shear diamonds

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July 31, 2011

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Dear Ms. Beaulieu:

Re: Technical Memoranda Submission in Accordance with Shear Diamonds Ltd.'s Table of Commitments, Technical Meeting and Pre-Hearing Conference June 20th and 21st, 2011 for the Renewal Application of Type A Water Licence 2AM-JER0411.

Shear Diamonds Ltd (Shear) is pleased to submit the following enclosed technical memorandum in accordance with the commitments made by Shear during the Technical Meeting and Pre-Hearing Conference held in Cambridge Bay on June 20th and 21st, 2011.

- Technical Memorandum E: Landfill and Sludge Pit Location Addendum to Landfill Management Plan

If you, or any interveners have any questions, or require any clarifications, please do not hesitate to contact us.

Sincerely,

Julie Lassonde
Executive Chairman & CEO

cc: Bernie MacIsaac, Director of Operations, NU Regional Office, AANDC
Charlie Evalik, President, Kitikmeot Inuit Association
Ryan Barry, Director of Technical Services, Nunavut Impact Review Board

Technical Memorandum E

shear diamonds

To: Nunavut Water Board	Date: July 29, 2011
From: Shear Diamonds Ltd.	
Ref: Jericho Diamond Mine: 2AM-JER0410	

2AM-JER Renewal Application Technical Meeting June 20-21, 2011

List of Commitments: Landfill and Sludge Pit Location Addendum to Landfill Management Plan, Jericho Diamond Mine, Nunavut

One component of a complete water licence renewal application is a compliance audit. In conducting the compliance audit, Shear Diamonds Ltd (Shear) became aware that Tahera Diamond Corp (TDC) had been depositing waste in the waste rock pile on Inuit Owned Lands (IOL) without an approved plan. In discussions with the Kitikmeot Inuit Association, it was Shear's understanding that a new landfill location was to be selected, preferably not on IOL.

In developing the Preliminary Landfill Design Plan (EBA, 2011), it was noted that the landfill location would be finalized as part of the investigation work being undertaken this year by Shear. Field investigations have been completed and, as a result, this technical memo is being submitted to provide preliminary locations, for discussion, for the landfill and sludge pit. This technical memo is intended to be read in conjunction with the Preliminary Landfill Design Plan (EBA, 2011) and the Landfill Management Plan (EBA, 2011).

This memo addresses the proposed landfill and sludge pit locations only. A detailed landfill design, including signed and stamped drawings, will be completed once the location is approved and finalized and will be submitted sixty (60) days prior to construction, in accordance with the water licence requirements, Part D, 6, and as documented in the Preliminary Landfill Design Plan (EBA, 2011).

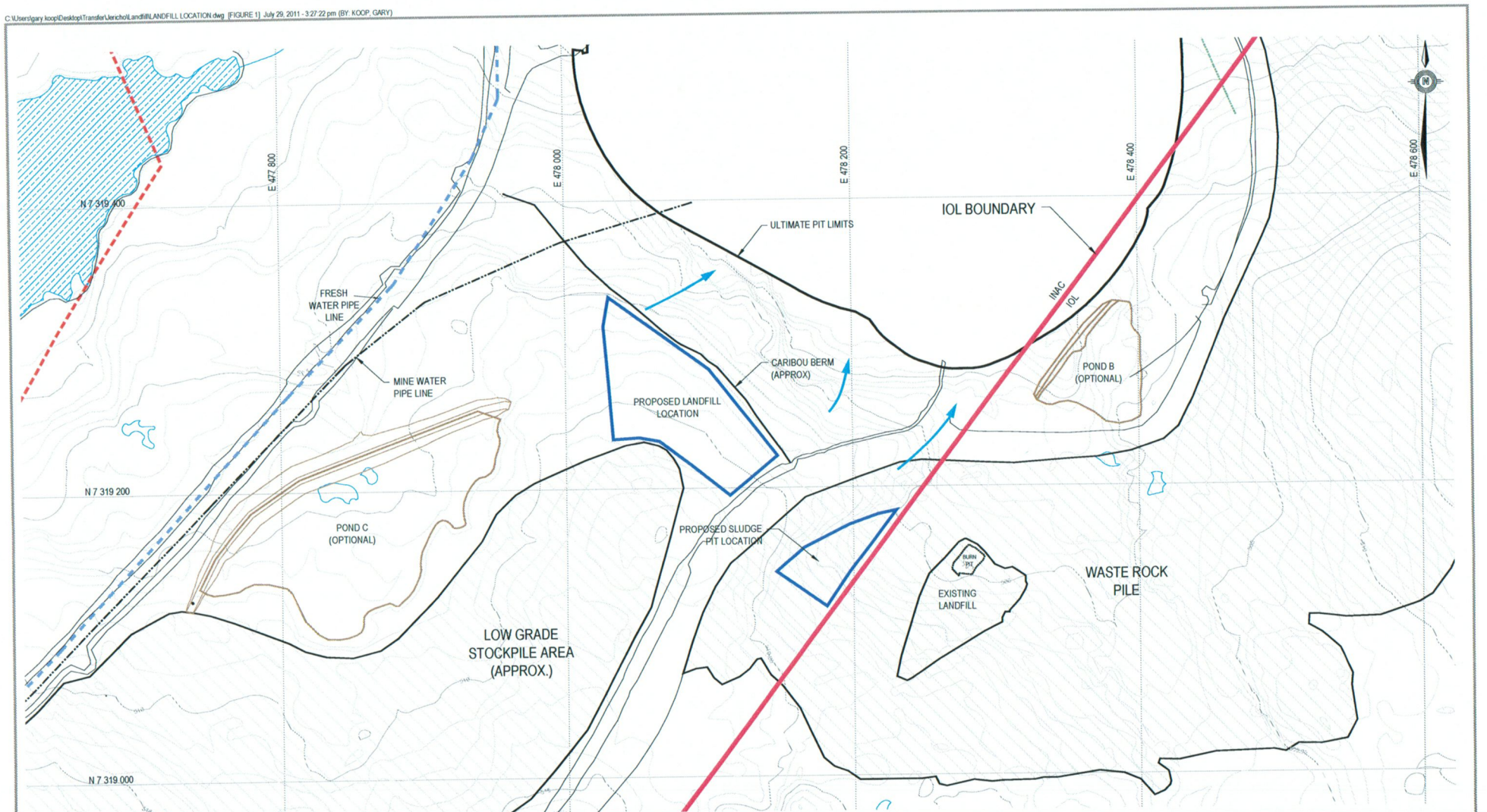
Preliminary landfill and sludge pit locations are shown in Figure 1. Both facilities are located on Crown Land within the mine lease. The proposed landfill site is located north of the low grade storage area, adjacent to the existing caribou berm, and the proposed sludge pit is located in the waste rock pile, adjacent to the INAC / KIA property boundary. The sites were selected based on site reconnaissance completed in June and July of 2011. Primary considerations in site selection included the following:

- Surface water – At both locations surface and contact water flowing from the facilities will be directed to the pit where it can be assessed and managed.
- Foundation conditions:
  - The sludge pit will be located in the south waste rock pile which contains till material from the original open pit stripping.
  - The landfill will be located near a local topographic high. Surface soil conditions comprise till with scattered boulders. Small localized areas of ponding were observed within the footprint, but are not expected to impact landfill performance.
- Prevailing wind – Prevailing winds are from the northwest to the southeast. As such, any dust generated from the facilities will be directed towards the waste rock pile and not open water bodies.
- Site Access – the sites were selected to be readily accessible from existing roads and infrastructure.

Sincerely,

Julie Lassonde
Chairman & CEO
Shear Diamonds Ltd

C:\Users\gary koop\Desktop\Transfer\Jericho\Landfill\LANDFILL LOCATION.dwg [FIGURE 1] July 29, 2011 - 3:27:22 pm (BY: KOOP, GARY)



LEGEND

SURFACE DRAINAGE DIRECTION

0 100

Scale: 1: 2 500 (metres)

NOTES:

1. FOOTPRINTS OF WASTE ROCK PILES, COARSE PK STOCKPILES, AND ORE STOCKPILES ARE SHOWN IN MAXIMUM LIMITS, ACTUAL FOOTPRINTS MAY VARY
2. THE IOL LAND BOUNDARY IS APPROXIMATELY ALIGNED BASED ON DRAWING PROVIDED BY SHEAR
3. THE APPROXIMATE LANDFILL LOCATION IS DRAWN BASED ON HANDHELD GPS WAYPOINTS

STATUS
ISSUED FOR USE

CLIENT
shear diamonds

eba
A TETRA TECH COMPANY

PROPOSED FACILITY LOCATIONS
JERICHO DIAMOND MINE, NUNAVUT

PROPOSED LANDFILL LOCATION

PROJECT NO	DWN	CKD	REV
E14101140	GDK	WTH	0

OFFICE: EBA-EDM
DATE: July 2011

Figure 1