

DATE January 27, 2014**REFERENCE No.** 1314260010-090-TM-Rev0-1000**TO** Brad Thompson
Giant Mine**FROM** Dave Caughill and John Hull**EMAIL** dcaughill@golder.com;
jhull@golder.com**SURFACE DRAINAGE PATTERNS – SOUTH, CENTRAL, NORTH PONDS**

This memorandum provides an overview of the surface drainage patterns on the South, Central and North Ponds at the Giant Mine, NWT, as they existed in August 2013. Overall, surface water on the three ponds drains to the water pond in the central portion of the North Pond, as shown on Figure 1. The general direction of the drainage is shown by arrows on the figure. Surface water on the South Pond drains to the small pond in the north-east corner of the pond. Water that collects in this pond is then drained to the Central Pond through a buried pipe, as indicated on Figure 1. The pipe outlet is in the channel on the western side of the Central Pond. The flow pattern on the east side of the Central Pond has been modified by the MSA Pad, but generally surface water would flow to the west side of the pond and then north. Water in this channel then flows to the North Pond through a culvert / decant structure in the embankment (Dyke 6) separating the ponds.

We trust the above meets your present requirements. If you have any questions or requirements, please contact the undersigned.

GOLDER ASSOCIATES LTD.**ORIGINAL SIGNED AND SEALED****ORIGINAL SIGNED**Dave Caughill, M.Sc., P.Eng.
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DC/JAH/kp

Attachment: Figure 1: Existing Surface Drainage Patterns on North, South, and Central Ponds

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