



**April 5, 2018**

Ms. Petrel Liu, Environmental Assessment Intern  
ECC - Environmental Protection Operations Directorate  
Prairie & Northern Region  
9250 – 49<sup>th</sup> Street NW  
Edmonton, Alberta T6B 1K5

Dear Ms. Liu:

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**Re: 2BE-CHI1218 Renewal – ECCC File # 6100-000-0035/005**

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I am in receipt of your letter to Richard Dwyer dated March 29, 2018 and will address your comments below. At the outset I would like to note our activities are seasonal and bulk sample activities may or may not occur annually.

**Comment 1A**

There appears to be some confusion with the terminology utilized in the letter. Trenches are rock excavation locations and cuttings containment areas are rock or drill cutting deposition locations. The term “trench” and “cuttings containment area” are not synonymous and cannot be used interchangeably.

Please note that the coordinates listed for each of the locations are unique. For instance the CH-7 Trench and CH-7 Rock Basin (Cuttings Containment Area 1) are approximately 1.9 kilometers apart. Similarly the CH-6 trench and the CH-6 Rock Basin (Cuttings Containment Area 4) are approximately 1.4 kilometers apart. I have attached a map to illustrate the locations and in the future will include a map with the Bulk Sample Management Plan. Cuttings Containment Area 2 is in close proximity to kimberlites CH-31, CH-45 and CH-46 but no trenching has occurred at any of these kimberlites.

**Comment 1B**

I am uncertain what is meant by “no description of water management is provided for CH-6”. Does this mean the CH-6 Trench or the CH-6 Rock Basin (Cuttings Containment Area 4)?

The CH-6 Trench was excavated in March 2013. Prior to excavation, a trench plan was submitted to and approved by the Nunavut Water Board (NWB). Trench plans are required by the NWB as part of the water use licence and may be submitted at any point during the term of the licence. The trench plan details the very specific mitigation measures with respect to the CH-6 Trench. Though I do not speak for the NWB, it appears that the logic for submitting a unique trench plan for every trench is to take into consideration the unique physiographic features of each location. Also note that section D of the water use licence 2BE-CHI1218 sets out water quality criteria.



CH-6 Trench water was sampled and analysed in 2013, 2014, 2015 and 2016. The primary reason for sampling was to ensure there were no explosive residues from blasting. All analytical results were well within the acceptable limits. Water sampling ceased in 2017 as the results were consistently benign for four consecutive years following completion of the trench.

The CH-6 Rock Basin (Cuttings Containment Area 4) has not been utilized. In the future, if it is utilized, water in the basin (if present) will be sampled in the subsequent summer season. Again water quality will be assessed according to the parameters set out in the water licence.

The CH-7 Trench was excavated by hand and mechanically with a skidsteer in 2010. There is water accumulation in the resulting hollow and minor water outflow during the freshet.

Water sampling was done at CH-7 Rock Basin (Cuttings Containment Area 1) in 2016 and water quality results were within acceptable limits with the exception of total suspended solids returned at one of the sample locations. As noted in the November 2016 water quality monitoring report “water flow within the rock basin was a small volume and did not reach a down-gradient watercourse.” 2017 was drier than previous years and no water was present for sampling.

#### **Recommendation Comment “A”**

There is no apparent utility for monitoring water quality at withdrawal locations. Water is periodically removed from these locations and there is no water returned. The Chidliak Program is seasonal and these sources may or may not be used annually.

#### **Recommendation Comment “B”**

If water is present in trenches or cuttings containment areas it will be sampled and analysed according to the parameters set out in the water use licence. Subsequent or follow-up sampling will be dependent upon the analytical results.

#### **Recommendation Comment “C”**

The term “water collection locations” is somewhat ambiguous. Does this mean water withdrawal locations (using a pump) or locations where water may accumulate through surficial flow (i.e. trenches)? Furthermore, what precisely do you mean by surface water? Does this mean just permanent water features or all water at all times of the year including the freshet? Please refer to the attached map and the trench plans available on the NWB registry for specific distances between kimberlites, trenches, cutting containment areas and water sources.

#### **Other**

For additional clarity I will update the Bulk Sample Management Plan to include the following

- 1) A map of all locations listed in the Bulk Sample Monitoring Plan



- 2) A notation as to the past and current usage of the cuttings containment/disposal areas. Note that Cuttings Containment Area 1 (CH-7 Rock Basin) already has a description of its past usage.
- 3) A notation that water will be tested in the summer season subsequent to the season in which the work was done.

If you have any questions on these items or require additional information please do not hesitate to contact me at (604) 608-4524.

Yours truly,

**PEREGRINE DIAMONDS LTD.**

David Willis – Manager, Lands & Community

*cc. David Baines, Technical Advisor Nunavut Water Board*



