

GM 60515

ASSESSMENT REPORT ON THE TICHEGAMI RIVER AND BEAVER LAKE PROJECTS

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Québec 

**Assessment Report
on the
Tichegami River
and
Beaver Lake Projects,

Otish Mountains Region,
North Central Quebec**

**for
Pure Gold Minerals Inc.
1255 West Pender Street
Vancouver, BC
V6E 2V1**

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January 31, 2003

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Summary

In January 2002 Pure Gold Minerals acquired an option to earn interests on two mineral properties in the Otish Mountains from Ditem Explorations Inc. These properties are known as the Tichegami River (391 claim cells) and Beaver Lake (167 claims) properties. Subsequently the Beaver Lake South (461 claims) and Toco River (302 claims) properties were jointly staked, which collectively make up the Otish Mountain Diamond Project. The Tichegami River, Beaver Lake and Beaver Lake South blocks are contiguous, and the Toco River block lies 4 kilometres east of the Beaver Lake South block. This report will deal only with work carried out on the Tichegami and Beaver Lake blocks.

Pure Gold Minerals completed three exploration programs on these properties during the period January 2002 through August 2002. These programs consisted of an airborne magnetic survey, ground magnetic and gravity surveys, till sampling and diamond drilling. As a result of this work two new kimberlites were discovered on the Tichegami Property, one of which is diamondiferous. Two additional targets were defined on the Tichegami block and two on the Beaver Lake block which display encouraging magnetic signatures and indicator mineral geochemistry.

The airborne magnetic surveys resulted in the definition of numerous targets on all of the properties, which required ground follow up. The airborne data was submitted to geophysical consultant Keith Jones for evaluation and prioritization of the anomalies. Till sampling was carried out down ice of selected high priority airborne anomalies and totalled 54 samples from 18 anomalies. Eight holes totalling 502 metres were drilled on 6 anomalies, all on the Tichegami block.

The drill programs resulted in the discovery of two kimberlite bodies, labelled H-1 and H-2. Core samples from these bodies were submitted to SRC Labs for caustic fusion analysis to recover diamonds. This work resulted in the discovery of one microdiamond from the H-2 kimberlite body. In addition microprobe work was carried out on the indicator minerals contained in the core to provide information on the chemistry of the kimberlite.

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Introduction

This report provides the results of the 2002 exploration programs carried out on the Otish Mountains Diamond Project located in north central Quebec. Pure Gold Minerals completed three work programs consisting of airborne and ground magnetic surveys, gravity surveys, till sampling and diamond drilling on the Otish Mountain properties.

The Otish Mountains Diamond Project consists of four properties, the Tichegami River, Beaver Lake, Beaver Lake South and the Toco River. Pure Gold Minerals has been granted an option to earn a 60 % interest in the Tichegami River block and a 50% interest in the Beaver Lake block from Ditem Explorations by making certain payments and completing work programs.

Property Description and Location

The Otish Mountains Diamond Project, which consists of the Tichegami River, Beaver Lake, Beaver Lake South and Toco River blocks, overlies the Otish Mountains in north central Quebec, approximately 275 kilometres northeast of the town of Chibougamau and 750 kilometres north of Montreal (Figure 1).

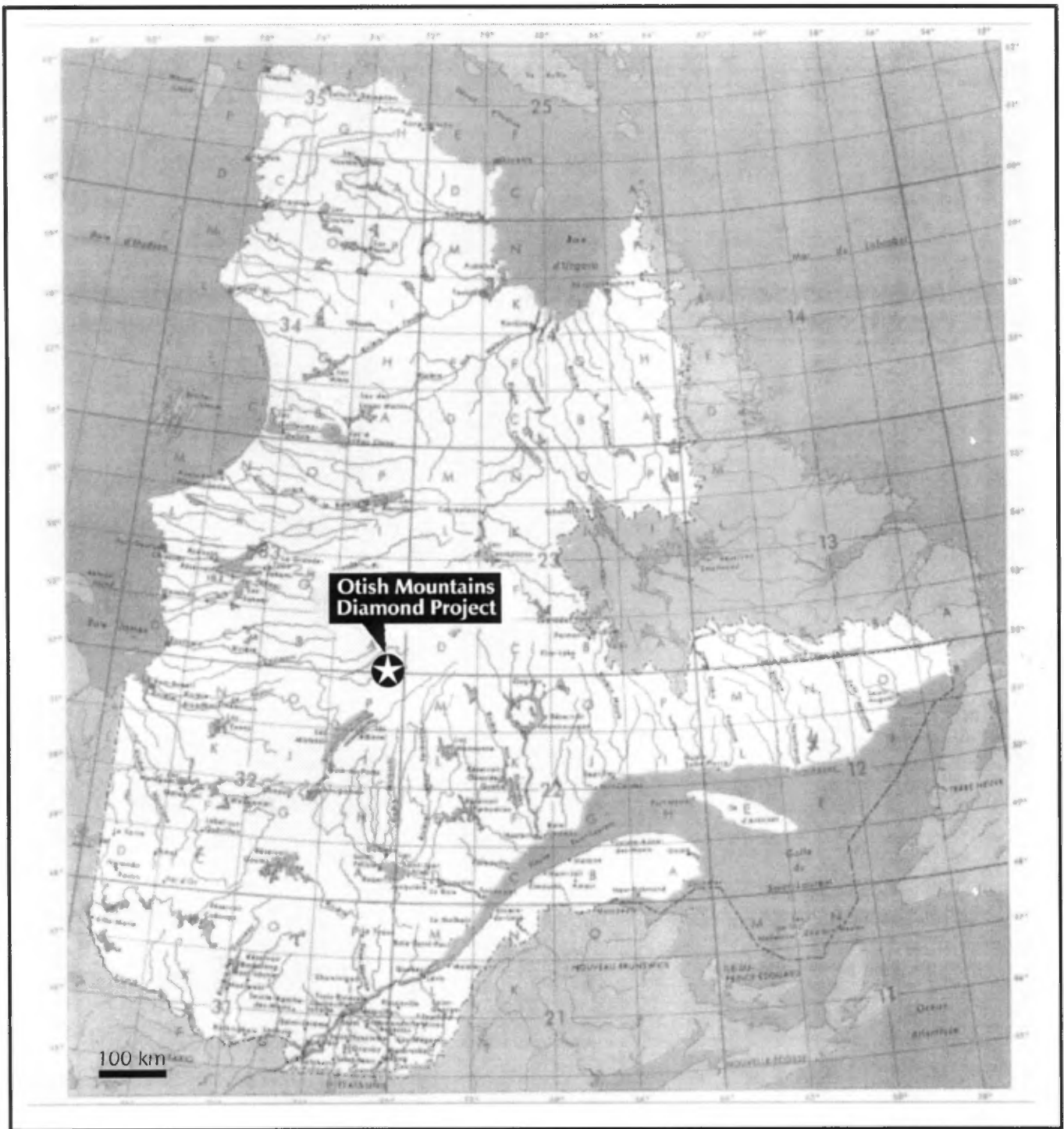
The Tichegami River block consists of 391 claim cells located on NTS sheet 33A/01, 33A/02. The property is centred at 52° 06' north latitude and 72° 22' east. The Tichégami River property mineral claim cells were acquired using the recently introduced map staking system and are 100% owned by Ditem Explorations. Pure Gold has an option to acquire a 60% interest in this block, (Figure 2).

The Beaver Lake block adjoins the southern edge of the Tichegami block and surrounds the Beaver Lake kimberlite previously explored by Ditem Explorations. It consists of 164 claims centred at 51° 59' north latitude, 72° 20' east longitude on NTS mapsheet 32P/16. Pure Gold has an option to acquire a 50% interest in these claims from Ditem Explorations. The Beaver Lake block does not include the Beaver Lake kimberlite.

Accessibility, Climate, and Physiography

The Otish Mountains region of north central Quebec is virtually unpopulated except for the seasonal hunting and trapping periods when the local Cree Indians entertain their field camps. Typical of the interior shield region, winter generally extends from late October to early April. The region receives annual precipitation of approximately 80 centimetres, with accumulations of several metres of snow during the winter months. Summers are characteristically mild, with daytime temperatures averaging 15° Celsius.

The Otish Mountains are a prominent northeasterly linear range that extends above the flat lying shield. Elevations range from 450 metres in the Timiscamie River valley to 900 metres in the Otish Mountains. Lowlands are typically wet marsh or muskeg with local eskers. Slopes and higher elevations are sparsely covered by spruce and pine forests.

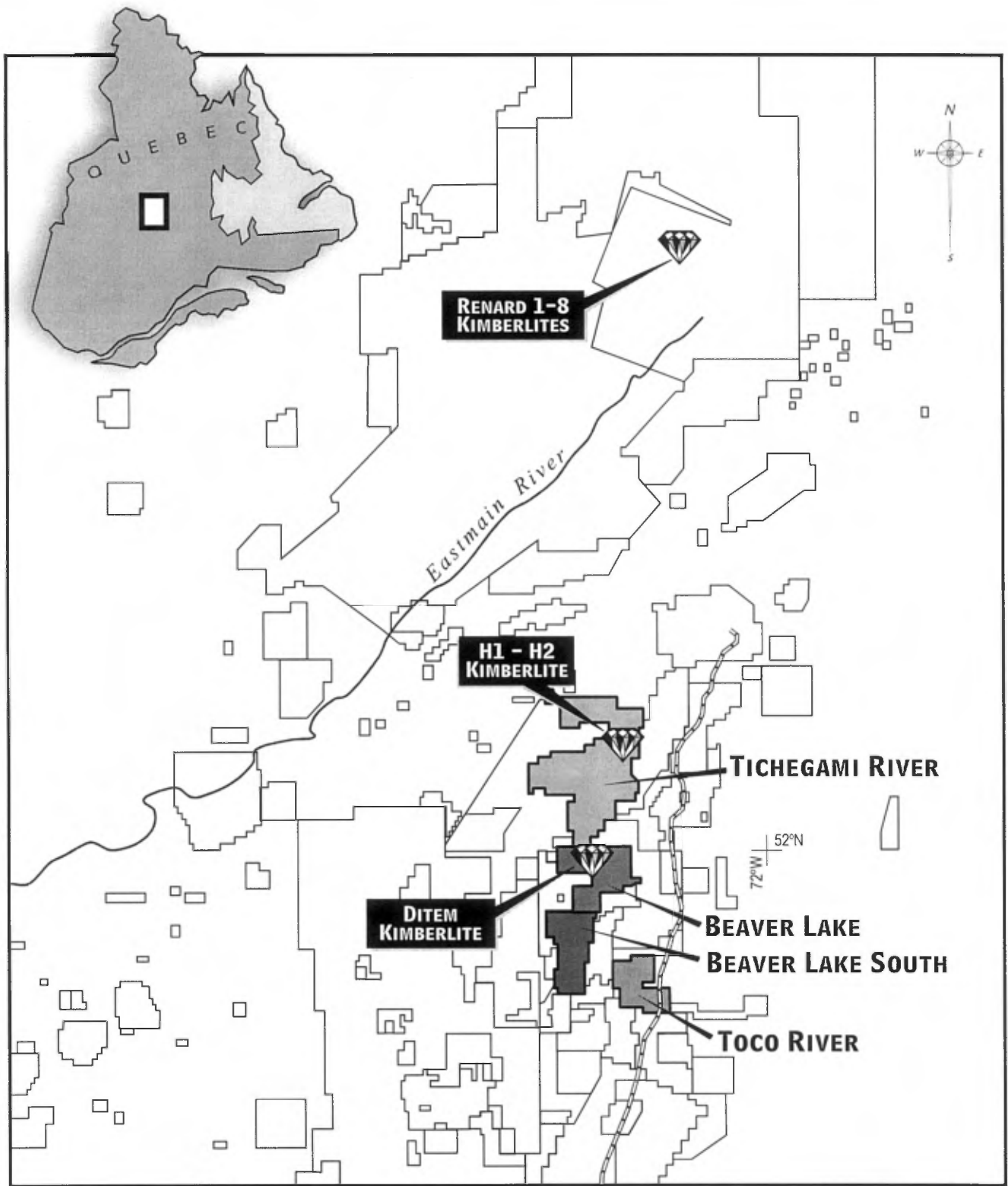


PURE GOLD MINERALS INC.

**Otish Mountains
Diamond Project**
QUEBEC

LOCATION MAP

Date Feb. 2003 Scale as shown NTS 33A/01,02
By TAMRI GEOLOGICAL LTD. Fig. 1



 **PURE GOLD MINERALS INC.**
Otish Mountains Diamond Project

 Eastmain
Mine Road

 Kimberlite

PURE GOLD MINERALS INC.
**Otish Mountains
Diamond Project**
QUEBEC

CLAIM MAP

Date Feb. 2003 Scale as shown NTS 33A, 32P
By TAMRI GEOLOGICAL LTD. Fig. 2

The area is accessible most of the year by float or ski-equipped aircraft from Chibougamau, Lake Albany airbase or from the Mistassini Reserve, (325 kilometres, 175 kilometres and 150 kilometres, respectively, southwest of the project area). Countless lakes clutter the landscape but only a few of them are suitable for aircraft. The most prominent lake in the area is Lake Hippocampe on map sheet 32P/16. A winter road transects a portion of the project area but is not currently maintained.

History

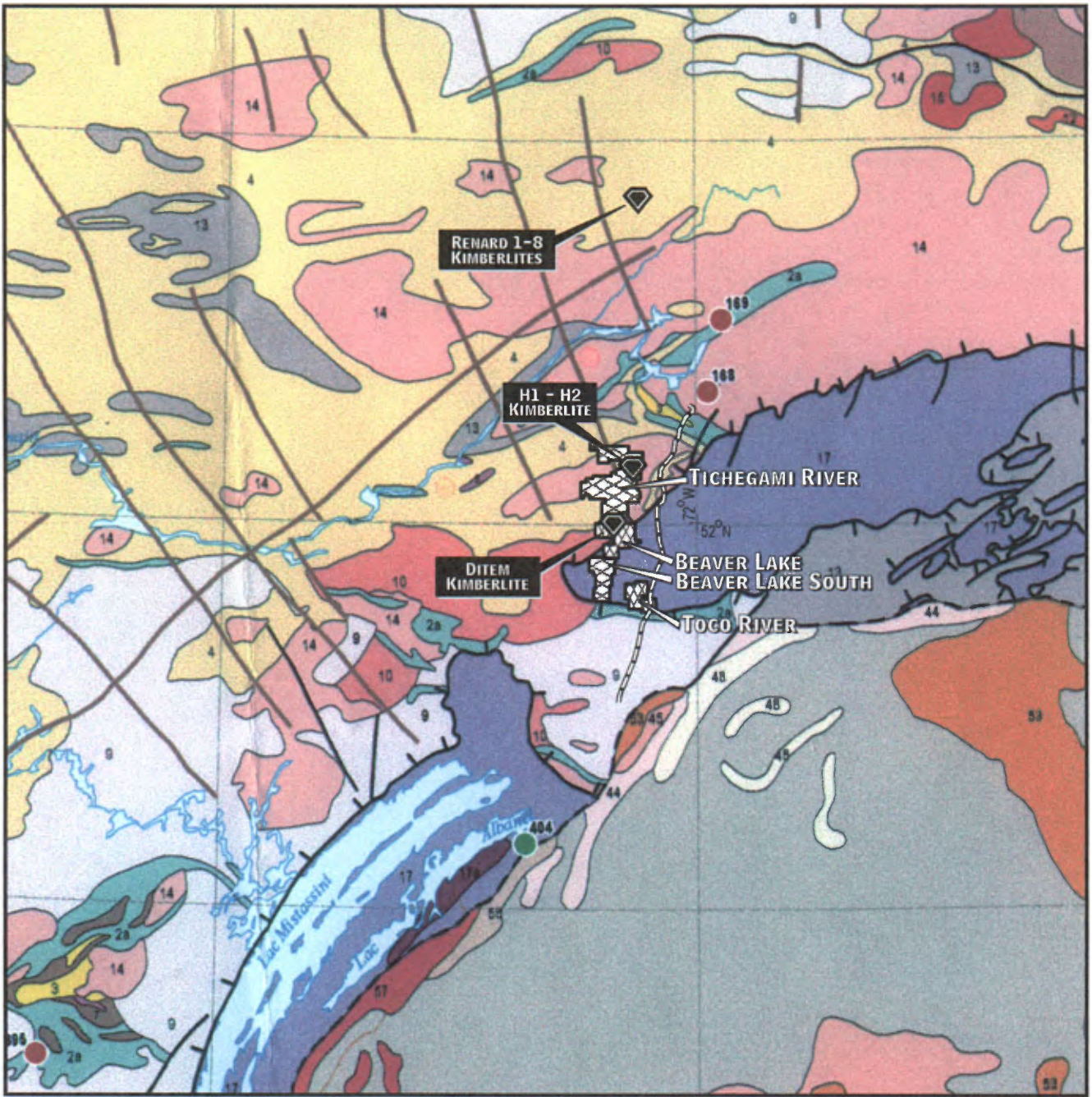
The Otish Mountains were frequently the target for base and precious metal exploration. The most intensive phase was from 1974 to 1984 when numerous companies such as Soquem, Noranda, Phelps-Dodge, Dome, Radex, Rio Tinto, Pancontinental, Shell, Seru, Esso, Eldorado, Inco and Uranerz explored extensively for uranium. The numerous uranium showings and base metal occurrences that were discovered did not prove to host economic deposits. One exception appears to be a gold discovery by Placer-Dome in the Carmen Lake area. For a brief period, it was mined by MSV. The James Bay area, the Otish Mountains and the Torngat Mountains are presently target areas for diamond exploration by companies such as Ashton, Soquem, Majescor Resources, BHP-Billiton, Twin Gold Mining, Ditem Explorations and others.

In 1978, Uranerz Exploration and Mining Limited in Joint Venture with Inco explored for uranium in the Beaver Lake area. Within their investigation area, a mafic to ultramafic body and dyke-like offshoots were identified by ground magnetic surveys. One diamond drill hole (BL-34) intersected an ultramafic offshoot, and another diamond drill hole (BL-31) passed marginally into the main ultramafic body. The kimberlitic composition of the rock was recognized, and the rock was classified as a serpentinized mica peridotite. Uranerz never evaluated the Beaver Lake kimberlite for its diamond potential, focussing instead on the geochemical barrier provided by the ultramafic body for precipitation of uranium. Later, an unpublished petrographic study by Inco confirmed the rocks at Beaver Lake as kimberlite. The fact that the main kimberlite occurrence was never fully intersected by drilling and was not investigated for its diamond potential made the Beaver Lake kimberlite a desirable exploration target.

Geological Setting

Regional Geology

The northern Quebec region in which the Otish Mountains Diamond Project is located is underlain by the Archean age Superior craton (Figure 3). The Proterozoic Otish and Papaskwasati basins are situated within the Superior Structural Province near a poorly defined metamorphic Grenville front. The Superior basement lithologies consist of gneiss and migmatite, metavolcanic rocks and metasedimentary fold belts as well as granite. All units are thought to be Archean age although recent age dating indicates a possible Aphebian age (1800-2400 M.A.). These dates may reflect a metamorphic overprint on Archean rocks during the Kenoran and Hudsonian orogenies.



(see following page for geological legend)



50 kms

PURE GOLD MINERALS INC.		
Otish Mountains Diamond Project		
QUEBEC		
REGIONAL GEOLOGY MAP		
Date	Feb. 2003	Scale as shown
NTS	33A, 32P	Fig. 3
By TAMRI GEOLOGICAL LTD.		

SUPERIOR PROVINCE

PALEOZOIC

PERMIAN

21 Impactite (Lac à l'Eau Claire)

PROTEROZOIC

- Diabase and gabbro dykes
- 19 Arenite, stromatolitic dolostone and basalt (Richmond Gulf and Nastopoka groups)
- 18 Arenite, conglomerate and mudrock (Sakami Formation)
- 17 Stromatolitic dolostone, arenite, conglomerate and shale (Otish Supergroup and Mistassini Group)
- 16 Jasperite iron formation (Mistassini Group)
- 15 Argillite, wacke, conglomerate and tillite (Cobalt Group and Chibougamau Formation)

ARCHEAN

GRANITOIDS

- 15 Post-tectonic granitic rocks: alkalic granite with fluorite, and monzogranite
- 14 Syn- to late-tectonic granitic rocks: granite, granodiorite, monzonite and syenite; minor diatexite
- 13 Syn- to late-tectonic tonalitic rocks: tonalite, trondhjemite and granodiorite, minor diorite and monzodiorite
- 12 Syn- to late-tectonic orthopyroxene bearing granitoids: anderbite, opdalite, charnockite and granulitic orthogneiss; minor orthopyroxene bearing diatexite, metasedimentary rocks and mafic to ultramafic intrusions
- 11 Syn- to late-tectonic diatexitic granitoids: diatexite with biotite, orthopyroxene, clinopyroxene, hornblende, garnet, cordierite, sillimanite and/or andalusite, containing <= 50 % xenoliths of paragneiss and/or mafic gneiss
- 10 Syn- to late-tectonic undivided granitoids
- 9 Pre- to syn-tectonic granitoids: tonalitic and trondhjemitic gneisses; undivided gneiss; minor diorite

MAFIC TO ULTRAMAFIC INTRUSIONS

- 8 Stratiform complexes: anorthosite, gabbro and pyroxenite
- 7 Mafic intrusive rocks: gabbro, gabbronorite, diorite, and carbonatite complex, minor intrusive and extrusive ultramafic rocks
- 6 Ultramafic intrusive rocks: pyroxenite, peridotite, hornblende, serpentinite, and ultramafic and mafic sills

SEDIMENTARY ROCKS

- 5 Sedimentary rocks: wacke, mudrock, conglomerate and iron formation
- Iron formation
- 4 Metasedimentary rocks: paragneiss and schist with biotite, garnet, orthopyroxene, sillimanite, andalusite, cordierite, staurolite and/or kyanite; iron formation, marble and white anatectic granite associated with the metasedimentary rocks; common presence of intrusive and volcanic rocks

VOLCANIC ROCKS

- 3 Felsic volcanic rocks: rhyolite, rhyodacite, dacite, pyroclastic rocks, and felsic porphyry intrusions; minor intermediate to mafic volcanic rocks and sedimentary rocks
- 2 Mafic and intermediate volcanic rocks: basalt, andesite and pyroclastic rocks; minor amphibolite, felsic and ultramafic volcanic rocks, mafic intrusions and sedimentary rocks
- 2a Amphibolite, metabasalt and mafic gneiss
- 1 Ultramafic volcanic rocks: komatiite, magnesian basalt and ultramafic rocks of indeterminate origin; minor mafic volcanic rocks and sedimentary rocks

SYMBOLS

- Unconformity (the older rocks are on the side with the teeth)
- Thrust fault (the upthrown block is on the side with the triangles)
- Indeterminate fault
- Boundary of major geological divisions

Legend to accompany Figure 3

PURE GOLD MINERALS INC.
Otish Mountains
Diamond Project
 QUEBEC
REGIONAL GEOLOGY MAP

A basement complex of gneiss and migmatite underlies most of the project area. It is variable in appearance, ranging from schistose, layered gneiss to nearly massive granite. Quartz-biotite-feldspar gneiss predominates. Metavolcanic and metasedimentary sequences outcrop as narrow east-west directed belts. They are composed of metamorphosed acid to mafic tuff, volcanic flows and fragmented volcanic rocks, intercalated with sandstones, conglomerates, cherty iron formation and chlorite schist. The granitic complex is typically coarse grained, equigranular and composed of quartz, feldspar and minor amounts of mafic minerals.

The basement complex is unconformably overlain by fluvio-terrestrial to marginal marine sediments of the Otish Group (Otish basin) and the Mistassini Group (Papaskwasati Basin). The Otish and the Lower Mistassini Group lithologies, although separated by a 30 kilometre wide erosional gap, can be correlated easily. Quartz pebble conglomerate, arkose, quartzite, argillite, dolomite and sandstone are the predominant formations.

The Grenville Orogeny (\pm 900 M.A.) folded both basins into broad gently plunging synclines. Thrust faulting and tight folding of the sediments is evident along the southeastern margins of both basins.

Unconsolidated glacial material was deposited during various ice advances in the Pleistocene period. The western and southeastern portions of the Otish basin are extensively covered with glacial material of various forms. The last predominant ice advance was from a 030⁰ orientation.

Moorhead et al. (1999) compiled relevant information concerning kimberlite occurrences in the Province of Quebec. He defined large, linear and brittle structural zones that probably have a relatively deep expression in the crust and are, at least locally, permeable to alkaline magmatism. Frequently, kimberlite occurrences are located in Archean cratons along large lineaments or fault zones and are associated with alkaline intrusive suites such as carbonatite, alnoite, ultramafic lamprophyre and nepheline syenite. Both the major lineaments and structural corridors are believed to be crustal scale features (Labbe, 2001) that provide passageways for ascending kimberlitic magmas and control the position of kimberlite fields.

The Otish Mountains Diamond Project lies within the Témiscamie-Corvette (TCZ) structural corridor and is intersected by two major lineaments as shown on the tectonic map of Quebec provided by Hocq, 1994 (Figure 4). The Beaver Lake kimberlite body occurs at the triple junction of these structural features.

Local Geology

Outcrop exposure within the Otish Mountains Diamond Project area is less than 5% and is limited to small resistant knolls and locally deeply incised creeks. No controlled geological mapping programs were carried out during the exploration program described in this report. As such, the best description of geology for the area comes from diamond drill core data, primarily collected near the Beaver Lake kimberlite.

The geology in the area of the Beaver Lake kimberlite was described by Gehrisch et al. (1979). It consists of masses of coarse grained (pegmatitic) granite and granodiorite-tonalite with a gneissic texture. A narrow band of amphibolite (metabasalt) occurs south of Beaver Lake, Figure 4. The amphibolite unit is flanked and intercalated by a quartz feldspar, biotite, hornblende gneiss with a migmatic texture.

Originally the Beaver Lake kimberlite was perceived as a classical pipe shaped body with a dyke like offshoot trending in a southeasterly direction. During the drilling program by Ditem in 1997 it became evident that the main kimberlite body had the characteristic of a mega-breccia with large blocks of granite floating in a kimberlite matrix. The largest almost uninterrupted kimberlite intersection was encountered to a depth of 199 metres where it intersected a 5 meter interval of granite.

The Beaver Lake kimberlite was examined in detail by M.E. McCallum (2001) and R. Girard (2001). In summary it can be described as a partially carbonitized, serpentinized, autolithic, macrocrystic, perovskite/opaque oxide rich, phlogopite calcite serpentine kimberlite or autolithic kimberlite breccia with segregatory texture. A possible burning of the diamonds through oxidation agents such as water influx or the presence of carbonate may explain the fact that only 4 macro-diamonds were discovered (a macro-diamond is defined to be larger than 0.5 mm in at least one direction).

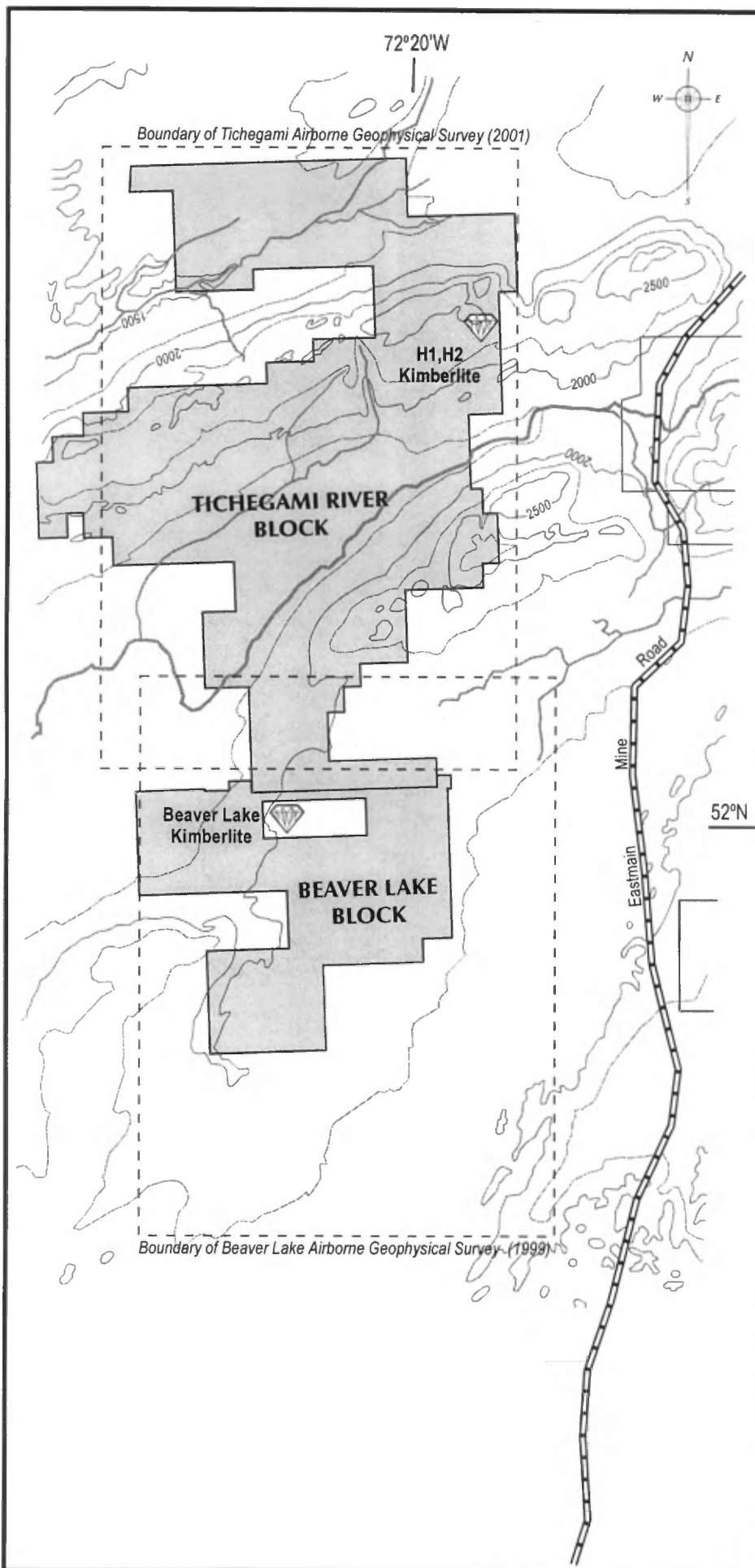
Exploration Programs

The exploration activities on the Otish Mountain Diamond Project took place in three stages during 2002. Two programs were completed between January and April of 2002 and one during July – August 2002.

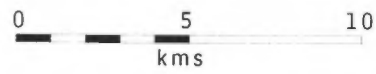
Tichégami Property

In March 2001, Ditem conducted a 3,636 line kilometre airborne magnetic survey over 236 square kilometres of the Tichégami River property. The survey, flown by Fugro Sial Geophysics Ltd, was contiguous with a 1999 airborne geophysical survey of the Beaver Lake block. The 2001 survey was flown in a north south orientation with lines spaced 75 metres apart. Figure 4 outlines the areas of the respective surveys. Geophysical interpretation was conducted by qualified geophysical personnel at Fugro Sial and identified 45 anomalies on the Tichégami River property.

From January through March 2002, a till sampling and ground geophysical survey program was conducted over 14 priority targets within the Tichégami River property (Figure 5), which had been covered by the airborne magnetic survey in 2001. The till sampling program collected 19 samples down ice from 8 anomalies. In addition 3 control samples were collected from locations down ice of the Lac Beaver kimberlite to provide background levels of indicator minerals. The till sampling was carried out under the supervision of Hendrik Veldhuyzen, Quaternary Geologist, and all samples sent to IOS Laboratories in Lac St. Jean, Quebec for heavy liquid separation. Kimberlite indicator minerals recovered from the heavy liquid separation were sent to Saskatchewan Research Council



LEGEND
info



PURE GOLD MINERALS INC.
**Otish Mountains
Diamond Project**

**AIRBORNE
COVERAGE MAP**

Date Feb. 2003 Scale as shown NTS 33A, 32P
By TAMRI GEOLOGICAL LTD. Fig. 4

in Saskatoon, Saskatchewan for microprobe analyses. Table 1 summarizes the anomaly designation, kilometres of magnetic and/or gravity survey completed and number of till samples collected during 2002.

Geosig, a geophysical contractor based in Montreal, Quebec, conducted grid based ground magnetic surveys over 19 discrete airborne magnetic anomalies on the Tichegami River block. In addition several test lines were completed over the Lac Beaver kimberlite for correlation purposes. Several of the grids were continuous over more than one anomaly. Line spacing for these surveys was generally 40m with readings taken at 10m intervals. The purpose of the ground surveys was to accurately locate the airborne anomalies on the ground and to determine the magnetic signature of the individual targets. Kimberlites in this region tend to have a distinctive profile, which incorporates steep walls and a relatively flat and smooth top.

Geosig also conducted gravity surveys over 4 anomalies, H-1 and H-2, T-2 and T-3, 4. These consisted of a single line of readings taken at 50m intervals. One line covered the T-3 and T-4 anomalies. The digital data for the ground magnetic and gravity surveys is included as Appendix A

Between April 7 and 25, 2002, a diamond drill program was carried out to test specific combined magnetic and till geochemical anomalies for kimberlite bodies. Three holes, totalling 237.2 metres, were drilled on two anomalies; two on the H-1 and one on the H-2. A kimberlite intrusive body was intersected by two holes at the H1 anomaly. Four composite samples were created of the kimberlite material from the H-1 drill core and sent to Saskatchewan Research Council for caustic fusion analyses to provide a diamond count and identify indicator minerals potentially useful in determining the chemistry of the kimberlite intrusive. No diamonds were recovered from the core samples.

A follow up program of drilling, ground magnetic surveys and till sampling was carried out between July 22 and August 19, 2002. This work consisted of a drill program totaling 265m in 5 holes, along with 26 till samples collected from 8 additional airborne magnetic anomalies on the Tichegami River property. Priority airborne anomalies derived from the interpretive work of Keith Jones were evaluated on the ground through a combination of till regime determination, physiographic setting, geologic setting and ground based magnetic surveys. The magnetic surveys in this case consisted of two or three lines across the airborne anomaly controlled by GPS with the magnetometer in walking mode. The purpose was to evaluate the profile of the anomaly and to pinpoint the center of the anomaly for drill targets.

Four targets were chosen for drill testing on the above described basis. Three of these holes (DDH-125-02-4,5,6) encountered migmatite immediately below the overburden, portions of which were sufficiently magnetic, to account for the anomalies. The fourth target was the H2 anomaly (Figure 7) drilled during the previous program. A reinterpretation of the airborne data suggested a dyke like feature, which had not been tested by the previous drilling. The initial hole (DDH-125-02-7) drilled to the NE at -70° encountered 138m of kimberlite material from the bedrock surface to the end of the hole. A second hole (DDH-125-02-8) from the same setup but drilled to the SW at -45° encountered only migmatite indicating that the drill was sitting essentially above the contact. Drill logs and sections including sampling information are contained in Appendix B.

Five composite samples of the kimberlite, each weighing approximately 25kg, were taken for analyses and sent to SRC in Saskatoon, Saskatchewan for caustic fusion. These were collected on

Tichegami River Block

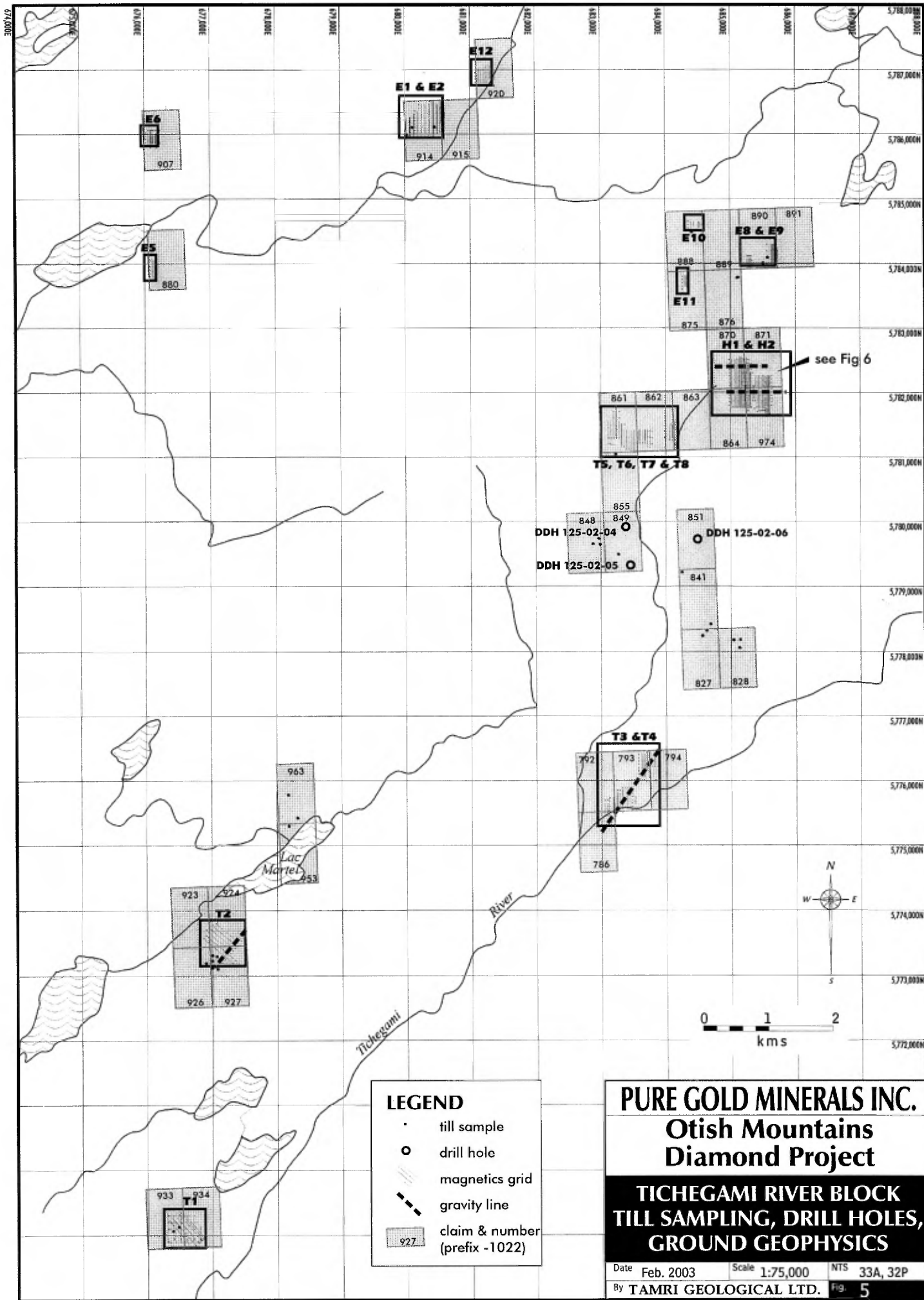
Anomaly	Location UTM	Ground Geophysics		Till Samples	Mineral Claims	Figure #
		Magnetic km	Gravity km			
T-1	676500E 5769200N	2.90		2, 0	1022933A, 934A	
T-2	677200E 5773500N	2.40	0.675	0,0,1,5	1022923A, 924A,926A, 927A	
T-3	683250E 5775500N	2.85	0.7		1022792A, 793A	
T-4	683750E 5776300N	1.85	0.7		1022793A, 794A	
T-5,6,7	683500E 5781400N	3.75			1022861A, 862A	
T-8	684150E 5781400N	1.10			1022862A, 863A	
H-1	685150E 5781400N	8.35	0.7	4, 3	1022870A, 871A	
H-2	685250E 5781800N	8.35	0.9	4, 5	1022864A, 974A	
E-1,2	680400E 5786300N	4.60		3, 0	1022914A, 915A	
E-5	676150E 5783900N	1.00			1022880A	
E-6	676150E 5785900N	1.68			1022907A	
E-8	685650E 5784250N	1.45		2, 0	1022890A, 891A	
E-9	685150E 5783750N	0.60		1	1022876A	
E-10	684500E 5784700N	0.83		1	1022888A	
E-11	684300E 5783700N	0.83			1022875A	
E-12	681250E 5787000N	1.52			1022920A	
KJ-2	683050E 5779700N			3	1022848A	
T-6	683250E 5781000N			1	1022855A	
KJ-6	684700E 5778250N			2, 1	1022827A, 841A	
KJ-8	685100E 5778050N			3	1022828A	
KJ-10	678250E 5775500N			2	1022963A	
KJ-9	678150E 5775700N			1	1022953A	
KJ-1	683260E 5779400N			1	1022849A	

Beaver Lake Block

BL-16	675520E 5760255N			3		
BL-19	680100E 5761400N			3	5240302A 5240303A	
BL-28	678700E 5763200N			3	5218621A, 5218615A	

TABLE 1

Summary of Anomaly Locations and Work Programs



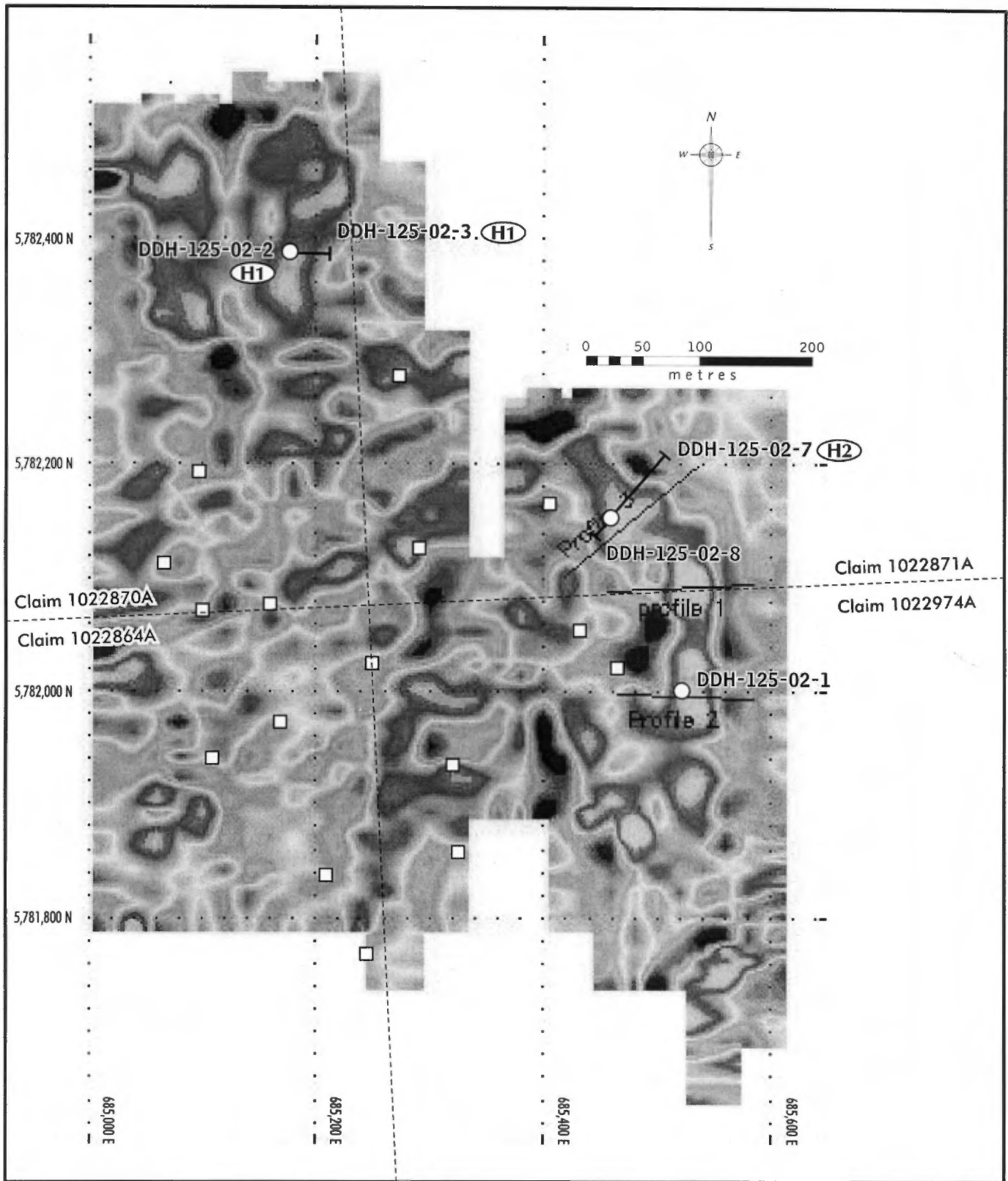
LEGEND

- till sample
- drill hole
- ▨ magnetic grid
- - - gravity line
- ▭ claim & number (prefix -1022)




PURE GOLD MINERALS INC.
Otish Mountains
Diamond Project

TICHEGAMI RIVER BLOCK
TILL SAMPLING, DRILL HOLES,
GROUND GEOPHYSICS

Date Feb. 2003 Scale 1:75,000 NTS 33A, 32P
 By TAMRI GEOLOGICAL LTD. Fig 5



LEGEND

-  drill hole
-  till sample
-  kimberlite in drill core

PURE GOLD MINERALS INC.

**Otish Mountains
Diamond Project**

QUEBEC

**H1-H2 GROUND MAGNETIC
SURVEY / DRILL PLAN MAP**

Date	Feb. 2003	Scale	as shown	NTS	33A/01,02
By	TAMRI GEOLOGICAL LTD.			Fig.	6



Saskatchewan Research Council
125 - 15 Innovation Blvd.
Saskatoon, SK Canada S7N 2X8
Ph: 306-933-5400 Fax: 306-933-7446
Internet: <http://www.src.sk.ca>

24-May-02

TO: Gordon Keevil
Pure Gold Minerals Inc.

FROM: Al Holsten
Manager, Geoanalytical Laboratories
Saskatchewan Research Council
PH: (306)933-5426
FAX: (306)933-5656

RE: Results For Sample Composite 1

KG OF SAMPLE FUSED: 21.15 kg. of sample fused

SIEVE SIZE: 106um

METHOD: Caustic fusion

RESULTS:

0 Macrodiamonds,

0 Microdiamonds, Total weight (mg):, Average weight (mg):

QC\QA TRACERS: 10/10 synthetic diamond tracers recovered

COMMENTS: Recovered 27 synthetic diamonds fragments as determined by cold cathodoluminescence.





Saskatchewan Research Council
125 - 15 Innovation Blvd.
Saskatoon, SK Canada S7N 2X8
Ph: 306-933-5400 Fax: 306-933-7446
Internet: <http://www.src.sk.ca>

24-May-02

TO: Gordon Keevil
Pure Gold Minerals Inc.

FROM: Al Holsten
Manager, Geoanalytical Laboratories
Saskatchewan Research Council
PH: (306)933-5426
FAX: (306)933-5656

RE: Results For Sample Composite 2

KG OF SAMPLE FUSED: 22.35 kg. of sample fused

SIEVE SIZE: 106um

METHOD: Caustic fusion

RESULTS:

0 Macrodiamonds,

0 Microdiamonds, Total weight (mg);, Average weight (mg):

QC/QA TRACERS: 10/10 synthetic diamond tracers recovered

COMMENTS: Recovered 9 synthetic diamonds fragments as determined by cold cathodoluminescence.





Saskatchewan Research Council
125 - 15 Innovation Blvd.
Saskatoon, SK Canada S7N 2X8
Ph: 306-933-5400 Fax: 306-933-7446
Internet: <http://www.src.sk.ca>

24-May-02

TO: Gordon Keevil
Pure Gold Minerals Inc.

FROM: Al Holsten
Manager, Geoanalytical Laboratories
Saskatchewan Research Council
PH: (306)933-5426
FAX: (306)933-5656

RE: Results For Sample Composite 3

KG OF SAMPLE FUSED: 21.85 kg. of sample fused

SIEVE SIZE: 106um

METHOD: Caustic fusion

RESULTS:

0 Macrodiamonds,

0 Microdiamonds, Total weight (mg); Average weight (mg):

QC/QA TRACERS: 10/10 synthetic diamond tracers recovered

COMMENTS: Recovered 20 synthetic diamonds fragments as determined by cold cathodoluminescence.





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24-May-02

TO: Gordon Keevil
Pure Gold Minerals Inc.

FROM: Al Holsten
Manager, Geoanalytical Laboratories
Saskatchewan Research Council
PH: (306)933-5426
FAX: (306)933-5656

RE: Results For Sample Composite 4

KG OF SAMPLE FUSED: 22.95 kg. of sample fused

SIEVE SIZE: 106um

METHOD: Caustic fusion

RESULTS:

0 Macrodiamonds,

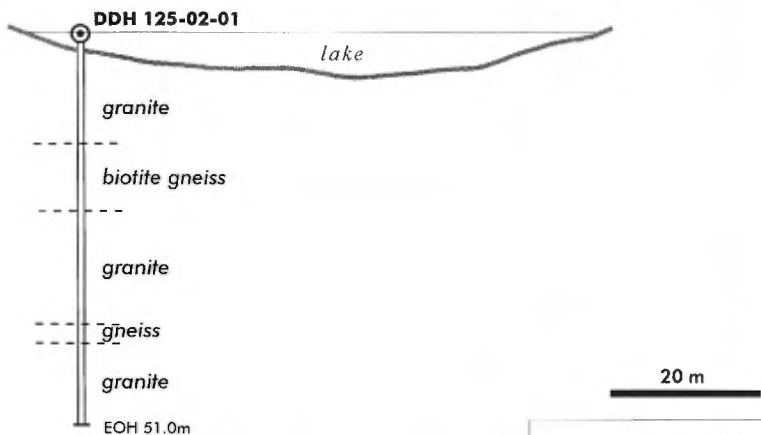
0 Microdiamonds, Total weight (mg):, Average weight (mg):

QC/QA TRACERS: 10/10 synthetic diamond tracers recovered

COMMENTS: Recovered 10 synthetic diamonds fragments as determined by cold cathodoluminescence.

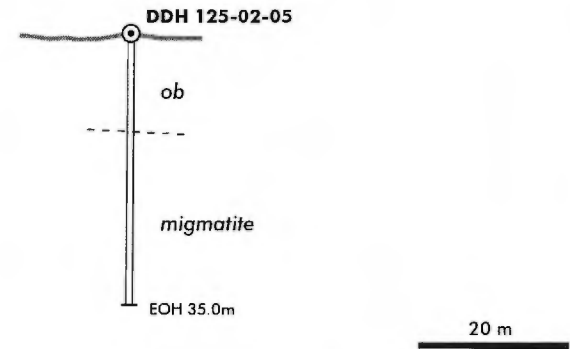


LOOKING NORTH



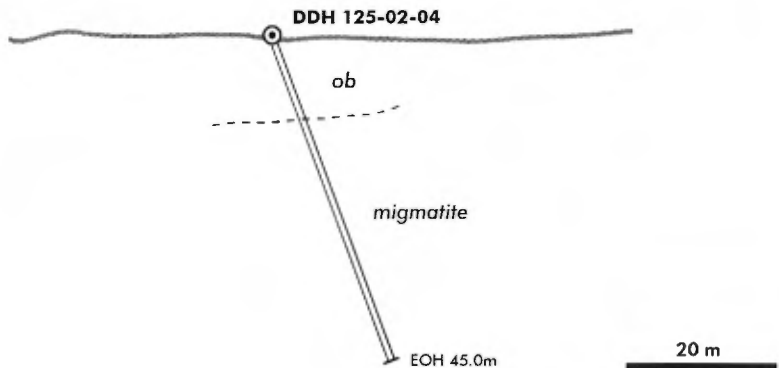
Mag Anomaly H-2
Claim # 1022974

LOOKING NORTH



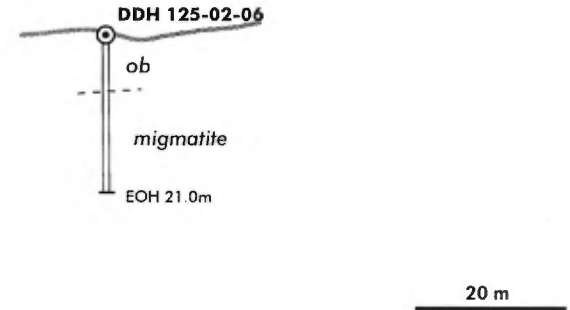
Mag Anomaly KJ-3
Claim # 1022849

LOOKING NORTH



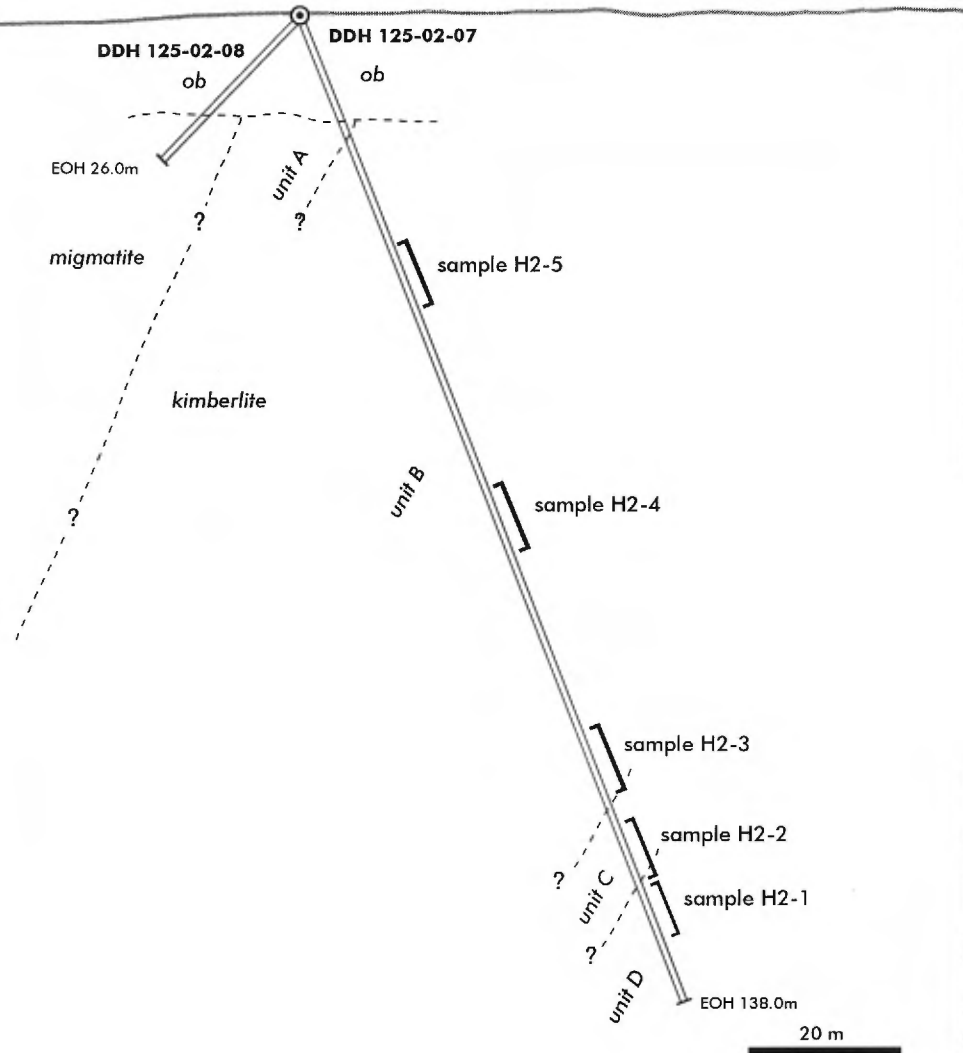
Mag Anomaly KJ-1
Claim # 1022849

LOOKING NORTH



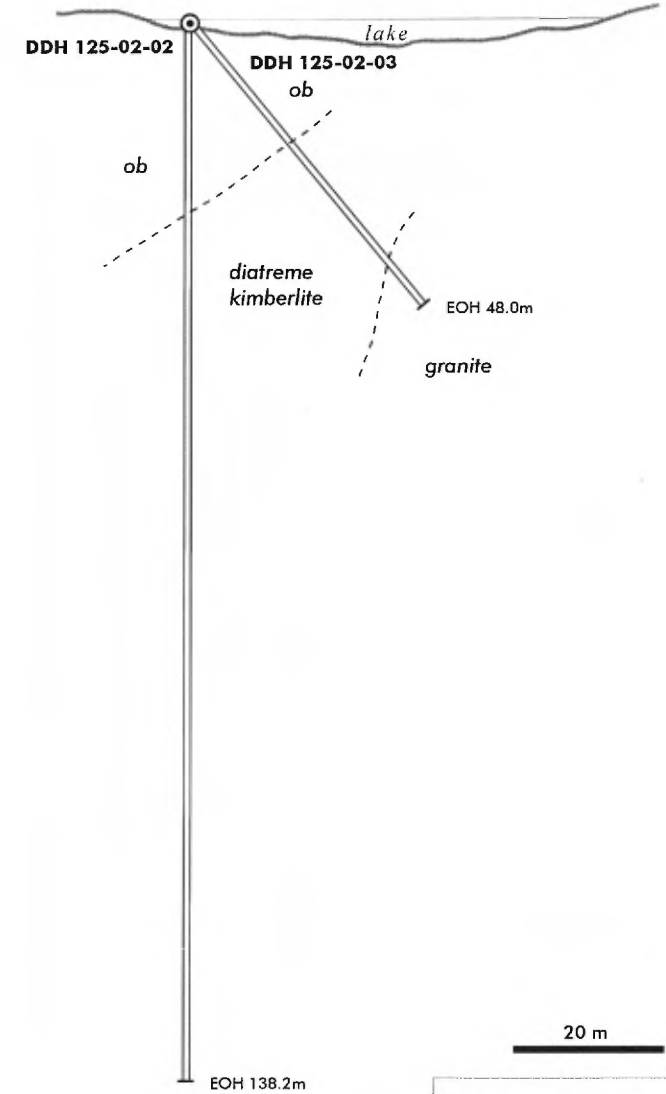
Mag Anomaly KJ-7
Claim # 1022851

LOOKING NORTHWEST



Mag Anomaly H-2
Claim # 1022871

LOOKING NORTH



Mag Anomaly H-1
Claim # 1022870

the basis of differing facies observed within the kimberlite core. A single microdiamond was recovered from sample H2-2. Microprobe analyses were carried out on the kimberlite indicator minerals derived from the caustic fusion analyses and these results are included in Appendix C.

Subsequent to the reinterpretation of the airborne magnetic data by Keith Jones an additional 28 anomalies were picked for further follow up work. The initial evaluation of these anomalies involved the determination by Hendrik Veldhuyzen of the till regime in which they were located and the effectiveness of sampling that material. An additional 7 anomalies were determined to occur in areas suitable for till sampling, and 26 samples were collected from these locations. As in the winter program all samples were sent to IOS Labs for processing, and SRC for microprobe analyses.

Appendix D contains the Veldhuyzen report on the till sampling programs.

Beaver Lake Property

In 1999, Ditem undertook an airborne magnetic survey covering 204 square kilometres of the Beaver Lake property (Figure 4). This survey was flown by Sial Geophysics Ltd. in a north-south orientation with a 100 metre line spacing. Detailed ground magnetic surveys were conducted on 12 geophysical anomalies identified from the air borne survey. Five drill holes were subsequently drilled on five magnetic anomalies. Lamprophyric material was identified in three holes.

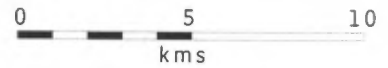
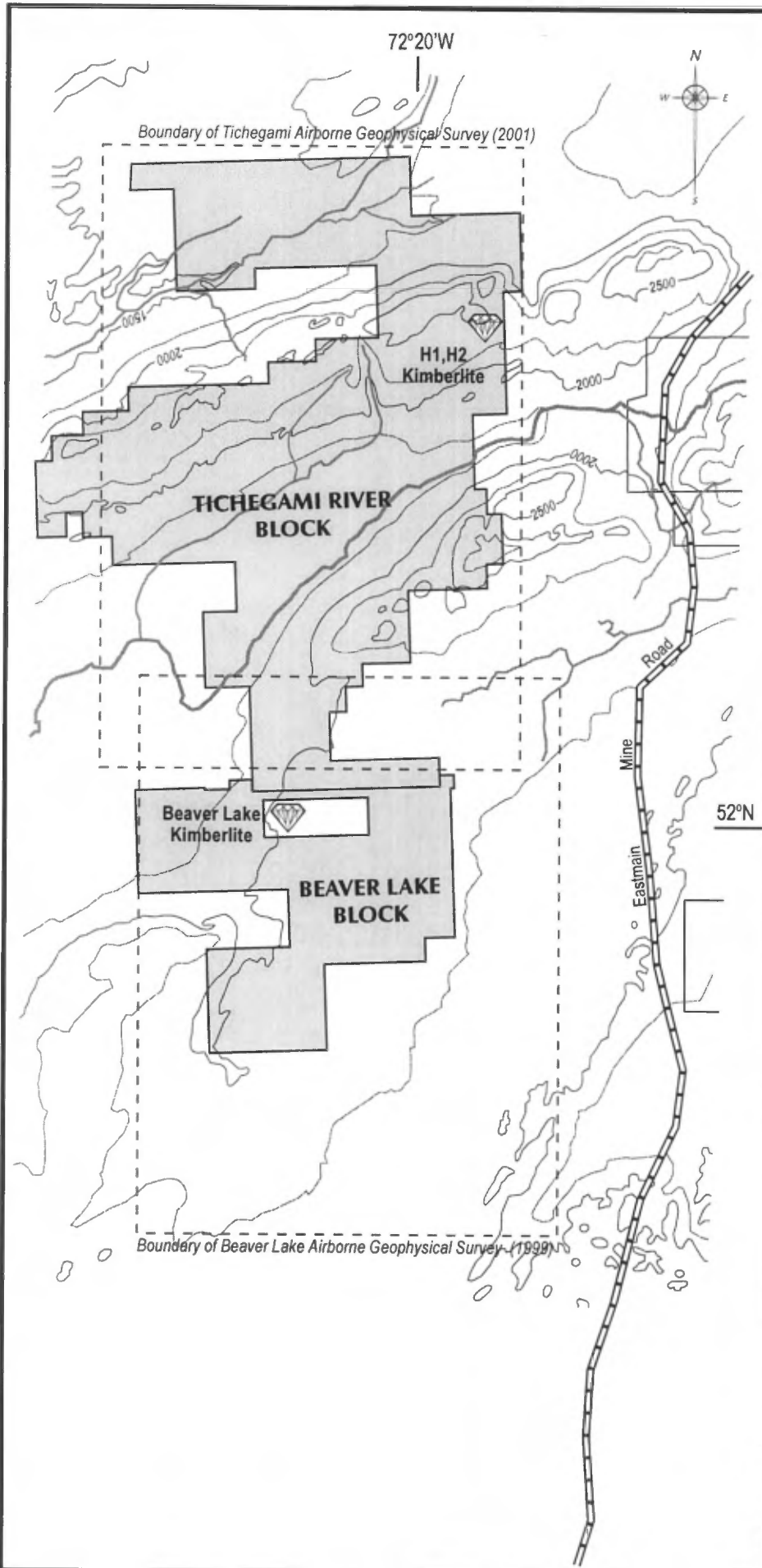
During 2002, Keith Jones, Geophysicist, of Perth, Australia completed a reinterpretation of the magnetic data and selected targets to guide further exploration. Between July 22 and August 19, 2002, 12 anomalies selected by Keith Jones and 4 additional anomalies picked in the field were evaluated on the basis of till regime and in 4 instances several lines of ground magnetic surveys. Three of these were determined to be situated in areas of basal till suitable for sampling and 3 samples collected from each (Figure 6). These samples were also sent to IOS and SRC for processing and analyses.

Sampling Method and Approach

Diamond drill core samples were packed into 25l plastic pails equipped with tamper proof lids. After sealing the lid, tape was wrapped around the seal and the sample number written on the tape. The samples were transported to Montreal by the author and delivered to Air Canada cargo for shipping to SRC in Saskatoon. The samples all arrived at SRC in an undamaged condition.

Samples requiring determination of diamond content were processed by caustic dissolution. This treatment efficiently produces a concentrate from which diamonds can readily be extracted during microscopic examination. This concentrate also provides kimberlite indicator minerals suitable for microprobe work to aid in determining the geochemistry of the kimberlite.

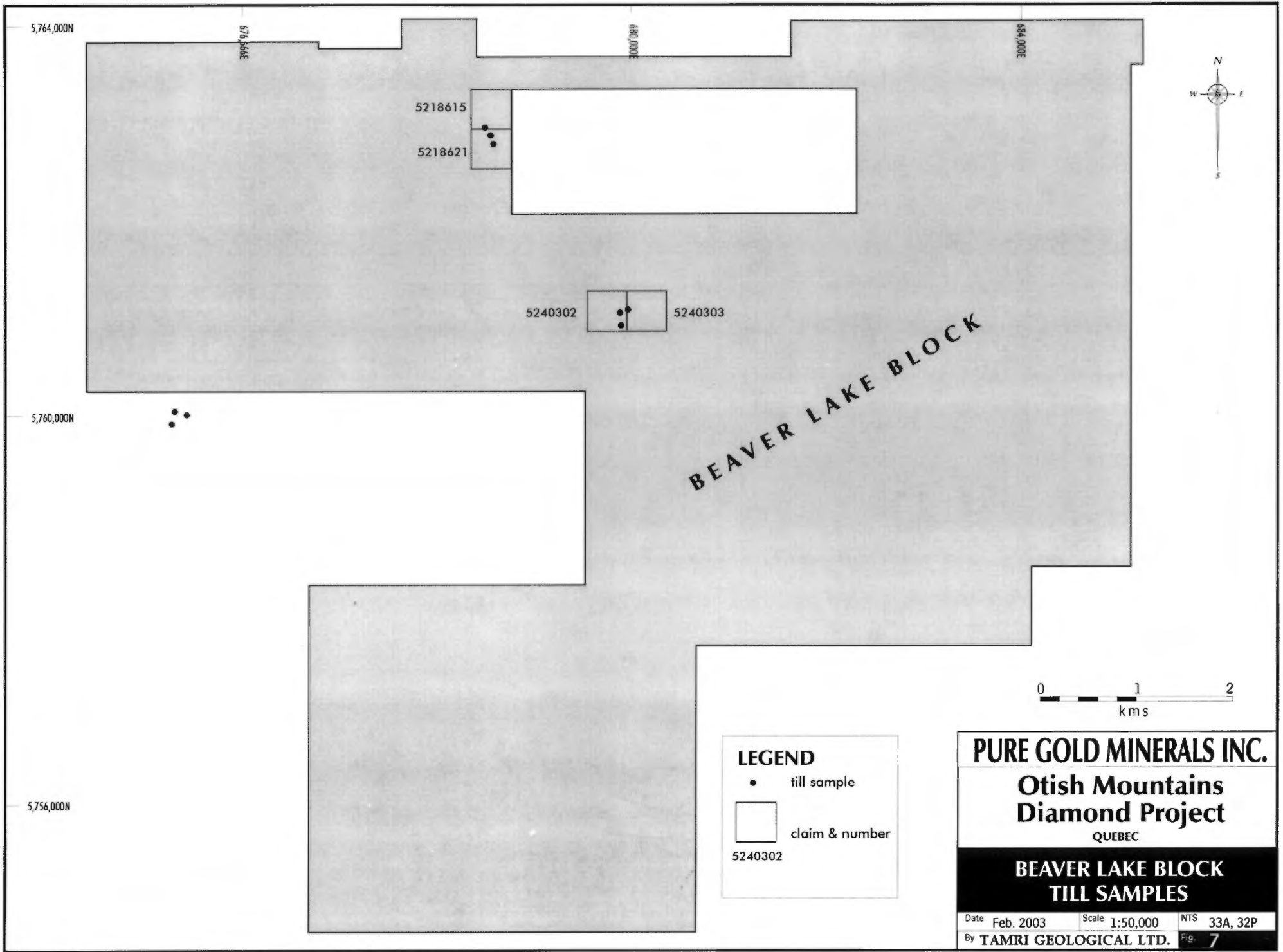
Till samples sites were selected by a Hendrik Veldhuyzen, who is familiar with the Quaternary geology of the area to determine the most suitable location and material for the evaluation of individual airborne anomalies.



PURE GOLD MINERALS INC.
Otish Mountains
Diamond Project

AIRBORNE
COVERAGE MAP

Date Feb. 2003 Scale as shown NTS 33A, 32P
 By TAMRI GEOLOGICAL LTD. Fig. 3



Till Sample Collection and Preparation

Till samples were collected between 300m and 500m down ice of each airborne anomaly tested, and only basal till was utilized. Locations were chosen within a cone approximately 25° wide originating at the location of the airborne anomaly and oriented at 210°. Approximately 50kg of material was excavated in the field and returned to camp for processing. The processing involved washing and screening of the sample to remove the + 1mm and the clay fractions. All of the remaining material was bagged and sent to IOS Laboratories in Lac St. Jean, Quebec for heavy mineral processing.

Interpretation and Conclusions

The discovery of the H-1 and H-2 kimberlites by Pure Gold Minerals on the Tichegami block indicates that the Beaver Lake kimberlite is not a singular occurrence, but probably part of a cluster that now contains at least 3 bodies.

Of the 89 airborne anomalies evaluated to date, 18 have been tested by till sampling and 5 by drilling. Two of the 5 drill targets have intersected kimberlite. Three additional targets have returned kimberlite indicator minerals from the till sampling and have not been drill tested. Additional anomalies were identified by the airborne survey that could not be evaluated by till sampling due to location or unsuitable glacial material. These anomalies will require ground magnetic, electromagnetic and/or gravity surveys to evaluate.

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Appendix A

Appendix B

PURE GOLD MINERALS INC.

Location: 685520E; 5782000N

Azimuth: _____

Dip: -90

Start Date: 15-Apr-02

Complete | 16-Apr-02

Purpose: test airborne magnetic anomaly coincident with small lake for kimberlite source rock
H2 anomaly

Property: Tichagami River

Core Size: BTW

Length(m): 51.0

Dip Tests: none

Project: 125

Elevation: 2490 feet

Date Logged: 18-Apr-02

Drill Hole No 125-02-1

Claim No: _____

Section No: _____

Logged By: G.Goodall

From	To	Description	Sample No	From	To	Length	Shipment	Depth	Mag. Susc	Comments
0.0	15.0	casing, water to 3.0 metre, boulders and gravel to 15.0m								
15.0	15.3	Granite - grey white to salmon pink colour, coarse grained to pegmatitic, feldspar phenocrysts to 3 cm, smoky grey quartz aggregates to 3 cm								
		3 to 5% dark grey-green biotite up to 1 cm wide, rare trace epidote within biotite, very rare orange-red garnet 1 to 3mm								
		magnetic susceptibility=0.1 SI average								
		Hand Sample collected								
15.3	23.1	Biotite Gneiss - millimeter to centimeter scale banding of mafic, biotite rich layers alternated with felsic, quartz and feldspar dominant bands								
		local segments 3 to 5 cm wide with poikilitic biotite, biotite is dark green in colour, 1 to 3 mm in size, locally in books to 15mm								
		banding varies from parallel to core axis to 30 degrees CA								
		magnetic susceptibility=0.24 SI average								
		Hand Sample collected								
23.1	37.9	Granite - as above, locally pegmatitic, olive green coloured clay mineral on fractures locally - appears chloritic but is non-lustrous, waxy green								
		local 3 cm to 20 cm wide zones of vuggy granite with matrix dissolved leaving medium grained feldspar and quartz phenocrysts, local intervals coarse grained biotite aggregates over 3 to 5 cm								
		magnetic susceptibility varies from 0.6SI in pegmatite to .56SI in biotite rich granite								
37.9	41.0	Gneiss - as above, fine grained, banded, local quartz veins parallel and cross cutting banding, veins 1 to 2 cm wide, 10 to 15 cm wide sections of feldspar replacement with coarse green biotite								
		magnetic susceptibility = .24SI								
41.0	46.8	Granite - abundant 5 to 15 cm wide zones of vesicular granite, no matrix trace to 3% green clay (chlorite?), trace to 2% orange red phenocrysts possibly garnet-oxidized, buff colour								
		magnetic susceptibility varies from .2SI in vuggy granite to .24SI in biotite rich phase								
46.8	47.6	Gneiss - as above, magnetic susceptibility = .39SI								
47.6	51.0	Biotite Granite - as above, magnetic susceptibility = 0.1SI; EOH								

PURE GOLD MINERALS INC.

Location: 685180E; 5782380N
 Azimuth: _____
 Dip: 90
 Start Date: 17-Apr-02
 Complete: 19-Apr-02
 Purpose: test H1 airborne anomaly

Property: Tichagami River
 Project: 125
 Core Size: BTW
 Length(m): 138.2
 Dip Tests: n/a
 Elevation: 2490 feet
 Date Logged: 21-Apr
 Drill Hole No: 125-02-2
 Claim No: _____
 Section No: _____
 Logged By: G.Goodall

From	To	Description	Sample No	From	To	Length	Shipment	Depth	Magnetic Susceptibility	Comments
0.0	24.0	casing in lake to 2.0 m, overburden to 24.0m, large boulders of granite and gneiss								
24.0	138.2	Intrusive Breccia (Kimberlite)	132901	24.8	27.0	2.2	1	25.3	11.7	
		fine grained grey-green matrix, soft (H 2 to 3), weakly to moderately calcereous, consolidated and competent rock with very rare fractures or breaks, matrix supports subrounded to subangular, locally very angular polyolithic fragments that range in size from .5 cm to 10 cm -average 3 to 5 cm, fragments comprise 30 to 50% of rock with a fragment density of 10 fragments per 10 cm of core surface, fragment colours vary from brick red to dark green, grey-green and rarely tan-orange, the fragments are generally homogeneous and fine grained, locally the fragments host lapilli or phenocrysts - generally white feldspar? Laths, occasionally (one fragment per metre approx) fragments exhibit a 1 mm to 3 mm wide alteration rim (kelpytic texture?), fragments are soft - H2 to H3 and locally calcereous, no fractured or displaced fragments were observed	132902	27.0	30.0	3.0	1	27.0	10.6	
			132903	30.0	33.0	3.0	1	28.1	12.2	
			132904	33.0	36.0	3.0	1	29.2	8.4	
			132905	36.0	39.0	3.0	2	30.0	0.52	large fine grained frag
			132906	39.0	42.0	3.0	2	33.0	9.8	
			132907	42.0	45.0	3.0	2	34.5	8.4	
			132908	45.0	48.0	3.0	2	36.5	6.9	
			132909	48.0	51.0	3.0	3	39.0	8.6	
			132910	51.0	54.0	3.0	3	41.3	6.75	
			132911	54.0	57.0	3.0	3	42.8	5.69	
			132912	57.0	60.0	3.0	3	47.0	0.19	large brick red f.g. frag
			132913	60.0	63.0	3.0	4	49.1	14	
			132914	63.0	66.0	3.0	4	51.0	8.35	
		45.4 to 50.0 m - clay rich fault gouge, some lost core from 47.3 to 48.0m	132915	66.0	69.0	3.0	4	53.2	10.6	
			132916	69.0	72.0	3.0	4	53.8	13.5	qtzt like frag, f.g.
		47.3 m - brick red, fine grained mudstone with dark green crystalline inclusions (olivine?, chrome diopside?)	132917	72.0	75.0	3.0	5	55.2	10.3	
			132918	75.0	78.0	3.0	5	57.0	15.6	
			132919	78.0	81.0	3.0	5	58.9	9.5	
		55.5 m - large 12cm by 4 cm angular fragment with dark green opaque phenocrysts in brick red matrix	132920	81.0	84.0	3.0	5	62.1	6.76	max to 40SI
			132921	84.0	87.0	3.0	6	64.8	4.88	
			132922	87.0	90.0	3.0	6	66.2	10.9	
		73.0 to 83.0 m - high magnetic susceptibility - no observed variation in core, local fragments up to 40 SI	132923	90.0	93.0	3.0	6	69.2	18.1	
			132924	93.0	96.0	3.0	6	70.0	17.4	
			132925	96.0	99.0	3.0	7	71.0	14.6	
			132926	99.0	102.0	3.0	7	72.0	22.2	
			132927	102.0	105.0	3.0	7	73.0	18.1	
			132928	105.0	108.0	3.0	7	74.0	22.8	
			132929	108.0	111.0	3.0	8	75.0	20.7	
			132930	111.0	114.0	3.0	8	76.0	28.1	
			132931	114.0	117.0	3.0	8	77.0	22	

PURE GOLD MINERALS INC.
TICHAGAMI RIVER PROPERTY

Hole No: 125-02-2

Page 2 of 2

From	To	Description	Sample No	To	Length	Shipment	Depth	Mag Susc	Comments
		116.1 to 129.9 m - distinct change in colour of matrix to olive green	132932	120.0	3.0	8	78.0	25.4	
		fine grained fragments are smaller- 1 to 3cm average size, subangular to subrounded	132933	123.0	3.0	9	79.0	15.8	
			132934	126.0	3.0	9	80.0	21.5	
			132935	129.0	3.0	9	81.0	15.1	
		119.6 to 122.9 m - soft clay rich gouge zone, rock is crumbly and broken	132936	132.0	3.0	9	82.0	19.2	
		no slickensides observed, no fractured fragments, a 40 cm long fracture runs subparallel to core axis	132937	135.0	3.0	10	83.0	20.1	
			132938	138.2	3.2	10	84.0	18.5	
							87.0	18.4	
		131.5 m - 15 cm fragment of pink granite, highly fractured and broken, chlorite on fractures, pegmatitic					90.0	15.2	
							93.0	12	
							96.0	12.2	
		138.2 m - EOH					99.0	11.2	
							102.0	9.65	
							105.0	12.1	
							108.0	8.81	
							111.0	7.8	
							114.0	4.96	
							117.0	8.52	
							120.0	5.94	
							123.0	6.55	
							126.0	6.4	
							129.0	6	
							132.0	4.68	
							135.0	5.84	
							138.0	5.6	

PURE GOLD MINERALS INC.

Location: 685185E; 5782429N

Azimuth: 090

Dip: -50

Start Date:

Complete Date:

Purpose: test eastern contact of H1 airborne anomaly

Property: Tichagami River

Project: 125

Drill Hole No 125-02-3

Claim No:

Core Size: BTW

Elevation:

Section No:

Length(m): 48.0

Dip Tests: 48.0 m - 56 degrees Date Logged: 24-Apr-02

Logged By: G.Goodall

corrected to 52 degrees

From	To	Description	Sample No	From	To	Length	Shipment	Depth	Mag. Susc.	Comments
0.0	19.0	casing in overburden and broken broken								
19.0	41.5	Intrusive Breccia (kimberlite)	132939	19.0	27.0	8.0	11	24.0	6.27	
		dark green to olive green matrix, fine grained, soft - H1 to H3, non to weakly calcereous, local calcite stringers in matrix - do not cut fragments, 20% to 60%	132940	27.0	33.0	6.0	11	26.8	6.20	
		of rock composed of subangular to subrounded fragments, polyolithic - fragments	132941	33.0	36.0	3.0	11	27.0	0.28	
		range from fine grained, brick red and maroon colour to grey, grey-green and white fragments with local feldspar? Laths or phenocrysts. Fragments are not similar to local granite or gneiss host rock. Fragments range in size from 3 mm to 5 cm, rarely exhibit kelyphitic texture, rock is poorly competent and very crumbly, local sections of very poor recovery - approximately 50% to 80%, local gouge zones	132942	36.0	39.0	3.0	11	27.5	2.48	
			132943	39.0	41.5	2.5	11	29.6	4.40	
								33.1	2.38	
								35.7	1.60	
								37.2	1.93	
								39.3	1.47	
								40.5	2.07	
41.5	48.0	Granite - grey to salmon pink colour, medium grained to pegmatitic, weakly to moderately fractured, smoky quartz phenocrysts to 30%, orange-pink feldspar phenocrysts to 50%, local 1 to 3 cm wide aggregates of biotite, strong limonitic coating on fractures locally						41.0	0.68	
								41.5	0.25	
								42.4	0.03	
								43.1	0.05	
								45.0	0.02	
								48.0	0.05	

PURE GOLD MINERALS INC.

Location: 683470E; 5779927N

Azimuth: 80

Dip: -70

Start Date: July 31.02

Complete Date: Aug. 01, 02

Purpose: Test airborne mag anomaly KJ-1

Drill Hole No: 125-02-4

Property: Tichagami River

Project: 125

Claim No:

Core Size: BTW

Elevation:

Section No:

Length(m): 45.0

Dip Tests:

Date Logged: Aug. 1, 02

Logged By: J. Chapman

From	To	Description	Sample No	From	To	Length	Shipment	Depth	Mag. Susc.	Comments
0.0	12.0	casing in overburden, consisting of boulder till							up to 40	
		some of the boulders in the till had a magnetic susceptibility of up to 40 on the hand held susceptibility meter.								
12.0	45.0	Migmatite							<1	
		Alternating bands of coarse grained granitic rock with dark green-brown fine to medium grained biotite gneiss. Magnetic susceptibility readings for the migmatite are generally less than 1								
		EOH								

PURE GOLD MINERALS INC.

Location: 683547E; 5779369N
 Azimuth: 0
 Dip: -90
 Start Date: Aug. 1, 02
 Complete Date: Aug. 01, 02
 Purpose: Test airborne mag anomaly KJ-3

Property: Tichagami River

Core Size: BTW
 Length(m): 35.0
 Dip Tests: _____

Drill Hole No: 125-02-5
 Project: 125 Claim No: _____
 Elevation: _____ Section No: _____
 Date Logged: Aug. 2, 02 Logged By: J. Chapman

From	To	Description	Sample No	From	To	Length	Shipment	Depth	Mag. Susc.	Comments
0.0	12.0	casing in overburden, consisting of boulder till some of the boulders in the till had a magnetic susceptibility of up to 40 on the hand held susceptibility meter.							up to 40	
12.0	35.0	Migmatite Alternating bands of coarse grained granitic rock with dark green-brown fine to medium grained biotite gneiss. Magnetic susceptibility readings for the migmatite are generally less than 1							<1	
		EOH								

PURE GOLD MINERALS INC.

Location: 684564E; 5779748N
 Azimuth: 0
 Dip: -90
 Start Date: Aug. 02, 02
 Complete Date: Aug. 03, 02
 Purpose: Test airborne mag anomaly KJ-7

Property: Tichagami River
 Project: 125
 Core Size: BTW
 Length(m): 21.0
 Dip Tests: _____
 Drill Hole No: 125-02-6
 Claim No: _____
 Elevation: _____
 Section No: _____
 Date Logge: Aug. 3, 02
 Logged By: J. Chapman

From	To	Description	Sample No	From	To	Length	Shipment	Depth	Mag. Susc.	Comments
0.0	8.5	casing in overburden, consisting of boulder till								
8.5	8.9	Fine grained felsic granite							<1	
8.9	10.6	Fine grained biotite gneiss							70	
10.6	13.8	Coarse grained pegmatite with contact at 30 deg. To core axis							<1	
13.8	14.7	Fine grained biotite gneiss, contact at 65 deg. To core axis							70	
14.7	16.6	Coarse grained pegmatite, contact at 75 deg to core axis							<1	
16.6	20.5	Fine grained biotite gneiss							70	
20.5	21.0	Coarse grained pegmatite EOH							<1	

PURE GOLD MINERALS INC.

Location: 685460E; 5782146N
 Azimuth: 45
 Dip: -70
 Start Date: Aug. 02, 02
 Complete Date: Aug. 03, 02
 Purpose: Test airborne mag anomaly H2

Property: Tichagami River

Project: 125

Drill Hole No: 125-02-7

Page 1 of 3

Core Size: BTW

Elevation:

Section No:

Length(m): 138.0

Dip Tests:

Date Logged: Aug. 4, 02

Logged By: J. Chapman

From	To	Description	Sample No	From	To	Length	Shipmen	Depth	Mag. Susc.	Comments
0.00	15.63	casing through overburden, consisting of boulder till with kimberlite fragments								
15.63	16.33	Unit A Kimberlite - Vfg massive dark gray rock with small (up to 1cm) rounded fragments. Fragments composed of aphanitic dark green serpentine/chlorite and ilmenite. Fragments occasionally elongate to 2cm. Rock is moderately to strongly magnetic due to ilmenite in groundmass and fragments. Reaction rims around fragments up to 3mm thick. Groundmass is weakly calcareous, soft and easily scratched. Carbonate fracture sets at 35 and 65 to core.							<1	
		16.1-16.33m Unit A - Vfg greenish-black, soft, competent kimberlite, approximately 50% clasts and 50% groundmass. Clasts are generally small, <1cm, well rounded, spherical but occasionally oval to elongate. Mostly <5mm in diameter but occasionally up to 2cm. Elongate clasts normally length 4 x width. Clasts consist of 80% olivine 15% mica, 3% ilmenite and 2 % other mostly garnets. Sporadic <2mm white calcite veins. Groundmass consists of vfg greenish material. Olivine - dark green soft ,aphanitic, greasy greenish white when scratched. Thin reaction rims of extremely fine grained alteration products. Mica - rounded to elongate masses of pale creamy grey to silvery brown vfg mica very soft Ilmenite - irregular aggregates of black metallic crystals, slightly conchoidal fracture generally rounded. Very fine reaction rims of pale brown material. Garnet - 2 types observed, yellow-brown and purpleish pyropes. Occur as rounded decayed and as elongate flattened crystals .Strongly fractured and fragile up to 3mm. Other - small <1mm blebs of pale whiteish gren soft greasy material, olivine?								
16.33	16.43	Transition zone between Hypabissal kimberlite above and diatreme kimberlite below. First appearance of large angular clasts of hetroithic composition. Contact between the 2 units is abrupt but diffuse. Dark green frags from Unit A continue into Unit B along with clasts of country rock.								
		16.33-16.35m Contact zone between Unit A and B - 50 deg to core axis. Sharp, <1mm, but gradational, no chilled margin. Calcite veinlets postdate contact, slight at contact. Two parallel contacts 4mm apart. First appearance of hetrolithic clasts after second contact. Magnetic susceptibility drops from approx 25 to 1-3 at contact								
		16.35-16.57m Unit B - Hetrolithic breccia zone. Groundmass is dark greenish gray in colour, vfg, weakly to moderately magnetic and calcareous, soft but massive and competent. Clast content increases rapidly away from the contact, to make up 50 to 80% of the rock. Up to 4cm from contact clasts are generally <5mm, by 8cm below contact they are up to 5cm x 3cm. Approximately 50% of the clasts are small well rounded								

		olivines as in Unit A. 20% consist of whiteish calcite/clay, 20% granitoids, 4% ilmenites and 6% other. All fragments strongly fractured. Surface of core shows pluck marks where fragments have been ripped out during coring. Garnets - 1% of fragments, are heavily corroded. Large garnet at 25cm below contact (5mm x 3mm) shows 1.5mm reaction rim. Rim appears to have grown outwards, encloses other fragments, and displays 7 episodes of growth. These colour bands vary from pale gray / blueish white inside to darker brown out. Fractures are continuous through core, rim and groundmass. Olivine - As in Unit A but also as angular shard like fragmmnts, possibly broken fragments of the rounded clasts. Thin <1mm reaction rims present. Calcite/clay - Rounded (spherical) to angular fragments show a concretionary texture with alternating white opaque and translucent grenish bands. Calcite occurs as crystals within and around the periphery of the fragments. Cores usually white with gray translucent surrounds and thin dark green translucent greasy rim. Occasionally multiple rims present and may show a bluish green colour. Granitoid - Generally the larger more angular fragments with random orientation. Strongly fractured and show diffuse edges due to partial absorbsion. Soft easily scratched with a needle. Ilmenite - Round to oval blebs of vfg aggregates of ilmenite crystals up to 4mm in size. Very thin, <0.5mm, oxidation rims around blebs. Mica - Generally small, 1-3mm, blebs with a light brownish colour, platy, and locally altered to chlorite.									
16.43	108.00	Unit B Kimberlite - Gray to gray-green to brownish gray breccia with individual fragments up to 65cm in size. Groundmass vfg, weakly calcareous, soft with occasional calcite/serpentine? veinlets. Clasts consist of granite, gneiss, argillite?, pegmatite and irregular fragments of Unit A. In general weakly magnetic with stronger magnetic patches due to fragments of Unit A. fragments angular to rounded with most displaying reaction rims from 1mm to 1cm thick. Most look fresh but are soft and easily scratched. Younger than Unit A	H2-5	32.7	41.4	8.7			6	Unit B	
		36.7-37.2m Unit B - Dark gray greenish black hetrolithic breccia with 80% fragments and 20% groundmass. Fragments consist of granite, gneiss, Unit A, olivine, ilmenite, calcite/chlorite and garnet. Fragments upto 72cm floating in a vfg groundmass. Fragments show corroded edges, reaction rims on garnets and ilmenite. Groundmass dark greenish brown to black with abundant mica. Olivine fragments occasionally contain chrome diopside crystals. Granitic fragments occasionally contian sodalite and traces pyrite. Ilmenite blebs to 2cm are generally rounded with thin reaction rims. Reaction around garnet rims differ in thickness in contact with olivine or groundmass. Chrome diopside crystals up to 3 x2mm in groundmass are decayed with thin reaction rims. Magnetic susceptibility varies from 1 in areas of abundant granitic fragments to 8 in areas of predominant groundmass.	H2-4	66.9	75.5	8.7			5	Unit B	
		99.8-100.1m Unit B - Dark greenish brown groundmass with predominantly fg green and black clasts, only 2 cg granitic clasts. Green olivine clasts up to 5 x 4cm strongly fractured. Spherical and elongate ilmenite blebs with inclusions of clay and mica, all with thin reaction rims. All fragments show greater signs of embayment than higher in the hole. Rims and alteration along fractures generally pale in colour. Brownish colouration of groundmass due to abundant fine grained garnet. Magnetic susceptibility generally very low, 1, rising to 6-8 at base of interval. Garnets display an aphanitic reaction rim	H2-3	101.1	109.9	8.8			3	Unit B 1 micro	

		pale to dark brown which may replace the entire garnet. Some garnets that are not entirely altered show alteration product along fractures cutting the garnet and rim. Occasional small round greenish inclusions in garnet are not fractured but show thin dark rims. Needle like aggregates of clear to blue green mineral.								
108.00	122.61	Unit C Kimberlite Blotchy greenish brown breccia as in Unit B but with greater abundance of pale coloured fragments. Brownish colouration due to garnet in the groundmass. Blue kyanite? crystals present. Non magnetic. Composition of fragments less varied than Unit B. Groundmass weakly calcareous and composed predominantly of fine to vfg garnet.	H2-2	114.2	121.7	7.6		0	Unit C	
		118.3-118.5m Unit C - Medium to dark brown groundmass, fine to vfg, with rounded to subrounded greenish black fragments up to 3cm. 10% bright blue crystals to 3mm in size. Small ilmenite clasts, <3mm, and 1 larger strongly embayed 8mm clast. Trace calcite. Vuggy texture with occasional small quartz crystals growing in vugs. Clear to white laths and hair like needles in vugs. Magnetic susceptibility generally <1								
		122.4-122.61m Unit C - Base of Unit C, clast supported heterolithic breccia as in Unit B. Fragments display more intense alteration and are heavily resorbed. Weakly calcareous associated with white clasts. Groundmass approximately 50% garnet. Contact at 122.61m, 70 deg to core axis. Sharp and gradational over 2mm as in upper contact. Transition from garnet rich Unit C to dark green matrix supported Unit D. Increase in ilmenite clasts at contact.	CF Min	118.5	122.9					
122.61	138.00	Unit D Kimberlite - Very fine grained to aphanitic pale green to greenish black kimberlite. Fragments consist of rounded dark green to black clasts of serpentine and ilmenite. Clast size generally less than 2 cm. Groundmass weakly calcareous. Strongly magnetic due to abundant ilmenite as irregular embayed clasts.	H2-1	122.9	130.5	7.7		40		
		122.61-122.85m Unit D - Pale to medium green becoming darker green with depth. Vfg groundmass composed of mica, olivine fragments, calcite, ilmenite, garnet. Clast content varies from 20% to 40% dominantly dark green, rounded to oval altered olivine. Ilmenite also occurs as rounded clasts. Most clasts < 1cm in diameter, well fractured and occasionally rimmed. Some clasts show almost complete resorption and are only ghostly outlines. Magnetic susceptibility increases to 20 on the D side of the contact then as high as 60 with increasing depth.								

PURE GOLD MINERALS INC.
TICHAGAMI RIVER PROPERTY

Hole No: 125-02-7
Page 1 of 2

From	To	Description	Sample No	To	Length	Depth	Mag. Susc.	Comments
32.67	41.38	Unit B - Upper portion of diatreme facies kimberlite. Clast rich heterolithic breccia. Dark green massive, competent core. Soft, easily scratched with knife. Clast composition Granitic - 35%, Unit A - 10%, Clay - 15%, Olivine - 40%. Granitic fragments vary from fresh appearance, but soft, to almost totally decayed. Reaction rims are visible on 95% of fragments and are generally thin but up to 4mm. Most fragments are rounded but may be angular. Unit A fragments generally small, <3cm, pale to dark green 34.7m - 5mmx3mm clear brittle crystal with ilmenite inclusions, 0.2mm rim 35.5m - 4mmx2mm deep purple pyrope with pale gray green 0.1mm rim 36.15m - 3mm oval reddish-purple pyrope, purple at edges, reddish orange to centre 38.35m - 2mmx3mm clear oval crystal with multiple reaction rims 1 chrome diopside Magnetic susceptibility varies from 1 to 9 with majority 4-6. Higher readings at fragments of Unit A	H2-5		8.7		5	22.95kg
66.85	75.50	Unit B - Middle portion of diatreme facies kimberlite. Equal proportions of fragments and groundmass. Overall appearance is a dark green groundmass with a higher percentage of granitic fragments than in upper sample. Generally the fragments are <10cm, but 1 granite fragment at 72.3m is 60cm long. Clast composition is 35% granitic, 35% olivine, 25% clay and 5% ilmenite, garnet ?. Granitic fragments vary from fresh appearing to totally clay altered, fine grained to pegmatitic. Local patches of salmon pink feldspar. Dark green olivine fragments are totally altered to serpentine/chlorite, are well rounded and have a greasy vitreous luster. Generally < 2cm in size but locally up to 5cm. 67.5m - 2mm purple pyrope as inclusion in olivine 67.8m - 4mm spherical rose coloured garnet, strongly decayed 68.5m - 2mm yellow brown garnet rimmed by ilmenite on outer edge of reaction rim 71.5m - 1mm garnet with 2 layer 4mm reaction rim, dark brown outer rim and medium brown inner rim 74.4m - 10mm teardrop shaped pyrope, intensely fractured, 5mm wide at fattest point. deep purple red colour at base and yellowish brown at point. 1-2mm black reaction rim with trace ilmenite, dark green alteration along fractures. Magnetic susceptibility ranges from <1 to 9 with most sections about 3	H2-4		8.7		3	22.8kg
101.10	109.85	Unit B - Lower portion of diatreme facies kimberlite. Greenish brown colour to groundmass due to increased abundance of fine grained garnet. Approximately 60% groundmass, 40% fragments. Majority of fragments < 5cm with a maximum of about 8cm. 15% granitics with strong clay/chlorite alteration in all fragments. 35% olivine, generally <2cm, dark green black, completely serpentinized. 40% medium to pale green fragments are probably also olivine as above. Ilmenite comprises about 5% as well rounded fragments to 2cm. Garnets make up <2%. Pluck marks are common in the olivine fragments due to drilling. Vugs up to 2cm	H2-3		8.8		3	24.5kg

		occur in the granitic fragments and contain euhedral quartz and calcite crystals					
		The ilmenite fragments are mostly rimmed by a very fine pale coloured rind.					
		101m - 1cm garnet almost totally altered to medium to dark brown aphanitic material often with an ilmenite rim.					
		102m - 2mm chrome diopside crystal as inclusion in olivine fragment.					
		102.2m - 2cmx3mm elongate red brown garnet, 5mmx1mm garnet. Strongly fractured					
		105.1m - 2cm vug with euhedral quartz and calcite crystals					
		Magnetic susceptibility ranges from 1 to 6, with an average of 3					
114.2	121.7	Unit C - Eclogitic kimberlite? Brown vfg groundmass with slight greenish tint. Brown colour due to about 75% garnet in groundmass. Greenish colouration from serp/chl alteration of mafic component. 40% granitic fragments up to 15cm long with intense alteration of mafics 40% pale to medium green olivine fragments up to 2cm and 10 to 15% dark green olivine. 1% small ilmenite fragments. Fragments appear to be less corroded than higher in the hole	H2-2	7.6	0.2	23.15kg	
		118.3m - first appearance of bright blue sodalite/kyanite? crystals					
		119.3 - 120m - large fragments of granitics and dark green kimberlite, to 12cm, in brown groundmass. 70% fragments.					
		121.5m - 1.5x0.5cm reddish brown garnet, strongly fractured and decayed with 1mm thick black reaction rim					
		122.4m - 5cm dark green volcanic fragment					
		Magnetic susceptibility ranges from 0.6 at top of interval to -0.3 at base. Ave 0.2					
122.9	130.5	Unit D - Hypabissal ? Kimberlite. Medium to dark green very fine grained groundmass with about 40% fragments. 80% of fragments dark green well rounded olivine generally <1cm in diameter. Strong reaction to HCl. Original clast component probably higher as ghosts can be seen of almost totally resorbed fragments. Strong fracturing visible on all fragments not totally converted to serp/chl. 20% ilmenite fragments to 1cm with pale thin reaction rims. Occasional low angle 1-3mm calcite veinlets with bleaching to 5mm. Upper portion of interval contains some small granitic fragments, generally totally altered to clay/chl.	H2-1	7.7	45	22.35kg	
		Magnetic susceptibility ranges from 1 at the upper contact to a high of 60. The average would be about 45					

PURE GOLD MINERALS INC.

Location: 685460E, 5782146N
 Azimuth: 210
 Dip: -45
 Start Date: Aug. 02, 02
 Complete Date: Aug. 03, 02
 Purpose: Test airborne mag anomaly TKJ-H2

Property: Tichagami River
 Project: 125
 Core Size: BTW
 Length(m): 26.0
 Dip Tests: _____
 Drill Hole No: 125-02-8
 Claim No: _____
 Elevation: _____
 Section No: _____
 Date Logged: Aug. 5, 02
 Logged By: J. Chapman

From	To	Description	Sample No	From	To	Length	Shipment	Depth	Mag. Susc.	Comments
0.0	18.5	casing in overburden, consisting of boulder till								
18.5	26	Migmatite EOH								

Appendix C

Geoanalytical Laboratories

Saskatchewan Research Council
125-15 Innovation Blvd.
Saskatoon, Sask.
S7N 2X3
E-mail: geochemlab@src.sk.ca

Contact: Allan Holsten
Bernard Gartner

Phone: 306-933-5426
Fax : 306-933-5656

Geoanalytical Laboratories was established in 1972 and provides a wide spectrum of services to the mining industry. We offer standard analytical and mineral processing packages as outlined in our fee schedule. In addition, we also provide cost estimates for customized packages. This customization gives clients flexibility in their exploration programs without any additional costs. We operate 24 hours a day, 7 days a week for your convenience.

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Reviewed by:

Penny Marie Scott



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Geoanalytical Laboratories-SRC

Memo

To: Pure Gold/Gordon Keevil
From: Penny Maki-Scott
CC: Al Holsten/Bernard Gartner
Date: May 24, 2002
Re: Cold cathode luminescence results OT02:74

Gordon,

Cold cathodoluminescence is a process that our laboratory uses in order to determine synthetic fragments from natural occurring diamond fragments. This is done by bombarding the electrons within the grain which then emit light. This helps to determine trace element chemistry as well as zoning in various minerals. It is our finding that natural diamonds emit a bluish light and synthetic diamonds emit a bright yellow green color. The cathodoluminescence results for your samples which contained yellow diamond fragments fluoresced a bright yellow green color. If there are any questions or concerns please let Al, Bernard, or myself know. Thank you for your business.

Regards,

Penny R. Maki-Scott



Geoanalytical Laboratories

Saskatchewan Research Council

125-15 Innovation Blvd.

Saskatoon, SK.

S7N 2X8

Email: geochemlab@src.sk.ca

Contact: Al Holsten

Bernard Gartner

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Internet: <http://www.src.sk.ca>

September 12, 2002

TO: Jim Chapman
Pure Gold

FROM: Al Holsten
Manager, Geoanalytical Laboratories
Saskatchewan Research Council
PH: (306)933-5426
FAX: (306)933-5656

RE: Results For Sample 1

KG OF SAMPLE FUSED: 22.35 kg. of sample fused

SIEVE SIZE: 106um

METHOD: Caustic fusion

RESULTS:

0 Macrodiamonds,

0 Microdiamonds, Total weight (mg): , Average weight (mg):

QC/QA TRACERS: 9/10 synthetic diamond tracers recovered





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September 12, 2002

TO: Jim Chapman
 Pure Gold

FROM: Al Holsten
 Manager, Geoanalytical Laboratories
 Saskatchewan Research Council
 PH: (306)933-5426
 FAX: (306)933-5656

RE: Results For Sample 2

KG OF SAMPLE FUSED: 23.15 kg. of sample fused

SIEVE SIZE: 106um

METHOD: Caustic fusion

RESULTS:

0 Macrodiamonds,

1 Microdiamonds, Total weight (mg): 0.058, Average weight (mg): 0.058

QQQA TRACERS: 10/10 synthetic diamond tracers recovered

Fraction microns	Diamond Dimensions in mm			Description	Wt. mg
	L	W	H		
+150	0.32	0.26	0.20	White clear fragment etched	





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September 12, 2002

TO: Jim Chapman
Pure Gold

FROM: Al Holsten
Manager, Geoanalytical Laboratories
Saskatchewan Research Council
PH: (306)933-5426
FAX: (306)933-5656

RE: Results For Sample 3

KG OF SAMPLE FUSED: 24.50 kg. of sample fused

SIEVE SIZE: 106um

METHOD: Caustic fusion

RESULTS:

0 Macrodiamonds,

0 Microdiamonds, Total weight (mg): , Average weight (mg):

QC/QA TRACERS: 10/10 synthetic diamond tracers recovered





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September 12, 2002

**TO: Jim Chapman
Pure Gold**

**FROM: Al Holsten
Manager, Geoanalytical Laboratories
Saskatchewan Research Council
PH: (306)933-5426
FAX: (306)933-5656**

RE: Results For Sample 4

KG OF SAMPLE FUSED: 22.80 kg. of sample fused

SIEVE SIZE: 106um

METHOD: Caustic fusion

RESULTS:

0 Macrodiamonds,

0 Microdiamonds, Total weight (mg): , Average weight (mg):

QC/QA TRACERS: 10/10 synthetic diamond tracers recovered





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September 12, 2002

TO: Jim Chapman
Pure Gold

FROM: Al Holsten
Manager, Geoanalytical Laboratories
Saskatchewan Research Council
PH: (306)933-5426
FAX: (306)933-5656

RE: Results For Sample 5

KG OF SAMPLE FUSED: 22.95 kg. of sample fused

SIEVE SIZE: 106um

METHOD: Caustic fusion

RESULTS:

0 Macrodiamonds,

0 Microdiamonds, Total weight (mg): , Average weight (mg):

QQ\QA TRACERS: 10/10 synthetic diamond tracers recovered

