

SUMMARY REPORT ON THE LIVENGOOD PROJECT, TOLOVANA DISTRICT, ALASKA

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1.0 SUMMARY

The Livengood property is located in approximately 85 km northwest of Fairbanks, Alaska in the Tolovana Mining District within the Tintina Gold Belt. The area of interest is centered on a hill named Money Knob. Streams hosting placer gold drain Money Knob, consequently it has been considered the lode gold source for the Livengood placer deposits, the largest of which lies in the adjacent valley to the north, and has been actively mined since 1914 with production of more than 500,000 ounces of gold.

The property has been prospected and explored by several companies and private individuals since the 1970's. Some of the past exploration data is available but most derives from the recent work conducted by AngloGold Ashanti (U.S.) Exploration Inc. ("AGA"). Geochemical surveys by Cambior in 2000, AGA in 2003 and 2004, and International Tower Hill Mines Ltd ("ITH"), current explorer of the property, in 2007 outlined a 1.6 x 0.8 km area with anomalous gold in soil. Scattered anomalous samples continue along strike for an additional 2km to the northeast and 1.6km to the southwest. Eight reverse circulation holes were drilled by AGA in 2003 and a further 4 diamond core holes were drilled in 2004 to evaluate this anomaly. Favorable results from these holes include wide intervals of gold mineralization (BAF-7; 138.7m @ 1.07 g/t Au; MK-04-03; 55.3m @ 0.51 g/t Au) and lesser intervals over a broad area. ITH completed 8 and 15 diamond drill holes in 2006 and 2007, respectively, and has completed 48 reverse circulation and 4 diamond drill holes thus far in 2008.

Rocks at Livengood are part of the Livengood Terrane, an east–west belt, approximately 240 km long consisting of tectonically interleaved assemblages of various ages. These assemblages include the Amy Creek Assemblage, consisting of latest Proterozoic and early Paleozoic basalt, mudstone, chert, dolomite, and limestone. Structurally above the Amy Creek Assemblage lies an early Cambrian ophiolite sequence, which in turn is structurally overlain by Devonian shale, siltstone, conglomerate, volcanic, and volcaniclastic rocks. A second thrust sheet of the ophiolite sequence sits on the Devonian assemblage. All of these rocks are intruded by Cretaceous multiphase monzonite, diorite, and syenite stocks, dikes, and sills. Gold mineralization is interpreted to be genetically related to this intrusive event. Spatially, mineralization occurs mostly in the Devonian volcanic rocks, and to a lesser, but significant degree, in the Devonian sedimentary section and the overlying sheet of mafic and ultramafic rocks.

Gold mineralization occurs in several styles; as multistage, fine quartz veins that have a general spatial association with intrusive dikes and sills, some of which appear to be structurally controlled, and as diffuse mineralization in volcanic, intrusive, and sedimentary rocks without a clear quartz vein association. Vein mineralization is interpreted as intrusion-related with an As±Sb±Hg geochemical association. Thrust-fold architecture is apparently key to providing pathways for magma (dikes and sills) and hydrothermal fluid.

Drill holes completed prior to the end of 2007 were used to estimate an inferred resource for the Money Knob area in late 2007. The estimated amount of contained gold varies significantly according to the choice of cutoff grade. A range of tonnes and grade with corresponding contained ounces have been estimated: at a 0.3 g/t Au cutoff, it is estimated that 188.01 Mt of

material are present at a grade of 0.54 g/t Au and 0.30 g/t Ag for a total of 3.269 M oz of gold and 1.789 M oz of silver. In accordance with the definitions in NI 43-101, this estimate is considered an inferred mineral resource. The additional drilling completed in 2008 and discussed in this report has not been included in the resource calculations; they will be updated in a separate report later this year. Mineralization has not been closed off in any direction.

The 2008 exploration program (in progress) consists of drilling on a grid within the known extent of mineralization and stepping out to expand the known extent of the gold mineralization. Assay data are available for 21 of the 48 holes drilled this year to date. Notable intersections include 199.6m at 1.44 g/t gold (MK-RC-0008), 57.9m at 2.51 g/t (MK-RC-0023), and 140.2m at 0.99 g/t gold (MK-RC-0011). Results indicate that the 2008 program is confirming continuity of mineralization in the areas previously drilled and significantly expanding the limits of mineralization. The program should continue along the established plan of ~40,000m of infill and step out exploration drilling.

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 Introduction

This report, prepared for International Tower Hills Mines Ltd. (ITH), expands a previous report prepared by Mineral Resource Services Inc. (MRS) and Giroux Consultants Ltd. (GCL) (Klipfel and Giroux, 2008) in early 2008 prior to the onset of the 2008 exploration program at the Livengood gold project in the Tolovana Mining District of central Alaska. This report revises Klipfel and Giroux (2008) to include the results for 21 new drill holes, two trenches, and new geologic interpretations based thereon. The property is currently being explored by ITH through its wholly-owned subsidiary, Talon Gold Alaska, Inc. ("TGA").

Initial information used in this report was provided to Klipfel and Giroux by ITH in January 2008 and by ITH and Anglo Gold Ashanti (U.S.) Exploration Inc. (AGA) in 2006. This report also relies on personal observations made by Paul Klipfel in the course of three field visits and on general geologic information available to the public through peer review journals as well as publications by the U.S. Geological Survey and agencies of the State of Alaska. Information regarding the 2008 results is derived from ITH's ongoing 2008 drilling program and the observations of Chris Puchner, Chief Geologist for ITH and current manager of the project.

2.2 Terms of Reference

Dr. Paul Klipfel of Mineral Resource Services Inc., of Reno, Nevada, Mr. Gary Giroux M.Sc. of Giroux Consultants Ltd. of Vancouver, B.C and Chris Puchner, Chief Geologist of ITH, are the authors of this report for ITH. Dr. Klipfel and Mr. Giroux are independent consultants and are Qualified Persons (QP) for the purposes of this report as defined by Canadian Securities Administrators National Instrument. 43-101 ("NI 43-101"). Chris Puchner is a Qualified Person as defined by N.I. 43-101, but is not independent of ITH by virtue of being an employee of ITH and the holder of ITH securities.

2.3 **Purpose of Report**

The purpose of this report is to provide updated information on the Livengood project, the exploration history and discovery potential of the project area to support the disclosure in ITH's Annual Information Form for the fiscal year ended May 31, 2008, and provide recommendations for future work. This report conforms to the guidelines set out by NI 43-101.

2.4 Sources of Information

Information for this report was provided to the authors by ITH and consists of data generated by ongoing exploration by ITH and initial data from 2006 which was provided to ITH by AGA in the course of exploring the property. In addition, Dr. Klipfel spent two or more days on the site on three occasions reviewing core, examining outcrops, and discussing the project with on-site geologic staff and with Mr. Jeffrey Pontius, President of ITH and former Exploration Manager, North America for AGA. Chris Puchner of ITH has overseen the project since 2004 for both AGA and ITH.

2.5 Field Examinations

Dr. Klipfel completed a data review on June 6-7, 2006 in AGA's Denver office and then visited the property on Friday, June 16, 2006 to examine the site with Mr. Jeff Pontius, president of ITH and former Exploration Manager North America for AGA. The field visit included review of the physiographic, geologic and tectonic setting of the property, drill hole collar locations, as well as detailed examination of outcrop and sampling of the key veins. Drill core was examined at the core storage facility in Fairbanks, Alaska. Dr. Klipfel also made subsequent visits for 2 or more days on October 4-5, 2007 and July 1-3, 2008, during which time he reviewed exploration progress, drill core, drill sites, outcrop exposures, and geologic concept development with on-site geologic staff. Seven check samples were collected in 2007 by Dr. Klipfel. Chris Puchner has spent over 300 days conducting and supervising geologic work on the property from 2004 through 2008. Mr. Giroux has not visited the property but generated the statistical analysis of the assay data and prepared the resource estimate.

3.0 RELIANCE ON OTHER EXPERTS

The preparation of this report has relied upon public and private information provided by ITH and AGA regarding the property. The authors assume and believe that the information provided and relied upon for preparation of this report is accurate and that interpretations and opinions expressed in them are reasonable and based on current understanding of mineralization processes and the host geologic setting.

4.0 **PROPERTY DESCRIPTION AND LOCATION**

4.1 Area and Location

The Livengood project is located approximately 130km by road (85km by air) northwest of Fairbanks in the northern part of the Tintina Gold Belt (**Figure 1**). At this location, the property straddles, but lies predominantly to the north of the Elliott Highway, the main road connecting Fairbanks with the Alaskan far north. The property lies in numerous sections of T8N and R4W and R5W. Money Knob, the principle geographic feature within the area being explored, lies near the center of the claim block and is located at 65°30'52''N, 148°27'50''W.).

The key area of interest is a northeast-trending soil anomaly coincident with known gold-bearing quartz veins. This zone lies along the north flank of Money Knob and is approximately 1.6×0.8 km in size. The anomaly is situated in a broader area of anomalism that extends a further 2 km to the northeast and 1.6 km to the southwest. This zone is described further in Section 9.0.

4.2 Claims and Agreements

The Livengood Property (**Figure 2**) consists of an aggregate area of roughly 10,300 acres (4,150 hectares) controlled through agreements between TGA and the State of Alaska and TGA and various private individuals who hold state and federal patented and unpatented mining and placer claims. All the properties are controlled through the leases are listed in Appendix 1. These agreements are with the Alaska State Mental Health Land Trust (AMHLT), Richard Hudson and Richard Geraghty, Ron Tucker, the Griffin heirs, and Karl Hanneman and the Bergelin Family Trust.

The AMHLT lease (#9400248), signed July 1, 2004 by AGA and assigned to TGA on August 4, 2006, includes advance royalty payments of US\$ 5/acre/year which escalates to US\$ 15/acre in years 4-6 and US\$ 25/acre in years 7-9. The lease has a work commitment of US\$ 10/acre in years 1-3, US\$ 20/acre in years 4-6, and US\$ 30/acre in years 7-9. The lease carries a sliding scale production royalty of 2.5% @ US\$ 300 gold up to 5% for a gold price more than US\$ 500. In addition, an NSR production royalty of 1% is payable to AMHLT with respect to the unpatented federal mining claims subject to the Hudson & Geraghty lease. AHMT owns both the surface and subsurface rights to the land under lease to TGA.

The Hudson and Geraghty lease, signed April 21, 2003 by AGA and assigned to TGA on August 4, 2006, has a term of 10 years and for so long thereafter as exploration and mining operations continue. TGA is required to make advance royalty payments of US\$ 50,000 per year, which are credited to production royalties. Production royalties vary from 2% to 3%, depending upon the price of gold. TGA has the option to buy down 1% of the royalty for US\$ 1 million. The 20 claims under this lease are unpatented federal lode mining claims that have no expiry but require a claim maintenance fee of US\$ 125/claim/year to keep them in good standing.

The Tucker mining lease of the two unpatented federal lode mining and four federal unpatented placer claims has an initial term of ten years, commencing on March 28, 2007, and for so long thereafter as mining related activities are carried out. The lease requires payment of advance

royalties of US\$ 5,000 on or before March 28, 2009, US\$ 10,000 on or before March 28, 2010 and an additional US\$ 15,000 on or before each subsequent March 28 thereafter during the initial term (all of which minimum royalties are recoverable from production royalties). ITH is required to pay the lessor the sum of US\$ 250,000 upon making a positive production decision. An NSR production royalty of 2% is payable to the lessor. ITH may purchase all interest of the lessor in the leased property (including the production royalty) for US\$ 1,000,000. The 6 leased claims are federal claims without expiry. A fee of US\$ 125/claim/year or US\$ 125 worth of work/claim per year is required to maintain the claims in good standing.

The Griffin lease of the three patented federal claims is for an initial term of ten years (commencing January 18, 2007), and for so long thereafter as the Company pays the lessors the minimum royalties required under the lease. The lease requires minimum royalty payment of US\$ 10,000 on or before January 18, 2009, US\$ 15,000 on or before January 18, 2010, an additional US\$ 20,000 on or before each of January 18, 2011 through January 18, 2016 and an additional US\$ 25,000 on each subsequent January 18 thereafter during the term (all of which minimum royalties are recoverable from production royalties). An NSR production royalty of 3% is payable to the lessors. ITH may purchase all interest of the lessors in the leased property (including the production royalty) for US\$ 1,000,000 (less all minimum and production royalties paid to the date of purchase), of which US\$ 500,000 is payable in cash over 4 years following the closing of the purchase and the balance of US\$ 500,000 is payable by way of the 3% NSR production royalty.

The Hanneman/Bergelin Family Trust ground is held via a binding letter of intent for lease with an effective date of September 1, 2006. The lease of the 169 Alaska State mining claims is for an initial term of ten years, commencing on September 11, 2006, and for so long thereafter as mining related activities are carried out. The lease requires payments of US\$ 50,000 in each of years 2 - 5 and US\$ 100,000 in each of years 6 -10 and work expenditures of US\$ 100,000 in year 1, US\$ 200,000 in each of years 2 - 5 and US\$ 100,000 in each of years 2 - 5 and US\$ 100,000 in each of years 6 -10. An NSR production royalty of between 2% and 5% is payable to the lessors (depending upon the price of gold). ITH may buy all interest in the property subject to the lease (including the retained royalty) for US\$ 10,000,000.

On Alaska State lands, the state holds both the surface and subsurface rights. State of Alaska mining 40-acre claims require an annual rental payment of US\$25/claim to be paid to the state (due on or before noon on September 1 in each year) for the first five years, US\$55 per year for the second five years, and UD\$130 per year thereafter. As a consequence, all Alaska State Mining Claims have an expiry date of noon on September 1 on each year. In addition, there is a minimum annual work expenditure requirement of US\$100 per 40 acre claim (due on or before noon on September 1 in each year) or cash-in-lieu, and an affidavit evidencing that such work has been performed is required to be filed on or before November 29 in each year (excess work can be carried forward for up to four years). If such requirements are met, the claims can be held indefinitely. The work competed by ITH during the 2007 field season has been filed as assessment work, and the value of the work was sufficient to meet the assessment work requirements through to September 1, 2011 on all unpatented Alaska State mining claims held under lease.

Holders of Alaska State mining locations are required to pay a production royalty on all revenues received from minerals produced on state land. The production royalty requirement applies to all revenues received from minerals produced from a state mining claim or mining lease during each calendar year. Payment of royalty is in exchange for and to preserve the right to extract and possess the minerals produced. The current rate is three (3%) of net income, as determined under the *Mining License Tax Law* (Alaska).

All of the foregoing agreements and the claims under them are in good standing and are transferable. Except for the patented claims, none of the properties have been surveyed.

Holders of Federal and Alaska State unpatented mining claims have the right to the use of land or water included within mining claims only when necessary for mineral prospecting, development, extracting, or basic processing, or for storage of mining equipment. However, the exercise of such rights is subject to the appropriate permits being obtained.

4.3 Environmental Requirements

Project activities are required to operate within all normal Federal, State, and local environmental rules and regulations. This includes proper and environmentally conscientious protection of operational areas against spills, capture and disposal of any hazardous materials including aviation fuel, etc., reclamation of disturbed ground, and removal of all refuse.

With over 90 years of placer mining activity and sporadic prospecting and exploration in the area, the site has undergone moderate to considerable historic disturbance. Some of the historic placer workings are now overgrown with willow and alder. The old mining town of Livengood is now abandoned except for road maintenance buildings. ITH does not anticipate any obligations for recovery and reclamation of historic disturbance.

Total disturbance associated with ITH's planned exploration will be minimal. Some drill pads and access ways will need to be cleared, but most of the hilly but subdued topography is covered with secondary alder, willow, and spruce. The highest ground is bare or covered in small shrubs.

All drill sites will be reclaimed after exploration activities in the area are finished

There are no known wildlife issues. Wildlife in the area consists of moose, bear, and various small mammals. None were observed in the course of the site visits by Dr Klipfel.

There are no known existing environmental liabilities.

4.4 Permits

Operations which cause surface disturbance such as drilling are subject to approval and receipt of a permit from the Alaska Department of Natural Resources (ADNR) and the U.S. Bureau of Land Management (BLM). The ADNR permit for ground controlled by the State of Alaska, initially issued to AGA (ADNR #9748), has been transferred to TGA, has been amended to

reflect the 2008 program and is effective through 2008. Exploration on federal ground is permitted by the BLM under a Plan of Operations covered by EA-AK-024-08-010 (File FF095365) effective through 2008. There are no known issues at this time that would hinder renewal of these permits.

There are no known issues concerning water beyond normal operational obligations. These fall under operating permits issued by the state.

There are no known native rights issues concerning the project area.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

The Livengood Project area is located approximately 130km by road northwest of Fairbanks on the Elliott Highway, which provides paved year-round access to the area. At present there are no full time residents in the former mining town of Livengood. A number of unpaved roads have been developed in the area providing excellent access to most of the areas of immediate interest.

5.2 Climate

The climate in this part of Alaska is temperate and mild in summer with average lows and highs in the range of 7 to 22 °C. Winter is cold with average lows and highs for December through March in the range of -27 to -5 °C. Annual precipitation is on the order of 23 cm which arrives mostly in the summer.

5.3 Local Resources

The project is serviced from Fairbanks, population 87,000. As central Alaska's center of commerce it is home to many government offices including Alaska Division of Geological and Geophysical Surveys, the U.S. Geological Survey, as well as the University of Alaska Fairbanks. The town is serviced by major airlines with numerous daily flights to and from Anchorage and other locations. Helicopters and fixed wing aircraft are readily available. All supplies necessary for the project can be obtained in Fairbanks.

5.4 Infrastructure and Physiography

The project is situated in forested hilly countryside with subdued topography partly owing to widespread deposition of loess and gravel in valleys (**Figure 3**). Elevation ranges from a base level in streams of about 150m to 700m at Amy Dome along the east side of the property. Streams meander in wide valleys. Ridge lines are generally barren with sparse vegetation.

The area of exploration activity is drained by Livengood and Olive creeks which flow into the Tolovana River, a tributary of the Tanana River and ultimately the Yukon River approximately 190km to the west.

Existing infrastructure includes a paved highway which passes through the property and within \sim 1.6km of Money Knob. Lesser unpaved roads are developed throughout the property. A repeater tower has been built on Radio Knob approximately 1.6 km east of Money Knob.

6.0 HISTORY

Gold was first discovered in the gravels of Livengood Creek in 1914 (Brooks, 1916). Subsequently, over 500,000 ounces of gold were produced and the small town of Livengood was established. Until recently the primary focus of exploration and mining activity has been placer deposits. Historically, prospectors have considered Money Knob and the associated ridgeline to be the source of the placer gold. Prospecting in the form of dozer trenches was carried out for lode mineralization in the vicinity of Money Knob primarily in the 1950's. However, to date no significant production has been derived from lode gold sources.

Several companies have explored the Livengood area over the past 30 years for lode gold mineralization. A summary of these programs is shown in **Table 1**. Placer Dome's work appears to have been the most extensive, but it was focused largely in the valley to the north of Money Knob.

AGA acquired the property in 2003 and undertook an 8 hole RC program on the Hudson-Geraghty lease. The results from this program were encouraging and were followed up with an expanded soil geochemical survey which identified anomalous zones over Money Knob and to the east. Based on the results of the soil survey, 4 diamond core holes were drilled in late 2004. Results from these two AGA drill programs were deemed favorable and a follow-up core hole drilling program was planned but not executed due to financial constraints. ITH drilled these holes as part of a 1227 m, 8-hole program in 2006. An additional 4400 m in 14 diamond core holes were drilled in 2007 to test surface anomalies, expand the area of previously intersected mineralization, and advance geologic and structural understanding of subsurface architecture. As of August 1, 2008, ITH has completed 48 reverse circulation (RC) drill holes totaling 12,100m, 4 diamond core holes aggregating 1,040m, and two trenches (50m) out of a planned drilling program of 40,000m. Of the holes completed assays are complete for 21 of the RC drill holes.

Company / Year	Major Activity	Results	Comment	
Homestake / 1976	Geochemistry & 6 boreholes Significant		Management	
		anomaly, low grade	decided on other	
	gold in dri		priorities	
		and auger samples		
Occidental Petroleum /	6 boreholes	Low-grade gold	Other priorities	
1981		encountered in		
		several holes		
Alaska Placer	Extensive soil and rock	Defined soil and	Mostly on flanks of	

 TABLE 1 EXPLORATION HISTORY

Company / Year	Major Activity	Results	Comment	
Development/ 1981-	sampling together with	rock anomalies;	Money Knob.	
1984	mapping, mag, EM, trenching	other data not	Changed focus to	
	and auger drilling.	available	placer deposits	
Amax / 1991	3 RC holes; surface	Good geological	Other priorities	
	geochemistry and auger	mapping, lots of		
	testing	rock sampling, low		
		grade gold in drill		
		holes.		
Placer Dome / 1995-97	Surface exploration; /	Intersected some	Work focused to	
	geophysics & 9 diamond core	moderate grade	north of Money	
	holes	mineralization.	Knob. Limited land	
			position	
Cambior/ 1999	Geochemistry	First to identify the	Corporate	
		extent of gold on	restructuring - no	
		Money Knob	follow-up	
AGA / 2003-2005	Geochemistry, trenching,	Geochemical	Results discussed in	
	geophysics, drill testing;	anomaly, numerous	this report	
		drill intersections		
ITH/ 2006-2007	Surface geochemical	First intersection of	Results discussed in	
	sampling; drilling 23 holes	extensive zones of >	this report	
		1g/t Au.		
ITH/2008	48 reverse circulation, 4	Infill and step out	Results discussed in	
	diamond core holes, and 2	grid drilling of	this report	
	trenches to date $(8/1)$	mineralization		

In 2003, as part of larger state-wide programs, the Alaska Division of Geological and Geophysical Surveys undertook a district-scale program of mapping and whole rock geochemical sampling in support of the mapping. They report "one highly anomalous sample that yielded slightly over one ounce per ton gold" (Athey and Craw, 2004).

Geophysical work that has been completed in the vicinity includes an airborne magnetic survey by Placer Dome in 1995. This data has not been recovered. They also conducted VLF surveys in the northern part of the district in 1996 with only limited success because of the mixed frozen and thawed ground. This data is only partially preserved. The state of Alaska flew a 400 meter line spaced DIGHEM survey (an aerial, multi-channel <u>e</u>lectromagnetic technique) over the Livengood District in 1998. AngloGold Ashanti ran a series of CSAMT (Controlled-Source Audio-frequency Magneto-Telluric) lines across Money Knob in 2004. This survey was designed to look for resistive intrusive bodies in the subsurface. The survey appeared to map the main thrust zone but did not appear to delineate hidden intrusive bodies.

7.0 GEOLOGICAL SETTING

7.1 Regional Geology

The Livengood 'district' is a portion of the broader Tolovana Mining District. It is situated in a complex assemblage of rocks known as the Livengood Terrane (**Figure 4**). This Terrane is an

east-west-trending belt, approximately 240 km long, bounded on the north by splays of the dextral Tintina strike-slip fault system and other terranes to the south. It is composed of a complex sequence of rocks which do not match assemblages of the adjacent Yukon – Tanana Terrane. Throughout the Livengood Terrane, individual assemblages of various ages are tectonically interleaved. Each assemblage, and perhaps the stratigraphy within each assemblage is bounded by both low angle thrust faults and steep faults, of which at least some of the latter type are interpreted as splays of the Tintina Fault system.

The Livengood Terrane is invaded by later Mesozoic intrusions believed to have originated in the back-arc position above subducting oceanic crust. These intrusions are quartz monzonite to diorite to syenite in composition and some of them are believed to be responsible for gold mineralization of the Tintina Gold Belt (Goldfarb, et al., 2000). The Livengood district occurs within the Tintina Gold Belt, an arcuate belt of gold mineralization extending from the Yukon to southwestern Alaska which hosts numerous gold deposits, including Fort Knox and other deposits of the Fairbanks District and the Donlin Creek deposit in the Kuskokwim region.

7.2 Local Geology

In the vicinity of the Livengood project, the structurally lowest rocks are latest Proterozoic to early Paleozoic basalt, mudstone, chert, dolomite, and limestone of the Amy Creek Assemblage (IPzZ of Athey et al., 2004; **Figure 5**). These lithologies are believed to represent incipient ocean floor basalt in a continental rift system and overlying sediments. The origin and age are poorly constrained but fossil evidence suggests a depositional age of latest Proterozoic to Cambrian time.

Structurally above the Amy Creek Assemblage lies an early Cambrian ophiolite sequence (Plafker and Berg, 1994). This sequence consists of structurally interleaved greenstone, pyroxenite, metagabbro, layered metagabbro, and serpentinite (Figures 5 and 6). Metamorphic ages suggest that this sequence was emplaced over the Amy Creek Assemblage by north-directed thrust faults during Permian time.

The ophiolite sequence is, in turn, structurally overlain by Devonian rocks which include shale, siltstone, conglomerate, volcanic, and volcaniclastic rocks (**Figures 6 and 7**). This assemblage is the principal host for gold mineralization. It is now known through drilling that most of the "intrusive" rocks mapped in this assemblage (Athey et al., 2004) are really volcanic and volcaniclastic rocks and form part of the Devonian stratigraphy.

Above the Devonian assemblage is a series of Cambrian mafic and ultramafic rocks which have been thrust over the Devonian assemblage. Minor islands of cherty sediment overlie the mafic and ultramafic rocks and are interpreted to be part of the Amy Creek Assemblage. If correct, these rocks have also been thrust over the Cambrian assemblage. This thrust sequence indicates that there has been extensive thrust stacking and interleaving of the different assemblages as well as of the internal stratigraphy within the assemblages.

Rocks in each of these thrust slices have been folded, but overall, they strike east-west to northeast-southwest and dip $20-60^{\circ}$ south, consistent with northward to northwest vergence of

thrust transport. Features observed in core indicate that these rocks define recumbent folds truncated by numerous thrust surfaces. Later dikes and sills intrude along these faults.

Despite some confusion between Cretaceous intrusions and Devonian volcanics, the Paleozoic sequence described above is intruded by back-arc Cretaceous (91.7 - 93.2 m.y.; Athey and Craw, 2004) multiphase monzonite, diorite, and syenite stocks, dikes, and sills with equigranular to porphyritic textures. Athey et al. (2004) concluded that the intrusive rocks were the primary host to the gold mineralization. However, exploration work since then has shown that most of the mineralized igneous rocks are Devonian volcanics and have undergone extensive alteration along with introduction of gold mineralization with the alteration and in quartz veins. Narrow Cretaceous stocks (?) and large dikes are biotite monzonite. Narrower, late (?) stage dikes are composed of non-biotite feldspar porphyry +/- syenite, and aplitic non-biotite felsic intrusives (**Figure 7**). Some mineralization appears to be spatially associated with these dikes.

Many faults in the area dip at low to moderate angles to the south and are considered thrusts. Other faults are subvertical, trend roughly east-west and are thought to be related to the dextral Tintina fault system. West of Money Knob, a north-south normal fault is known as the Myrtle Creek Fault. West-side down movement on this fault may have influenced the paleo-drainage system of the area. Based on a number of lines of evidence, it is believed that Livengood Creek used to flow to the northeast. Capture of the stream by the Tolovana River, and reversal of flow could have been related, in part, to movement along the Myrtle Creek Fault (Karl, et al., 1987; Athey and Craw, 2004).

Exploration work from 2006 through 2008 by ITH confirms the structural features and previously interpreted geologic history of the Livengood area. Drilling and surface work have helped to refine some of the details particularly with the use of principle component geochemical evaluation. This technique enables discrimination of different rock types based on geochemical characteristics and is particularly helpful when visual means are ambiguous. Interpretive cross sections (**Figures 8 – 12**) show the results of ITH work and their interpretation.

At the district scale, thrust stacking of rock assemblages (Amy Creek, ophiolite, sedimentary rocks, and volcanic rocks) is reasonably well understood. Drilling reveals that there are numerous local fold and thrust complications which are only partially understood at this stage (**Figure 7**). It is likely that the fold-thrust architecture that relates these assemblages to one another has been key in localizing dikes and auriferous hydrothermal fluid as mineralization largely appears to be, at least, spatially related to or controlled by thrust-stage structures.

8.0 **DEPOSIT TYPES**

Gold occurs in both vein-related and disseminated styles of mineralization. It occurs in and adjacent to narrow (to 10cm) multistage quartz veins dominantly in volcanic rocks, but also in intrusive, sedimentary and ophiolitic rocks, generally near intrusive dikes and sills, some of which appear to be structurally controlled, and as diffuse grade in altered volcanic, intrusive, and sedimentary rocks without a clear association with quartz veins. Many of the dikes appear to fill thrust-related structures and some of the diffuse mineralization occurs in envelopes around these

zones. The setting of mineralization associated with dikes and sills is analogous to that at the Donlin Creek deposit where gold occurs in fine quartz veins associated with dikes and sills of similar composition (Ebert, et al., 2000). In the broader sense, mineralization at Money Knob appears to be spatially related to Cretaceous intrusions, consistent in style, timing, and composition to numerous gold deposits and mineral occurrences of the Tintina Gold Belt (McCoy, et al., 1997; Smith, 2000).

Mineralization of the Livengood property is interpreted as intrusion-related epigenetic type. The character and geochemical association of As±Sb is suggestive of formation at a crustal level higher than mesothermal depths (~5-10 km) and deeper than shallow epithermal systems (\leq 3 km). Thrust-fold architecture is apparently provided pathways for magma (dikes and sills) and hydrothermal fluid. Some veins occupy subvertical tension structures approximately parallel to the inferred thrust transport direction.

9.0 MINERALIZATION

Historically, the Livengood district has been known for its >500,000 ounce placer gold production. The source of this gold is unknown, but the principal drainages which fed the placer gravels are sourced from Money Knob and the associated ridgeline. Prospecting in this area has revealed numerous gold-bearing quartz veins, generally associated with dikes, sills and stocks of monzonite, diorite, and syenite composition. The reduced composition and porphyritic to brecciated textures as well as local zones rich with arsenopyrite, are characteristics common to many deposits of the Tintina Gold Belt (e.g. Brewery Creek, Donlin Creek; McCoy, et al., 1997; Smith, 2000).

No lode production has taken place at Money Knob. Exploration of the area by various companies, including soil surveys by Alaska Placer Development, Cambior, AGA and ITH, reveals a 6×2 km northeast-trending area of anomalous gold in soils, within which a 1.6×0.8 km area forms the locus of exploration interest (**Figure 13**). This area has been only partially drill-tested (**Figures 14 and 15**).

The 2003 reverse circulation drilling program conducted by AGA intersected gold mineralization interpreted to be the result of a large intrusive-related gold system. Multiple intercepts of > 1g/t Au were encountered in 7 of the 8 holes. Subsequent drilling by ITH has consistently intercepted significant gold-bearing intervals. Some of the results of this drilling are highlighted in **Table 2**. These intercepts are interpreted to be mineralization preferentially occurring in, but not limited to, the Devonian volcanic section along particular structures and associated with dikes and sills (**Figures 10, 11, and 12**). Mineralization of the volcanic section appears to be continuous over an area measuring at least 600m east-west (from RC hole 21 to RC hole 6) and 375m north-south (from RC hole 3 to RC hole 12; **see Figure 15** for drill hole locations). True thicknesses of the intercepts range from 70 to 100% of the drilled intervals in Table 2; the dip of mineralized zones generally ranges from subhorizontal to 45 degrees to the south; nearly all drill holes are inclined at 70 degrees to the north. The lateral extent of mineralization and the favorable volcanic host is not closed off in any direction except to the southwest.

In general, better gold values (>1 g/t) are associated with dike margins and broad zones predominantly within the Devonian volcanic section but also in the adjacent sedimentary, and ophiolitic rocks. Some mineralization is internal to some of the dikes. Gold is commonly associated with increased concentrations of quartz veining +/- scattered coarse blebs of arsenopyrite and/or stibnite, though not always. Where gold occurs in sedimentary host rocks, host veins are most common in brittle siltstone, sandstone, and pebble conglomerate as opposed to shale. The diffuse style of mineralization is spatially associated with areas containing vein mineralization, but gold can be present where there is no discernable quartz veining to explain it.

10.0 EXPLORATION

10.1 Past Exploration

Several companies have explored the Livengood area as outlined in Section 6 (History). Results from that work include identification of a sizeable area of anomalous gold in soil samples and drilling of significant intervals of anomalous gold mineralization (described in previous sections).

10.2 Current Exploration

ITH has undertaken drilling to test areas beneath surface geochemical anomalies and identify the extent of mineralization. Drilling through the end of 2007 was sufficient to allow estimation of a resource (section 17). The 2008 exploration plan calls for 40,000m of RC and 2000m of diamond core drilling with the aim of confirming continuity of mineralization within the areas of prior drilling and extending the limits of that mineralization. To August 1, 2008 48 RC holes (12,100m) and 4 diamond core holes have been completed, with assays available for 21 of the RC drill holes. 2008 intercepts are in bold type in **Table 2**; all drill hole locations are illustrated in **Figures 14 and 15**.

Year	HoleID	From (m)	To (m)	Length (m)	Au Grade (g/t)	Grade x Thickness
2003	BAF-4	16.8	48.8	32.00	0.49	15.69
2003	BAF-7	161.50	300.20	138.70	1.07	148.01
2003	BAF-8	114.3	152.4	38.10	0.94	35.65
1981	L-3	3.00	26.00	23.00	1.10	25.30
1981	L-4	2.00	20.00	18.00	0.90	16.20
1981	L-5	38.00	59.00	21.00	1.10	23.10
1991	LC-TR-02	41.15	56.39	15.24	1.45	22.17
2004	MK-04-01	101.96	106.68	4.72	3.29	15.51
2004	MK-04-02	52.82	68.95	16.13	1.16	18.70
2004	MK-04-03	90.40	145.69	55.29	0.51	27.94
2004	MK-04-03	148.74	189.89	41.15	0.55	22.65
2004	MK-04-TR2E	38.25	70.75	32.50	0.69	22.27
2006	MK-06-07	123.90	157.89	33.99	1.50	50.85
2006	MK-06-07	160.78	216.10	55.32	1.79	99.19
2007	MK-07-13	250.50	329.79	79.29	0.53	41.71

 TABLE 2 HIGHLIGHTS OF LIVENGOOD DRILLING*

	HalaID	Enom (m)	$T_{0}(m)$	Length	Au Grade	Grade x
Year	HoleID	From (m)	10 (m)	(m)	(g/t)	Thickness
2007	MK-07-15	32.77	61.20	28.43	1.66	47.23
2007	MK-07-17	117.60	154.60	37.00	0.82	30.27
2007	MK-07-18	77.30	86.08	8.78	9.95	87.33
2007	MK-07-18	93.70	102.20	8.50	9.64	81.98
2007	MK-07-18	121.31	199.87	78.56	1.09	85.68
2007	MK-07-19	331.73	361.00	29.27	0.60	17.58
2007	MK-07-20	42.06	59.14	17.08	1.07	18.35
2007	MK-07-20	127.10	185.06	57.96	1.19	68.78
2007	MK-07-21	4.57	10.90	6.33	2.43	15.35
2007	MK-07-21	135.00	150.95	15.95	1.08	17.21
2007	MK-07-21	253.58	281.06	27.48	0.61	16.70
2007	MK-07-22	79.60	111.75	32.15	0.75	24.06
2007	MK-07-22	310.34	363.20	52.86	0.60	31.64
2007	MK-07-23	126.40	155.52	29.12	0.65	18.80
2007	MK-07-23	187.84	251.20	63.36	0.78	49.51
2008	MK-08-TR02	0.00	18.29	18.29	0.90	16.47
2008	MK-RC-0001	138.68	204.22	65.54	1.56	102.31
2008	MK-RC-0002	134.11	149.35	15.24	2.20	33.55
2008	MK-RC-0002	153.92	167.64	13.72	1.38	18.89
2008	MK-RC-0002	271.27	333.76	62.49	0.60	37.64
2008	MK-RC-0003	115.82	140.21	24.39	0.62	15.04
2008	MK-RC-0004	0.00	62.48	62.48	0.47	29.28
2008	MK-RC-0004	112.78	132.59	19.81	0.82	16.16
2008	MK-RC-0005	1.52	33.53	32.01	1.63	52.27
2008	MK-RC-0006	15.24	35.05	19.81	0.98	19.40
2008	MK-RC-0006	214.88	259.08	44.20	0.67	29.45
2008	MK-RC-0006	289.56	315.47	25.91	0.62	16.07
2008	MK-RC-0006	330.71	350.52	19.81	0.81	16.07
2008	MK-RC-0007	25.91	71.63	45.72	1.43	65.18
2008	MK-RC-0007	128.02	187.45	59.43	1.96	116.69
2008	MK-RC-0008	10.67	210.31	199.64	1.44	287.55
2008	MK-RC-0009	62.48	100.58	38.10	0.58	21.91
2008	MK-RC-0010	146.30	172.21	25.91	0.78	20.33
2008	MK-RC-0011	65.53	205.74	140.21	0.99	139.16
2008	MK-RC-0012	99.06	126.49	27.43	0.79	21.74
2008	MK-RC-0012	138.68	274.32	135.64	0.56	75.89
2008	MK-RC-0013	115.82	123.44	7.62	4.49	34.20
2008	MK-RC-0013	131.06	163.07	32.01	1.01	32.18
2008	MK-RC-0017	102.11	155.45	53.34	0.73	39.16
2008	MK-RC-0018	128.02	146.30	18.28	0.93	16.99
2008	MK-RC-0020	140.21	172.21	32.00	0.62	19.97
2008	MK-RC-0023	74.68	89.92	15.24	1.18	17.91
2008	MK-RC-0023	114.30	181.36	67.06	0.95	63.78
2008	MK-RC-0023	196.60	254.51	57.91	2.51	145.29
1991	MN-1	4.57	32.00	27.43	0.61	16.73
1991	MN-1	38.10	106.68	68.58	0.70	47.71
1991	MN-2	4.6	25.9	21.3	0.82	17.46

Year	HoleID	From (m)	To (m)	Length (m)	Au Grade (g/t)	Grade x Thickness
1991	MN-2	41.2	61.0	19.8	1.01	20.00

*Intercepts reported here have length times grade products greater than 15. Intercepts are calculated with a 0.25g/t cutoff; up to 3 meters of internal waste is allowed but outlier zones have to carry waste to cutoff. 2008 results are shown in bold type.

11.0 DRILLING

11.1 Past Drilling

All of the companies that have explored at Livengood in the past, except Cambior, have drilled their targets. In each case, drill holes were targeting different concepts such as veins in bedrock beneath the alluvial gold. Drilling to date by AGA and ITH has focused on a modest portion of the surface anomaly area (**Figure 14**).

Drilling in 2003 consisted of 1514 m of vertical and angled reverse circulation (RC) drilling in eight holes. It identified broad zones of gold mineralization (BAF-7; Table 2). Drilling in 2004 consisted of 654m of HQ coring in 4 diamond drill holes and tested possible gold mineralization beneath the soil anomaly up to 1.7 km to the west of 2003 drill holes. This drilling identified thick zones of gold mineralization in Devonian rocks beneath, relatively barren, thrust-emplaced Cambrian ophiolitic rocks. (MK-04-03; **Table 2**). These results highlight the fact that significant mineralization could exist beyond the limits of the main soil anomaly, particularly in blind locations beneath thrust faults.

Core drilling (HQ) in 2006 (8 holes, 1,230m) and 2007 (14 holes, 4,400m) focused on extending and defining the geologic setting of mineralization first recognized in MK-04-03. This mineralization is hosted primarily in the Devonian volcanic section and, to a lesser degree, in the overlying and underlying Devonian sedimentary section where it is commonly associated with dikes (Figures 9, 10, 11, and 12).

The RC drilling in 2003 was conducted by Layne Christiansen Company (Layne) using an MPD 1500 Track RC drill. Drilling in 2004, 2006, and early 2007 was also by Layne using CS1000 and CS1500 core drills. No drilling took place in 2005. Most of the 2007 core drilling was completed by AK Drilling of Butte, Montana using a Longyear LF-70 core drill.

11.2 Current Drilling

ITH initiated a major drilling program (~40,000m of RC and ~2000m of diamond core drilling) in May of 2008. The goals of this program are to better define and expand the resource calculated in early 2008 (and discussed in Section 17 below) through:

1. Grid drilling (75m spacing) of the known mineralization in what is now known as the Lillian Zone (area of the Lillian Section in Figures 9 and 10) to establish continuity of both the gold mineralization and favorable volcanic host rocks and affirm the geologic concepts/model described in prior sections of this report.

- 2. Step out drilling to expand the Lillian Zone beyond the area previously drilled.
- 3. District exploration drilling and trenching within the broad gold-in-soil anomaly to discover and outline new areas of gold mineralization.

As of August 1, 2008 ITH has completed 12,100m of RC drilling in 48 holes, 1,040m of HQ diamond drilling in 4 holes (Figure 15), and 2 trenches totaling 50m. Assaying is complete for 21 of the RC drill holes (Figure 15), all drilled in the Lillian Zone. Thus far, 16 of these 21 holes have intersected significant mineralization (Table 2) and the Lillian Zone remains open ended to the south, east, north, and northwest. In addition, this drilling indicates an area (MK-RC-08, -11, -12, and -23; Figure 14) where the mineralization is significantly thicker (up to 199m; Table 2) and extends through the structural/stratigraphic section from the surface in ophiolitic rocks, through the underlying sedimentary section and the volcanic rocks then into the sedimentary section beneath the volcanic rocks. The drilling program will continue as outlined above.

12.0 SAMPLING METHOD AND APPROACH

12.1 Past Sampling

The sampling procedures of previous companies are not known but the major companies that did the work are known for their conscientious QA/QC protocols. Sample data from past programs is consistent with more recent data generated by ITH. On this basis, there is no reason to doubt the validity or credibility of samples from Occidental, AMAX, Homestake, or Placer Dome. The similarity of results for each program suggests that sample collection and analytical procedures are sufficiently similar to allow use of their data by ITH in current exploration efforts.

For samples collected by AGA, all soil, stream sediment, rock, and drill samples were collected according to AGA in-house sampling protocols for geochemical sampling. These protocols specify the parameters to be recorded as documentation for each type of surface sample but are not prescriptive on the specific material to be sampled, however, in general - 80mesh material is analyzed in soils and the -200mesh size fraction is analyzed in silt samples. In early exploration projects the emphasis is placed on selective sampling of rocks and core to geochemically characterize the different styles of alteration and mineralization observed. Dr. Klipfel has reviewed these as well as AGA security procedures and has verified that they meet or exceed standard industry practices. Dr. Klipfel did not collect any soil samples for verification purposes.

All geochemical samples were secured and shipped to Fairbanks according to AGA protocols for sample preparation (drying, crushing, sieving, and pulverizing) at ALS-Chemex in 2003 and Alaska Assay in 2004. Sample splits (300-500g for rock material; -80 mesh for soil samples) were then sent to ALS Chemex in Vancouver for analysis. Analytical methods used were standard 50g fire assay with AA finish and four-acid digestion, multi-element ICP-MS. These are standard analytical packages for the exploration industry and are performed to a high standard. Analytical accuracy and precision are monitored by the analysis of reagent blanks,

reference material and replicate samples. Quality control is further assured by the use of international and in-house standards. ALS Chemex is accredited by the Standards Council of Canada, NATA (Australia) and is an ISO 17025 accredited company.

For reverse circulation drilling samples were collected at five foot intervals as determined by the driller. Pulverized material from the hole was passed through a cyclone to separate the solids from the drilling fluid and then over a spinning conical splitter. The splitter was set to collect two identical splits each of which should weigh 2-5kg. With the exception of a small sample of coarser chips used for geological logging the rest of the material was discarded. The split material was put into pre-numbered bags by the drillers' helpers on site. One of the splits was sent for analysis while the other was retained for future reference. The chips were logged by the project geologist recording basic information on the lithology, alteration and mineralization encountered.

AGA's core material was collected at the drill site and placed in core boxes under the supervision of an experienced geologist. It was logged for rock type, alteration, structure, and recorded with detailed descriptions. Dr. Klipfel has examined the core logs and core from the four holes drilled in 2004 holes and can verify the reliability of the logging. Sample intervals were determined on the basis of the distribution of veining and alteration. The minimum sample width was 15cm and the maximum was 200cm. Samples were collected to isolate different components of the mineralization and alteration to best characterize them. After the samples were marked out, the core was sawn in half and one half sent for analysis. The other half was either kept on site or at AGA's core storage facility in Fairbanks and was examined in the course of the site visit. The average recovery in the core program was in excess of 90% and there is no indication that poor recovery is an issue in the interpretation of the assay data. Sampling was selective but barren samples were always collected to bracket zones of mineralization so that reliable boundaries could be defined in the intercepts.

ITH has collected 81 soil samples in 2006 and 180 soil samples along with 78 surface rock samples in 2007. These samples have helped ITH better define the distribution of gold in soils on the southwest side of Money Knob and better delineate the distribution of gold and rock types between Money Knob and Radio Knob. In addition, ITH collected and analyzed core samples for 5,360m of drilling (2006 and 2007) in the manner previously described.

12.2 Current Sampling

ITH has adopted and continued the sampling protocols used by AGA and described in the previous section. This assures a high level of reliability in the sample data set and assures continuity of methodology, laboratory standards and conventions as well as confidence in the data generated.

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

13.1 Past Procedures

Soil and drill samples obtained in AGA's 2003 and 2004 exploration programs were subject to AGA's in-house methodology and Quality Assurance Quality Control (QA/QC) protocols.

These protocols require that control samples consisting of blanks and standards be inserted at a ratio of 1:25 into sample shipments. The blank materials consist of material appropriate for the sample type, e.g. fine powder for soil samples and large rock pieces for rocks or core and are used to test the sample preparation process as well as the analytical process. Standards consist of sealed sachets of known composition and are used to test the assay process. Duplicates for rock and core samples are selected at a ratio of 1:20 from the sample shipment and are prepared by splitting the sample in half after it has gone through the jaw crusher and creating two separate samples. Samples were prepared by Alaska Assay Laboratories, Inc. and analyzed for gold by ALS Chemex by means of their standard 50g fire assay with AA finish and multi-element 4-acid digest ICP-MS analysis for other elements.

Results of AGA's QA/QC program have been reviewed by Dr. Klipfel. Overall, the QA/QC samples indicate that sampling and analytical work is accurate and reliable. There were two instances of issues with blanks and standards out of compliance with AGA protocols, but these were satisfactorily resolved by AGA. The sample database does not appear to have been compromised.

13.2 Current Procedures

ITH has continued with the QA/QC protocol of AGA as described above and increased the number of control samples (blanks and standards) to 1 in 10. Duplicate splits of drill samples are prepared for approximately every 40th sample. Standard 50g fire assay methods are used for the gold analysis. All core and rock samples are also submitted for multi-element ICP-MS analyses using a 4 acid digestion technique. Core and rock samples are weighed by ITH before shipping, and all samples are weighed by the laboratory when received and logged in, and then the coarse reject material is re-weighed by the laboratory after the sample aliquot has been removed for pulverization. This tracking of samples enables constant verification of quality throughout the analytical process.

The QA/QC data from the ITH sampling program (Myers, J.M., 2007; Myers J.M. 2008) has been reviewed by Dr. Klipfel (Myers, J.M., 2007; Myers J.M. 2008). The general procedure for gold is that if blanks or standards fall outside of an acceptable range, e.g. 3x detection for blanks, +/-10% for standards, the data are reviewed and unless a suitable explanation can be found, e.g. 1% carryover contamination or sample switches, the error is reported to ALS-Chemex and the sample interval around the questionable sample is rerun. If the rerun returns the same sample values and the correct reference value then a new corrected certificate is issued by ALS-Chemex. Multi-element QA/QC is monitored using the compositions of the blank and standard materials.

Geochemical data has been processed by ITH staff using ratio and multi-element techniques to understand geochemical signature of veins and gold mineralization.

14.0 DATA VERIFICATION

Field and drill core observations made by the Dr. Klipfel during site visits are consistent with the style of mineralization and alteration interpreted and reported in ITH documents. Outcrop exposures in drainages, trench faces, road cuts, and along the ridge lines were examined and

found to be consistent with existing geological maps.

Drill logs, sections and maps were reviewed and are to a high quality. Information is consistent with observations of core and surface exposures.

As a check, seven samples were collected from portions of two different drill holes, MK07-18 and MK07-20, from the remaining half of drill core previously sampled by ITH. Samples were selected for a range of gold content and rock type. The range of gold content in these samples is from below detection to 16.8 g/t Au. The core was quartered for the same sample interval as previously collected by ITH. Core material was bagged, labeled and information recorded by Dr. Klipfel and by ITH staff. Sample bags were sealed and transported to the ALS-Chemex laboratory in Fairbanks for sample preparation. Pulverized material was split into 100 gram master pulps and 60 gram analytical pulps before being sent to ALS Chemex in Vancouver for analysis. All samples except one returned results reasonably consistent with results from the ITH original sampling. The single sample that is different contains 0.61 g/t Au compared to 6.92 g/t Au in the original ITH analysis. This discrepancy is similar to the few discrepancies that occur in ITH's QA/QC sample duplication procedures. For this reason, the discrepancy is interpreted to reflect normal variation attributable to nugget effect. To the extent that this type of error is throughout the database, it is equally likely that some samples report low when the other half of core might report higher.

In 2006, Dr. Klipfel collected a single sample along 3 m of a trench face where intrusive material with quartz veins is exposed. This sample was crushed, split, pulverized and assayed with a 50 g fire-assay AA finish method by ALS Chemex in Reno, Nevada. The sample contains 1.31 g/t Au, a value consistent with generalized results from AGA sampling and expectations for material of that type and location.

In addition, Dr. Klipfel witnessed the sluicing and panning of concentrated "clean up" material shoveled from a trench face. The material contained a significant amount of fine colors as seen in the panning dish verifying the presence of free gold at a range of sizes in that part of the trench face.

Dr. Klipfel has not verified all sample types or material reported. To the best of the authors' knowledge, ITH has been diligent in their sampling procedures and efforts to maintain accurate and reliable results.

15.0 ADJACENT PROPERTIES

Another claim block called the Shorty Creek claims is controlled by Select Resources is located approximately 10 km to the SW of the Livengood project area and is actively being explored for gold mineralization by Select Resources.

The Alaska Pipeline, the main means of transporting crude oil from Alaska's North Slope to the south coast of Alaska, runs northwest-southeast about 8 km to the west. This feature is not expected to have any impact on the project.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

In 2004, AGA attempted to test the cyanide solubility of gold in drill sample material by analyzing samples containing more than 200 ppb Au. Samples were sent to ALS Chemex for a 30g cold cyanide leach assay (Au-AA24). 198 samples were analyzed in this manner and they show consistent low CN soluble assays, which on average are about 60% of the fire assay value (AGA in house memorandum to files). The significance of this result is unclear because there are many variables which could affect this outcome. These include small sample size, nugget effect, host rock type, sulfide content, other mineral content, encapsulation, and possible inappropriate testing method. Of these, nugget effect is expected when there is coarse free gold which was witnessed by Dr. Klipfel in the sluice sample of trench face material. Sulfide is present and also could be a significant factor. In an effort to determine which minerals might impact the cyanide test, AGA used principle component analysis for four sets of 'factors'. They concluded that As and Sb had little impact, but that sulfide content and coarse gold were the leading contenders for lowering recovery in the CN leach samples.

In Dr. Klipfel's opinion, this test is inconclusive due to small sample size and nugget effect. However, it should be an indicator that gold and sulfide characterization studies should be undertaken and metallurgical testing should be designed with sample size, coarse free gold content, distribution and location of gold in host rock, material type (shale, carbonate, intrusive), and sulfide content in mind. At this stage, the results should only be considered as a preliminary indicator of potential refractory issues for a cyanide leach processing

In 2006 ITH submitted a single sample of vein related mineralization to Hazen Research for a gold characterization study. The sample showed that the bulk of the gold occurs as micron-scale native gold grains in and adjacent to pyrite and arsenopyrite grains with a smaller number of grains associated with silicate gangue. Cyanide recovery in a bottle roll test was 61% (**Table 3**, Sample 1A).

In 2007 six more samples were submitted to Hazen Research for additional gold characterization studies. These samples represented both high and low grade mineralization from oxidized, partially oxidized and unoxidized material. The study is ongoing, however, preliminary cyanidization results have been received. These show that the cyanide extraction is very high on the oxide samples and partially oxidized samples (**Table 4**) and somewhat less in the sulfide material. Two of the sulfide samples (**Table 4**, samples 3 and 1A) were from the albitic alteration style and they each return 60% cyanide recovery. The 3rd sulphide sample (Table 3, sample 5) came from the sericite alteration style and has only a 42% recovery.

A very important result of this work to date is the fact that in all the samples tested in 2007 the bulk of the gold recovered by cyanide extraction comes out in the first 6 hours. This implies that the gold is readily available to the cyanide solution. The second part of this study will address the cyanide extraction on coarser material as well studying the actual mineralogical association of the gold.

		Average	% Cyanide
Sample #	Ore Type	Grade (g/t)	Extraction*
1	Oxide Sediments	1.52	99.9%
2	Oxide Sediments High-grade	10.80	96.9%
3	Un-Oxidized Volcanic	1.52	59.7%
4	Oxide Sediments	1.39	99.9%
5	Un-Oxidized Volcanic	1.38	42.3%
6	Weakly Oxidized Volcanic	1.06	90.2%
1A	Volcanic Un-Oxidized	2.30	60.9%

TABLE 3 GOLD RECOVERY RESULTS FROM CYANIDE EXTRACTION TESTS

* Samples were 300 gram bottle rolls with sample material crushed to ~200 mesh and sampled every 8-10 hours for a total of 48 hours

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

17.1 Introduction

ITH commissioned Mr. G. Giroux of Giroux Consultants Ltd to prepare an initial resource estimate based on the drill intercepts in the Money Knob area in hand through the end of 2007. This is the first resource estimation that has been undertaken for the property and provides insight into the potential of the Money Knob area. The resource estimation presented here has not been updated to include results of the 2008 drilling; ITH intends to retain Mr. Giroux to prepare an updated resource estimate at the end of the summer drilling season.

ITH provided Mr. Giroux with a drill database consisting of data from 68 drill holes in the Money Knob area. Within this area, two Devonian volcanic units are modeled and the remaining area has been loosely constrained to include drill holes containing gold and silver mineralization. The list of drill holes provided is attached in **Appendix 2** with the 15 holes that intersected the mineralized volcanic zones highlighted in blue. These holes plus the additional holes highlighted in orange were used to estimate the surrounding mineralization. A total of 7,801 assays for gold and silver were supplied. During the historic exploration of this deposit a number of companies have sampled the mineralization in a variety of ways. **Table 4** outlines the companies, style of sampling, year of program and number of meters sampled.

While comparing the results from each style of sampling is problematic, as all are in different volumes of rock, there appears to be no significant bias present as approximately the same average grade is reported for each style of sampling (**Table 5**). The one exception is silver in percussion holes where only 10 samples were taken and all reported 0.001 g/t. Based on this limited review there appears to be no reason not to include all styles of sampling in this preliminary inferred resource estimate.

Drill Prefix	Company	Year	Туре	Number of Holes	Metres	Comments on Data
BAF	AngloGold Ashanti	2003	RC	8	1514	All original data in possession
L	Occidental Petroleum	1981	Percussion	6	310	Intercepts and locations from 3rd Party
LC	AMAX	1989	Trench	2	160	Original data in possession; partial Lab Certificates
MK-04	AngloGold Ashanti	2004	Core	4	762	All original data in possession
MK-04- TR	AngloGold Ashanti	2004	Trench	5	257	All original data in possession
MK-06	TalonGold	2006	Core	8	1227	All original data in possession
MK-07	TalonGold	2007	Core	15	4408	All original data in possession
MK	Homestake	1976	Percussion	2	153	Intercepts and locations from 3rd Party
MN	AMAX	1990	RC	3	320	Original data in possession; partial Lab Certificates
TL	Placer Dome	1997	Core	8	1056	Original Placer Dome data in possession; no Lab Certificates

TABLE 4 SUMMARY OF SAMPLING HISTORY FOR LIVENGOOD PROJECT

TABLE 5 SUMMARY OF GOLD AND SILVER GRADES SORTED BY SAMPLE TYPE

Sample Type	Number	Mean Au (g/t)	Number	Mean Ag (g/t)
Trench Samples	171	0.42	169	0.48
Percussion Samples	20	0.37	10	0.001
Reverse Circulation	1,201	0.35	886	0.26
Diamond Drilling	6,530	0.34	6,483	0.44

17.2 Resource Estimation Procedures

17.2.1 Modeling

A set of 3D wire frame solid models encompassing suites of various lithologies was developed by Northern Associates Inc. These shapes include an upper and lower 'volcanics' solid (**Figure 15**) and a third solid fills a rectangular shape that surrounds drill holes where mineralization occurred but was less continuous (**Figures 15**). The rectangle encompasses an area in which gold mineralization is intersected in drill holes and in surface trenches. Wire-framed solid construction is as follows: "The Money Knob model is based on the occurrence of mineralized Devonian volcanics. Two solid models are presented. No grade cut-off was applied. The main and largest body occurs within a similar age sedimentary sequence and is relatively flat-lying. The second volcanic body is bounded by two parallel east-west oriented high-angle faults. Both bodies are limited by a 150m buffer surrounding drill intersections. The main body is also limited by surface topography and a southerly dipping overlying thrust fault.

The top and bottom drill intersections were identified using a previously determined chemical classification scheme that has been successful at identifying lithologies even when highly altered and mineralized. Often these intervals closely mimic the core logging geologists' lithologic units, especially as our understanding and experience on the project has increased. Surfaces based on the tops and bottoms were created and clipped to the buffer and bounding fault planes. Cross-sectional strings were created based on the surfaces and two 3D solid wireframe models were subsequently formed. Each model contains only mineralized volcanic intersections. Software validations indicate a valid and closed solid model. Xplorpac 6.0.1 (Surpac-GemCom) software was used to make the model.

The USGS Livengood C-4 and B-4 30m DEM's was used to represent topography for the Livengood Project. All collars that could be located were surveyed using differential GPS Magellan ProMark CP units in a post-processing mode. These points were used to generate a simple topographic surface for comparison to the USGS DEM. When viewed in cross-section the USGS DEM surface was found to lie variably 5-15m above the DGPS surface. To level the two datasets the USGS DEM was uniformly lowered 10m, then combined with the DGPS points, and a single surface was generated. Edits to this derived surface were made to compensate for the remaining variations between the USGS and DGPS surfaces. The resulting final topographic surface attempts to best represent the natural topographic trends while honouring the absolute elevations obtained for the locatable collars using the DGPS equipment."

17.2.2 Sample Statistics and Capping

Drill holes were compared to the geologic solids and assays were tagged with the appropriate code if within one of the two interpreted solids. Solid volx_upp – the main volcanic solid or volx_flt – a fault bounded volcanic solid. The statistics for gold and silver within each of these solids is shown in **Table 6**. In addition the statistics for samples not within these two solids but inside the surrounding broad mineralized zone are presented.

	Volx_upp		Vol	κ_flt	Surrounding Sediment	
	Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)
Number of Assays	876	876	683	683	5,324	4,967
Mean	0.71	0.54	0.55	0.40	0.31	0.43
Standard Deviation	1.29	1.41	1.18	1.04	1.92	6.40
Minimum Value	0.005	0.005	0.005	0.005	0.001	0.001
Maximum Value	13.60	32.50	22.00	18.25	22.90	440.0
Coefficient of Variation	1.80	2.62	2.13	2.60	3.34	14.73

 TABLE 6 STATISTICS FOR GOLD AND SILVER IN ASSAYS

The grade distribution for gold and silver were examined within each domain to determine if capping was required and if so at what level. Each data set showed positively skewed distributions for both gold and silver. Each variable was evaluated using lognormal cumulative frequency plots and in each case multiple overlapping lognormal populations were observed.

Gold within the Main Volcanic unit (Volx_upp) showed 6 overlapping lognormal populations (**Table 7**). The upper population (1) was considered erratic high grade and a cap of two standard deviations above the mean of population 2 was chosen to cap 4 assays at 10.5 g Au/t.

Population	Mean Au (g/t)	Proportion Of Data	Number of Samples
1	13.17	0.44 %	4
2	9.34	0.48 %	4
3	6.23	0.82 %	7
4	3.77	1.49 %	13
5	0.59	66.29 %	581
6	0.07	30.49 %	267

TABLE 7 DISTRIBUTION OF GOLD WITHIN THE MAIN VOLCANIC UNIT

Silver within the Main Volcanic unit (Volx_upp) also showed 6 overlapping lognormal populations (**Table 8**). The upper population (1) representing 0.21 % of the data was considered erratic high grade and a cap of two standard deviations above the mean of population 2 was chosen to cap 2 assays at 12.2 g Ag/t.

Population	Mean Ag (g/t)	Proportion Of Data	Number of Samples
1	36.08	0.21 %	2
2	10.21	0.41 %	4
3	5.66	0.52 %	5
4	2.20	1.71 %	15
5	0.34	91.83 %	803
6	0.02	5.33 %	47

TABLE 8 DISTRIBUTION OF SILVER WITHIN THE MAIN VOLCANIC UNIT

Gold within the Fault bounded Volcanic unit (Volx_flt) showed 6 overlapping lognormal populations (**Table 9**). The upper population (1) was considered erratic high grade and a cap of two standard deviations above the mean of population 2 was chosen to cap 3 assays at 6.1 g Au/t.

Population	Mean Au (g/t)	Proportion Of Data	Number of Samples
1	16.89	0.44 %	3
2	5.39	0.35 %	2
3	1.79	9.19 %	63
4	0.72	27.58 %	188
5	0.24	32.92 %	225
6	0.03	29.53 %	202

TABLE 9 DISTRIBUTION OF GOLD WITHIN THE FAULT BOUNDED VOLCANIC UNIT

Silver within the Fault Bounded Volcanic unit (Volx_flt) also showed 6 overlapping lognormal populations (**Table 10**). The upper population (1) representing 0.44 % of the data was considered erratic high grade and a cap of two standard deviations above the mean of population 2 was chosen to cap 3 assays at 8.7 g Ag/t.

TABLE 10 DISTRIBUTION OF SILVER WITHIN THE FAULT BOUNDED VOLCANIC UNIT

Population	Mean Ag (g/t)	Proportion Of Data	Number of Samples
1	16.83	0.44 %	3
2	8.73	0.48 %	3
3	1.95	1.01 %	7
4	0.94	4.36 %	30
5	0.27	81.39 %	556
6	0.02	12.33 %	84

Gold within the area surrounding the two mineralized solids also formed a strong skewed distribution and a total of six overlapping lognormal populations were recognized (**Table 11**). Population 1 is considered erratic high grade and a capping level of 2 standard deviations above the mean of population 2 was used to cap 9 assays at 14.5 g Au/t.

TABLE 11 DISTRIBUTION OF GOLD WITHIN THE SURROUNDING SEDIMENTS

Population	Mean Au (g/t)	Proportion Of Data	Number of Samples
1	16.01	0.22 %	12
2	6.68	0.23 %	12
3	1.24	6.73 %	358
4	0.42	19.10 %	1,017
5	0.08	31.91 %	1,699
6	0.01	41.80 %	2,226

Silver in the area surrounding the two volcanic solids was also positively skewed and showed 7 overlapping lognormal populations (**Table 12**). The top 2 populations were considered erratic

and a cap of 2 standard deviations above the mean of population 3 was used to cap 13 silver assays at 4.6 g Ag/t.

Population	Mean Ag (g/t)	Proportion Of Data	Number of Samples
1	51.42	0.10 %	5
2	10.04	0.14 %	7
3	2.75	0.77 %	38
4	0.58	10.79 %	983
5	0.21	44.08 %	2,189
6	0.09	20.73 %	1,030
7	0.06	14.40 %	715

TABLE 12 DISTRIBUTION OF SILVER WITHIN THE SURROUNDING SEDIMENTS

The effects of capping are shown for each domain with slight reductions in mean grade and all coefficients of variation below 2 (**Table 13**).

17.2.3 Composites

Drill holes were compared to the geologic solids with the points each hole entered and left the solids recorded. Uniform down hole composites were then formed to honour the domain boundaries. Small intervals (less than 2.5 m) were combined with adjoining samples to produce composites of uniform support, 5 ± 2.5 m in length. The 5 m composite statistics are shown in **Table 14**.

	Volx_upp		Vol	x_flt	Surrounding Sediments	
	Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)
Number of Assays	876	876	683	683	5,324	4,967
Mean	0.70	0.51	0.52	0.37	0.30	0.31
Standard Deviation	1.18	0.96	0.73	0.69	0.94	0.43
Minimum Value	0.005	0.005	0.005	0.005	0.001	0.001
Maximum Value	10.50	12.20	6.10	8.70	14.50	4.60
Coefficient of Variation	1.70	1.86	1.40	1.84	3.11	1.40

TABLE 13 STATISTICS FOR GOLD AND SILVER IN CAPPED ASSAYS

TABLE 14 STATISTICS FOR GOLD AND SILVER IN 5 M COMPOSITES

	Volx_upp		Vol	c_flt	Surrounding Sediments	
	Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)	Au (g/t)	Ag (g/t)
Number of Assays	168	168	134	134	1,437	1,371
Mean	0.66	0.50	0.48	0.34	0.26	0.27
Standard Deviation	0.59	0.46	0.47	0.27	0.57	0.32
Minimum Value	0.001	0.001	0.010	0.005	0.001	0.001
Maximum Value	3.73	3.38	3.21	1.65	11.90	3.18
Coefficient of Variation	0.90	0.93	1.00	0.77	2.20	1.15

17.2.4 Variography

Due to the relative lack of information (only 15 drill holes penetrated the two solids) the assumption of anisotropy could not be proven. As a result, simple isotropic models were fit to both gold and silver in each of the three domains. Pairwise relative semivariograms were run with nested spherical models fit in all cases. The semivariogram parameters are summarized in **Table 15** and the fit models are shown in Appendix 2.

17.2.5 Bulk Density

The specific gravities for 4,981 samples were calculated from a sample weight and estimated sample volume by Carl Schaefer of Northern Associates Inc. The results are tabulated and sorted by the four main rock types present (**Table 16**).

TABLE 15 SUMMARY OF SEMIVARIOGRAM PARAMETERS FOR AU AND AG IN BOTH DOMAINS

Domain	Variable	Az/Dip	C _o	C ₁	C ₂	Short Range (m)	Long Range (m)
Volx_upp	Au	Omni Dir.	0.20	0.20	0.19	15	60
	Ag	Omni Dir.	0.20	0.07	0.05	12	60
Volx_flt	Au	Omni Dir.	0.20	0.30	0.20	15	60
	Ag	Omni Dir.	0.08	0.15	0.22	15	28
Surrounding	Au	Omni Dir.	0.35	0.20	0.35	30	60
Area	Ag	Omni Dir.	0.20	0.10	0.40	20	60

TABLE 16 SPECIFIC GRAVITIES CALCULATED BY NORTHERN ASSOCIATES

Rock Type	Number of Samples	Average SG
Upper Sediments	1,901	2.79
Lower Sediments	1,139	2.76
Hangingwall	467	2.76
Main Volcanics	1,474	2.78
Total	4,981	2.78

As a check 18 pieces of drill core were sent to Chemex for specific gravity determinations. The Chemex results are presented in **Table 17**.

The grand average of 2.62 is lower than that taken from the 4,981 determinations of 2.79 but it is a much smaller sample. When the pieces of core measured by Chemex were compared to the total sample interval measured by C. Schaefer the results were again lower: 2.62 versus 2.96 respectively. Again Chemex tested small intervals of 5 cm while the Schaefer measurements were from the entire sample interval (usually greater than 1 m of material).

For this resource estimate the average of 2.78 was applied to all blocks.

17.2.6 Block Model

A block model with blocks $20 \times 20 \times 5$ m high was superimposed on the various geologic solids with the proportion of each block below surface topography and within each solid recorded. The block model origin is as follows:

Lower Left Corner of Model			
428170 E	Column size	: 20 m	118 Columns
7265180 N	Row size :	20 m	70 Rows
Top of Model			
540 Elevation	Level size :	5 m	92 Levels
No Rotation			

TABLE 17 SPECIFIC GRAVITIES MEASURED BY CHEMEX

SampleID	SG	Hole	From (m)	To (m)	LithCode	Lith Desc.	C.S.
DC148011	2.61	MK-07-18	131.20	131.25	Dvol	2cm vn, wkly oxidized; volcanics	2.83
DC148018	2.77	MK-07-18	136.05	136.10	Dvol	volc w/ 2cm qtz>aspy vn	2.97
DC148019	2.66	MK-07-18	136.65	136.70	Dvol	ave grade, volc.	2.97
DC148020	2.11	MK-07-18	141.95	142.00	Dvol	ave grade, volc; clay ser. Alt.	2.39
DC148022	2.72	MK-07-18	175.56	175.61	Dvol	amyg. Volc, low grade	2.64
DC148023	2.74	MK-07-18	208.10	208.18	Dvol	xtl-lithic tuff, low grade	2.87
	2.60				Dvol Avera	age	
SampleID	SG	Hole	From (m)	To (m)	LithCode	Lith Desc.	C.S.
DC148010	2.56	MK-07-18	121.80	121.85	Dvol-ec	oxidized epiclastic, ave grade	3.08
	2.56				Dvol-ec Av	/erage	
DC148009	2.76	MK-07-18	100.50	100.55	Kint	Dike	3.05
DC148012	2.47	MK-07-20	148.40	148.45	Kint	Dike	2.53
DC148016	2.44	MK-07-21	9.00	9.05	Kint	dike; ave grade	3.18
DC148021	2.85	MK-07-18	143.60	143.65	Kint	dike, ave grade	2.91
	2.63				Kint Avera	ge	
DC148007	2.23	MK-07-18	81.70	81.80	sed	high grade sed, oxide high grade sed, mixed	3.80
DC148008	2.47	MK-07-18	98.50	98.55	sed	oxide/sulfide	2.77
DC148013	2.62	MK-07-20	149.35	149.40	sed	wall rock to dike above	2.71
SampleID	SG	Hole	From (m)	To (m)	LithCode	Lith Desc.	C.S.
DC148014	2.55	MK-07-20	49.00	49.05	sed	mod grade sed.	2.98
DC148024	2.71	MK-07-18	285.50	285.55	sed	TD poker chip, no grade	3.21
	2.52				sed Average		
DC148015	2.95	MK-07-21	4.67	4.72	umaf	um; high grade	2.93
DC148017	2.89	MK-07-21	9.91	9.96	umaf	um; mod grade	3.51
	2.92				umaf Aver	age	
	2.62				Grand Ave	erage	2.96

17.2.7 Grade Interpolation

Grades for gold and silver were interpolated into blocks by Ordinary Kriging. Each of the three solids was interpolated using hard boundaries (only composites from within the particular solid were used to estimate blocks in that solid). For each solid a series of 4 passes was completed

with a minimum of 4 composites required to estimate a block in any given pass. Pass 1 used a search ellipse with dimensions equal to $\frac{1}{4}$ of the range of the semivariogram for the solid being estimated. For blocks not estimated during pass 1 a second pass was made with the ellipse expanding to $\frac{1}{2}$ the semivariogram range. A third pass using the full range and a fourth using twice the range were also complete. In all cases if more than 12 composites were found within any search the closest 12 were used. Blocks straddling more than one mineralized solid were estimated for both and a weighted average grade was determined using the percentage present in each solid. The percentage of the block below surface topography was used to determine the tonnage present. **Table 18** lists the search parameters used to estimate each mineralized solid.

Zone	Variable	Pass	Az/Dip	Dist. (m)
Volx_upp	Au	1	Omni Directional	15
		2	Omni Directional	30
		3	Omni Directional	60
		4	Omni Directional	120
	Ag	1	Omni Directional	15
		2	Omni Directional	30
		3	Omni Directional	60
		4	Omni Directional	120
Volx_flt	Au	1	Omni Directional	15
		2	Omni Directional	30
		3	Omni Directional	60
		4	Omni Directional	120
	Ag	1	Omni Directional	7
		2	Omni Directional	14
		3	Omni Directional	28
		4	Omni Directional	120
Surrounding Sediments	Au	1	Omni Directional	15
		2	Omni Directional	30
		3	Omni Directional	60
		4	Omni Directional	120
	Ag	1	Omni Directional	15
		2	Omni Directional	30
		3	Omni Directional	60
		4	Omni Directional	120

TABLE 18 SUMMARY OF PARAMETERS USED TO KRIGE BLOCKS

17.3 Resource Statement

Based on the study herein reported, delineated mineralization of the Livengood Deposit is classified as a resource according to the following definitions from National Instrument 43-101 and from CIM (2005):

"In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those

terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended."

The drill hole spacing and number of drill holes available at this time at the Livengood Deposit precludes the classification of this resource as anything but inferred. The resource is tabulated in total (**Table 19**) and then broken out by the three estimated zones (**Table 20, 21, 22**).

Au Cutoff	Tonnes > Cutoff	Grade > Cutoff				
(g/t)	(tonnes)	Au (g/t)	Ag (g/t)	Ounces Au	Ounces Ag	
0.20	280,300,000	0.45	0.28	4,014,000	2,508,000	
0.30	188,010,000	0.54	0.30	3,269,000	1,789,000	
0.40	129,600,000	0.63	0.31	2,615,000	1,307,000	
0.50	87,810,000	0.71	0.31	2,011,000	883,000	
0.60	54,150,000	0.82	0.29	1,422,000	500,000	
0.70	33,230,000	0.92	0.29	985,000	306,000	
0.80	25,310,000	0.98	0.28	796,000	229,000	
0.90	10,290,000	1.16	0.38	382,000	125,900	
1.00	6,770,000	1.27	0.43	275,700	92,700	
1.10	4,030,000	1.42	0.47	183,900	60,900	
1.20	2,190,000	1.65	0.52	116,400	37,000	

TABLE 19 LIVENGOOD INFERRED RESOURCE

TABLE 20 LIVENGOOD	INFERRED	RESOURCE -	VOLX	UPP UNIT
		RESCORCE		

Au Cutoff	Tonnes > Cutoff	Grade > Cutoff				
(g/t)	(tonnes)	Au (g/t)	Ag (g/t)	Ounces Au	Ounces Ag	
0.20	30,930,000	0.58	0.51	578,000	510,000	
0.30	30,750,000	0.58	0.51	576,000	508,000	
0.40	30,200,000	0.59	0.52	570,000	502,000	
0.50	21,530,000	0.63	0.50	439,000	347,000	
0.60	8,350,000	0.78	0.57	209,000	152,000	
0.70	4,590,000	0.89	0.56	131,000	82,000	
0.80	2,770,000	0.98	0.56	87,000	50,000	
0.90	1,550,000	1.09	0.54	54,000	26,900	
1.00	1,000,000	1.16	0.55	37,000	17,700	
1.10	490,000	1.29	0.56	20,300	8,900	
1.20	280,000	1.40	0.60	12,600	5,400	

Au Cutoff	Tonnes > Cutoff	Grade > Cutoff			
(g/t)	(tonnes)	Au (g/t)	Ag (g/t)	Ounces Au	Ounces Ag
0.20	21,450,000	0.51	0.33	351,000	225,000
0.30	17,840,000	0.56	0.33	322,000	192,000
0.40	12,320,000	0.65	0.34	259,000	136,000
0.50	9,460,000	0.72	0.36	217,000	110,000
0.60	5,300,000	0.85	0.40	144,000	69,000
0.70	2,640,000	1.03	0.57	88,000	48,000
0.80	1,910,000	1.13	0.68	70,000	42,000
0.90	1,570,000	1.20	0.74	60,000	37,000
1.00	1,320,000	1.24	0.77	53,000	32,000
1.10	1,030,000	1.29	0.79	43,000	26,000
1.20	620,000	1.39	0.83	28,000	17,000

TABLE 21 LIVENGOOD INFERRED RESOURCE - VOLX_FLT UNIT

TABLE 22 LIVENGOOD INFERRED RESOURCE - SURROUNDING UNIT

Au Cutoff	Tonnes > Cutoff	Grade > Cutoff				
(g/t)	(tonnes)	Au (g/t)	Ag (g/t)	Ounces Au	Ounces Ag	
0.20	227,920,000	0.42	0.24	3,085,000	1,773,000	
0.30	139,430,000	0.53	0.24	2,371,000	1,089,000	
0.40	87,080,000	0.64	0.24	1,786,000	669,000	
0.50	56,820,000	0.74	0.23	1,355,000	426,000	
0.60	40,500,000	0.82	0.21	1,069,000	279,000	
0.70	26,000,000	0.92	0.21	766,000	176,000	
0.80	20,630,000	0.96	0.21	639,000	137,000	
0.90	7,160,000	1.16	0.27	268,000	62,000	
1.00	4,460,000	1.30	0.30	185,700	43,000	
1.10	2,510,000	1.49	0.33	120,600	26,000	
1.20	1,290,000	1.83	0.35	75,800	14,600	

17.4 Mineral Resource Classification

Mineral Resources for the LMS project are classified as an Inferred Resource according to the CIM Standards on Mineral Resources and Reserves – Definitions and Guidelines (December, 2005). An Inferred Resource is defined as follows:

Inferred Mineral Resource

"An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, workings and drill holes." "Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies."

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Mr. Giroux is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant issues that could potentially affect this estimate of mineral resources. Mineral reserves can only be estimated based on the results of an economic evaluation generally as part of a preliminary feasibility or feasibility study. As such, no reserves have been estimated at this stage.

18.0 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is known by the authors to be necessary to make the technical report understandable and not misleading.

19.0 INTERPRETATION AND CONCLUSIONS

The Livengood property is centered on an area (Money Knob) considered by many for a long time to be the lode source for gold in the Livengood placer deposits which have produced in excess of 500,000 ounces of gold. Anomalous gold in soil samples occur over a northeast trending area of approximately 6 x 2 km with a principle concentration of surface anomalies in an smaller area approximately 1.6 x 0.8 km. Drilling by past companies, AGA, and ITH has identified wide intervals (>100 m @ \geq 1.0 g/t Au) of gold mineralization with local higher-grade, narrow intervals beneath the soil anomaly and in rocks beneath thrust surfaces which are not expressed geochemically at the surface. The possibility that more mineralization occurs over broader areas than the soil anomaly but is hidden beneath thrust faults is encouraging for the discovery potential at Livengood.

The style of mineralization is consistent with other deposits in the Tintina Gold Belt. Superficially, it appears to be most consistent with mineralization at Donlin Creek to the extent that quartz veins and gold content are spatially and possibly genetically related to multi-stage dikes and sills in volcanic, sedimentary, and ophiolitic rocks. The extension of veining into ophiolitic rocks locally means mineralization is not limited to the apparent mapped extent of the sedimentary/volcanic package. Also, the surface geochemical anomaly in soil probably reflects only a portion of the mineralization present. Mineralization may continue down-dip along and/or beneath thrust surfaces and therefore be blind at the surface. This possibility should be included in further evaluation of the deposit.
The authors conclude that significant mineralization occurs at Livengood and that the continuation of the drilling program as planned for 2008 is appropriate for further evaluation of the gold mineralization. Mineralization has not been closed off in any direction. Resolution of geologic uncertainties with more drilling will be helpful for further understanding mineralization and ought to enable predictive ability for discovery of more mineralization. This is likely to be especially true for areas beneath thrust faults where surface geochemistry only conveys information about unmineralized rock above the thrust fault.

20.0 RECOMMENDATIONS

20.1 Recommended Exploration Program

It is recommended that exploration of the Money Knob area continue with systematic drilling at evenly spaced centers along regularly spaced lines with the goal of expanding the area of known mineralization. The 40,000m of drilling currently under way is an appropriate amount of drilling for the needs of the project and the time available in the field season. In addition, further surface sampling and trenching should be undertaken to provide surface data to correlate with drill data at depth. Structural analysis should continue and in particular use of 3D modeling software to understand structure in 3D space. This should help predict and identify the lateral and depth extent of mineralization.

In addition, exploration work should undertake mineralogic and metallurgical characterization studies to ascertain the nature of gold and how it occurs in the project area. This should include petrographic work, gold characterization studies, leach tests, and any other studies that will help define the feasibility of extracting gold from host rock. Implementation of systematic specific gravity measurements should also be included in the program to help better define the s.g. for various rock types throughout the mineralized area.

20.2 Budget for 2008

ITH has proposed expenditure of approximately US\$ 7.5 million dollars in 2008 evaluating the Livengood project (**Table 23**). This budget will be allocated primarily to drilling and geological analysis of the deposit. The budget is appropriate for the amount of drilling planned. The authors recommend continuation of this program in order to accomplish ITH's goal of advancing definition of Livengood mineralization.

Expenditure	2008US\$	Comments
Land	150,000	Claim and lease fees
Geological and Contract Services	2,000,000	Contract/consulting fees
Drilling	3,600,000	Drilling, supplies, preparation,
		hole abandonment
Geochemistry	1,000,000	Rock, soil, drill core and
		cuttings, prep and assay
Admin and Operations	750,000	Office, salaries, travel, reporting
TOTAL	7,500,000	

TABLE 23 2008 EXPLORATION BUDGET

21.0 DATE AND SIGNATURE PAGE

The effective date of this technical report, entitled "Summary Report on the Livengood Project, Tolovana District, Alaska" is August 1, 2008.

Dated August 1, 2008

Signed:

(signed) *Paul Klipfel* Dr. Paul Klipfel, Ph.D, CPG#10821

[Sealed: CPG#10821]

(signed) Gary Giroux Gary H. Giroux, M.Sc., P.Eng. [Sealed]

(signed) *Chris Puchner* Chris Puchner, CPG#07048

22.0 REFERENCES

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23.0 CERTIFICATES OF AUTHORS

MINERAL RESOURCE SERVICES, INC.

CERTIFICATE OF AUTHOR

- I, Paul D. Klipfel Ph.D., do hereby certify that:
 - I am President of : Mineral Resource Services, Inc. 4889 Sierra Pine Dr. Reno, NV 89519
 - 2. I have graduated from the following Universities with degrees as follows:
 - a. San Francisco State University,
 - b. University of Idaho,
 - c. Colorado School of Mines
 - d. Colorado School of Mines
- B.A. geology1978M.S. economic geology1981M.S. mineral economics1988Ph.D. economic geology1992
- 3. I am a member in good standing of the following professional associations:
 - a. Society of Mining Engineers
 - b. Society of Economic Geologists
 - c. Geological Society of America
 - d. Society for Applied Geology
 - e. American Institute of Professional Geologists
 - f. Sigma Xi
- 4. I have worked as a mineral exploration geologist for 28 years since my graduation from San Francisco State University.
- 5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with professional associations and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
- 6. I am responsible for the preparation of all sections of the technical report titled "Summary Report on the Livengood Project, Tolovana District, Alaska" and dated August 1, 2008 (the "Technical Report") relating to the Livengood property except section 17 on resource evaluation which was prepared by Mr. G. Giroux. I visited the Livengood property on June 16, 2006 for 1 day, a second time for two days on October 4-5, 2007 and again on July 1-3, 2008.

4889 Sierra Pine Dr.RenoNV89519ph: 775 742-2237p.klipfel@sbcglobal.net

- 7. Prior to being retained by ITH in 2006, I have not had prior involvement with the property that is the subject of the Technical Report.
- 8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 9. I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101.
- 10. I have read National Instrument 43-101 and Form 101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 1st day of August, 2008

(signed) Paul Klipfel Signature of Qualified Person [Sealed: AIPG#10821]

Paul D. Klipfel, Ph.D, CPG[AIPG] Print name of Qualified Person

CERTIFICATE of G.H. Giroux

I, G.H. Giroux, of 982 Broadview Drive, North Vancouver, British Columbia, do hereby certify that:

- 1) I am a consulting geological engineer with an office at #1215 675 West Hastings Street, Vancouver, British Columbia.
- 2) I am a graduate of the University of British Columbia in 1970 with a B.A. Sc. and in 1984 with a M.A. Sc., both in Geological Engineering.
- 3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 4) I have practiced my profession continuously since 1970. I have had over 30 years experience calculating mineral resources. I have previously completed resource estimations on a wide variety of precious metal deposits both in B.C. and around the world, many similar to Livengood.
- 5) I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in National Instrument 43-101.
- 6) This report titled "Summary Report on the Livengood Project, Tolovana District, Alaska" dated August 1, 2008 (the "Technical Report"), is based on a study of the data and literature available on the Livengood Property. I am responsible for Section 17 on the resource estimations completed in Vancouver during 2007-08. I have not visited the property.
- 7) I have not previously worked on this deposit.
- 8) As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- 9) I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101.
- 10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 1st day of August, 2008

(signed) Gary Giroux Signature of Qualified Person [Sealed]

Gary H. Giroux, M.Sc., P.Eng. Print name of Qualified Person

CERTIFICATE of Chris Puchner

I, Chris Puchner, CPG 07048 do hereby certify that:

- I am Chief Geologist of: International Tower Hill Mines Ltd. 8955 S. Ridgeline Blvd., Suite 1800 Highlands Ranch, CO 80129
- 2. I have graduated from the following university with a degree as follows:
 - a. Dartmouth College, B.A. geology 1977
- 3. I am a member in good standing of the following professional associations:
 - a. Society of Economic Geologists
 - b. Geological Society of America
 - c. American Institute of Professional Geologists
- 4. I have worked as a mineral exploration geologist for 31 years since my graduation from Dartmouth College.
- 5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with professional associations and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
- 6. I am responsible for the preparation of all portions of the technical report titled "**Summary Report on the Livengood Project, Tolovana District, Alaska**" and dated August 1, 2008 (the "Technical Report") relating to the Livengood property. I have overseen the exploration of the Livengood property since 2004, have spent over 300 days on site, and am the currently managing the project.
- 7. I have worked on this deposit while employed as a consultant to AngloGold Ashanti (North America) Inc. in 2004, as a consultant to ITH in 2006, and as an employee of ITH since January 15, 2007.
- 8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 9. I am **not** independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101, by virtue of being an employee of ITH and the holder of securities of ITH

10. I have read National Instrument 43-101 and Form 101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 1st day of August, 2008

(signed) Chris Puchner Signature of Qualified Person

Chris Puchner, CPG Print name of Qualified Person

24.0 ILLUSTRATIONS



FIGURE 1 LOCATION MAP SHOWING THE LOCATION OF THE LIVENGOOD PROJECT.



FIGURE 2 CLAIM MAP SHOWING THE LIVENGOOD LAND POSITION.

A) The AMHL Lease is shown in yellow and holdings belonging to other parties shown in respective colors. B) Detailed map of the individual claims within the AMHL Lease





FIGURE 3 PANORAMA OF MONEY KNOB AND THE PROJECT AREA.

Red outline shows area of soil anomaly. Blue lines outline placer workings to the north in Livengood Creek.



FIGURE 4 TERRANE MAP OF ALASKA SHOWING THE LOCATION OF THE LIVENGOOD TERRANE (RED ARROW).

The heavy black line north of the Livengood Terrane is the Tintina Fault. The heavy black line to the south of the Livengood and Yukon – Tanana Terrane (YT) is the Denali Fault. The Tintina Gold Belt lies between these two faults. After Goldfarb, 1997.



B

FIGURE 5 GEOLOGIC CROSS SECTION AND MAP OF THE LIVENGOOD PROJECT AREA (ATHEY, ET AL., 2004).

A) Cross section through Money Knob illustrating the geological components of the Livengood District. IPZZmc are older siliceous shelf metasediments. Cs, Cgs and Cmg are Cambrian mafic and ultramafic volcanics and intrusive rocks of oceanic ophiolitic affinity. Dc represents Devonian siliciclastic sediments. The thrust imbrication may reflect two deformation events, one in the Permian and one in the Middle Cretaceous. The thrust package has been intruded by a number of Cretaceous felsic intrusions. B) Geologic map showing the location of the cross section A-A'. Pink symbols identify intrusive rocks.



FIGURE 6 PHOTOGRAPHS OF KEY ROCK TYPES AT LIVENGOOD.

A) ultramafic rock with carbonate alteration (yellow-brown); MK7-20, 13.5m B) siltstone with carbonate and pyrite knots. Brown color is oxidation front. MK 07-18, 8.5m C) sedimentary conglomerate; at least some clasts appear to be rip-up clasts of similar sedimentary rocks; brown color is probably after introduced carbonate; MK07-18, 41.2m; D) sedimentary conglomerate; at least some clasts appear to be rip-up clasts of similar sedimentary rocks; brown color is probably after introduced carbonate; MK07-18, 41.2m; D) sedimentary conglomerate; at least some clasts appear to be rip-up clasts of similar sedimentary rocks; brown color is probably after introduced carbonate; MK07-18, 57.7m; E) argillite with pyrite; MK07-20, 222m; F) argillite with siltstone band; MK07-18, 280 ; G) tuff showing lithic fragments; this unit contains MK07-18, 190m 0.23 - 0.75 g/t Au; H) fine-grained tuffaceous sediment; MK07-20, 151.5m.



FIGURE 7 PHOTOGRAPHS OF KEY ROCK TYPES AND MINERALIZATION FEATURES.

A) porphryry dike; MK07-18, 41.2 m; 1.01 g/t Au B) amygdaloidal volcanic, presumably a flow, with possible Na alteration; MK07-18, 152-189 C) silicified volcanic breccia; MK07-18 D) argillite with more silty band and coral hash; note the shearing which is approximately 30° to bedding; MK07-18, 288.4m E) axial planar cleavage on fold nose in interlayered argillite – silty argillite; MK07-18, 296.11m. This type of feature supports the fold-thrust interpretations of the cross section shown in Figure 10. F) fault; broken siltstone fragments in clay gouge/shear zone; this is part of an ~8m interval which contains 2 - 22.4 g/t Au; MK07-18, 77.9 – 86.08m G) broken rock in shear zone within mineralized interval. The material in the photo includes portions of sample intervals that contain 15-16.2 g/t Au; MK 07-18, 96.93m H) narrow mineralized quartz vein in silicified volcanic contains 13 g/t Au and 35,900ppm As from arsenopyrite; MK07-18, 136.5m

Summary Report On The Livengood Project, Tolovana District, Alaska August 1, 2008 432000° 30000 Main Volcanics 7266000°N Devonian Sediments Cambrian Mafic Rocks **Rock Sample** A Cretaceous Intrusive Devonian Igneous Ester Pluton Soils Ta_ppm 1.12 to 3.01 0.67 to 1.12 0.41 to 0.67 . 0.02 to 0.41



Illustrates rock and soil sample data and the manner in which it identifies various rock types.



FIGURE 9 DETAILED GEOLOGIC MAP OF THE MONEY KNOB AREA.

Showing drill hole locations and traces (2007 holes in red). White swaths indicate the location of sections shown below.





Red histograms to the right of drill traces indicates relative gold content



FIGURE 11 INTERPRETED CROSS SECTION AT THE SADDLE SECTION LOCATION.

Red histogram to the right of the drill trace indicates relative gold content. Fold is inferred from bedding dip measurements made in surface trenches and in the lower sediments in MK-07-24.



FIGURE 12 INTERPRETED CROSS SECTION AT THE SOUTHWEST SECTION LOCATION.

Red histogram to the right of the drill trace indicates relative gold content.



FIGURE 13 PLOT OF SOIL SAMPLES.

Color coding shows relative gold content with red indicating gold ≥ 0.100 g/t Au. The green line encloses the area containing anomalous gold samples



FIGURE 14 DISTRIBUTION OF DRILLING IN THE MONEY KNOB AREA.

Drilling illustrated by (red outline) with respect to anomalous soil samples (green outline). The majority of the soil geochemical target remains untested.



FIGURE 15 DISTRIBUTION OF 2008 DRILLING IN THE MONEY KNOB AREA.



FIGURE 16 PERSPECTIVE VIEW OF MODELED SOLIDS.

A) This view shows volcanic solids; upper in red, lower in green, topographic surface in grey; B) same diagram but with the addition of the solid representing the surrounding sedimentary rocks. Drill hole traces are shown as thin gray lines..

25.0 APPENDICES

APPENDIX 1 CLAIM/PROPERTY INFORMATION

Owner	File Number	Tenure Name	Date Acquired	MTRS Location
Alaska State Lease				
Alaska Mental Health Land Trust	9400248	AMHLT - ML	1-Jul-2004	F008N005W
Federal Patented Claims				
	MS 1990,			
Griffin beirs	Patent 1041576	Mastodon	18-Jan-2007	E008N005W
	MS 1990,	Masteach	10 0011 2007	10001100011
Griffin heirs	Patent 1041576	Piedmont	18-Jan-2007	F008N005W
	MS 1990,			
Griffin heirs	Patent 1041576	Yukon	18-Jan-2007	F008N005W
Federal Unpatented Claims		•	•	
Richard Hudson	55469	ANNE	21-Apr-2003	F008N005W24
Richard Hudson	55466	BLACK ROCK	21-Apr-2003	F008N005W24
Richard Hudson	55471	BRIDGET	21-Apr-2003	F008N005W24
Richard Hudson	55453	DOROTHEA	21-Apr-2003	F008N005W23
Richard Hudson	55470	EILEEN	21-Apr-2003	F008N005W24
Richard Hudson	55455	FOSTER	21-Apr-2003	F008N005W24
Richard Hudson	55454	LENORA	21-Apr-2003	F008N005W23
Richard Hudson	55459	NICKIE	21-Apr-2003	F008N005W24
Richard Hudson	55464	OLD SMOKY	21-Apr-2003	F008N005W23
Richard Hudson	55468	PATRICIA	21-Apr-2003	F008N005W13
Richard Hudson	55460	PATRICK	21-Apr-2003	F008N005W23
Richard Hudson	55458	SAUNDERS	21-Apr-2003	F008N005W23
Richard Hudson	55452	SHARON	21-Apr-2003	F008N005W23
Richard Geraghty	55462	SUNSHINE #1	21-Apr-2003	F008N005W23
Richard Geraghty	55463	SUNSHINE #2	21-Apr-2003	F008N005W23
Richard Hudson	55467	TRAPLINE	21-Apr-2003	F008N005W24
Richard Hudson	55457	TWERPIT	21-Apr-2003	F008N005W24
Richard Hudson	55456	VANCE	21-Apr-2003	F008N005W24
Richard Hudson	55461	WHITE ROCK	21-Apr-2003	F008N005W23
Richard Hudson	55465	WITTROCK	21-Apr-2003	F008N005W23
Ronald Tucker	37580	Lillian No. 1	30-Sep-1968	F008N005E22
Ronald Tucker	37581	Satellite	30-Sep-1968	F008N005E22
Ronald Tucker	37582	Nickel Bench R.L.*	30-Jun-1972	F008N005E22 & 15
Ronald Tucker	37583	The Nickel*	12-Aug-1965	F008N005E22
Ronald Tucker	37584	Overlooked*	6-Sep-1975	F008N005E22
Ronald Tucker	37585	The Lad*	12-Aug-1965	F008N005E22
State Claims				
Karl Hanneman and Bergelin Family Trust	330936	LUCKY 55	14-May-1981	F009N004W33
Karl Hanneman and Bergelin Family Trust	330937	LUCKY 56	14-May-1981	F009N004W33
Karl Hanneman and Bergelin Family Trust	330938	LUCKY 64	13-May-1981	F009N004W32 F009N004W33
Karl Hanneman and Bergelin Family Trust	330939	LUCKY 65	14-May-1981	F009N004W33
Karl Hanneman and Bergelin Family Trust	330940	LUCKY 66	14-May-1981	F009N004W33

Summary Report On The Livengood Project, Tolovana District, Alaska File Tenure Date Owner Acquired Number Name Karl Hanneman and Bergelin Family Trust 330941 LUCKY 72 12-May-1981 Karl Hanneman and Bergelin Family Trust <u>13-May-1981</u> 330942 LUCKY 73 Karl Hanneman and Bergelin Family ruot

Kari Hanneman and Bergelin Family Trust	330943	LUCKY 74	13-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330944	LUCKY 75	14-May-1981	F008N004W04
Karl Hanneman and Bergelin Family Trust	330945	LUCKY 76	14-May-1981	F008N004W04
Karl Hanneman and Bergelin Family Trust	330946	LUCKY 82	12-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330947	LUCKY 83	13-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330948	LUCKY 84	13-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330949	LUCKY 85	14-May-1981	F008N004W04
Karl Hanneman and Bergelin Family Trust	330950	LUCKY 86	14-May-1981	F008N004W04
Karl Hanneman and Bergelin Family Trust	330951	LUCKY 91	12-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330952	LUCKY 92	12-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330953	LUCKY 93	13-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330954	LUCKY 94	13-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330955	LUCKY 95	14-May-1981	F008N004W04
Karl Hanneman and Bergelin Family Trust	330956	LUCKY 96	14-May-1981	F008N004W04
Karl Hanneman and Bergelin Family Trust	330957	LUCKY 101	12-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330958	LUCKY 102	12-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330959	LUCKY 103	12-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330960	LUCKY 104	12-May-1981	F008N004W05
Karl Hanneman and Bergelin Family Trust	330961	LUCKY 105	12-May-1981	F008N004W04
Karl Hanneman and Bergelin Family Trust	330962	LUCKY 106	12-May-1981	F008N004W04
Karl Hanneman and Bergelin Family Trust	330963	LUCKY 202	13-May-1981	F008N004W08
Karl Hanneman and Bergelin Family Trust	330964	LUCKY 203	13-May-1981	F008N004W08
Karl Hanneman and Bergelin Family Trust	330965	LUCKY 204	15-May-1981	F008N004W08
Karl Hanneman and Bergelin Family Trust	330966	LUCKY 205	13-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	330967	LUCKY 206	14-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	330968	LUCKY 207	14-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	330969	LUCKY 208	14-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	330970	LUCKY 302	13-May-1981	F008N004W08
Karl Hanneman and Bergelin Family Trust	330971	LUCKY 303	13-May-1981	F008N004W08
Karl Hanneman and Bergelin Family Trust	330972	LUCKY 304	15-May-1981	F008N004W08
Karl Hanneman and Bergelin Family Trust	330973	LUCKY 305	13-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	330974	LUCKY 306	14-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	330975	LUCKY 307	14-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	330976	LUCKY 308	14-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	330977	LUCKY 404	15-May-1981	F008N004W08
Karl Hanneman and Bergelin Family Trust	330978	LUCKY 405	13-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	330979	LUCKY 406	14-May-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	338477	LUCKY 198	17-Sep-1981	F008N004W07
Karl Hanneman and Bergelin Family Trust	338478	LUCKY 199	17-Sep-1981	F008N004W07
Karl Hanneman and Bergelin Family Trust	338479	LUCKY 295	17-Sep-1981	F008N005W12
Karl Hanneman and Bergelin Family Trust	338480	LUCKY 296	17-Sep-1981	F008N005W12
Karl Hanneman and Bergelin Family Trust	338481	LUCKY 297	17-Sep-1981	F008N004W07
Karl Hanneman and Bergelin Family Trust	338482	LUCKY 298	17-Sep-1981	F008N004W07
Karl Hannoman and Paraolin Family Trust	338483	LUCKY 299	17-Sep-1981	F008N004W07
	338484	LUCKY 392	21-Sep-1981	F008N005W11
Karl Hanneman and Bergelin Family Trust	338485	LUCKY 395	18-Sep-1981	F008N005W12
Karl Hannoman and Paraolia Camily Trust	338486	LUCKY 396	18-Sep-1981	F008N005W12
Kan Hanneman and Bergelin Family Trust	338487	LUCKY 397	18-Sep-1981	F008N004W07

Paul Klipfel, MRS Inc.

August 1, 2008

MTRS Location

F008N004W05

F008N004W05

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Owner	File Number	Tenure Name	Date Acquired	MTRS Location
Karl Hanneman and Bergelin Family Trust	338488	LUCKY 398	18-Sep-1981	F008N004W07
Karl Hanneman and Bergelin Family Trust	338489	LUCKY 399	17-Sep-1981	F008N004W07
Karl Hanneman and Bergelin Family Trust	338490	LUCKY 400	23-Sep-1981	F008N004W07 F008N004W08
Karl Hanneman and Bergelin Family Trust	338491	LUCKY 491	21-Sep-1981	F008N005W11
Karl Hanneman and Bergelin Family Trust	338492	LUCKY 492	21-Sep-1981	F008N005W11
Karl Hanneman and Bergelin Family Trust	338493	LUCKY 493	21-Sep-1981	F008N005W12
Karl Hanneman and Bergelin Family Trust	338494	LUCKY 494	21-Sep-1981	F008N005W12
Karl Hanneman and Bergelin Family Trust	338495	LUCKY 495	18-Sep-1981	F008N005W12
Karl Hanneman and Bergelin Family Trust	338496	LUCKY 496	18-Sep-1981	F008N005W12
Karl Hanneman and Bergelin Family Trust	338497	LUCKY 497	18-Sep-1981	F008N004W07
Karl Hanneman and Bergelin Family Trust	338498	LUCKY 498	18-Sep-1981	F008N004W07
Karl Hanneman and Bergelin Family Trust	338499	LUCKY 499	17-Sep-1981	F008N004W07
Karl Hanneman and Bergelin Family Trust	338500	LUCKY 500	23-Sep-1981	F008N004W07 F008N004W08
Karl Hanneman and Bergelin Family Trust	338501	LUCKY 504	10-Sep-1981	F008N004W08
Karl Hanneman and Bergelin Family Trust	338502	LUCKY 505	10-Sep-1981	F008N004W09
Karl Hanneman and Bergelin Family Trust	338503	LUCKY 589	21-Sep-1981	F008N005W14
Karl Hanneman and Bergelin Family Trust	338504	LUCKY 590	21-Sep-1981	F008N005W14
Karl Hanneman and Bergelin Family Trust	338505	LUCKY 591	21-Sep-1981	F008N005W14
Karl Hanneman and Bergelin Family Trust	338506	LUCKY 592	21-Sep-1981	F008N005W14
Karl Hanneman and Bergelin Family Trust	338507	LUCKY 593	21-Sep-1981	F008N005W13
Karl Hanneman and Bergelin Family Trust	338508	LUCKY 594	21-Sep-1981	F008N005W13
Karl Hanneman and Bergelin Family Trust	338509	LUCKY 595	18-Sep-1981	F008N005W13
Karl Hanneman and Bergelin Family Trust	338510	LUCKY 596	18-Sep-1981	F008N005W13
Karl Hanneman and Bergelin Family Trust	338511	LUCKY 597	18-Sep-1981	F008N004W18
Karl Hanneman and Bergelin Family Trust	338512	LUCKY 598	18-Sep-1981	F008N004W18
Karl Hanneman and Bergelin Family Trust	338513	LUCKY 599	17-Sep-1981	F008N004W18
Karl Hanneman and Bergelin Family Trust	338514	LUCKY 689	22-Sep-1981	F008N005W14
Karl Hanneman and Bergelin Family Trust	338515	LUCKY 690	22-Sep-1981	F008N005W14
Karl Hanneman and Bergelin Family Trust	338516	LUCKY 691	22-Sep-1981	F008N005W14
Karl Hanneman and Bergelin Family Trust	338517	LUCKY 692	22-Sep-1981	F008N005W14
Karl Hanneman and Bergelin Family Trust	338518	LUCKY 693	22-Sep-1981	F008N005W13
Karl Hanneman and Bergelin Family Trust	338519	LUCKY 694	22-Sep-1981	F008N005W13
Karl Hanneman and Bergelin Family Trust	338520	LUCKY 697	18-Sep-1981	F008N004W18
Karl Hanneman and Bergelin Family Trust	338521	LUCKY 698	18-Sep-1981	F008N004W18
Karl Hanneman and Bergelin Family Trust	338522	LUCKY 699	17-Sep-1981	F008N004W18
Karl Hanneman and Bergelin Family Trust	347943	LC 407	5-Jun-1982	F008N004W18
Karl Hanneman and Bergelin Family Trust	347945	LC 502	5-Jun-1982	F008N004W08
Karl Hanneman and Bergelin Family Trust	347946	LC 503	5-Jun-1982	F008N004W08
Karl Hanneman and Bergelin Family Trust	347947	LC 506	7-Jun-1982	F008N004W09
Karl Hanneman and Bergelin Family Trust	347948	LC 507	7-Jun-1982	F008N004W09
Karl Hanneman and Bergelin Family Trust	347949	LC 600	5-Jun-1982	F008N004W17 F008N004W18
Karl Hanneman and Bergelin Family Trust	347950	LC 601	5-Jun-1982	F008N004W17
Karl Hanneman and Bergelin Family Trust	347951	LC 602	5-Jun-1982	F008N004W17
Karl Hanneman and Bergelin Family Trust	347952	LC 603	5-Jun-1982	F008N004W17
Karl Hanneman and Bergelin Family Trust	347953	LC 604	6-Jun-1982	F008N004W17
Karl Hanneman and Bergelin Family Trust	347954	LC 605	6-Jun-1982	F008N004W16
Karl Hanneman and Bergelin Family Trust	347955	LC 695	10-Jun-1982	F008N005W13

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Karl Hanneman and Bergelin Family Trust

Karl Hanneman and Bergelin Family Trust

Gary Giroux, Giroux Consulting Ltd.

LC 696

LC 700

347956

347957

Chris Puchner, ITH Mines Ltd.

10-Jun-1982

6-Jun-1982

F008N005W13

F008N004W17

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Paul Klipfel, MRS Inc.

Summary Report On The Livengood Pro	August 1, 2008			
Owner	File Number	Tenure Name	Date Acquired	MTRS Location
Karl Hanneman and Bergelin Family Trust	348826	LC 1286	26-May-1982	F008N005W22
Karl Hanneman and Bergelin Family Trust	348827	LC 1287	26-May-1982	F008N005W22
Karl Hanneman and Bergelin Family Trust	348828	LC 1288	2-Jun-1982	F008N005W22
Karl Hanneman and Bergelin Family Trust	348829	LC 1382	27-May-1982	F008N005W28
Karl Hanneman and Bergelin Family Trust	348830	LC 1383	27-May-1982	F008N005W28
Karl Hanneman and Bergelin Family Trust	348831	LC 1384	27-May-1982	F008N005W28
Karl Hanneman and Bergelin Family Trust	348832	LC 1385	27-May-1982	F008N005W27
Karl Hanneman and Bergelin Family Trust	361326	LUCKY 90	24-Oct-1983	F008N004W06
Karl Hanneman and Bergelin Family Trust	361327	LUCKY 100	24-Oct-1983	F008N004W06
Karl Hanneman and Bergelin Family Trust	361328	LUCKY 200	24-Oct-1983	F008N004W07
Karl Hanneman and Bergelin Family Trust	361329	LUCKY 294	28-Oct-1983	F008N005W12
Karl Hanneman and Bergelin Family Trust	361330	LUCKY 300	24-Oct-1983	F008N004W07
Karl Hanneman and Bergelin Family Trust	361331	LUCKY 394	28-Oct-1983	F008N005W12
Karl Hanneman and Bergelin Family Trust	361332	LUCKY 401	24-Oct-1983	F008N004W08
Karl Hanneman and Bergelin Family Trust	361333	LUCKY 402	24-Oct-1983	F008N004W08
Karl Hanneman and Bergelin Family Trust	361334	LUCKY 403	24-Oct-1983	F008N004W08
Karl Hanneman and Bergelin Family Trust	361335	LUCKY 501	24-Oct-1983	F008N004W08

* - Placer claim

Note: Meridian Township Range and Section (MTRS) Location is the Federal land location system. Example F006S013E12 is a section of land located in the Fairbanks Meridian, Township 6 South, Range 13 East, Section 12.

APPENDIX 2 LIST OF DRILL HOLES

Drill holes used in Resource are Highlighted Holes within Volx_upp and Volx_flt Solids

HoleID	UTM_East	UTM_North	Elev_m	Depth_m
BAF-1	430060.00	7266021.00	518.20	213.40
BAF-2	430073.00	7266149.00	525.50	152.40
BAF-3	429760.00	7266096.00	506.00	150.90
BAF-4	430073.00	7265881.00	476.70	216.40
BAF-5	430078.00	7265765.00	460.20	189.90
BAF-6	429745.00	7265979.00	515.10	134.10
BAF-7	430056.00	7266034.00	518.20	304.80
BAF-8	430342.00	7266042.00	524.90	152.40
L-1	429726.00	7265450.00	503.00	31.00
L-2	429350.00	7265457.00	506.00	73.00
L-3	429050.00	7265715.00	468.00	46.00
L-4	429045.00	7265688.00	470.00	20.00
L-5	428910.00	7265675.00	454.00	70.00
L-6	428805.00	7265640.00	441.00	70.00
LC-TR-01	428883.00	7266132.00	358.14	91.44
LC-TR-02	428859.00	7266041.00	358.14	68.58
MK-04-01	428734.36	7265595.83	421.50	109.73
MK-04-02	428492.11	7265737.81	361.60	305.71
MK-04-03	428674.66	7265520.37	412.20	208.80
MK-04-04	428547.65	7265813.38	354.40	137.80
MK-04-TP1	429594.00	7265670.00	510.00	2.00
MK-04-TP2	429583.00	7265653.00	512.00	2.00
MK-04-TR1	429541.10	7265537.03	524.72	34.00
MK-04-TR2E	429598.04	7265763.08	514.78	85.00
MK-04-TR2S	429598.04	7265763.08	514.78	20.00
MK-04-TR2W	429597.06	7265763.30	514.78	85.00
MK-04-TR3	429602.98	7265703.95	516.44	33.40
MK-04-TR5	429570.00	7265621.00	512.00	15.00
MK-06-05	429099.00	7266101.00	403.00	305.10
MK-06-06	429299.00	7266298.00	405.00	205.44
MK-06-07	428772.31	7265845.05	412.80	276.45
MK-06-08	428915.27	7265896.90	408.70	288.34
MK-06-09	427614.00	7264251.00	223.70	124.66
MK-06-10	427533.00	7264335.00	228.20	10.36
MK-06-11	427691.00	7264430.00	242.30	17.07
MK-07-12	428915.27	7265896.90	408.70	282.85
MK-07-13	428773.31	7265847.55	412.80	351.13
MK-07-14	428774.81	7265846.05	412.80	44.81
MK-07-15	428774.81	7265849.05	412.80	281.64
MK-07-16	430220.00	7265985.00	531.27	332.84
MK-07-17	428773.40	7265621.64	427.70	421.84
MK-07-18	428853.64	7265780.23	431.80	301.14
MK-07-19	429002.64	7265704.11	458.40	436.17
MK-07-20	428851.71	7265720.07	435.30	244.30
MK-07-21	428925.82	7265760.62	440.20	309.98

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HoleID	UTM_East	UTM_North	Elev_m	Depth_m
MK-07-22	428703.31	7265763.84	408.50	382.83
MK-07-23	429075.75	7265779.26	458.80	290.17
MK-07-24	429529.82	7265631.08	508.90	372.16
MK-07-25	428399.64	7265252.85	368.20	330.40
MK-07-26	429900.00	7265470.00	438.00	28.35
MK-1	428945.00	7265820.00	442.00	76.00
MK-2	428825.00	7265850.00	427.00	77.00
MK-3	429500.00	7266190.00	465.00	0.00
MK-4	429493.00	7266117.00	478.00	0.00
MK-5	428660.00	7265925.00	368.00	0.00
MK-6	428680.00	7265940.00	367.00	0.00
MN-1	428864.00	7266045.00	358.14	106.68
MN-2	428864.00	7266045.00	358.14	106.68
MN-3	428745.00	7266065.00	335.28	106.68
TL-10	428183.00	7265586.00	358.00	79.00
TL-11	429528.00	7266520.00	370.00	105.00
TL-12	429223.00	7266654.00	318.00	200.00
TL-13	429054.00	7266654.00	307.00	150.00
TL-14	427780.00	7265504.00	266.51	124.00
TL-6	433265.00	7269380.00	277.00	43.89
TL-7	428443.00	7266477.00	317.00	101.00
TL-8	428443.00	7266477.00	317.00	192.00
TL-9	428443.00	7266477.00	317.00	105.00



APPENDIX 3 SEMIVARIOGRAMS









