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MACKENZIE VALLEY ENVIRONMENTAL IMPACT REVIEW BOARD

DE BEERS

January 24, 2003

BY FACSIMILE (867) 766-7074

Gordon Wray
Acting Chair
MacKenzie Valley Environmental Impact Review Board
P O Box 938
YELLOWKNIFE, NT X1A 2N7

Dear Mr. Wray:

Re: Indian and Northern Affairs Canada ("INAC") position on unresolved issues on the Environmental Assessment ("EA") of the De Beers Canada Mining Inc. ("De Beers") Snap Lake Diamond Project

De Beers would like to respond to the letter from INAC addressed to the Board and dated January 22, 2003. In that letter INAC asserts that a number of issues raised during the November and December 2002 technical sessions remain unresolved and requests the Board rule that these issues should be resolved prior to the submission of INAC's technical reports due by February 14, 2003. De Beers considers that the Request for Ruling should be declined for the reasons discussed below.

It is De Beers' opinion that the MVEIRB EA work plan and schedule provides ample opportunity for resolution of outstanding issues. Moreover, De Beers considers that INAC's present Request for Ruling is an implicit consequence of an earlier Request for Ruling by INAC (July 15, 2002) to change the order of the EA Work Plan. In that Request, INAC requested that technical sessions should be held before completion and submission of technical reports. For INAC to now claim that technical reports should not be completed until outstanding technical issues are resolved is inconsistent with the process of environmental assessment under the Work Plan and contrary to their own arguments. In their letter of July 15, 2002 to the Board, INAC argued that the technical reports should concentrate on unresolved issues from the technical sessions. Please see the third paragraph of that letter where INAC stated, "... The technical reports would then concentrate on any unresolved issues from the technical sessions. This modified process would be more efficient for resolving issues, reduce the need for future information requests and reduce any uncertainties in the development of technical reports." It is clear that INAC understood at the time of requesting a Ruling in July 2002 that there could still be unresolved issues existing after the completion of the technical sessions. Given their understanding, De Beers considers that technical reports should be completed as scheduled and that any items that cannot be addressed by INAC by the completion of the technical reports should be carried forward to the Public Hearing as intended in the EA Work Plan.



DE BEERS CANADA MINING INC. SNAP LAKE DIAMOND PROJECT

De Beers

De Beers also considers that INAC should have been well aware of their outstanding environmental issues upon completion of the Technical Sessions in Yellowknife on December 6. At a meeting with De Beers staff on Dec. 23, 2002, INAC representatives noted a desire to resolve outstanding issues prior to completion of Technical Reports, but were not explicit as to what their concerns were. De Beers requested explicit details on the nature of INAC's outstanding concerns in order to facilitate responses and it was stated that they would be provided in the first week of January 2003. The list was not forthcoming. De Beers subsequently made several requests to INAC for issue details following that meeting. A list of issues (see attachment) was finally forwarded to De Beers on January 17, 2003. As you will note, however, the list did not cover any of the issues INAC forwarded to the Board on January 22, 2002. Taking into account that a full list of issues was not made available to the proponent until six weeks after the conclusion of the Technical Sessions but just three weeks before the submission deadline for technical reports, De Beers considers that INAC's Request for Ruling is both untimely and unreasonable. De Beers asks that the Board deny the request. If granted, the request would also unreasonably delay the meeting of the deadlines established for all parties in the Work Plan established and confirmed by the Board on a number of occasions.

Throughout the EA process, De Beers has worked to provide information and resolve technical issues (e.g. informal Water Quality technical sessions in late and early 2002 and Technical Information Sessions hosted by De Beers in April, 2002). It is De Beers intent to continue working to seek resolution to as many issues as possible prior to the public hearings. De Beers will work continue to with INAC and other interveners to provide information, however, many issues may not be resolved prior to completion of technical reports on February 14, 2003. However, if they remain outstanding then the EA process is designed such that the issues can go forward to the Board hearing in March for resolution. De Beers is prepared to deal with issues at that stage if necessary and strongly urges the Board to rule immediately that the INAC request be denied.

Yours truly,

DE BEERS CANADA MINING INC.

John McConnell

Vice President – NWT Projects

encl

Robin Johnstone

From: Sent: Sevn Bohnet [bohnets@inac-ainc.gc.ca] Friday, January 17, 2003 10:28 AM

To: Cc: robin.johnstone@ca.debeersgroup.com Francis Jackson; lazzolini@mveirb.nt.ca

Subject:

Hydrogeological topics for discussion



Hydrogeological Discussion Top...

Please see the attached list of topics for discussion. We are available to discuss at you convenience ..preferably next week via a conference call. Please let me know when we can arrange to discuss these issues.

Regards,

Sevn Bohnet Diamonds Specialist Water Resources Division Department of Indian Affairs and Northern Development Phone (867) 669-2696 Fax (867) 669-2716

Hydrogeological Discussion Topics for De Beers Follow-up to November 26 to 28, 2002 MVEIRB Technical Sessions Snap Lake Diamond Project

Kenneth Raven, INTERA Engineering Ltd. January 16, 2003

The following topics are provided to De Beers for the purpose of identifying subject areas for a teleconference discussion. They are based on previous concerns raised in my Information Requests and my review of the De Beers responses as outlined in the Facilitators summary notes that were provided on January 8, 2003. My questions address the topic of quality of water discharged to Snap Lake and my concern that the quality of mine water discharge may have been significantly underestimated.

I appreciate the opportunity of discussing these concerns with De Beers, particularly since I was unable to attend the late November Technical Sessions.

I have genuine concerns that the quality of mine water discharge to Snap Lake has been underestimated in the EA due to an underestimation of connate water concentrations and incomplete mixing within the Effective Lake Volume of Snap Lake. The concern is greatest for major ions including chloride and TDS as the proposed water treatment method will be ineffective for these constituents. I would like to discuss:

- Why the shallow (maximum depth 168 m) water samples collected during the AEP should be considered representative of average connate water quality (e.g., 330 mg/L chloride) for the entire Mine, when they are only from the upper half of the proposed mine, are likely influenced by surface water inflow and drill water contamination, and when selected (and I would argue more representative) samples from 125 to 165 m depth show chloride of 500 to 600 mg/L.
- 2) How the North Lakes groundwater quality data supports the selection of connate water chemistry used in the EA when it shows much higher chloride and TDS concentrations than assumed in the EA. The North Lakes groundwater data from wells MW02-05 (380 mg/L from 110 to 130 m depth) and MW02-03 (610 mg/L from 190 to 215 m depth) support the conclusion that the connate groundwater will have much higher chloride and TDS levels than 330 mg/L.
- Why the North Lakes groundwater quality data (see De Beers Response to INAC Concern in Day 2 Morning Session) is OK if it falls within one standard deviation of data observed in the granite AEP boreholes. Also (same Response), how the North Lakes data can be inferred to show TDS increases due to groundwater flow path evolution when depth of sample is a more obvious explanation.

- Please explain what the actual TDS concentration increases due to up-welling of Diavik profile groundwater water was from the FEFLOW modeling. A relative increase of 60 % over the life of the Mine is stated in the IR Response, but actual TDS values are not given. How applicable and useful are these calculations to estimating connate water inflow quality to the Mine due to upwelling, when they do no assess inflow quantity? How were the results of the FEFLOW and MINEDW modeling linked?
- 5) Please explain the De Beers Response to Dogrib Concern over mine inflow chemistry variations (Day 2 Morning Session). What does "for chloride we varied pumping time" mean with respect to lake water values?
- 6) Do De Beers models used to simulate the discharge of Mine water through the diffuser allow for density driven flow or separation? If TDS values approach 2000 mg/L, will this increased salinity create incomplete mixing and thus settling of water to the bottom of the Lake, particularly under ice conditions? Has De Beers considered the potential recycling of such higher TDS water and it's effects on long-term Mine water discharge (i.e., average Mine water discharge would evolve toward average connate water quality and not an average mixture of connate and Lake water).
- Is there a near linear relationship between average connate water chloride levels, the Effective Mixing Lake Volume and concentrations in the Effective Lake Volume of Snap Lake calculated by GoldSim? Will doubling connate water concentration or halving the mixing volume, approximately double the Lake concentration?
- 8) Is reverse osmosis or other treatment methods for removal of chloride and other major ions feasible or practical for the Snap Lake project?