

APPENDIX TO NUNAVUT WATER BOARD

WATER LICENCE APPLICATION

3. Main Components of Undertaking

De Beers Canada Exploration Inc. is proposing that a tent camp for up to 20 people be constructed near the southwest corner of an un-named lake at latitude 70° 24' N and longitude 80° 30' W. The duration of the camp will be from approximately June 20 to August 31, 2002 with soil sampling and geological mapping undertaken on the Crown land adjacent to this location using two helicopters. The purpose of work in the area is exploration for kimberlites which are the host rock for diamonds. De Beers has a number of exploration permits in the area surrounding the proposed campsite where it would like to conduct kimberlite exploration. (Exploration permits 2405 to 2535: 131 permits)

With respect to Inuit Owned Lands (IOL's) administered by the community of Igloolik, Pond Inlet and Artic Bay, the De Beers exploration program will affect the following IOL's: IG-10, IG-13, IG-14, IG-22, IG-25, IG-26, IG-29, AB-01, AB-02, PI-13, PI-15, PI-17, PI-18, PI-19 and PI-48. It is unlikely that De Beers will conduct any sampling within these IOL's located on the southern coast of Baffin Island during 2002, but geologists may walk across the IOL's or fly across them to gain access to other areas of Crown land where sampling may be undertaken.

The camp will be serviced by twin otter aircraft equipped with tundra tires which will land on a temporary landing strip next to the campsite. We do not intend to use any heavy equipment to prepare the landing strip, other than remove some larger stones or rocks from the soil so that the aircraft can land safely. The total area encompassing the campsite, fuel storage area and aircraft landing strip is approximately 4 hectares.

The sampling in 2002 will consist of soil sampling with 2 man sample teams flown by helicopter from site to site collecting samples. A soil sample will consist of about two gallons of soil collected from the ground surface every 2 to 5 kilometres. At each site, De Beers will ensure that no litter is left behind, and that the sample hole is filled in once again before leaving the site. The samples will be flown back to the campsite and then flown by aircraft to Igloolik where they will be shipped south on the sealift for analysis in De Beers' laboratory in Sudbury, Ontario.

The camp will consist of up to 10 Weatherhaven style tents with wooden floors. Water for the camp will be drawn from the lake using a submersible pump and will be stored in a temporary storage tank at the camp for use in the kitchen and in wash facilities.

Grey water from the kitchen and shower facilities will be disposed of in gravel-lined sumps at the camp. Human waste will be disposed of in a pit privy. A portable diesel powered generator will supply power to the camp. All garbage from the camp will be flown from the work area and disposed of in the municipal landfill at Igloolik.

An Inuit wildlife monitor will ensure the safety of the camp's residents.

At the end of the field season it is proposed that the camp be decommissioned but the tents be left standing as De Beers intends to use the campsite once again in 2003 in order to complete more soil sampling and geological mapping in the area. It is also

proposed that up to 50 drums of sealed Jet-B helicopter fuel be stored at the campsite for further helicopter work in 2003.

3a. Project Summary

De Beers Canada Exploration Inc. (DBCEI) is a Canadian diamond exploration company which has explored for kimberlites (the host rock for diamonds) in the NWT and Nunavut since the early 1990's. In 2002, DBCEI was awarded a number of prospecting permits on north-central Baffin Island. Earlier work by De Beers in the area during the summer of 2000 consisted of widely spaced reconnaissance sampling. The proposed 2002 program will be a continuation of this work, concentrating in the area covered by the prospecting permits on the interior of the island roughly halfway between Igloolik and Pond Inlet. Much of the work this year will be conducted on the interior of Baffin Island, away from the coast. The following Inuit owned lands (IOL's) administered by Igloolik are affected by this planned work program; IG-10, IG-13, IG-14, IG-22, IG-25, IG-26 and IG-29. Although it is likely that no sampling will be completed within these IOL's which are located along the southern coast of Baffin Island, geology crews may walk or fly over the IOL's in order to gain access to areas of Crown land near by.

The proposed work program will begin in late June, 2002 with the construction of a 20 person tent camp on Baffin Island and will last until the end August. The camp will be serviced by a twin otter aircraft which will likely be based in Igloolik. Apart from hiring local Inuit sample assistants from the communities of Pond Inlet, Arctic Bay and Igloolik De Beers also intends to employ other local people as expeditors, cooks and wildlife monitors.

Geological sampling will be undertaken from the camp on Baffin Island and will involve five geology teams supported by two helicopters. The crews will comprise one geologist and one Inuit assistant. The teams will move from site to site by helicopter in order to collect soil samples or carry out geological mapping. The helicopters will refuel from the base camp or outlying fuel caches, and all empty fuel drums and samples will be removed from the area by aircraft.

The work program will be adjusted as required to minimize the disturbance to wildlife or to avoid cultural areas considered sensitive by the local communities. As it is De Beers' intention to work once again in the area during 2003, some tents and a fuel cache will be left in place at the base camp over the winter period.

This project summary has been translated into Inuktitut and has been attached to the appendices.

4. Detailed Description of Undertaking

De Beers Canada Exploration Inc. (DBCEI) is a Canadian diamond exploration company which has prospected and explored for diamonds in the NWT and Nunavut since the early 1990's. In 2002, DBCEI (formerly known as Monopros) was awarded 131 prospecting permits across a 32 552 km² area on north-central Baffin Island, centred approximately halfway between the communities of Igloolik and Pond Inlet. The vast majority of the prospecting permits are on Crown land, with up to eleven Inuit owned lands (IOL's) overlapped by the permits: IG-10, IG-25, IG-26, AB-01, AB-02, PI-03, PI-

13, PI-15, PI-16, PI-19 and PI-48. Other than widely spaced regional reconnaissance sampling which was undertaken by De Beers across the area in 2000, the specific work area has seen little or no other diamond exploration.

The proposed 2002 field program will involve the construction of a 20 person tent camp on the interior of Baffin Island adjacent to an un-named lake at latitude 70° 24' N and longitude 80° 30' W. The duration of the proposed camp will be approximately from June 20 to August 31, 2002, with soil sampling and geological mapping undertaken from this location using two helicopters. The camp will also be serviced with food and fuel by a twin otter aircraft landing on an unprepared tundra strip adjacent to the camp. No improvements other than removing stones and rocks from the landing strip are envisioned at this time, and no vehicles, ATV's or heavy equipment will be used on site during the 2002 work program. Up to 80 drums of Jet-B helicopter fuel and diesel fuel for a camp generator will be stored on site in 45 gallon drums at any given time, with spill kits and contingency plans in place to deal with fuel spills in the event that they might occur. All De Beers personnel and its aircraft and helicopter subcontractors will have had specific training in dealing with fuel spills prior to beginning field work on the project, and all empty drums will be removed from the field by aircraft prior to the end of the field season for transport south via sea lift.

The camp location is located on the interior of Baffin Island near no known archaeological sites or presently known sites of carving stone. Discussions with local hamlet and HTO officials in Arctic Bay, Igloolik and Pond Inlet confirmed the area was likely not inhabited in the past and represents an area of very low archaeological potential. Discussions with the local communities also confirmed the area was not an active area of caribou calving or an area of raptor or migratory bird nesting and that caribou migration in the area is likely to occur in late September and October after De Beers has concluded its field investigations for the season. De Beers has also agreed to provide the local HTO's and other wildlife officials with any information which it might collect regarding the movements of wildlife in the work area during the field season.

The camp infrastructure will contain up to 10 Weatherhaven wooden floored tents which consist of sleep tents, an office tent, wash tent, and kitchen/dining tent. Water for the camp will be pumped up from a submersible pump located in the lake adjacent to the camp into a 5,000 litre holding tank next to the kitchen and wash tent facilities. Grey water from the kitchen and shower facilities will be collected in a gravel lined leach pit located well away (>30 metres) from the lake shore. Pit privies will be used for human waste collection. All kitchen garbage will be collected and flown to Igloolik for final disposal in the municipal landfill. A 10 kW diesel generator will provide electrical power for the camp.

The overall footprint of the camp, tundra airstrip, and fuel cache will encompass approximately four hectares in area. Upwards of eighty 45 gallon drums of Jet-B helicopter fuel, diesel fuel for the generator and 2 drums of gasoline for operating various pumps will be required on site. Several 100 lb. bottles of propane will also be stored at the camp for use as cooking fuel in the kitchen. Fuel transfer from 45 gallon drums to helicopters and twin otter aircraft will make use of electric pumps which are stored on board the aircraft. Hand operated wobble pumps and 5 gallon jerry cans will be used to fuel the camp electrical generator and smaller engines in and around the camp.

As part of De Beers spill emergency procedures, any and all fuel spills regardless of size, must be reported to the relevant authorities, and an internal report regarding the incident must be filed internally with the company. In order to ensure that spills are cleaned up in an efficient, environmentally responsible manner, all De Beers personnel are given mandatory training in spill prevention and spill clean-up procedures prior to entering the field. Spill kits containing absorbent material will also be located at the camp fuel cache and at any points of re-fuelling in the camp itself. Should a spill occur, personnel are instructed to take action immediately to control the source of the spill and then begin remedial action to isolate and remove the spill contaminated material into containers which will be flown from the work area for disposal in an approved landfill.

The 2002 field program will consist of helicopter supported soil sampling and geological mapping conducted within the De Beers' permit area surrounding the proposed camp location. Up to five geological teams will be working in the area at any given time. A geology team consists of a geologist and one local Inuit assistant hired from Pond Inlet, Arctic Bay or Igloolik. Geology teams undertaking foot traverses will be working on the ground undertaking geological mapping and soil sampling. Two helicopters based in the camp will also be used to ferry geologists on soil sampling traverses at sample intervals of two to five kilometres. At each sample site, the geologist will land with the helicopter and collect a two gallon soil sample from the surface soil horizon by digging a shallow pit, 10-15 cm deep in the ground. After the sample has been extracted and placed in a cloth bag, the sample pit is backfilled and the sample team places the sample in the helicopter and then flies to the next sample location. The overall impact on the environment by this means of sampling is very small. Samples collected during each day of work are brought back to camp for transport to Igloolik via twin otter aircraft. In Igloolik, the samples are unloaded and packed into sea freight containers for shipment south to De Beers' sample processing facility in Sudbury, Ontario.

Should any wildlife such as caribou be seen while geological sampling activities are underway, geologists are instructed to note how many animals are present, their location and to leave the area immediately. De Beers strictly prohibits the harassment of any wildlife from any of its aircraft or in any of its camps. An Inuit wildlife monitor from a local HTA will be employed to provide security for the camp.

In addition to providing employment for six Inuit sample assistants, De Beers will also provide employment for wildlife monitors, cooks and camp attendants in its field operations. Additional employment opportunities will also arise locally for expediting services and the provision of services external to camp such as groceries, fuel and hotel accommodation.

The proposed De Beers exploration camp on Baffin Island is envisaged as a temporary exploration camp facility which will be used once again as a base for additional sampling in the area during 2003. At the end of the 2002 field season it is proposed that the camp be decommissioned of its equipment and field supplies, but that the tents be left standing. It is also proposed that up to 50 drums of sealed Jet-B helicopter fuel be stored at the campsite for further helicopter work in 2003. When the camp is no longer required however, the tents, wooden floors and all other equipment on site will be dismantled and flown out of the area by aircraft. Drainage sumps and privies will also be backfilled and restored as much as possible and no empty fuel drums will be left on site.

8. Waste Disposal

Disposal of grey water from the kitchen and shower facilities in the De Beers camp will be made in gravel-lined hand dug sumps located well back (> 30 metres) from the lake shore. Human waste will be disposed of in pit privies. The guidelines adhered to for the waste disposal will be drawn from *Land Use Guidelines for Mineral Exploration, Yukon and N.W.T.* (Indian and Northern Affairs Publication, 1994).

Verbal permission to dispose of kitchen garbage and other camp waste has already been given to De Beers by the Hamlet of Igloolik. Formal written permission for De Beers to make use of this landfill will be obtained in writing prior to the start of camp activities in June, 2002.

De Beers will have spill kits on hand at the proposed camp location in order to deal with potential spills from diesel and helicopter fuel stored in drums at the camp. All De Beers personnel and its sub-contractors (helicopter and aircraft contractors) will have specific training in dealing with fuel spills. In the event that a fuel spill should occur, contaminated soil and absorbent material from the spill will be flown by aircraft to a landfill facility specifically designated for fuel contaminated material in Iqaluit or to a suitable location further south if required.

10. Environmental Impacts and Mitigation Measures

The proposed camp location described above is a temporary facility and will be entirely removed after De Beers has completed its work in the area. We intend to leave the tent frames and floors in place over the winter of 2002 however, as we intend to use the camp once again in 2003.

The overall impact of De Beers activities on the land will be very low. Helicopters based in the campsite will be used to transport geology teams from sample site to sample site. Additional soil sampling and geological mapping work will be completed from the camp on foot. None of the sampling work will be undertaken using ATV's or vehicles.

Spill kits containing absorbent matting will be used to handle any potential spills from 45 gallon drums of Jet-B aircraft or diesel fuel which will be stored on site during the field season. De Beers employees and its sub-contractors will be trained prior to the start of field work in the area on how to recognize spills and how to deal effectively with spills should they occur. It is also company policy to report all spills to authorities, regardless of size.

De Beers will service the camp with food and fuel by twin otter aircraft and we do not intend to build any roads or improved airstrips at the campsite at this time. A lake next to the camp will be used to provide water for the camp and grey water will be disposed of in gravel lined sumps located well beyond the lake shore (> 30 metres). All garbage will be removed on a regular basis to the municipal landfill in Igloolik.

An Inuit wildlife monitor will be employed to keep residents in the camp secure from wildlife and other hazards. De Beers has very strict policies for helicopters and aircraft regarding the harassment or chasing of any wildlife. The movements of migrating caribou in the work area will also be monitored and reported to the local Hunter and Trappers Organizations and other wildlife officials. Up to six local Inuit sampling

assistants working in the camp will also be free to report on the impact on De Beers' activities regarding the environment or local wildlife at any time. We consider these local assistants to be the eyes and ears of the each community on our activities.

The proposed De Beers exploration camp is a temporary camp which will be used for additional sampling in the area in 2003. When the camp is no longer required, the tents, wooden floors, and all other equipment and structure on site will be dismantled and flown out of the area by aircraft. Drainage sumps and privies will also be backfilled and restored as much as possible and no empty fuel drums will be left on site.

39. Baseline Data

As no 1:50 000 NTS map sheets exist in this area, air photo and Landsat 7 imagery will be used to produce base maps to aid the surficial geological mapping of this area.

During the summer field season all wildlife sightings will be recorded and forwarded to the Wildlife authorities.

An archaeological database of known sites for the area has been compiled.

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