, Weak Acid Dissociable Cyanide]; Petroleum Hydrocarbons, Oil and Fuel related parameters [Benzene, Toluene, Ethylbenzene, Xylenes, Petroleum Hydrocarbon (PHC) Fractions 1-4, Polycyclic Aromatic Hydrocarbons (PAH) and Nitrated Polycyclic Aromatic Hydrocarbons (NPAH)];

	Dissolved Metals [aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, potassium, selenium, silver, sodium, strontium, thallium, tungsten, uranium, vanadium, zinc, zirconium]; and Methylmercury (at groundwater quality sample locations proximal to Dixie Creek).

[1] Locations are identified in "Great Bear Resources Limited, Great Bear Project, AEX Program ECA ISW, Groundwater Monitoring and Supplementation Trigger Plan", prepared by WSP Canada Inc., November 2025; and "2026 Supplementation Well Pumping Test Results", prepared by WSP Canada Inc., March 17, 2026.

[2] Groundwater quality analytical results shall be compared with those listed in: a) Table 2-4: Groundwater Quality Trigger, "Great Bear Project, AEX Program ECA ISW, Groundwater Monitoring and Supplementation Trigger Plan", prepared by WSP Canada Inc., prepared for Great Bear Resources Limited, November 2025; and b) the Water Quality Guidelines for the Protection of Aquatic Life Table listed in Schedule B of this Approval.

[3] Groundwater quality analytical results from the AEX Supplementation Wells and Mine Water Pond uplift protection system (under-drains) shall be compared with: a) background water quality in Unnamed Watercourse 3 and Dixie Creek, respectively; and b) the Water Quality Guidelines for the Protection of Aquatic Life Table listed in Schedule B of this Approval.

Schedule B

Ground Water Monitoring Table

Ground Water Level/Elevation Monitoring Table	
Sampling Location [1] (Groundwater Levels / Elevations)	AEX Supplementation Well 1 (PW26-108), AEX Supplementation Well 2 (PW26-104), AEX Supplementation Well 3 (PW26-102), PTL1MW1/22D, PTL1MW2/22, PTL1MW3/22D, PTL1MW4/22D, AEX Potable Well, 23-AEX-25, 23-AEX-29, 23-AEX-32G, 23-AEX-39, MW2/22D, MW3/22, MW4/22D, MW5/22, MW7/22D, MW9/22 S&D, MW10/22 I&D, MW11/22 S&D, MW12/22 I&D, MW24-106, MW23-09, BH22-124, BH22-120, BH23-103, BH22-103, BH23-121, MW24-09, MW24-16, MW24-109, MW24-AEX-101, MW24-AEX-102, MW24-AEX-103, MW25-01, MW25-02, MW25-03 S&D, MW25-04 S&D, MW25-05, MW25-06, MW25-07; DP-01^, DP-02^, DP-03^, DP-04^, DP-05^, DP-06^, DP-07^, DP-08^, DP-09^, DP-10^, DP-11^, DP-12^; MW8-22**, BH22-07**, BH22-12**, BH22-21**, BH23-04**, BH23-06**, BH23-13**, BH23-20**, MW24-101**, MW24-102**, MW24-103**; BH22-124***, PTL1MW2/22***, BH23-103***, BH22-07 (VWP Shallow)***, BH22-103***, BH23-121***, or others as required.
Sample Frequency	Hourly, with quarterly downloads (data logger/transducer). ^ Daily, with quarterly downloads (streambed/lakebed transducer). ** Daily, with quarterly downloads (vibrating wire piezometer data logger). *** Hourly, with downloads every two weeks, until supplementation pumping is activated (data loggers/transducers in supplementation trigger wells). During and following emergency overflow events for applicable groundwater sampling locations down-gradient of the Sediment Pond, Mine Water Pond, and Chukuni River Pipeline low-point drain holding ponds.

[1] Locations are identified in "Great Bear Resources Limited, Great Bear Project, AEX Program ECA ISW, Groundwater Monitoring and Supplementation Trigger Plan", prepared by WSP Canada Inc., November 2025; and "2026 Supplementation Well Pumping Test Results", prepared by WSP Canada Inc., March 17, 2026.

Schedule C

Limited Operational Flexibility Criteria for Modifications to Works

1. The modifications to Works approved under an Environmental Compliance Approval (Approval) that are permitted under the Limited Operational Flexibility (LOF), are outlined below and are subject to the LOF conditions in the Approval and require the submission of the Notice of Modifications. If there is a conflict between the Works listed below and the Terms and Conditions in the Approval, the Terms and Conditions in the Approval shall take precedence.

    1. Sewage Pumping Stations

        a. Alter pumping capacity by adding or replacing equipment where new equipment is located within an existing sewage treatment plant site or an existing sewage pumping station site, provided that the modifications do not result in an increase of the sewage treatment plant Rated Capacity and the existing flow process and/or treatment train are maintained, as applicable.

        b. Forcemain relining and replacement with similar pipe size where the nominal diameter is not greater than 1,200 mm.

    2. Sewage Treatment Process

        a. Installing additional chemical dosage equipment including replacing with alternative chemicals for pH adjustment or coagulants (non-toxic polymers) provided that there are no modifications of treatment processes or other modifications that may alter the intent of operations and may have negative impacts on the effluent quantity and quality.

        b. Expanding the buffer zone between a sanitary sewage lagoon facility or land treatment area and adjacent uses provided that the buffer zone is entirely on the proponent's land.

        c. Optimizing existing sanitary sewage lagoons with the purpose to increase efficiency of treatment operations provided that existing sewage treatment plant rated capacity is not exceeded and where no land acquisition is required.

        d. Optimizing existing sewage treatment plant equipment with the purpose to increase the efficiency of the existing treatment operations, provided that there are no modifications to the Works that result in an increase of the approved rated capacity and may have adverse effects to the effluent quality or location of the discharge.

        e. Replacement, refurbishment of previously approved equipment in whole or in part with Equivalent Equipment, like-for-like of different make and model, provided that the firm capacity, reliability, performance standard, level of quality and redundancy of the group of equipment is kept the same or exceeded. For clarity purposes, the following equipment can be considered under this provision: pumps, screens, grit separators, blowers, aeration

equipment, sludge thickeners, dewatering equipment, UV systems, chlorine contact equipment, bio-disks, and sludge digester systems.

3. Sewage Treatment Plant Outfall

    a. Replacement of discharge pipe with similar pipe size or diffusers provided that the outfall location is not changed.

4. Sanitary Sewers

    a. Pipe relining and replacement with similar pipe size within the Sewage Treatment Plant site, where the nominal diameter is not greater than 1,200 mm.

5. Pilot Systems

    a. Installation of pilot systems for new or existing technologies provided that: any effluent from the pilot system is discharged to the inlet of the sewage treatment plant or hauled off-site for proper disposal,

    b. any effluent from the pilot system discharged to the inlet of the sewage treatment plant or sewage conveyance system does not significantly alter the composition/concentration of the influent sewage to be treated in the downstream process; and that it does not add any inhibiting substances to the downstream process, and

    c. the pilot system's duration does not exceed a maximum of two years; and a report with results is submitted to the Director and District Manager three months after completion of the pilot project.

6. Water Management Facilities

    a. Pipe replacement or extension with similar pipe size within the Water Management Area, where the nominal diameter is not greater than 1,200 mm.

    b. Optimizing existing works with the purpose to increase the efficiency of the existing works, provided that there are no modifications to the works that result in an increase of the approved rated capacity of the works, or that may have adverse effects to the effluent quality or location of the discharge.

    c. Altering operation of the works in a manner that does not change the quality of effluents discharged from the works or result in an increased adverse effect to the environment.

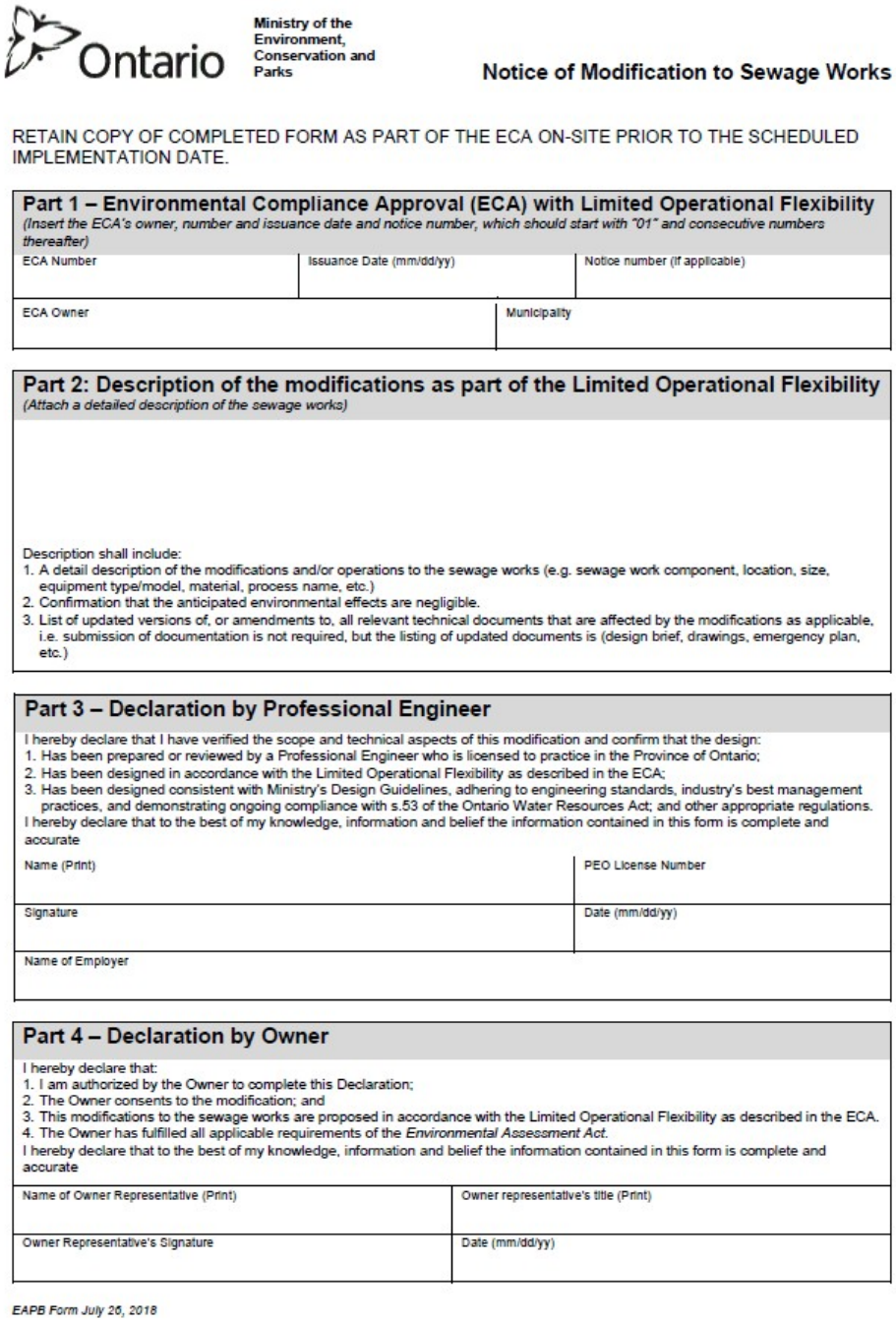
2. Works that are exempt from section 53 of the OWRA by Ontario Regulation 525/98 continue to be exempt and are not required to follow the notification process under this Limited Operational Flexibility.

3. Normal or emergency operational modifications, such as repairs, reconstructions, or other improvements that are part of maintenance activities, including cleaning, renovations to existing approved Works equipment, provided that the modification is made with Equivalent Equipment, are considered pre-approved.

4. The modifications noted in section 3 above are **not** required to follow the notification protocols under Limited Operational Flexibility, provided that the number of pieces and description of the equipment as described in the Approval does not change.

This page contains an image of the Form entitled “Notice of Modification to Sewage Works”.

Note: A digital copy can be obtained from the District Manager.



Ontario

Ministry of the Environment, Conservation and Parks

Notice of Modification to Sewage Works

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA ON-SITE PRIOR TO THE SCHEDULED IMPLEMENTATION DATE.

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility

(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)

ECA Number	Issuance Date (mm/dd/yy)	Notice number (if applicable)

ECA Owner	Municipality

Part 2: Description of the modifications as part of the Limited Operational Flexibility

(Attach a detailed description of the sewage works)

Description shall include:
1. A detail description of the modifications and/or operations to the sewage works (e.g. sewage work component, location, size, equipment type/model, material, process name, etc.)
2. Confirmation that the anticipated environmental effects are negligible.
3. List of updated versions of, or amendments to, all relevant technical documents that are affected by the modifications as applicable, i.e. submission of documentation is not required, but the listing of updated documents is (design brief, drawings, emergency plan, etc.)

Part 3 – Declaration by Professional Engineer

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:
1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name (Print)	PEO License Number

Signature	Date (mm/dd/yy)

Name of Employer

Part 4 – Declaration by Owner

I hereby declare that:
1. I am authorized by the Owner to complete this Declaration;
2. The Owner consents to the modification; and
3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.
4. The Owner has fulfilled all applicable requirements of the *Environmental Assessment Act*.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name of Owner Representative (Print)	Owner representative's title (Print)

Owner Representative's Signature	Date (mm/dd/yy)

EAPB Form July 26, 2018

In accordance with Section 139 of the *Environmental Protection Act,* you may by written notice served upon me, the Ontario Land Tribunal and in accordance with Section 47 of the *Environmental Bill of Rights,* 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar*
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

and

The Minister of the Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

and

The Director appointed for the purposes of Part II.1 of the *Environmental Protection Act*
Ministry of the Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca**

This instrument is subject to Section 38 of the *Environmental Bill of Rights,* 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at https://ero.ontario.ca/, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act.*

DATED AT TORONTO this 17th day of April, 2026

Neryed Ragbar, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

YZ/
c: Area Manager, MECP Kenora Area Office
c: District Manager, MECP Thunder Bay - District Office
Amy Elliott, Ph.D., WSP Canada Inc.