# PEREGRINE DIAMONDS LTD. CHIDLIAK PROJECT DESCRIPTION FOR WATER LICENCE

#### INTRODUCTION

Peregrine Diamonds Ltd. (Peregrine), a Canadian company with headquarters in Vancouver, acquired the new Chidliak Property (the property) on South Baffin Island, NU, when Indian and Northern Affairs Canada (INAC) awarded the 35 permits comprising the property on 01 February 2007. In order to carry out exploration activity requiring a water licence, Peregrine is submitting an application to the Nunavut Water Board (NWB) for a Type B Water Licence. In addition, Peregrine also is submitting two land-use applications – one to INAC to allow exploration on Crown land and one to the Qikiqtani Inuit Association (QIA) to allow exploration on Inuit-Owned Land (IOL). Most activity (approximately 85%) will occur only on Crown land.

#### STATUS OF PERMITS AND AUTHORISATIONS

Peregrine currently holds 35 federal Prospecting Permits, numbered 7242 through 7276 (cf. MAPS 1-2, FIGURES 1-2). The property totals 587603 ha. Four surface IOL parcels intersect the following 12 Prospecting Permits: PA-22 (7274, 7270, 7269 and 7273), PA-27 (7273, 7276, 7275 and 7266), PA-28 (7268, 7266, 7276, 7265 and 7275) and PA-29 (7246, 7247 and 7245). Some Prospecting Permits are intersected by more than one IOL.

Application is being made to the NWB for a Type B water licence; a term of 5 years in being requested, from 03 March 2008 to 03 March 2013. Approval will be sought for water use associated with activities proposed under the land-use permits, which are discussed in this Project Description.

There are no permits or licences currently in force. Peregrine is thus seeking an INAC Class A Land-Use Permit (provisionally commencing on 03 March 2008) and a QIA Land Licence I (provisionally commencing on the same date). It is requested that the permissible activities under the two-year INAC permit include operation of a base camp and diamond drilling, as well as associated airborne and ground geophysics, and surficial sediment sampling. Activities are discussed in this project description. It is requested that the permissible activities under the one-year QIA Land Licence I include airborne and ground geophysics, as well as surficial sediment sampling. Prior to commencement of the programme in June 2008, Peregrine also will obtain an Extended-Hours Permit from Nunavut Labour Standards.

#### PROPOSED ACTIVITIES AND THEIR NECESSITY

In order to determine if the Prospecting Permits area holds economic potential, active exploration comprised of prospecting, surficial sediment sampling, airborne and ground geophysical surveying (2008-2009) and exploratory drilling/sampling of numerous targets over a number of years is necessary. Without this level of care and effort, new kimberlite ore bodies, which may host diamonds, will not be discovered and potential economic resources for Nunavut and Canada will remain unproven.

The remote location of the property (*Figure 1*), harsh terrain and weather conditions, a highly variable window for fieldwork and short summers mean that many more field seasons are required to find, test, analyse and understand resources than would be required in southern Canada; further, the cost of carrying out a field programme in the Arctic is high, which can mean that there may be occasional years in which no programme is conducted at all. Oftentimes, a Prospecting Permit of 3 years (in the case of this property) is insufficient to "source" multiple mineral indicator trains across a large area and conduct testwork, and thus exploration may continue for further years by converting selected areas of the property into mineral claims.

# Camp Operation - Crown Land

A seasonal tent camp will be established in Prospecting Permit #7251 in the south end of the property (*Map* 3 and *Photo 1*) in NTS 26B/01 (64° 14' 00" N lat. – 66° 21' 00" W long.); the area was previously used for prospecting and sampling associated with identifying the general area of interest. Setup will commence around 01 June 2008, depending on receipt of the new permits and water licence. The area was chosen for presence of a stream nearby, as well as a level, gravel area, which will accommodate landing of a Twin Otter on wheels. The camp will accommodate 15 persons (4 sleep tents), a kitchen, dry, office, first-aid shack, coreshack, generator shed, pit privy or latrine with 2 waterless Pacto toilets and an incinerator (or burn barrel), as well as a helicopter landing area and camp-based fuel cache.

During the programme, the existing campsite will be kept clean and orderly, to discourage wildlife visitation.

#### Geophysics 2008 - Crown Land and Identified IOL Parcels

(cont.)

A helicopter-borne geophysical survey of approximately 25000 line km (magnetics and electromagnetics [EM]) is intended to occur between approximately 08 June and 30 August 2008 (allowing 12 weeks, including weather days), followed by ground geophysics to approximately 25 September 2008. One hundred metre line spacing is intended. Potential contractor is Fugro SESL Geomatics Ltd., (offices in Alberta and Yellowknife).

Neither airborne nor ground geophysics require use of water. In no case would there be disturbance to any watercourse. No garbage will be left behind in the field at the end of the survey shift.

# Sediment Sampling Programme 2008 - Crown Land and Identified IOL Parcels

Following the geophysical surveys, a surficial sediment sampling programme will be conducted, as/if time permits. Number of samples is currently unknown, but could be on the order of 200, in order to better define mineral indicator trains. This helicopter-supported programme would consist of 2 teams of 2 samplers each. No garbage will be left behind in the field at the end of the survey shift.

Overall, the 2008 field programme is expected to conclude around 25 September, weather permitting. All dates provided are guidelines only and are subject to adjustment, based on variables such as contractor availability, equipment and weather.

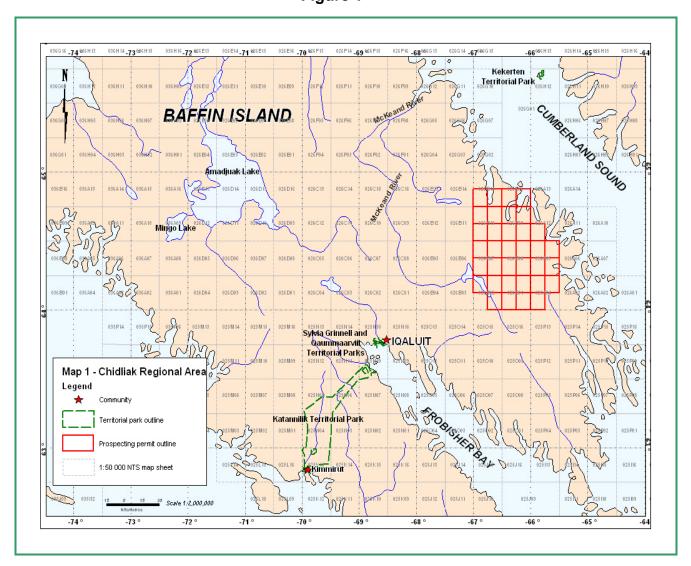
### **Drill Programme 2009 – Crown Land**

Depending on 2008 results, test-drilling of targets on Crown land could occur over an approximately 6- to 8-week period in summer 2009. Drilling would be by means of a heliportable diamond-drill rig, such as a Boyles 25 or Boart Longyear LF-70. Information on potential drillhole locations cannot be known in advance, but will be supplied to regulators (INAC and NWB) prior to a programme occurring. If a water-licence or land permit amendment is required, this will be sought in advance.

No drilling is contemplated on IOLs; should this be planned, application will be made for a new QIA land licence.

It should be noted that plans beyond 2008 are necessarily highly speculative and subject to change, depending on results and year-to-year budgets; whilst a programme may prove successful, there is also the possibility that a programme may prove unsuccessful, which is a disincentive to further work. INAC, the NWB, QIA and area residents shall be kept fully apprised as plans evolve.

Figure 1



Regional map shows the 35 Prospecting Permits of the Chidliak Project, which are located on South Baffin Island in NTS mapsheets 26A and 26B. Iqaluit lies approximately 85 km SW of the SW corner of the property block and Pangnirtung (beyond the boundary of this map) lies approximately 133 km N of the NE corner of the property block. Kimmirut is located approximately 215 km SW.

Figure 2

# PEREGRINE DIAMONDS LTD. PROSPECTING PERMITS - CHIDLIAK PROJECT

PERMIT						
#	NTS SHEET	QUADRANT	ZONE	HECTARES	DATE ISSUED	DURATION (YRS.)
7040	004/04	NE	OON	16.071.706		2
7242	26A/04	NE NE	20N	16,971.706	01 February 2007	3
7243	26A/04	NW	20N	16,971.706	01 February 2007	3
7244	26A/04	SW	20N	16,971.706	01 February 2007	3
7245	26A/05	NE	20N	16,819.140	01 February 2007	3
7246	26A/05	NW	20N	16,819.140	01 February 2007	3
7247	26A/05	SE	20N	16,819.140	01 February 2007	3
7248	26A/05	SW	20N	16,819.140	01 February 2007	3
7249	26A/12	SW	20N	16,666.169	01 February 2007	3
7250	26B/01	NE	19N	16,971.706	01 February 2007	3
7251	26B/01	NW	19N	16,971.706	01 February 2007	3
7252	26B/01	SE	19N	16,971.706	01 February 2007	3
7253	26B/01	SW	19N	16,971.706	01 February 2007	3
7254	26B/02	NE	19N	16,971.706	01 February 2007	3
7255	26B/02	NW	19N	16,971.706	01 February 2007	3
7256	26B/02	SE	19N	16,971.706	01 February 2007	3
7257	26B/07	NE	19N	16,819.140	01 February 2007	3
7258	26B/07	NW	19N	16,819.140	01 February 2007	3
7259	26B/07	SE	19N	16,819.140	01 February 2007	3
7260	26B/07	SW	19N	16,819.140	01 February 2007	3
7261	26B/08	NE	19N	16,819.140	01 February 2007	3
7262	26B/08	NW	19N	16,819.140	01 February 2007	3
7263	26B/08	SE	19N	16,819.140	01 February 2007	3
7264	26B/08	SW	19N	16,819.140	01 February 2007	3
7265	26B/09	NE	19N	16,666.169	01 February 2007	3
7266	26B/09	NW	19N	16,666.169	01 February 2007	3
7267	26B/09	SE	19N	16,666.169	01 February 2007	3
7268	26B/09	SW	19N	16,666.169	01 February 2007	3
7269	26B/10	NE	19N	16,666.169	01 February 2007	3
7270	26B/10	NW	19N	16,666.169	01 February 2007	3
7271	26B/10	SE	19N	16,666.169	01 February 2007	3
7272	26B/10	SW	19N	16,666.169	01 February 2007	3
7273	26B/15	SE	19N	16,515.221	01 February 2007	3
7274	26B/15	SW	19N	16,515.221	01 February 2007	3
7275	26B/16	SW	19N	16,515.221	01 February 2007	3
7276	26B/16	SW	19N	16,515.221	01 February 2007	3

TOTAL: 587,603 (rounded)

#### **DURATION OF PROJECT**

The maximum length of time for a permit is requested – that being two years for an INAC Class A land-use permit – from 03 March 2008 to 02 March 2010, with the option for a one-year extension. Similarly, a one-year Land Licence I is being requested from the QIA, with the dates of 03 March 2008 to 02 March 2009.

#### **METHOD OF TRANSPORTATION**

A helicopter (e.g., an A-Star or Hughes 500D with pilot and engineer would be based at the camp to support the 2008 programme throughout and be available for emergency transport, if required. Fixed-wing service will be required to mobilise, supply, resupply and demobilise the camp and to transport samples, if collected. It is expected that fixed-wing services will be provided by Unaalik Aviation of Iqaluit. All fixed-wing traffic will be to/from the natural-gravel airstrip beside camp. The airstrip co-ordinates will be supplied, once camp is established. Supply flights will occur approximately two times per week from Iqaluit.

Around camp, transportation will be by snowmobile when winter conditions occur, with komatiks used for loading/offloading and transferring fuel to tent drums – not for overland travel away from camp.

Due to the remote location, there are no viable alternatives to the aforementioned modes of transportation.

# **CAMP AND STRUCTURES**

A camp will be set up at the location of the former prospecting camp (*Photo 1*); no permit was required for the short-term prospecting camp. The new camp to be set up will accommodate 15 persons and be located 30m to 50m from the stream which will be used to supply potable water. The camp will consist of an office, kitchen, dry (for washing and laundry), coreshack, generator shed, first-aid shack, outhouse (with a pit privy or 2 Pacto waterless toilets) and 4 sleep tents. It is expected that 2 generators will be brought to site, one to serve as a spare during oil changes and other maintenance. Potable water would be drawn from the unnamed stream through a screened waterline to prevent entrainment of fish, and water circulated via flexible-hose piping (heated with coil heating, if required) linking the kitchen and dry, with greywater from the kitchen and sinks/shower outfalling to a hand-dug sump pit. Only biodegradable phosphate-free soaps will be used. Pacto bags from the latrine and kitchen waste will be incinerated daily (or burned in a burn barrel rigged with a flue for combustion) to limit animal attraction to the camp. There will be no structures erected away from camp.

An electrified bear fence (supplemented by Inuit bear monitors) will be installed to protect camp inhabitants.

#### **FUEL STORAGE**

All fuel-handling, whether for camp, surveying or sampling, will be governed by the current Peregrine Spill Contingency Plan and Emergency Response Plan (accompanying this application as Appendix 7a and 7b, respectively, and as stand-alone Plans).

A fuel storage area (diesel and Jet-B drums, segregated from each other) will be located beside the camp, sited the required distance from the stream. A helicopter landing area will be designated; Jet-B drums will be positioned there, with empties separated from full drums and removed on backhauls. A separate storage area will be created for diesel drums, with empties removed on backhauls. Cylinders of propane (45kg size) will be stored by the kitchen and dry in an upright and secure position; empty cylinders will be removed on backhauls.

Approximately 200 drums of diesel (heating fuel and fuel for generators and pumps) will be required for the 2008 programme. Empty drums will be rotated out regularly on backhauls. It is estimated that 8 drums of petrol (unleaded gasoline) will be required for snowmobiles (early part of the programme only). Aviation-fuel use (including for the airborne survey) is estimated at 300 barrels. All fuels will be flown in. Oils required for the generators, pumps and snow machines (typically 1- and 2-L size) will be stored in the generator shed. Propane cylinders (45kg size) will be chained and properly maintained beside the kitchen and dry, with empties bled and backhauled.

A spill-kit drum (set of pads, socks and/or pillows, disposal bags, gloves, goggles, Spagh-Zorb or peat moss, depending on kit manufacturer) will be present in camp, with a second kit at the fuel/heli-pad area. Copies of the Nunavut Spill Report Form (Appendix 3) will be available at the camp and aboard the helicopter. Additional absorbent pads and drip pails or pans will be present where fuel is transferred and under stationary equipment. Fuel transfer will be by means of hand wobble, electric or diesel fuel pump. Wooden cribs will support fuel drums at tents and shacks (or metal prefab cribs), with absorbent padding and catch pails placed directly under drum valves; pails, fuel-line hoses, connections and valves will be checked daily, and the pails shovelled free of snow, if required.

#### POTABLE WATER, GREYWATER AND WASTES

Potable water will be pumped to a holding tank in the dry, supplied by poly-line inserted into the stream nearby; suction line will be suitably screened to prevent entrainment of fish. Greywater line is to be coil-heated, as required, and will outfall from the kitchen sink and lavatory basin and shower to a hand-dug or natural-depression sump (typical dimensions are 1m X 1m X 1.5m); sump contents will be treated with Javex, if required, to control odours which could attract wildlife in warmer weather. The sump will be covered in snow periods to prevent its being filled with snow. Kitchen waste will be incinerated (or burned in a retrofitted burn barrel) at least daily. Where practical, cardboard boxes and packing will be recycled and office paper reused. No Styrofoam cups or dinnerware will be used. No food scraps or other refuse will be left at the worksite; what is packed in for a shift will be packed out.

An outhouse will be constructed with 2 Pacto toilets or a pit privy. Bagged wastes will be incinerated daily, along with other combustibles, in a fuel-fired incinerator or burn barrel positioned at the edge of the camp compound. Non-combustible garbage, including metal waste and other bulky scrap, aerosol cans and batteries, will be flown out for recycling or disposal at the Iqaluit landfill. Waste oil/filters/oily rags and waste fuel will be stored in marked, discrete drums and flown out for proper disposal via a contractor.

## POTENTIAL IMPACTS OF CAMP

Potential impacts of the Chidliak exploration camp locally, regionally and to the hamlets of Iqaluit (85 km away) and Pangnirtung (133 km away) are predicted to be minimal, given Peregrine's commitment to regulatory requirements and its Environmental Policy, as well as the remote location.

The camp will amount to only a few hectares (4 ha are being applied for, for each land permit), and the period of activity during any one year will be limited to approx. four or five months in total. Although any human habitation, whether an outfitter's camp or an exploration camp, could possibly result in inadvertent localised fuel spills, or untidy conditions which could in turn result in animal attraction and subsequent damage to property or injury to persons, it must be noted that such occurrences can be successfully controlled by constant vigilance of camp systems and practices. As per best practice, and guided by the Peregrine Environmental/Sustainability Policy (cf. Appendix 1), all camp occupants are trained in environmental awareness, proper fuel handling, and in spill and fire response, as well as in safety responsibilities and reporting. Weekly meetings also are held in camp.

All camps not in use are properly closed, and areas where use is completed are reclaimed (also cf. Abandonment and Restoration Plan, Appendix 6). In compliance with the principles of prevention and continuous improvement, regular in-house inspections are conducted to augment the daily checks performed by the camp attendant during his/her rounds.

A site visit also may be organised for representatives of the closest communities, if communities so request.

Should the project advance toward evaluation in 2010, collection of environmental baseline data will commence. Initial studies would include such components as water quality (vicinity of a deposit) and wildlife survey, as well as an archaeological survey.

The health and well being of wildlife is of great concern to Peregrine in all its operations, in keeping with the anticipated intent of the South Baffin Caribou Management Plan now in development. If numbers of caribou or, less likely, a polar bear travelling far a field under summer conditions, should enter an area where work is proceeding, all optional work will cease until the animals have moved on; in a camp context, this would mean foregoing optional operation of equipment, such as takeoff of helicopters. Wildlife will not be approached or disturbed by persons on foot or via equipment. A Wildlife Sighting Form (Appendix 5) routinely used at Peregrine camps will be employed. Peregrine is aware of the general importance of glaciofluvial and glaciolacustrine landforms and elevated landforms such as ridges, to wolves, foxes and prey mammals, and limits habitat disruption wherever possible. Ferry flights between survey or sampling sites and camp will be flown at 300m altitude or higher. Survey flights which are required to be flown at low altitudes in order to record data via on-board instruments will in all cases be sensitive to avoidance of animals occupying an area destined for survey; aggregations will be avoided until the animals have moved on.

Although most of the Chidliak property is located inland, Peregrine will nevertheless be guided by findings of polar-bear surveys (2005-2007) from Nunavut Wildlife Division in Igloolik, which will be used in programme planning. Peregrine also has requested similar data in respect of bird species from the Canadian Wildlife Service and Environment Canada in Iqaluit. Peregrine realises that wolves and wolverine may be found throughout South Baffin, and will exercise strict control of garbage in camp, and will employ an electrified fence. Such items as food scraps and oily rags and absorbents used around field helicopters will be packed back to camp for proper disposal, not left behind.

It is understood that archaeological and heritage resources also may be impacted by camp activities. To that end, camp personnel and contractors will be required to follow an Archaeological Protocol (*Appendix 4*). Peregrine has made a request to the Archaeology division of the Department of Culture, Language, Elders and Youth in order to obtain co-ordinates of any known sites in the project area, for purposes of avoidance. (Any site information obtained would be kept confidential and not shared with the public). There are no known deposits of carving stone.

#### SPILL CONTINGENCY PLAN

The accompanying Peregrine Spill Contingency Plan is informed by Peregrine's commitment to avoiding spills where possible, prompt action when spills occur and utmost concern for the environment, human health and safety. The Peregrine Environmental/Sustainability Policy (*Appendix 1*) is available to field staff and contractors digitally and in hard copy for reference and for training purposes. The Spill Contingency Plan (*Appendix 7a*) and complementary Emergency Response Plan (*Appendix 7b*) also accompany this submission as stand-alone plans.

#### **BENEFITS TO INUIT**

In all its projects, Peregrine hires locally to the extent possible. As the Chidliak Project is at the early-exploration stage, there are fewer opportunities for non-technical employment than with a more advanced project; however, opportunities for service provision do exist each work season, and such opportunities (e.g., hotel accommodation, aviation services, expediting/supply, groceries and logistics) result in direct dollars to communities. Currently, it is planned that 2 or more South Baffin residents will be hired as camp staff for the 2008 programme. Various South Baffin services also will be used (e.g., Qikiqtaaluk Corporation), and such use is expected to continue in 2008 and beyond, expanding as and if the programme expands.

Peregrine also plans to commence community visits for this project. Iqaluit and Pangnirtung will be visited by Peregrine as soon as possible, on a date that is convenient to community residents, with followup provided after programmes are finished. If and when the project expands, opportunities for direct employment, service provision and other benefits also will expand. Whatever the project outcome, Peregrine looks forward to a co-operative and mutually beneficial relationship with the citizens of the South Baffin, principally the closest communities of Igaluit and Pangnirtung.

Prepared: 28 December 2007 Shirley Standafer-Pfister (contractor) on behalf of Peregrine Diamonds Ltd. – Nunavut Exploration