AGNICO EAGLE

MELIADINE GOLD MINE

Ore Storage Management Plan

MARCH 2020
VERSION 2
6513-MPS-08

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AGNICO EAGLE

EXECUTIVE SUMMARY

Agnico Eagle Mines Limited (Agnico Eagle) is operating the Meliadine Gold Mine (Meliadine), located approximately 25 km north of Rankin Inlet, and 80 km southwest of Chesterfield Inlet in the Kivalliq Region of Nunavut. The mine plan includes open pit and underground mining methods for the development of the Tiriganiaq gold deposit, with two open pits (Tiriganiaq Pit 1 and Tiriganiaq Pit 2) and one underground mine.

There are four phases to the development of Tiriganiaq: 3.5 years construction (Q4 Year -5 to Q2 Year -1), 8.5 years mine operation (Q3 Year -1 to Year 8), 3 years closure (Year 9 to Year 11), and post-closure (Year 11 forward). Approximately 15.4 million tonnes (Mt) of ore will be produced. The produced ore will be milled over approximately 8 years of mine life at a rate of approximately 3,750 tonnes per day (tpd) in Year 1 to Year 3 and 5,500 tpd in Year 4 to Year 8.

High and mid-grade ore produced from underground and the open pits will be trucked directly to the crusher located at the south end of the process plant. The crushed ore will be transported to the ore bin and then to the process plant via a covered conveyor system. The low grade and marginal ore produced will be stored in the ore stockpiles, which will be milled during the last year of mine operations. No ore will remain in the stockpiles at mine closure.

Surface runoff and seepage water from the ore stockpiles will flow to the adjacent Collection Pond 1 (CP1) via Channel 1 and Culvert 3, where it will be treated to meet discharge criteria as per the Type A Water Licence 2AM-MEL1631 requirement, prior to being discharged to the receiving environment.

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APPENDIX A • FIGURES

DOCUMENT CONTROL

Version	Date	Section	Page	Revision	Author
1	April 2015			First version of Ore Storage Management Plan as Supporting Document for Type A Water Licence Application, submitted to Nunavut Water Board for review and approval	Tetra Tech EBA Inc.
2	April 2020			General review throughout the document	Engineering

ACRONYMS

ABA	Acid Base Accounting
Agnico Eagle	Agnico Eagle Mines Limited
ARD	Acid Rock Drainage
ML	Metal Leaching
CP	Collection Pond
CRA	Commercial, Recreational, and Aboriginal
DFO	Department of Fisheries and Oceans Canada
EWTP	Effluent Water Treatment Plant
FEIS	Final Environmental Impact Statement
HCT	Humidity Cell Test
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
MEND	Mining Environment Neutral Drainage
MDMER	Metal and Diamond Mining Effluent Regulations
NAG	Non-Acid Generating
NLCA	Nunavut Land Claims Agreement
NPAG	Non-Potential Acid Generating
NPR	Net Potential Ratio
NWB	Nunavut Water Board
NWR	Nunavut Water Regulations
NWNSRTA	Nunavut Waters and Nunavut Surface Rights Tribunal Act
PAG	Potential Acid Generating
PGA	Peak Ground Acceleration
Project	Meliadine Gold Project
RO	Reverse Osmosis
SWTP	Saline Water Treatment Plant
SFE	Shake Flask Extraction
TSF	Tailings Storage Facility
WRSF	Waste Rock Storage Facility
WTP	Water Treatment Plant
WRTP	Waste Rock Transfer Pad

UNITS

%	percent
°C	degrees Celsius
°C/m	degrees Celsius per meter
cm/s	centimetre per second
ha	hectare
kPa	kilopascal
km	kilometre(s)
L	liter(s)
m	metre
mg	milligram
m/s	metre per second
mm	millimetre
mm/h	millimetre per hour
m^2/year	square metre(s) per year
m^3	cubic metre(s)
Mm^3	million cubic metre(s)
t	tonne
t/m^3	tonne per cubic metre
Mt	million tonne(s)
µm	micrometre

SECTION 1 • INTRODUCTION

Agnico Eagle Mines Ltd. (Agnico Eagle) operates the Meliadine Gold Mine (the Mine) located approximately 25 kilometres (km) north of Rankin Inlet (Figure 1.1), Nunavut, and 80 km southwest of Chesterfield Inlet in the Kivalliq Region of Nunavut. The Mine is subject to the terms and conditions of both the amended Project Certificate issued by the Nunavut Impact Review Board (NIRB) in accordance with the Nunavut Land Claims Agreement Article 12.5.12 on February 26, 2019 (NIRB, 2019) and the Type A Water Licence No. 2AM-MEL1631 (the Licence) issued by the Nunavut Water Board (NWB) on April 1, 2016 (NWB, 2016). This report presents an updated version of the Ore Storage Management Plan (OSMP). The purpose of this update is to incorporate changes related to ore storage management at the Mine.

1.1 Ore Storage Management Objectives

The ore storage management objectives are to minimize potential impacts to the environment during the mining phase. The purpose of the OSMP is to provide information to applicable mine departments (Environment, Engineering, Mine, Energy and Infrastructure, etc.) for sound management practices, proposed and existing infrastructure, and provide strategies for water management (runoff), dust control and monitoring programs.

1.2 Management and Execution of the Ore Storage Management Plan

Revisions of the OSMP can be initiated by changes in the Mine Development Plan (Mine Plan), operational performance, personnel or organizational structure, regulatory or social considerations, and/ or design philosophy. The OSMP will be reviewed annually by Agnico Eagle and updated as necessary.

SECTION 2 • BACKGROUND

2.1 Site Conditions

The Mine is located in an area of poorly drained lowlands near the northwest coast of Hudson Bay. The dominant terrain in the area consists of glacial landforms such as drumlins (glacial till), eskers (gravel and sand), and many small lakes. The topography is gently rolling with a mean elevation of 65 metres above sea level (masl) and a maximum relief of 20 meters.

The local overburden consists of a thin layer of topsoil overlying silty gravelly sandy glacial till. Cobbles and boulders are present throughout the region at various depths. Bedrock at the Mine site area consists of a stratigraphic sequence of clastic sediments, oxide iron formation, siltstones, graphitic argillite, and mafic volcanic flows (Snowden, 2008; Golder, 2009).

The climate is extreme in the area, with long cold winters and short cool summers, and mean air temperatures of 12°C in July and -31°C in January. The mean annual air temperature at the Mine site is approximately -10.4 °C (Golder, 2012a). Strong winds blow from the north and north-northwest direction more than 30 percent of the time.

The mean annual precipitation in the area is approximately 412 mm and is typically equally split between rainfall and snowfall.

2.1.1 Local Hydrology

The Mine is located within the Meliadine Lake watershed. Meliadine Lake has a water surface area of approximately 107 square kilometres (km^2), a maximum length of 31 km, features a highly convoluted shoreline of 465 km, and has over 200 islands. Unlike most lakes, it has two outflows that drain into Hudson Bay through two separate river systems. It has a drainage area of 560 km^2 upstream of its two outflows. Most drainage occurs via the Meliadine River, which originates at the southwest end of the lake. The Meliadine River flows for a total stream distance of 39 km. The Meliadine River flows through a series of waterbodies, until it reaches Little Meliadine Lake and then continues into Hudson Bay. A second, smaller outflow from the west basin of Meliadine Lake drains into Peter Lake, which discharges into Hudson Bay through the Diana River system (a stream distance of 70 km). At its mouth, the Diana River has a drainage area of 1,460 km^2.

Watersheds in the Mine area are comprised of an extensive network of waterbodies, and interconnecting streams. The hydrology of these watersheds is dominated by lake storage and evaporation.

2.1.2 Ice and Winter Flows

Late-winter ice thicknesses on freshwater lakes in the Mine area range between 1.0 to 2.3 m with an average thickness of 1.7 m. Ice covers usually appear by the end of October and are completely formed in early November. The spring ice melt (freshet) typically begins in mid-June and is complete by early July (Golder, 2012b).

2.1.3 Spring Melt (Freshet) and Freeze-up Conditions

With the exception of the main outlet of Meliadine Lake, which has been observed to flow continuously throughout the year, outlets of waterbodies near the Mine typically start flowing late May or early June, followed by freshet flows in mid-to-late-June. Flows steadily decrease in July and low flows are ongoing from August to the end of October, prior to winter freeze.

2.1.4 Permafrost

The Mine is located in an area of continuous permafrost. The depth of permafrost is estimated to be in the order of 360 to 495 m. The depth of the active layer ranges from about 1 m in areas with shallow overburden, up to 3 m adjacent to the lakes. The typical permafrost ground temperatures at the depths of zero annual amplitude (typically at the depth of below 15 m) are in the range of -5.0 to -7.5 °C in the areas away from lakes and streams. The geothermal gradient ranges from 0.012 to 0.02 °C/m (Golder, 2012b).

2.1.5 Local Hydrogeology

Groundwater characteristics at areas of continuous permafrost that are generally present in the Mine area include the following flow regimes:

- A shallow flow regime located in an active layer (seasonally thawed) near the ground surface and above permafrost; and,
- A deep groundwater flow regime beneath the base of the permafrost.

From late spring to early autumn, when temperatures are above 0˚C, the shallow active layer thaws. Within the active layer, the water table is projected to be a subdued replica of topography. Groundwater in the active layer flows to local depressions and ponds that drain to larger waterbodies. The talik beneath large waterbodies will be open. The open talik will connect to the deep groundwater flow regime beneath the permafrost.

Elongated waterbodies with terraces and a width of 340 to 460 m or greater are expected to have open taliks extending to the deep groundwater flow regime at the Mine. Meliadine Lake and Lake B7 are likely to have open taliks connected to the deep groundwater flow regime (Golder, 2012a). No impact is expected to Lake B7 by mine activities.

SECTION 3 • ORE STORAGE DEVELOPMENT

3.1 Mine Development Plan

The Mine Plan and key mine development activities, including water management, are currently used concurrently with the OSMP.

The Mine Plan includes one underground mine (Tiriganiaq Underground Mine) and two open pits (Tiriganiaq Open Pit 1 and Tiriganiaq Open Pit 2) for the development of the Tiriganiaq gold deposit.

The Mine is expected to produce approximately 15.4 million tonnes (Mt) of ore, 31.4 Mt of waste rock, 7.0 Mt of overburden waste, and 15.4 Mt of tailings. The following phased approach is proposed for the development of the Tiriganiaq gold deposit:

- Phase 1: 3.5 years for Mine Construction (Q4 Year -5 to Q2 Year -1);
- Phase 2: 8.5 years for Mine Operations, beginning in 2019 (Q2 Year -1 to Year 8);
- Phase 3: 3 years Mine Closure (Year 9 to Year 11); and;
- Phase 4: Post-Closure (Year 11 forward).

Mining facilities on surface will include a plant site and accommodation buildings, ore stockpiles, a temporary overburden stockpile, a tailings storage facility (TSF), three waste rock storage facilities (WRSFs), a water management system that includes containment ponds, water diversion channels, retention dikes/berms, and a series of water treatment plants. The general mine site layout plan is shown on Figure 3.1, while Table 3.1 provides the key mine development activities and sequence.

Table 3.1: Key Mine Development Activities and Sequence

Mine Year	Mine Development Activities and Sequence
Q4 of Yr -5 (2015)	• Started construction of industrial pad • Developed ramp to Tiriganiaq underground mine • Constructed portion of rock pad for stockpiles to store ore from Tiriganiaq underground ramp development
Yr -4 (2016)	• Continued construction of industrial pad • Constructed and operated the temporary landfill • Started temporary storage of waste rock in the future WRSF2 footprint for construction purposes
Yr -3 (2017)	• Constructed and utilized Type A landfarm • Constructed and began operation of Type A landfill • Erected and closed all main buildings except crusher, paste plant and crushed ore storage • Erected incinerator • Erected and operated effluent water treatment plant (EWTP) • Installed fuel tanks 3 ML and 250 kL at Portal1 • Erected fuel tank 13.5 ML in Rankin
Yr -2 (2018)	• Started construction of Ore Storage Pad 2 (OP2) • Erected and closed crusher, paste plant and crushed ore storage buildings • Erected fuel tank 20 ML in Rankin • Erected fuel tanks 6 ML and 250 kL at industrial pad • Started process commissioning at end of Q4

Mine Year	Mine Development Activities and Sequence
Yr -1 (2019)	• Completed industrial pad • Completed construction of OP2 • Started to place filtered tailings in Cell 1 of tailings storage facility (TSF) at end of Q1 • Started full capacity ore processing early Q2 • Created temporary waste rock storage area within footprint of Tiriganiaq Pit 2 from construction of Saline Pond 2 (SP2) • Began placement of waste materials from Saline Pond 4 (SP4) in waste rock storage facility 1 (WRSF1)
Yr 1 (2020)	• Place waste rock from temporary storage within footprint of Tiriganiaq Pit 2 to construct haul roads for open pits and to WRSFs • Create temporary waste rock storage area between footprints of Tiriganiaq Pits 1 and 2 from construction of SP4 • Start to mine Tiriganiaq Pit 2 • Begin placement of waste materials from Tiriganiaq Pit 2 within WRSF3
Yr 2 (2021)	• Start to mine Tiriganiaq Pit 1 • Place overburden from Tiriganiaq Pit 1 in WRSF1 • Continue placement of waste materials from Tiriganiaq Pit 2 in WRSF3 • Construct temporary overburden stockpile to store the selected ice-poor overburden that will be used for progressive reclamation of TSF
Yr 3 (2022)	• Complete mining of Tiriganiaq Pit 2 • Continue placement of waste materials from Tiriganiaq Pit 1 in WRSF1 • Begin placement of waste materials from Tiriganiaq Pit 1 into WRSF2 • Expand process plant to reach the process capacity of 5,500 tpd • Complete additional ore storage construction (OP1)
Yr 4 (2023)	• Start to place filtered tailings in Cell 2 of TSF
Yr 5 (2024)	• Place final closure cover on top of tailings surface in Cell 1 of TSF • Stop placement of waste rock in WRSF1 when design capacity reached
Yr 6 (2025)	• Stop placement of waste rock in WRSF3 when design capacity reached
Yr 7 (2026)	• Stop mining of Tiriganiaq Pit 1 when the open pit reaches design elevation • Stop Tiriganiaq underground operation when underground mine reaches design elevation • Stop placing waste materials in WRSF2 when design capacity reached
Yr 8 (2027)	• Process the ore from OP1 and OP2 until all stored ore is processed • Decommission underground mine surface openings as needed

3.2 Ore Development Plan

3.2.1 Tiriganiaq Development Schedule and Quantities

The Tiriganiaq gold deposit will be developed using traditional open-pit and underground mining methods. Two open pits (Tiriganiaq Pit 1 and Tiriganiaq Pit 2) and an underground mine (Tiriganiaq Underground) will be developed.

The following mining development sequence is planned:

- Tiriganiaq underground will be developed and operated from Year -5 to Year 8;
- Tiriganiaq Pit 2 will be mined from Year 1 to Year 3; and
- Tiriganiaq Pit 1 will be mined from Year 2 to Year 7.

Approximately 15.4 Mt of Tiriganiaq ore will be mined over the mine life, comprised of approximately 3.8 Mt from the open pits and approximately 11.4 Mt from underground operations. Four grades of ore are identified: high grade, mid-grade, low grade, and marginal grade. The ore will be milled in the process plant during mine operation at a feeding rate of 3,750 tonne per day (tpd) in Year -1 to Year 4 and over 5,500 tpd in Year 5 to Year 8.

Table 3.2 summarizes the schedule and quantities of mine waste to be mined from the open pit and underground mining operations.

Table 3.2 Summary of Ore Production Schedule and Bank Quantities (V11_3)

Year	Mine Year	Underground (t)			Tiriganiaq Pit 1 (t)			Tiriganiaq Pit 2 (t)		
		High	Mid	Low/ Marginal	High	Mid	Low/ Marginal	High	Mid	Low/ Marginal
2019	Yr-1	325,569	325,569	325,569	--	--	--	--	--	--
2020	Yr1	565,495	754,152	72,507	--	--	1,183	10,340	57,253	60,644
2021	Yr2	476,072	960,398	123,857	4,706	19,033	22,649	10,119	62,420	70,503
2022	Yr3	411,648	959,420	171,479	196,697	182,662	179,417	55,051	92,097	117,703
2023	Yr4	327,302	1,030,986	158,376	67,856	38,653	208,681	--	--	--
2024	Yr5	239,691	1,072,653	173,834	146,523	224,606	364,382	--	--	--
2025	Yr6	164,600	1,134,724	153,900	199,603	351,853	393,377	--	--	--
2026	Yr7	188,906	1,141,982	172,976	93,058	231,742	275,257	--	--	--
2027	Yr8	--	--	--	--	--	--	--	--	--
Total (t)		**2,699,282**	**7,379,884**	**1,352,498**	**708,443**	**1,148,550**	**1,444,946**	**75,510**	**211,770**	**248,851**

SECTION 4 • ORE STORAGE MANAGEMENT

High and mid-grade ore produced from underground and open pit operations will be trucked directly to the crusher located at the south end of the process plant. The crushed ore will be transported to the ore bin and then to the process plant via a covered conveyor system. Low and marginal grade ore will be stored in stockpiles that will be milled during the last year of operations. There will be no ore stockpiles remaining at mine closure.

4.1 Ore Storage Locations

4.1.1 Ore Storage Pad 2 (OP2)

The originally proposed locations for ore storage at Meliadine (2014 FEIS) were two large pads to the southeast of the Industrial Pad, encompassing numerous waterbodies in watershed H and J. For the 2015 application for the Type A Water License, the locations of the proposed ore storage facilities had moved closer to the Industrial Pad and primary crusher, with three smaller ore storage pads proposed instead of two large pads. The suggested locations of the 2014 and 2015 ore storage pads is shown on Figure 4.1.

Multiple changes were made to the configuration of various infrastructures within the Industrial Pad footprint since the 2015 application as shown in Figure 3.1. The Landfarm and Industrial Site Fuel Farm now occupy much of the area previously identified for use as OP3. The new alignment of the crusher ramp and ancillary crushing infrastructures affected the footprint of the previously planned OP1. As the general location of OP2 did not change, it was decided during detailed design of the facility to expand this originally planned footprint to incorporate the available remaining footprint of the previously planned OP1 and maximize the storage space next to the crusher during detailed design. These changes were described in the *Ore Storage Pad 2 Design Report and Drawings* (Agnico Eagle, 2018) approved by the Nunavut Water Board in June 2018.

4.1.2 Temporary Ore Storage

Currently, underground ore recovered from above Level 250 is brought to the surface through Portal 1 and temporarily stored within the footprint of the future waste rock storage facility 2 (WRSF2). The ore is then loaded by surface equipment and moved to OP2 and/or the primary crusher. The location of this ore transfer pad is shown on Figure 4.2.

The practice of temporary ore storage at the WRSF2 transfer facility will cease once construction of WRSF2 commences in 2022 (Year 3).

4.2 Design Parameters

4.2.1 Ore Storage Pad 2

Key design characteristics of Ore Storage Pad 2 are summarized in Table 4.1.

Table 4.1: Key Design Parameters of Ore Storage Pad 2

Parameter	As-Built Values
Pad thickness (m)	1.0
Maximum elevation (m)	80.0
Grade towards Channel 1 (%)	1.0
Average side slopes for pad (H:V)	1.3:1
Surface area (m^2)	103,000
Volume of rockfill (m^3)	140,000

4.2.2 Ore Stockpiles

The ore stockpiles are temporary structures and small compared to the WRSFs. Based on the stability and thermal analyses completed for the WRSFs during detailed design and experience with similar structures at other mine sites (i.e. Meadowbank Mine), the ore stockpiles will have an acceptable factor of safety against potential slope failure. A typical cross section of an ore stockpile is provided in Figure 4.3

Key design parameters for the ore stockpiles are summarized in Table 4.2.

Table 4.2: Design Parameters for Ore Stockpiles

Parameter	Value
Bench width from the crest of the pad to the toe of the first lift of the ore (m)	5
Thickness of first lift of ore (m)	5
Bench width from the crest of the first lift to the toe of the second lift (m)	10
Approximate maximum thickness of the second lift of ore (m)	3
Assumed side slopes for ore (H:V)	1.3:1
Maximum elevation of any ore stockpile above sea level (m)	80
Assumed dry density of ore (t/m^3)	1.88

Following the above design parameters during ore placement, a maximum theoretical volume of 1.75 M tonnes, or 930 150 m^3, of ore can be stored on OP2. Dividing the pad into four stockpiles and maintaining a 15 m distance between the stockpiles provides a sufficient surface area for a total of 1.26 M tonnes, or 672 800 m^3.

4.3 Ore Stockpiling Procedure

Depending on the development schedule of the underground and open pit mining operations, the ore will either be transported directly to the mill and crusher for processing or will be temporally stockpiled at one of the designated ore stockpiles on OP2 for subsequent processing.

Table 4.3 presents the planned evolution of ore stockpiles at OP2, together with their maximum storage tonnages shown in bold text.

Table 4.3: Evolution of Ore Stockpiles at OP2

Year	Mine Year	Ore Produced from Underground and Open Pits (t)				Stockpile Balance (t)			
		High	Mid	Low	Marginal	High	Mid	Low	Marginal
2019	Yr-1	11,916	--	118,026	--	11,916	--	118,026	--
2020	Yr1	575,835	811,405	116,508	17,827	--	--	114,490	17,827
2021	Yr2	490,897	1,041,851	182,068	34,941	--	--	119,651	52,768
2022	Yr3	633,396	1,234,179	413,752	54,847	--	121,961	533,403	107,615
2023	Yr4	395,158	1,169,639	314,990	52,066	--	121,961	642,940	159,681
2024	Yr5	386,215	1,297,258	467,593	70,624	--	121,961	781,005	230,305
2025	Yr6	364,203	1,486,578	480,000	67,277	--	**121,961**	**921,786**	297,582
2026	Yr7	281,965	1,373,724	394,375	53,858	--	--	903,811	**351,440**
2027	Yr8	--	--	--	--	--	--	--	--
Maximum (t)							**121,961**	**921,786**	**351,440**
Maximum (m^3)							**64,873**	**490,312**	**186,936**

Table 4.3 demonstrates that under the current mine plan and with the distribution of ore into three stockpiles, sufficient storage is expected to exist on OP2 until approximately 2025 (Year 6) after which point additional capacity may be required.

SECTION 5 • WATER MANAGEMENT ASSOCIATED WITH ORE STORAGE

The water management objectives for the mine are to minimize potential impacts to the quantity and quality of surface water at the site.

Ore Storage Pad 2 is located within the catchment of CP1, as shown in Figure 3.1. The pad was sloped during construction to direct any contact water towards Channel 1 where it will be diverted into CP1 via the Culvert 3 system. If required, the collected contact water will be treated by the EWTP prior to discharge to the outside environment.

Detailed information on the management of runoff water and seepage from the ore stockpiles and construction of infrastructure associated with ore management are described in the *Water Management Plan* (Agnico Eagle, 2020a).

SECTION 6 • DUST MANAGEMENT ASSOCIATED WITH ORE STORAGE

The potential sources of dust related to ore management during construction, operation and closure include:

- Site preparation prior to placement of waste materials i.e., stripping, excavation and/or placement of storage pad;
- Vehicle traffic dislodging fine particles from the surface of the storage pad and associated haul roads;
- Ore handling and transfer - loading, hauling, unloading and placement; and
- Ore sorting, screening and crushing.

Dust suppression measures, which are considered to be typical of the current mine practices (i.e. Meadowbank Mine) and consistent with best management practices, will be considered through design, operation and closure phases to control the dust.

Minimal site preparation was required for the storage pad during construction. Dust from this source was not observed to be problematic.

Dust generated from vehicles travelling on the surface of the associated access roads will be controlled principally by spraying water on the traffic area, which will be carried out regularly by mine services during dry periods in the summer. Watering the haul and access roads is only possible when temperatures are above freezing. When the temperature is below freezing, dust suppression using water or chemical will pose a safety hazard for travel; therefore, reducing the speed limit will be the principal way of controlling dust during these periods. More details on the dust management for traffic are described in the Roads Management Plan (Agnico Eagle, 2020b).

Other control measures considered in design and operation related to dust generation by vehicles travelling include:

- Road will be designed as narrow and short as possible while maintaining safe construction and operation practices;
- Coarse size rock will be used as much as possible for road construction;
- Roads will be regularly graded to mix the fines found on the road surface with coarser material located deeper in the roadbed; and
- As required, roads and travel areas will be topped with additional aggregate.

Dust is expected to be a minor issue during construction of the ore stockpiles. The ore stockpiles will be located at suitable locations and with minimal heights and suitable side slopes to minimize the wind erosion effects. Water and/or approved chemical dust suppressions will be sprayed on ore stockpiles, if required.

The crusher plant has been designed to follow best management practices by having the dump station and rock hammer enclosed to minimize the dust generation. The conveyor from the crusher to the process plant is a covered belt system in which the dust can be easily controlled. The covered conveyor system will be equipped with dust collectors, and will be maintained regularly during mine operation. The conveyor loads will be kept within designated load limits to minimize the dust generation during operation. Dust collected during operation will be recycled through the mill.

SECTION 7 • RECLAMATION AND CLOSURE OF THE ORE STOCKPILES

The detailed Mine closure and reclamation activities are provided in the Interim Closure and Reclamation Plan, which was approved in March 2020.

Key mine development activities during the closure process are summarized in Table 7.1.

Table 7.1: Key Mine Development Activities and Sequence during Closure

Mine Year	Mine Development Activities and Sequence
Yrs 9-11 (2028 to 2030)	• Place final closure cover on top of tailings surface in Cell 2 (Yr 9) • Decommission non-essential mine infrastructure and support buildings (Yrs 9 and 10) • Start monitoring and maintenance (Yr 9)
Post Closure	• Continue monitoring and maintenance until Yr 18 (2039)

Final closure activities of the ore management facilities will commence at the end of mining operations in 2027 (Year 8). Ore will not remain in the ore stockpiles following the cessation of operations; it will all be processed.

In the event of a short-term temporary closure, the water and dust management strategies for the ore stockpiles will be kept the same as used during active mine operation. In the event of a long-term temporary closure, water control structures will be maintained as required

SECTION 8 • MONITORING PROGRAM

This section presents a summary of the monitoring programs that will be carried out during construction and operation related to ore storage management. The monitoring program presented here includes; stability and deformation, ground temperature, and annual inspections per the Type A Water Licence 2AM-MEL1631. The detailed information on monitoring of runoff and seepage from the ores stockpiles is described in the *Water Management Plan* (Agnico Eagle, 2020a). General monitoring is subject to change as directed by an Inspector, or by the Licensee, subject to approval by the NWB.

Table 8.1 summarizes the monitoring activities for the ore management.

Table 8.1 Ore Stockpile Monitoring Activities

Monitoring Component		Monitoring Frequency	Reporting
Verification Monitoring	Quantities of ore processed	Continuously	Monitoring data will be used by Agnico Eagle internally.
	Routine visual inspections of ore stockpiles	Daily during active ore placement; monthly after placement	
	Elevation and geometry survey	Annually	
	Seepage collection and monitoring	Monthly over the open water season	
General Monitoring	Quantities of ore placed into stockpiles	Monthly	Monitoring data will be reported to the Regulators in the annual water licence report or annual inspection report
	Dust monitoring related to ore storage	Governed by Air Quality Monitoring Plan	
	Geotechnical inspection by qualified Geotechnical Engineer	Annually or more frequent at the request of an Inspector	

8.1 Verification Monitoring Program

Verification monitoring results will be used by Agnico Eagle in the management of ore stockpiles and production. The following verification monitoring data will be collected, compiled and managed internally:

- The tonnage of ore processed through the mill is monitored and reported internally on a continuous basis. These results are crosschecked with the tailings production rate from the filter press.
- During active development of each stockpile, site staff will carry out daily visual inspections in relation to the performance and condition of each structure. When placement activity ceases on an interim or seasonal basis, the inspection frequency will shift to monthly.
- The maximum heights of the ore stockpiles are estimated to be approximately 15 m above the pad. During operations, an annual elevation survey of the stockpiles will be performed to estimate overall volume placed and provide input to the operation plan.

- Surface runoff and seepage from the ore stockpiles will be monitored during the construction and operation phases monthly over the open water season. Additional inspections will be carried out after rainfall events and during freshet. The detailed information on the monitoring of surface runoff and seepage from the ore stockpiles is described in the *Water Management Plan* (Agnico Eagle, 2020a).

8.2 General Monitoring Program

The following general monitoring data will be reported to the NWB through either the Water License Annual Report or an Annual Inspection Report:

- Monthly quantities of the ore placed into the stockpiles during mine operation.
- Dust related to ore management is not expected to be an issue by employing the dust suppression measures presented in Section 6.0. Air quality at the mine site will be monitored during construction, operation, and closure through air quality monitoring stations and reported annually.
- The performance of the ore stockpiles will be inspected and assessed during the annual geotechnical site inspection by a geotechnical or civil engineer registered in Nunavut. The visual assessment and recommended actions to be taken related to the stockpiles will be summarized in the Annual Inspection Report. Inspections may occur more frequently at the request of the Inspector. Records of all inspections will be maintained for the review of the Inspector upon request.

The results from general monitoring program related to tailings management will be reported to the Regulators in the Annual Water License Report or in the Annual Geotechnical Inspection Report.

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APPENDIX A • FIGURES

Figure 1.1 General Mine Site Location Plan

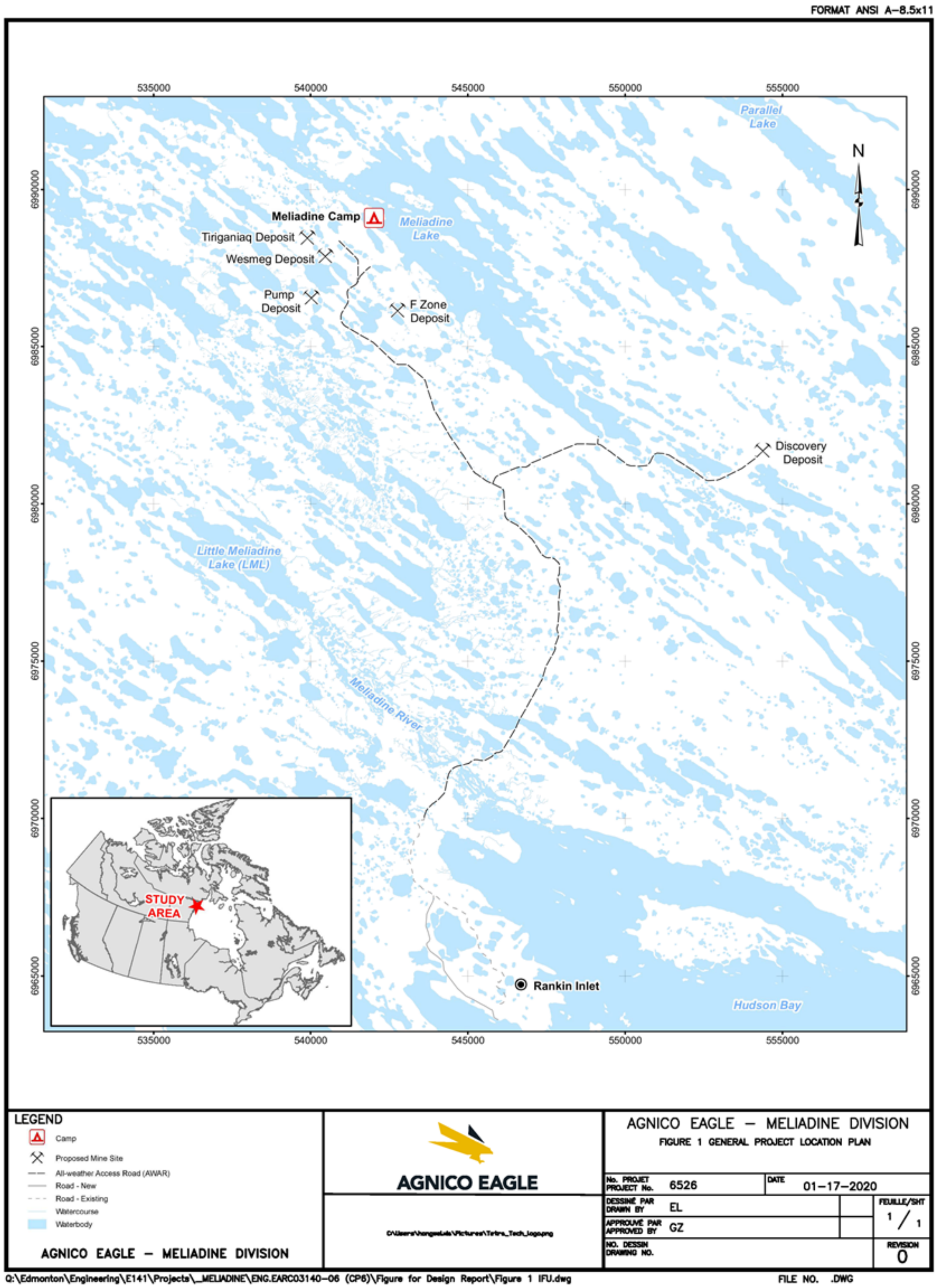

Figure 3.1 General Mine Site Location Plan

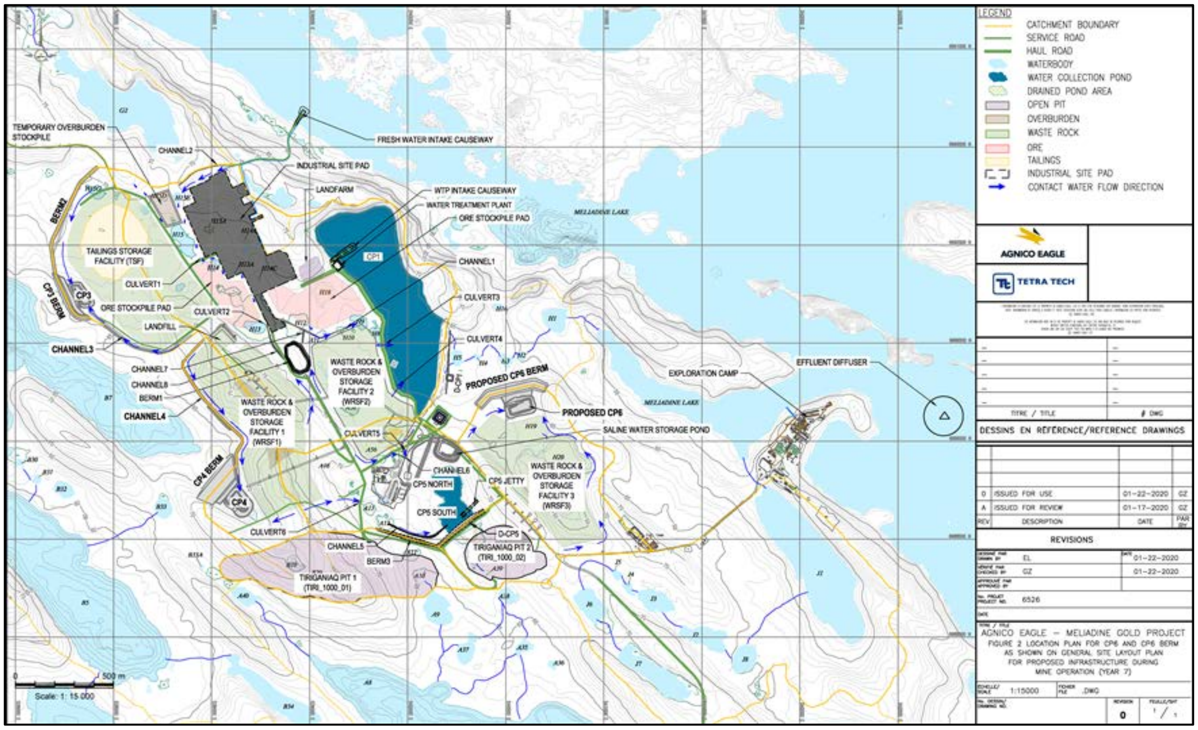

Figure 4.1 Proposed Ore Stockpile Locations (2014 and 2015)

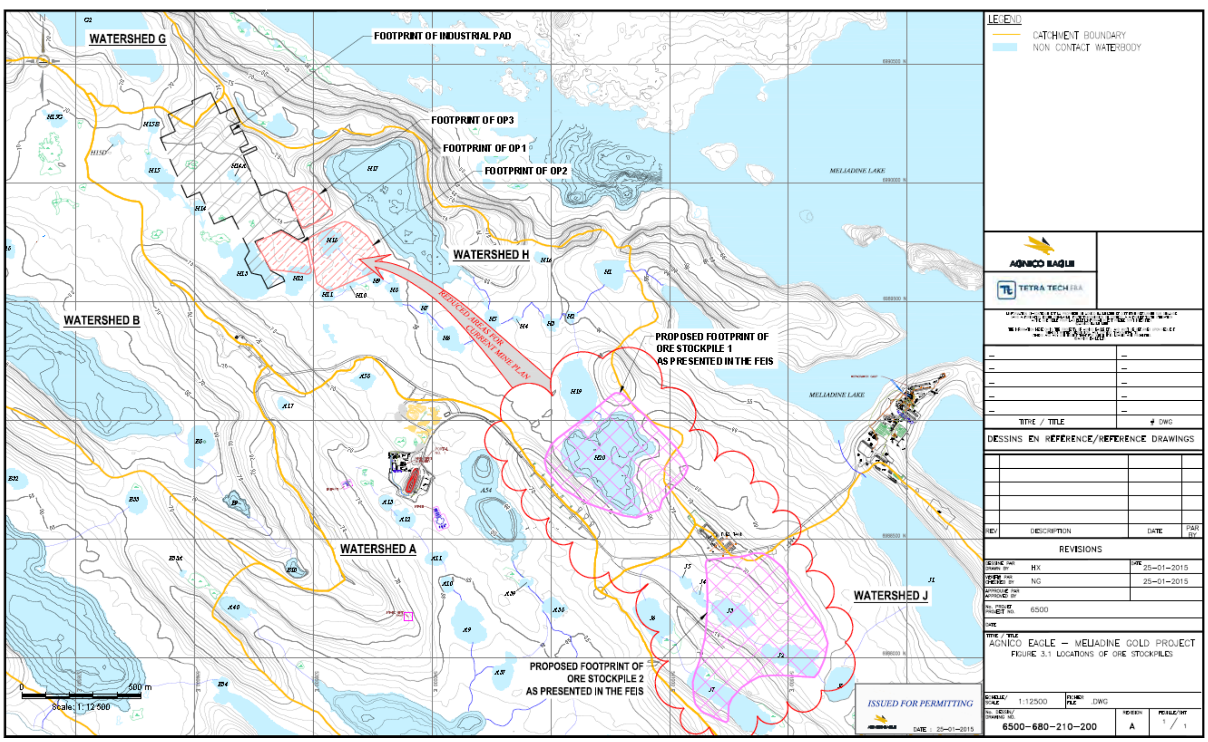

Figure 4.2 Temporary Ore Storage on Future WRSF2 Footprint

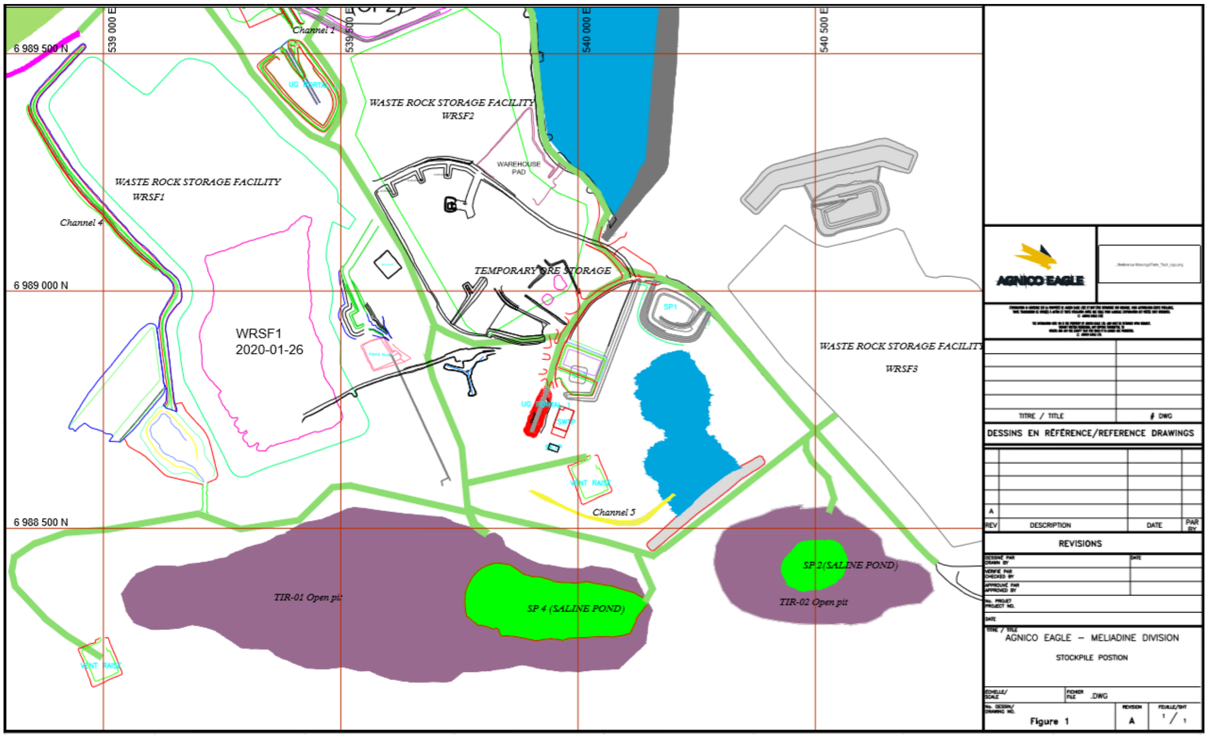

Figure 4.3 Ore Stockpile Typical Section