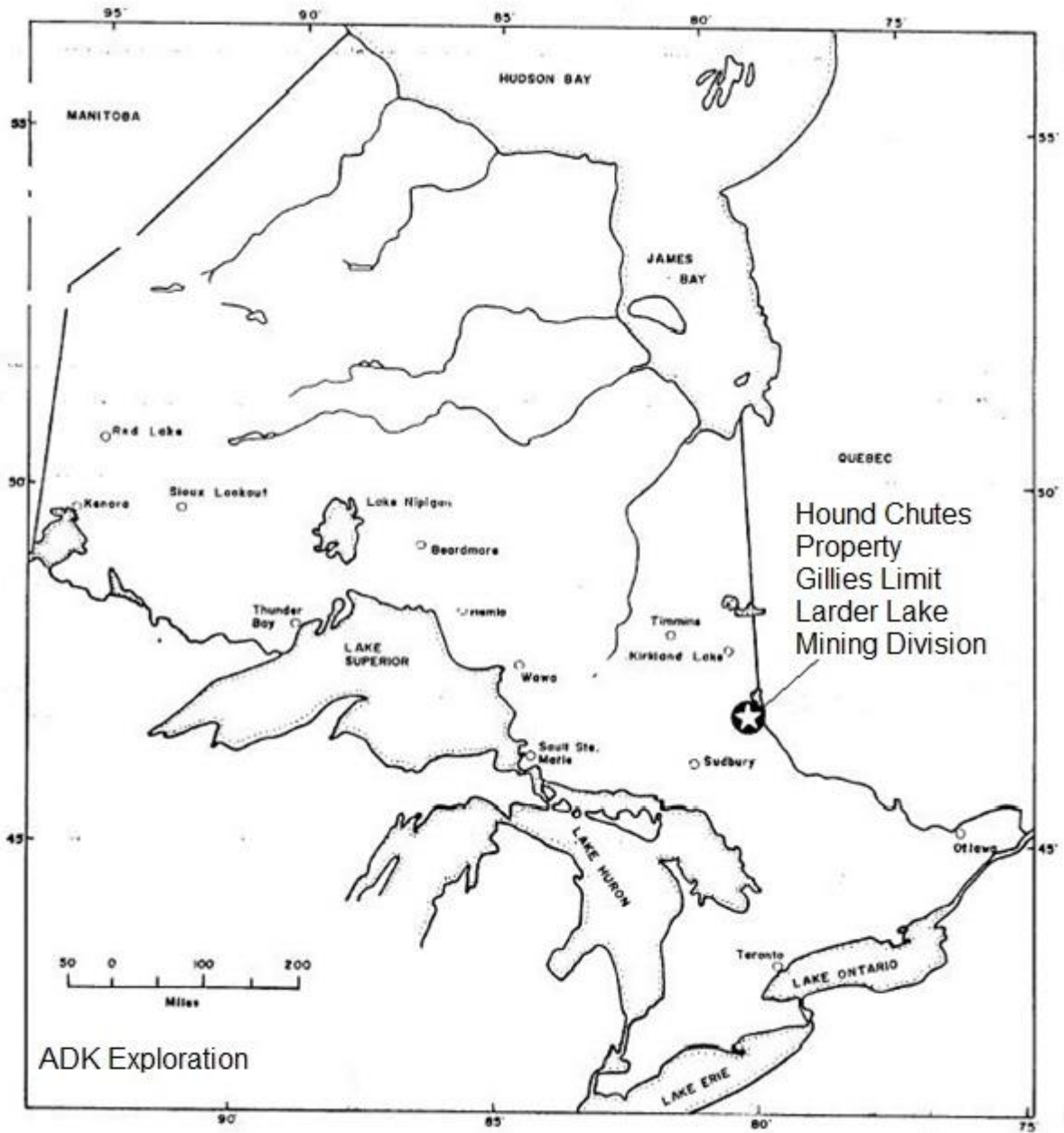


**Assessment Report  
On The Hound Chutes Rd  
Kon Kimberlite Dike**

**By**

**Alan Kon**

November 13, 2014



ADK Exploration

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## **INTRODUCTION**

This report is on the results of a kimberlite sample sent to the Earth Scientist Department, University of Alberta for Geochronology age dating using a U-Pb Perovskite dating process. Larry Heaman, Professor and Associate Dean, performed the analysis.

The sample was taken off a Kimberlite dike discovered by Alan Kon in 2012. The property is comprised of claims 3007492, 1140510, 4243947, 4262043, 4268296, 4268297, 4273067, 4273068, 4268283, 4272024.

The kimberlite samples were sent for age dating analysis in order to determine the specific age of the kimberlite and how it fits in with other kimberlites in the Timiskaming area.

This report has been prepared by Alan Kon of Haileybury/ North Cobalt Ontario.

## **PROPERTY LOCATION AND ACCESS**

The claims can be accessed by the Hound Chutes Road, an Ontario Hydro access road that departs south west from the town of Cobalt and follows the eastern side of the Montreal River. Hound Chutes hydro power dam is on the north side of the claims and the Ragged Chutes dam is less than 1 Km from the south side of the claims.

## **TOPOGRAPHY AND VEGETATION**

Maximum relief on the property is approximately 25 metres. Topography is generally rolling hills with local steep ledges and cliffs. Giroux Creek flows south and westward through the area and into the Montreal River.

Overburden is relatively shallow over the north and south parts of the claims but of unknown depth in the centre. Vegetation on the claims consists mainly of mature mixed forest and dense underbrush.

## **REGIONAL AND PROPERTY GEOLOGY**

The claims are located in the southern part of the Cobalt mining camp. Regionally the area is underlain by an N-S trending trough of Huronian metasedimentary rocks (Cobalt Group, Gowganda Formation, Coleman Member - conglomerates) that cover a complex Archean mafic volcanic terrain. In the Cobalt area the Archean volcanic and overlying Huronian sediments have been intruded by extensive Nipissing aged diabase sills and dykes. There is a strong possibility that the Coleman sediments in this area are underlain by a Nipissing sill. The youngest known consolidated rocks in the area are kimberlite rocks.

## **EXPLORATION HISTORY**

Extensive work has been carried out in the general Cobalt District but very little has been reported in the immediate area of the Hound Chutes claims. One drill hole was completed by E. Forbear in 1955 at a point approximately 75 m north west of the area.

In December 1998, High-Sense Geophysics Limited carried out an airborne electromagnetic survey over the area on behalf of Branchwater Resources Ltd. Seymour Sears carried out geological mapping in 2003 on behalf of Cabo Mining Corp.

During the summer months of 2009, Alan Kon performed a KIM survey and prospecting over parts of the claims on behalf of Diamond Exploration Inc.

A ground Magnetometer/VLF survey carried out between January 28 and February 4, 2011 by Larder Geophysics of Larder Lake Ontario and Alan Kon who did the initial consultation, ground inspection and organized the work.

Since acquiring the claims starting in 2011, Alan Kon has done a considerable amount of preliminary exploration including prospecting and follow-up sampling, overburden stripping projects and geophysical surveys.

## Kimberlite Sample

Four small kimberlite samples were taken on December 3, 2013. Two from the dike and two from broken rock on claim #4243947, ~ 599429E, 5239073N (see map sketch at back). Then brought back to North Cobalt and cut into thin ¼ inch slabs using a core/rock saw owned by Alan Kon. The samples were then sent to Larry Heaman of the Earth Sciences Department at the University of Alberta.

Results of the age dating process were returned on November 10, 2014. (see below)

### Report on U-Pb Dating of Kimberlite Sample 2013-KIM-AL

*\*A small amount of kimberlite whole rock was submitted by Al Kon for U-Pb perovskite dating. The sample was process through standard crushing (puck mill) and mineral separation (Wilfley Table, magnetic and heavy liquids). A modest yield of orange to brown perovskite cubes was recovered. They varied in size (15-80 microns) and degree of rounding. A single fraction of 40 slightly resorbed orange perovskite cubes was hand selected for dating. The fraction was cleaned in acid, weighed using an ultramicrobalance, dissolved in a mixture of HF/HNO<sub>3</sub> + 205Pb/235U tracer solution for 72 hours on a hotplate at 100oC. Uranium and lead were purified using anion exchange chromatography and their isotopic compositions determined using a VG354 thermal ionization mass spectrometer. This perovskite fraction has moderate U content (41 ppm) and a 206Pb/238U age of 153.5±3.0 Ma (2 sigma), interpreted to be the age of perovskite crystallization and kimberlite emplacement\*.*

Larry Heaman

### Relation to other Timiskaming Kimberlites

The age of the Kon Kimberlite dike would appear to be one of the mid to older kimberlites in the Timiskaming area, (see table below).

Location	Name	Ma	Plus or mi	Method		
Timiskaming	Notre-Dame du Nord	126.6	1.0	Rb-Sr	phlogopite	
Timiskaming	Glinker	133.9	1.5	U-Pb	perovskite	
Timiskaming	OPAP	138.8	2.6	U-Pb	perovskite	
Timiskaming	MacLean	141.9	2.8	U-Pb	perovskite	
Timiskaming	Guigues	142.3	6.6	U-Pb	perovskite	
Timiskaming	Gravel	151.8	2.2	U-Pb	perovskite	
Timiskaming	Kon/Houndchutes	153.5	3.0	U-Pb	perovskite	
Timiskaming	Peddie	153.6	2.4	U-Pb	perovskite	
Timiskaming	Seed	153.7	1.8	U-Pb	perovskite	
Timiskaming	Sudbury Contact	155.3	2.2	U-Pb	perovskite	
Timiskaming	Bucke Twp. (BU1)	155.4	1.5	U-Pb	perovskite	
Timiskaming	KRVY - Exact age unknown					

## **In Conclusion**

Whether the age of the Kon Kimberlite indicates if there are diamonds present in the dike or pipe is undetermined at this time. The geo chronology age dating was performed only to determine the specific age of the Kon Kimberlite and how it relates to other Timiskaming area Kimberlites.

There were several more suspected dikes and/or pipes on the Hound Chutes claims identified by Magnetometer surveys and KIM sampling including the main target pipe approximately 150 metres south of the Kon Kimberlite dike which will be uncovered and sampled in the future. Geo chronology age dating may be performed on the Kimberlite pipe as well.

Thank you.

A handwritten signature in black ink that reads "Alan Kon". The letters are cursive and somewhat slanted.

Alan Kon

**References:**

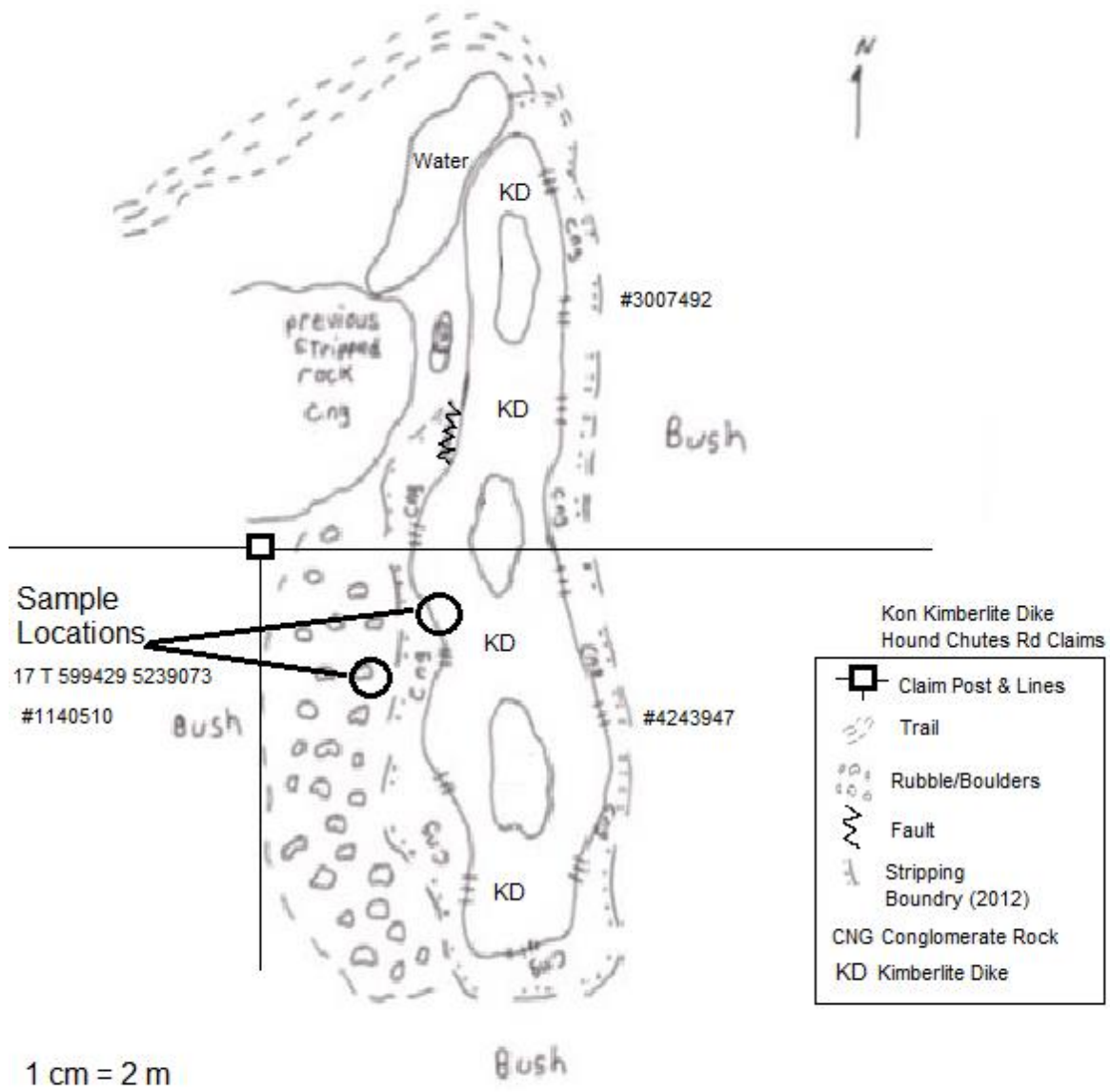
The temporal evolution of North American kimberlites

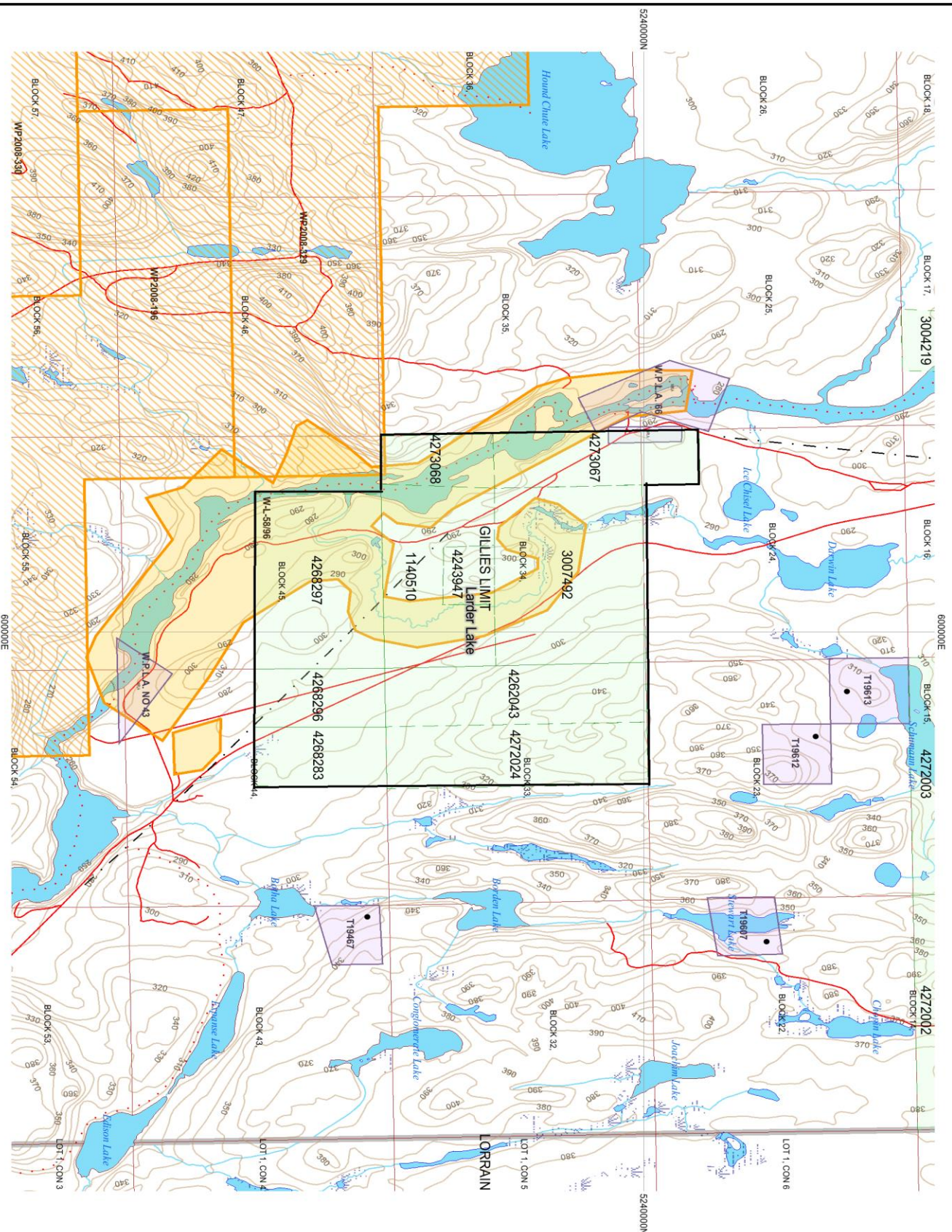
Larry M. Heaman<sup>a,\*</sup>, Bruce A. Kjarsgaard<sup>b</sup>, Robert A. Creaser<sup>a</sup> 2004

Timing of eastern North American kimberlite magmatism:  
continental extension of the Great Meteor hotspot track?

L.M. Heaman <sup>a,\*</sup>, B.A. Kjarsgaard <sup>b</sup> 2000







UTM Zone 17  
500m grid

600000E

5240000N

5240000N