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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI

August 30th, 2006

File: NWB1JER0410/D7 By Fax: 1-416-777-1898

Greg Missal Vice-President Nunavut Affairs Tahera Diamond Corporation 130 Adelaide Street West, Suite 1900 Toronto, Ontario M5H 3P5

Subject: NWB review of submitted TDC responses to Landfarm & Contaminated Snow Containment Facility – Construction Specifications

Dear Mr. Missal:

The Nunavut Water Board (NWB) requests further clarity on issues related to the Jericho Diamond Landfarm & Contaminated Snow Containment Facility (LCSCF) Construction Specifications (**Part D, Item 7**). The following documents were consulted in reviewing the LCSCF Construction Specifications:

- i. **TDC LCSCF Construction Specifications** Tahera Diamond Corporation Jericho Project Landfarm and Contaminated Snow Containment Facility Construction Specifications December 2005, 1100060.008 (received: January 27<sup>th</sup>, 2006)
- ii. **TDC LCSCF Design Summary Report** Tahera Diamond Corporation Jericho Project Landfarm and Contaminated Snow Containment Facility Design Summary Report December 2005, 1100060.008 (received: January 27<sup>th</sup>, 2006)
- iii. **Environment Canada Intervention Statement** NWB1JER0410 Tahera Diamond Corporation, Jericho Diamond Mine Submission of Landfarm and Contaminated Snow Containment Facility Design Report, Construction Specifications, Operating Manual (received: March 16<sup>th</sup>, 2006)

After a review of the above listed correspondence it has been determined that additional information and clarity is needed. The NWB requests additional information regarding the following:

- a. Throughout the construction specifications there have been commitments made to have the engineer on site judge/evaluate/approve certain provisions. The document suggests that the engineering body responsible for supervision will produce construction and engineering records that detail how each of these commitments were carried through. The Board requests a detailed report (partnered with as-built construction and engineering records) discussing how each of the following provisions within the listed specifications was carried through:
  - **General** (Item 3.2)
  - Foundation Preparation (Items 2.1, 2.2, 2.5, 5.1)
  - Fill Materials (Items 3.6, 3.7, 4.3c)

- Fill Placement (Items 1.5, 1.7, 3.2, 5.3)
- Liner System (Items 3.2b, 3.2c, 7.2, 7.5, 8.4)
- **Instrumentation** (Items 1.2, 1.3, 3.2, 4.1)
- Quality Assurance (Items 3.1a, 3.1b, 3.2a)
- b. The Board request further discussion and detail outlining Quality Assurance and Quality Control measures and protocols with respect to specified lift thickness within the **Fill Placement** (Items 3.1, 4.1, 4.2, 4.3, and 5.1) specification.
- c. (Specification Foundation Preparation Item 4.4) The waste rock pad minimum thickness of 0.3 m are subject to change based on results from the geotechnical investigation. How will this information be provided to the Board and other Regulatory bodies before construction?
- d. (**Specification Fill Materials 4.0**) Limits for particle size distribution were provided. The Board requests a record of gradation curves indicating acceptable range limits. This shall be submitted with as-built construction and engineering records.
- e. (**Specification Fill Placement 1.4**) The Board requests a record of damage by rain, snow, or any other cause and any remedial measures completed during construction.
- f. (**Specification Fill Placement 1.7**) The design report states that the berm top may be altered during construction. How will this information be presented to the Board?
- g. (Specification Liner System 3.1b, 3.2b) Commercial specifications for all geosynthetic products should be provided with as-built construction records. Signed manufacturing certifications referenced should be annexed and provided with as-built construction and engineering records.
- h. (**Specification Liner System 5.4**) The Board requests records of any damage to the liner system and/or its components along with a note indicating that the proposed remedial measures were implemented.
- i. (Quality Assurance) The material contained within this section suggests that a monitoring program will be installed in evaluating the QA. The Board requests a thorough report embodying all elements of this program that evaluate all components after construction. This shall be submitted to the Board with the final construction and engineering records.

In summary the Board requests a formal response to each of the above stated provisions. Sufficient detail and an avoidance of ambiguity should be followed in submitting response materials to the listed provisions. If you require assistance whatsoever please feel free to contact Dr. Jamie Van Gulck, P.Eng at (204) 792-4129 or <a href="mailto:vanqueck@vqqconsulting.com">vanqueck@vqqconsulting.com</a>.

Sincerely,

Original signed by:

Joe Murdock
Director of Technical Services