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CHIDLIAK PROJECT DESCRIPTION FOR AMENDMENT OF LAND-USE PERMIT AND WATER LICENCE: BULK SAMPLE

Introduction

Peregrine Diamonds Ltd. (Peregrine) operates the Chidliak Project (Chidliak) on a block of 852 mineral claims on the Hall Peninsula, South Baffin Island, NU, approximately 75 km northeast of Iqaluit at the SW corner and approximately 133 km south of Pangnirtung at the northernmost point (*cf. Map 1 below*). Exploration programmes commenced in summer 2008, following issuance of Class A Land-Use Permit *#N2008C0005* by Aboriginal Affairs and Northern Development Canada (AANDC, formerly called INAC) and Type B Water Licence *#2BE-CHI0813* from the Nunavut Water Board (NWB), and have continued to the present (2011). Peregrine also holds current Land Licence *#Q10L1C008* from the Qikiqtani Inuit Association (QIA) for exploration on Inuit-Owned Surface Rights Lands within Chidliak and on the adjoining Qilaq property (*cf. Map 1*). Most components of proposed 2012 exploration on Chidliak already have been screened by the Nunavut Impact Review Board (NIRB) in screening decision *#08AN008* dated 28 March 2008 and 18 December 2008; Peregrine representatives made a presentation on the amendment to NIRB in September 2011, in order to acquaint NIRB with new components. Community consultation in respect of Chidliak has been ongoing since February 2008. Consultation in both Iqaluit and Pangnirtung regarding the amendment components is being scheduled for the week of 21 November 2011.

Purpose of Amendment

Exploration activities at Chidliak since 2008 have resulted in the discovery of 59 kimberlites. In the "Southern Focus Area" of the property (*cf. Map 1*), five kimberlites with economic potential have now been identified as candidates for an initial bulk sample. This bulk sample will be the first in a multi-phase bulk-sampling programme which would be conducted at Chidliak over the next several years. The purpose of this amendment is thus to obtain permission for four new components associated with the bulk sample: (1) additional equipment: a large-diameter reverse-circulation (RC) drill to collect bulk-sample material as chips, and five additional pieces of heavy equipment; (2) expansion of the existing Discovery Camp from 24 to 40 people; (3) establishment of a new, 30-person temporary camp (CH-6 Temporary Camp at 64° 19' 24.76" N lat. – 66° 31' 30.19" W long.) to serve bulk sampling of the CH-6 kimberlite; and (4) expansion of the existing winter-trail network to link camps to bulk-sample sites, water sources and drill-sump locations. (Peregrine already has permission to use several core drills and a lightweight, waterless reverse-circulation Hornet drill under this permit and licence.)

The bulk-sampling programme would be conducted between February and May 2012 on Crown Land and is to be comprised of collection of kimberlite sample from at least three land-based kimberlites with economic potential – or 100-200 tonnes from each, for a total of approximately 600 tonnes from an estimated 12-15 large-diameter (34 cm) drillholes. The goal is to obtain at least 200 carats of diamonds from each kimberlite body 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 quality. The five kimberlites which could be sampled in 2012 are within a 16-km "focus area". Confirmed for sampling are CH-6 kimberlite and CH-7, which is 12km southeast (*cf. Map 2 below*). Additional sample tonnage to complete the bulk sample could be collected from one or more of the following, all within an area of just 3.8 km: CH-45, CH-44 and CH-31 (*cf. Map 2*). All proposed work remains within the approved Project Scope area, and no increase in water allotment is sought.

What sets this programme apart from the core-drilling programmes before it is that most transportation will be via equipment travelling over snow-covered and groomed winter trails rather than via helicopters. Spur trails which will connect to the main trail network will allow collection and transport of water in tanks for drilling and for drinking at CH-6 Temporary Camp and for drinking at Discovery Camp, and transport of cuttings in bags to large natural sumps selected by Peregrine's consulting engineer.

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PROPOSED TIMETABLE

- ***DECEMBER 2011-JANUARY 2012:***
  - -- **Aerial reconnaissance of Sunrise Camp Lake ice, followed by Herc strip construction (7 people) and camp opening (5 people). Drive in 3 pieces of heavy equipment – Sno-Cat, Morooka, Challenger.**
- ***15 FEBRUARY-01 MARCH 2012:***
  - -- **Mobilise by Herc: RC drill, 2 x 10m^3 water tanks, sleds, other equipment, 100 fuel barrels. Camp nos. = 16. Build trail network. Build drill pads. Open Discovery camp (18 people), build Fuel Sation, groom Discovery airstrip for winter landings. Build CH-6 Temporary Camp. Transport drill to CH-6. Close Sunrise temporarily, if possible.**
- ***21 FEBRUARY-21 MARCH 2012:***
  - -- **Drill CH-6. Camp nos. = 30 (CH-6), 10 (Discovery). Close CH-6 camp.**
- ***21 MARCH-01 JUNE 2012*:**
  - -- **Drill CH-7 and one or more of CH-44, CH-31, CH-45, based at Discovery. Camp numbers = 40. Exploration drilling?**
- ***JULY-SEPTEMBER 2012:***
  - -- **Store drill, winter equipment at Discovery. Summer exploration, environmental baseline, archaeology.**

If weather permits, the programme actually may commence in December 2011 or January 2012, utilising already-approved components, *i.e.*, installing of a Herc ice-strip on Sunrise Lake and driving in of the first crucial pieces of heavy equipment via the popular community "Pang Trail" (*cf. Map 5).*

Details of Amendment Component

Component #1: Additional Equipment (Large-Diameter RC Drill, 5 Pieces of Heavy Equipment)

Large-Diameter RC Drill

Rationale:

A CT350 Canterra (Foremost) large-diameter reverse-circulation (RC) drill will be supplied by the drill contractor, Cooper Drilling LLC, and modified to the needs of the project (*cf. Appendix 8 – Additional Equipment*). As is typical in the drilling of kimberlite formations in the North, the drill will use water, with the addition of air via a compressor, to lift the kimberlite chips gently to surface to safeguard against breakage of any diamonds contained in the sample. At only 12 700kg, this rig is relatively lightweight amongst the range of RC drills, and has modest daily water consumption of $15m^3$ (average use during drilling) up to a maximum of $25m^3$ per day at startup and in special circumstances, such as drilling of a difficult formation, if encountered. Maximum depth of a large-diameter drillhole (LDDH) will be 250m, which is within about 50m of the maximum depth of holes drilled during the Chidliak core-drilling programme. The LDDH will be 34cm wide through 41cm-diameter casing; however, if specific hole conditions warrant, LDDH diameter may be reduced to 31cm. The drill rig will have a built-in containment pan underlying all major components. All auxiliary equipment will have containment systems (berms or enviro-tainers).

Obligations already borne by Peregrine with respect to *safe drilling* (separate Safe Work Plan which is authorised annually by the Workers' Safety and Compensation Commission) and with respect to *environmental care* (Peregrine's active Spill Contingency Plan and its active Abandonment and Restoration Plan) will apply to the LDDH drill rig and any additional heavy equipment just as they do to all current drilling and operational equipment.

Details of the drill plan (co-ordinates table of possible targets from which the 12-15 LDDH will be selected), and further details of the drill circuit, cuttings disposal and water sources, as well as several Safe Operating Procedures (SOPs), are presented in *Appendix 9, "Bulk-Sample Monitoring Plan"*.

5 Pieces of Heavy Equipment

Rationale:

Only three pieces of lightweight equipment are currently on site, a CAT 247B Skidsteer, mainly used for moving single drums and light loads at Discovery Camp, and two Kubota Sub-Tractors, Model #BX2660, used for light snow clearing at Sunrise and Aurora camps in 2011. The new pieces of heavy equipment will allow Peregrine to move the RC drill, haul water and fuel, bags of sample, cuttings, other equipment (such as tanks on sleighs), transport crews (when crews are not being transported by helicopter), build and groom trails and airstrips, and groom and maintain the ice airstrip on Sunrise Camp Lake.

The 5 pieces of heavy equipment and their intended uses are as follows:

- Challenger 875C – for hauling water tanks on sleighs, fuel drums on sleighs, the drill, and to clear snow on trails with a blade attachment, if there are areas of drifting..
- Morooka MST 3000 (equipped with deck and picker) – for lifting/hauling bagged cuttings to the cuttings-deposition areas, and will be a backup for the Challenger for moving sleighs and drill.
- 2 CAT loaders -- 930 for unloading freight at Sunrise ice-strip and to assist with strip maintenance; 938 for support to drill programme, moving pipe and other large or heavy items, unloading freight and also movement of cuttings around the rig.
- Sno-Cat BR-350 – for creating/grooming service-trail routes, clearing airstrip, transporting crews (when crews are not transported by helicopter).

Photos and specifications for the equipment are found in *Appendix 8, "Additional Equipment".*

Component #2: Expansion of the Existing Discovery Camp

Rationale:

It is necessary to expand the existing Discovery Camp, located at 64° 14' 00" N lat. – 66° 21' 00" W long., from a 24-person camp to a 40-person camp to accommodate an additional 16 people to serve the needs of the 2012 bulk-sampling programme. (Peregrine already is authorised by AANDC to expand camp numbers to 30 in emergencies). The other key feature of the 2012 expansion is consolidation of all fuelling at a Designated Fuel Station (*cf. Map 3 below).*

An 18m x 12m equipment storage and maintenance shed also will be constructed at Discovery Camp. Prior to seasonal camp closure in September 2011, Peregrine obtained permission from AANDC to erect the shell. The shed will be completed, insulated, wired and equipped with a floor liner and tundra matting when camp reopens for the winter programme. Laydown areas for the RC drill and equipment, and the existing core drills and equipment, are identified on *Map 3 (below).* No increase in the potable-water allotment is necessary for the Discovery Camp expansion. The existing natural airstrip southwest of camp will be groomed for winter use and used to support supply flights of the Twin and DC-3 during the bulk-sampling programme.

Fuel Management for the Bulk Sample

Fuel use, which is not specifically limited under the Chidiak land-use permit, will increase from the 250 diesel drums required for exploration activities in past seasons to approx. 2 000 drums in 2012, due to the shift away from greater reliance on helicopter support to greater reliance on winter ground transport; consequently, helicopter fuel use of 600 drums (as required for exploration activities in past seasons) will decrease to approx. 250 drums. It should be noted that establishment of the Designated Fuel Station at Discovery Camp (*cf. Map 3 below and separate Map 3b elsewhere in this application)* will allow safe, efficient and environmentally-focused cycling of drums through the camps, so that storage of fuels on site will not be appreciably different than storage now: storage will remain within Arctic-rated manufactured berms, 2 new berms will be added at the Fuel Station, and all fuel transfer will occur in a lined drive-in refuelling berm which can be reached by an equipment arm for positioning drums. Empty barrels will be crushed within a designated berm with a steel plate underneath, and bundled or palletised into groups of compacted empty drums regularly removed on backhauls (*cf. Appendix 8, "Additional Equipment").* The Designated Fuel Station will be under the control of a Fuel Specialist and Fuel Specialist Assistant (or their cross-shifts) at all times. (*For further details, please refer to Appendix 10, "Bulk-Fuel Management Facility Monitoring Plan").*

Component #3: New CH-6 Temporary Camp

Rationale:

A new, short-term camp accommodating 30 personnel is necessary for the conduct of the CH-6 kimberlite bulk-sampling programme. In order to complete the CH-6 drilling safely and efficiently within the month allotted, *i.e*., between approximately 21 February and 21 March 2012, in harsh winter conditions, a new tent camp will be established at 64° 19' 24.76" N lat. – 66° 31' 30.19" W long. (*cf. Map 4 below)* during the first few weeks of February 2012. The camp will be sited approximately 600m northeast of CH-6. Water for camp use and drill use will be hauled from one of two water sources, depending on winter trail conditions (*cf. Map 2 below);* sites were selected by an Arctic engineer and surveyed by a bathymetric crew to ensure water sources have sufficient capacity under ice without drawdown. The preferred water source is a "deep hole" in the McKeand River approximately 5.6km south of camp; the alternate water source is a lake on a tributary of the McKeand River approximately 5km west. (Preliminary bathymetric maps of the preferred and contingency water sources are presented in *Appendix 9.)* Camp environs, as well as trails to the water sources and preferred cuttings-deposition areas, also were surveyed by Peregrine's contract archaeologist, and no archaeological sites were found, with the area (sparse to no vegetation and limited water resources) assessed as being of "low" archaeological potential. (Maps with trails and photos of cuttings-deposition areas are presented in *Appendix 9*).

Maintaining All Terms and Conditions already in Effect:
All existing terms and conditions which apply to the existing Chidliak camps will be maintained at the CH-6 Temporary Camp, including potable-water sampling (source water and camp water). Surficial water-quality samples will continue to be collected in summer 2012 at sampling stations which already exist inside and surrounding the bulk-sample focus area.

CH-6 Temporary Camp Profile:
CH-6 Temporary Camp will be set up in the same fashion as the existing camps, with tents on wood frames, dual-chamber Inciner8 incinerator (Model A400 (sec) already approved for the existing camps), waterless Pacto toilets, manufactured Arctic-rated secondary-containment berms and a heli-pad area. A natural aircraft-landing area will be located south of camp and terminate in the winter trail (*cf. Map 4).* Following completion of CH-6 kimberlite bulk sampling, the camp will either be disassembled or closed and secured in case of need for further use in future.

Proposed CH-6 Temporary Camp footprint (similar to that of Discovery Camp in its first year):
- 8 sleeper tents (5m x 5m, or 16' x 16') to accommodate 3-4 persons per tent;
- 1 medic tent/first-aid shack (same dimensions);
- 2 dry tents (same dimensions);
- 1 Pacto tent, 2-3 toilets (same dimensions);
- 1 kitchen tent (5m x 10m, or 16' x 32');
- 1 office tent (5m x 5m, or 16' x 16');
- 1 generator shed (3m x 3m, or 10' x 10');
- 1 incinerator
- 1 fuel berm (divided) or 2 berms (one each for Jet-B and diesel), plus a petrol fuel station;
- 1 heli-pad;
- 1 winter landing strip for Twin aircraft.

Potential footprint: 0.2ha-0.3ha

Component #4: Expansion of the Existing Winter-Trail Network
Rationale:
It is necessary to expand the existing 3.6km-long winter-trail network in order to safely and efficiently support winter bulk-sampling at any/all of the 5 selected kimberlites in 2012 (*cf. Map 2 below)*. The proposed trail segments – which have been flown and ground-checked by Peregrine and its consulting engineer, with preliminary review by its consulting archaeologist – is comprised of the following new sections:
- CH-6 Temporary Camp to trail junction north of CH-7 kimberlite = approx. 11.7km;
- distance between CH-45 kimberlite, and past CH-44 and CH-31, east to Sunrise Camp Lake = approx. 11.33km;
- trail from CH-6 kimberlite to cuttings-deposition area (large rock basin) = 1.9km;
- trail from CH-6 kimberlite to preferred water source = 5.6km;
- trail from CH-6 kimberlite to contingency water source = 5km;
- short spur trail to connect the trail terminus at CH-1 with a cuttings-deposition area (large rock basin) = 200m east of CH-1: it is proposed that cuttings from drilling of CH-7 and any 1-2 other of CH-45, CH44 or CH-31 be deposited into this basin;
- short spur trail to connect CH-44 with a contingency cuttings area to the northeast (flat plateau, which would be encircled by a snow berm, if used) = approx. 830m. (This contingency cuttings area could easily accommodate cuttings from both CH-44 and CH-31.)

Please note that water for Discovery Camp and for drilling of any of the 5 kimberlites except for CH-6 would be drawn from Sunrise Camp Lake and transported along the 11.33km section noted in the list above.

Maintaining All Terms and Conditions already in Effect:
All existing terms and conditions which apply to the existing winter trails will be maintained for the new sections of the trail network. A new SOP for cuttings transport is contained in *Appendix 9.* Fuel management practices are discussed in *Appendix 10, "Bulk Fuel-Management Facility Monitoring Plan".* The existing obligations of vigilance to prevent spills and prompt response should any spills occur, is outlined in Peregrine's updated *"Spill Contingency Plan" (Appendix 7a).*

Other Exploration in 2012

As time and resources permit, continuation of the existing Chidliak exploration programme, apart from the bulk sample, also may occur in winter 2012, consisting of drilling of selected lake-based targets, with associated winter water-quality sampling as per usual. Summer exploration, consisting of core drilling and waterless drilling (Hornet drill already approved), is anticipated to commence in July 2012, with geophysical surveying, prospecting and surficial sediment sampling components as per usual. The summer drill plan remains to be developed.

Consultation Activities

As noted on Page 1, consultation in respect of this amendment is anticipated to occur in Iqaluit and Pangnirtung during the week of 21 November 2011. Site visits for representatives of Iqaluit and Pangnirtung (elders, hunters/trappers, civic representatives) occurred in August 2011.

Environmental Baseline and Archaeology in 2012

Environmental and archaeological baseline surveys will continue in 2012, as in past years since 2009. Final reports of 2011 field surveys will be available in late autumn 2011 or early winter 2012 and will be provided to regulators and local groups at that time.

The comprehensive Peregrine Spill Contingency Plan and Abandonment & Restoration (A&R) Plan have been updated for this amendment and also accompany the submission as stand-alone documents. New monitoring plans – a "Bulk-Sample Monitoring Plan" and a "Bulk-Fuel Facility Management Plan" – also are attached to this application.

Conclusion

A summary page of "takeaway messages" is found on the next page, followed by five maps. A full suite of 13 stand-alone maps accompanies this amendment application.

-- S. Standafer-Pfister, Manager – Regulatory and Environmental Affairs
on behalf of Peregrine Diamonds Ltd. (20 September 2011)

CONCLUSION: KEY POINTS OF UPCOMING 2012 PROGRAMME

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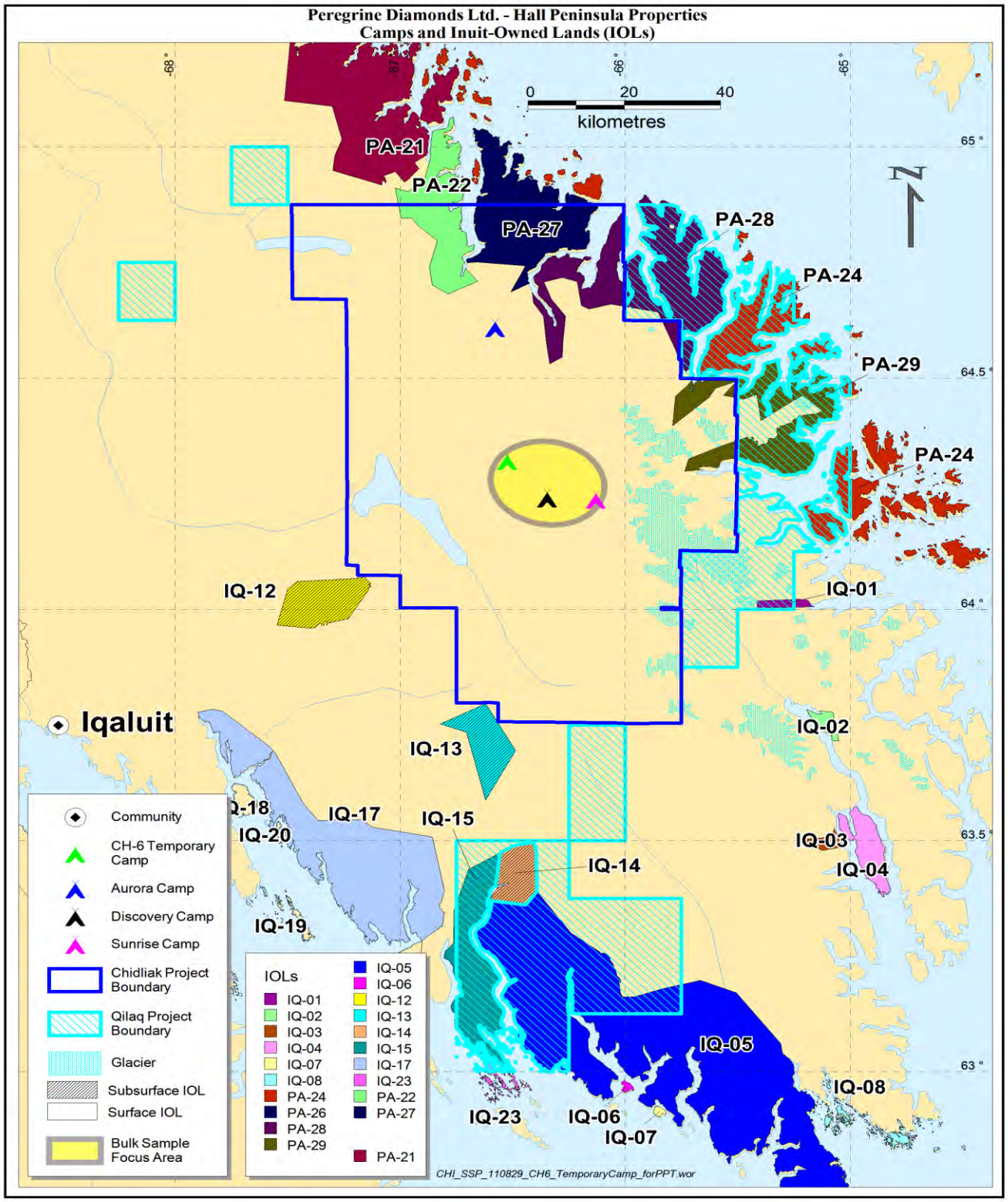
TAKE-AWAY MESSAGES

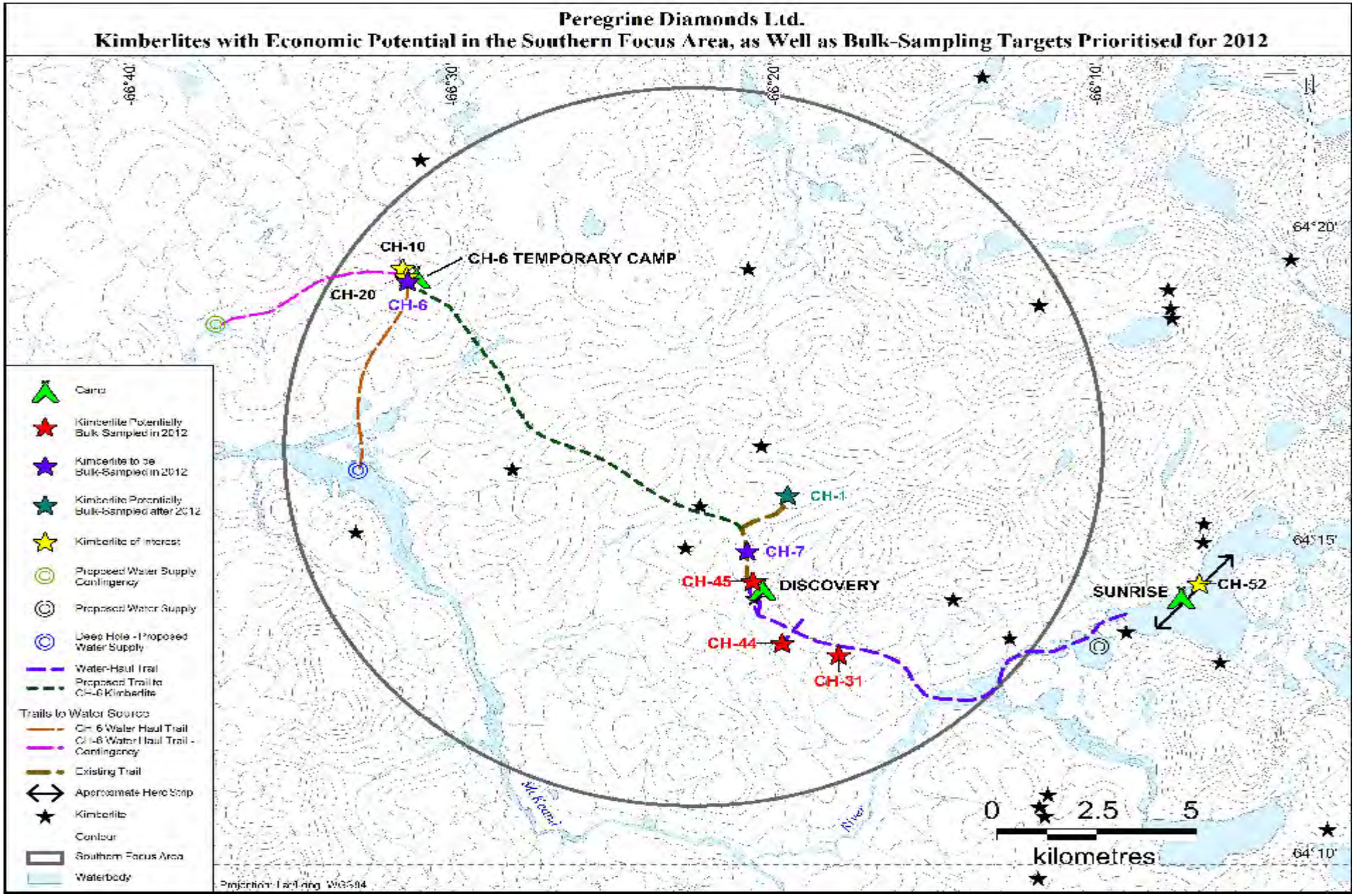
- **Few new components**: 1 new drill, 5 new pieces of heavy equipment, new temporary camp, new additions to existing trail network and expansion of existing Discovery Camp.
- **Sampling** of up to **5** kimberlites within already-authorised work area.
- **Shift** to greater reliance on ground transport.
- **Winter bulk-sampling** lessens potential impact to environment and archaeological sites, thus offsetting greater reliance on ground transport.
- **Exploration** activities may continue as time, resources permit.
- **Environmental-baseline, water-quality sampling, archaeology** will continue.
- **Focus on environmental care and safety** will continue.
- **Local consultation, local hiring and use of local services** will continue.
- **Emphasis on seeking advice from our regulators, working co-operatively** will continue.

MAP 1



Chidliak Project with proposed Bulk Sample Focus Area and proposed CH-6 Temporary Camp, at centre of Hall Peninsula, South Baffin.

MAP 2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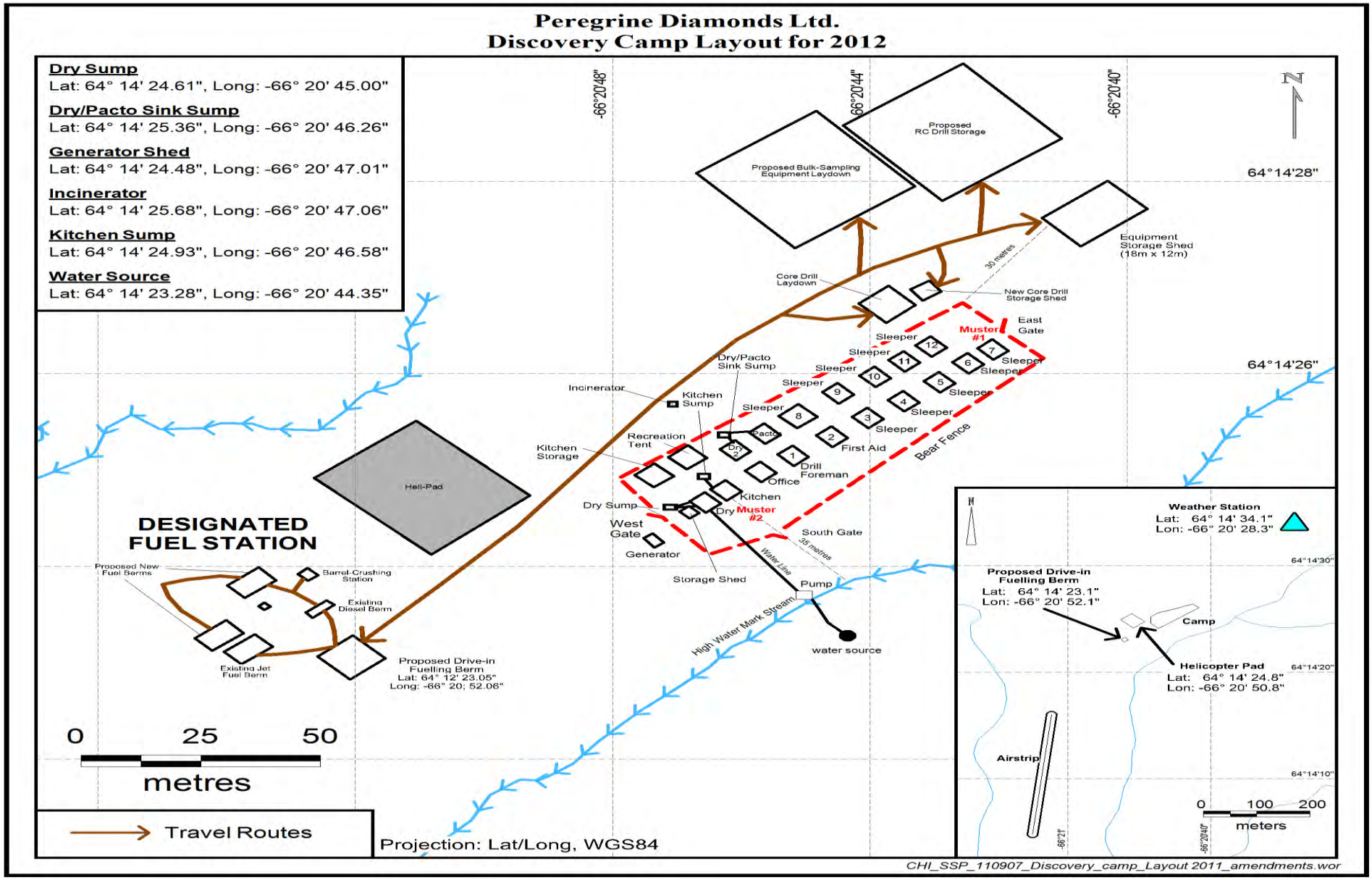
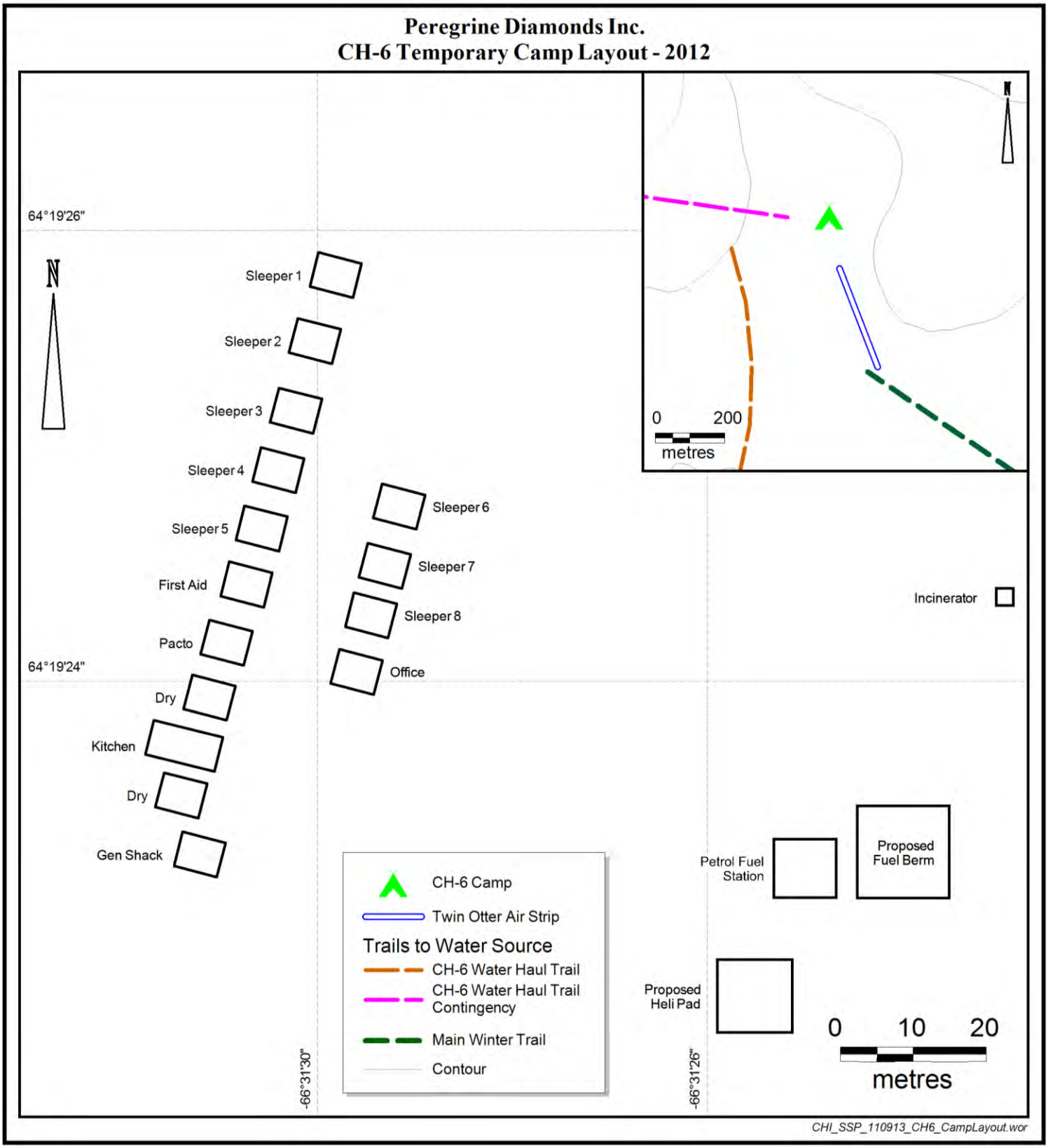
Kimberlites with Economic Potential in the Southern Focus Area, as Well as Bulk-Sampling Targets Prioritised for 2012
CH-10
CH-6 TEMPORARY CAMP
CH-20
CH-6
CH-1
CH-7
CH-45
DISCOVERY
CH-44
CH-31
SUNRISE
CH-52
64°20'
64°15'
64°10'
0
2.5
5
kilometres
Camp
Kimberlite Potentially Bulk Sampled in 2012
Kimberlite to be Bulk-Sampled in 2012
Kimberlite Potentially Bulk-Sampled after 2012
Kimberlite of Interest
Proposed Water Supply Contingency
Proposed Water Supply
Deep Hole - Proposed Water Supply
Water-Haul Trail
Proposed Trail to CH-6 Kimberlite
Trails to Water Source
CH-6 Water Haul Trail
CH-6 Water Haul Trail - Contingency
Existing Trail
Approximate Heli Stop
Kimberlite
Contour
Southern Focus Area
Waterbody
Projection: LatLong WGS84

MAP 3



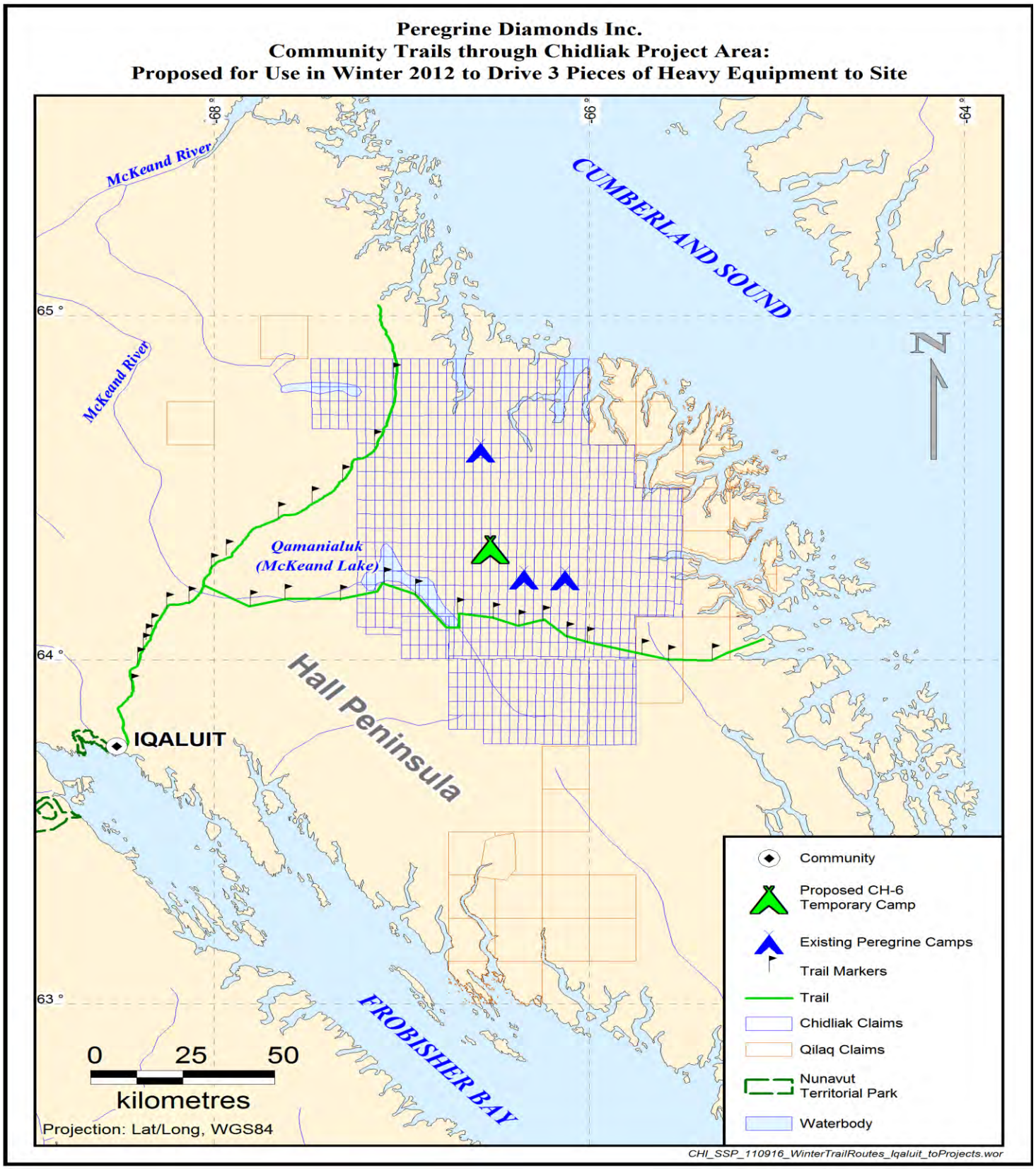
Key features of Discovery Camp expansion: 4 new sleep tents and consolidation of fuelling in a Fuel Station.

MAP 4



CH-6 Temporary Camp would be used to support winter bulk-sampling of CH-6 kimberlite approx. 600m SW.

MAP 5



Existing local trail through Chidliak could be utilised to drive in 3 pieces of heavy equipment.