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#### **APPENDIX 9**

# PEREGRINE DIAMONDS LTD.

# BULK-SAMPLING MONITORING PLAN: CHIDLIAK PROJECT, BAFFIN, NU

Original Plan: 20 September 2011 Revision 1: 03 May 2012

**Revision 2: 22 June 2012** 



# LIST OF REVISIONS: ADDENDUM PAGE

Original Plan: 20 September 2011

Revision 1: 03 May 2012 Revision 2: 22 June 2012

(NOTE 1: Revisions will be identified in the text with a superscript number at the end of the revised or added sentence, phrase or paragraph. Superscript numbers added in future will appear as <sup>1</sup>, <sup>2</sup>, etc.)

(NOTE 2: Revisions denote changes such as programme or date changes, change of phone number, change or addition of personnel, addition of equipment or products, new or adjusted maps and new appendices.)



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## **BULK SAMPLE PLAN - 2013**<sup>2</sup>

#### INTRODUCTION

This Peregrine Diamonds Ltd. (Peregrine) Bulk-Sample Monitoring Plan (the Plan) is in respect of the initiation of bulk sampling of diamondiferous kimberlites of economic potential on the Chidliak Project, South Baffin, NU, in winter 2013<sup>2</sup>. This first bulk sample of at least 3 Chidliak kimberlites which have previously been tested by core drilling, small-diameter, waterless reverse-circulation (Hornet) drilling and/or collection of mini-bulk samples of up to 50 tonnes, will represent the initial phase of a multi-year programme of bulk sampling. This programme was approved by permit and water licence amendment in winter 2012 and thus postponed from the originally-proposed time period of winter 2012.<sup>2</sup>

The programme is intended to be conducted between February and May 2013<sup>1</sup> from the<sup>2</sup> new tent camp, the CH-6 Camp<sup>2</sup>, which will serve bulk-sampling of the CH-6 kimberlite (*cf. Map 1*), and from the existing Discovery Camp, 12km southeast (*cf. Map 1*). Discovery Camp potentially<sup>2</sup> will serve bulk sampling of neighbouring kimberlites, CH-7, CH-1<sup>2</sup>, CH-45, CH-44 and/or CH-31. The existing Sunrise Camp – which can accommodate landing of large freighter aircraft on a lake-ice airstrip – will serve as an additional supply base for freight travelling to or samples departing from site.

This Plan will be in effect from 01 January 2013<sup>2</sup> until 01 January 2014<sup>2</sup>, and is subject to revision and extension as required.

#### **BULK SAMPLE PLAN - 6<sup>2</sup> KIMBERLITES**

The Peregrine sampling plan for the Chidliak Project for 2013<sup>2</sup> allows for collection of 100-200 tonnes of kimberlite from at the least 3 of a total of 6<sup>2</sup> kimberlites within a 16km-long "Bulk Sample Focus Area" (*cf. Map 1*) that extends from CH-6 kimberlite at the northwest of this Area to CH-31 in the southeast. A total of approximately 600 tonnes of chip sample will be collected from between 12 and 15 large-diameter (34cm) drillholes, each drilled to a maximum depth of 250m (range of from 100m to 250m depth).

The goal of the Peregrine sampling plan is to obtain at least 200 carats of diamonds from each kimberlite body sampled in order to allow a preliminary assessment of diamond value – although as little as 50 carats might be collected from some kimberlites, if this smaller sample size can still allow assessment of diamond quality. Confirmed for sampling in winter 2013<sup>2</sup> are CH-6 and CH-7 kimberlites (*cf. Map 1*). Additional sample tonnage to complete the bulk sample could be collected from one or more of the following kimberlites south and southeast of CH-7: CH-45, CH-44 and CH-31 (*cf. Map 1*) and CH-1, approximately 2.25km northeast of CH-7 (*cf. Map 1, Map 3 below*).

It must be emphasised that all work proposed in the Peregrine sampling plan remains within the approved Project Scope area, and no increase in water allotment is sought.

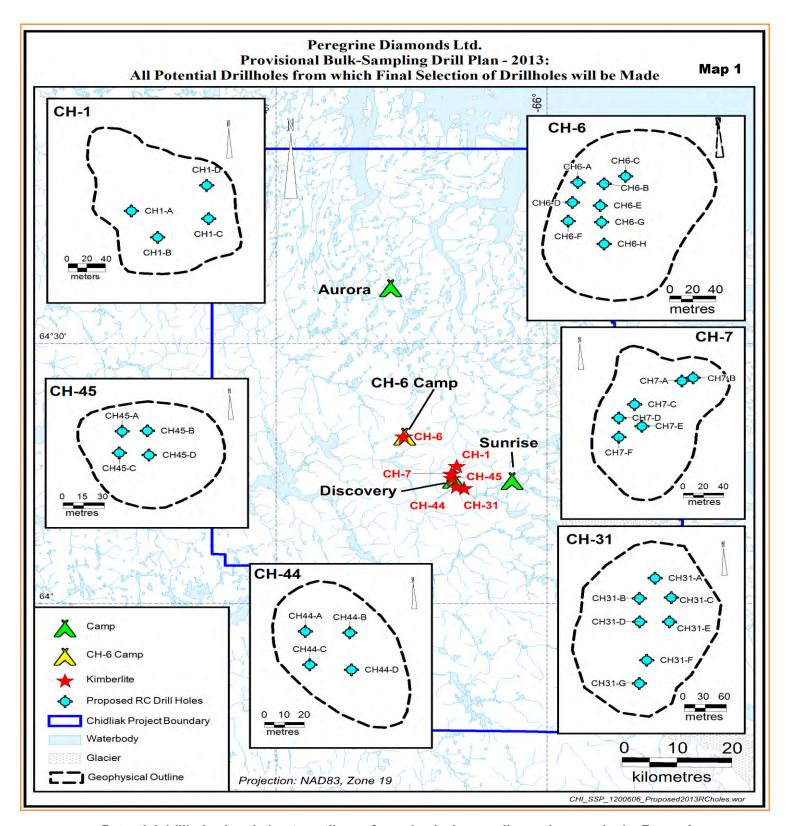
#### Provisional Drill Plan – 2013<sup>2</sup>

The provisional Chidliak Project bulk-sampling plan (the "long list") is itemised in *Table 1;* all potential large-diameter drillhole (LDDH) co-ordinates are presented by kimberlite and listed numerically<sup>2</sup>, from CH-1<sup>2</sup> through CH-45. The final selection of 12-15 LDDH will be made from this "long list" of potential target locations. *Maps 1* and 2 follow *Table 1* below and depict potential drillhole locations. What is known at this time is that CH-6 will be drilled first, followed by CH-7, with the order of drilling of any of the other kimberlites to be determined at a later date. <sup>2</sup>

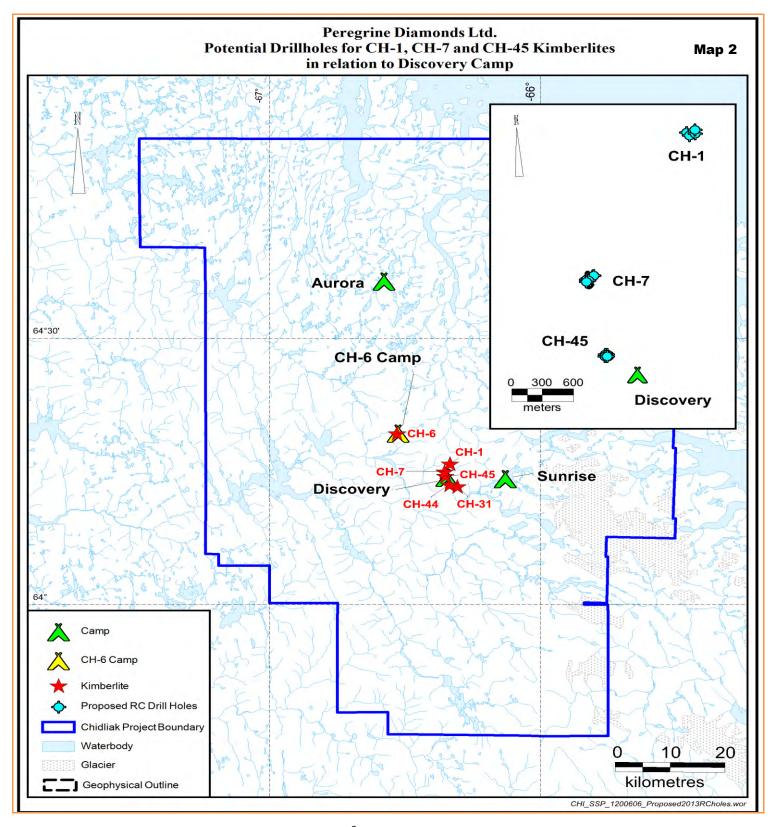
Table 1: Provisional Bulk-Sampling Drill Plan: All Potential Drillholes from which Final Selection of Drillholes will be Made

KIMBERLITE	LDDH#	LDDH CO-ORDINATES WGS84 (Lats/Longs)	TOPOGRAPHY	MAX. HOLE DEPTH
	•			
CH-1 <sup>2</sup>	CH-1-A	64° 15' 52.33" -66° 20' 06.22"	Land	250m
CH-1 <sup>2</sup>	CH-1-B	64° 15' 51.19" -66° 20' 04.22"	Land	250m
CH-1 <sup>2</sup>	CH-1-C	64° 15' 51.89" -66° 20' 00.08"	Land	250m
CH-1 <sup>2</sup>	CH-1-D	64° 15' 53.29" -66° 20' 00.09"	Land	250m
CH-6	CH-6-A	64° 19' 19.16" -66° 31' 47.59"	Land	250m
CH-6	CH-6-B	64° 19' 19.08" -66° 31' 45.89"	Land	250m
CH-6	CH-6-C	64° 19' 19.31" -66° 31' 44.48"	Land	100m
CH-6	CH-6-D	64° 19' 18.49" -66° 31' 48.00"	Land	250m
CH-6	CH-6-E	64° 19' 18.36" -66° 31' 46.21"	Land	250m
CH-6	CH-6-F	64° 19' 17.87" -66° 31' 48.32"	Land	250m
CH-6	CH-6-G	64° 19' 17.80" -66° 31' 46.18"	Land	250m
CH-6	CH-6-H	64° 19' 17.06" -66° 31' 46.09"	Land	250m
CH-7	CH-7-A	64° 15' 2.08" -66° 21' 14.39"	Land	100m
CH-7	CH-7-B	64° 15' 2.19" -66° 21' 13.54"	Land	100m
CH-7	CH-7-C	64° 15' 1.24" -66° 21' 17.95"	Land	250m
CH-7	CH-7-D	64° 15' 0.75" -66° 21' 19.14"	Land	250m
CH-7	CH-7-E	64° 15' 0.40" -66° 21' 17.48"	Land	250m
CH-7	CH-7-F	64° 15' 0.01" -66° 21' 19.20"	Land	250m
CH-31	CH-31-A	64° 13' 21.94" -66° 18' 30.30"	Land	250m
CH-31	CH-31-B	64° 13' 20.84" -66° 18' 32.07"	Land	250m
CH-31	CH-31-C	64° 13' 20.82" -66° 18' 28.72"	Land	250m
CH-31	CH-31-D	64° 13' 19.55" -66° 18' 32.18"	Land	250m
CH-31	CH-31-E	64° 13' 19.50" -66° 18' 29.05"	Land	250m
CH-31	CH-31-F	64° 13' 17.41" -66° 18' 31.62"	Land	250m
CH-31	CH-31-G	64° 13' 16.15" -66° 18' 32.53"	Land	250m
CH-44	CH-44-A	64° 13' 33.52" -66° 20' 12.77"	Land	200m
CH-44	CH-44-B	64° 13' 33.47" -66° 20' 11.12"	Land	200m
CH-44	CH-44-C	64° 13' 32.87" -66° 20' 12.66"	Land	200m
CH-44	CH-44-D	64° 13' 32.75" -66° 20' 11.14"	Land	200m
CH-45	CH-45-A	64° 14' 33.01" -66° 21' 8.09"	Land	200m
CH-45	CH-45-B	64° 14' 33.00" -66° 21' 6.72"	Land	200m
CH-45	CH-45-C	64° 14' 33.00" -66° 21' 8.72	Land	200m
CH-45	CH-45-D	64° 14' 32.30" -66° 21' 6.70"	Land	200m
UП-40	UH-40-D	04 14 32.30 -00 21 0.70	Lanu	200111

Note: Final number of holes to be drilled into the above kimberlites – between 12 and 15 holes (approx.) – will be determined by various factors, including 2012<sup>2</sup> drill results, modelling interpretation, formations encountered, weather and actual site conditions.

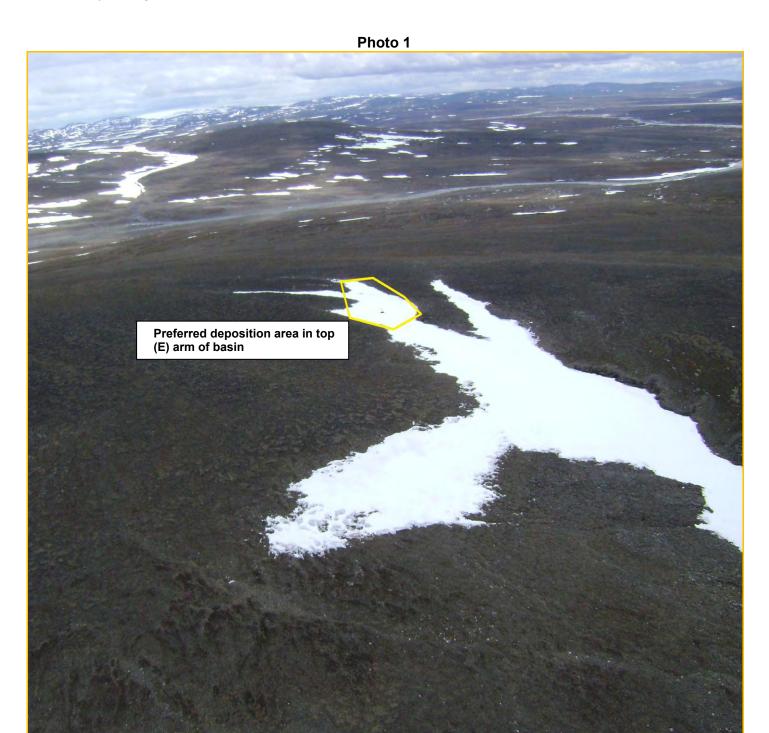


Potential drillholes in relation to outlines of geophysical anomalies and camps in the Focus Area.



Potential drillholes within outlines of CH-7, CH-1<sup>2</sup> and CH-45 kimberlites in relation to the proposed base of operations, Discovery Camp.

For illustration purposes, if one uses a figure of 9 holes drilled in the area (*e.g.*, 6 holes drilled into CH-7 and 3 holes into one neighbouring kimberlite), this could result in a volume of between 3 600m³ and 4 500m³ reporting to the "CH-7 Basin". The cuttings and released water would then filter slowly and naturally through the rock-rubble base of the containment basin.



Cuttings from CH-7 and one or several of CH-1<sup>2</sup>, CH-45, CH-44 and/or CH-31 could be accommodated in this basin, following snow removal from the target deposition area marked above.

#### "Alternative Deposition Area for CH-31 and CH-44: Flat Plateau"

A flat plateau area of approximately 2 000m³ capacity (conservative estimate) was found 1.0km northeast of CH-44. This "Flat Plateau", when encircled by a snow berm for a winter bulk sample², could accommodate cuttings from both CH-44 and CH-31 kimberlites (*Photo 2* below). Using the example provided on Page 7, cuttings of between 400-500m³ per hole x 3 holes drilled into CH-31 and CH-44 would result in a total volume of 1 200m³-1 500m³ reporting to the bermed "Flat Plateau". The cuttings within the snow berm would then thaw slowly over the spring. Water released from the cuttings could be expected to infiltrate into the active soils at this site, *i.e.*, the clean granular glacial till that would naturally filter runoff from the cuttings.



View of terrain in Flat Plateau area proximal to CH-44 and CH-31 which could serve as a deposition area for cuttings from these kimberlites, if encircled by a snow berm. Terrain is typical of the interior of the property, *i.e.*, sparsely vegetated, with rock scatter.

#### "CH-6 Basin"

A suitable rock basin of approximately 4 000m³ capacity (conservative estimate) was found approximately 1.9km west of CH-6; basin depth was estimated at 2-4m. Given removal of snow in advance of bulk sampling and tailoring the natural rocky access approach with packed snow, this rock basin could easily accommodate cuttings from CH-6 drillholes (*Photo 3* below). Using the example provided on Page 7, cuttings of between 400-500m³ per hole x 6 holes drilled into CH-6 would result in a total volume of 2 400m³-3 000m³ reporting to the "CH-6 Basin".





Looking to the east, or upper reaches, of the preferred "CH-6 Basin" from the lower limits. This rock basin could accommodate cuttings from CH-6, following snow removal from the upper reaches (target deposition area).

**Table 2: Preferred Cuttings-Deposition Areas and Volume Capacity** 

DISPOSAL AREA	UTM ZONE	NORTHING – EASTING (mN – mE)	VOLUME – m <sup>3</sup> (est.)	COMMENT
CH-6	19	7 134 913 617 845	4 000	Rock basin: 20m W x 200m L
CH-7 (and 1 or more of CH-1 <sup>2</sup> , CH-45, CH-44, CH-31) *	19	7 129 158 629 399	7 000	Rock basin: 25m W x 300m L
CH-31, CH-44	19	7 125 616 629 729	2 000	Flat Plateau: 100m W x 100 L (requires snow berm)

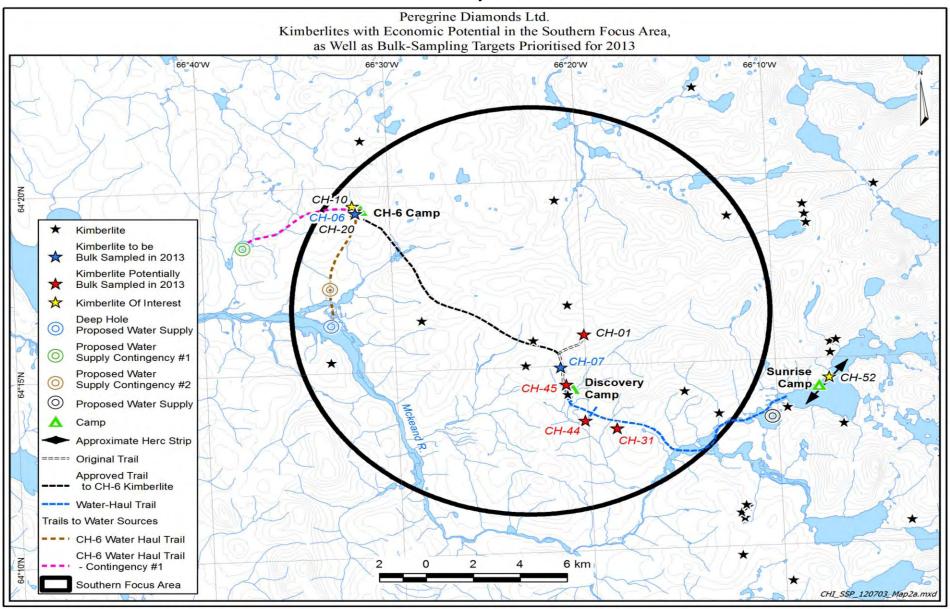
 $<sup>^</sup>st$  Use of this basin also is suitable for CH-1 cuttings, if CH-1 kimberlite is sampled in 2013  $^2$ 

#### WATER SOURCES FOR BULK SAMPLING

Four<sup>1</sup> water sources have been studied to supply the 2013<sup>2</sup> bulk sample and two associated camps (*Map 3*), the existing Discovery Camp (proximal to CH-1<sup>1</sup>, CH-7, CH-45, CH-44 and CH-31) and the new CH-6 Camp<sup>2</sup> (proximal to CH-6). The proposed water sources are: (1) "deep hole" in McKeand River, 5.6km south of CH-6; (2) contingency lake C in a tributary of the McKeand River, 5.0km west of CH-6; (3) contingency lake E, 2.4km north of and on the existing trail to the "deep hole" and (4) lake immediately west of Sunrise Camp Lake, or 12.5km east-southeast of CH-7.

A Challenger 875C pulling a 10 000L water tank mounted on a sleigh will be used to haul water to the drill and to the Discovery and CH-6 camps.

Map 3<sup>2</sup>



Proposed water sources (including a proposed new contingency lake along the already-approved route to the main CH-6 water source)<sup>2</sup> are shown in the Focus Area in relation to kimberlites and the winter-trail network.

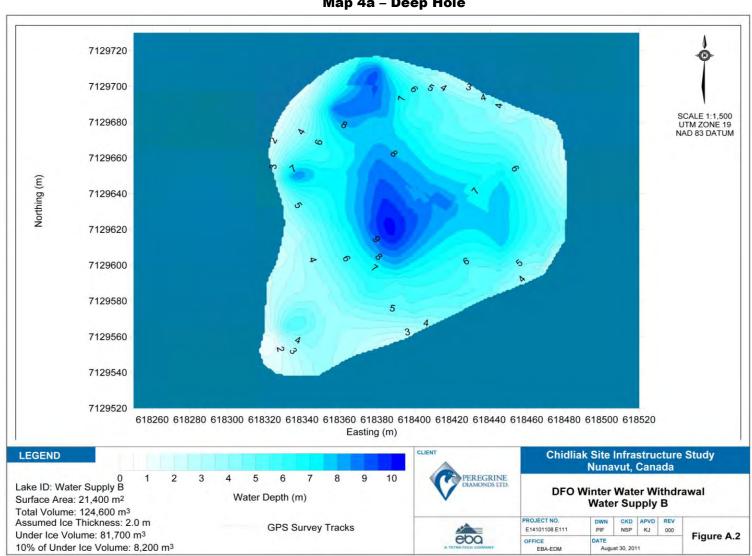
Table 3: Surface Areas and Volumes of 2013<sup>1</sup> Bulk-Sample Water Sources \* (Data<sup>1</sup> from EBA Engineering Bathymetric Survey, August 2011)

WATER SOURCE	SURFACE AREA m <sup>2</sup>	NORTHING – EASTING (in (centroid of deepest-water)		UNDER-ICE VOLUME - m <sup>3</sup>	DEPTH OF DEEPEST WATER (m)
"Deep Hole" – Bathymetric Site <b>B</b>	21 400	7 129 620 618 3	80 124 600	81 700	10.0
"Contingency Lake" – Bathymetric Site <b>C</b>	70 900	7 133 740 614 8	25 135 300	35 400	7.0
Lake W of Sunrise – Bathymetric Site I	1 059 500	7 125 250 637 25	9 264 500	7 462 500	32.0
"Contingency Lake" – Bathymetric Site <b>E</b> <sup>2</sup>	152 100	7 131 400 618 4	210 800	39 500	5.3

DUE CARE FOR WATER WITHDRAWAL: DEPARTMENT OF FISHERIES AND OCEANS

Maps 4a through 4d<sup>2</sup> below depict NWT-NU<sup>2</sup> Winter Water Withdrawal Protocol limits, *i.e.*: Withdrawals under ice per season shall not exceed 10% of total available volume.

Map 4a - Deep Hole



Map 4d – Contingency Lake E  $^2$ 

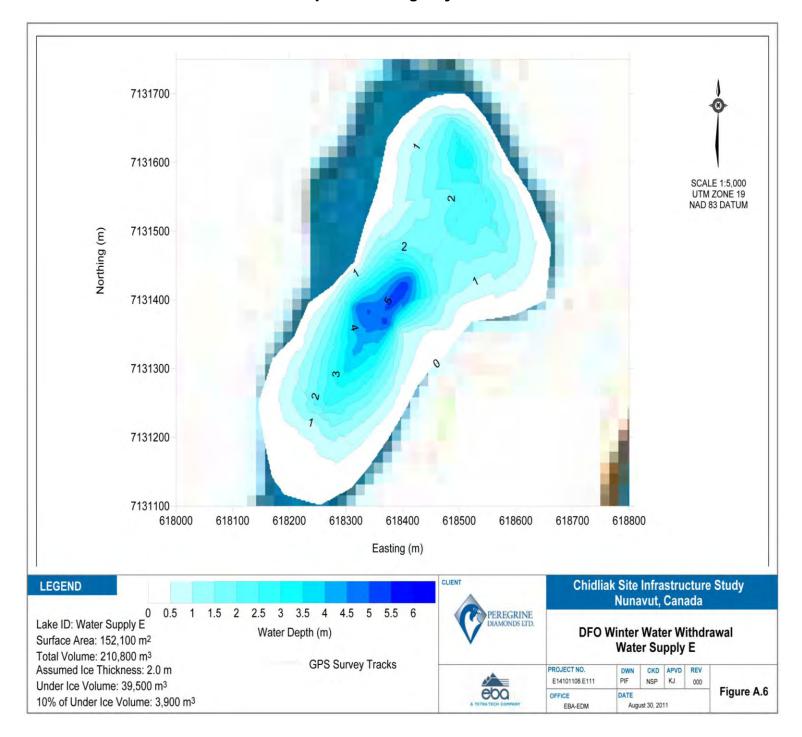


Table 4: Potential Withdrawal Volume for Drilling vs. 10% of Under-Ice Volume of Water Sources \*

WATER SOURCE	TOTAL # OF HOLES (Assumed)	AVERAGE ASSUMED CONSUMPTION PER HOLE – m <sup>3</sup>	VOLUME – m³ FRM SOURCE (7 days/hole)	10 % OF UNDER-ICE VOLUME - m <sup>3</sup>	DRAWDOWN Y or N
"Deep Hole" – Bathymetric Site <b>B</b>	6	15	630	8 200	N
"Contingency Lake" – Bathymetric Site <b>C</b>	6	15	630	3 540	N
Lake W of Sunrise – Bathymetric Site I	9	15	945	746 200	N
"Contingency Lake" – Bathymetric Site <b>E</b> <sup>2</sup>	6	15	630	3 950	N

<sup>\*</sup> If it is further assumed that 5m³/day is consumed for domestic purposes + 20m³/day for misc. uses, such as trail-building/maintenance, the daily overall total would increase to 40m³. Potable + misc. uses, (25m³/day) if exercised for 30 days at either Site B, C or E² would = 750m³. 750 + 630m³ = 1 380m³, still well below drawdown level, if the NWT-NU² standard were applied. Potable + misc. uses, (25m³/day) if exercised for 100 days at Site I would = 2 500m³. 2 500 + 945m³ = 3 445m³, still well below drawdown level, if the NWT-NU² standard were applied.



# BULK-SAMPLING MONITORING: STANDARD OPERATING PROCEDURES (SOPs)

- Removal of Drill Cuttings to Cuttings-Deposition Area
- Fuelling of RC Drill Fuel Tank Bulk Sample Location