



**Lynn Lake Gold Project:  
Environmental Effects  
Monitoring Plan (EEMP)**

Version 0

January 30, 2025

**LYNN LAKE GOLD PROJECT:  
ENVIRONMENTAL EFFECTS MONITORING PLAN (EEMP)**

## Document History

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### Revision History

Effective Date:	Date of Last Revision:
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Revision #	Date	Summary of Changes	Author

### Approvals

This document requires the following approvals:

Name	Company Title	Date	Signature

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## ACRONYMS AND ABBREVIATIONS

µg	microgram(s)
AEMP	Aquatic Effects Monitoring Program
Alamos	Alamos Gold Inc.
BIC	Benthic Invertebrate Community
Bq	becquerel(s) (unit of measure of radioactivity)
CCME	Canadian Council of Ministers of the Environment
CEAA	<i>Canadian Environmental Assessment Act</i>
cm	centimetre(s)
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DFO	Fisheries and Oceans Canada
DO	Dissolved oxygen concentration
ECCC	Environment and Climate Change Canada
EEM	Environmental Effects Monitoring
EEMP	Environmental Effects Monitoring (EEM) Plan
EMMP	Environmental Management and Monitoring Program
ETMA	East Tailings Management Area
FDP	Final Discharge Point
ha	hectare(s)
IC25	Inhibition concentration causing an effect size of 25%
km	kilometre(s)
L	litre(s)
LLGP	Lynn Lake Gold Project
m	metre(s)
m <sup>3</sup>	cubic metre(s)

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MDMER	<i>Metal and Diamond Mining Effluent Regulations</i>
MECC	Manitoba Environment and Climate Change
MWQSOG-PAL	<i>Manitoba Water Quality Standards, Objectives and Guidelines for the Protection of Aquatic Life</i>
OHWM	Ordinary high-water mark (1:2-year flood level)
PPE	Personal Protective Equipment
QA/QC	Quality Assurance/Quality Control
RGMP	Responsible Gold Mining Principles
SARA	<i>Species at Risk Act</i>
SCP	Scientific Collection Permit
SWMMP	Surface Water Monitoring and Management Program
TSS	Total Suspended Solids
WGC	World Gold Council
WQM	Water Quality Monitoring
WSC	Water Survey of Canada

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## **1.0 INTRODUCTION**

The following presents the Environmental Effects Monitoring Plan ('EEMP' or 'the Plan'). Under the Metal and Diamond Mining Effluent Regulations (MDMER), the owner or operator of a mine depositing effluent or deleterious substances is required to conduct environmental effects monitoring (EEM) studies. The objective of EEM under MDMER is to evaluate the effects of metal and diamond mining effluents on fish, fish habitat, and the use of fisheries resources, and to function as a performance tool to inform Environment and Climate Change Canada (ECCC) on the adequacy of the regulations.

The Lynn Lake Gold Project (LLGP; "the Project"), owned and operated by Alamos Gold Inc. (Alamos), consists of redeveloping the former MacLellan and Gordon mine sites near the town of Lynn Lake, Manitoba. As a gold mining project operating in Canada with an expected effluent flow rate exceeding 50 m<sup>3</sup> per day or with the potential to deposit a prescribed deleterious substance in any water or place referred to in subsection 36(3) of the federal *Fisheries Act*, the LLGP will be subject to the MDMER when it begins to release effluent to the receiving environment.

The EEMP presented herein pertains to EEM for MDMER and is one component of the overall Environmental Management and Monitoring Program (EMMP) for the Project. The EEMP is structured to confirm that the requirements of federal EEM under the MDMER for the LLGP are met.

### **1.1 PURPOSE AND OBJECTIVES**

Alamos' overarching environmental objectives are to avoid adverse effects where technologically and economically feasible and to mitigate unavoidable adverse effects. Objectives are set to drive continuous improvement in environmental performance and are aligned with the overall strategic goals of the Project. Objectives are measurable (where and when possible), monitored, communicated, and updated as appropriate. In support of Alamos' underlying environmental objectives to work to limit or mitigate adverse environmental effects, meet, or surpass regulatory requirements, and strive to continually improve environmental practices and performance, Alamos has established the following objectives for the EEMP:

1. Describe the regulatory framework pertaining to requirements for EEM set out under the MDMER.
2. Summarize the regulated timelines or triggers for key EEM milestones and study components.
3. Describe the general approach to collecting required data that will enable Alamos to meet EEM reporting requirements.

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## 1.2 RELATIONSHIP TO OTHER MANAGEMENT PLANS

The EEMP is one of several environmental management and monitoring plans developed for the LLGP (e.g., Aquatic Effects Monitoring Plan [AEMP], Groundwater Management and Monitoring Plan [GWMMP], Surface Water Management and Monitoring Plan [SWMMP]) that will be implemented by Alamos at both the Gordon and MacLellan sites. Each of these plans have been developed with specific objectives to meet the requirements of federal and provincial approvals for the Project and Alamos' commitment to local Indigenous Nations. Although there may be similarities between specific plans and data collection efforts may overlap with those of the EEMP (e.g., fish sampling and/or water quality under the AEMP), this EEMP is a standalone management plan in that it is solely targeted towards meeting the requirements of federal EEM under the MDMER, irrespective of other plans.

## 1.3 REGULATORY AND POLICY SETTING

### 1.3.1 Federal Context

The Metal and Diamond Mining Effluent Regulations (previously the Metal Mining Effluent Regulations), developed under Section 36 of the *Fisheries Act* and administered by ECCC, regulates the deposit of mine effluent into natural waters frequented by fish. The regulations form the basis of the federal mine effluent standards by, among other requirements, defining authorized limits for releasing prescribed deleterious substances outlined in Schedule 4 of the Regulations (i.e., pH, total suspended solids [TSS], arsenic, copper, lead, nickel, zinc, radium-226, cyanide), from mining operations. In addition, the effluent must not be acutely lethal to fish. The MDMER sets out requirements for EEM in Schedule 5, including water and effluent quality and biological studies.

Under Section 36 of the Fisheries Act, the MDMER, which came into effect on June 1, 2018, applies in respect of metal mines that, at any time on or after June 6, 2002:

- (i) *exceed an effluent flow rate of 50 m<sup>3</sup> per day, based on the effluent deposited from all the final discharge points of the mine, and*
- (ii) *deposit a deleterious substance in any water or place referred to in subsection 36(3) of the Act.*

The regulations do not apply in respect of a metal mine that stopped commercial operation before June 6, 2002, unless it returns to commercial operation on or after that date, or in respect of a mine that is a recognized closed mine under subsection 32(2) unless it returns to commercial operation, in which case it ceases to be recognized as a closed mine.

Thus, a closed mine, or an inactive mine which ceased commercial operation before June 6, 2002, will be subject to regulations under the MDMER, including the requirements for EEM, at the time operations begin or resume and effluent is deposited to the receiving environment. This applies to both the Gordon and MacLellan sites which are slated to re-open as the Lynn Lake Gold Project because commercial operations at both mines ceased before June 6, 2002.

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EEM for the LLGP will be triggered at the time effluent is discharged to the receiving environment at either of the Gordon or MacLellan sites. Under the Part 1 of MDMER, effluent is defined as:

- a) *Hydrometallurgic facility effluent, milling facility effluent, mine water effluent, tailings impoundment area effluent, treatment pond effluent or treatment facility effluent other than effluent from a treatment facility; or*
- b) *Any seepage or surface runoff containing any deleterious substance that flows over, through or out of the site of a mine*

### 1.3.2 Provincial Context

A Scientific Collection Permit (SCP), issued by Manitoba Environment and Climate Change (MECC) under the auspices of the Fishing License Regulation and Fishing License Fee Regulation of The Fisheries Act (Manitoba), will be required to conduct any biological sampling within the context of EEM biological monitoring studies (as defined in Schedule 5, Section 9).

### 1.3.3 Corporate Environmental Policies

As a member of the World Gold Council, Alamos is a proud supporter of the Responsible Gold Mining Principles (the RGMPs). The 10 RGMPs provide a framework that sets expectations for consumers, investors, and the downstream gold supply chain as to what constitutes responsible gold mining, addressing key environmental, social, and governance issues for the gold mining sector. They are designed to provide confidence to governments, investors, employees and contractors, communities, supply chain partners and civil society that gold has been produced responsibly. Since the release of the RGMPs in September 2019, Alamos has implemented and aligned to the framework and obtained external assurance to provide further confidence that the gold produced by Alamos is responsibly mined. In 2020, Alamos communicated its progress on implementing the RGMPs through its' 2020 RGMP Progress Report, which received independent audit/assurance from Ernst & Young LLP (Alamos 2020). The 2020 RGMP Progress Report reflects Alamos' first year reporting under the RGMPs. Alamos will continue to implement the RGMPs through 2023 and beyond. Exploration sites and projects under development, such as the Lynn Lake Gold Project, are excluded from the RGMP implementation process. The RGMPs are only applicable to operating mines.

Working with its members, the World Gold Council has set out RGMPs to address key environmental, social and governance issues for the gold mining sector. One of the key principles is Water, Energy and Climate Change. Alamos has a series of guiding sustainability standards outlined in Table 1-1, including:

- Environmental Monitoring
- Hazard Identification & Risk Management
- Incident Classification, Investigation & Reporting

Alamos' standards are regularly updated to reflect the latest developments. For the most current and up-to-date standards, please refer to the online version.

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**Table 1-1 Corporate Sustainability Standards**

Corporate Standards	Requirement
Environmental Monitoring (CSS-ENV-10.1)	Sites shall develop and implement an environmental monitoring program. The site's environmental monitoring program will be documented as to: list of points monitored, coordinates of points monitored, description of points (including the reason for monitoring (e.g., regulatory compliance, baseline, trend analysis, etc.), frequency of monitoring, anticipated duration of monitoring (e.g., the life of the mine), and parameters monitored. The monitoring program will be of sufficient scope to allow for the timely identification of potential environmental impacts prior to their migration offsite. Sites will regularly review their monitoring programs and update for and changes at the mine site as required. At a minimum, the program will meet all environmental regulatory requirements.
Environmental Monitoring (CSS-ENV-10.2)	Compliance monitoring data will be subject to Quality Assurance/Quality Control (QA/QC) verification. Sample results that do not meet QA/QC guidelines will be disregarded and sample collection repeated. Sites must use reliable and accredited labs.
Environmental Monitoring (CSS-ENV-10.3)	Monitoring data will be stored in an electronic database.
Environmental Monitoring (CSS-ENV-10.4)	When compliance monitoring results indicate exceedances of permit or regulatory requirements, or significant deviation from previous results, the results will be reconfirmed with the person or company that did the analysis, and a confirmatory monitoring or sample will be taken immediately if the result is reconfirmed. Sites will also follow any permit-specific or jurisdictional requirements.
Environmental Monitoring (CSS-ENV-10.5)	Monitoring data will be reviewed at least quarterly by the responsible manager to identify trends that may indicate potential for future exceedances of permit conditions or applicable standards, and potential risk. The site General Manager will be formally notified of any exceedances and emerging compliance issues. Refer to CSS-GOV-08 Incident Reporting Standard for any moderate, major, or catastrophic incidents.
Environmental Monitoring (CSS-ENV-10.6)	Sites will assess the need for a monitoring program involving external stakeholders.
Hazard Identification & Risk Management (CSS-GOV-2.1)	All Alamos locations shall maintain systems to identify, prevent and/or manage sustainability risks that face its operations and those that its activities may pose to others. This includes but is not limited to hazards and risks related to the: <ul style="list-style-type: none"> <li>• Health and Safety of our workforce and communities,</li> <li>• Environmental impacts of our activities (local and downstream),</li> <li>• Societal and community impacts, and</li> <li>• Security and protection of people and property.</li> </ul>
Hazard Identification & Risk Management (CSS-GOV-2.2)	Site Managers are responsible for ensuring that appropriate resources, both internal and external, are available to identify, quantify, manage, and report sustainability hazards and risks. Assessments shall consider all site activities including: <ul style="list-style-type: none"> <li>• Contractor works,</li> <li>• Regulatory requirements</li> <li>• Permit or licence requirements,</li> <li>• Alamos Sustainability Standards requirements, and</li> <li>• Other site-specific requirements.</li> </ul>

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<b>Corporate Standards</b>	<b>Requirement</b>
Hazard Identification & Risk Management (CSS-GOV-2.3)	Sites shall maintain a risk registry of all site risks. The risk registry will be updated at least quarterly or when major changes/incidents occur. Clear responsibility and authority for implementing, managing, reporting, and coordinating updates to the risk registry shall be designated to a specific employee(s).
Hazard Identification & Risk Management (CSS-GOV-2.4)	All corporate, site and task-level risks shall be assessed against the Alamos Risk Matrix, including likelihood and consequence assessments.
Hazard Identification & Risk Management (CSS-GOV-2.5)	Sites shall apply the hierarchy of controls considering (in order of priority): <ol style="list-style-type: none"> <li>1. Elimination – remove the hazard</li> <li>2. Substitution – replace the hazard</li> <li>3. Engineering control – physically control or isolate the hazard (e.g., dikes, guarding, interlocks)</li> <li>4. Administrative control – control response/avoidance of hazard (e.g., training, procedures, reducing employee exposure to hazards, signage)</li> <li>5. PPE (personal protective equipment) or mitigation – protect people (PPE) or the environment (spill kits) from the hazard. This is the last line of defense.</li> </ol> <p>Extreme and high risks that exist after controls have been applied should go through a formal review with the Site Manager.</p>
Hazard Identification & Risk Management (CSS-GOV-2.6)	Sites shall ensure effective communication of risks and controls to the workforce based on the nature of the activity and related risk. The nature of communication may change based on the risk frequency and consequence. For example, communication may include induction training, refresher training, policies, procedures and/or signage.
Hazard Identification & Risk Management (CSS-GOV-2.7)	For each identified risk, management shall assess and manage the risk appropriately with consideration to the risk rating. In considering risk mitigation, management must evaluate the cost of controls versus the benefit derived and ensure that the resultant control framework is effective.
Hazard Identification & Risk Management (CSS-GOV-2.9)	The Alamos Executive and Internal Audit Director shall review and verify enterprise risks on a quarterly basis.
Incident Classification, Investigation & Reporting (CSS-GOV-8.3)	The Corporate Sustainability Team shall maintain an Incident Alert email group user list comprised of, at a minimum: <ul style="list-style-type: none"> <li>• Alamos Executive and Management,</li> <li>• Country Managers,</li> <li>• General Managers; and</li> <li>• Project Managers.</li> </ul>
Incident Classification, Investigation & Reporting (CSS-GOV-8.6)	The Corporate Sustainability Team shall provide a report on significant incidents on a quarterly basis to senior management and the Technical & Sustainability Committee of the Board.
Incident Classification, Investigation & Reporting (CSS-GOV-8.7)	Corporate Sustainability and Risk Management teams shall annually review and revise the Alamos Risk Assessment Consequence Table to ensure thresholds are consistent with the Alamos Enterprise Risk Management system.

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**1.3.4 Approval-Related Requirements**

The conditions relating to EEM and the development of the EEMP laid out in the federal Decision Statement issued under the *Canadian Environmental Assessment Act* (CEAA), 2012, and the provincial Environment Act Licence No. 3390 (Gordon) and No. 3391 (MacLellan) are outlined in Table 1-2.

**Table 1-2 Approval-Related Requirements**

Licence	Condition	Corresponding EEMP Section
CEAA, 2012	<p>3.12 The Proponent shall develop, prior to construction and in consultation with Indigenous groups, Fisheries and Oceans Canada, Environment and Climate Change Canada and any other relevant authorities, a follow-up program to verify the accuracy of the environmental assessment and determine the effectiveness of the mitigation measures as they pertain to adverse environmental effects of the Designated Project on water quality, taking into account Environment and Climate Change Canada's <i>Metal Mine Technical Guidance for Environmental Effects Monitoring</i>. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the follow-up program, the Proponent shall:</p> <p>3.12.1 determine, in consultation with Indigenous groups, Environment and Climate Change Canada, and any other relevant authorities, the location and extent of mixing zones in water bodies that may be affected by the Designated Project;</p> <p>3.12.2 monitor water quality (...) at the edge and downstream of the edge of mixing zones identified pursuant to condition 3.12.1, (...) for all contaminants that may have adverse effects on fish and fish habitat, including aluminum, antimony, arsenic, calcium, copper, cyanide, fluoride, hexavalent chromium, iron, magnesium, methylmercury, phosphorus, selenium, and total and dissolved cadmium. (...).</p>	All
CEAA, 2012	3.14 The Proponent shall develop, prior to construction and in consultation with Indigenous groups, Fisheries and Oceans Canada, Environment and Climate Change Canada and any other relevant authorities, a follow-up program to determine the effectiveness of the mitigation measures and verify the accuracy of the environmental assessment predictions identified in Volume 2 Chapter 10 of the Environmental Impact Statement as they pertain to adverse environmental effects of the Designated Project on fish and fish habitat, taking into account Environment and Climate Change Canada's <i>Metal Mine Technical Guidance for Environmental Effects Monitoring</i> . (...).	All
Environment Act Licence No. 3390 (Gordon)	17. The licensee shall prepare, implement and continuously maintain in current status, the following plans for the development in a manner acceptable to the director: i) Environmental Effects Monitoring Plan	All
Environment Act Licence No. 3391 (MacLellan)	17. The licensee shall prepare, implement and continuously maintain in current status, the following plans for the development in a manner acceptable to the director: i) Environmental Effects Monitoring Plan	All

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## **2.0 ENVIRONMENTAL SETTING**

The Project consists of two primary deposit sites located near Lynn Lake, Manitoba (Appendix A). EEM studies will be conducted in Farley Lake and Gordon Lake (effluent-receiving environment) and in a suitable reference lake (to be determined at the time of the EEM First Study Design) for the Gordon site, and in the Keewatin River (effluent-receiving environment) upstream and downstream of the MacLellan site, as well as any other location receiving effluent from a final discharge point (FDP) if the combined effluent discharge rate from all FDPs exceeds 50 m<sup>3</sup> per day or if the effluent contains a deleterious substance. Maps showing the locations of proposed effluent discharge points are provided in Appendix A, and a description of each receiving waterbody is provided below. Other final discharge points may be identified during monitoring and will be managed as appropriate to meet the EEM requirements under the MDMER.

### **2.1 GORDON SITE – FARLEY LAKE**

Farley Lake is an approximately 77.4-hectare (ha) lake with maximum depths up to 10.8 metres (m), with three distinct basins: north, west and east. The west basin is the deepest (maximum depth >10 m), followed by the north basin (up to 6 m deep), while the east basin is generally shallow, with average depths < 1m. The deeper western basin stratifies in summer, with a thermocline developing at depths between 3 m and 4 m.

The primary inflow to Farley Lake is the Gordon mine diversion channel which conveys west-to-east flow from Gordon Lake around the north side of the Wendy and East pits at the Gordon Site and into the north basin of Farley Lake. A beaver dam at the eastern outlet of Farley Lake controls water levels in the lake. Between 2015 and 2016, this dam raised the lake level by approximately 1 m, but was blown out in the spring of 2021, resulting in a water level drop in Farley Lake of approximately 1.5 m.

Based on water levels in 2016, the littoral zone of Farley Lake comprised approximately 50% of the lake. More than 50% of the littoral habitat in the northern and western basins of Farley Lake was comprised of coarse substrates (e.g., cobble and boulder) with little or no aquatic vegetation. Twenty percent of the remaining littoral habitat in the north and west basins was comprised of coarse substrates with emergent vegetation suitable as cover for fish. In contrast flooded riparian vegetation and emergent aquatic vegetation comprises 84% of the littoral zone in the eastern basin of Farley Lake. This eastern basin provides most of the cover and spawning habitat for Northern Pike (*Esox lucius*), Yellow Perch (*Perca flavescens*) and Brook Stickleback (*Culaea inconstans*) that reside in Farley Lake.

Farley Lake has elevated concentrations of total and dissolved arsenic, copper, iron, nickel and uranium, and several major ions and ion-related parameters (e.g., sulphate, alkalinity, magnesium, calcium, potassium, sodium, specific conductance and hardness). The concentrations and levels of these parameters are lower than in the Wendy and East pits of the Gordon site, but higher than background levels and concentrations in other lakes in the Gordon study area. These parameters do not exceed water quality guidelines for the protection of freshwater aquatic life (Canadian Council of Ministers of the Environment [CCME] 2024) but indicate a continuing effect of the open pit water quality on Farley Lake.

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## **2.2 MACLELLAN SITE – KEEWATIN RIVER**

The Keewatin River is broadly characterized by two main habitat types: narrow rapids with bedrock and boulder substrates; and wide glides with sand and silt substrates. These two habitat types alternate within the MacLellan study area as the river descends from Burge Lake in the north (upstream of the MacLellan site) to Cockeram Lake in the south (downstream of the MacLellan site) within the MacLellan study area. The rapids occur at constrictions between bedrock outcroppings while the glides occur downstream of the rapids. Submergent vegetation (i.e., weed beds) is present in the deeper (>1 m), faster flowing areas of the glides, while emergent vegetation is present in shallower (<50 centimetres [cm]), slower flowing areas near the banks of the river. Because of their greater lengths and widths compared to the rapids, glides comprise more than 80% of the total habitat area in the Keewatin River within the MacLellan study area. Depositional areas with fine organics and silt occur at the mouths of the small tributaries that drain into the Keewatin River.

Water quality in the Keewatin River changes downstream of the Lynn River confluence, located approximately 5 kilometres (km) downstream of the MacLellan site and 4 km upstream of Cockeram Lake, due to the persistence of historic contamination from the former East Tailings Management Area (ETMA) adjacent to the north bank of Lynn Lake downstream of Eldon Lake. Sulphate and total nickel concentrations in the Keewatin River downstream of the Lynn River confluence are elevated compared to upstream of the Lynn River confluence, while iron and dissolved copper concentrations frequently exceed the Manitoba Water Quality Standards, Objectives, and Guidelines for the Protection of Freshwater Aquatic Life (MWQSOG-PAL; Government of Manitoba [GoM] 2011).

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### **3.0 ENVIRONMENTAL EFFECTS MONITORING (EEM) PLAN**

The following summarizes the basic requirements for EEM under the MDMER and provides an overview of the regulated timelines, triggers and sampling requirements for the LLGP. The information provided herein includes language and regulatory requirements sourced directly from the MDMER, current as of August 18, 2024, and last amended July 19, 2024. Should any changes be made to this regulation, the contents of this Environmental Effects Monitoring Plan should be revised to align with the most up-to-date version of the MDMER.

Generally, EEM studies will be conducted in accordance with the requirements and within the periods set out in Schedule 5, using documented and validated methods, with results interpreted and reported on in accordance with those requirements set out in Schedule 5 and according to generally accepted standards of good scientific practice at the time that the studies are conducted.

Sections 3.1 to 3.3 of the EEMP will be required when commercial operations begin or resume at either the MacLellan or Gordon site and effluent is released to the receiving environment, while 3.4 is dependent on the results of effluent characterization and effluent mixing (e.g., pending lethality and toxicity testing and a plume delineation study), or based on specified threshold concentrations in the effluent for mercury and selenium.

#### **3.1 IDENTIFYING INFORMATION**

Alamos will submit in writing to the Minister of the Environment the name and address of the owner and operator of the Gordon and MacLellan mines (i.e., Alamos), the name and address of any parent company of the owner and operator, and the design-rated capacity of the mine (in tonnes per year), including a description and rationale of how this capacity was determined, not later than 60 days after the day on which any of the following occur:

- (i) The mine (e.g., MacLellan Mine and/or Gordon Mine) becomes subject to the MDMER (i.e., begins or resumes commercial operation and effluent is released at a rate  $>50 \text{ m}^3$  per day, or deposits a deleterious substance);
- (ii) Ownership of the mine is transferred; and
- (iii) The mine returns to commercial operation after it has become a recognized closed mine.

Should there be any changes to the identifying information described herein, Alamos shall notify in writing the Minister of the Environment not later than 60 days after a change occurs.

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## **3.2 FINAL DISCHARGE POINTS (FDP)**

In accordance with Part 2, Division 1, Section 9 of the MDMER, Alamos shall identify each final discharge point (FDP) and submit in writing to the Minister of the Environment, not later than 60 days after the day on which the mine (MacLellan and/or Gordon site) becomes subject to the MDMER (i.e., begins or resumes commercial operation and releases effluent at a rate  $>50 \text{ m}^3$  per day, or deposits a deleterious substance), the following information:

- (i) Plans, specifications and a general description of each FDP together with its location by latitude and longitude.
- (ii) A description of how each FDP is designed and maintained in respect of the deposit of deleterious substances.
- (iii) The name of the receiving body of water, if there is a name.

If any FDP for either the MacLellan or Gordon site is to change, or if any FDP identified by an inspector was not previously identified, Alamos shall submit in writing to the Minister of the Environment the above information within 30 days after the discharge point is identified (Subsection 10(1)(a)), or at least 60 days before depositing effluent from any new FDP (Subsection 10(1)(b)). Further, as required under Subsection 10(2), Alamos will submit in writing to the Minister of the Environment the information on any proposed change to an FDP at least 60 days before a change is to be made.

### **3.2.1 Deleterious Substance and pH Testing**

As required under Part 2, Division 2 of the MDMER, Alamos will, not less than once per week and at least 24 hours apart, collect the following from each FDP:

- (i) A grab sample or composite sample of effluent and record the pH of the sample at the time of its collection and record, without delay after collecting the sample, the concentrations of the deleterious substances prescribed in section 3 of Part 1 of the MDMER (*Prescribed Deleterious Substances*), except un-ionized ammonia.
- (ii) A grab sample of effluent and record the temperature and the pH of the sample at the time of its collection and record, without delay after collecting the sample, the concentrations of total ammonia expressed as nitrogen (N).

Alamos will determine and record the concentration of un-ionized ammonia as detailed under Division 2, Section 12(4) of the MDMER.

Testing for the parameters described above will comply with the analytical requirements set out in Table 1 of Schedule 3 of the MDMER and will be done according to generally accepted standards of good scientific practice using documented and validated methods.

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Per Division 2, Subsection 13(1), Alamos will reduce the frequency of conducting the above tests relating to prescribed deleterious substances for each FDP from weekly to quarterly, with tests at least one month apart, if the monthly mean concentration of a specific deleterious substance at a given FDP is <10% of the value set out in column 2 of Schedule 4 of the MDMER for 12 consecutive months, or, in the case of radium 226, less than 0.037 becquerels (Bq) per litre (L)(Bq/L) for 10 consecutive weeks (Subsection 13(2)). Conversely, according to Subsection 13(3), Alamos will increase the frequency of testing if:

- (i) the monthly mean concentration of a deleterious substance is >10% of the values in column 2 of Schedule 4 of the MDMER.
- (ii) Radium 226 concentrations are >0.037 Bq/L.
- (iii) if Alamos fails to perform a test in accordance with the prescribed frequency.
- (iv) if Alamos fails to submit a report within the times prescribed under subsection 21(1) or section 22 of the MDMER.
- (v) Alamos changes the location of an FDP.

In accordance with Subsection 13(6), if Alamos intends to reduce the frequency of testing for a prescribed deleterious substance, Alamos will notify the Minister of the Environment in writing at least 30 days in advance and will select and record the sampling dates not less than 30 days in advance of collecting the samples of effluent. Samples will be collected on the selected date, or as soon as practicable after that date if sampling cannot be completed on the selected date.

### **3.2.2 Acute Lethality Testing**

In accordance with Division 2, Section 14 of the MDMER, once per month, Alamos will collect a grab sample of effluent from each FDP to determine whether the effluent is acutely lethal by conducting acute lethality tests on Rainbow Trout (*Oncorhynchus mykiss*) and *Daphnia magna*, in accordance with procedures set out in section 5 or 6 of Reference Method EPS 1/RM/13 (Rainbow Trout) and EPS 1/RM/14 (*Daphnia magna*) and will, without delay, record the results of each acute lethality test in accordance with requirements set out under Section 18 of Division 2 of the MDMER.

As per Subsection 15(1), if an effluent sample is determined to be acutely lethal, Alamos will conduct an effluent characterization as set out in subsection 4(1) of Schedule 5 of the MDMER (see Section 3.3.1 below) on the aliquot of the grab sample collected that was determined to be acutely lethal and will record the concentrations of the prescribed deleterious substances and total ammonia (as described in Section 3.2.1 above) and will increase acute lethality testing frequency to twice monthly and not less than seven (7) days apart for the given FDP, except for the first sample, which will be collected without delay upon determination of acute lethality, irrespective of when the previous sample was collected. Acute lethality testing will return to once monthly only if the effluent is determined not to be acutely lethal for three consecutive tests.

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In accordance with Section 16, Alamos will reduce the frequency of acute lethality testing to once per quarter for each FDP if the effluent is determined not to be acutely lethal for 12 consecutive months and will notify the Minister of the Environment in writing at least 30 days before reducing the testing frequency. Before reducing the frequency of acute lethality tests, Alamos will select and record the sampling date not less than 30 days in advance of collecting the grab samples and will collect grab samples not less than 45 days apart. Conversely, Alamos will increase the frequency of testing if an effluent sample is determined to be acutely lethal, or if the FDP is changed.

### **3.2.3 Volume of Effluent**

As required under Section 19 of the MDMER, Alamos will record, in cubic metres (m<sup>3</sup>), the total monthly volume of effluent deposited from each FDP for each month during which there was a deposit. The total monthly volume of effluent deposited will be determined on the basis of the average flow rates (in m<sup>3</sup> per day), measured and calculated in accordance with Subsection 19(2)(a) as follows:

- (i) By measuring the flow rate at the same time as samples are collected for deleterious substance and pH testing (see Section 3.2.1 above).
- (ii) By calculating the average monthly flow rate by adding the flow rate measurements taken during the month and dividing by the total number of times the flow rate was measured.
- (iii) By multiplying the average monthly flow rate by the number of days during the month that effluent was deposited.

Alternatively, as identified under Subsection 19(2)(b), flow rate may be determined by using a monitoring system that provides a continuous measure of the volume of effluent deposited. In accordance with Subsection 19(3), this monitoring system must be accurate to within 15% of measured flow rate or volume and must be maintained and calibrated at least once each year. Calibration records specifying the date and means by which the monitoring system was calibrated will be kept showing that this requirement has been met.

### **3.2.4 Calculation of Monthly Mean Concentration and Loading**

Alamos will record the mean monthly concentration for all deleterious substances contained in the effluent deposited from each FDP in accordance with requirements set out under subsection 19.1 (1) of Division 2 of the MDMER. If the analytical result from any test conducted is less than the method detection limit used for that test, the result shall be considered equivalent to one half of the detection limit for the purpose of calculating the monthly mean concentration (Subsection 19(2)).

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For each month or quarter during which effluent is deposited and samples are collected (depending on monitoring frequency), Alamos will record the loading using the following formula (as detailed under Subsection 20(2)):

$$ML \text{ (or } QL) = C \times V / 1,000$$

Where ML or QL is the loading for the month or quarter.

C is the monthly mean concentration of the deleterious substance.

V is the total monthly volume of effluent.

### **3.2.5 Reporting Monitoring Results**

In accordance with Section 21 of Division 2 of the MDMER, Alamos will submit to the Minister of the Environment quarterly effluent monitoring reports for all tests and monitoring conducted during a given quarter not later than 45 days after the end of the quarter. If no effluent is deposited in a given quarter, the report will include only a statement to that effect (as per Subsection 21(3)). Where effluent is deposited, the quarterly reports will include:

- (i) acute lethality testing results: including the date, time and location of the FDP from which the effluent sample was collected and the percent mortality in the 100% effluent test concentration (Subsection 21(2)(a.1)).
- (ii) the concentration and mean monthly concentrations for each prescribed deleterious substance contained in the effluent samples tested (Subsection 21(2)(b)).
- (iii) The pH of effluent samples (Subsection 21(2)(c)).
- (iv) Information on whether a composite or grab sample collection method was used for each effluent sample (Subsection 21(2)(d)).
- (v) The number of days for each month of the quarter where effluent was deposited (Subsection 21(2)(d.1)).
- (vi) The total volume of effluent deposited during each month of the reporting quarter (Subsection 21(2)(e)).
- (vii) The mass loading of each prescribed deleterious substance (Subsection 21(2)(f)).
- (viii) Results of any effluent characterization conducted in response to acute lethality testing where the effluent is determined to be acutely lethal (Subsection 21(2)(g)).

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As required under Section 22, not later than March 31 in each year, Alamos will submit to the Minister of the Environment a report that will include the information and data requirements set out Schedule 6 of the MDMER (Annual Report Summarizing Effluent Monitoring Results) and the following information regarding non-compliance, as applicable:

- (i) If the results of any effluent monitoring tests indicate that the maximum authorized concentrations of prescribed deleterious substances as set out in Schedule 4 of the MDMER were exceeded or that the pH of the effluent is <6.0 or >9.5, the causes of the non-compliance and the planned or implemented remedial measures (Subsection 22(c)(i)).
- (ii) If the results of any acute lethality tests indicate that an effluent sample was determined to be acutely lethal, the planned or implemented remedial measures (Subsection 22(c)(ii)).

In accordance with Section 23 of Division 2 of the MDMER, Alamos will submit these reports electronically in the format provided by the Department of the Environment unless no format has been provided or if, owing to circumstances beyond Alamos' control, it is impracticable to submit the reports electronically in the format provided.

Further, should any of the monitoring results indicate that the concentration of a prescribed deleterious substance exceeded the limits set out in Schedule 4 of the MDMER, limits for pH or if the effluent is determined to be acutely lethal, Alamos will, without delay, and in accordance with Subsection 24(2) notify an inspector of this non-compliance by providing a written report of the test results to the inspector within 30 days of the tests having been completed.

Section 25 of Division 2 of the MDMER provides guidance on relief and describes circumstances under which the periods for collecting effluent samples may be extended.

### **3.3 EFFLUENT AND WATER QUALITY MONITORING (WQM) STUDIES**

Under Schedule 5, Part 1 of the MDMER, effluent and water quality monitoring studies consists of effluent characterization, sublethal toxicity testing and water quality monitoring (WQM). Each of these components is described below.

#### **3.3.1 Effluent Characterization**

Alamos will conduct quarterly effluent characterization studies in accordance with Schedule 5, Part 1 of the MDMER on an aliquot of effluent from each FDP by analyzing and recording the hardness, alkalinity, electrical conductivity (i.e., specific conductance) and the temperature of the effluent sample, as well as the concentrations of the following substances (as detailed under Subsection 4(1)):

- Aluminum
- Cadmium
- Iron

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- Mercury (may be discontinued if the concentration is less than 0.1 µg/L in 12 consecutive samples collected as part of deleterious substance and pH testing [see Section 3.2.1 and Subsection 4(4) of Schedule 5, Part 1 of the MDMER])
- Molybdenum
- Selenium
- Nitrate (concentration in units of nitrogen)
- Chloride
- Chromium
- Cobalt
- Sulphate
- Thallium
- Uranium
- Phosphorus (concentration in units of phosphorus)
- Manganese.

Analyses for each of the above listed substances will comply with the analytical requirements set out in Table 2 of Schedule 3 of the MDMER and will include QA/QC measures to ensure the accuracy of the data. In accordance with Subsection 4(3), samples collected for each quarter will be collected no less than one month after the sample on which the previous effluent characterization was conducted.

### **3.3.2 Sublethal Toxicity Testing**

For effluent deposited into freshwater sublethal toxicity testing is required to be completed twice per year for three years, unless effluent is deposited for 31 days or less in a calendar year, in which case sublethal toxicity testing may be completed only once per year (Subsection 6(1) and 6(2)). In accordance with Subsection 5(1) of Part 1 in Schedule 5 of the MDMER, Alamos will conduct sublethal toxicity testing using the following test methodologies:

- (i) For fish, either:
  - a. *Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows* (Report EPS 1/RM/22 published by the Department of Environment).
  - b. *Biological Test Method: Toxicity Tests Using Early Life Stages of Salmonid Fish (Rainbow Trout)* (Reference Method EPS 1/RM/28 published by the Department of Environment).
- (ii) For invertebrates: *Biological Test Method: Test of Reproduction and Survival Using the Cladoceran Ceriodaphnia dubia* (Report EPS 1/RM/21 published by the Department of the Environment).
- (iii) For aquatic plants: *Biological Test Method: Test for Measuring the Inhibition of Growth Using the Freshwater Macrophyte, Lemna minor* (Reference Method EPS 1/RM/37 published by the Department of the Environment), as it applies to the biological endpoint on the number of fronds.

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- (iv) For algae, either:
- a. *Biological Test Method: Growth Inhibition Test Using a Freshwater Alga* (Report EPS 1/RM/25 published by the Department of the Environment).
  - b. *Détermination de la toxicité : inhibition de la croissance chez l'algue Pseudokirchneriella subcapitata* (Méthode de référence MA 500 – P.sub. 1.0, rév. 3, publiée par le Centre d'expertise en analyse environnementale du Québec du ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques du Québec).

These sublethal toxicity tests will be conducted on aliquots of the same sample of effluent as collected for effluent characterization, collected from the FDP that has potentially the most adverse environmental impact, taking into account loading of deleterious substances contained in the effluent and the manner in which the effluent mixes within the exposure area (per Subsection 5(3)).

After three years and in accordance with Subsection 6(3), testing will be increased to once per quarter but will include only the biological test method which produces the lowest geometric mean, taking into account the inhibition concentration that produces a 25% effect (IC25) or an effective concentration of 25%.

### **3.3.3 Water Quality Monitoring**

Alamos will conduct WQM in accordance with Section 7 of Part 1 of Schedule 5 of the MDMER by collecting samples of water from the exposure area surrounding the point of entry of effluent into water from each FDP and from the related reference areas, and any other areas as may be sampled for the purpose of biological monitoring studies, as required. Alamos will complete WQM four times per calendar year, with at least one month between each sampling event, and, where applicable, will plan sampling to coincide with biological monitoring studies, as required under Subsection 7(2).

As required under Subsection 7(1), WQM will include in situ measurements of water quality parameters in the exposure and reference areas, including temperature, dissolved oxygen concentration (DO), pH, and electrical conductivity (i.e., specific conductance), and collection of grab samples to record hardness, alkalinity, the concentrations of the same substances assessed during effluent characterization (see 3.3.1 Effluent Characterization), and the concentrations of the prescribed deleterious substances (see 3.2.1 Deleterious Substance and pH Testing), except:

- (i) Cyanide, if cyanide is not used as a process reagent (Subsection 7(2)(d)(i)).
- (ii) Radium 226 if the concentrations of this deleterious substance are <0.037 Bq/L for at least 10 consecutive weeks (Subsection 7(2)(d)(ii)).

In accordance with Section 8 and not later than March 31 of the following year, Alamos will submit an annual report to the Minister of the Environment that will include the dates on which samples were collected for effluent characterization, sublethal toxicity testing and WQM, the location of the FDP from which samples were collected for effluent characterization, the location of the FDP and the data used in selecting the given FDP from which samples were collected for sublethal toxicity testing, and the coordinates (latitude and

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longitude) of WQM sampling areas. As required under Subsections 8(e) to 8(g), the report will also include a description of the methods used for effluent characterization (including the method detection limits) and the results of effluent characterization, sublethal toxicity testing and WQM, as well as a summary of the QA/QC procedures that were implemented. The annual mean concentrations of mercury and selenium in effluent samples collected from each FDP will also be explicitly reported (Subsection 8(h)).

### **3.4 BIOLOGICAL MONITORING STUDIES**

As required under Division 1 of Part 2 Schedule 5 of the MDMER, in anticipation of potential future requirements for biological monitoring, Alamos will prepare a “First Study Design” for each of the sites (i.e., Gordon and MacLellan). Each study design will include a detailed site characterization for the given site that will describe the manner in which the effluent mixes within the exposure area (i.e., a plume delineation study), descriptions of the exposure and reference areas where biological studies would be conducted (whether or not they are required), the production practices of the mine and the environmental protection practices in place, and a summary of any anthropogenic, natural or other factors that are not related to the effluent but may influence the interpretation of the results of a biological monitoring study. The study designs will also describe the methodology and scientific rationale for conducting the biological sampling (e.g., fish population, fish tissues, benthic invertebrate community [BIC]). Technical guidance for EEM biological studies is provided in the Metal Mining Technical Guidance for Environmental Effects Monitoring (Environment Canada, now Environment and Climate Change Canada [ECCC], 2012).

As set out under Section 10 of Division 1 in Schedule 5 of the MDMER, The “First Study Design” for each of the Gordon and MacLellan sites will be prepared by Alamos and submitted to ECCC within 12 months after the day on which a mine becomes subject to the MDMER (i.e., when operations begin at either of the Gordon and MacLellan sites and effluent is discharged to the receiving environment). The first biological studies, if required, will start no earlier than six months after the day on which the first study design is submitted to ECCC (as per Section 11 of Schedule 5 of the MDMER).

Owing to the conditional nature of biological monitoring study requirements, the required information with respect to effluent mixing and the regulated timelines described above with respect to developing the study designs, it is not within the purview of this EEMP to provide a detailed description of how Alamos plans to conduct biological sampling. Instead, the following subsections 3.4.1 to 3.4.3 summarize the triggers for each component of the biological monitoring studies to assist in future planning of EEM studies for the LLGP.

#### **3.4.1 Fish Population**

A study of fish populations is required, under Part 2 of Schedule 5 of the MDMER, if the highest concentration of effluent within the exposure area, during a period when effluent is deposited, is greater than 1% within 250 m of the point at which the effluent enters from an FDP (Subsection 9(1)(a)).

To determine whether a fish population study is required in the context of EEM under Schedule 5 of the MDMER for either of the Gordon or MacLellan sites, Alamos will conduct a plume delineation study to document the effluent plume and determine the concentration of effluent within the exposure areas. This

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January 30, 2025

plume delineation study will be completed during the initial 12-month period after which a given site (i.e., the MacLellan or Gordon site) becomes subject to EEM requirements and prior to submission of the “First Study Design” to ECCC, in accordance with the Division 1, Section 10 requirements of Schedule 5 (and as described above in 3.4 Biological Monitoring Studies).

If the concentration of effluent exceeds 1% at any point within 250 m of an FDP, a fish population study will be completed during the “First Studies” of the EEM framework (Schedule 5, Division 1). The study design will follow the Metal Mining Technical Guidance for Environmental Effects Monitoring (ECCC 2012). The concentration of effluent will be assessed during the period beginning on the day in which either the Gordon or MacLellan site becomes subject to EEM requirements under the MDMER and ending on the day before which the first study design is required to be submitted to ECCC (i.e., 12 months following the date on which the given mine site becomes subject to the MDMER).

### **3.4.2 Fish Tissues**

In accordance with Section 9 in Part 2 of Schedule 5 of the MDMER, studies of mercury and selenium in fish tissues will be required if specific threshold concentrations for these substances are exceeded in the effluent from any FDP.

During the “First Studies” phase, Alamos will conduct a study of mercury in fish tissues if effluent characterization (for either the Gordon or MacLellan site FDP) reveals an annual mean concentration of total mercury that is  $\geq 0.10 \mu\text{g/L}$ , or if the method detection limit used in the analysis of mercury of at least two of four effluent samples is  $\geq 0.10 \mu\text{g/L}$  (Subsection 9(1)(c)).

A study of selenium in fish tissues will be conducted during the “First Studies” phase if effluent characterization reveals a concentration of total selenium in the effluent that is  $\geq 10 \mu\text{g/L}$ , the annual mean concentration of total selenium in the effluent is  $\geq 5 \mu\text{g/L}$ , the method detection limit used in analyses of total selenium is  $\geq 10 \mu\text{g/L}$ , or  $\geq 5 \mu\text{g/L}$  in at least two of four effluent samples in a calendar year (Subsection 9(1)(d)).

Studies of mercury and selenium in fish tissues will be designed and conducted in accordance with the Metal Mining Technical Guidance for Environmental Effects Monitoring (ECCC 2012).

### **3.4.3 Benthic Invertebrate Community (BIC)**

In accordance with Subsection 9(1)(b) in Part 2 of Schedule 5 of the MDMER, during the “First Studies” phase, Alamos will conduct a study of the benthic invertebrate community (BIC) if the highest concentration of effluent, determined by the plume delineation study described in subsection 3.4.1 above, is greater than 1% at any location that is within 100 m of the point from which effluent from an FDP enters the receiving environment at either the Gordon or MacLellan sites. This study of the BIC will be designed and conducted in accordance with the Metal Mining Technical Guidance for Environmental Effects Monitoring (ECCC 2012). The concentration of effluent will be assessed during the period beginning on the day in which either the Gordon or MacLellan site becomes subject to EEM requirements under the MDMER and ending on the

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day before which the first study design is required to be submitted to ECCC (i.e., 12 months following the date on which the given mine site becomes subject to regulations under the MDMER).

**3.4.4 First Interpretive Report**

An interpretive report which summarizes the results of the “First Study” phase will be prepared by Alamos and submitted to the Minister of the Environment not later than 36 months (three years) after the date on which either the Gordon or MacLellan sites become subject to the MDMER. The contents of the first interpretive report will follow the reporting requirements set out under Section 12(1) of Division 2 in Schedule 5 of the MDMER, in consideration of guidelines provided in the Metal Mining Technical Guidance for Environmental Effects Monitoring (ECCC 2012).

**3.4.5 Subsequent and Final Biological Studies**

In accordance with Schedule 5, Part 2, Division 2, study designs for subsequent biological monitoring studies, if such studies are required, will be prepared by Alamos and submitted to the Minister of the Environment at least six months before the start of each study, or if no biological studies are required, no later than 12 months after the day on which the previous interpretive report was submitted. Interpretive reports for each subsequent biological study will be prepared by Alamos and submitted to the Minister of the Environment not later than 36 months (three years) following the date on which the previous interpretive report was submitted (Division 2, Section 16).

In the event that discharge of effluent has ceased at a given site (i.e., either the MacLellan or Gordon site) for a period of at least 36 consecutive months, EEM studies will not be required for as long as that period continues (Division 2, Section 17).

Under Schedule 5, Part 2, Division 3, in the event of mine closure, Alamos will be required to complete a final biological study before the given mine can become a recognized closed mine. The study design for the final biological study will be prepared by Alamos and submitted to the Minister of the Environment no later than six months following the day on which Alamos has provided notice to the Minister of the Environment of its intent to close the given mine (Subsection 18(2)). The final study will be conducted no earlier than six months following the date on which Alamos submits the final study design to the Minister of the Environment (Subsection 19(1)), and the final interpretive report will then be provided no later than 36 months (three years) after the day on which the notice of intent to close the given mine was provided (Section 20).

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ENVIRONMENTAL EFFECTS MONITORING PLAN (EEMP)**

References  
January 30, 2025






## **4.0 References**

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- ECCC (Environment and Climate Change Canada). 2012. Metal Mining Technical Guidance for Environmental Effects Monitoring. ISBN 978-1-100-20496-3
- GoM [Government of Manitoba]. 2011. *Manitoba Water Quality Standards, Objectives and Guidelines*. A Manitoba Water Stewardship Report. Available at: <https://www.gov.mb.ca/sd/water/lakes-beaches-rivers/guidelines/index.html>. Accessed October 2024.

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ENVIRONMENTAL EFFECTS MONITORING PLAN (EEMP)**

**Appendix A Maps**

**Landbase**

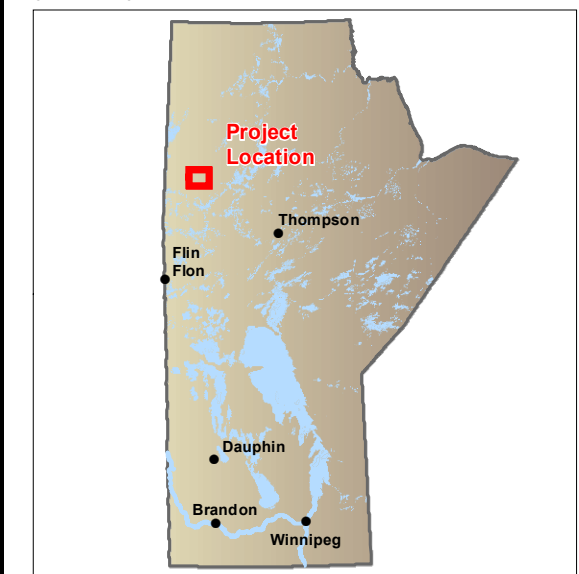
-  Existing Access Road
-  Highway
-  Watercourse
-  Waterbody
-  First Nation Reserve



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Kilometres  
(At original document size of 11x17)  
1:150,000

**Notes**

1. Coordinate System: NAD 1983 UTM Zone 14N
2. Base Data Sources: Government of Manitoba and Government of Canada



**Project Location**  
Lynn Lake,  
Manitoba

Prepared by ACampigotto on 2020-04-02  
Technical Review by ASomers on 2020-04-02  
Senior GIS Review by GKroupa on 2020-04-02

**Client/Project**  
ALAMOS GOLD INC.  
Lynn Lake Gold Project

111473008

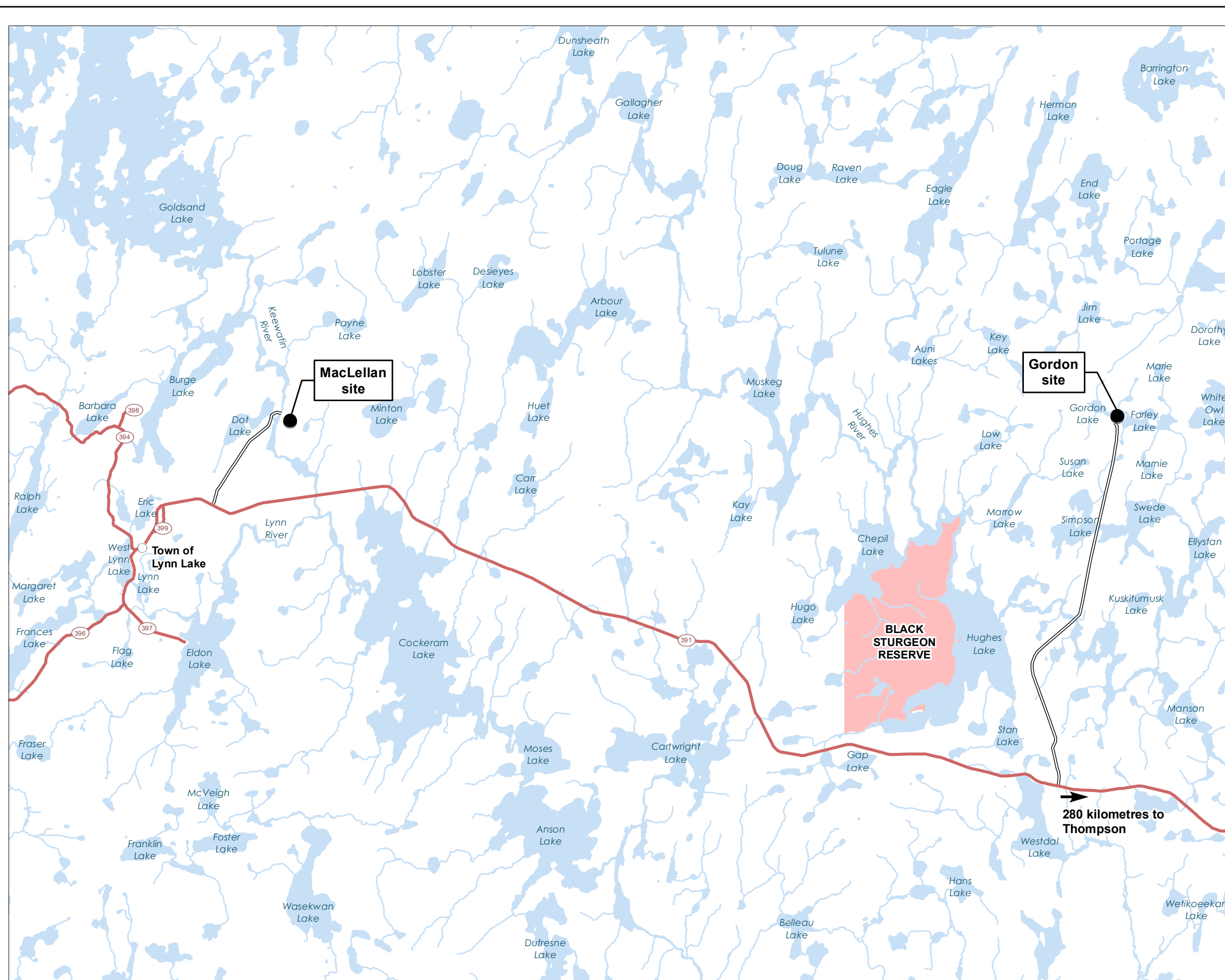
**Figure No.**

**1**

**Title**

**General Project Area**

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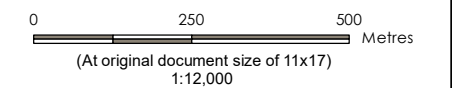


**Project Infrastructure**

- Interceptor Well
- Communication Tower
- Contact Water Ditch
- Mine Site Road
- Diversion Ditch
- Discharge Pipeline
- Fresh Water Intake
- Effluent Diffuser
- Collection Pond/Sumps
- Facility Area
- Gen Set Area
- Mine Rock Storage Area
- Open Pit
- Ore Storage
- Overburden Storage
- Topsoil Storage Area
- Stockpile Borrow Source
- Project Development Area (PDA)

**Landbase**

- Existing Access Road
- Existing Diversion Channel
- Watercourse
- Waterbody



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 14N
  2. Base Data Sources: Government of Manitoba and Government of Canada.
  3. NOA Project Infrastructure features provided by Worley via Alamos.

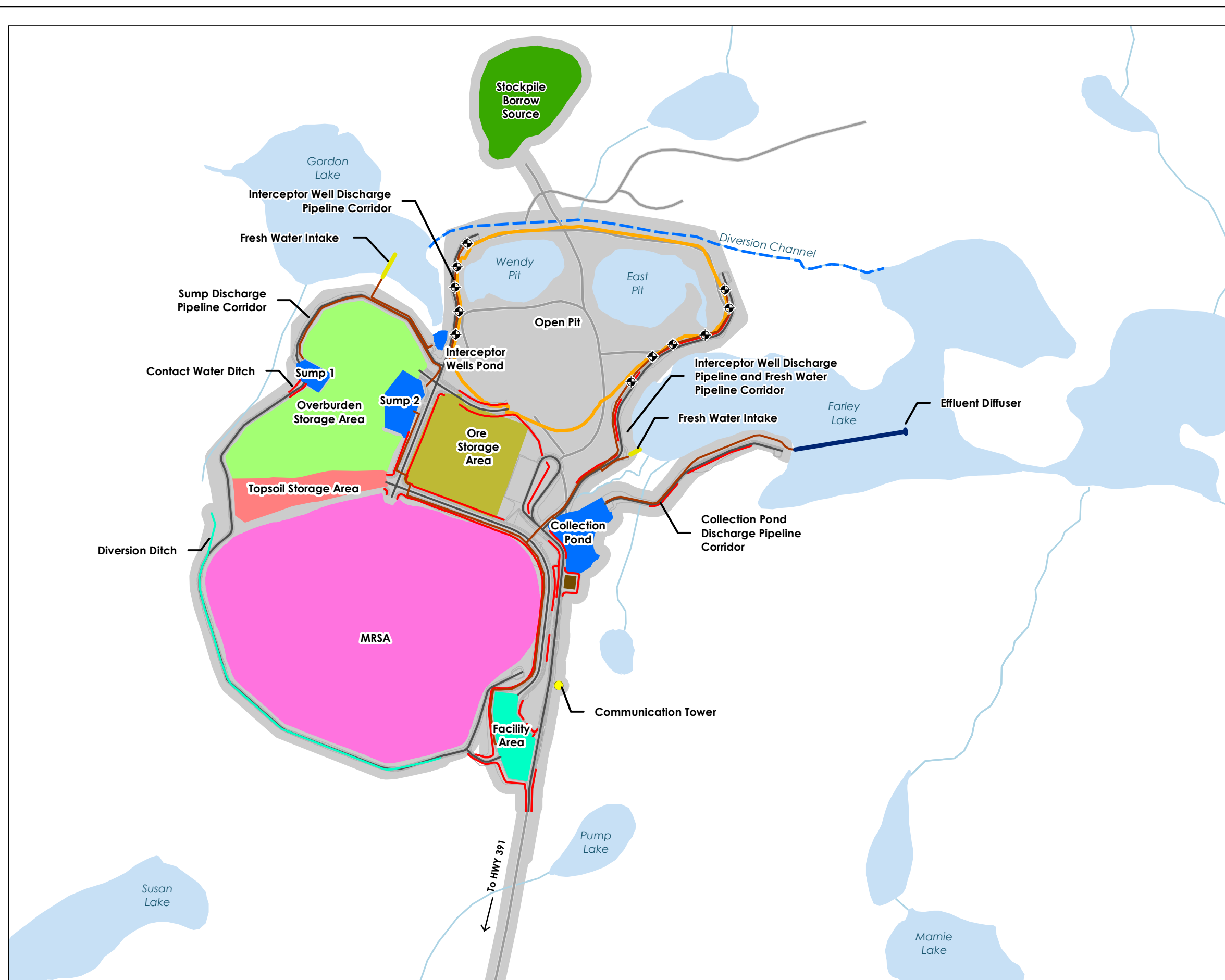
**Project Location** Lynn Lake, Manitoba  
 Prepared by ACompigotto on 2024-06-19  
 Technical Review by KMathers on 2024-06-19

**Client/Project** ALAMOS GOLD INC.  
 Lynn Lake Gold Project  
 111473076

**Map No.**  
**2**

**Title**  
**Gordon site**

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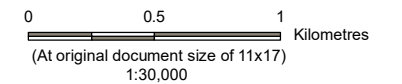


**Project Infrastructure**

- Communication Tower
- Culvert
- Ditching
- Corridor / Access Road
- Collection Pond Discharge
- Fresh Water Intake
- Effluent Diffuser
- Mine Rock Storage Area
- Overburden Stockpile
- Tailings Management Facility
- Open Pit
- Satellite Pit
- Collection Pond/Sumps
- Other Infrastructure
- Construction Laydown Area
- Project Development Area (PDA)

**Landbase**

- Highway
- Existing Access Road
- Watercourse
- Waterbody



- Notes**
1. Coordinate System: NAD 1983 UTM Zone 14N
  2. Base Data Sources: Government of Manitoba and Government of Canada.
  3. Project Infrastructure features provided by QPit and Ausenco.

**Project Location** Lynn Lake, Manitoba  
 Prepared by A.Campigotto on 2024-04-19  
 Technical Review by KMathers on 2024-04-19

**Client/Project** ALAMOS GOLD INC.  
 Lynn Lake Gold Project  
 111473076

Map No.

**3**

Title

**MacLellan site**

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