

December 14, 2007

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- FR: John Starke, Foth Infrastructure & Environment, LLC
- RE: Location Selection Basis for the Eagle Project Surface Facility

This memorandum presents the location selection basis for the Eagle Project surface facilities. Surface ownership of the Eagle Project and surrounding area is shown in Figure 1. There are two parts of surface facilities for the project: the main surface facility comprised of 88 acres of disturbed land; and the backfill facility comprised of 9.8 acres of disturbed land. The backfill facility location is close to the Salmon Trout River and is dictated by the ore body and the underground mine design, therefore no alternative locations are available. Operations at the backfill facility have been kept to a minimum to reduce environmental risk and footprint. The location of the main facility was selected to minimize the environmental footprint of the Eagle Mine and to provide a safe and efficient operational area for mining activities. Criteria used to select the proposed location of the main facility are discussed below.

1. Minimize the environmental footprint of the facility.

KEMC designed the main surface facility in the smallest disturbed footprint that would allow safe and effective mining operations. The facility includes:

- Two contact water basins, three non-contact water basins,
- Temporary development storage area,
- Sanitary system,
- Parking areas,
- Mine office building,
- Coarse ore storage area,
- Gatehouse,
- Powder magazines,
- Truck wash,
- Treated water infiltration system,
- Wastewater treatment plant,
- Generator Building,
- Fuel storage area,
- Other ancillary facilities.

These facilities are contained within the smallest area will allow safe and efficient mine operations. Containing the operations within a smaller area would result in inefficient operations and cause potential vehicle hazards or unsafe operating conditions.

## 2. <u>Reducing impacts to surface water or groundwater resources.</u>

The main surface facility is located east of the local groundwater divide. This location reduces risk to the Salmon Trout River Main Branch from mining activities. The facility has been designed to protect the environment whether it's located west or east of the groundwater divide. However, locating the facility as proposed east of the groundwater divide, provides an extra measure of protection as the closest down gradient surface water is over a mile to the north.

## 3. <u>Reducing impact to natural wooded areas.</u>

KEMC chose a main facility location and alignment to lessen removal of large trees. The proposed position of the surface facilities is located in previously clear-cut areas. As such, wooded tracks of land surrounding the site will remain and will screen the operations from surrounding properties.

## 4. <u>Provide a facility location that can be screened by natural site features.</u>

The location of the main surface facility was selected to make use of natural screening from Triple A Road and the surrounding properties. A large portion of the main surface facility will be screened by existing wooded areas and by the rock outcrop. These natural features will not only reduce visual impacts of the site operations, but will also buffer noise from operations. Although KEMC could position the facility on Kennecott land, this would result in less screening between Triple A Road and the main surface facility.

5. Locate mine portal to provide safest possible access point.

The mine portal entering the bedrock near the outcrop will provide stable access to the ore body. Positioning the portal at a location more distant from the rock outcrop would require extending the portal through loose, unstable alluvial soils thus would increase the risk to the aquifer and result in a less safe portal. From a safety perspective, KEMC believes the mine portal is best positioned near the outcrop to utilize the structural benefit of the natural rock mass.

## 6. <u>Need for state land use.</u>

KEMC-owned land was considered for the surface facilities operations. However, for the previously stated reasons, state-owned land better meets the location criteria. These location criteria include:

- Lowering risk to groundwater and surface water resources,
- Minimizing disturbance and cutting of wooded areas,
- Minimizing noise and visual impact from the main facility,
- Providing safe access to the ore body using the structurally sound rock near the outcrop, and
- Minimizing the environmental footprint and risk of the facility by containing operations into the most practicable and safe area.

