



January 31, 2007

Dillon Consulting Limited
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Attn: Janice Lee

**Re: AMEC Response to Nunavut Water Board Review
Kugaaruk Lagoon and Solid Waste Disposal Facility**

1.0 BACKGROUND

The Government of Nunavut is planning to construct a new sewage lagoon for the community of Kugaaruk, Nunavut. The height of the sewage berm will vary from 2 m to 10 m with side slopes at 3H:1V and a 4 m wide crest. A site reconnaissance, compilation of geotechnical information and geothermal modeling were conducted by AMEC Earth and Environmental, a division of AMEC Americas Limited (AMEC) in October 2005 to assist Dillon Consulting Limited (DCL) in the sewage lagoon design. The detailed engineering design and tender documents were completed in May 2006 by DCL and submitted to Nunavut Water Boards for review.

It is understood that Nunavut Water Board requested further information, pertaining to the detailed design of the sewage lagoon for the water licence application. AMEC has been requested by DCL to provide geotechnical input in preparation of responses to the Nunavut Water Board questions. Authorization to proceed with the responses was received by email on January 19, 2007 from Ms. Janice Lee of DCL. The engineering design sections for the sewage lagoon and construction specifications were also provided to AMEC.

2.0 RESPONSES TO COMMENTS FROM NUNAVUT WATER BOARD

4. *Within the specifications report, the construction of the berms specifies a standard Proctor density. With respect to placement density of soils, additional detail and discussion is requested to address each of the points below.*
 - a. *The optimum water content for maximum dry density for each soil type used in constructing the berm was not provided in the submitted reports.*
 - I. *Given that the standard Proctor maximum dry density is specified for placement of soil material in the berm, does the Proponent agree that soil testing for optimum water content and maximum dry density are important geotechnical parameters for construction of the berms?*