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Memo

To:	Wayne Ennor	**Date:**	13 October 2009
Attention:	Scott McEwing (SRK Consulting)	**From:**	Andrew Garvie
cc:	Sinosteel Midwest Corporation	**Project No:**	SMM001
SUBJECT:	**WASTE ROCK MANAGEMENT STRATEGY – PER CONTRIBUTION**		

Wayne,

In response to SMC's request to provide a contribution to the Public Environmental Review regarding a strategy to manage potentially acid forming waste rock at the Weld range Project I provide the description below.

The strategy was developed on the basis of findings of geochemical characterisation test results discussed in the report titled Geochemical Characterisation of Weld Range Waste and Mineralised Rock, Static and Kinetic Testing prepared by SRK and issued in October 2009.

The Weld Range Project is expected to produce 131 Mt of waste rock from the Madoonga pit and 234 Mt from the Beebyn pit. Based on static geochemical testing, the majority of waste rock from each pit would be classed non acid forming (NAF). However, a small proportion of waste rock could be potentially acid forming (PAF); estimated tonnages of PAF material are 14 Mt (11% of the waste rock) for the Madoonga pit and 3 Mt (1%) for the Beebyn pit.

The risk associated with PAF material is the production of acidic and metalliferous drainage (AMD). This risk is lower in the case of the NAF material, although it should be noted that some metals can be mobile under neutral pH conditions.

To manage the waste materials appropriately, waste rock dumps will be designed with two objectives:

1. To limit contact between PAF and percolating water.
2. To minimise the likelihood that dump effluents will exert a detrimental effect on local water quality, for example, by capturing and managing dump drainage appropriately, and if practicable, locating the PAF material away from existing water courses and flood areas.

To meet these objectives, the following strategy is proposed. The base layer of the dump (A) will be constructed of NAF material. The purpose of this layer is to raise the PAF material above the original ground and prevent direct contact of PAF material with any water flowing at the interface of the original ground and the dump. The minimum thickness of the base layer will be determined based on information such as the saturated and unsaturated hydraulic properties of the base layer, estimates of rates of infiltration into the waste from rainfall, natural seeps and flood levels.

During construction there would be areas of PAF rock that are uncovered and exposed to rain. Exposure times will be minimised as far as possible through scheduling mining or dumping and planning the locations of the PAF material in the dump. To reduce the load of oxidation products that could be released from PAF material during construction a layer of low permeability NAF material (B) will be placed over the NAF base layer and under the PAF rock (C). The purpose of layer B will be to limit the rate of downward movement of water and therefore reduce the rate of release of any AMD produced. It is likely that a portion of water moving downward through the dump will exit the dump at the base and continue to move downward towards the groundwater table.

The dump will be constructed in several lifts. The number of lifts would be based on geotechnical stability and mine scheduling requirements. Truck and dozer movement on the top surface of the lifts will compact the material and reduce the permeability to water. This will have the benefit of reducing the permeability of the top surface of each lift, potentially reducing water infiltration and promoting runoff. These benefits will be maximised through dump design aspects such as surface contouring and drain construction.

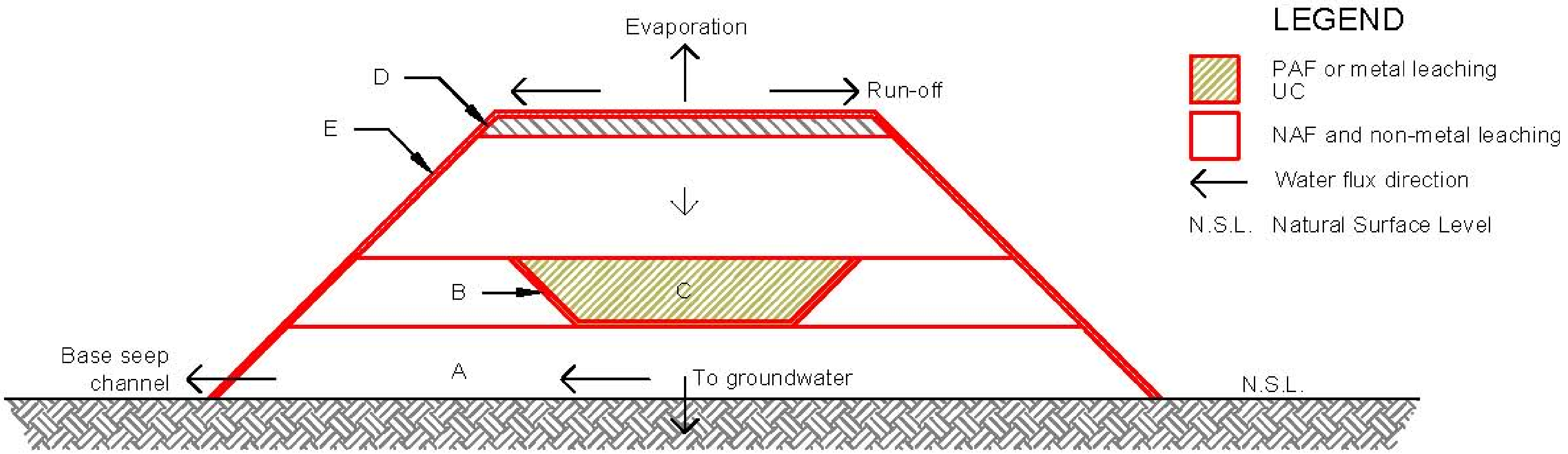
PAF material will be covered on both the side slopes (batters) and top surface with NAF material. A cover (D) designed to limit the infiltration of rain will be constructed on the top surface of the dump. It will extend laterally beyond the PAF material. The final design of the cover will be determined based on the annual rainfall, rainfall intensity distribution and potential evapotranspiration. The design would likely include features to promote runoff from the surface and/or promote retention of infiltrating water near the surface for subsequent evapotranspiration. Engineered features will include appropriate slopes, berms and drains. The top surface of the cover (E) will be suitable for supporting vegetation. The design of the cover has not been finalised but is likely to include top soil stripped from the pit surface and waste rock dump footprints prior to starting construction of the pit and dumps.

Batters of the dumps will be constructed of materials resistant to erosion. Batter slopes will be chosen to reduce rates of erosion and thereby maintain the NAF cover.

Cut-off drains will be constructed to prevent run-off from undisturbed lands contacting the dump and to separate dump run-off from water running off undisturbed lands. Dump run-off will be channelled to settling ponds to store sediment.

Water drainage lines passing under the dumps that may transport AMD from the dumps and will be managed separately.

As studies of the deposit, geochemistry of the waste and other aspects of the project provide further data related to waste rock management the advantages and disadvantages of alternative strategies will be considered. It is possible that the proposed strategy will be modified in the future to better manage waste material and the potential for acid mine drainage.



PAF WASTE ROCK SURROUNDED BY NAF WASTE ROCK

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