Churchill Diamond Project
Non-Technical Summary and Work Plan
Shear Minerals Ltd.

December 2008

NON-TECHNICAL SUMMARY

SHEAR MINERALS LTD.
#220 9797 45th Avenue,
Edmonton, AB
T6E 5V8

Churchill Diamond Project – 2008

Shear Minerals Ltd. and its partners are dedicated to exploring for economic mineral deposits in northern Canada. In 2001 we initiated exploration for mineral deposits within the Rankin Inlet/Chesterfield Inlet area believing that the area had the potential to host world-class mineral deposits. Our company has worked closely with the communities of Rankin Inlet and Chesterfield Inlet, local Inuit Associations, the Nunavut Government and the Federal Government toward making mineral discoveries without adversely affecting the natural way of the wildlife, the people and the land.

The purpose of our activities under our land use and water licences are to evaluate the potential for economic concentrations of diamonds on Inuit surface and subsurface owned land parcels as well as DIAND land within NTS map sheets 55 J, N, and O. Our plan is to conduct ground and airborne geophysical surveys, prospecting, rock, till and soil sampling, geological mapping, diamond drilling, test pit trenching and a bulk sample program. All of these activities have a low impact on the environment and all of the impacts are temporary and easily reclaimed.

We plan to initiate activities around March 15, 2008. Upon approval from the regulatory departments we will begin transporting equipment to our field sites and exploration camp on Josephine Lake. All of our field work will be based out of this camp (Sedna Camp). In winter our activities will be supported by Challenger, snow machines, fixed-wing aircraft and helicopter. In summer our activities will be supported by helicopter and fixed-wing aircraft. Our 2008 program will be completed in several stages and will likely be complete by end of October 2008. Our 2009 program will be dependent upon the results of the 2008 exploration program.

Shear Minerals Ltd. and its partners conduct extensive exploration programs within Nunavut and the Northwest Territories. We recognize the importance of our role in discovering mineral deposits for our clients and that our exploration programs must be conducted in the most socially and environmentally responsible manner possible.

ᑐᓴᒐᒃᓴᖅ ᓇᐃᓈᖅᓯᒪᔪᖅ ᐱᔾᔪᑎᓕᒃ ᐱᓕᕆᐊᒃᓯᒥᒃ

SHEAR MINERALS LTD.
#220 9797 45th Avenue,
Edmonton, AB
T6E 5V8

Churchill-ᒥ ᓱᑎᓹᓂᒃ ᐅᔭᕿᕆᐊᒃᓴᓕᕆᔾᑦ ᐱᓕᕆᐊᒃᓯᒥᒃ – 2008-ᒥ

ᐅᑯᐊ Shear Minerals Ltd.-ᑯᑦ ᐊᒻᒪᓗ ᑲᑐᔾᔨᖃᑎᒌᑦ ᐱᓕᕆᖃᑎᒋᓪᓗᒋᑦ ᐱᓕᕆᐊᒥᓐᓂᒃ ᐱᓕᕆᐊᖃᑦᓯᐊᖃᑦᑕᕐᒪᑕ ᐃᕿᐊᒋᓇᒋᑦ ᕿᓂᖅᓱᑎᒃ ᐊᑏᑎᔾᔭᖅᑕᓕᖓᓂᒃ ᕿᓇᐅᔾᔭᒃᓴᐅᑎᒃᓴᓂᒃ ᐱᔪᓂᒃ ᐅᔭᕋᓂᒃ ᐱᑕᓕᖓᓂᒃ ᑲᓇᖕᓇᖕᒐᓂ ᑲᓇᑕᐅᑉ. ᐅᕙᓂ 2001-ᒥ ᓱᕗᓪᓕᕐᒥ ᕿᓂᕆᐊᖕᒐᓚᐅᖅᓯᒪᒐᑦᑕ ᐅᔭᕋᓂᒃ ᑲᖏᖅᓂᐅᑉ ᐃᒡᓗᓕᒎᔫᓪᓗ ᓄᓇᖕᒐᓂ ᐅᒃᐱᕈᓱᒃᑲᑦᑕ ᑖᒪᓂ ᐱᑦᑲᕆᐃᓐᓇᕆᐊᖃᒻᒪᑦ ᐊᖏᓈᖅᓯᒪᔪᒥᒃ ᐱᐅᔫᒃᓴᔭᓪᓚᕆᒻᒥᒃ ᓯᓚᕐᔪᐊᒥ ᐅᔭᕿᕆᐊᖑᓱᓂᒃ ᐱᑕᓕᖕᓂᒃ. ᑲᒻᐸᓂᕐᑯᑎᕗᑦ ᑕᒪᕐᒥᒃ ᐱᓕᕆᓯᐊᖃᑦᑕᕐᒪᑕ ᖃᓂᒃᓴᖅᓱᑎᒃ ᐱᓕᕆᖃᑎᖃᓂᕐᒥᒃ ᓄᓇᓕᖕᒋᓐᓂᒃ ᑲᖏᖅᓂᕐᒥ ᐊᒻᒪᓗ ᐃᒡᓗᓕᒎᔫᒥ, ᓄᓇᓖᑦ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᖏᓐᖏᓐᓂᒃ, ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᓐᓂᒃ ᐊᒻᒪᓗ ᑲᓇᑕᐅᑉ ᒐᕙᒪᒃᑯᖏᓐᓂᒃ ᓱᕗᒧᑦ ᐱᕙᓪᓕᐊᑎᒐᓱᐊᖅᓱᕆᑦ ᐊᑏᑎᔾᔭᖅᑕᓕᖓᓂᒃ ᕿᓂᖅᓱᑎᒃ ᓄᓇᒥᒃ ᓱᕋᐃᓗᐊᑦᑕᐃᓕᓗᑎᒃ ᐃᓕᖅᑯᓯᖅᓱᖅᑐᒥᒃ ᐃᓂᒋᔭᖏᓐᓂᒃ ᓂᖅᔪᑎᑦ, ᐃᓅᖏᑦᑕᓗ ᐊᒻᒪᓗ ᓄᓇᖓᓐᓂᒃ.

ᐱᔾᔪᑎᒋᓪᓗᑎᒍᑦ ᐊᐅᓚᖅᑲᑦᑕᖅᑕᕗᑦ ᓄᓇᓕᕆᒍᑎᒋᓪᓗᒋᑦ ᐊᒻᒪᓗ ᐃᒥᕐᒥᒃ ᐱᔪᓐᓇᕈᑎᑦ ᓚᐃᓴᑦ ᕿᒥᕐᕈᒍᑎᒃᓴᑦ ᐱᑦᑲᒻᒪᖓᖅ ᐊᑏᑎᔾᔭᓂᒃ ᕿᓇᐅᔾᔭᒃᓴᐅᑎᒃᓴᓂᒃ ᐊᓕᒨᔭᕐᓂᒃ ᐃᓄᐃᑦ ᓄᓇᖅᑯᑕᑕ ᖃᖓᓂ ᐊᒻᒪᓗ ᓄᓇᐅᑉ ᐃᓗᐊᓅᖕᒐᔪᓂᒃ ᓇᖕᒥᓂᕆᔭᖕᒋᓐᓂᒃ ᓇᓗᓇᐃᖅᓯᒪᔭᑦ ᓄᓇᖑᐊᑎᒎᑦ ᐊᒻᒪᓗ ᐃᓄᓕᕆᕗᖅᑲᒃᑯᑦ ᓄᓇᖅᑯᑖᓂ ᓄᓇᖑᐊᑎᒎᑦ ᐅᑯᑎᒎᓇ 55 J, N, O-ᑯᓪᓗ. ᐊᑏᑎᓹᕈᒪᓪᓗᒋᑦ ᐸᖅᓇᑕᕗᑦ ᐊᐅᓚᑦᓯᓪᓗᑕ ᓄᓇᓕᕆᓪᓗᑕ ᐊᒻᒪᓗ ᓯᓚᑐᐃᓐᓇᕐᒨᖅᑲᖅᑲᑦᑕᖅᑐᑦ ᖃᐅᔨᓴᖅᑕᐅᓗᑎᒃ, ᓄᓇᒥᒃ ᖃᐅᔨᓴᕋᒃᓴᓂᒃ, ᐅᔭᖅᑲᓂᒃ, ᒪᕋᓐᓂᒃ, ᓯᖅᑲᓕᓂᒃ, ᓯᕐᒥᓂᒡᓗ ᐆᒃᑐᕋᕋᒃᓴᓂᒃ, ᓄᓇᖑᐊᓕᕆᓗᑕ, ᐃᑰᑕᖅᑲᑦᑕᕐᓗᑕ, ᖃᐅᔨᓴᖅᑲᑦᑕᕐᓗᒋᑦ ᓄᓇᒥ ᐃᑎᖅᓴᑰᓕᐊᒥᓃᑦ ᐊᒻᒪᓗ ᐃᓗᐃᒃᑲᓐᓂᒃ ᖃᐅᔨᓴᕋᒃᓴᓂᒃ ᐱᓕᕆᔾᔪᑎᑦᑎᓐᓄᑦ ᐊᑏᑎᓗᑕ. ᑕᒪᒃᑯᐊ ᑕᒪᕐᒥᒃ ᐊᐅᓚᑕᐅᓂᐊᖅᑐᑦ ᓱᕋᐃᓗᐊᓂᖅᔮᖏᑦᑐᑦ ᐊᕙᑖᓂᒃ ᐊᒻᒪᓗ ᑕᒪᐃᑕ ᐊᒃᑐᖅᑕᑦ ᕿᓚᒥᒃᑯᑦ ᐊᑑᑕᐅᓂᐊᕐᒪᑕ ᐊᒻᒪᓗ ᐱᔭᕆᐊᑐᓂᖅᖏᓪᓗᑎᒃ ᐅᑎᖅᑎᖅᑕᐅᓹᕐᒪᑕ.

ᐊᑏᑎᑎᕐᓯᓹᕈᒪᔪᒋᑦ ᐊᐅᓚᕐᓯᓗᑕ ᖃᓂᒋᔭᖕᒐᓂ March 15, 2008-ᒥ. ᐊᖏᖅᑕᐅᓯᒪᓕᖅᐸᑕ ᐊᑐᑕᐅᒋᐊᖄᐸᒃᑐᑦ ᐱᖁᔭᓕᕆᔾᔪᑎᒃᑯᑦ ᐱᓕᕆᕖᖕᓂ ᐱᒋᐊᓹᖅᑐᒋᑦ ᐅᓯᑐᒋᑦ ᓴᓇᕿᑎᑦ ᓄᓇᒧᑦ ᐱᓕᕆᕖᒃᓴᑎᓐᓄᑦ ᐊᒻᒪᓗ ᕿᓂᕐᓂᐊᖅᑐᓄᑦ ᓄᓇᓕᒋᔭᐅᑲᐃᓐᓇᕐᓂᐊᖅᑐᒥ ᐊᓯᓂ ᐃᑲᓂ Josephine Lake-ᒥ. ᑕᒪᕐᒥᒃ ᐱᓕᕆᐊᕆᓂᐊᖅᑕᕗᑦ ᐃᑲᓃᓐᓂᐊᖅᑐ ᐅᕙᓂ (Sedna Camp). ᐅᑭᐅᒥ ᐱᓕᕆᐊᕆᓂᐊᖅᑕᕗᑦ ᐊᖁᑎᖅᑲᖅᑲᑦᑕᖅᓗᑕ Challenger-ᑯᑦ, ᓯᕿᑑᒃᑯᑦ, ᖃᖓᑕᔫᒃᑯᑦ, ᖁᓕᒥᒨᓕᒃᑯᓪᓗ. ᐊᐅᔭᒥ ᐱᓕᕆᐊᕆᔭᕗᑦ ᐊᐅᓚᓗᒋᑦ ᖁᓕᒥᒨᓕᒃᑯᑦ ᐊᒻᒪᓗ ᖃᖓᑕᔫᒃᑯᑦ. ᐱᓕᕆᐊᕗᑦ 2008-ᒥ ᐱᔭᕇᓹᖅᑐᑦ ᖃᓄᐃᑦᑐᑐᐃᓐᓇᐃᑦ ᐊᔾᔨᓕᖅᑎᑦᑑᑎᑦ ᐱᕙᓪᓕᐊᓂᖃᓪᓗᑎᒃ ᐊᒻᒪᓗ ᐱᔭᕇᓹᖅᑐᖃᐃ ᓄᕚᐊᓂ October 2008-ᒥ. ᐱᓕᕆᐊᕆᔭᕗᑦ 2009-ᒥ ᐊᑏᑎᓹᖅᑐᑦ ᑭᓯᐊᓂ ᑭᖑᕐᖓᒍᑦ ᖃᓄᐃᑦᑐᑦ ᐊᐅᓚᑕᐅᓚᐅᖅᑐᑦ ᐅᕙᓂ 2008-ᒥ ᕿᓂᖅᑐᓄᑦ ᐅᔭᖅᑲᖅᓯᐅᕈᑎᒥᓃᑦ ᐊᑏᑕᐅᓚᐅᖅᑎᓪᓗᒋᑦ ᑭᖑᕐᖓᒍᑦ.

ᐅᑯᐊ Shear Minerals Ltd.-ᑯᑦ ᐊᒻᒪᓗ ᐱᓕᕆᖃᑎᖏᑦ ᐊᐅᓚᑦᓯᖃᑦᑕᕐᒪᑕ ᕿᓂᖅᓱᑎᒃ ᐊᖏᓈᖅᓯᒪᔪᓂᒃ ᐱᓕᕆᐊᖅᖅᓱᑎᒃ ᓄᓇᕗᑦᒥ ᐊᒻᒪᓗ ᓄᓇᑦᓯᐊᕐᒥ. ᐃᓕᑦᑕᖅᓯᔪᒍᑦ ᐱᑐᐃᓐᓇᐅᖏᒪᑕ ᖃᓄᖅ ᐱᓕᕆᐊᔭᕗᑦ ᐊᑏᑎᓂᖏᑦ ᕿᓂᕐᓂᖅ ᐊᑏᑎᔾᔭᓂᒃ ᐅᔭᖅᑲᓂᒃ ᐱᑕᓕᖓᓂᒃ, ᐃᑲᔪᖅᑕᕗᑦ ᐊᒻᒪᓗ ᐱᓕᕆᐊᕆᖅᑲᑦᑕᖅᑕᕗᑦ ᕿᓂᖅᓱᑕ ᐊᑏᑎᕙᒃᑕᕗᑦ ᐊᐅᓚᓐᓂᖅᑲᖅᑕᕆᐊᖃᒻᒪᑕ ᓈᒻᒪᒃᑐᓂᒃ ᐃᓅᓯᕆᔭᕐᓄᑦ ᐊᒻᒪᓗ ᓄᓇᖕᒐᓐᓄᑦ ᐊᕙᑖᓂ ᐱᓕᕆᐊᖅᑲᓯᐊᖏᓐᓇᖅᓯᐊᖅᑲᖅᑕᕗᑦ ᑕᐃᒪᖕᒐᓕᒫᖅ.

CHURCHILL DIAMOND PROJECT
WORK PLAN 2008-2009

Summary

Work To Date

Field work in 2007 was based out of the temporary Sedna Camp on Josephine Lake (constructed in 2005). The program was completed in two phases, spring and summer/fall. The spring program consisted of exploration drilling, ground geophysics, till sampling and bulk sampling. The summer/fall program consisted of exploration drilling, ground geophysics, till sampling, quaternary mapping, prospecting, rock sampling and trenching.

Upcoming Plans

The 2008 field program will include the same land use activities as previously conducted: a drill program, ground geophysics, prospecting, trenching and till sampling. Continuing on from the 2007 program, Shear Minerals will again be including a bulk sampling program in 2008 to be conducted in the spring but possibly carried over to the summer if necessary.

The drill program is designed to further delineate the known kimberlite dykes on the property at regularly spaced intervals (yet to be determined). There will be up to 3 holes drilled from each set up, to test the dykes at varying depths for geological, spatial and grade information. Drilling is anticipated to commence in mid to late March, to take advantage of the snow cover so that equipment can be hauled overland by Challenger and sleighs with minimal impact to the land. Drilling conducted in the summer months will be supported by helicopter for moving, drill support and crew changes.

Shear will use a second diamond drill to carry on with exploration drilling on a number of new untested targets. This second drill will be the same size or smaller than the drill that is currently being used on the property; namely a Boyle 17A lightweight fly drill or a comparable Drill.

A ground geophysics program is planned for the early spring to cover in detail the Josephine and Sedna Corridors using a komatik mounted magnetometer unit, pulled by a snowmobile. By completing the ground geophysics program early on, Shear will be able to identify any new targets in advance of the exploration drill program. Surveying by snowmobile will also allow for a full coverage of the area over lakes, swamps and rivers with do disturbance to the land.

A program of summer prospecting combined with targeted till sampling will commence after the snow has melted and the property area is fully accessible. This work will include ground traverses by geologists, and helicopter supported

sampling. The Kubota backhoe that was utilized for trenching in 2006 was modified in 2007 to have an auger drill attached to the hydraulic back end, so that it could be used as an aid to prospecting linear features that cannot be dug by hand; the auger hole tests if there is kimberlite beneath the till cover without digging a large hole or trench (see attached photo). Additional trenching may be conducted in 2008 on new discoveries using the Kubota in a similar fashion to last year. This auger attachment may also be used to collect basal till samples.

In spring 2007, Shear conducted a bulk sample program at the Kahuna kimberlite. Due to equipment problems and weather delays only one kimberlite was sampled. In spring 2008 Shear is planning to return to the bulk sample site at Kahuna as well as begin bulk sampling at the other three kimberlites (see the attached figures). The samples may range from 100 to 500 tonnes per site and will use larger equipment, namely an excavator, that would strip off the overburden cover to access the kimberlite below (see the attached figure) and a loader to backfill the pits easily.

Description of the Methods Proposed For Mini-Bulk Sampling

The model for the mini-bulk sampling assumes 2 m of overburden.

Winter/Spring Sampling - Sites where bulk sampling is conducted under snow cover on frozen ground.

The best case scenario would be to conduct all bulk sampling at this stage during the winter/spring. Transporting the equipment from site to site during the snow covered season makes overland travel possible without any impact to the ground and vegetation beneath the snow.

To collect the sample, the snow will be scraped back from the site to expose the frozen ground. Material will be segregated as it is removed to use for reclamation. Vegetation, humus and topsoil will be removed and stored on the snow in separate piles. Boulders, sand and gravel will be removed and placed to the side on the snow. Once the sample has been collected, boulders sand and gravel will be placed into the area where the sample was removed. Topsoil, humus and vegetation will be placed back on the area and will be hand contoured as much as possible given the conditions will be frozen. Additional contouring and reclamation will continue in the summer months, including revegetation of the disturbed area.

Ideally Shear Minerals would be able to complete all bulk sampling this year in the winter/spring. However, given the dynamic nature of exploration and the lengthy time to analyse samples and then the results in addition to the time required to permit, this may not be possible. Therefore Shear Minerals will evaluate the sites to be sampled and determine which sites would be more

ideally collected under winter/spring conditions. Some of the considerations that Shear will evaluate are:

- Terrain – low-lying, wet, or dangerous areas would be best sampled in winter to minimize effects and dangers because the overburden is frozen. This prevents slumping of material, falling material, ponding of water and inflow of water.

Equipment and supplies would be transported overland in mid-March via Caterpillar Challengers c/w sleighs to the proposed locations, see site specific descriptions and maps, where the bulk samples are to be collected. An emergency shelter complete with heat, sleeping bags, food supply, and sat phone would be mobilized to each sample location as a back up safety measure for the crews as well as the likely event that inclement weather grounds the helicopter for extended periods. All samples could be backhauled to Rankin Inlet overland via the Challengers. The fuel required for the bulk sampling would also be transported overland in mid-March.

Summer Sampling - Sites where bulk sampling is conducted during the summer on locations that meet with the criteria outlined in the Work Plan attached.

Some of the sites where bulk sampling will be conducted are located on higher, dry ground that is flat, sandy, gravely and has minimal vegetation cover.

The overburden will be scraped back from the site to expose the bedrock. Material will be segregated as it is removed to expose the kimberlite. Vegetation, humus and topsoil will be removed and stored in separate piles. Boulders, sand and gravel will be removed and placed to the side. Once the sample has been collected, boulders, sand and gravel will be placed into the areas where the samples have been removed. The topsoil, humus and vegetation will be placed back over the area by hand and contoured as much as possible to mimic the original landscape including the re-vegetation of the disturbed area.

The summer sampling program will require the same initial mobilization as the winter program. The excavator can be broken down and flown by helicopter (largest piece is 11,000lbs.). Fuel would have to be flown to the sample locations via helicopter rather than the option of hauling in by sleigh, and samples would have to be flown back to Rankin Inlet.

Excavation

The first stage of the bulk sampling program will involve drilling holes through the overburden to determine the depth to the kimberlite. This will be determined by the cuttings. Only the drill column in overburden will be loaded with explosives. Once blasted, the excavator will carefully remove the overburden (described above) until the kimberlite contact is exposed and is

identifiable. The drill will then relocate on top of the contact and drill a minimum of 4 meters deep into the kimberlite and extend far enough down the dike to sufficiently recover 500 tonnes of sample once blasted.

Fuel

For the winter program, fuel will be hauled to site overland via Challenger. Fuel caches will be established at the proposed bulk sample locations. In the summer the fuel would be flown to these locations via helicopter. The following table outlines the fuel requirements to conduct the bulk sampling program.

Fuel Cache	UTM NAD 27		# Drums		Land Status
	Easting	Northing	Jet B	Diesel	
KAH	591050	7002350	25	40	IOL
NTC	583100	6994000	50	50	Crown
JIG	566800	7005375	25	20	Crown

Additional fuel requirements to support the upcoming 2008 program are:

Fuel Cache	Project	UTM (m) (NAD27, Zone 15V)		Jet B	Diesel	Propane	Gas
		Easting	Northing				
9	Churchill	531757	7017735	0	0	0	0
10	Churchill	549419	7014967	0	0	0	0
11	Churchill	528704	7032720	0	0	0	0
13	Churchill	583189	6993085	0	0	0	0
15	Churchill	576786	7008269	0	0	0	0
East Strip	Churchill	596079	7003881	This site is used as a staging area to off-load fuel and transport to Sedna Camp.			
North Strip	Churchill	590029	7014473	This site is used as a staging area to off-load fuel and transport to Sedna Camp.			
Sedna Camp	Churchill	587940	7009674	180	191	15	5

In 2008 all fuel, hydrocarbons and hazardous substances will be stored such that there is secondary containment. Shear is currently investigating a number

of options and is in discussions with suppliers to determine the most appropriate approach to secondary containment at the Churchill Diamond project.

Environmental Baseline & Monitoring Programs

In 2008 Shear will continue the baseline water quality sampling program. In addition, Shear also monitors the quality of the water within Josephine Lake to ensure that the presence of the camp has no impact on the lake. To date, monitoring has confirmed that there is no run-off or discharge from the camp and that the quality of the water has not changed.

Shear Minerals records all wildlife sightings and provides these records to the KIA as an appendix in the annual report. Bear sightings are reported immediately. In 2007, Shear Minerals participated in the KIA caribou monitoring program. It is the expressed desire of Shear to continue to participate in the caribou monitoring program in 2008 and we welcome the opportunity to review a proposal to best accommodate the wildlife monitors within our exploration program.

During the summer months, the bulk sample sites will be monitored. Once the sites have settled, revegetation of the sites will begin. Monitoring of the sites and the effectiveness of the revegetation will be ongoing. Shear Minerals will work closely with the communities of Chesterfield Inlet and Rankin Inlet on the collection of indigenous seeds for use in revegetation.

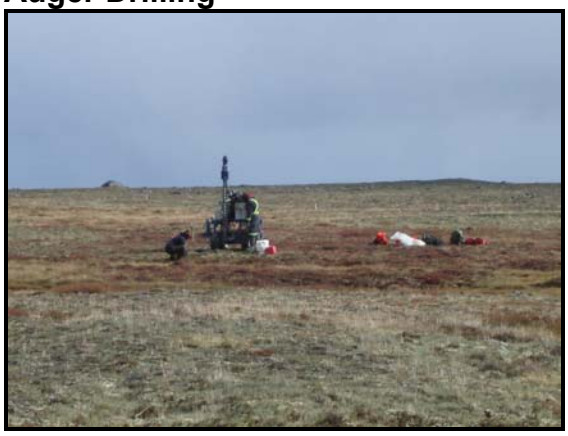
PHOTOS – CHURCHILL DIAMOND PROJECT, SHEAR MINERALS

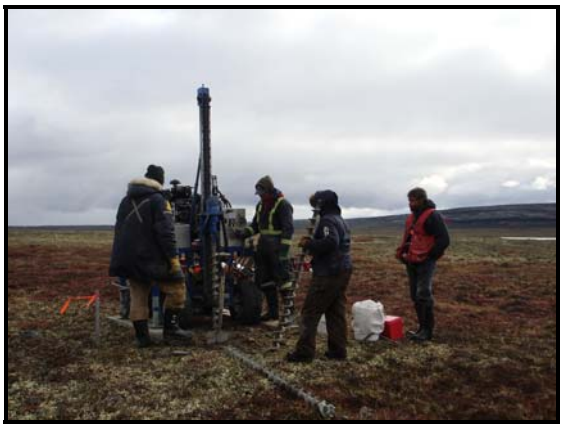
Ground Geophysics

A ground geophysics program is planned for the early spring to cover in detail the Josephine and Sedna Corridors using a komatik mounted magnetometer unit, pulled by a snowmobile. This method proved highly successful in the spring of 2007.

In summer, the unit is carried in a backpack and the individual walks the grids. There is no impact to the land.

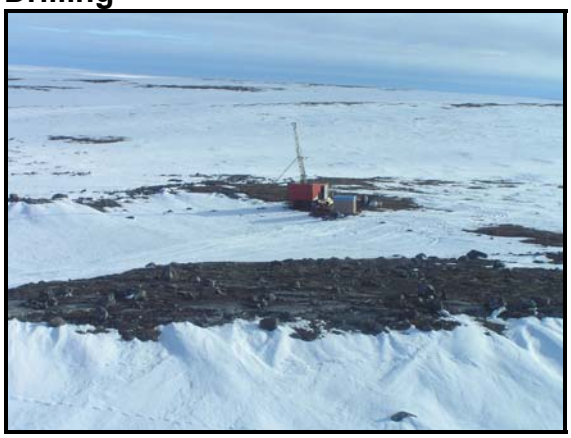
Auger Drilling





The auger drill is light and transportable enough to be lifted and slung from site to site. The auger drill does not require any water use.

Drilling



Delineation Drilling to further define known kimberlites.

Exploration Drilling. An emergency shelter is always placed at the drill in case of bad weather.

This track-based drill prepares the ground for bulk sampling.

Bulk Sampling

To collect the sample, the snow is scraped back from the site to expose the frozen ground. Material is segregated as it is removed to use for reclamation. Vegetation, humus and topsoil are removed and stored on the snow in separate piles. Boulders, sand and gravel are removed and placed to the side on the snow.

Bulk Sampling Continued

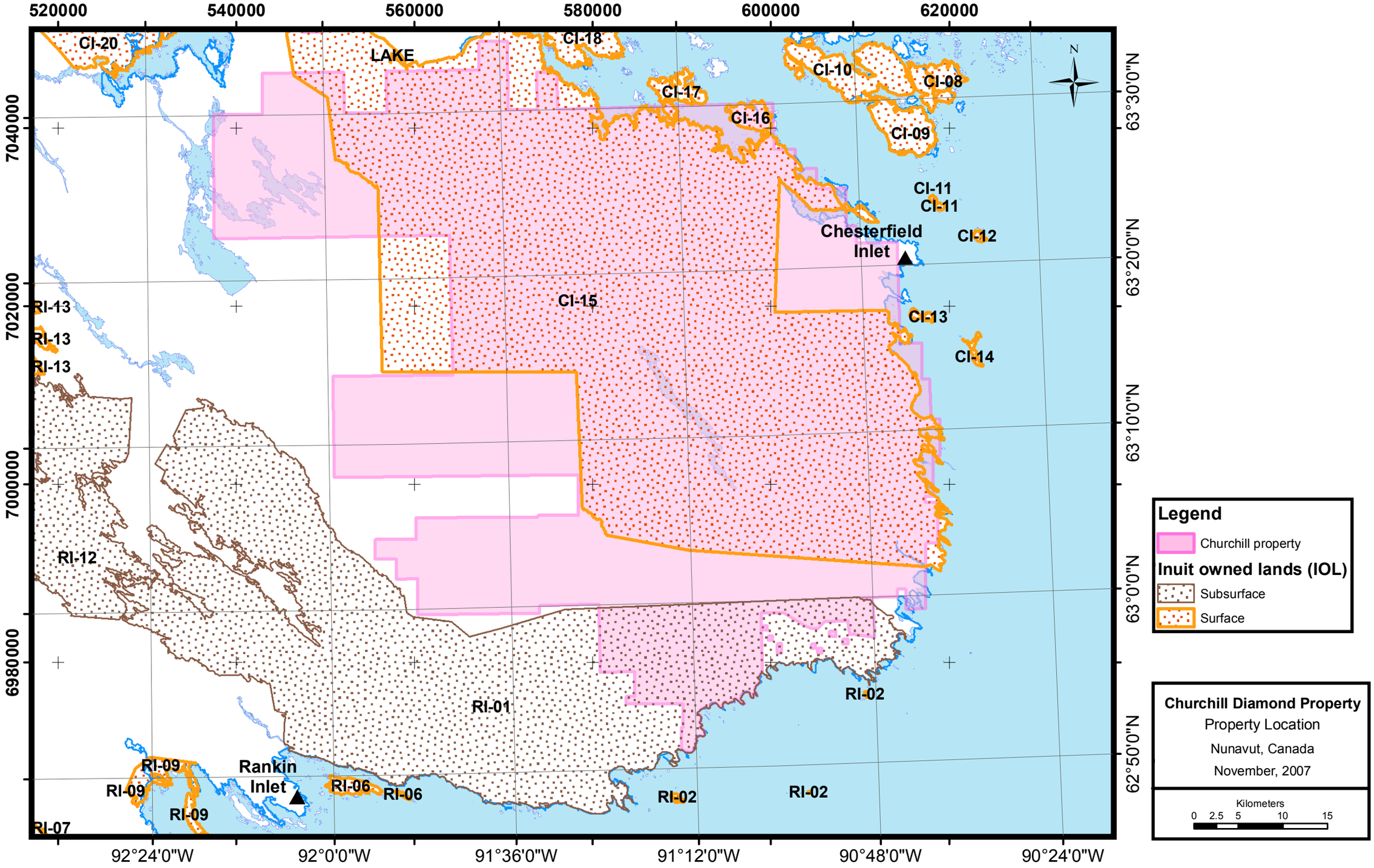
Kimberlite samples are collected and placed in Mega-bags.

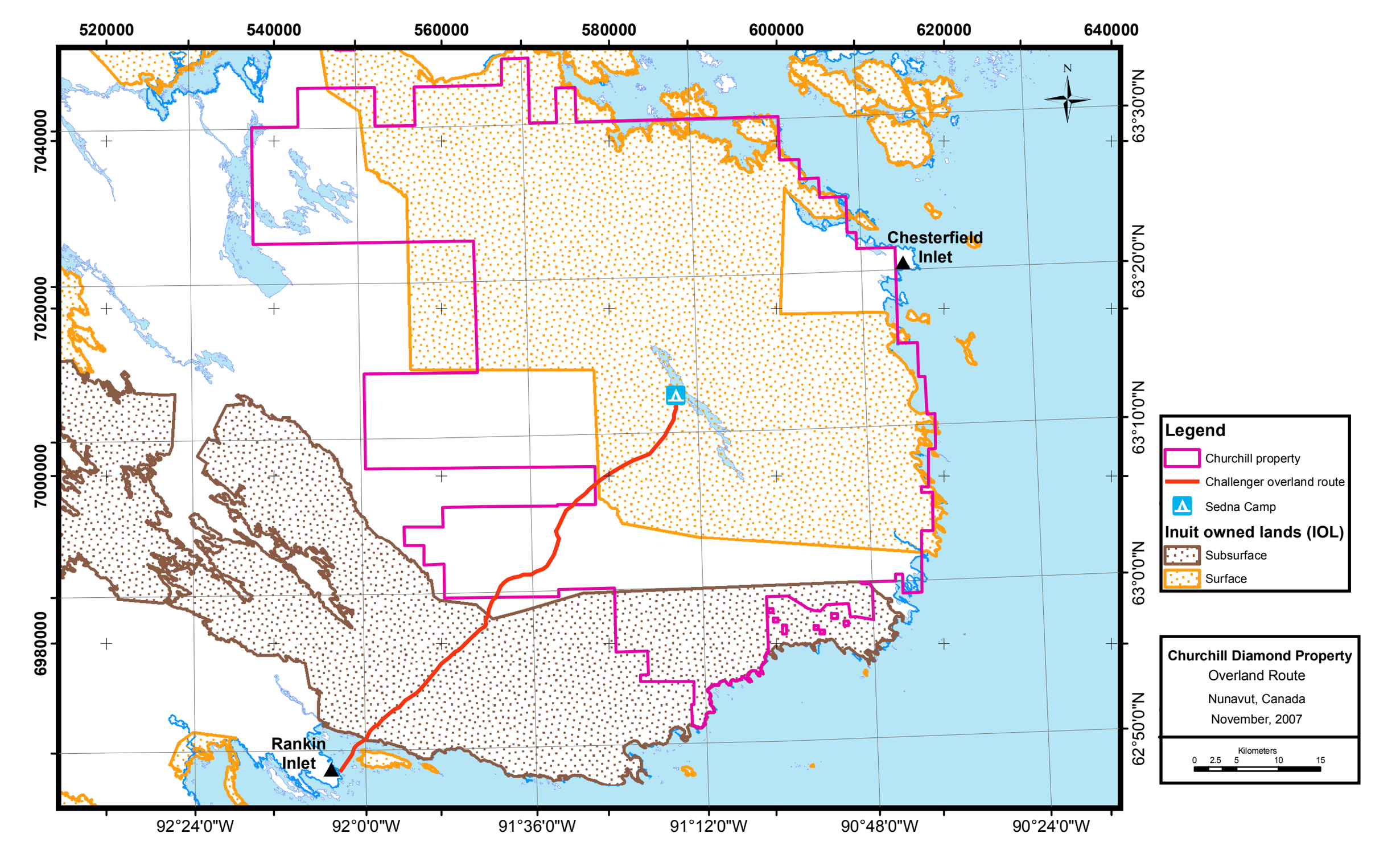
Bulk Sampling Continued – Transporting the Bags Back to Rankin

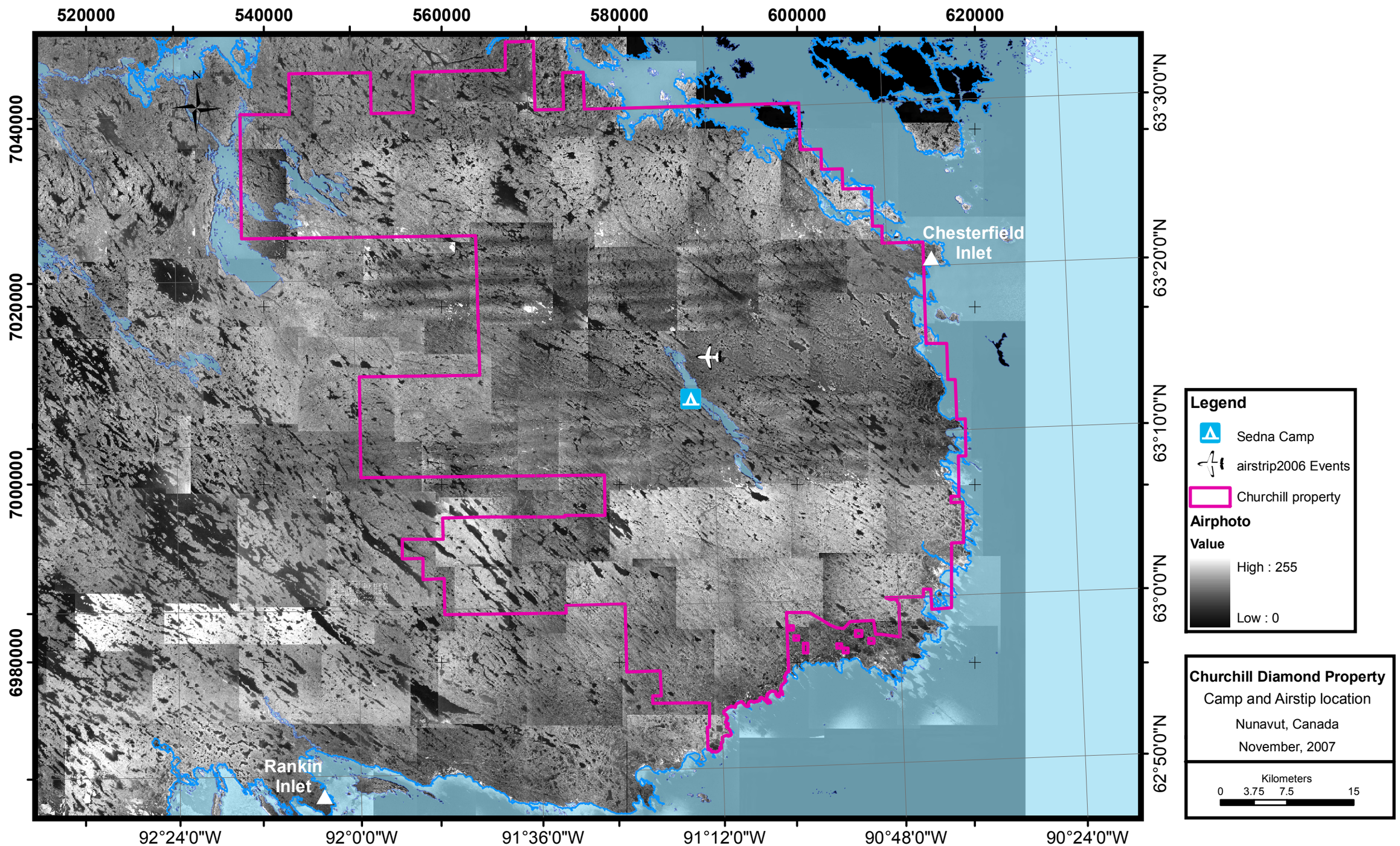
Mega-bags containing the kimberlite samples are placed on sleds and hauled back to Rankin Inlet by Challenger for shipping south.

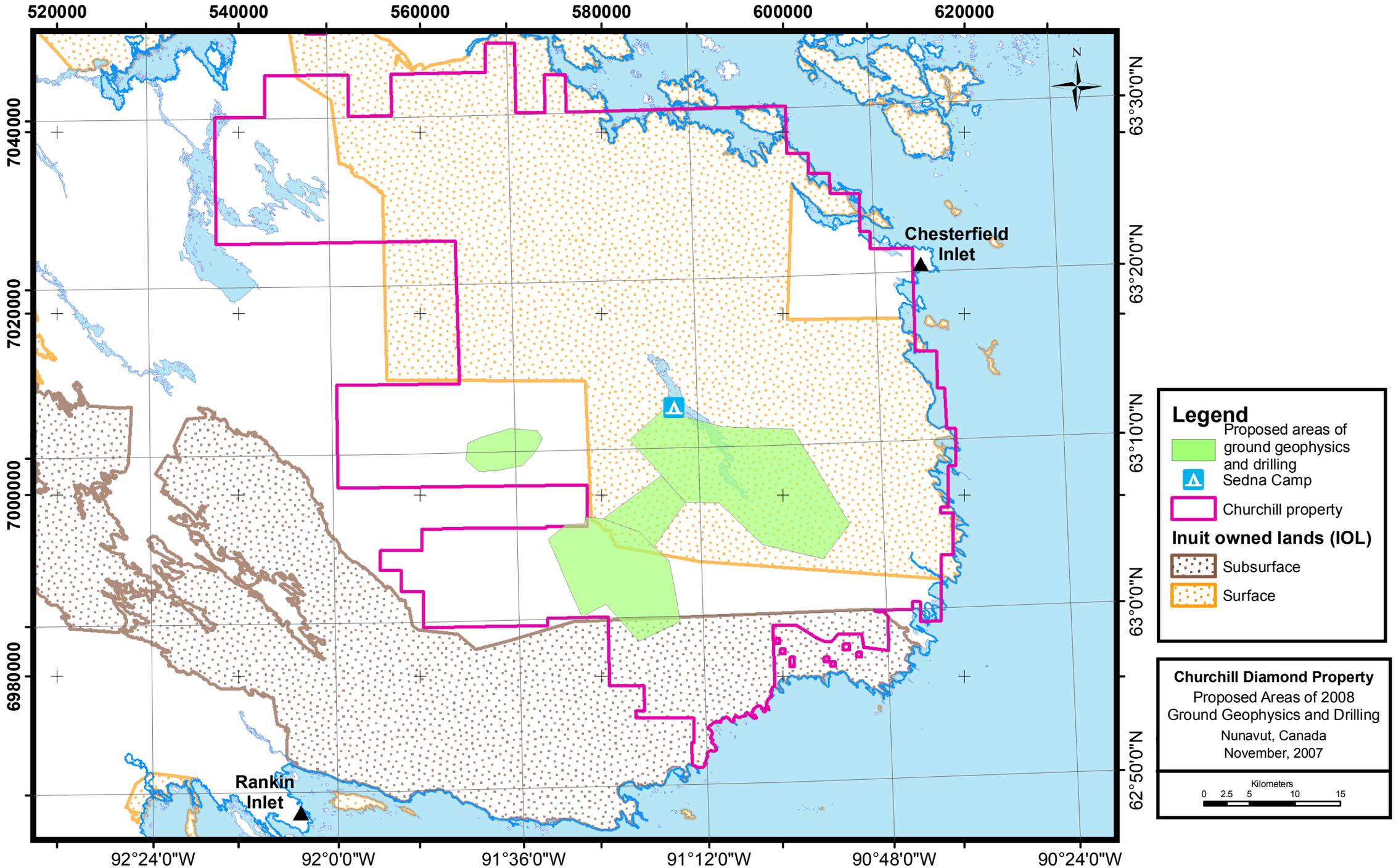
Bulk Sampling Continued – Reclamation

Once the sample has been collected, boulders sand and gravel are placed into the area where the sample was removed. Topsoil, humus and vegetation are placed back on the area and are contoured as much as possible given the conditions at the time are frozen. Additional contouring and reclamation continue in the summer months, and once the area has settled out, revegetation efforts will begin. Monitoring of the sites will be ongoing.

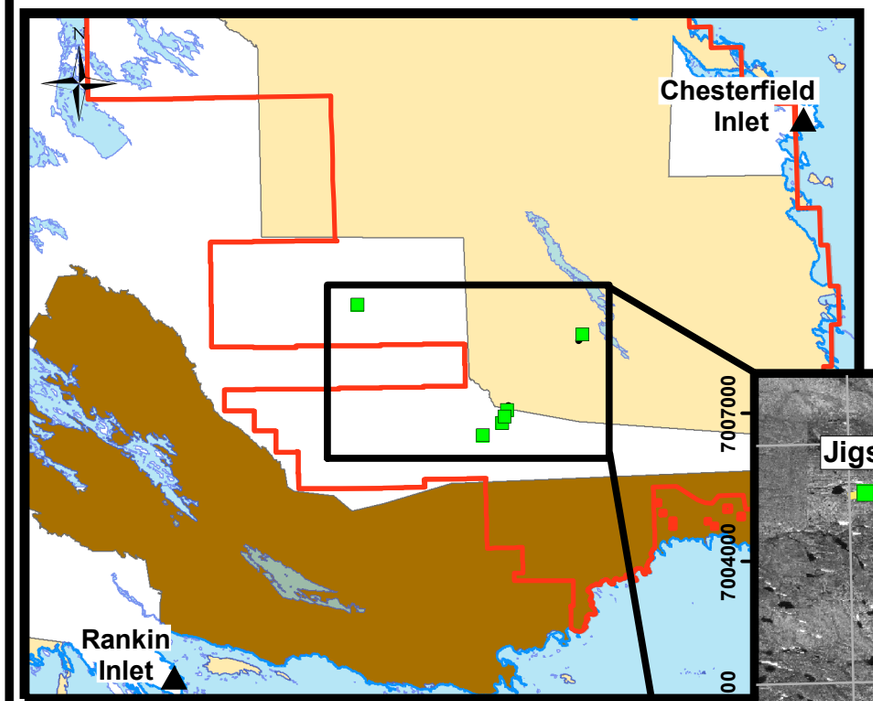

520000
540000
560000
580000
600000
620000
7040000
7020000
7000000
6980000
63°30'0"N
63°20'0"N
63°10'0"N
63°0'0"N
62°50'0"N
92°24'0"W
92°0'0"W
91°36'0"W
91°12'0"W
90°48'0"W
90°24'0"W
N
CI-20
LAKE
CI-18
CI-10
CI-08
CI-17
CI-16
CI-09
CI-11
CI-11
Chesterfield Inlet
CI-12
CI-15
CI-13
CI-14
RI-13
RI-13
RI-13
RI-12
RI-01
RI-02
RI-09
RI-09
RI-09
Rankin Inlet
RI-06
RI-06
RI-02
RI-02
RI-07
Legend
Churchill property
Inuit owned lands (IOL)
Subsurface
Surface
Churchill Diamond Property
Property Location
Nunavut, Canada
November, 2007
Kilometers
0 2.5 5 10 15

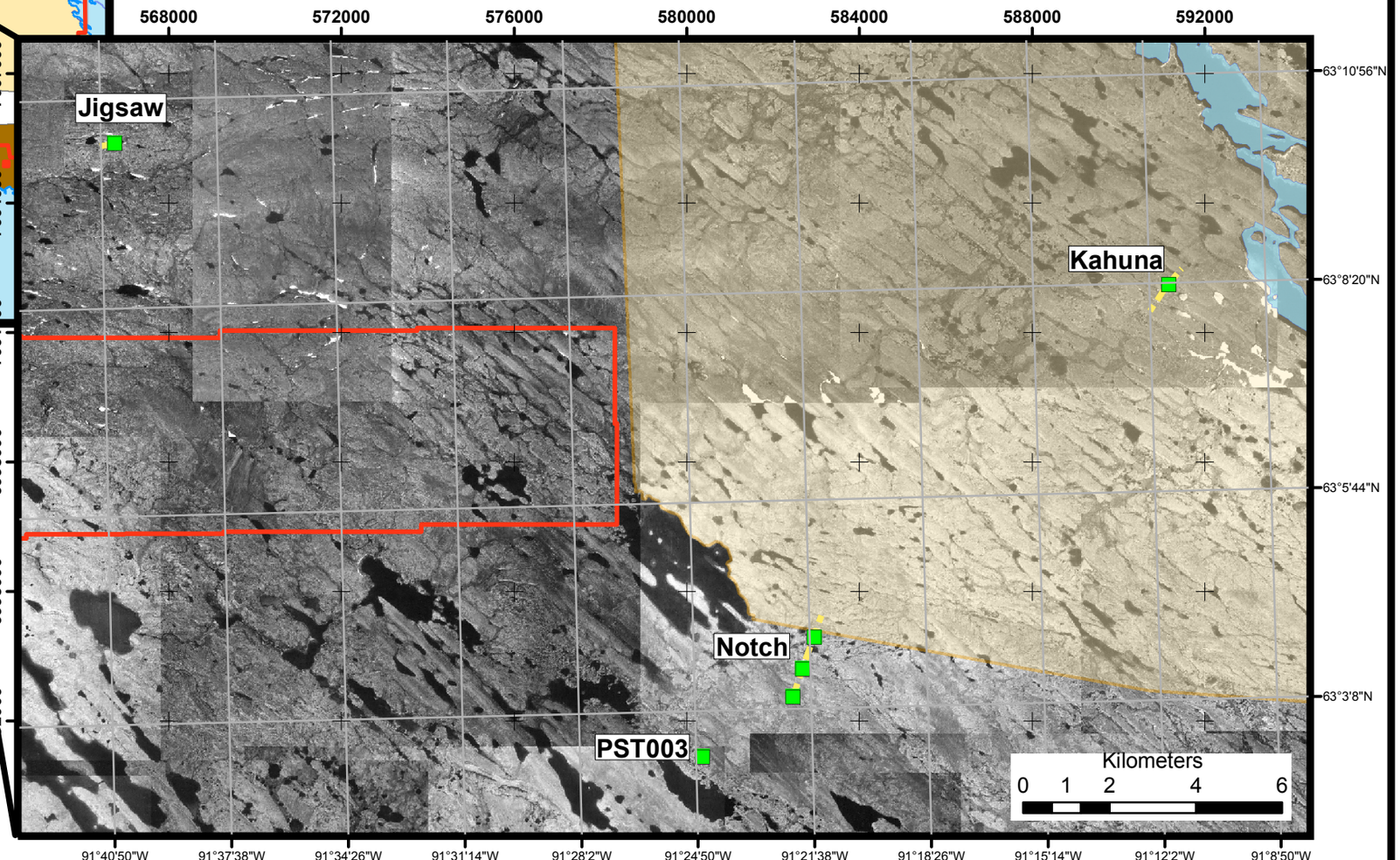

520000
540000
560000
580000
600000
620000
640000
7040000
7020000
7000000
6980000
63°30'0"N
63°20'0"N
63°10'0"N
63°0'0"N
62°50'0"N
92°24'0"W
92°0'0"W
91°36'0"W
91°12'0"W
90°48'0"W
90°24'0"W
N
Chesterfield Inlet
Rankin Inlet
Legend
Churchill property
Challenger overland route
Sedna Camp
Inuit owned lands (IOL)
Subsurface
Surface
Churchill Diamond Property
Overland Route
Nunavut, Canada
November, 2007
Kilometers
0 2.5 5 10 15


520000
540000
560000
580000
600000
620000
7040000
7020000
7000000
6980000
63°30'0"N
63°20'0"N
63°10'0"N
63°0'0"N
62°50'0"N
92°24'0"W
92°0'0"W
91°36'0"W
91°12'0"W
90°48'0"W
90°24'0"W
N
Chesterfield Inlet
Rankin Inlet
Legend
Sedna Camp
airstrip2006 Events
Churchill property
Airphoto
Value
High : 255
Low : 0
Churchill Diamond Property
Camp and Airstip location
Nunavut, Canada
November, 2007
Kilometers
0 3.75 7.5 15


520000
540000
560000
580000
600000
620000
7040000
7020000
7000000
6980000
63°30'0"N
63°20'0"N
63°10'0"N
63°0'0"N
62°50'0"N
92°24'0"W
92°0'0"W
91°36'0"W
91°12'0"W
90°48'0"W
90°24'0"W
N
Chesterfield Inlet
Rankin Inlet
Legend
Proposed areas of ground geophysics and drilling
Sedna Camp
Churchill property
Inuit owned lands (IOL)
Subsurface
Surface
Churchill Diamond Property
Proposed Areas of 2008 Ground Geophysics and Drilling
Nunavut, Canada
November, 2007
Kilometers
0 2.5 5 10 15

2007 Proposed Trench Sites on the Churchill Property, Nunavut





Legend

- 2007 Proposed Trench sites
- Dyke Trace
- Settlements
- Churchill Property

Inuit Owned Lands

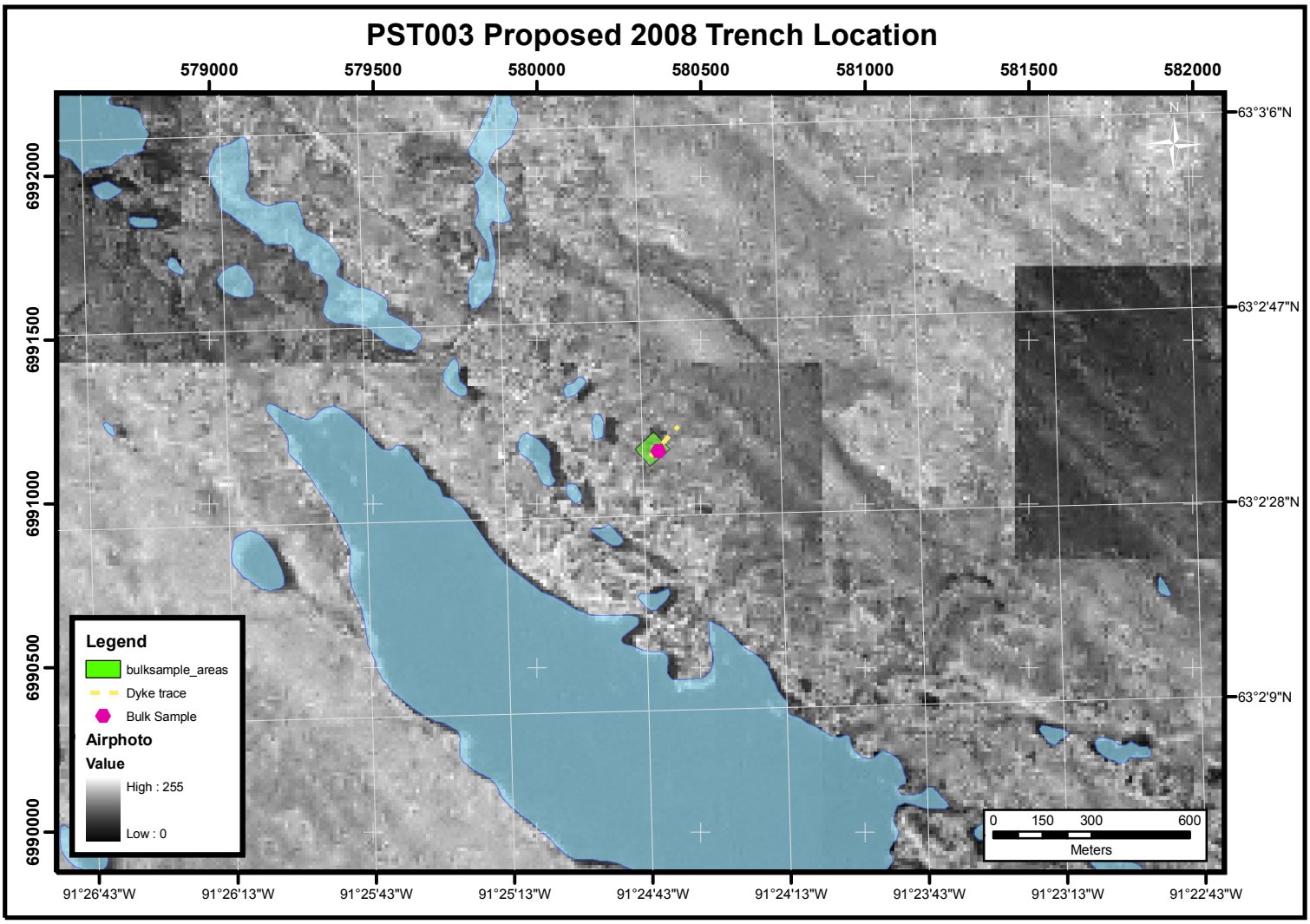
- CROWN
- SUB
- SUR

Airphoto Value

High : 255

Low : 0

Nad 27, Zone 15

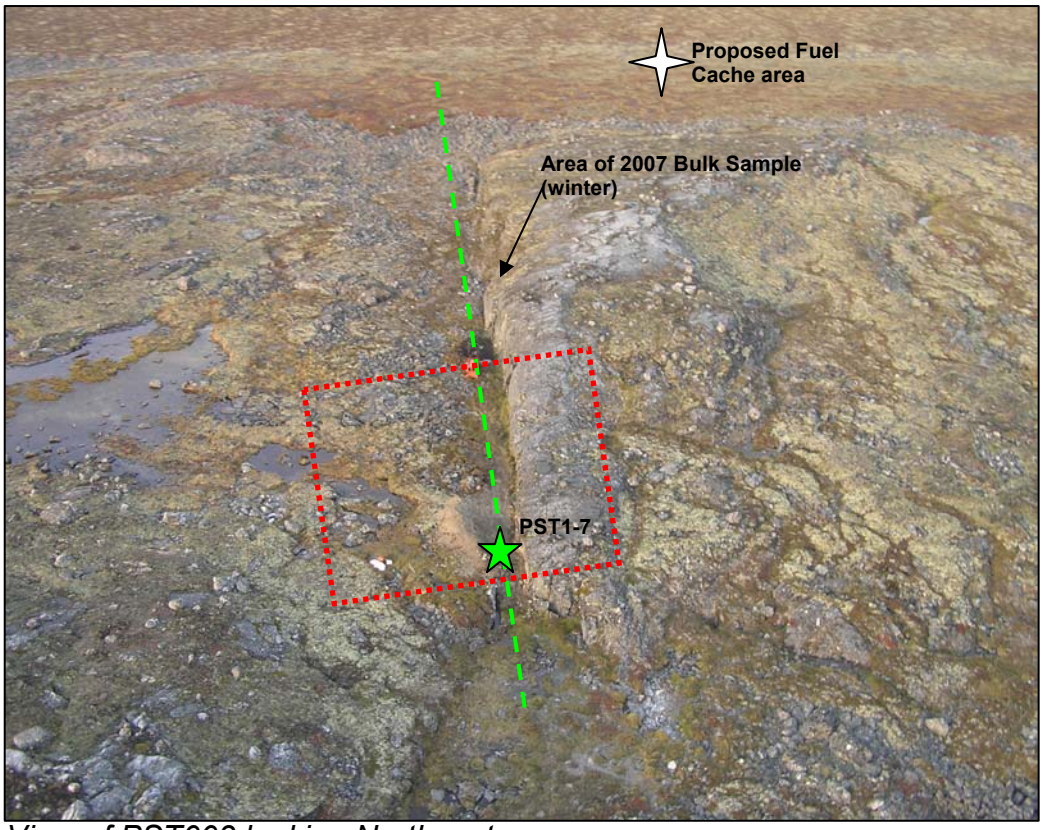


Trench Corner Points Coordinates:

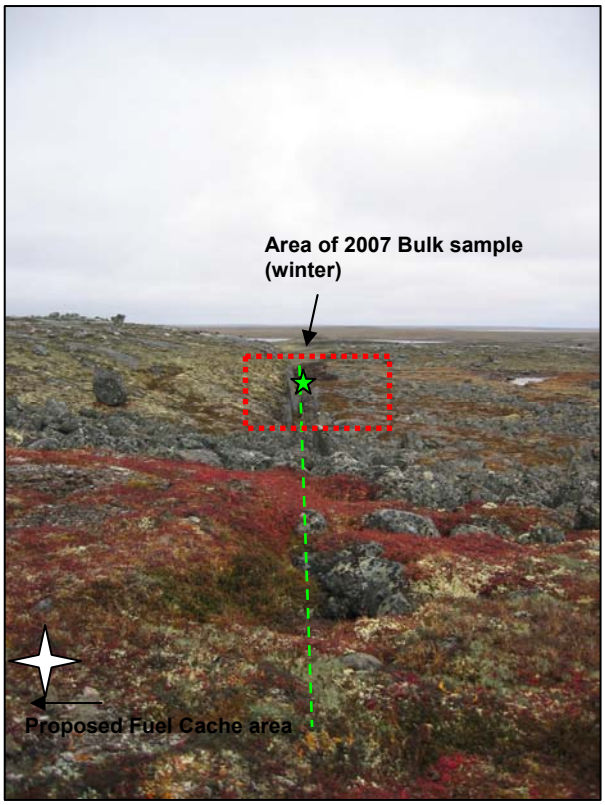
	Easting	Northing	Latitude	Longitude
NW	580353	6991220	63.0434	-91.4112
NE	580403	6991168	63.0429	-91.4102
SE	580343	6991117	63.0424	-91.4114
SW	580297	6991167	63.0429	-91.4123

UTM: NAD 27 Zone 15

PST003



View of PST003 looking Northeast



View of PST003 looking Southwest

Site Description:

PST003 is a NE trending dyke that measures roughly 1meter in width. PST003's weak magnetic signature can be traced for approximately 500 m, and has been drill tested over 150 m. This dyke was mini-bulk sampled in September 2006, whereby 4.1 tons of kimberlite was extracted from one surface trench depicted by the green star in the photographs above.

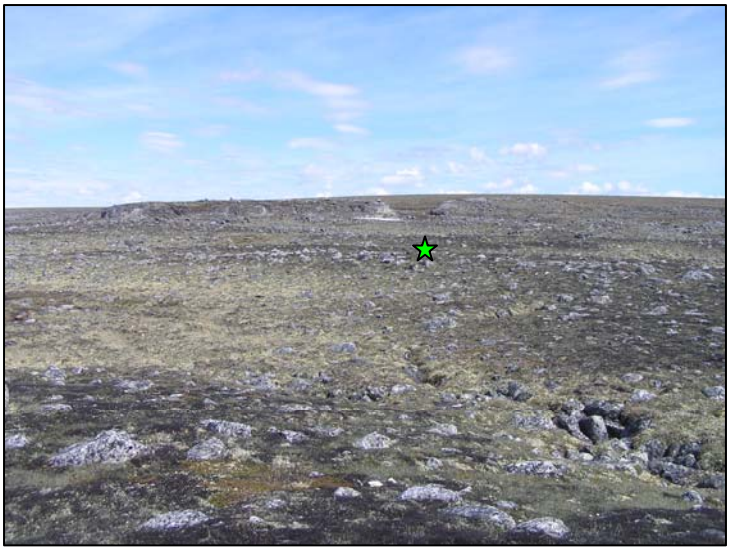
The 2008 bulk sample is planned to extract up to 200 tons of kimberlite from this area, to the northeast and possibly to the southwest of the 2006 trenching site. It is proposed that bulk sampling be done only in the winter/spring when the ground is frozen to avoid any water.

The PST003 dyke is located in an area of rough terrain that has been stripped of it's till cover. The area is interpreted to be at the margin of a glacial meltwater channel that was bounded by higher ground made up of streamlined till deposits on either side. The area can be described as dominantly exposed outcrop with boulder fields, sandy hummocky mounds or deposits and a thin till veneer hosting typical tundra vegetation.

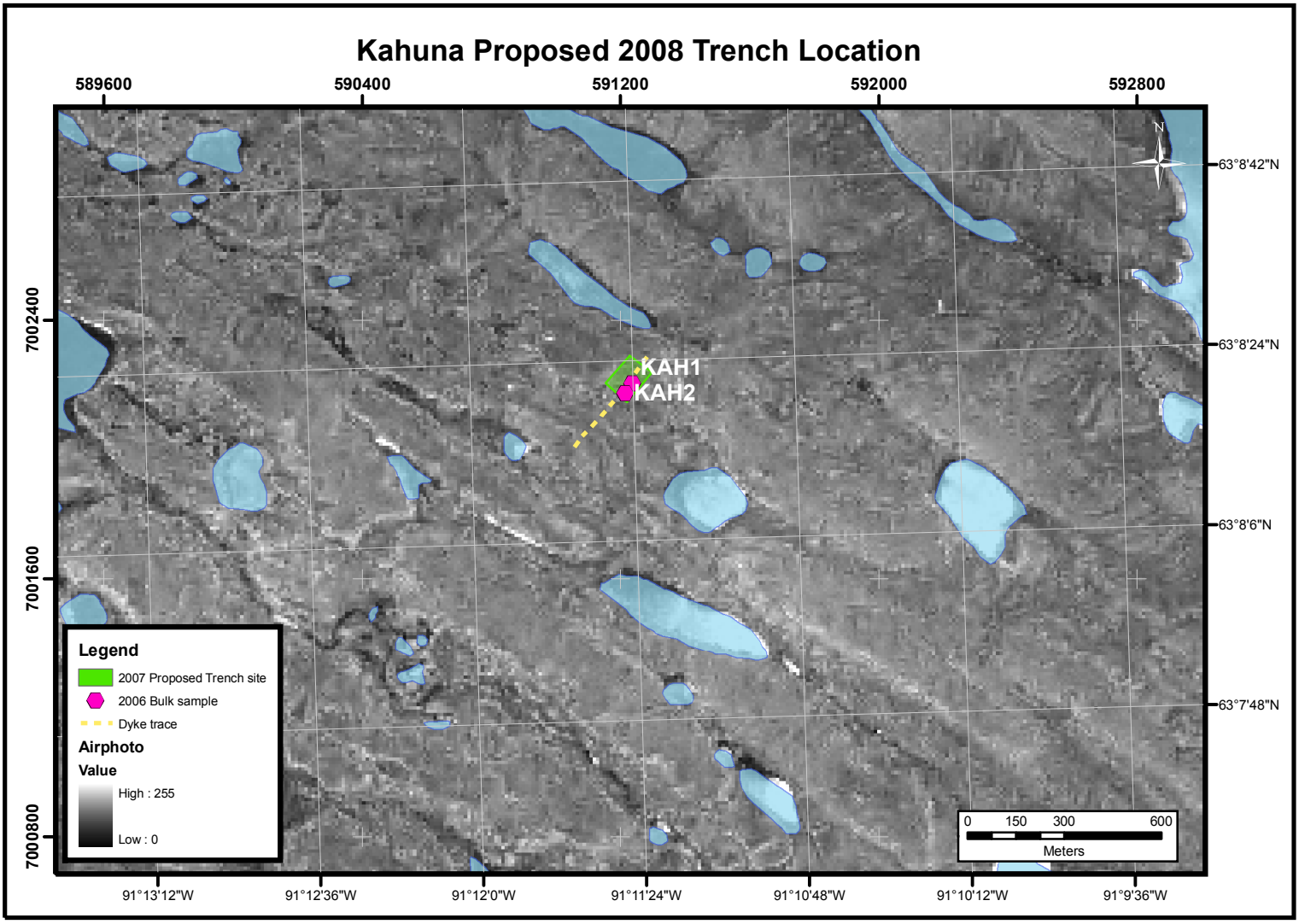
The photograph above with the view to the northeast clearly shows the location of the dyke along a 'whaleback' outcrop exposure of granite. Towards the top of the photograph a streamlined till blanket can be seen that gently climbs in elevation to the northeast. In the immediate bulk sample area, it is estimated there is 85% bedrock and 15% overburden cover.

The ground to the west of PST003 is dominantly exposed bedrock or bedrock with a thin (<0.5m) veneer of till and tundra vegetation. Water is trapped in the form of a small pond immediately to the east, where there is a topographic dip in the bedrock surface. This water drains to the south during the spring melt, to a small lake that is located 300 m away.

The ground gently slopes down immediately to the south of the 2006 surface trench and is described as being a thin sandy till deposit with numerous boulders and polished bedrock exposures, becoming more hummocky sand and boulder deposits with small lakes >300 m to the south.



View to the northeast from the small lake 300 m to the south.
PST003 mini-bulk sample site at green star.

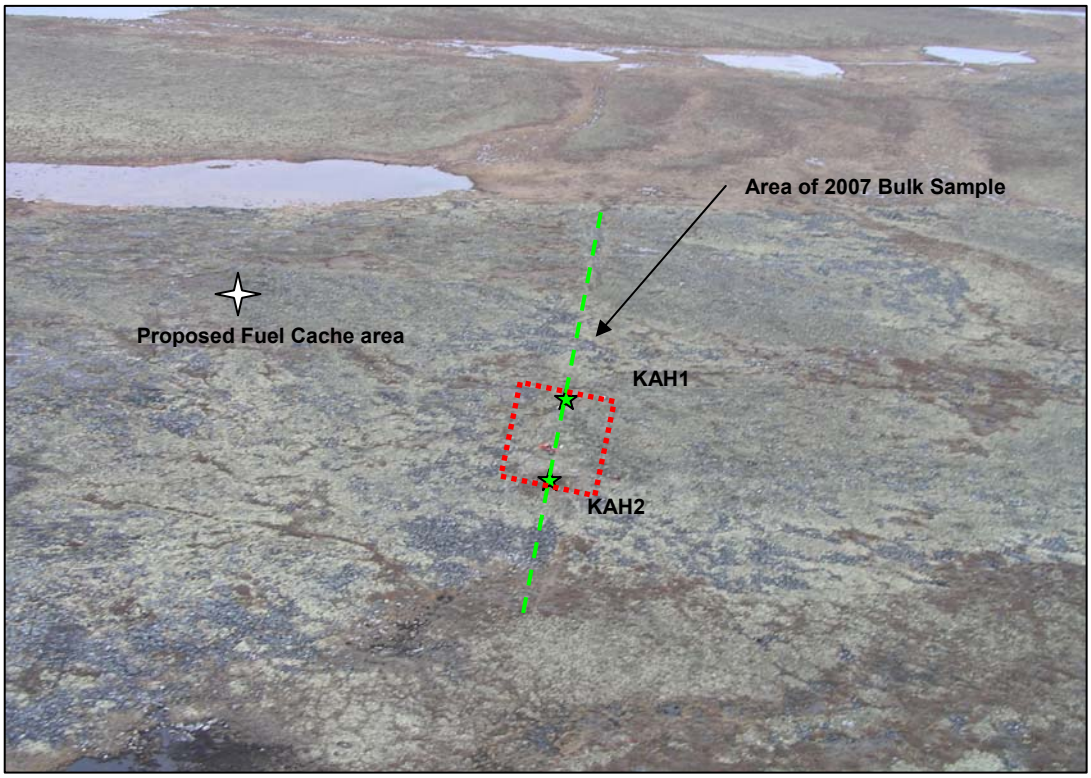


Trench Corner Points Coordinates:

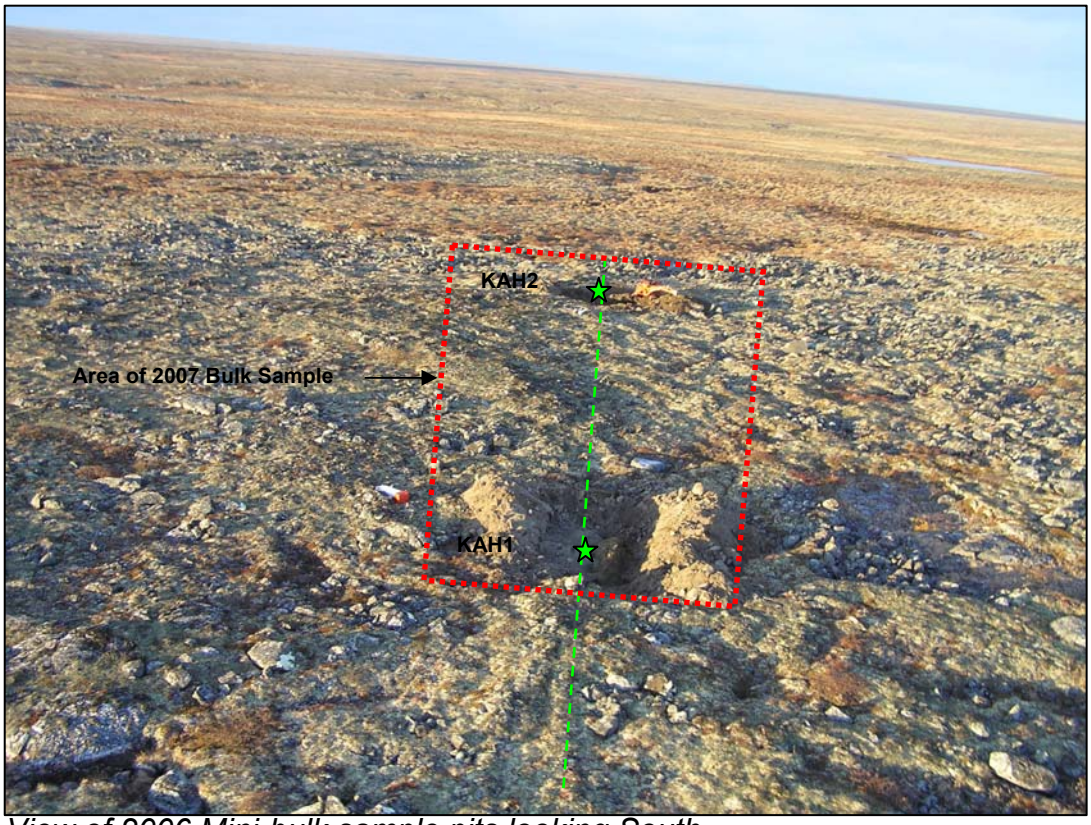
	Easting	Northing	Latitude	Longitude
NW	591228	7002290	63.1401	-91.1901
NE	591297	7002240	63.1396	-91.1888
SE	591219	7002146	63.1388	-91.1904
SW	591154	7002204	63.1393	-91.1916

UTM: NAD 27 Zone 15

KAHUNA



View of 2006 Mini-bulk sample pits looking North



View of 2006 Mini-bulk sample pits looking South

Site Description:

Kahuna is a northeast trending dyke that has drilled true widths of up to four (4) meters. Kahuna's weak magnetic signature can be traced for approximately six (6) kilometers. This dyke was mini-bulk sampled in September 2006 at approximately the center of the six kilometer linear trend, where kimberlite was discovered at surface from ground prospecting. The two green stars in the photographs above illustrate the two sample trenches, located approximately 30m apart (Kubota can be in both photos for scale), where 3.6 tons of kimberlite was extracted.

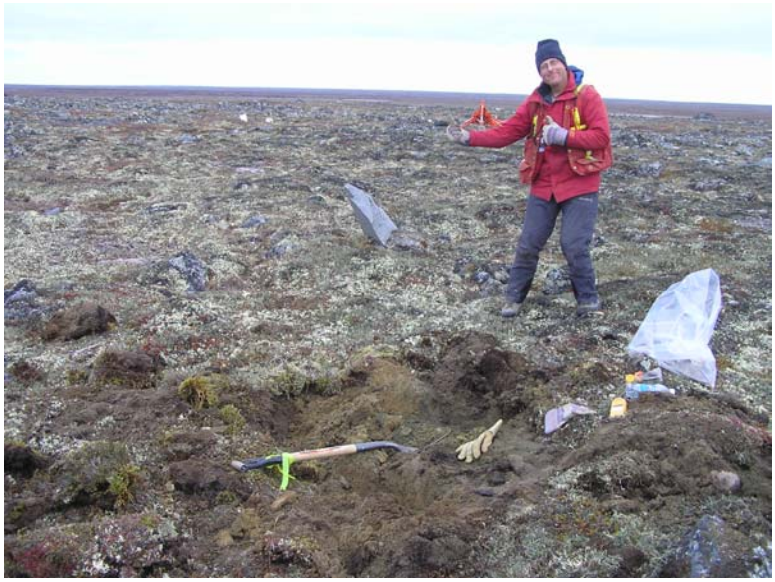
The 2008 bulk sample is planned to extract up to 200 tons from this area between the 2006 trench locations.

As can be seen from the photograph, the area that will be affected by the bulk sampling is dominated by a sandy washed till layer of approximately 1-2 meters, with patches of boulders strewn about (95% sandy till with thin vegetation, 5% boulder patches), mainly to the south and west. The area directly to the east is dominated by a sandy washed till layer. Vegetation in the area consists of typical tundra mosses and shrubs growing in a thin humus layer.

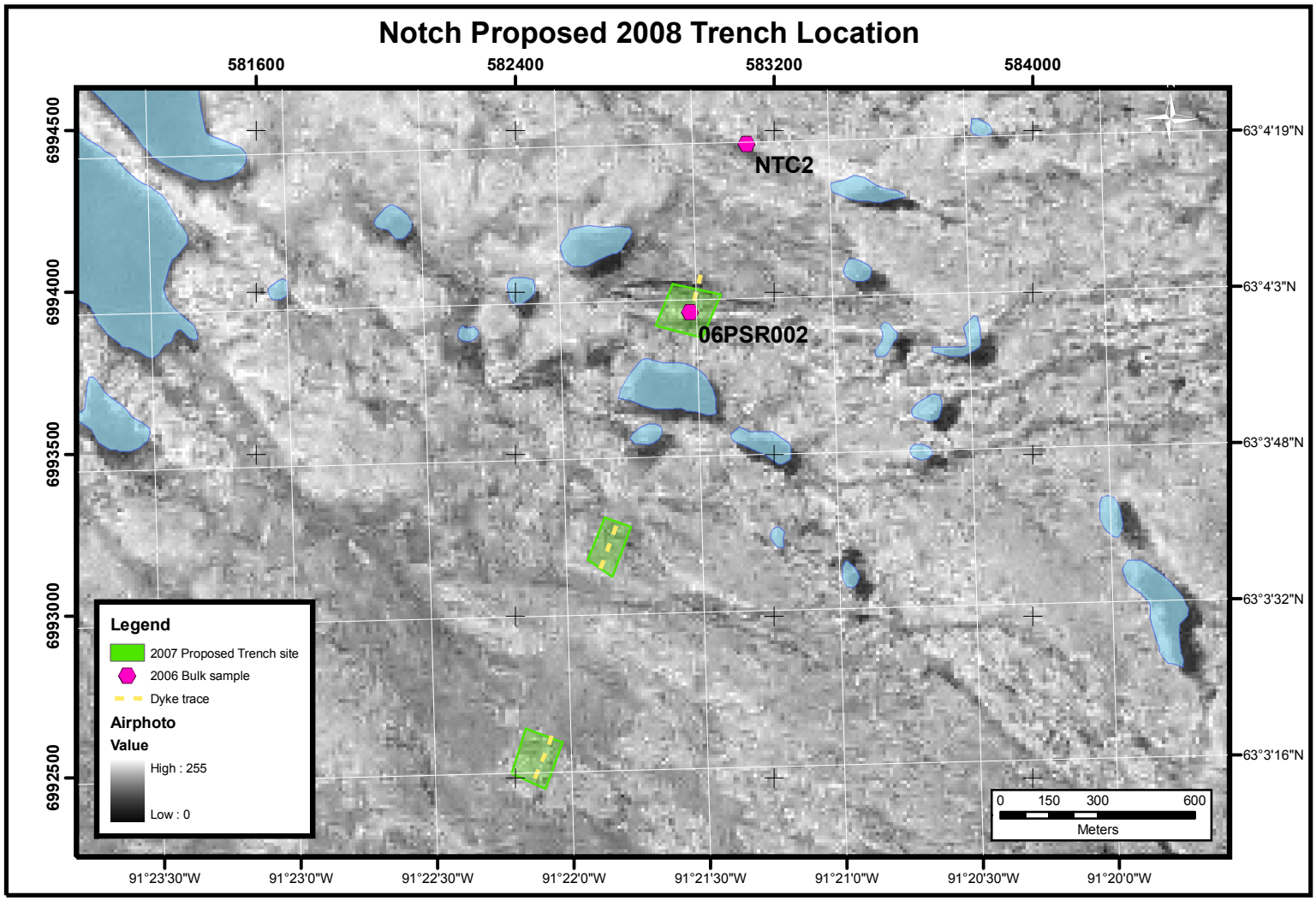
The area under consideration is topographically flat, with a rise towards the west where there is outcropping bedrock less than 100m away.

Roughly 20m to the south of the southern most mini-bulk sample trench, the ground elevation steps down slightly to a wetter, more swampy area, that would be completely avoided during bulk sampling.

Because of the flat, dry nature of this proposed bulk sample site, work could be conducted in the summer with no disturbance to any bodies of water or drainages, should sampling not get completed in the spring.



KAH2 site, looking north-northeast. Enlarge and can see vegetation.



Trench Corner Points Coordinates:

Notch Main

	Easting	Northing	Latitude	Longitude
NW	582887	6994027	63.0680	-91.3597
NE	583035	6993993	63.0676	-91.3568
SE	582978	6993861	63.0665	-91.3580
SW	582834	6993897	63.0668	-91.3608

Notch South

	Easting	Northing	Latitude	Longitude
NW	582432	6992653	63.0557	-91.3694
NE	582546	6992610	63.0553	-91.3671
SE	582494	6992466	63.0541	-91.3682
SW	582389	6992514	63.0545	-91.3703

Notch Central

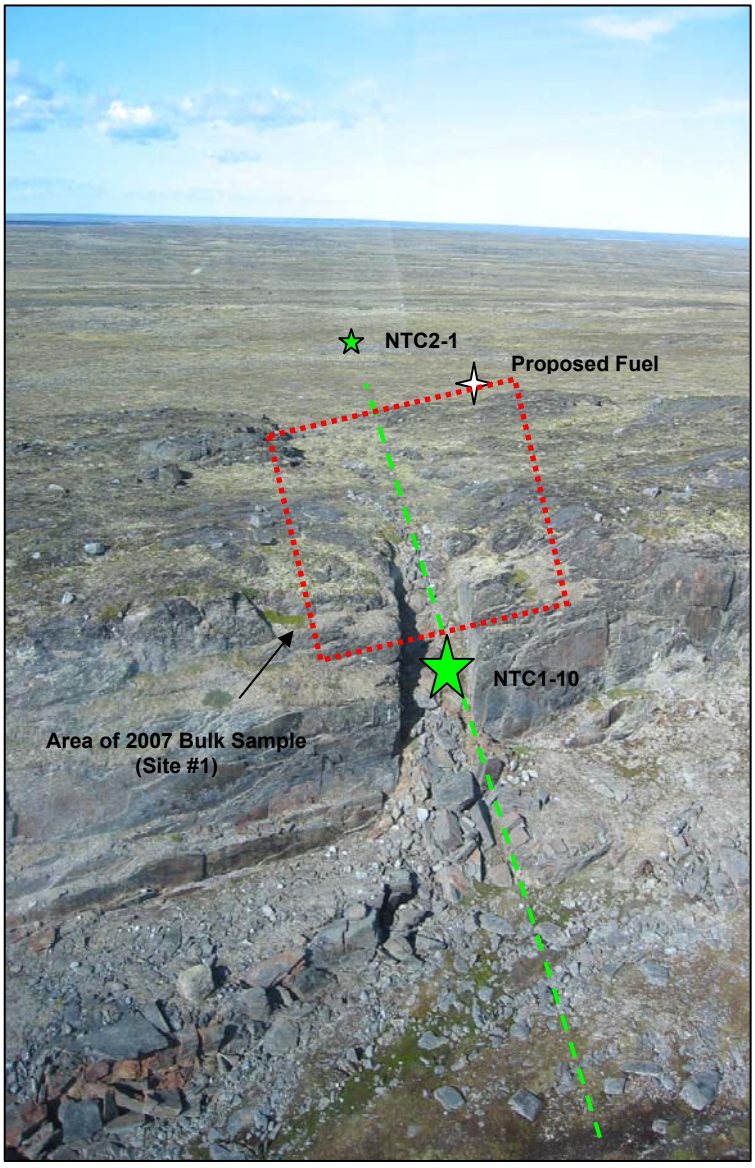
Easting	Northing	Latitude	Longitude
582677	6993304	63.0615	-91.3642
582757	6993276	63.0613	-91.3626
582699	6993123	63.0599	-91.3639
582623	6993175	63.0604	-91.3653

UTM: NAD 27 Zone 15

NOTCH

Three potential sites are described below for the 2008 bulk sampling program, as we believe there may be 2 other sites besides Site #1 shown below that have favorable conditions for sampling (ie. thin overburden cover and away from any water).

Site #1



View of the Notch looking NE – Site #1

Site #1 Description:

The Notch is a NE trending dyke that averages 1.5 meters in width. The Notch's weak geophysical signature can be traced for more than 2.5 km. This dyke was drilled from 6 different locations along it, and was mini-bulk sampled in September 2006 from two locations indicated by the green stars in the photo above, whereby 5.4 tons were extracted from NTC1 and 0.6 tons were extracted from NTC2.

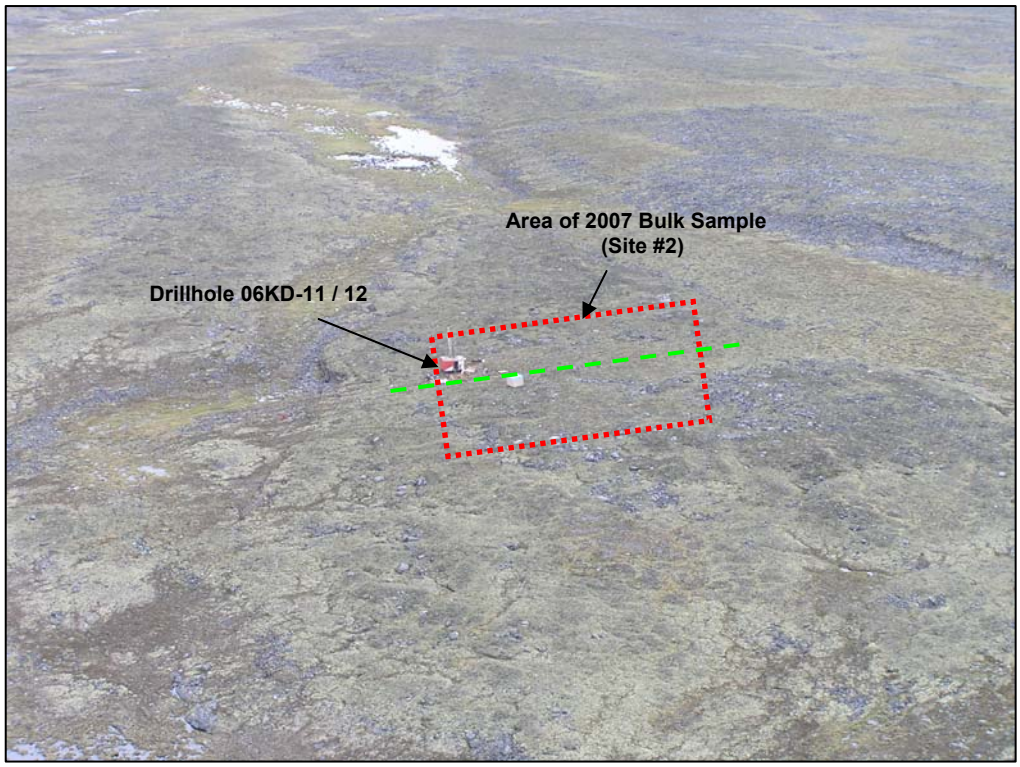
The 2008 bulk sample is planned to extract up to 200 tons of kimberlite from this area, or in combination with Site(s) #2 & 3 which are described below.

The Notch Site #1 is located atop a prominent E-W trending outcrop that is approximately 15-20 meters in height and 80 meters across in width. The immediate area along the top of the ridge is dominantly exposed bedrock with a thin till veneer infilling depressions or the weathered out surface expression of the Notch Dyke. The surface cover is estimated to comprise 80% bedrock and 20% sandy till veneer with the typical tundra vegetation seen across the property.

The ground to the north of the ridge is comprised of a flat till blanket that is covered in sandy frost boils, boulder patches and local vegetation. The ground to the south of the ridge is strewn with large angular boulders that have broken off the ridge, and then gently slopes down towards a shallow lake that is roughly 175 meters away. A seasonal drainage running parallel to the ridge, which is mostly dry in the summer with patches of grass and moss is approximately 75 meters from the proposed sample site (see photo below).

Photograph taken from on top of E-W trending ridge, looking to the south.

Site #2



View of The Notch Dyke (Site #2) looking towards the Southeast

Site #2 Description:

Site #2 is situated 800 meters to the southwest of Site #1, in an area of higher ground that slopes gently upwards towards the south. The ground slopes down towards the north, and there is a slight drop with exposed bedrock roughly 35 meters to the north of the proposed sample area.

As seen in the photograph above, the surface expression of the kimberlite dyke is dominantly till and is estimated to be approximately 2-4 meters in thickness. The till is sandy in nature and has the typical tundra vegetation growing around frost boils and boulder piles. Outcropping bedrock is limited in the area to the northern exposure noted above.

The shallow lake to the north is located 350 meters away, and there is also small drainage feeding to this lake that is in the lower ground to the north, approximately 50 meters from the limit of the proposed bulk sample site #2.

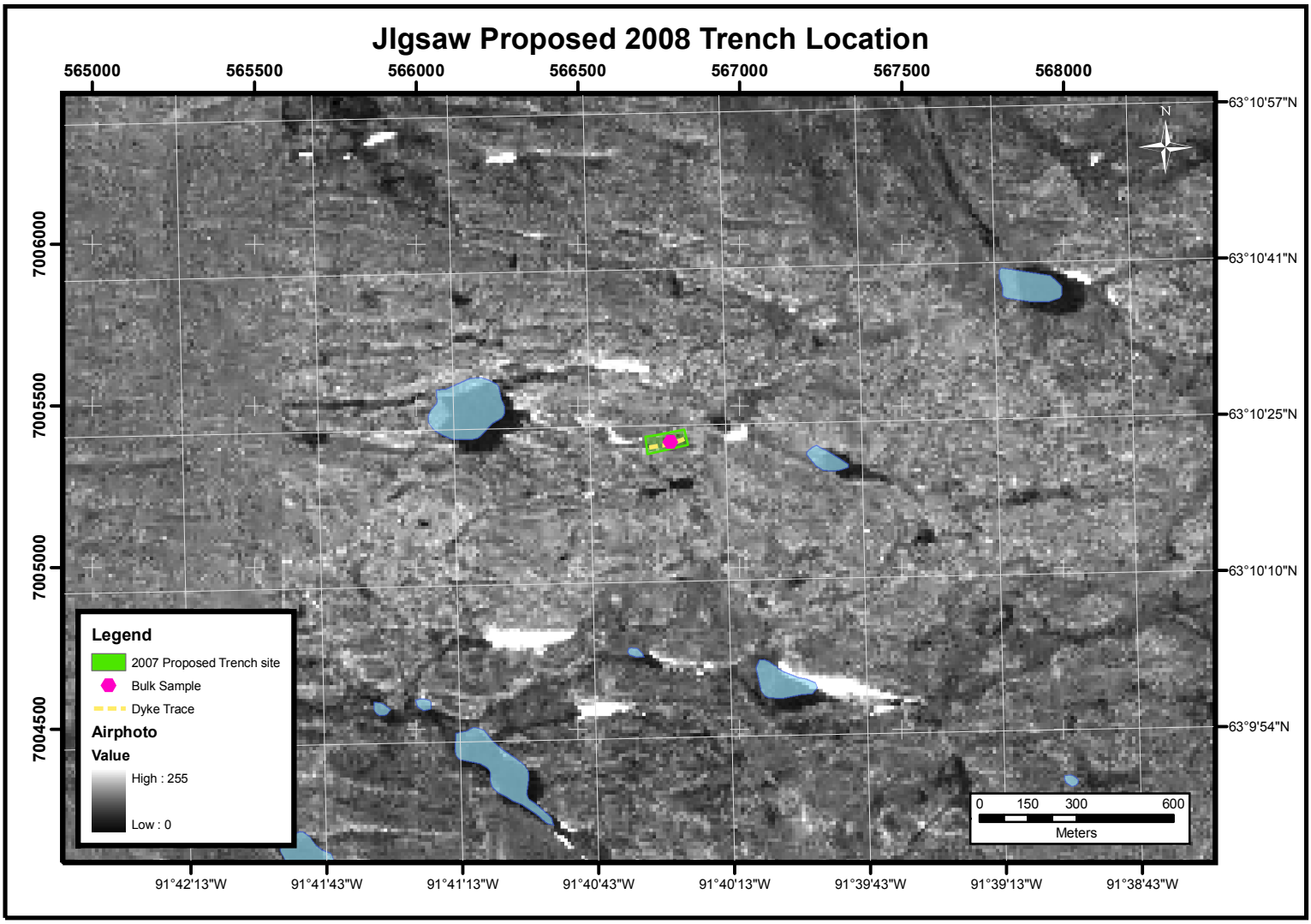
Site #3

View of The Notch Dyke (Site #3) looking towards the East

Site #3 Description:

Site #3 is situated 1.5 km to the southwest of Site #1, and 700 meters southwest of Site #2 in an area of higher ground that is relatively flat. The kimberlite lies beneath a linear strip of sandy till that is a mixture of frost boils, boulders and typical tundra vegetation on surface, and has an estimated thickness of 2-4 meters. This strip is approximately 20 meters in width, and is bounded by areas of sub- to outcropping bedrock and boulder fields on either side.

There are no water bodies or drainages in the area.

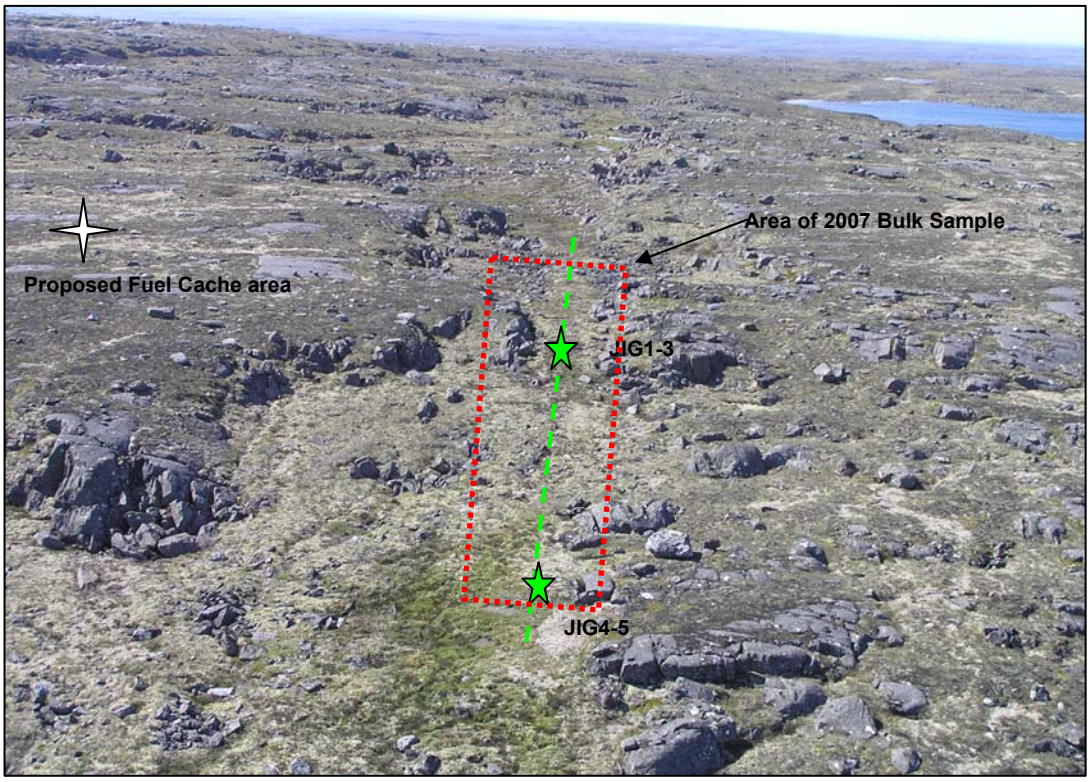


Trench Corner Points Coordinates:

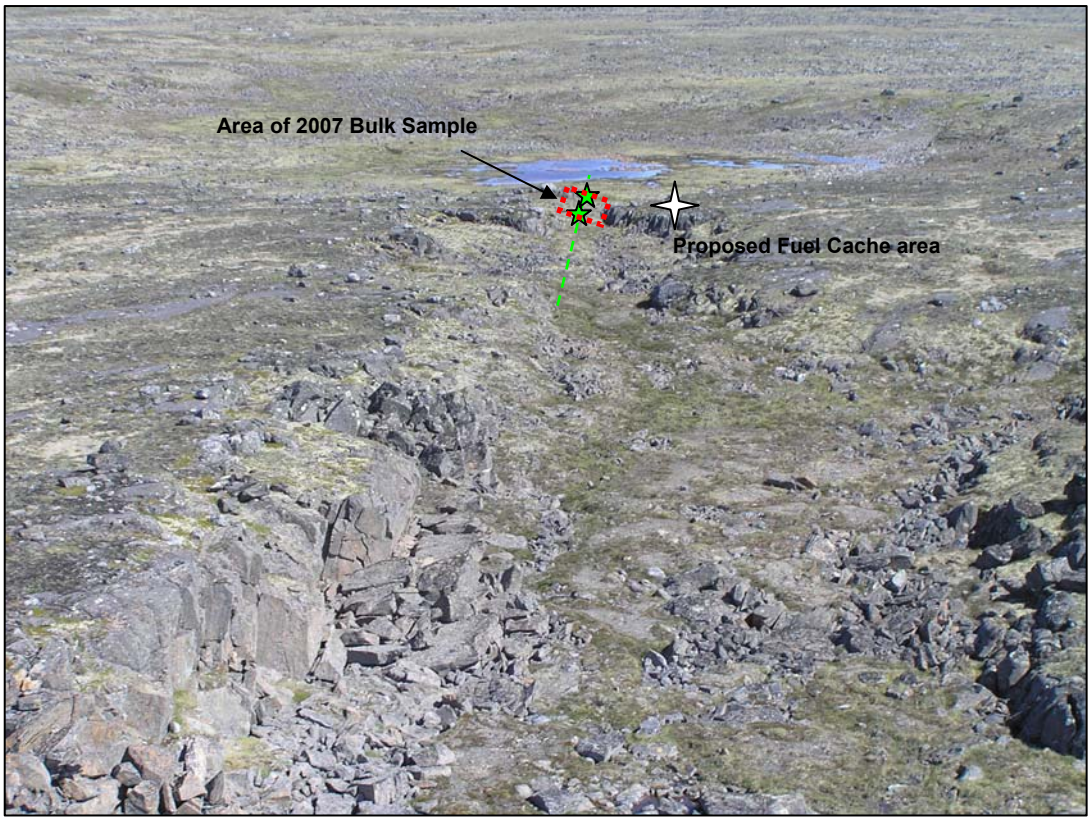
	Easting	Northing	Latitude	Longitude
NW	566707	7005405	63.1734	-91.67516487
NE	566828	7005427	63.1736	-91.67275349
SE	566840	7005381	63.1732	-91.67253413
SW	566715	7005351	63.1729	-91.67502817

UTM: NAD 27 Zone 15

JIGSAW



View of Jigsaw Dyke and Mini-bulk sample pits looking West



View of Jigsaw Dyke and Mini-bulk sample pits (in background) looking East

Site Description:

Jigsaw is an E-W trending dyke that measures an average 1.3 meters. Jigsaw's weak magnetic signature can be traced for roughly 1 km. This dyke has not yet been tested by diamond drilling, but was mini-bulk sampled in September of 2006, whereby 5.7 tons of kimberlite was dug from two surface trenches located approximately 40 meters apart (green stars in photographs above).

The 2008 bulk sample is planned to extract up to 200 tons from this area between the 2006 trench locations.

As the photographs above clearly demonstrate, the area of proposed bulk sampling is dominated by exposed bedrock, with a thin grassy strip between outcrops representing the weathered kimberlite dyke. Overburden cover in the area of sampling was measured to be less than 0.5 m thick. It is estimated the area that will be affected by bulk sampling is 40% exposed bedrock and 60% sandy till with a thin layer of tundra vegetation.

The topography in the region is relatively rugged compared to other sites further east, as it is at a higher elevation in a more bedrock exposed locale.

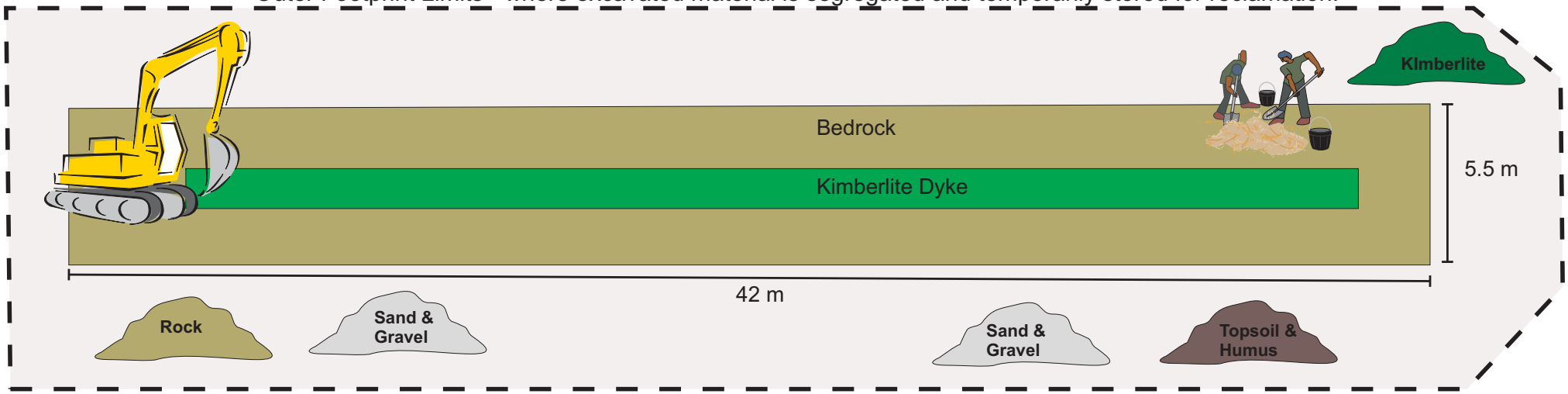
The nearest body of water consists of a small pond that is better described as a puddle in drier summer months and is situated in a bowl-like depression between higher grounds all around (see photograph above). There is no evidence in the area of proposed bulk sampling of any (even seasonal) drainage pattern. This small pond is located approximately 75 meters to the east of the easternmost mini-bulk sample pit, down a gentle slope.

The relatively flat and dry nature of the proposed bulk sample site could accommodate work to be carried out in the summer should sampling not get completed in the spring.

Mini Bulk Sampling of a 1.5m wide Kimberlite Dyke

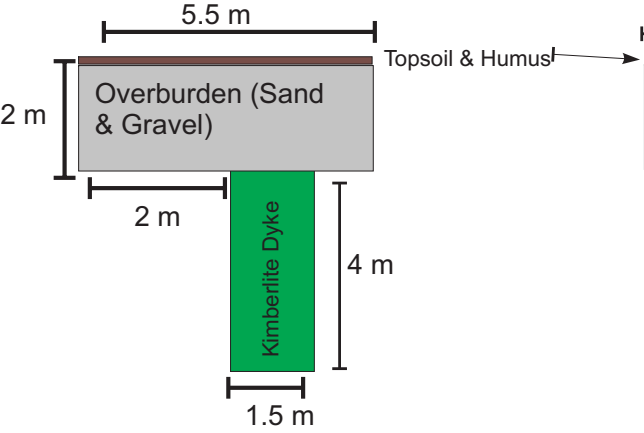
Plan View

Outer Footprint Limits - where excavated material is segregated and temporarily stored for reclamation.

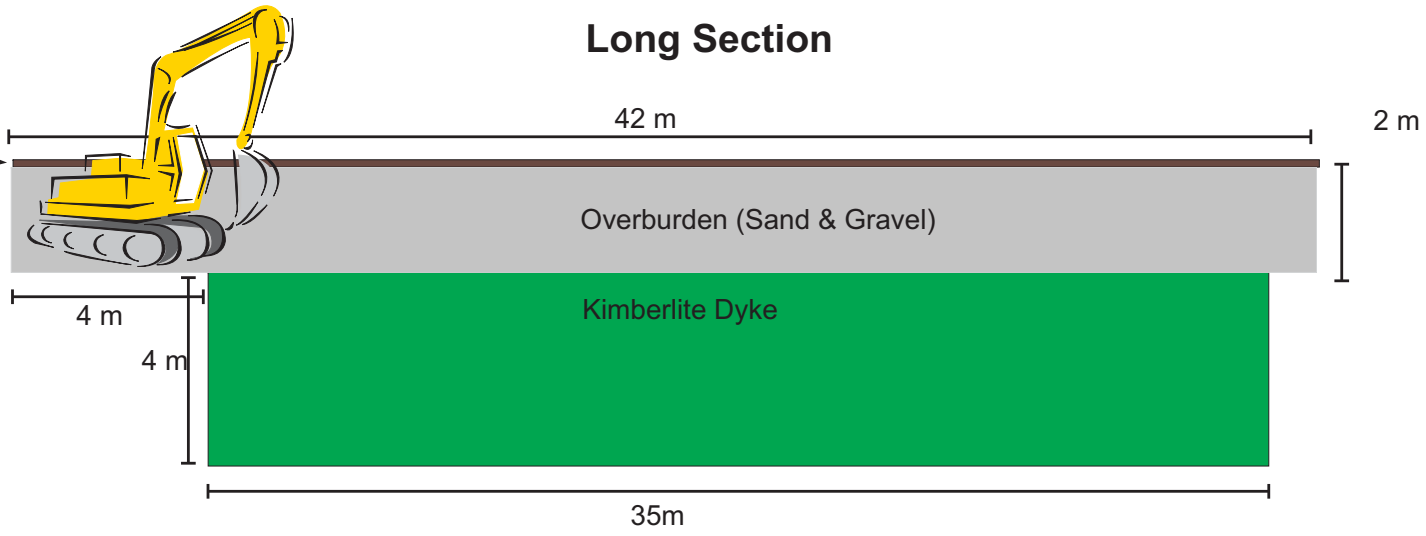


Humus

Cross Section



Long Section



Footprint Per Site will range from 0.03-0.15ha dependant on kimberlite dyke width.
Kimberlite Removed: 500 tonnes per site.