

**GEOLOGICAL AND GEOCHEMICAL**

**ASSESSMENT REPORT**

on the

**TINTA HILL PROJECT**

(TINTA 3-10; YC18660-67  
HILL 14,16,18, 20-40; YC18864-87  
HILL 50,52,54,56; YC18888-91  
TINTA 1-2; YC19653-54  
TINTA 11-12; YC37127-28  
TINTA 101-104; YC37129-32)

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**NTS: 115 I/6 & 7**

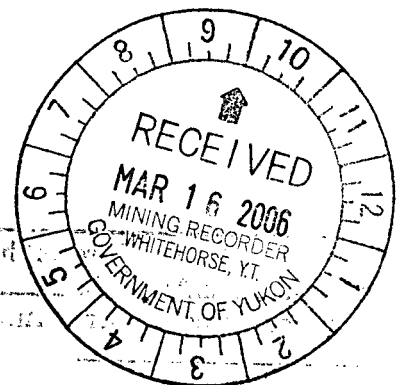
**Latitude 62°17'N      Longitude 136°57'W**

**Whitehorse Mining District, Yukon**

Work performed between October 31, 2004 and September 13, 2005

**For  
Midnight Mines Ltd.  
Box 31293  
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March 15, 2006

This report has been examined by  
the Geological Evaluation Unit  
under Section 21 of the Yukon Quartz  
Mining Act and is approved in the  
amount of \$11,300.00

*M.B.K.*  
Regional Director, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

Costs associated with this report have been  
approved in the amount of \$ 11,300.00  
for assessment credit under Certificate of Work  
No. QW27823 & QW27824  
*A. Southwick*  
Mining Recorder  
Whitehorse Mining District

## 1.0 Executive Summary

The 907 hectare Tinta Hill property, NTS map sheets 115I/6 and 7, is located in the Whitehorse Mining District, 38 km northwest of Carmacks approximately 177 km by road from Whitehorse, Yukon Territory at a latitude of 62°17'N and longitude of 136°57'W. The claims are completely road accessible via the government maintained Freegold Road. The property is 100% owned by Mr. Bill Harris, president of Midnight Mines Ltd.

The Tinta Hill property occurs within the Dawson Range portion of the Tintina Gold Belt, characterized by plutonic rocks of the 100 Ma Cretaceous Dawson Range Batholith and early Jurassic Klotassin Suite metaplutonic rocks intruding metavolcanic and metasedimentary rocks of the Yukon-Tanana Terrane. The region is transected by the west-northwest trending Big Creek Fault, which provides the locus for an over 100 km long well-mineralized belt, with placer gold deposits, porphyry copper-gold, and gold veins and breccia bodies, extending from Mt. Freegold northwesterly to the Casino copper-gold porphyry deposit.

The Tinta Hill silver-gold deposit (Minfile occurrence 115I 058) consists of quartz-carbonate veins confined to a strong northwest trending, 30m wide shear zone primarily hosted by granodiorite. The veins have well-defined walls and vary from 0.5 to 3m wide. The main vein has been traced for 915m along strike on surface. Sulfide mineralogy primarily includes galena and sphalerite with minor chalcopyrite, tetrahedrite and pyrite.

The deposit model for the Tinta Hill Deposit is the intrusion hosted, copper-gold enriched polymetallic vein type such as the Beaverdell camp in British Columbia and Creede, Colorado, USA. The Keno Hill camp is an example of a clastic metasediment-hosted silver-lead-zinc enriched polymetallic vein deposit model. Commodities include Ag, Pb, Zn (Cu, Au, Mn). Similarities exist to the orogenic type (Pogo Deposit in Alaska) and the intrusion-related gold pyrrhotite vein model such as at the past producing Snip Mine in northern British Columbia.

Exploration, undertaken from 1931 to present, has involved approximately 939m of underground development, 4,000m of diamond drilling in 47 holes, extensive bulldozer trenching, rock and soil geochemistry, and VLF electromagnetic geophysical surveys.

The current work program consisted of an evaluation of the showings within a property wide and regional context, with concurrent geochemical sampling. Select trenches were cleaned out to facilitate chip sampling and significant claim post, adit, trench and baseline locations were recorded by GPS.

A preliminary historical resource estimate of 515,300 tonnes of 4.1 g/t Au, 223 g/t Ag, 7.2% Pb, 2.6% Zn and 0.4% Cu using the true thickness of drill hole intersections was

calculated by Tough in 1981 for the main vein prior to the implementation of NI 43-101 standards.

Check samples collected by the author verify the tenor of mineralization on the Tinta Hill property and a review of previous exploration programs on the property indicates that the main mineralized zone still appears to be open to the northwest, southeast and to depth. It is also apparent that additional parallel to subparallel electromagnetic geophysical conductors to the main mineralized shear zone are suggestive of additional mineralization and have only been partially tested. Consequently there is good potential to expand on the preliminary resource estimate both along strike and down dip of the main vein zone and in additional zones that have seen only limited exploration such as Vein No. 2, which appears to have a larger alteration halo than the main vein. There is also a good possibility that the copper and gold values will increase with depth.

A program consisting of 2,000m of diamond and 1,000m of reconnaissance hammer drilling, baseline and GPS surveying, grid preparation, geophysical surveying, prospecting and sampling is recommended with a proposed budget of \$ 490,000.

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## **2.0 INTRODUCTION AND TERMS OF REFERENCE**

### **2.1 Qualified Person and Participating Personnel**

Ms. Jean M. Pautler, P. Geo. was commissioned by Midnight Mines Ltd., Whitehorse, Yukon Territory to document the results of the 2004-2005 exploration program completed between October 31, 2004 and September 13, 2005 on the Tinta Hill property. The report is based on historical information, a geological and geochemical examination and evaluation of the property by the author, accompanied by Mr. Bill Harris and Mr. Ron Robertson, P. Geo. on October 31, 2004 and information supplied by Mr. Bill Harris and Mr. Ron Robertson, P. Geo. on the 2005 programs. A complete list of personnel is included in Appendix IV.

### **2.2 Terms, Definitions and Units**

All costs contained in this report are denominated in Canadian dollars. Distances are primarily reported in metres (m) and km (kilometers).

The term ppm refers to parts per million, which is equivalent to grams per metric tonne (g/t) and ppb refers to parts per billion. The abbreviation oz/ton refers to troy ounces per imperial short ton and oz/t to troy ounces per metric tonne. The symbol % refers to weight percent unless otherwise stated.

Elemental abbreviations used in this report include: gold (Au), silver (Ag), copper (Cu), lead (Pb), zinc (Zn), iron (Fe), arsenic (As) antimony (Sb) manganese (Mn) and sulfide (S).

Minerals found on the Tinta Hill property include pyrite (Fe S), chalcopyrite (Fe Cu S), galena (Pb S), sphalerite (Zn S) and tetrahedrite (Cu, Ag, As, Sb S).

### **2.2 Source Documents**

Sources of information are detailed below and include the available public domain information and personally acquired data.

- Research of the Minfile data available for the area at [www.geology@gov.yk.ca](mailto:www.geology@gov.yk.ca) .
- Research of mineral titles at <http://gysde.gov.yk.ca> and [www.mapsyukon.gov.yk.ca](http://www.mapsyukon.gov.yk.ca) .
- Review of annual assessment reports filed with the government and company reports.
- Review of geological maps and reports completed by the Yukon Geological Survey or its predecessors.
- Published scientific papers on the geology of the region, shear-hosted gold deposits, and mineral deposits.
- Ms. Pautler has previous independent experience in the Mt. Freegold Camp and knowledge of the area, dating back to 1983.

- Exploration on the property by the author on October 31, 2004 and a review and evaluation of the 2005 programs.

### **2.3 Limitations, Restrictions and Assumptions**

The author has assumed that the previous documented work on the property is valid and has not encountered any information to discredit such work. Limited check samples collected in late 2004 are consistent with the tenor of mineralization previously reported by several operators but do not constitute detailed quantitative check analyses.

### **2.5 Scope**

This report describes the current exploration program in the context of the geology, previous exploration history and mineral potential of the Tinta Hill Property. Research included a review of the historical work that related to the immediate area of the property. Regional geological data and current exploration information have been reviewed to determine the geological setting of the mineralization and to obtain an indication of the level of industry activity in the area.

An estimate of costs has been made based on current rates for drilling, geophysical surveys and professional fees in the Yukon Territory.

### **3.0 DISCLAIMER**

The author has relied in part upon work and reports completed by others in the preparation of this report. Although the author personally collected samples to verify the tenor of mineralization exposed on the property, thorough checks to confirm the results of such prior work and reports has not been completed. While the author has no reason to doubt the correctness of such work and reports, no responsibility is taken for the accuracy of work completed by others. Consequently, the use of this report shall be at the user's sole risk. The author disclaims any and all liabilities resulting from the use or distribution of this report.

Further, while title documents and option agreements were reviewed for this study, it does not constitute nor is it intended to represent a legal, or any other, opinion as to the validity of the title.

### **4.0 PROPERTY DESCRIPTION AND LOCATION**

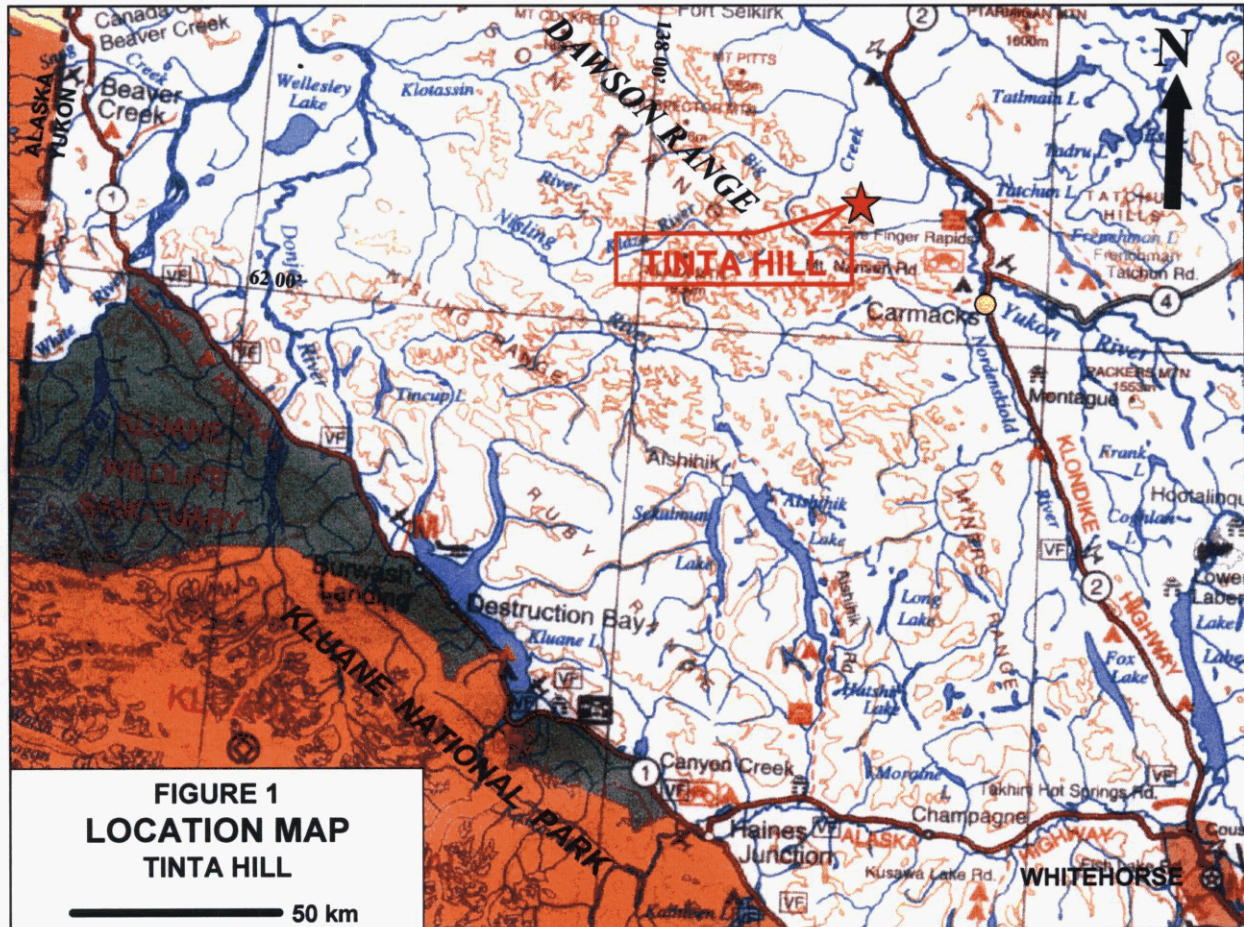
#### **4.1 Location and Access**

The Tinta Hill property, NTS map sheet 115I/6&7, is located 38 km northwest of Carmacks approximately 177 km by road from Whitehorse, Yukon Territory (*Figure 1*). It

is situated on Tinta Hill, a smaller hill on the southern flank of Granite Mountain. The property is centered at a latitude of 62°17'N and a longitude of 136°57'W.

The claims are accessible via the Freegold Road, a government maintained gravel road, which is followed for 54 km. At this point a subsidiary road is followed for 11 km northward over the uplands toward Granite Mountain.

Carmacks is the closest town, with a population of approximately 450. Facilities include a grocery store, nursing station, two service stations, a restaurant and a café. Complete services are available in Whitehorse, less than two hours by road from Carmacks.



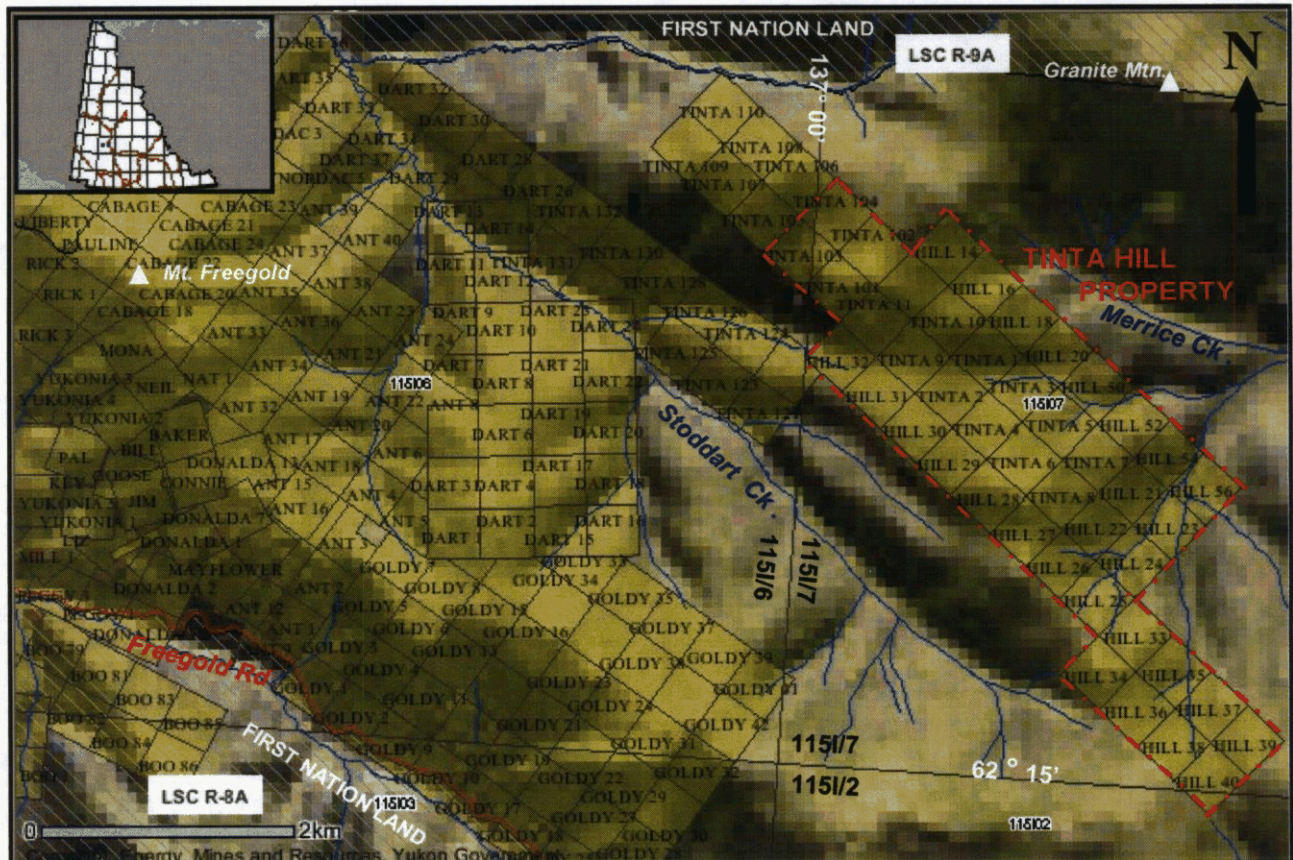
#### 4.2 Physiography and Climate

The property lies within the unglaciated Dawson Range, characterized by rolling upland, mountain-valley terrain, in southwestern Yukon (Figure 1). Exposure is sparse except along ridge tops but has been exposed by trenches and two adits on the property. Elevations range between 1000 metres and 1250 metres above sea level. Short willow brush and sparse alpine spruce cover most of the mountain uplands, with dense spruce forests on south facing slopes. Water is available most of the year from the headwater tributaries of Merrice and Stoddart Creeks.

The area has a northern interior climate with long cold winters and moderate precipitation. The exploration season extends from May until October.

### 4.3 Land Tenure

For the purpose of this report the Tinta Hill property consists of 44 contiguous two-post Yukon Quartz claims covering an area of approximately 907 hectares in the Whitehorse Mining District. The actual location of the claims should be rotated slightly counterclockwise from the position shown (*Figure 2*). Additional Tinta claims were added to the northwest corner of the property, subsequent to the current exploration program.



**FIGURE 2: CLAIM MAP**

First Nations have settled their land claims in the area with First Nations surveyed lands occurring an average of 3 km to the north and 6 km to the south of the Tinta Hill property (*see Figure 2*).

The claims were staked in accordance with the Yukon Quartz Mining Act on claim sheets 115I/6 and 115I/7, available for viewing in the Whitehorse Mining Records Office. The claims are registered in the name of Mr. Bill Harris, president of Midnight Mines Ltd. A table summarizing pertinent claim data is shown below.

TABLE 1: Claim Data

Claim Name	Grant No.	No. of Claims	Expiry Date	New Expiry Date*
TINTA 3-8	YC18660-65	6	October 28, 2005	October 28, 2009
TINTA 9-10	YC18665-67	2	October 28, 2005	October 28, 2008
HILL 14,16,18,20	YC18864-67	4	September 19, 2005	September 19, 2007
HILL 21-40	YC18868-87	20	September 19, 2005	September 19, 2007
HILL 50,52,54,56	YC18888-91	4	September 19, 2005	September 19, 2007
TINTA 1	YC19653	1	September 13, 2007	September 13, 2011
TINTA 2	YC19654	1	September 13, 2006	September 13, 2011
TINTA 11-12	YC37127-28	2	November 26, 2005	November 26, 2008
TINTA 101-104	YC37129-32	4	November 26, 2005	November 26, 2008
<b>TOTAL</b>		<b>44</b>		

\*expiry date based on acceptance of this report

## 5.0 HISTORY

Exploration work from 1931 to 1998 (acquisition by Midnight Mines Ltd.) has involved 973m of underground development, approximately 4,000m of diamond drilling in 47 holes, trenching, rock and soil geochemistry, and electromagnetic geophysical surveys. A summary of the work completed by various operators, as documented in Yukon Minfile (*Deklerk and Traynor, 2004*) and various government (e.g. Mineral Industry Reports – *Morin et. al., 1974*) and company publications (primarily available as assessment reports filed with the government), is tabulated below:

- 1931-32      Staked for gold on a quartz vein by George McDade and partners and explored by trenching and shallow shafts.
- 1937-1940's      Staked by W. Teare with two shafts (15 and 11m deep) and a 16m adit.
- 1959-1960      Program of bulldozer trenching, 410m of BX sized diamond drilling in five holes, remapping old trenches and shafts and profile across the hill for adit purposes, by Conwest Exploration Company Limited (*Rogan, 1960*).
- 1966      Grid soil sampling and an EM-16 electromagnetic survey by Canex Aerial Explorations Ltd. (renamed Canex Placer in 1972).
- 1968      Rehabilitation and sampling of existing trenches by Silgold Mines Ltd under option from Canex.
- 1969-72      Soil sampling and trenching by Coin Canyon Mines Ltd. under option (*Morin et. al., 1974*).
- 1973-76      Program by Exeter Mines Ltd. (renamed Tinta Hill Mines Ltd. in 1975) under option from Canex, consisting of bulldozer trenching, grid soil sampling, electromagnetic surveys, remapping of old trenches, relogging of available core from 1960 drill program, 1998.2m of BQ diamond drilling in 28 holes resulting in drill indicated and inferred ore reserve calculation (*Morin et. al., 1974, 1976 and Tough, 1974*).

- 1979-1986 Trenching, 295.4m of diamond drilling in three holes were drilled on the main zone and 516m of drifting and crosscutting in the Level 1 adit and 423m in the Level 2 adit, 366m west and 45.7m lower in elevation than Level 1, was completed by Silver Tusk Mines Ltd. and Panther Mines Ltd. under option from Placer Development Ltd. Three additional holes were drilled to test other anomalies.
- 1987 Trenching by International Consolidated Platinum under a joint venture.
- 1988 Eight hole, 1150m diamond drill program by Mill City Gold Mining Corp. with reconnaissance prospecting, and geochemical sampling along Stoddart Creek. Anomalous Pb and Zn values were returned from the soils (*Ferguson, 1988 and 1989*).
- 1989-94 Road work and trenching by Silver Tusk Mines Ltd.
- 1998-2004 Acquisition by staking by B. Harris, president of Midnight Mines Ltd.

## 6.0 CURRENT WORK PROGRAM

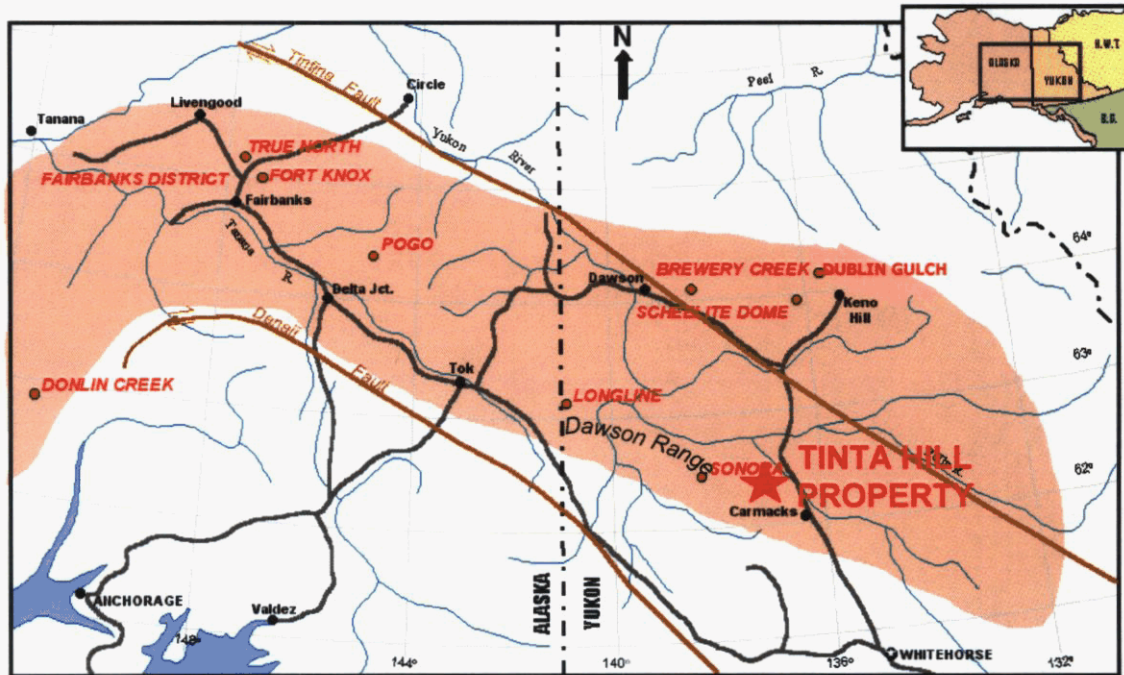
A total of 15 man-days were spent on the Tinta Hill property between October 31, 2004 and September 13, 2005. Work was specifically conducted on the Tinta 1-6 and Tinta 9-10 (record numbers YC19653-54, YC18660-63, 66-67) from October 31 to November 1, 2004, June 25 to 26, 2005 and September 10 to 13, 2005. The work program consisted of a geological evaluation of the showings within a property wide and regional context, with concurrent geochemical sampling and prospecting. Access was gained into the Level 1 adit, inaccessible for several years, and chip samples collected to verify and evaluate the initial results from 1981. Select trenches were cleaned out to facilitate chip sampling and significant claim post, adit, trench and baseline locations were recorded by GPS. Control was provided by property scale topographic maps, hipchain, compass and GPS. The old camp was partially reclaimed and rehabilitated for future use.

## 7.0 GEOLOGICAL SETTING

### 7.1 Regional Geology

The Tinta Hill property occurs within the Dawson Range portion of the Tintina Gold Belt, which constitutes an arcuate belt extending from Donlin Creek in Alaska, through the Fairbanks District, Pogo and across the Yukon border where it incorporates such deposits as Brewery Creek and Dublin Gulch with occurrences such as Scheelite Dome and Longline (*Figure 3*).

The Dawson Range extends from Mt. Freegold, 45 km northwest of Carmacks, to east-central Alaska and is characterized by plutonic rocks of the 100 Ma Cretaceous Dawson Range Batholith intruding metavolcanic and metasedimentary rocks of the Yukon-Tanana Terrane, which includes the Nasina and Nisling Subterranea (*Figure 4*).



## TINTINA GOLD BELT



**FIGURE 3**  
TINTA HILL PROPERTY  
TINTINA GOLD BELT

The size of the deposits are tabulated below:

Deposit	Size (Resource)*
Donlin Creek	111 Mt @ 2.9 g/t Au
Fort Knox	169 Mt @ 0.93 g/t Au
True North	16.5 Mt @ 2.5 g/t Au
Pogo	9.1Mt @ 17.8 g/t Au
Brewery Creek	10 Mt @ 1.4 g/t Au
Dublin Gulch	99 Mt @ 1.1 g/t Au

- resource figures from:  
Tucker and Smith, eds, 2000  
The Tintina Gold Belt: concepts,  
exploration and discoveries, BC-  
Yukon Territory Ch. Of Mines,  
Cord. Roundup Sp. Vol. 2.

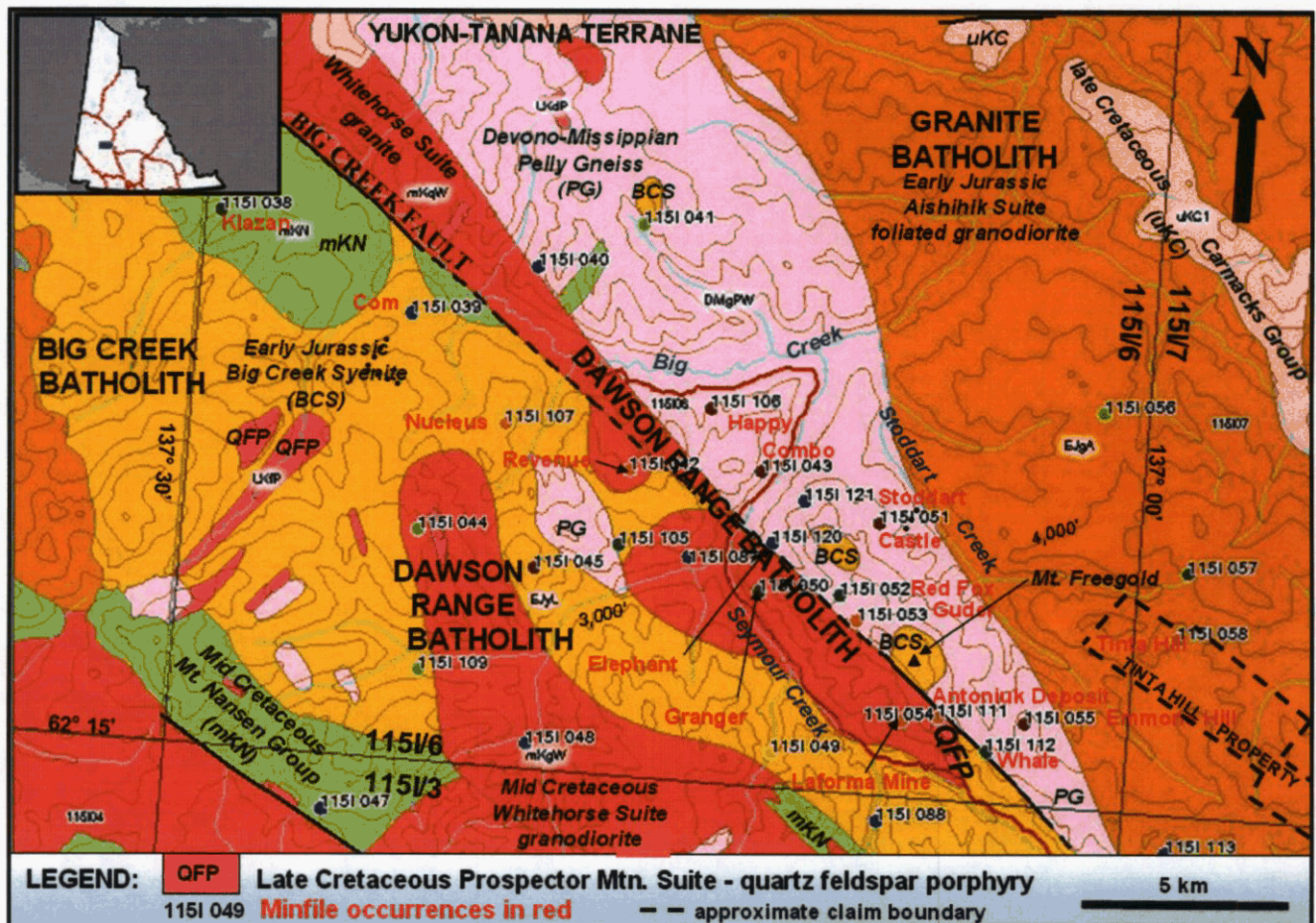
The Big Creek Fault appears to have provided the locus for early Jurassic to mid Cretaceous intrusion (Big Creek and Dawson Range Batholiths) at the boundary between dominantly mid Paleozoic basement schists and gneisses of continental margin origin superposed with Devonian-Mississippian arc volcanic to plutonic rocks (Nasina Subterrane of the Yukon-Tanana Terrane) intruded by the early Jurassic Granite Batholith (metaplutonic rocks) north of the fault (*Figure 4*) from older Proterozoic to lower Paleozoic basement schists and gneisses of passive continental margin derivation (Nisling Subterrane of the Yukon-Tanana Terrane - *southwest of Figure 4*).

The exact location of the Big Creek Fault is subject to interpretation, possibly due to the presence of fault splays, and has been interpreted by some to follow Stoddart Creek, approximately 2.5 km southwest of the Tinta Hill property.

The Dawson Range Batholith (Whitehorse Suite) primarily consists of granodiorite within the main body. A granitic phase is exposed along the Big Creek Fault with a quartz feldspar porphyry body of the late Cretaceous Prospector Mountain Suite occurring at its southeastern end. The Big Creek Batholith consists of an orthoclase-hornblende syenite (*Figure 4*).

Felsic volcanic rocks and related porphyry dykes and domes, and related granitic plutons generally mapped as the mid Cretaceous Mt. Nansen Group occur within the region and are exposed in the Freegold district as dykes and plugs that generally do not show up on the regional scale. It is probable that some are later Cretaceous in age and part of the Carmacks Group and/or younger Prospector Mountain Suite.

All of the above lithologies are overlain by the late Cretaceous Carmacks Group, which is dominated by mafic flows and pyroclastic rocks, occurring in the north and northeast portions of the regional area shown in *Figure 4*. Felsic to intermediate dykes and small plugs and minor sedimentary rocks occur within the regional area that may be related to the Carmacks Group but do not show up on the regional scale.



The Mt. Freegold district itself is well-mineralized with a variety of deposit types including copper-gold and gold-copper porphyry models, gold porphyry, epithermal gold and orogenic gold veins. Significant properties within this district are summarized under the "Adjacent Properties" section of this report.

## 7.2 Property Geology

The following description of the property geology is edited from Morin, 1977, a succinct account of the area.

The Tinta Hill property is underlain by granodiorite to quartz diorite of the Granite Batholith of early Jurassic age, with conformable gneissic amphibolite bands up to 12m wide, intruded by mid to late Cretaceous dacite porphyry stocks and rhyolite quartz feldspar porphyry dykes and/or sills with associated felsic vitric crystal tuff (*Figure 5*).

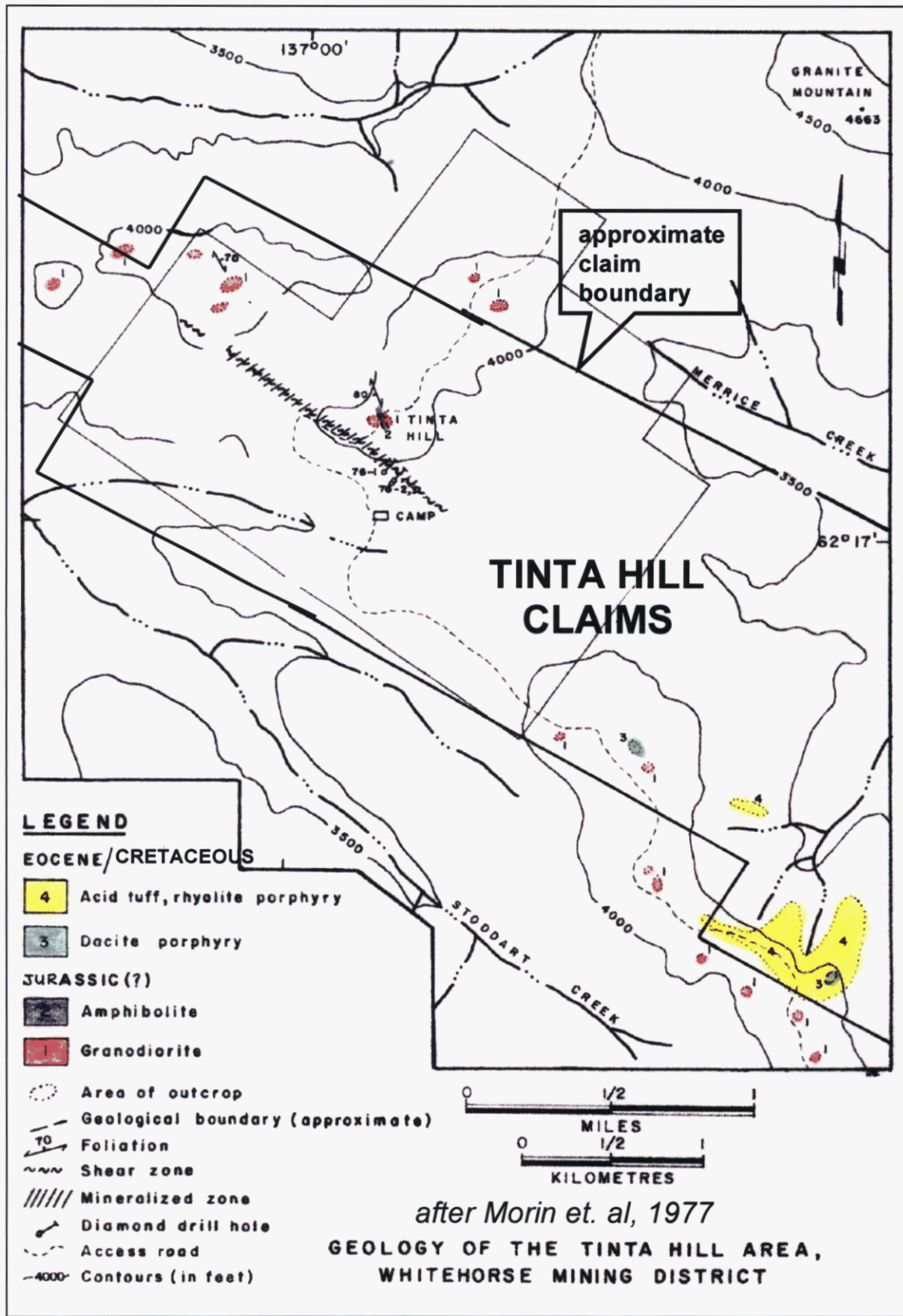
The oldest and principal lithology exposed on the property consists of medium to coarse grained, locally porphyritic (due to the presence of K-feldspar phenocrysts up to 2 cm long), weakly foliated (roughly at 300°/steep) granodiorite to quartz diorite (Unit 1). Composition is 20 to 25% quartz, 10 to 15% K-feldspar, 40 to 50% plagioclase and 10 to 15% biotite and hornblende with abundant accessory epidote and magnetite, with chloritization of the mafic minerals. Quartz stringers are common and fractures are usually filled with chlorite or calcite.

The amphibolite (Unit 2) is medium to fine grained, consisting of 60 to 70% hornblende and 30 to 40% plagioclase, with feldspar-rich bands 2 to 5 mm across occurring at intervals of 2 cm or more. Unit 2 is prominent in outcrop at the top of Tinta Hill, immediately north of the main showing area.

Two small stocks, less than 100m across, of dacite to andesite porphyry (Unit 3), that may be related to the Mount Nansen or Carmacks volcanic suites, are exposed in the southern property area. The northern stock is composed of 5% hornblende and biotite, and 10% plagioclase as phenocrysts up to 2 mm long in a light grey aphanitic, feldspathic matrix. The southern stock is darker in appearance.

Unit 4 may represent the basal felsic member of the younger Carmacks Suite. It consists of rhyolite porphyry and vitric crystal tuff, exposed in subcrop as felsenmeer and scree along the southeast-trending ridge in the southern property area. The rhyolite porphyry is buff-weathering, chalky white and contains varying amounts of miarolitic cavities. It consists of quartz and plagioclase phenocrysts up to 2 mm across in an aphanitic white matrix, with trace amounts of disseminated pyrite. The tuff is white to purplish in colour and contains crystal fragments of quartz, white, altered feldspar, and euhedral biotite up to 1 mm across in a very fine-grained and finely laminated matrix.

The dominant structure on the property is a northwesterly trending shear zone that has been traced by electromagnetic geophysical surveys over a strike length of more than 3,300m. The structure may represent a splay or subsidiary structure of the Big Creek Fault, which lies southwest of the property.



**FIGURE 5: PROPERTY GEOLOGY**

## 8.0 DEPOSIT MODEL

The deposit model for the Tinta Hill Deposit is the intrusion hosted, copper-gold enriched polymetallic vein type. Similar deposits include the Beaverdell camp in British Columbia and Creede, Colorado, USA. The Keno Hill camp is an example of a clastic metasediment-hosted silver-lead-zinc enriched polymetallic vein deposit model. Commodities include Ag, Pb, Zn (Cu, Au, Mn). Similarities exist to the orogenic type (Pogo Deposit in Alaska) and the intrusion-related gold pyrrhotite vein model such as at the past producing Snip Mine in northern British Columbia.

The following characteristics of the intrusion hosted polymetallic vein deposit model is primarily summarized from Lefebure and Höy, editors, (1996).

Mineralization typically occurs as sulfide-rich veins containing sphalerite, galena, pyrite, silver and sulphosalt (tetrahedrite-tennantite) minerals, chalcopyrite, arsenopyrite and stibnite, in a carbonate and quartz gangue  $\pm$  specular hematite, hematite, barite and fluorite. Silver minerals often occur as inclusions in galena and native gold and electrum occurs in some deposits. Gold grades are generally low given the amount of sulfides present. Some veins contain more chalcopyrite and gold at depth.

Wall rock alteration in volcanic and intrusive host rocks is argillic, sericitic or chloritic and may be quite extensive.

Regional faults, fault sets and fractures are an important ore control, although veins are typically associated with second order structures. In igneous rocks the faults may relate to volcanic centers. Significant deposits are restricted to competent lithologies. Dikes are often emplaced along the same faults and in some camps are believed to be roughly contemporaneous with mineralization. Some polymetallic veins are found surrounding intrusions with porphyry deposits or prospects.

Individual vein systems range from several hundred to several million tonnes grading from 5 to 1500 g/t Ag, 0.5 to 20% Pb and 0.5 to 8% Zn. Copper and gold are reported in less than half the British Columbia occurrences, with average grades of 0.09 % Cu and 4 g/t Au. The veins usually support small to medium-size underground mines. Larger polymetallic vein deposits are attractive because of their high grades and relatively easy beneficiation. They are potential sources of cadmium and germanium.

## 9.0 MINERALIZATION

The Tinta Hill property covers the Tinta Hill silver-gold deposit as documented by the Yukon Geology Program as Minfile 1151 058 (*Deklerk and Traynor, 2004*). The main mineralized zone consists of quartz-carbonate veins confined to a strong northwest trending (300-335°), vertically to steeply north dipping, 30m wide shear zone primarily hosted by granodiorite and minor amphibolite. Sulfide mineralogy primarily includes galena and sphalerite with minor chalcopyrite, tetrahedrite and pyrite. Pyrite, sphalerite, galena and chalcopyrite also occur as veinlets and disseminations in both the hangingwall and footwall. Anglesite, malachite and azurite occur in the oxidized portions of the veins. The veins have well-defined walls and vary from 0.5 to 3m wide (*Morin et al., 1977, Tough, 1974 and Bostock, 1936*). The main vein has been traced for 915m along strike on surface (*Deklerk and Traynor, 2004*).

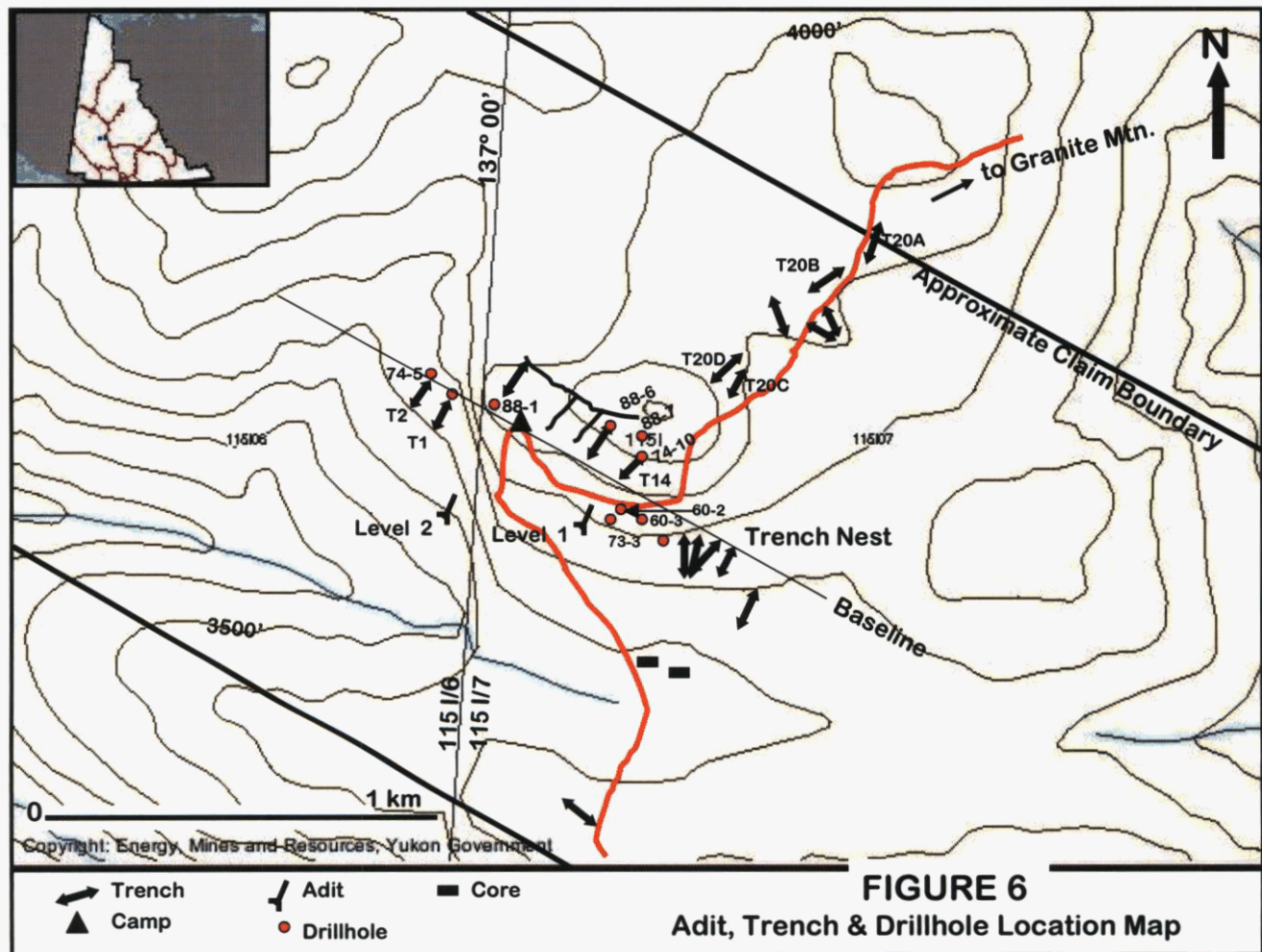
The main mineralized shear zone has been identified as a pinch-and-swell structure extending over a length of some 3,500m and open at both ends (*Ferguson, 1988*). The average true thickness of the mineralized zone encountered in diamond drill holes is 1.6m and on surface 0.9m, with width variances of a few inches to 2m (*Ferguson, 1988*).

Weak potassic, phyllic (quartz-sericite-pyrite) and clay alteration envelopes surround the veins (*Deklerk and Traynor, 2004 and Ferguson, 1988*). Hematization (calcite-hematite veinlets, fractures and flooding), chloritization (with minor epidote) and zones of strong K-feldspar flooding occur peripherally (*Ferguson, 1988*).

A second major vein system appears to parallel the main vein, approximately 50m to the north, near the top of Tinta Hill, (*Ferguson 1988*). Previous trenching in this area encountered a shear zone containing variable amounts of galena and sphalerite (*Tough, 1974*). It is also reported that two drill holes on an anomaly connecting the Tinta Vein zone with an anomaly to the north revealed a mineralized zone comparable in width and tenor to the Tinta Vein zone and other sub-parallel electromagnetic conductors are indicated to the south of the main zone (*Tough, 1981a*).

## 10.0 PREVIOUS EXPLORATION

Exploration has involved approximately 939m of underground development, 4,000m of diamond drilling in 47 holes, extensive bulldozer trenching, rock and soil geochemistry, and VLF-EM electromagnetic geophysical surveys. The previous work is summarized below under the respective sections and shown on Figure 6, below.



## 10.1 Geochemistry

A total of three grid soil surveys were completed on the property between 1966 and 1973. The latest program (the 1973 program by Exeter) consisting of 271 soil samples over a 2,100m by 600m area and assayed for silver, lead, copper and gold, outlined an anomaly centered on the Tinta 2 and 4 claims along the main mineralized shear zone (Tough, 1974).

## 10.2 Geophysics

Three VLF-EM electromagnetic geophysical surveys were completed on the property between 1966 and 1974, outlining the main mineralized shear zone. A total of 34 line miles of VLF-EM surveying carried out in 1973 and 1974 by Exeter (Tinta Hill Mines Ltd.) also outlined conductors north and south of and subparallel to the main mineralized shear zone (Tough, 1974).

### 10.3 Trenching

Numerous historic trenches are evident on the property with six trenching programs undertaken between 1932 and 1994, primarily concentrating along the main mineralized shear zone, which parallels the baseline. Trenches have been located in 3 separate areas, along the baseline, north of the baseline, and on the access road to Granite Mountain. The "Trench Nest" refers to multiple trenches between 19+00E to 25+00E, directly south of the baseline. Trench descriptions, locations and results are best documented in Harris (2003), Craig (2002) and Tough (1973).

The main zone was traced for 915m in trenches and a shear zone was encountered containing variable amounts of galena and sphalerite approximately 50m to the north of the main vein, near the top of Tinta Hill (Tough, 1974).

### 10.4 Drilling

Five drill programs of BX to BQ size core, totalling 3,558.6 metres in 41 holes, were completed on the Tinta Hill Property between 1960 and 1988, primarily testing the horizontal strike and to a lesser degree the dip extensions of the main Tinta Vein zone. In addition, Ferguson (1988) refers to a 1982 drill program by Silver Tusk Mines Ltd. and Panther Mines Ltd. with 295.4m of diamond drilling in three holes on the main zone and three additional holes testing other anomalies. No additional information was located on this program. Most of the core is stored on the property in varying states of disrepair.

Table 2 below summarizes the true width intercepts from the 1960, 1973, 1974 and 1976 drilling. Assay results were not reported and can not be located from the 1988 drilling, although samples were reportedly sent to Bondar Clegg for analysis and split intervals are evident in the 1988 core, which is stored at the Government Core Library in Whitehorse (see Ferguson, 1988). Ferguson reports that "mineralization was observed in every hole".

**Table 2: True width intercepts from 1960, 1973, 1974 and 1976 drilling**

DDH Hole	true width (feet)	Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Cd %
60-1	3.9	0.070	6.05	11.18	10.37	0.20	
60-2	5.4	0.078	5.19	3.25	5.01	0.49	
60-3	7.5	0.039	1.64	1.76	2.76	0.08	
60-4	5.7	0.182	2.81	1.17	2.57	0.77	
60-5	4.6	0.065	5.89	4.85	3.25	0.38	
73-1	4.6	0.292	3.00	2.70	5.96	0.62	0.04
73-2	3.9	0.073	1.77	1.57	5.12	0.47	0.01
73-3	5.4	0.022	1.66	1.55	3.33	0.27	0.024
73-4	5.3	0.031	1.05	1.29	3.8	0.61	0.03
74-2	5.7	0.09	14.50	14.10	17.63	0.18	0.16
74-3	5.0	0.076	1.10	0.24	1.59	0.50	0.024
74-4	5.3	0.031	1.49	0.15	0.17	0.95	0.044
74-5	3.5	0.02	0.39	0.13	0.15	0.69	0.01
74-6	1.8	0.02	1.06	0.10	<0.05	0.05	
74-7	2	0.005	0.53	0.10	0.30	0.04	
74-8	Vein not intersected – collared on vein.						
74-9	No intersection – hole abandoned at 71' due to cave.						
74-9A	5.2	0.11	2.55	1.05	1.82	1.06	0.02

DDH Hole	true width (feet)	Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Cd %
74-10	6.4	0.134	9.53	3.49	2.15	1.07	0.02
74-11	2.5	0.02	1.40	1.15	2.00	0.03	0.015
74-12	8.1	0.08	10.70	11.25	21.30	0.20	0.19
74-13	4.1	0.015	1.45	0.62	1.63	0.04	0.015
74-14	7.2	0.022	1.83	2.49	4.01	0.04	0.14
	3.5	0.03	0.73	1.05	2.10	0.03	0.02
	3.5	tr	0.72	0.70	1.20	0.01	0.01
74-15	Was not on the main zone – no mineralization intersected.						
74-16	4.3	0.09	13.20	8.20	8.80	0.34	0.14
	2.3	0.02	1.70	1.08	3.20	0.08	0.03
74-17	4.0	0.053	2.10	2.39	3.29	0.08	0.03
	4.4	0.03	0.41	1.32	1.76	0.02	0.01
	5.7	0.10	20.30	23.03	13.00	0.23	0.11
74-18	1.7	0.06	1.50	3.12	3.88	0.10	0.03
	4.2	0.023	5.25	4.86	4.35	0.09	0.023
74-19	9.4	0.010	3.16	2.06	5.06	0.07	0.02
76-1	2.20	0.044	1.03	0.56	1.39	0.05	
	4.30	0.010	2.76	2.73	7.18	0.09	0.05
76-2	Abandoned at 24m due to water loss.						
76-3	12m of low grade mineralization, testing depth extent.						

## 10.5 Underground Development

A total of 939m of underground development has been conducted on the property, with 516m of drifting and crosscutting in the Level 1 Adit (3900' elevation) and 423m in the Level 2 Adit (3750' elevation), which is situated 366m west and 45.7m lower in elevation than Level 1. The work was completed by Silver Tusk Mines Ltd. and Panther Mines Ltd. from 1980 to 1981 (*refer to Tough, 1981a, 1981b*). Both adits were driven into the hill at an azimuth of 032°. Both levels were mapped (*Figures 7 and 8 on pages following*) and the chip sampling procedure was designed and overseen by D.D.H. Geomanagement Ltd., Vancouver British Columbia in 1981. Approximately 880 samples were assayed with acceptable sampling procedures outlined and complete chip sample results tabulated in Levasseur, 1982.

The site was visited by the author in 1983 at which time the Level 2 Adit was inaccessible. The Level 1 Adit was accessible at this time and remains partly accessible.

The Level 1 Adit intersected 94 m of vein grading 6.8 g/t Au, 164.6 g/t Ag, 1.0% Cu, 5.6% Pb and 13.2% Zn over an average width of 0.76m. The Level 2 Adit intersected 31m grading 7.54 g/t Au, 120 g/t Ag, 0.8% Cu, 1.3% Pb and 3.8% Zn over an average width of 0.6m, plus 35.7m grading 27.8 g/t Au, 696.0 g/t Ag, 3.6% Cu, 6.5% Pb and 2.8% Zn over an average width of 0.5m (*Deklerk and Traynor, 2004*). Detailed chip sample results for both levels are completely detailed in Levasseur, 1982.

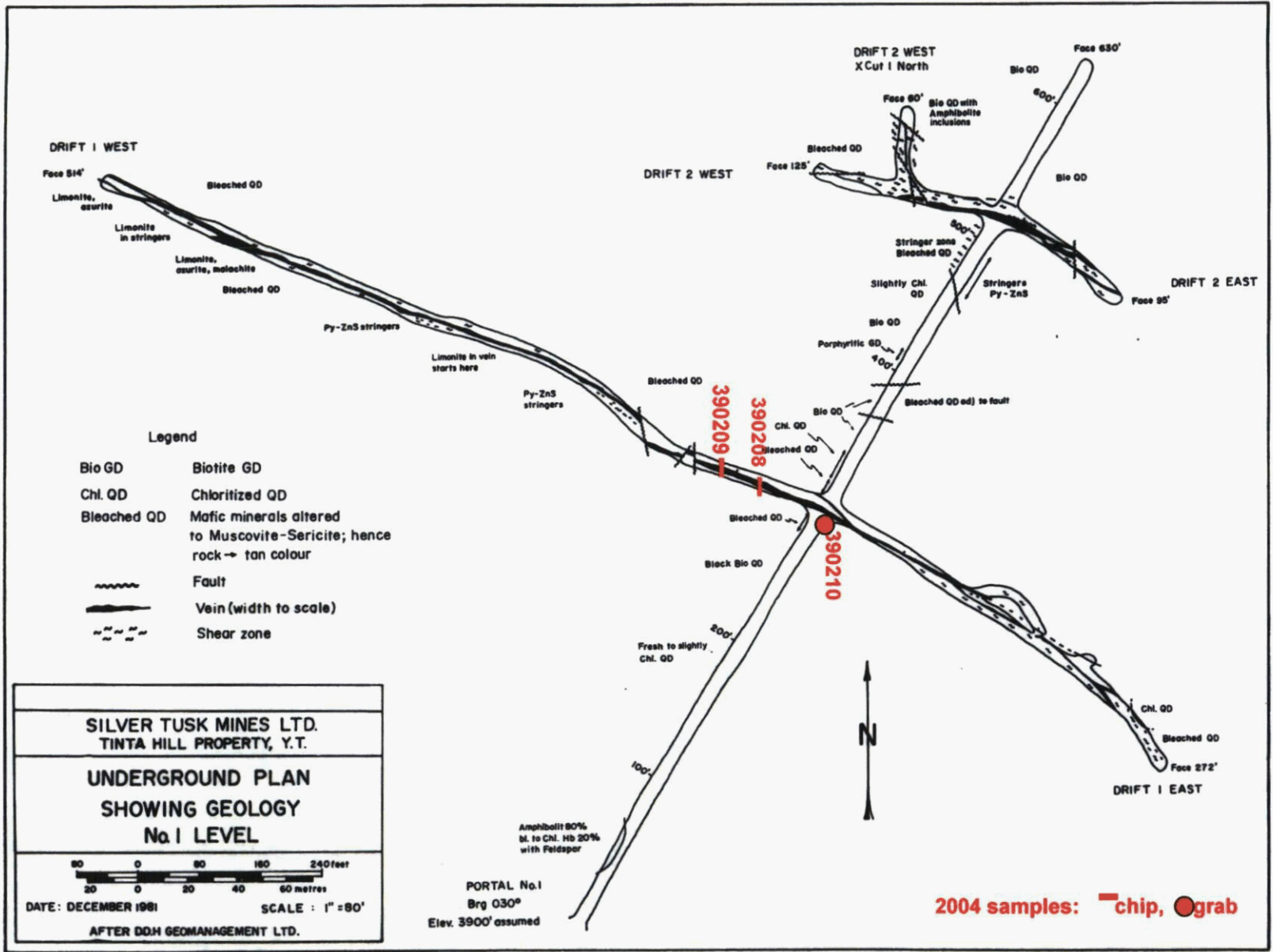


FIGURE 7: LEVEL 1 ADIT

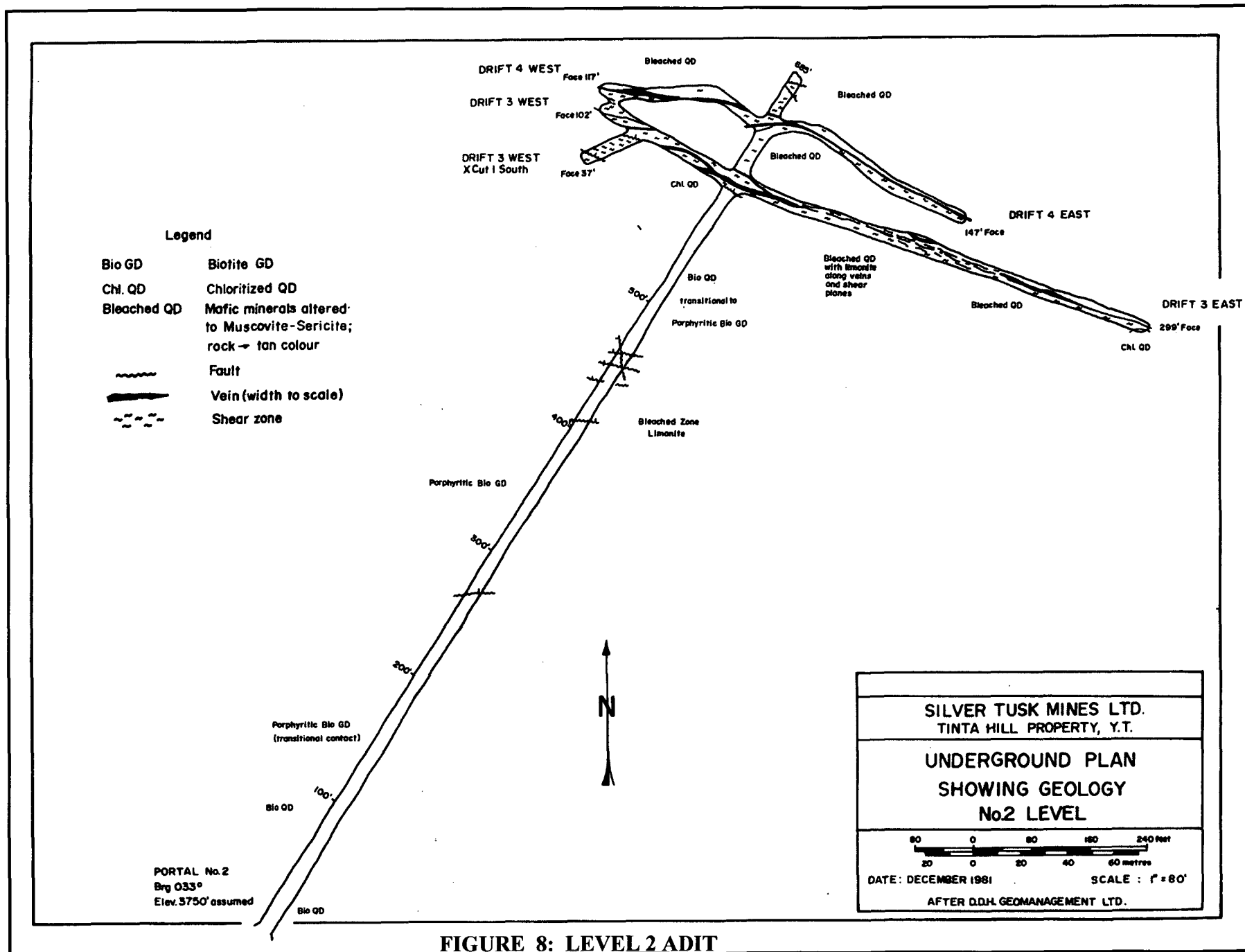


FIGURE 8: LEVEL 2 ADIT

## 11.0 CURRENT EXPLORATION

### 11.1 Sampling Method, Approach and Results

A total of nine samples were collected from the property on October 31, 2004 to confirm the validity of previous sample collection and assay results, to verify the grade and tenor of mineralization on the property and to gain information with which to focus continued exploration. The samples were located and recorded by GPS in the field using UTM coordinates, Nad 83, Zone 8 projection. Sample descriptions, locations and select results (Au, Ag, As, Cu, Pb and Zn) are documented in Appendix I and locations are plotted on Figures 7 and 9. Complete results are outlined in Appendix II.

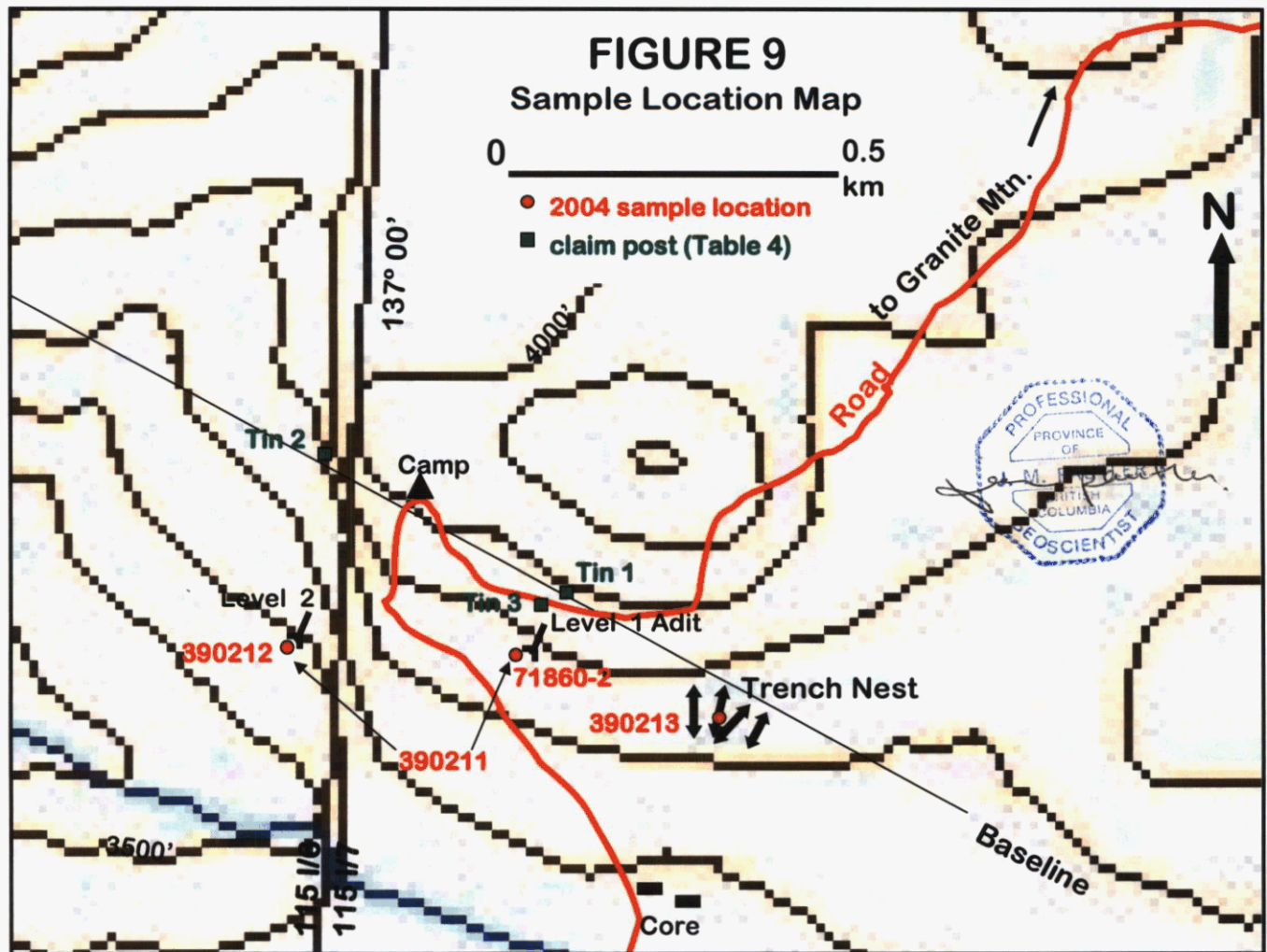
Drift 1 West in the Level 1 Adit was accessible to approximately 150' west. The presence of the vein and accuracy of previous mapping was confirmed. Footage markers were observed on the walls of the adit. Chip samples were collected from the accessible portions of the underground workings on Tinta Hill to verify previous work and grab samples were selected from the adit dumps to validate the tenor of mineralization and to determine the elemental association. The results are tabulated below with previous results listed below the current sample for comparison.

**Table 3: Tinta Hill sample comparisons**

SAMPLE		NAD 83	ZONE 8	ELEV.			Au	Ag	Cu	Pb	Zn
No.	LOC'N	EASTING	NORTH	(m)	TYPE	GEOLOGY	g/t	g/t	%	%	%
390208	Level 1 Adit	396414	6907808	1188	0.3m chip	vein zone at 72' in Drift 1 West	11.1	124	1.24	2.82	5.24
1068	Level 1 Adit	1981 results			0.3m chip	vein zone at 75' in Drift 1 West	12.5	153	1.47	4.88	6.96
390209	Level 1 Adit	396414	6907808	1188	0.3m chip	from fallen block of vein zone at 150' in Drift 1 West, vein is 1.35m wide in back	6.36	87	1.19	0.89	0.42
156	Level 1 Adit	1981 results			1.35m chip	vein zone at 147' in Drift 1 West	4.18	181	1.01	5.25	12.98
390210	Level 1 Adit	396414	6907808	1188	grab	crumbly, highly pyritic vein zone with fine quartz stringers, some shearing	3.45	315	3.25	7.71	4.04
71860	Level 1 dump	396396	6907803		grab	quartz-chalcedony veining with abundant pyrite	5.24	79	0.59	1.45	3.36
71861	Level 1 dump	396396	6907803		grab	quartz+pyrite+Cu stain, possible minor tetrahedrite	0.9	18	0.29	0.48	2.04
71862	Level 1 dump	396396	6907803		grab	quartz+pyrite+sphalerite, minor chalcopryite	5.34	63	0.54	5.48	5.55
390211	Level 1,2 dumps	396414 396125	6907808 6907830		grab	chalcopryite, minor bornite in siliceous vein zone from Level 1 and 2 dumps	43.5	2270	7.49	8.86	4.66
390212	Level 2 dump	396125	6907830	1143	grab	galena bearing vein zone from Level 2 dump	28.5	1310	6.6	12.5	1.91
average	Level 2 Adit	1981 results			0.6m	over 31m length	7.54	120	0.8	1.3	3.8
390213	Trench Nest	396683	6907732		grab	galena bearing mineralization from Trench Nest, east of Level 1 Adit	1.19	102	0.04	3.49	0.18

The sample results for a 0.3m chip sample collected at 72' in Drift 1 West of the Level 1 Adit (sample 390208) closely corresponds to that from the 75' location from 1981 (sample 1068). The 1.35m vein could not be accessed at the 150' mark in the same drift but a 0.3m chip across a fallen block from the vein (sample 390209) has similarities to the results from the previous 1.35m chip sample (sample 156) from the 147' mark.

The grab samples from the adit dumps indicate lower precious metal (gold and silver) values from pyrite rich vein material (samples 390210 and 71860), which was not abundant within the dumps or accessible portions of the adit. The copper rich samples, primarily from the Level 2 dump, (samples 390211 to 390212 - containing chalcopyrite and bornite) contained the highest precious metal values, which may be significant in that some polymetallic veins are known to contain more chalcopyrite and gold at depth. Sample 390212 also contained the highest lead value of 12.5%, which probably contributes to the high silver values and the veins tend to be enriched in galena. In general precious metal values are associated with quartz veins with some base metals, as opposed to abundant pyrite ± base metals.



Critical claim post and adit locations were confirmed by GPS in Nad 83, Zone 8 and tabulated below.

**Table 4: Significant GPS Locations**

Name	Date	Easting	Northing	Description
TINTA1	31-Oct-04	396414	6907808	Tinta Level 1 Adit Portal
TINTA2	31-Oct-04	396125	6907830	Tinta Level 2 Adit Portal
NEST1	31-Oct-04	396683	6907732	mineralization in Trench Nest
TIN1	31-Oct-04	396447	6907898	Post 2, Tinta 1, 2, BL0N/15E
TIN2	31-Oct-04	396060	6908133	Post 1, Tinta 1, 2
TIN3	31-Oct-04	396414	6907860	Post 1, Tinta 3, 4 along road
127	1-Nov-04	397083	6908469	Post 2 of Hill 20
HILLCP	31-Oct-04	398173	6905760	Post 1 of Hill 35, 36

## 11.2 Sample Preparation And Security

Current samples collected by the author and other personnel were placed in clear plastic sample bags, numbered and secured in the field. The samples were delivered to Greyhound in Whitehorse and sent directly to Eco Tech Lab, Kamloops, B.C. and analyzed for Al, Sb, As, Ba, Bi, Cd, Ca, Cr, Co, Cu, Fe, La, Pb, Mg, Mn, Mo, Na, Ni, P, Ag, Sr, Ti, Sn, W, U, V, Y and Zn using a 28 element ICP package which involves a nitric-aqua regia digestion. Gold was analyzed by fire assay with an atomic absorption finish. Due to high values, eight assays were completed for gold by fire assay, and eight for silver, five for Cu, seven for lead and seven for zinc by acid digestion. Sample descriptions with select results are outlined in Appendix I. Lab procedures and results are outlined in Appendix II.

## 12.0 ADJACENT PROPERTIES

As mentioned under the "Regional Geology" section of this report the Mt. Freegold district is well-mineralized with an abundance of properties that cover a variety of deposit types including copper-gold, gold-copper and gold porphyry models, intrusion related gold, epithermal gold and polymetallic shear hosted gold veins. Significant properties within this district have been summarized in Table 5 on the following page.

Table 5: Adjacent Properties

Owner	Property	Claims	Deposit Type	Comments	Contained ounces Au
Midnight Mines	Goldy Dart	66	epithermal	- preliminary resource of 54,000 tonnes @ 2.7 g/t Au over 67 m, open in all directions. - 1 shaft – 2 levels of drifting	~5,000
Midnight Mines	Goldstar	75	vein skarn	<b>Margarete resource:</b> 123,800 tonnes @ 4.5 g/t Au, 50 g/t Ag; open along strike and at depth <b>Augusta resource:</b> 78,000 tonnes @ 4.1 g/t Au, 104 g/t Ag (Eaton, 1986)	18,000 8,400
Midnight Mines	Glen	54	porphyry	- 2 under-explored copper-gold porphyry bodies - one 1987 drill hole returned 0.135 oz/t Au over 1m; up to 4.3 oz/t Au in grab samples	
Midnight Mines	Happy	8	porphyry	- hosts eastern extension of Revenue Creek copper-gold bearing breccia body - feldspar porphyry returns up to 6.7 g/t Au	
Midnight Mines	Caribou Creek	110	vein	- 54.6 g/t Au, 8.3 Ag/1.7m from adit - visible gold evident with grabs up to 135 oz/t Au	
Atac Resources	Seymour	28	vein	- untested extensive gold-arsenic-silver soil anomalies - new vein discovered by 2004 excavator trenching grading 3.25 g/t Au, 573 g/t Ag / 1.8 m	
Atac Resources	Nitro	48	porphyry	- Mo, Cu, Au, Ag bearing porphyry body - best drill intersections: 44.2 m of 0.17% Cu and 3.0 m of 0.16% Cu, 0.68% Mo - 700 by 20 m Au in soil geochemical anomaly with up to 212 ppb Au	
Atac Resources	Golden Revenue	160	Au-Cu porphyry	<b>Nucleus</b> - 2005 preliminary resources 370,000 oz Au (D. Eaton, pers. comm.) - historic resource (1974) – 4.17 million tons @ 1.06 g/t Au - historic resource (1988) higher grade core – 211,900 tonnes @ 3.16 g/t Au <b>Revenue</b> - 6100m by 1500m Cu-Au soil anomaly extends across onto adjoining Nucleus zone - DDH DR91-1 returned 38.3m of 0.28% Cu, 1.03 g/t Au and 15.2 m of 0.66% Cu, 1.0 g/t Au - high grade values up to 37.72 g/t over 1.0m on Revenue Discovery Zone	370,000  (142,125)
FM Resources	Antoniuk	6, 14 s, l	Au porphyry	<b>Resource:</b> 4,000,000 tonnes of 1.44 g/t Au @ 0.5 g/t Au cut-off (Main, 1989) open pitable; orebody open along strike and to depth	168,000
FM Resources	Ant	34	Au porphyry	- contains small portion of the Antoniuk orebody and a larger, corresponding geochemical anomaly	
FM Resources	La Forma	18 cg	vein	<b>Resource:</b> 260,000 tonnes average 9.6 g/t Au @ 1.1 g cut-off <b>Resource:</b> structure open all directions 602,000 tonnes @ 4.31 g/t Au (FMRes, 1999)	(80,250) 83,235

NB: "s" denotes surveyed claims, "l" denotes leases, "cg" denotes crown grants

### 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Metallurgical testwork involving a series of flotation tests on core reject samples was undertaken in 1975 by Bacon, Donaldson and Associates Ltd. for Tinta Hill Mines Ltd. in order to determine concentrate grades and recoveries. The average calculated head grade of the material tested was 7.58% Pb, 9.37% Zn and 9.58 oz/t Ag. The best results in the lead concentrate were 59.49% Pb, 8.76% Zn, 1.37% Cu, 73.65 oz/t Ag and 0.37 oz/t Au with recoveries of 94.5% Pb, 11.1% Zn and 89.9% Ag. The best results in the zinc concentrate were 0.44% Pb, 59.22% Zn, 0.17% Cu, 2.06 oz/t Ag and 0.032 oz/t Au with recoveries of 81.0% Zn, 0.8% Pb and 2.7% Ag (Tough, 1981a).

### 14.0 RESOURCE AND MINERAL RESERVE ESTIMATES

An historical estimate of an indicated resource calculated for the main vein is 515,300 tonnes of 4.1 g/t Au, 223 g/t Ag, 7.2% Pb, 2.6% Zn, 0.4% Cu and 0.05% Cd (Tough, 1981a). This is based on a strike length of 762m, a width of 1.5m and a depth of 152m. A more recent government publication reports 700,000 tonnes grading 10 g/t Au and 240 g/t Ag from Tinta Hill, but the source is not currently known (Mougeot and Walton, 1999).

To the best of the author's knowledge neither resource conforms to current NI 43-101 standards and constitutes an historical estimate only. The resource by Tough, 1981 was reported prior to the 1985 drilling, which intersected significant sulphide bearing vein material in five holes. The core is available and securely stored but assay results have not currently been located. It is possible that the 1999 estimate may be a revised estimate based on the results of this program. The core will be re-split for analysis if the original geochemical data cannot be found.

Recalculation of the resource to NI 43-101 standards is a priority for the next phase of exploration, which will require duplicate drilling of approximately five holes for confirmation and due diligence.

### 15.0 INTERPRETATION AND CONCLUSIONS

Check samples collected by the author on October 31, 2004 verify the tenor of mineralization on the Tinta Hill property, on which a preliminary historical resource estimate of 515,300 tonnes of 4.1 g/t Au, 223 g/t Ag, 7.2% Pb, 2.6% Zn, 0.4% Cu and 0.05% Cd using the true thickness of drill hole intersections was calculated by Tough in 1981 for the main vein prior to the implementation of NI 43-101 standards.

A review of previous exploration programs on the property indicates that the main mineralized zone still appears to be open to the northwest, southeast and to depth as

previously identified by Tough, 1981. It is also apparent that additional parallel to subparallel conductors to the main mineralized shear zone, outlined by the electromagnetic geophysical surveys, are suggestive of additional mineralization (partly corroborated by the presence of mineralization in trenches to the north of the main vein) and have only been partially tested. Consequently there is good potential to expand on the preliminary resource estimate both along strike and down dip of the main vein zone and in additional zones that have seen only limited exploration.

It is possible that the copper and gold values will increase with depth based on the higher copper-gold values obtained from the Level 2 adit dump and substantiated by the observation that some polymetallic veins are known to contain more chalcopyrite and gold at depth (*Lefebure and Höy, editors, 1996*), further suggestive of good depth potential.

Vein No. 2 (as exposed in the underground workings) was found to have a larger alteration halo than the main vein, therefore could have a larger central vein associated with it (*Levasseur, 1982 – apparently based on mapping of the adits by D.D.H. Geomanagement Ltd*). Excellent potential exists along strike and down dip.

## 16.0 RECOMMENDATIONS

There is excellent potential on the Tinta Hill property to uncover new mineralization and to define and expand on known mineralized targets. A priority for the next phase of exploration will be to complete due diligence and confirmation drilling by the duplication of approximately five previous holes. The depth extent of the main vein should be tested in conjunction with the due diligence program since the vein has only seen limited exploration below 100-140m and some polymetallic veins are known to contain more chalcopyrite and gold at depth. A detailed longitudinal section should be prepared to outline the holes for duplication and to evaluate and target holes to test the down dip extent.

The majority of the work on the Tinta Hill property has focused on the main shear zone, despite the documentation of additional parallel and subparallel shear zones. Further work should target Vein 2 to the north of the main vein and follow up subparallel electromagnetic conductors north and south of the main mineralized shear zone.

The following work is recommended :

- preparation of detailed compilation map with all known trench and drill hole locations, geochemical results and geophysical anomalies to outline potential on Vein 2 and new targets subparallel to the main zone
- preparation of longitudinal section and delineation of due diligence and down dip targets on main zone
- relogging (and possible resampling if assay results not traceable) of 1988 core in Core Library and of any intact core in field

- finish reconstruction of the baseline with additional GPS surveying to tie in previous work, prospecting, mapping
- 40 km of flagged grid
- magnetometer and HLEM electromagnetic geophysical survey
- mechanical trenching and trail building (100 hrs)
- 2,000m of diamond drilling to test depth extent of main vein, due diligence
- 1,000m of air hammer drilling to test strike extent of main vein, subsidiary veins and geophysical anomalies

Based on the above recommendations, the following \$ 490,000 budget is proposed:

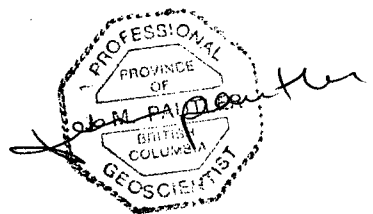
Wages: (140 man days)	\$ 43,000
Preparation	10,000
Accommodation, Groceries and Meals:	5,000
Field Supplies:	2,000
Geochemistry: 500 rocks, 50 soils @ \$25/ea, freight	15,000
Geophysics: (mag/EM, grid preparation)	10,000
Trenching & trail building: (100 hrs + mob/demob)	23,000
Diamond Drilling: (2,000m @ 110/m)	220,000
Recce drilling: (2,000m @ 50/m)	100,000
Communication	1,000
Transportation (Truck, ATV):	5,000
Ore Reserve Estimate to 43-101 Standards	12,000
Report and Drafting:	5,000
Contingency:	<u>40,000</u>
<b>TOTAL:</b>	<b>\$ 490,000</b>

Respectfully submitted,

Jean Pautler P. Geo.

*Jean Pautler*  
"Jean Pautler"

March 15, 2006



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## APPENDIX I: Sample Descriptions

<b>TINTA HILL PROJECT, Yukon Territory 2004 SAMPLE DESCRIPTIONS AND RESULTS</b>											
<b>SAMPLE</b>		<b>NAD 83</b>	<b>ZONE 8</b>			<b>Au</b>	<b>Ag</b>	<b>As</b>	<b>Cu</b>	<b>Pb</b>	<b>Zn</b>
<b>No.</b>	<b>LOCATION</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>TYPE</b>	<b>GEOLOGY</b>	<b>g/t</b>	<b>ppm</b>	<b>ppm</b>	<b>%</b>	<b>%</b>	<b>%</b>
390208	Level 1 Adit	396414	6907808	0.3m chip	vein zone at 72' in Drift 1 West (1st crosscut, west side) Level 1 Adit	11.1	124	1645	1.24	2.82	5.24
390209	Level 1 Adit	396414	6907808	0.3m chip	from fallen block of vein zone at 150' in Drift 1 West, Level 1 Adit; vein is 4.5' wide in back	6.36	87	1665	1.19	0.889	0.423
390210	Level 1 Adit	396414	6907808	grab	crumbly, highly pyritic vein zone with fine quartz stringers, some shearing, from Level 1 Adit	3.45	315	2960	3.25	7.71	4.04
390211	Level 1, 2	396414 396125	6907808 6907830	grab	chalcopyrite, minor bornite in siliceous vein zone from Level 1 and 2 dumps	43.5	2270	3295	7.49	8.86	4.66
390212	Level 2 Dump	396125	6907830	grab	galena bearing vein zone from Level 2 dump	28.5	1310	2390	6.6	12.5	1.91
390213	Trench Nest	396683	6907732	grab	galena bearing mineralization from Trench Nest, east of Level 1 Adit	1.19	102	750	0.037	3.49	0.175
71860	Level 1 Dump	396396	6907803	grab	select pieces of quartz-chalcedony veining with abundant pyrite	5.24	79	1035	0.585	1.45	3.36
71861	Level 1 Dump	396396	6907803	grab	select pieces of quartz+pyrite+Cu stain, possible minor tetrahedrite	0.9	18	205	0.291	0.48	2.04
71862	Level 1 Dump	396396	6907803	grab	select pieces of quartz+pyrite+sphalerite, minor chalcopyrite	5.34	63	350	0.538	5.48	5.55

**APPENDIX II**  
**Geochemical Procedure and Results**

## **Analytical Method for**

### ***GEOCHEMICAL GOLD ANALYSIS***

Samples are catalogued and dried. Soils are prepared by sieving through an 80 mesh screen to obtain a minus 80 mesh fraction. Samples unable to produce adequate minus 80 mesh material are screened at a coarser fraction. These samples are flagged with the relevant mesh. Rock samples are 2 stage crushed to minus 10 mesh and a 250 gram subsample is pulverized on a ring mill pulverizer to -140 mesh. The subsample is rolled, homogenized and bagged in a prenumbered bag.

The sample is weighed to 10/15/30 grams and fused along with proper fluxing materials. The bead is digested in aqua regia and analyzed on an atomic absorption instrument. Over-range values for rocks are re-analyzed using gold assay methods.

Appropriate reference materials accompany the samples through the process allowing for quality control assessment. Results are entered and printed along with quality control data (repeats and standards). The data is faxed and/or mailed to the client.

### ***GOLD ASSAY***

Samples are sorted and dried (if necessary). The samples are crushed through a jaw crusher and cone or rolls crusher to -10 mesh. The sample is split through a Jones riffle until a -250 gram subsample is achieved. The subsample is pulverized in a ring & puck pulverizer to 95% - 140 mesh. The sample is rolled to homogenize.

A 1/2 or 1.0 A.T. sample size is fire assayed using appropriate fluxes. The resultant dore bead is parted and then digested with aqua regia and then analyzed on a Perkin Elmer AA instrument.

Appropriate standards and repeat sample (Quality Control components) accompany the samples on the data sheet.

## **Analytical Procedure Assessment Report**

### ***MULTI ELEMENT ICP ANALYSIS***

Samples are catalogued and dried. Soil samples are screened to obtain a -80 mesh sample. Samples unable to produce adequate -80 mesh material are screened at a coarser fraction. These samples are flagged with the relevant mesh. Rock samples are 2 stage crushed to minus 10 mesh and pulverized on a ring mill pulverizer to minus 140 mesh, rolled and homogenized.

A 0.5 gram sample is digested with aqua regia which contains beryllium which acts as an internal standard. The sample is analyzed on a Jarrell Ash ICP unit.

Results are collated by computer and are printed along with accompanying quality control data (repeats and standards). Results are printed on a laser printer and are faxed and/or mailed to the client.

### ***BASE METAL ASSAYS (Ag, Cu, Pb, Zn)***

Samples are catalogued and dried. Rock samples are 2 stage crushed followed by pulverizing a 250 gram subsample. The subsample is rolled and homogenized and bagged in a prenumbered bag.

A suitable sample weight is digested with aqua regia. The sample is allowed to cool, bulked up to a suitable volume and analyzed by an atomic absorption instrument, to .01 % detection limit.

Appropriate certified reference materials accompany the samples through the process providing accurate quality control.

Result data is entered along with standards and repeat values and are faxed and/or mailed to the client.

# CERTIFICATE OF ASSAY AK 2004-1820

Midnight Mines Ltd.  
 Box 31293  
 Whitehorse, YT  
 Y1A 5P7

17-Nov-04

No. of samples received: 24  
 Sample type: Rock  
 Project: Freegold  
 Submitted by: Jean Pautler

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)	Cu (%)	Pb (%)	Zn (%)
5	390208	11.1	0.324	124	3.62	1.24	2.82	5.24
6	390209	6.36	0.185	87.0	2.54	1.19		
7	390210	3.45	0.101	315	9.19	3.25	7.71	4.04
8	390211	43.5	1.269	2270	66.20	7.49	8.86	4.66
9	390212	28.5	0.831	1310	38.20	6.60	12.5	1.91
10	390213	1.19	0.035	102	2.98		3.49	

**QC DATA:**

**Repeat:**

5	390208			124	3.62	1.23	2.82	5.24
6	390209	5.98	0.174					
7	390210	3.57	0.104					
8	390211	40.7	1.187					
9	390212	33.1	0.965					
10	390213	1.30	0.038					

**Standard:**

SH13	1.33	0.039						
Pb106			58.4	1.70	0.62	0.52	0.84	

JJ/jm/sc  
 XLS/04

**ECO TECH LABORATORY LTD.**

Jutta Jealous  
 B.C. Certified Assayer

## CERTIFICATE OF ASSAY AK 2004-1936

**Bushmaster Exploration  
Services**

Box 31293

Whitehorse, Yukon

Y1A 5P7

14-Dec-04

**Attention: Bill Harris**

*No. of samples received: 3*

*Sample type: Rock*

*Submitted by: R. Robertson*

***Project: Tinta Hill***

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)	Pb (%)	Zn (%)
1	71860	5.24	0.153	79.0	2.30	1.45	3.36
2	71861						2.04
3	71862	5.34	0.156	63.0	1.84	5.48	5.55

**QC DATA:**

**Repeat:**

1	71860			79.0	2.30	1.45	3.35
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**Resplit:**

3	71862	5.34	0.156				
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**Standard:**

Pb106				58.0	1.69	0.52	0.84
-------	--	--	--	------	------	------	------

PM182		1.23	0.036				
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JJ/jm  
XLS/04

**ECO TECH LABORATORY LTD.**

Jutta Jealouse

B.C. Certified Assayer

19-Nov-04

**ECO TECH LABORATORY LTD.**

10041 Dallas Drive  
KAMLOOPS, B.C.  
V2C 6T4

Phone: 250-573-5700  
Fax : 250-573-4557

**ICP CERTIFICATE OF ANALYSIS AK 2004-1820**

**Midnight Mines Ltd.**

Box 31293  
Whitehorse, YT  
Y1A 5P7

*No. of samples received: 24  
Sample type: Rock  
Project: Freegold  
Submitted by: Jean Pautler*

**Values in ppm unless otherwise reported**

		Au																													
Et #.	Tag #	(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn	
5	390208	>1000	>30	0.09	1645	35	<5	0.02	459	40	81	>10000	9.43	<10	<0.01	98	33	<0.01	<1	<10	>10000	1255	<20	9	<0.01	<10	3	<10	<1	>10000	
6	390209	>1000	>30	0.09	1665	25	<5	0.04	21	10	146	>10000	2.88	<10	<0.01	67	32	<0.01	3	<10	8894	625	<20	6	<0.01	<10	3	<10	<1	4225	
7	390210	>1000	>30	0.07	2960	55	<5	0.02	325	69	92	>10000	>10	<10	<0.01	108	90	<0.01	<1	<10	>10000	690	<20	20	<0.01	<10	4	<10	<1	>10000	
8	390211	>1000	>30	0.07	3295	45	<5	0.12	368	15	69	>10000	7.41	<10	0.02	353	24	<0.01	<1	>10000	>10000	7975	<20	6	<0.01	<10	3	<10	<1	>10000	
9	390212	>1000	>30	0.02	2390	50	<5	0.06	121	17	66	>10000	>10	<10	<0.01	51	44	<0.01	<1	>10000	>10000	1280	<20	<1	<0.01	20	3	<10	<1	>10000	
10	390213	>1000	>30	0.13	750	130	<5	0.02	12	1	104	368	2.13	<10	<0.01	402	21	<0.01	2	40	>10000	275	<20	15	<0.01	<10	9	<10	<1	1753	

**QC DATA:**

**Repeat:**

10 390213 >1000 >30 0.13 810 135 <5 0.02 11 1 103 357 2.14 <10 <0.01 404 19 <0.01 <1 30 >10000 275 <20 14 <0.01 <10 9 <10 <1 1790

**Standard:**

GEO '04 1.5 1.47 50 135 <5 1.30 <1 15 54 82 3.53 <10 0.79 551 <1 0.03 25 610 18 <5 <20 64 0.08 <10 # <10 6 65

JJ/sc  
df/1820  
XLS/04

**ECO TECH LABORATORY LTD.**

Jutta Jealouse  
B.C. Certified Assayer

12/9/2004

ECO TECH LABORATORY LTD.  
10041 Dallas Drive  
KAMLOOPS, B.C.  
V2C 6T4

Phone: 250-573-5700  
Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 2004-1936

Bushmaster Exploration Services  
Box 31293  
Whitehorse, Yukon  
Y1A 5P7

Attention: Bill Harris

No. of samples received: 3  
Sample type: Rock  
Submitted by: R. Robertson  
Project: Tinta Hill

Values in ppm unless otherwise reported

Et #.	Tag #	Au (ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W
1	71860	>1000	>30	0.05	1035	30	<5	0.02	296	119	114	5848	>10	<10	<0.01	71	35	<0.01	<1	70	>10000	250	<20	<1	<0.01	<10	2	<10
2	71861	900	18	0.17	205	15	<5	0.69	212	27	111	2907	4.56	<10	0.12	1012	8	0.01	<1	430	4798	<5	<20	12	<0.01	<10	4	<10
3	71862	>1000	>30	0.09	350	25	<5	0.02	497	60	163	5377	8.45	<10	<0.01	111	45	<0.01	<1	320	>10000	50	<20	3	<0.01	<10	6	<10
QC DATA:																												
Resplit:																												
1	71860	>1000	>30	0.06	1290	55	<5	0.02	322	125	168	5874	>10	<10	<0.01	79	39	<0.01	<1	60	>10000	255	<20	13	<0.01	<10	3	<10
Repeat:																												
1	71860	>1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	71861	880	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard:																												
GEO '04		140	1.5	1.5	55	155	<5	1.52	<1	18	63	86	4.02	<10	0.81	637	<1	0.02	28	760	22	<5	<20	52	0.11	<10	63	<10

ECO TECH LABORATORY LTD.  
Jutta Jealous  
B.C. Certified Assayer

JJ/jm  
df/1931  
XLS/04

**APPENDIX III**  
**Statement of Expenditures**

<b>Wages:</b>	J. Pautler	1.5 days @ 500.00/day	\$ 750.00
	Ron Robertson	2.5 days @ 400.00/day	1,000.00
	Bill Harris	4 days @ 300.00/day	1,200.00
	Mathius Bindig	4.5 days @ 250.00/day	1,125.00
	Daniel Schuneman	2.5 days @ 250.00/day	625.00
		<b>Total: 15 man-days</b>	<b>\$ 4,700.00</b>
<b>Geochemistry:</b>	9 rocks	Au, ICP	
	35 rock assays	Au, Ag, Cu, Pb, Zn	
	freight		
		<b>Total: (includes shipping)</b>	<b>565.00</b>
<b>Equipment Rental:</b>	Truck	7 days @ 100./day	700.00
	ATV	5 days @ 75./day	375.00
		<b>Total:</b>	<b>1,075.00</b>
<b>Fuel:</b>			<b>320.00</b>
<b>Camp cost:</b>	(propane, supplies, satellite phone)		
	15 man-days @ 15./md		<b>225.00</b>
<b>Groceries:</b>	15 man-days @ 35./md		<b>525.00</b>
<b>Field Supplies:</b>	(flagging tape, thread, sample bags)		
	15 man-days @ 15./md		<b>225.00</b>
<b>Mobilization, demobilization:</b>	(5 man-days within Yukon)		<b>1,700.00</b>
<b>Printing and Copying:</b>			<b>120.00</b>
<b>Report &amp; Drafting:</b>			<b><u>\$ 2,000.00</u></b>
<b>GRAND TOTAL:</b>			<b>\$ 11,455.00</b>
<b>Total Amount Applied for Assessment</b>			<b>\$ 11,300.00</b>

**APPENDIX IV  
STATEMENT OF QUALIFICATION**

I, Jean Marie Pautler, do hereby certify that:

- 1) I, Jean Marie Pautler of 103-108 Elliott Street, Whitehorse, Yukon Territory am self-employed as a consultant geologist and authored this report.
- 2) I am a graduate of Laurentian University, Sudbury, Ontario with an Honours B.Sc. degree in geology (May, 1980).
- 3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC Reg. No. 19804).
- 4) I am a geologist with more than twenty-five years of experience in the Canadian Cordillera.
- 5) This report is based upon my personal knowledge of the region, a review of previous data and work conducted on the property between October 31, 2004 and September 13, 2005.
- 6) I have no direct or indirect interest in the Tinta Hill property, which is the subject of this report.

Jean Pautler

Jean Pautler, P.Geol.  
JP Exploration Services Inc.  
#103-108 Elliott St  
Whitehorse, Yukon  
Y1A 6C4

