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December 12, 2018

Kyle Moselle  
Department of Natural Resources  
Office of Project Management and Permitting  
400 Willoughby Street  
Juneau, AK 99801-01019

Re: FGMI Phase 10 Pit Expansion

Dear Mr. Moselle:

Fairbanks Gold Mining, Inc. (FGMI) is requesting an amendment to the Plan of Operations for the Fort Knox Gold Mine. FGMI proposes to expand the pit with the Phase 10 pit expansion.

This submittal includes the *Fort Knox Mine Plan of Operations Amendment Request, Phase 10 Pit Expansion, December 12, 2018* document.

Should you have any questions, please contact me at 970-490-2287 or [mark.huffington@kinross.com](mailto:mark.huffington@kinross.com).

Sincerely,



Mark A. Huffington  
Environmental Superintendent

Cc: Brent Martellaro, ADNR, [brent.martellaro@alaska.gov](mailto:brent.martellaro@alaska.gov)  
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**KINROSS**

**Fort Knox**

# **Fort Knox Mine Plan of Operations Amendment Request**



**Phase 10 Pit Expansion**

**December 12, 2018**

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### Attachments

1. Fort Knox Mine with Parcel G Boundary
2. Phase 10 Pit Expansion

## Abbreviations

amsl	above mean sea level
BCHLF	Barnes Creek Heap Leach Facility
BCWRD	Barnes Creek Waste Rock Dump
cy	cubic yard
DEC	Alaska Department of Environmental Conservation
DNR	Alaska Department of Natural Resources
FEMA	Federal Emergency Management Agency
ft	feet
ft <sup>2</sup>	square feet
FGMI	Fairbanks Gold Mining, Inc.
Fort Knox	Fort Knox Mine
gpm	gallons per minute
H	horizontal
hr	hour
lb/cf	pounds per cubic feet
LCRS	leachate collection and recovery system
M	million
Mt	million tons
PCMS	process component monitoring system
PFS	prefeasibility study
TSF	tailings storage facility
V	vertical
WCHLF	Walter Creek Heap Leach Facility
WRD	waste rock dump
YPWRD	Yellow Pup Waste Rock Dump
yr	year

## 1.0 INTRODUCTION

Fairbanks Gold Mining, Inc. (FGMI) is requesting a Plan of Operations amendment approval at its Fort Knox Mine (Fort Knox) for the Phase 10 expansion of the Fort Knox pit. The proposed Phase 10 expansion is located on property known as Parcel G.

### 1.1 Site Description

Fort Knox is owned and operated by FGMI, a wholly owned subsidiary of Kinross Gold USA, Inc. Fort Knox is located in the Fairbanks North Star Borough, approximately 26-road miles northeast of Fairbanks, Alaska (Figure 1). It is located along a belt of lode and placer deposits that comprise one of the highest gold-producing areas in Alaska. The deposit at Fort Knox is mined by conventional open-pit methods on a year-round basis, seven days per week. Fort Knox processes ore onsite at a carbon in-pulp mill with a daily capacity of up to 45,000 tons. In recent years, Fort Knox has produced approximately 350,000 to 400,000 ounces of gold annually. Major site facilities include the active open pit mine, mill, tailings storage facility (TSF), waste rock dumps, water storage reservoir, and the Walter Creek Valley Heap Leach Facility (Figure 2).

**Figure 1: Site Location**



**Figure 2: Mine Facilities**



**2.0 PHASE 10 PIT EXPANSION**

FGMI proposes to expand the Fort Knox mine pit to the area known as Phase 10. The proposed Phase 10 expansion is located on property known as Parcel G (Attachments 1 and 2).

The proposed expansion includes approximately 262.7 million tons of rock of which 116.7 million tons is ore for processing and 146 million tons is waste rock. The proposed Phase 10 expansion disturbance is approximately 38.62 acres (Attachment 2).

**Table 1 – Phase 10 Pit Expansion Quantities**

Facility	Ore Processing (million tons)	Waste Rock (million tons)
Mill		
Walter Creek Heap Leach		
Barnes Creek Heap Leach	116.7	
Barnes Creek Waste Rock Dump		
Yellow Pup Waste Rock Dump		131
In-Pit Waste Rock Dump		15

**2.1 Reclamation**

Reclamation of the Phase 10 Pit Expansion will be included in the next Fairbanks Gold Mining, Inc., Reclamation Plan and Closure Plan update scheduled for submittal February 28, 2019.

## **2.2 Wetlands**

A wetlands delineation was performed by Michael Baker International in 2015 for Parcel G. A 0.97-acre wetland was identified in the Phase 10 pit expansion area. The wetland has been mitigated and authorized for discharge of fill material in accordance with US Army Corps of Engineers POA-1992-574-M27, Fish Creek permit amendment.

## **3.0 REFERENCES**

Michael Baker International, 2015, *Preliminary Jurisdictional Determination and Functional Assessment Report. Fort Knox Gold Mine Gilmore Exploration Area*, December 23, 2015.

US Army Corps of Engineers, *POA-1992-574-M27, Fish Creek*, November 1, 2018.



# FORT KNOX MINE Phase 10 Expansion

