Free gold in quartz – from diamond drill core on the Vogel Property (eastern portion of the Bell Creek Complex).

"TECHNICAL (GEOLOGICAL) REPORT on the BELL CREEK COMPLEX"

Hoyle Township, Porcupine Mining Division, Ontario, Canada

Center of Bell Creek Complex
(Vogel Property, Schumacher III Estate Property and Bell Creek Assets) at
Latitude ~ 48° 33' 01" N, Longitude ~ 81° 10' 09" W, and
UTM Zone 17, ~ 487500m E, ~5377500m N (NAD 83), and NTS 42A/11

Prepared for

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by

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(APGO No. 350)

April 29, 2008

(sealed)

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3. SUMMARY

3.1 Lake Shore Gold Corp.

In 2002, Lake Shore Gold Corp. (TSX-LSG, "Lake Shore" or the "Company") became an explorer for gold and base metals in the Canadian Shield. The Company has focused its *initial exploration search* in the principal gold camps of the Abitibi Greenstone Belt in Ontario and Quebec, as well as in the greenstone belts of northwestern Ontario. Through business arrangements with Aurora Platinum Corp., the Company was able to secure both technical expertise and a portfolio of mineral properties. In December 2004, Lake Shore added the Timmins West Gold Property ("Timmins West") to its stable of advanced gold projects by acquiring all of the issued shares of Holmer Gold Mines Ltd. by way of a plan of arrangement approved by the Supreme Court of British Columbia on December 30, 2004, a process that also acquired further experienced personnel with direct knowledge of the Porcupine Gold Camp. Lake Shore then acquired the Vogel Property in March 2005 (Lake Shore *News Release* dated March 7, 2005; Innes and Booth, 2005a) and the Schumacher III Estate Property in December 2005 (Lake Shore *News Release* dated December 1, 2005; Innes and Booth, 2005b). On December 18, 2007, Lake Shore finalized the acquisition of the "Bell Creek Assets" from the Porcupine Joint Venture ("PJV"). The "Bell Creek Assets" include the Bell Creek Mine and decommissioned Bell Creek Mill including the hoist, headframe, underground mine infrastructure, and including permitted tailings facilities, as well as road and electric-power access (Lake Shore *News Release* dated December 18, 2007; Brown, 2007).

In May 2006, Lake Shore announced that it had initiated an exploration program and office-based work schedule for the Vogel and Schumacher III Estate Properties in order to determine whether the next step would logically follow – to find sufficient economic assets (as gold mineralization) to justify obtaining the necessary government permits to conduct *an underground exploration program*. Under the most favourable condition, this program and schedule would have led to necessary environmental, mining engineering, and infrastructure studies – including, but not restricted to, shaft and/or ramp construction, mine-plan scheduling, underground-drilling and bulk-sampling programs. As part of this effort, surface drilling was undertaken to find outcrop highs under "clay belt" overburden and the Rock Quality Designation ("RQD") of drill core was logged for future mining engineering studies. In the most favourable case, the Vogel and Schumacher III Estate Properties would then have been included as part of an ongoing Timmins West pre-feasibility study. Completion of this work was designed to initiate *underground exploration programs* at both the Vogel and Schumacher III Estate Properties but most recently, now includes the adjacent Bell Creek Assets. Current and future studies *outside the scope of this technical (geological) report* include the costs and permitting required to recommission the Bell Creek Mill - a dedicated gold mill.

This report outlines the known geology and mineralization on the Vogel, Schumacher III Estate and Bell Creek Assets Properties – contiguous properties herein called the "Bell Creek Complex," (also "BCC"). At the time of writing, *all* gold-bearing mineralization assets underlying the Bell Creek Complex are classified as exploratory in nature.

3.2 Summary Vogel Property

In March 2005, Lake Shore purchased 100% of Black Hawk Mining Inc.'s interest under *a mining and surface rights patent* (Boer War "Veteran's Lot" or "Vet Lot") herein called the Vogel Property. This Property, which is subject to a maximum 3% NSR royalty, comprises ~64 hectares occupying the north half of Lot 8 Concession I in Hoyle Township, within the boundaries of the City of Timmins. There appears to be an ~800 meter ("m") strike length of favourable gold-bearing structures striking E-W across the Property and it occurs ~2 kilometers ("km") to the west of the currently producing Hoyle Pond Gold Mine, and 700 m west of the former gold-producing Owl Creek open pit. About 1.2 km to the NW, the Bell Creek Mine was a former gold producer.

The Vogel Property has been explored by several companies in the past and in 2003, Glencairn derived a "measured and indicated resource" of *circa* 643,000 metric tonnes ("tonnes" or "mt") grading ~12.2 g/mt Au and an "inferred resource" of *circa* 933,800 tonnes at 12.2 g/mt Au ("g/mt" or "grams per metric tonne"). At the time of writing, the Company *is undertaking a computer-based program* to confirm these estimates. Previous *historical resource estimates* give broadly similar results and were prepared using categories that were *in accordance* with standards commonly used by companies and qualified experts with knowledge of the Porcupine Gold Camp – that is, standards that were in common usage prior to the February 2001 implementation of NI43-101.

During 2005, Lake Shore conducted an 18-hole exploration diamond drill program for 4,475 m to delineate subhorizontal ("flats") and NE-oriented gold-bearing vein sets, both of which are important gold-hosting structures at the adjacent Hoyle Pond Gold Mine. Another 6 holes for 2,467 m were drilled in 2006. This work showed new but Property-typical vertical and horizontal gold-bearing veins in breccia within "massive volcanics" with, for instance, down-the-hole drill intersections returning 106.90 g/mt Au over 2.0 m, 18.64 g/mt Au over 1.2 m, 16.09 g/mt Au over 0.7 m, 11.74 g/mt Au over 1.0 m and 10.89 g/mt Au over 1.1 m (Booth and Brown, 2007b).

3.3 Summary Schumacher III Estate Property

In late 2005, Lake Shore signed a 20-year leasing agreement with the Canada Trust Company (the trustee of the estate of Frederick William Schumacher) to acquire a 100% interest in *a mining and surface rights patent* - the Schumacher III Estate Property (Boer War "Vet Lot") located contiguous and to the west of the Vogel Property. The acquisition is subject to a 2% NSR royalty. The Property occupies the north half of Lot 9 Concession I in Hoyle Township (~64 hectares), within the boundaries of the City of Timmins, and has had surface exploration drilling programs in the past.

Past exploration focus has been on the eastern part of the Property where *a historical* "measured and indicated resource" of *circa* 156,000 tonnes at 5.99 g/mt Au has been estimated (Pentland Firth Ventures Ltd.). This resource, which seems to remain open, represents the western continuation of the immediately adjacent Vogel Property gold mineralizing system. At the time of writing, the Company has not completed the work necessary to reconcile these historical resource estimates in accordance with NI43-101.

As for the Vogel Property, historical data were prepared using resource categories that were *in accordance* with standards that were commonly used by companies and qualified experts with knowledge of the Porcupine Gold Camp – that is, standards that were in common usage prior to the February 2001 implementation of NI43-101.

3.4 Summary Bell Creek Assets

On January 31, 2007, Lake Shore signed a binding Letter of Agreement with Goldcorp Canada Ltd., manager of the Porcupine Joint Venture (the "PJV"), to acquire the PJV's Bell Creek Mine and Mill and associated infrastructure located in the City of Timmins (Innes and Booth, 2007a) – an acquisition referred to in this report as the "Bell Creek Assets." In a *News Release* dated December 18, 2007 (Brown, 2007) Lake Shore announced, *edited quote*, "Lake Shore Gold Corp. […] has finalized the acquisition of the Bell Creek mine and mill in Timmins, Ontario from [… the PJV]. The acquisition includes the Bell Creek mine property, a hoist, headframe and underground infrastructure, a [rated] 1,500 tonne per day mill with permitted tailings facilities, plus all surface infrastructure, including office buildings and road and hydro access. Consideration for the acquisition will consist of $7.5 million in cash and $2.5 million worth of Lake Shore common shares at a price of $1.51 per share (1,655,629 shares), as well as two million warrants exercisable for a period of two years at $2.41 per share." For further information on the current underlying agreements see Item 6.3 herein.

The Bell Creek Assets are located contiguous to and west of Lake Shore's Vogel and Schumacher III Estate Properties (for details see Table 1 herein) covering an area of ~320 hectares (~800 acres). The Bell Creek Mill has *a stated maximum rated capacity* of 1,500 tonnes per day and utilizes gravity-concentration circuits, as well as cyanide-leaching and carbon-in-pulp gold absorption processes (Still, 2007a). The Mill has been on a care and maintenance basis since the formation of the PJV in 2002 at which time all ore from the Hoyle Pond Gold Mine was re-routed to the Dome Mill farther south. Lake Shore's preliminary review suggests that the Bell Creek Mill might be made operational reasonably quickly – also subject to an active on-going review *outside the scope of this report*. In June 2007, Lake Shore hired a local experienced mill superintendent.

Bell Creek Assets acquisition includes all mineral rights and mineral resources at the Bell Creek Mine. The calculated resources on the Bell Creek Assets were estimated using definitions and guidelines that conformed to NI43-101 as reported by the owners of the PJV on December 31, 2004. At that time, NI43-101 "resources" were estimated to be 190,922 tonnes grading 8.25 g/mt Au, containing 50,641 ounces of gold as an "indicated resource" and 346,936 tonnes at 7.70 g/mt Au containing 85,888 ounces of gold as an "inferred resource" then using a gold price of US $425. These calculations were based on a polygonal model that was updated with a new block model by the PJV in 2005 (that gave similar results), but was then reclassified by the PJV under the heading "mineral inventory." The existing Bell Creek shaft extends to a depth of 280 m with a ramp from the 240m and 300m levels providing access to the "stated resources" above.

A three-hole diamond-drilling program has commenced to test the down-dip extensions of known gold-mineralizing systems at the Bell Creek Mine (Labine, 2008).

3.5 Underground Exploration Program

After an examination of the available data, *the author concludes that the Bell Creek Complex land package has excellent potential for finding economic mesothermal gold resources*. Internal Lake Shore preliminary budgets were outlined for limited surface programs on the Properties prior to the recent acquisition of the Bell Creek Assets and are, therefore, no longer considered to be appropriate.

After the completion of an on-going 3D computer modelling of drill-indicated assets, a Lake Shore *corporate decision is recommended* for *an immediate future program of underground exploration* on the Bell Creek Complex. This undertaking would include an exploration ramp to access the Schumacher III Estate and Vogel Properties approximately at the 100 meter level followed by a program of *underground exploration drilling to bring currently drilled assets into NI43-101 resource categories* in the expectation of finding *underground economic gold resources*. This would be followed by a 20,000 metric tonne bulk sample taken from appropriate levels and locations that would be determined after the underground diamond drilling program results are known. If future studies indicate that the resources are in themselves insufficient to support a stand-alone economic gold-mining operation, their immediacy to the soon-to-be rehabilitated mill, the Bell Creek Mill, would greatly help their economic potential. This corporate decision will undoubtedly be associated with underground bulk sampling plans for the Timmins West Property *that are not the subject of this report*.

Preliminary budgets (see also Item 22.2 herein) have been recently estimated for the program (after Hannu Virtanen, P.Eng, 2008) outlined as follows:

a) Preliminary studies and engineering including the necessary geotechnical work is estimated at $1.4 million.
b) The underground excavations and diamond drilling is estimated at $14.9 million with a 25% contingency of $4.1 million for a total of $20.4 million.

3.6 Conclusions and Recommendations

After an examination of the data, and the methodologies used by Lake Shore experts to derive the gold-resource models, *the author concludes that the Bell Creek Complex land package is a property of merit for finding potentially economic Archean-aged mesothermal gold resources*. Qualified Lake Shore personnel are finalizing budget estimates and scenarios for proposed underground exploration programs, and the author concurs with the methodologies used, and the current estimates so derived.

Therefore, the author recommends that Lake Shore make *a definite corporate decision to implement a program of underground exploration* and firm up exploration scenarios and budgets on the Bell Creek Complex starting with an underground exploration and economic evaluation of the Vogel-Schumacher III Estate portion of the land package.

4. INTRODUCTION

This report is designed to comply with Rules and Policies applying to National Instrument 43-101 ("NI43-101" - Standards of Disclosure for Mineral Projects), and was prepared using Form 43-101F1, and guidelines in Companion Policy 43-101CP.

I was retained by Lake Shore Gold Corp. to assess available technical data as well as review in-house exploration proposals for the Bell Creek Complex (contiguous Vogel, Schumacher III Estate and Bell Creek Assets) in the light of my geological experience in Archean gold deposits (since 1972) as it applies *to the particular exploration techniques suited to the local mineralized environment*. Information for the creation of this technical (geological) report was derived from a number of pre-Company sources, internal reports prepared by Lake Shore personnel, published literature, geological maps and open-file reports, as well as geophysical plans, site visits, sliced diamond drill core and core examination, as well as drill logs prepared by qualified persons and assay certificates.

My first examination of the immediate area, the adjacent Owl Creek Gold Mine, occurred more than 20 years ago. I have examined numerous gold properties (both surface and underground) around Timmins, across the Superior Province and similar-aged deposits in Australia and Brazil. My most recent visit to the Bell Creek Complex occurred on May 17, 2007 for a period of 1 day accompanied by Richard J. Labine P.Geo a well respected Porcupine Gold Camp geologist fully conversant with all aspects of the local geology and with work experience (both surface and underground) at the Owl Creek and Hoyle Pond gold deposits immediately adjacent to the Bell Creek Complex. On that date, the region was experiencing an unusually dry Spring and all access roads, the main topographic features, and the broad condition of the sites were physically examined (Figures 1 and 2). Claim boundaries were seen and conform to surveyed maps.

5. RELIANCE ON OTHER EXPERTS

Professional geoscientists wrote the geological, geophysical and drilling reports referred to herein. Detailed data comes from private-file reports of various current and former public companies unrelated to Lake Shore (for details, see Item 23, "References" herein).

Data also includes internal Lake Shore reports prepared by professional experts known to me. Quoted tonnage estimates made for the Bell Creek Complex' various properties were made by experts acknowledged by the mining industry to be both reliable and generally conservative in their methodologies. Parameters of such estimates may not conform to current CIM guidelines (an internal Lake Shore evaluation is in progress), but they served their purpose as "resource calculations" prior to February 2001 when NI43-101 came into force. Historic "resource" estimates derived are relevant today *since they all have comparable gold results* given the normal statistical distribution of such mineralization on adjacent lands with gold grades to be expected locally (southern Hoyle Township).

A thorough review of *drill logs and assay certificates* issued during previous exploration campaigns shows *internal consistency across all the results*. Accordingly, the author believes the data to be reliable within the testable parameters. Such direct comparisons from different and unrelated company sources also show that there was no need to reassay representative or composite gold samples to accompany this report.

6. PROPERTY DESCRIPTION AND LOCATION

6.1 Vogel Property

In 2005, Lake Shore purchased a 100% interest in the mining lease that is the Vogel Property - a surveyed lot occupying the north half of Lot 8 Concession I in Hoyle Township (parcel 20011SEC), within the boundaries of the City of Timmins. The Property is a freehold patent with both surface and mining rights (granted by the Crown before May 6, 1913) – a Boer War "vet lot" and as such has no requirement to file assessment reports with the Ministry of Northern Development and Mines ("MNDM"). As a "vet lot" in a surveyed township, its boundaries are fixed precisely for an area of ~64 hectares (~160 acres, Figure 3).

The Property is subject to a maximum 3% net smelter royalty (with annual advance royalty payments of US$50,000). Upon Lake Shore's delivery to the vendor, Black Hawk Mining Inc., of a NI 43-101 technical report showing an indicated resource of 600,000 ounces of gold, Lake Shore is required to make a further cash payment of $500,000.

6.2 Schumacher III Estate Property

In November 2005, Lake Shore signed a 20-year lease agreement giving Lake Shore a leasehold interest in the surface and mining rights on the Schumacher property. The lease is renewable for a further 20-year term. The Schumacher III Estate Property has its eastern boundary contiguous with the Vogel Property occupying the north half of Lot 9 Concession I in Hoyle Township (parcel 1598SEC), within the boundaries of the City of Timmins. The Property is a freehold patent with both surface and mining rights – a Boer War "vet lot" with legal title and rights similar to the Vogel Property. Its boundaries are fixed precisely covering an area of ~64 hectares (~160 acres, Figure 3).

Lake Shore is required to pay an advanced annual royalty of $25,000 in years four to six of the lease and $50,000 in years seven to nine of the lease and pay a production royalty of 2% of net smelter returns.

6.3 Bell Creek Assets and Underlying Agreements

The Bell Creek Assets lie immediately to the west and NW contiguous to the Schumacher III Estate Property and comprise approximately 320 hectares.

The Bell Creek Assets are subject to a royalty payable to the PJV of 2% of the net smelter returns on the Bell Creek Assets. However, Lake Shore and the PJV have acknowledged that the Bell Creek Assets are encumbered by underlying royalties that will have to be shared or renegotiated, as the case may be, before the PJV royalty applies.

Table 1 – Bell Creek Assets property parcels (surveyed lots).

Parcel No. Hoyle Twp.	Claim No.	Area (ha)	Property Rights: LP = Leasehold Patent, FP = Freehold Patent	Underlying Agreement	Royalty
S½ L12, C2.	P515775	~16	1338LC - mining (LP) and surface rights (LP)	Allerston - Rosario	10% NPI
	P515776	~16			
	P515777	~16			
	P515778	~16			
S½ L11, C2.	P515779	~16	1338LC - mining (LP) and surface rights (LP)	Allerston - Rosario	10% NPI
	P515780	~16			
	P515781	~16			
	P515782	~16			
S½ L10, C2.	P44696	~16	155LC - mining (LP) rights 3559SEC - surface rights (FP)	Broulan-Enermark	5% NSR
	P44697	~16			
	P44698	~16			
	P44699	~16			
N½ L11, C1.	Patent	~64	24055SEC – mining (FP) rights 15504SEC - surface rights (FP)	Fisher et al.	10% NPI
N½ L10, C1.	Patent	~64	460SND – mining (FP) rights 1755SEC – surface rights (FP)	Prentice et al.	10% NPI

Note: "NSR" means "Net Smelter Returns," and NPI means "Net Profit Interest." S½ means south half, N½ means north half, L10 means Lot 10, C2 means Concession 2, and etc.

The Bell Creek Assets are subject to the underlying agreements seen in Table 1 above and are described as follows:

a) *The Allerston-Rosario Agreement* - a registered agreement (402978) between Ralph Allerston and Canamax Resources (formerly Rosario Resources) whereby Allerston shall retain a 10% Net Profit Interest ("NPI") from any commercial production. The NPI may be purchased for $400,000 (previous payments have been completed – as required), and after the lump sum payment of $400,000 the NPI will no longer be payable. The lands affected are under 1338LC (leasehold patent mining and leasehold patent surface rights) being the south halves of Lots 11 and 12 Concession 2 in Hoyle Township.
b) *The Broulan-Enermark Agreement* – a registered agreement dated January 8, 1980 (304105) between Broulan Reef Mines Ltd. ("Broulan") and Rosario Resources Canada Ltd., then assigned to Amax of Canada Ltd. (on December 30, 1981) and then assigned to Falconbridge Gold Corp. (in 1991), whereby Broulan retains a 5% NSR on the lands adjusted as per a schedule to be paid 30 days after the end of each quarter. If production is not sold in the quarter, the NSR is not payable for unsold production. Enermark/Enerplus has amalgamated with Broulan Reef Mines Ltd./Broulan Resources Inc., and appears to be the recipient of any royalty agreements. The lands affected are under leasehold patent 155LC mining rights only. The surface rights under freehold patent 3559SEC are not under any obligation of the Broulan/Enermark Agreement.

c) *The Fisher et al. Agreement* – a registered agreement (316796) between Casselman, Casselman, Fisher ("CC&F"), and Rosario Resources Canada Ltd., whereby CC&F shall be paid a 10% NPI from any commercial production from the lands within 6 months of the end of each fiscal year of operation of the mining property. The 10% NPI can be purchased for $100,000, above the original option payments. The lands affected are under freehold patent 24055SEC mining rights and freehold patent 15504SEC surface rights.
d) *The Prentice et al. Agreement* – an unregistered agreement (dated July 16, 1979) between D.F. Prentice, R. McLennan, J.F. McLennan, A. Robertson, St. Andrews Church and Rosario Resources Canada Ltd. wherein Prentice *et al.*, shall retain a 10% NPI from any commercial productions from the lands. The 10% NPI can be purchased for $100,000 above the original option payments. The lands affected are under freehold patent 460SND mining rights only. The surface rights under freehold patent 1755SEC are not part of this agreement.

6.4 Future Permitting Requirements

The program suggested in this report is an "*underground exploration program*." This requires the development of underground infrastructure (drifts, drill stations and etc.), but does not automatically guarantee that *economic underground mining per se* will commence. The intent of the program is to determine whether an economic underground resource is feasible leading ultimately, in the best-case scenario, to *an advanced exploration program*. Provincially, the Ministry of Northern Development and Mines ("MNDM") is the lead agency for "mining projects." In the future, if Lake Shore intends mine production, this would trigger requirements under Part VII of the Mining Act. These requirements include notifications, public and First Nations consultation, closure plans and financial assurance. Acceptance of a closure plan by the MNDM would provide rights for Lake Shore to proceed under the Mining Act.

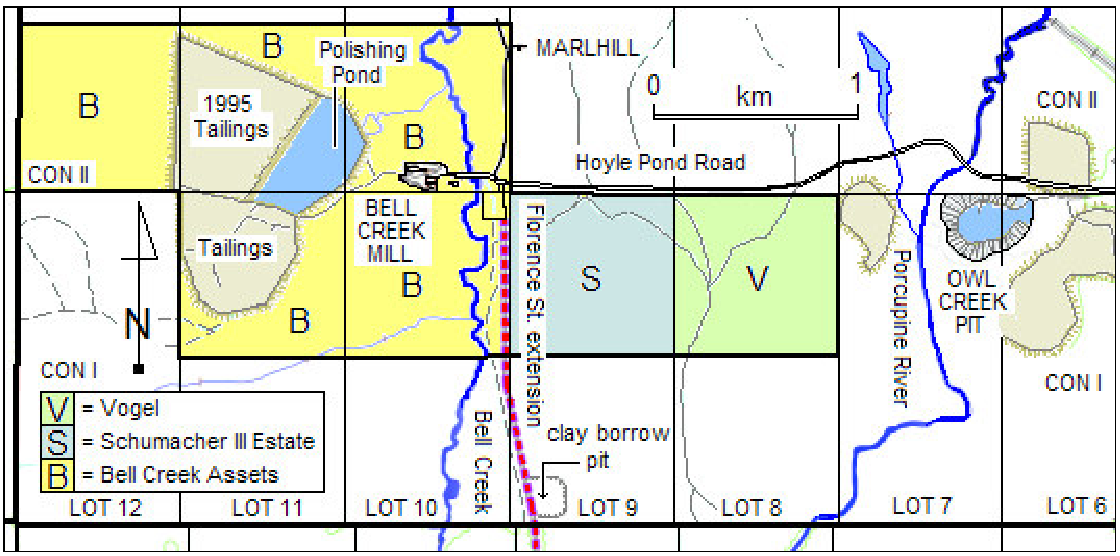
The Ontario Ministry of the Environment ("MOE") issues permits to take water (both surface and groundwater), and to emit noise and dust. Should Lake Shore proceed with the recommendations in this report, then wastewater treatment and effluent discharge, including the construction of ditches and/or berms to control water flow, are governed by the Ontario Water Resources Act ("OWRA"), and include permits for storm water management. Solid waste management and noise and/or air emissions are provided for under the Environmental Protection Act ("EPA"). The Ontario Ministry of Natural Resources ("MNR") may require permits for creek crossings or impoundment structures (dams) under the Lakes and Rivers Improvement Act ("LRIA"). The Ontario Ministry of Labour ("MOL") is mandated to set, communicate, and enforce workplace standards; specifically for Health and Safety (under the Occupational Health and Safety Act), Employment Standards and Labour Relations. Prior to the commencement of future activity, Lake Shore would have to serve written notice to the MOL. In the future also, federal permits under the Fisheries Act, the Environmental Protection Assessment Act, and Metal Mining Effluent Regulations would trigger assessment and permitting requirements. Lake Shore is in the process of applying and obtaining all applicable permits for the Bell Creek Complex.

7. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

7.1 Accessibility

Former direct access to the Bell Creek Complex was via the gated Florence St. extension gravel road running north from Highway 101 in South Porcupine near the Provincial Government office complex. Current access is from a gravel road heading west from Hoyle Pond Gold Mine gatehouse to the Bell Creek Mine passing near the northern boundaries of the Vogel and Schumacher III Estate Properties (Figure 4, Sketch 1 below).

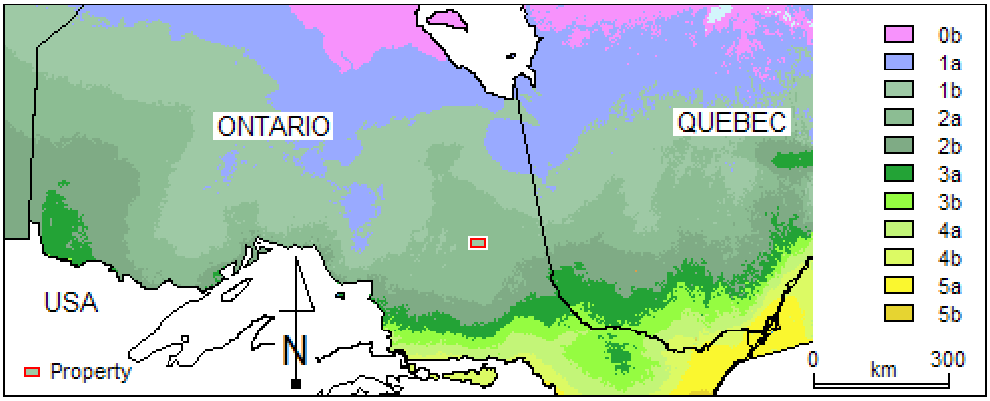
Sketch 1 – Local access – Florence St. extension to the south, Hoyle Pond Road to the east. "B" is Bell Creek Assets, "S" is Schumacher III Estate Property, and "V" is Vogel Property.



7.2 Climate

The properties lie within the Subarctic Climate zone, the largest climate zone in Canada, which knows short, cool summers and long, cold winters, with precipitation mostly in the form of snow (~1-2 m; @ www.canadiangeographic.ca/atlas/themes.aspx). Snow squalls occur from October to June, and the frost-free period hardly exceeds 90 days. Permanent snow cover usually extends from mid November to late April. During the 2006-2007 winter, this part of Ontario experienced early low snowfall but late winter blizzards. Average winter temperature is *circa* -18ºC and average summer temperature is *circa* 18ºC. During the warm spells in the summer, the temperatures can reach 30°C and higher, and in the depths of winter the temperatures can drop below -40°C. Occasionally, fieldwork is not permitted due to forest fire danger and the MNR may prevent access during such times. The area can also be subject to rare Derecho thunderstorms (the so-called "100-year Timmins' storms") that may cause regional flash flooding over the flat landscape.

Sketch 2 – Plant Hardiness zones in central Canada and location of Bell Creek Complex.



On the Atlas of Canada, the Bell Creek Complex occurs in plant-hardiness zone 2a,[1] and is also part of the Boreal Shield Ecozone that has relatively low tree growth rates and timber volumes compared with other forested ecozones in Canada (see specific data @ http://nlwis-snite1.agr.gc.ca/plant00/index.phtml).[2] According to *Canadian Geographic*, for the entire Boreal Shield Ecozone of North America the mining footprint (5,500 square km) does not exceed 0.03% of the landscape - negligible when compared with the highly modified landscapes occupied by cities and roads farther south.[3] Nonetheless, the regional landscape is modified by former farming and current mining activities (Figure 5) and is, therefore, subject to strict Ontario Ministry of the Environment ("MOE") regulations. At this time, there are no *urgent* environmental or water-quality issues associated with the land package.

7.3 Local Resources and Infrastructure

Supplies such as food, fuel and lodgings are available in Timmins and adjacent towns like South Porcupine, and the full range of equipment, supplies and services that would be required for any exploration and mining work are available there, as well as a large complement of highly skilled personnel familiar with the mining industry and, especially, the gold-mining industry. Gated gravel roads have been maintained by the PJV to the Bell Creek Mine and Mill. Electricity is currently being supplied from the Hoyle Pond Gold

[1] Indicator shrubs for this zone are Siberian pea-tree (*Caragana arborescens*), Siberian dogwood (*Cornus alba 'Sibirica'*), European cotoneaster (*Cotoneaster integerrima*) and silverberry (*Elaeagnus commutate*); indicator trees are European white birch (*Betula pendula*), white elm (*Ulmus americana*) and cranberry viburnum (*Viburnum trilobum*).

[2] Tree species in the Boreal Shield ecozone include white and black spruce (*Picea glauca* and *Picea mariana*) balsam fir (*Abies balsamea*), tamarack (*Larix laricina*), trembling aspen (*Populus tremuloides*), white pine (*Pinus strobes*), red pine (*Pinus resinosa*), jack pine (*Pinus banksiana*), maple (*Acer rubrum*), eastern red cedar (*Juniperus virginiana*), eastern hemlock (*Tsuga canadensis*), paper birch (*Betula papyrifera*), speckled alder (*Alnus incana ssp. rugosa*), pin cherry (*Prunus pensylvanica*), and mountain ash (*Sorbus americana*). Other plants include ericaceous shrubs, sphagnum moss, willow, Labrador tea, blueberries, feathermoss, cottongrass, sedges, kalmia heath, shield fern, goldenrod, water lilies, horsetails and cattails. Mammals include moose, black bear, wolf, chipmunk, beaver, muskrat, snowshoe hare, vole, red squirrel, mice, marten, short-tailed weasel, fisher, ermine, mink, river otter, coyote, and red fox.

[3] http://www.canadiangeographic.ca/atlas/themes.aspx?id=shield&sub=shield_industry_mining&lang=En.

Mine, but electric lines are available up the Florence St. extension (Figure 4 - bottom left of photograph). A natural gas substation occurs at the bottom end of the same road in South Porcupine. The Bell Creek Mill has been on a care and maintenance basis since 2002, and Lake Shore has started to undertake a review of mill assets and rehabilitation by hiring a local experienced mill superintendent in June 2007. Since this process has just started and conclusions on these assets are *outside the technical (geological) parameters set for this report*, these activities are not commented upon.

7.4 Physiography

There are no rock outcrops of consequence on the Bell Creek Complex and the area is quite flat (*circa* 290 m above sea level) with parts of the surface being a large spruce-tamarack and speckled (tag) alder swamp. This low relief is due to a large underlying "clay belt" covering the landscape of the Porcupine Gold Camp – the bottom of a late Pleistocene periglacial lake – Lake Ojibway (Barnett, 1992). Spring-runoff causes annual shallow flooding of the landscape. Broad shallow drainage ditches choked with scrub and trees break the unrelieved flatness.

8. HISTORY

8.1 General History

The Porcupine Mining District of Ontario was created after the discovery of gold in Nighthawk Lake in 1907 (east of Timmins), prior to the discovery of the Kirkland Lake Gold Camp in 1911 (Wright-Hargreaves discovery) and areas farther east in Quebec adjacent to the Cadillac-Malartic Break (Horne Mine in 1920). Prospectors combed rivers and lakeshores hunting for further gold and base metal showings, but the extensive drift-covered ridges and valleys left by the Pleistocene Laurentide Icesheet meant that they could not really explore the area in any real detail. The extremely immature surficial cover of the glacial landscape meant that there were no alluvial gold trains in creek bottoms extending from hard-rock mineralization – the situation that prospectors use to explore for the metal in more salubrious climates – meaning, that without outcropping mineralization, ore deposits of all kinds were very easily missed. Most of the Canadian Shield is greatly under-prospected due to the region's immature drift and clay-covered glacial landscape. Around Timmins the "clay-belt" remains of Lake Ojibway made prospecting quite difficult. All early gold discoveries were found in outcropping areas or extensions that followed from discoveries in outcropping areas.

It was the advent of airborne geophysics that allowed new exploration campaigns in this part of Canada. Starting in the early 1960's, subsidiaries of INCO Ltd. (now "Vale Inco") flew proprietary airborne magnetic and electromagnetic surveys across the Abitibi Greenstone Belt looking for nickel sulphide deposits. One such airborne survey led to the discovery of hard-rock gold mineralization below the clay belt - the *first discovery* on what is now the southern Hoyle Township zone of gold mines and discoveries. Other private consortia and governments flew further airborne surveys shortly thereafter (e.g., OGS airborne surveys GDS-1004 Geotem I TDEM, GDS-1041 Megatem II TDEM, GDS-1051 airborne gravity), and such surveys using computer-aided technology and GPS continue to be used for exploration.

8.2 NI43-101Compliance of “BCC Historical Reports”

Section 2.4 of NI43-101 (“Instrument”) permits an issuer to disclose an historical estimate of mineral resources or mineral reserves made before the Instrument came into force if the historical terminology: (i) identifies the source and date of the historical estimate; (ii) comments on the relevance and reliability of the historical estimate; (iii) states whether the historical estimate uses categories other than the ones set out in sections 1.2 and 1.3 and, if so, includes an explanation of the differences; and (iv) includes any more recent estimates or data available to the issuer. The author is aware of several “historical resource” estimates for the land package – the reports together referred to as the Bell Creek Complex Historical Reports (“BCC Historical Reports”). The disclosure required by the Instrument is described where possible from the data at hand. Each of the BCC Historical Reports were prepared by previous property owners, mine operators, their partners and/or their consultants, or defined by surface drilling programs. The BCC Historical Reports are relevant in that “resource calculations” provide estimates of potential target size to be firmed up after a *corporate decision* is made concerning an underground exploration-drilling and *possible* bulk-sampling program. Current and future resource calculations will use modern CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by the CIM Council, or as amended, and follow from a drill-intercept interpretation during in-house Lake Shore computer-generated resource calculations using Datamine^{TM} and other software. In this particular case, there is no particular reason to doubt the intentions of the writers of the BCC Historical Reports, or the integrity of previous generations of scientists and engineers and to exclude such information would be contrary to normal disclosure.

8.3 General History Vogel Property

In 1960, the Vogel Property title passed to Mrs. Mary Vogel of Maplewood, New Jersey, the daughter of the former owner (Mr. M. Howitt). No exploration work had been carried out before 1968, at which time the Vogel Property was optioned by a subsidiary of INCO Ltd. following their discovery of the Owl Creek gold showing on Lot 7, Concession I of Hoyle Township ~900 m east of the Vogel Property. INCO completed 2 drill holes totalling 366 m to test an electromagnetic conductor (graphite-bearing metasediments) in the southern part of the Vogel Property. No significant gold values were detected and the option was terminated.

In December 1987, Canamax Resources Inc. (“Canamax”) optioned the Property and entered into a joint venture with Pamour Porcupine Mines Ltd. - a joint venture that terminated in August 1988. Canamax cut a grid, completed ground magnetic and electromagnetic surveys, as well as 2,733 m of diamond drilling in 9 holes. In 1989 Canamax then completed an additional 7 diamond drill holes totalling 2,352 m. Drill results were not sufficiently encouraging and in October 1989 the option was terminated.

In 1994 Black Hawk acquired the right to earn a 100% interest in the Vogel Property subject to an NSR on mineral production, and then completed 50 diamond drill holes for 14,408 m during 1995-96. Lapierre (1996, for Black Hawk) estimated a “drill indicated resource” of 1,017,009 tonnes grading 7.63 g/mt Au (no cut-off grade used), and 747,572 tonnes grading 9.71 g/mt Au (at a cut-off grade of 3 g/mt Au). An independent consultant (Jarvi, 1996) estimated a drill indicated resource of 793,468 tonnes grading 8.44 g/mt Au (at a cut-off grade of 3 g/mt Au, and cutting assays over 34.29 grams to 34.29 grams). Black Hawk then completed an additional 3 drill holes for 1,326 m subsequent to the completion of these resource estimates.

On October 31, 1996, Black Hawk entered into a joint venture agreement with Kinross Gold Corp. (“Kinross”). The joint venture called for Kinross to spend $1,000,000 on a diamond drilling campaign and to submit a development plan for the Property by September 30, 1997 (extended to February 28, 1998). The agreement further stated that Kinross should provide the first $12,000,000 in development financing to operate a gold-mining project on the Property in order to earn a 50% interest. From November 1996 to October 1997 Kinross completed 44 holes totalling 20,696 m. Based on the additional drilling information MacRae (1997, for Kinross) estimated a “drill indicated resource” of 1,405,848 tonnes grading 8.83 g/mt Au (cut-off grade 3 g/mt over a minimum true width of 1.5 m and allowing for a 15 m crown pillar). In November 1997, an additional 21 holes totalling 2,282.3 m were completed to provide a detailed test of vein continuity and the variability of grade along a 100 m strike length to a depth of 110 m (penetration points through the vein structures on ~15 m centers). Kinross then completed a “feasibility study” dated October 20, 1997, and in a subsequent report dated January 12, 1998 provided Black Hawk with a preliminary evaluation of a production scenario that would combine operations with those at the Bell Creek Mine. Both reports utilized the Bell Creek Mine shaft for access to the Vogel Property.

Titaro, George and Brady (1999, for A.C.A. Howe International Ltd.) provided Black Hawk with an independent study of resources on the Vogel Property for a stand-alone gold project and concluded, *edited quotes*: “[…] Howe concludes that the Vogel property represents an attractive development project given gold prices above US$320. Howe recommends that Black Hawk commence a phased program of underground bulk sampling and drilling to confirm mineability, mining methods, mining costs, and grade-tonnage estimates with the intent to develop a commercial gold mining operation. […] the resource potential […] is reasonably defined to the 320 metre Level and that the area of wide-spaced drilling from the 320 metre to the 720 metre Level has potential for a similar inferred resource. There are some specific areas of wide, relatively low-grade mineralization that merit underground follow-up for potential underground bulk mining. In the short term it is recommended that Black Hawk complete the necessary geotechnical work to confirm the overburden conditions in the vicinity of the planned ramp and prepare a detailed cost estimate for the ramp and portal construction. Black Hawk should also initiate preliminary environmental baseline work that will be required for permitting purposes when a decision to proceed with the bulk sample is made. Representative core samples of waste rock should be submitted for acid generation tests that will be required for the environmental approvals for surface waste rock storage pile.” According to this study, there are 6 drill-defined gold zones on the Property. In 2003, Glencairn (the owner of Black Hawk) conducted another revised resource calculation and undertook a further 23 diamond drill holes for a total of 10,012 m. To the end of 2004, a total of 54,175 m of diamond drilling had been undertaken on the Property. Glencairn internal company resource estimates at that time were 642,000 tonnes of “measured and indicated” resource grading 12.2 g/mt Au and 933,000 tonnes of “inferred” resource at 12.2 g/mt Au.

During 2005, Lake Shore conducted an 18-hole exploration diamond drill program for 4,475 m to delineate subhorizontal gold-bearing veins (“flats”). In 2006, a further 6 holes for a total of 2,467 m were drilled (Labine for Lake Shore, 2006a).

8.4 BCC Historical Reports for Vogel Property

Note that the reports referred to in point form below, and the resource estimates included therein, were prepared prior to the adoption of NI43-101 in February 2001. The historical resource estimates are relevant to Lake Shore in its current evaluation of the Bell Creek Complex and for planning future development. Such reports appear to give reasonable estimates of tonnage and grade based on practice and experience gained from similar procedures used in the producing mines of the Porcupine Gold Camp. BCC Historical Reports for the Vogel portion of the land package are as follows:

a) Lapierre (1996) estimated a “drill indicated resource” of 1,017,009 tonnes grading 7.63 g/mt Au (no cut-off grade used), including 747,572 tonnes grading 9.71 g/mt Au (at a cut-off grade of 3 g/mt Au). Assays over 200 g/mt Au were cut to 200 grams based on procedures *said to be used* at the adjacent Hoyle Pond Gold Mine.
b) Jarvi (1996) then estimated a “drill indicated resource” of 793,468 tonnes grading 8.44 g/mt Au (at a cut-off grade of 3 g/mt Au, and cutting assays over 34.29 grams to 34.29 grams – a grade-cutting practice often followed in other mines in the Porcupine Gold Camp). Considering the statistical parameters of gold-ore calculations at that time, this tonnage and grade estimate is reasonably close to Lapierre’s calculation, but somewhat more conservative.
c) Based on additional drilling information MacRae (1997) then estimated a “drill indicated resource” of 1,405,848 tonnes grading 8.83 g/mt Au (cut-off grade 3 g/mt over a minimum true width of 1.5 m and allowing for a 15 m crown pillar). This drilling program appears to increase the tonnage estimate with a slight increase in estimated grade.

8.5 Current Tonnage and Grade Estimates for Vogel Property

In 2003, Glencairn conducted another revised resource calculation for the Vogel Property and undertook a further 23 diamond drill holes. Glencairn resource estimates were determined to be 642,000 tonnes of “measured and indicated” material grading 12.2 g/mt Au and 933,000 tonnes of “inferred” resource at 12.2 g/mt Au. This report slightly increases tonnage but definitely increases grade when compared with the historical resource results in Item 8.4 herein.

It is difficult to establish the reliability of current and historical resource estimates based on surface diamond-drilling results. Nonetheless, the BCC historical resource results have the expected range of assay-value consistency and the normal range of variability to be expected from an analysis of the mesothermal gold lodes in southern Hoyle Township.

Some drill core was sent in whole for assay leaving no core for geological examination. Sample pulps and rejects are available, and some should be check-assayed and rejects examined under a binocular microscope to confirm drill log descriptions. However, an examination of the drill logs suggests that there is no particular reason to believe that the drill logs are inconsistent with current geological descriptions.

8.6 General History Schumacher III Estate Property

Canamax Resources Inc. optioned the Schumacher III Estate Property and in the period 1984-1985 drilled 3 diamond drill holes for a total of 1,004 m. Minor gold-bearing veins were reported but assays did not exceed 0.31 g/mt Au over 1 m (Tylee, 1998). In the period 1986-1990, Falconbridge Gold Corp. completed geophysical surveys and drilled 24 diamond-drill holes totalling 8,135.3 m. Sporadic alteration and mineralization was encountered, and several small intersections (e.g., 25.5 g/mt Au over 0.5 m and 13.34 g/mt Au over 0.25 m) were reported.

In the third quarter of 1995, Pentland Firth Ventures Ltd. ("Pentland Firth") entered into a mining lease agreement on the Property, established a grid and conducted ground geophysical surveys. In 1996, 25 drill holes totalling 6,722 m with some significant gold assays (e.g., 4.40 g/mt Au over 5.1 m and including 34.19 g/mt Au over 0.4 m, as well as 3.28 g/mt Au over 7.3 m). An independent consultant (Jarvi, January 1996) then examined the drilling data and calculated a historical "resource" total of 156,117 tonnes grading 5.99 g/mt Au. In 1997, Pentland Firth conducted 2,131 m of diamond drilling in 5 holes and all holes were surveyed in relation to the Bell Creek Mine grid. This drilling resulted in an independent appraisal of the Property's fair market value by Roscoe Postle Associates of Toronto (Postle, 1997) at $2,300,000.

Crick (1997) then studied the drilling results and reported a "drill-indicated resource" of 673,425 tonnes grading 2.89 g/mt Au with ~half of the resources above the 125 m level (below surface) hosted in at least 4 stacked flat vein sets. Respected independent Porcupine Gold Camp consultant Dean Rogers (1997) then reviewed this data and agreed with the overall estimates of resources and recommended further drilling to firm up resource calculations and stated, *quote*, "… the Schumacher III Property with the limitations placed on the deposit by the current size and grade of the mineral resource, is presently regarded as a satellite type deposit with modest potential." Total diamond drilling at the beginning of 2006 was 57 holes for 17,992.3 m.

In 2006, Lake Shore undertook a diamond drilling program – 3 initial stratigraphic holes for 3,307 m with no significant gold assays, followed by 3 short holes along the margins of the gold-bearing zones described by Crick (1997) for a total of 546 m (Labine for Lake Shore, 2006b). In the third quarter of 2006, Lake Shore drilled 9 diamond-drill holes for a total of 912 m in an effort to find shallow bedrock *for a potential ramp portal entrance* – a program that also measured core RQD (Labine for Lake Shore, 2006c). See also Scenario 1 discussed in Item 22.1 herein. Total diamond drilling on the Property is now 72 holes for 22,757.3 m.

8.7 BCC Historical Reports for Schumacher III Estate Property

Note that the reports referred to in point form below, and the resource estimates included therein, were prepared prior to the adoption of NI43-101 in February 2001. The historical resource estimates are relevant to Lake Shore in its current evaluation of the Bell Creek Complex and for planning future development. Such reports appear to give reasonable estimates of tonnage and grade based on practice and experience gained from similar procedures used in the producing mines of the Porcupine Gold Camp. Reports for the Schumacher III Estate portion of the land package are as follows:

a) Jarvi (1996) examined the drilling data on the Property and calculated a "resource" total of 156,117 tonnes grading 5.99 g/mt Au.
b) Crick (1997) then studied further drilling results and reported a "drill-indicated resource" of 673,425 tonnes grading 2.89 g/mt Au with ~½ of the resource above the 125 m level (below surface) hosted in at least 4 stacked flat vein sets.

The difference in tonnage and grade estimates between these two reports is something that can be expected for exploration drilling on mesothermal gold lode systems but clearly suggests that further drilling is required to firm-up resource estimates. As is the case for the Vogel Property, *such drilling should best be performed from underground*.

8.8 General History Bell Creek Assets

Gold mineralization in the North A and Northeast zones at the Bell Creek Mine was discovered in 1980-81 through a joint venture by Rosario Resources and Dupont Canada Exploration. The Bell Creek West Zone was discovered in 1989. Canamax Resources operated the mine from 1986 to 1991, followed briefly by Falconbridge Gold from 1991 to 1992, and Kinross until closure in 1994. The three compartment timbered shaft (bottom at 280 m) was kept on a care and maintenance until late 2001, when the mine was allowed to flood. The mine produced 576,017 tons at a reported grade of 6.63 g/mt Au for 112,739 recovered ounces (at a calculated recovered rate of 93.7%, a calculation that included some co-mingled ore from the nearby Marlhill deposit that is not part of the Lake Shore land package). The mine produced at a rate of 381 tons per day from a combination of vertical sublevel retreat along with longhole and shrinkage mining.

The bulk of the production was from the North A zone that is accessible on the 60m, 120m, 180m and 240m levels and by ramp from the 240m to 300m levels. Access to the Bell West Zone is via the 60m, 120m, and 180m levels. Work on the Northeast Zones in the mine was limited to drilling and 55 m of drifting on the 120m level in 1991 (all data provided by Alistair Still of Goldcorp Canada Ltd., on January 23, 2007).

8.9 Current Tonnage and Grade Estimates for the Bell Creek Mine

The most recent NI43-101 estimate for remaining drilled resources at the mine was reported by the PJV on December 31, 2004. Reported results were 190,922 tonnes at 8.25 g/mt Au for 50,641 ozs gold "indicated" and 346,936 tonnes at 7.70 g/mt for 85,888 ozs gold “inferred.” Gold price used for this calculation was US $425. These results were derived from a polygonal model that was updated with a new block model in 2005 giving similar numbers, but was reclassified by the PJV to “Mineral Inventory.” Lake Shore is currently studying and updating the PJV’s computer-generated resource models.

9. GEOLOGICAL SETTING

9.1 Regional Archean Geology

Continuing bedrock mapping and age-dating by institutions as well as geophysical imaging (airborne magnetic and electromagnetic surveys) has improved understanding on the style and timing of tectonic assembly of the Archean-aged Superior Province. It is now thought that "microcontinental fragments" as well as various "oceanic terranes" were amalgamated into the currently "Composite Superior Superterrane" ("CSS") through a series of age-dated and likely separable orogenic events that migrated south and spanned the interval 2,720 and 2,680 million years ("Ma"), as part of the formerly undivided "Kenoran orogeny" (Figure 6). For instance, to summarize Percival, 2006:

a) Around *2,720 Ma*, the "Northern Superior Superterrane" with internal dates spanning 3,800 to 2,800 Ma was sutured to the northern margin of the "North Caribou Terrane" with internal dates spanning 3,000 to 2,800 Ma as part of the newly named "*Northern Superior orogeny*."
b) Around *2,715 Ma*, amalgamation of the Wabigoon subprovince (with internal dates spanning the narrow range 2,770 to 2,720 Ma) and the Winnipeg River subprovince (with internal dates spanning 3,500 to 2,700 Ma) occurred in the newly named "*Central Superior orogeny*," and formed the "Wabigoon-Winnipeg River Superterrane."
c) Around *2,700 Ma*, the newly named "*Uchian orogeny*" describes the "collision and subduction" (under-thrusting) of the Wabigoon-Winnipeg River Superterrane beneath the active southern margin of the CSS – an event said to result in both the deposition and burial of the English River subprovince (turbidite wedges) adding to the growing southern margin of the CSS.
d) Around *2,690 Ma*, further "collision" between the Abitibi and Wawa subprovinces (or "Abitibi-Wawa subprovince") and their "subduction" (under-thrusting) beneath the growing CSS is now described as the "*Shebandowanian orogeny*" – an event said to include the deposition and burial of the Quetico-Opatica subprovince turbidites (but with quite problematic dates in Quebec). *The Bell Creek Complex resides in this terrane.*
e) The final, *circa 2,680 Ma* "*Minnesotan orogeny*" to the far south appears responsible for both the "collision and subduction" (under-thrusting) of the Minnesota River Valley terrane (in the USA) with internal dates spanning 3,600 to 2,700 Ma beneath the growing CSS.

Common elements of the five *italicized orogenies* above may be summarized as follows:

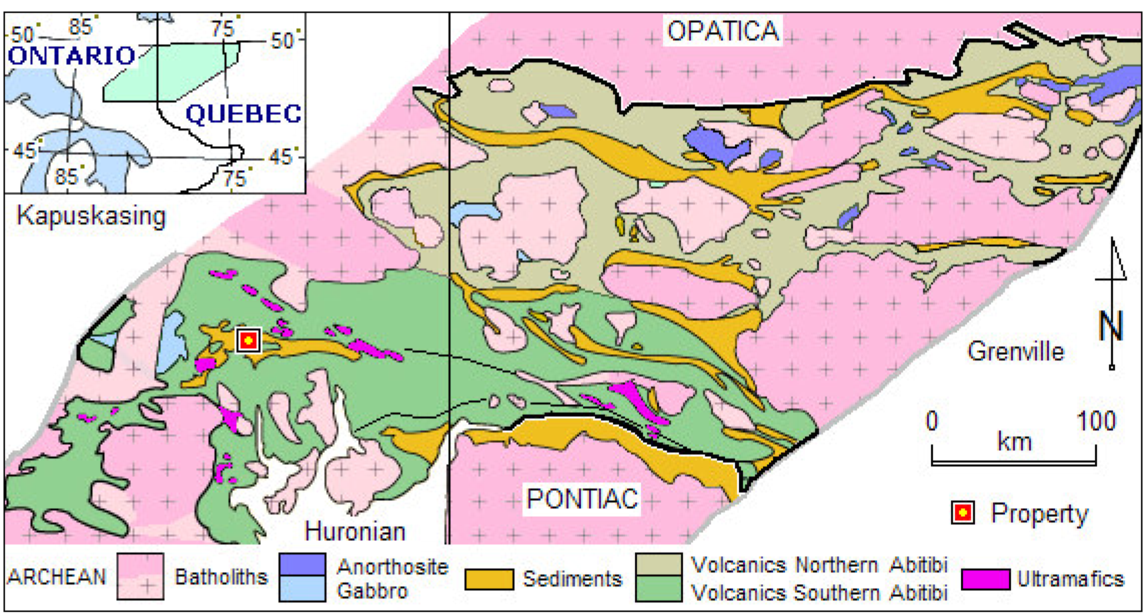
a) Arc magmatism with "calc-alkaline compositions" may occur on the upper (in this case, the northern) tectonic plate preceding terrane suturing.
b) The deposition and rapid burial of marginal wedges of syn-orogenic sediments (conglomerate and greywacke) along the suture boundary.
c) Evidence of compressed-with-crustal-depth metamorphic temperature-pressure regimes when compared with modern orogenies. Retrogressive metamorphism in

bulk is common. Water is driven out of the lower parts of the metamorphic pile. The deep continental crustal roots are likely granulites, and may contain rare ultra-calcic anorthosites (for instance, the Shawmere anorthosite in the Kapuskasing Structural Zone – an upthrust Archean-aged mid-crustal wedge).

d) Widespread emplacement of "two batholithic suites" of granitoids – a "reworked" more primitive gneissic "trondjhemite-tonalite-granodiorite" ("TTG") suite, and a granodiorite to granite suite. There is some evidence to suggest that the protoliths of the TTG gneiss suites were formed in "flat" ductile mid-crustal thrust duplexes (possibly D1 or D0 episodes).
e) Vertically verging folds and steeply inclined foliation occurs in greenstone belts – (D2-D4 episodes) a feature *not common* in modern subduction complexes.
f) Emplacement of rare upper mantle-derived, late to post-orogenic plutons including Mg-rich monzodiorite suites (the so-called "sanukitoid suite").
g) Emplacement of syenite and lamprophyre stocks and dykes and an increase in CO_2-rich fluids at the latest stages of orogeny including carbonatitic fluids.
h) Late orogenic strike-parallel strike-slip faults and deformation zones attributed to transpressive deformation due to compressional far-field stress - the late deformation zones commonly associated with mesothermal gold deposits, CO_2-rich fluids and the focus of complex stock and dyke compositions as well as half-graben fillings of sediment ("Timiskaming suites") and enriched incompatible-element volcanics (e.g., shoshonites).

The Bell Creek Complex land package resides in the western part of the Southern Abitibi Greenstone Belt (Sketch 3) an Archean supracrustal complex made up of moderate to highly deformed, usually greenschist facies, mostly volcanic-dominated oceanic assemblages spanning the period >2,727 to ~2,668 Ma.

Sketch 3 – Sketch of Abitibi Greenstone Belt, and Bell Creek Complex location.



Greenstone volcanics are found as spatially discrete groupings that show simple subalkaline evolutionary trends on Alkali-FeO-MgO ternary plots, and contain tholeiitic volcanic lineages (absolute iron-enrichment trends with both primitive Mg-tholeiites and evolved Fe-tholeiites), as well as other volcanic assemblages evolving along the tholeiitic calc-alkaline join (relative iron-enrichment trends), that were tectonically combined with spatially discrete komatiite-rich assemblages, "chemical" sediments (banded iron formation), and turbidite (flysch) basins – this whole mixture of assemblages originally being called the "Keewatin Series." Unconformably overlying the "Keewatin Series" are younger subaerial-subaqueous volcanic-sediment complexes originally called the "Timiskaming Series." Of particular note, all Timiskaming-type units occur along the margins of late tectonic transcurrent and/or listric deformation zones termed "breaks" in the Canadian literature - regional near-strike-parallel discrete mappable shear and/or fault zones commonly showing highly strained fabrics and tight vertically verging folds.

Batholiths and stocks in the Southern Abitibi follow the approximate sequence tonalite-monzonite-granodiorite, then massive granodiorite, granite, feldspar ± quartz porphyry and syenite (Corfu et al., 1989). In contrast, the Northern Abitibi Greenstone Belt is characterized by more abundant tonalite-trondjhemite-granodiorite ("TTG") foliated intrusive suites, older supracrustal units (~2,800 Ma, Mortensen, 1987), large anorthosite complexes, widespread amphibolite-grade metamorphism, and fewer komatiites.

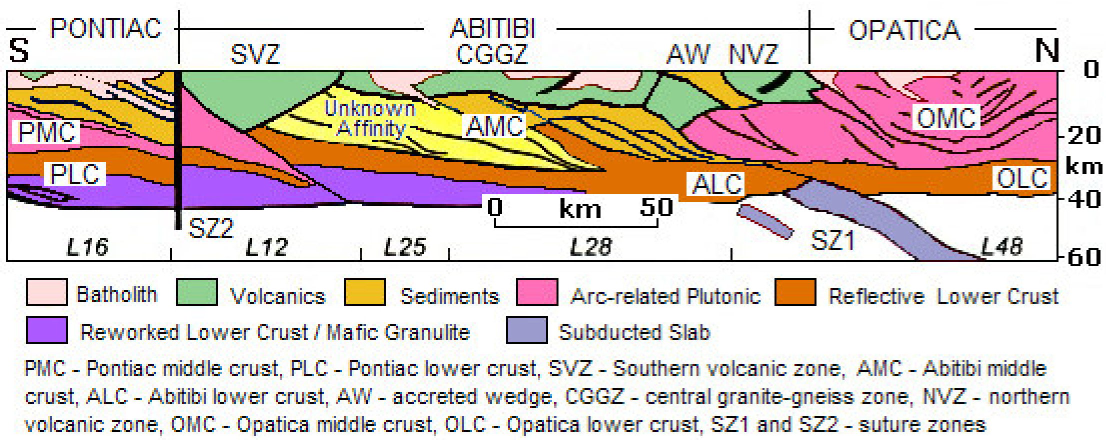
Lithoprobe seismic traverses @ http://gdr.nrcan.gc.ca/seismtlitho/archive/ag/index_e.php across the Abitibi can be interpreted to suggest that the region's *first phase compressional deformation* (D1 shapes) was accomplished via a series of mid-crustal *shallow-dipping fault duplexes* with crustal types such as:

a) Minor highly modified remains of former "primitive late Hadean gneisses" along with more prominent early and middle Archean gneiss complex remnants as evidenced by quartz-rich platform sediments and stromatolites, and sometimes rare basal conglomerates in some middle Archean greenstone belts (e.g., Sachigo Subprovince; Thurston, Osmani and Stone, 1991):
b) Or in late Archean oceanic rift valleys atop "back arc-type basins" and/or "mantle-plume heads" giving the subalkaline sequences Mg-tholeiite to evolved tholeiite, and volcanics showing trends following the tholeiite to calcalkaline join (imminent arrival of plume head) followed by komatiite floods (arrival of plume head), followed by further subalkaline volcanism (plume-head decline), turbidites and so forth (e.g., one possible history for the Southern Abitibi Greenstone Belt).

At early stages, these units did not have a *subcontinental mantle-stabilizing root*, such roots coming into existence during the latest stages of Archean tectonism. The final subcontinental mantle root had a massive basaltic component extracted during late Archean greenstone production making it stiffer, lighter and more buoyant than Proterozoic or Phanerozoic subcontinental mantle (O'Reilly and Griffin, 1999).

D1 fault duplexes were then infiltrated by TTG sheets. *Second phase compressional tectonism* (late D1, early D2) produced more *steeply dipping* forms in the upper crust probably coupled to a mid-crustal décollement – basins and domes with granodiorite-granite sheets injecting towards the tops of the domes or as sill-like shapes along dome margins (latest D2, early D3). *Third phase stabilizing compression to extension* (D3-D4) occurred as a series of *linked extensional shears (deformation zones) and probable transfer faults* that tend to curve broadly mimicking regional domes and anticlinorial shapes (for another example see also, Sawyer and Barnes, 1993). Latest deformation-zone (shear and foliation) orientations seem to follow a simple shear pattern and establish that the far-field stress continued to be compressional. Transcurrent motion produced half graben (Timiskaming-type assemblages) along deformation zones in areas where *their curvi-linear orientation* allowed dilatency *vis a vis* the far-field stress. Gold mineralization accompanied by some multi-source magmatism occurred during this latest phase – late hydrothermal fluids and magmas following similar local conduits.

Sketch 4 – Diagram modified after Lithoprobe seismic transects across Abitibi Greenstone Belt in western Quebec. The seismic reflectors emphasize the importance of mid-crustal *shallow-dipping fault duplexes* with greenstones (volcanics) sitting on top.



Gold deposits represent the focused remains of the last dewatering phase of Archean orogenesis (also acting as upper crustal de-sulphidizing conduits), and at that stage volcanism tended towards compositions showing the extraction of highly incompatible elements (e.g., K, Rb) sometimes forming "shoshonitic suites." CO_2-rich fluids became more prominent. Subsequent volcanism derived from the subcontinental mantle root was CO_2-driven (carbonatites, kimberlites and so forth). Only Proterozoic diabase dykes swarms retained tholeiitic evolutionary ("fertile-mantle" or "asthenospheric") trends.

9.2 Local Archean Units and Gold Mines

The Abitibi has hosted >70% of Canadian gold production (Figure 7). Around Timmins, all gold mines of consequence occur to the north of the Porcupine-Destor Deformation Zone ("PDDZ") and its interpreted major splays. For the Porcupine Gold Camp, production to the end of 2001 was reported by the Ontario Resident Geologist's Office in South Porcupine at 318,779,824 tons for 66,699,994 ozs Au at a calculated average grade of 0.209 oz/t Au. As a recovered by-product, silver is in the ratio of 1 oz/Ag for every 6 oz/Au. Examples of reported gold production include Hollinger at 19,327,691 ozs Au, Dome at >12,000,000 ozs Au (still in production), and Pamour at >4,500,000 ozs Au (still in production). By 2001, 11 mines in the Camp had a reported production exceeding 1,000,000 ozs Au, and another 4 had production close to or exceeding 500,000 ozs Au.

Table 2 – Table of Formations in the Porcupine Gold Camp

Eon or Era	Assemblage	*Formation*	Short Description
Pleistocene to Recent			Recent Organic Layer - swamp and soil deposits. Periglacial Lake Ojibway - lacustrine clay, sand, and gravel. Matheson Till Sheet - glacial till, mostly belonging to the Wisconsin (Würm) glaciation. Remnants of older glacial till sheets.
Phanerozoic			Faults of the Lake Timiskaming Rift Zone. Rare small alkalic intrusions.
Proterozoic			Several diabase dyke swarms, alkalic intrusions. N and NNW-NNE-striking Onaping Fault system.
Profound unconformity			
ARCHEAN (Southern Abitibi Greenstone Belt)			***Culmination of mesothermal gold mineralization*** Hypabyssal albitites, lamprophyres, pyroxenites.
	“Timiskaming” 2681-2668 Ma	*Three Nations* *Dome*	Alluvial-fluvial shelf-facies sandstones, greywackes and conglomerates. Basal conglomerate, then greywackes and argillites.
	Major Unconformity - former “Timiskaming-Keewatin” contact. *Half -graben formed along PDDZ, **focused hydrothermal-events initiated**.*		
	Porcupine 2693-2684 Ma	*Hoyle** *Krist*	Hypabyssal porphyries – external batholithic events. Turbidites with some local conglomerates. Subaerial-subaqueous felsic pyroclastics, and a basal graphitic unit.
	Conformable to disconformable contact - also possible tectonic boundary and/or facies boundary – fault repetition near contact between Tisdale and Hoyle		
	Tisdale < 2709 Ma	*Upper*	Fe-tholeiites, with minor carbonaceous sediments.
		Lower	Mg-tholeiites, pyroxenites and komatiites, minor sedimentary and “chemical” interbeds.
	Probable unconformable contact – definite volcanic hiatus		
	Deloro, south of “PDDZ” > 2709		Subalkaline (tholeiitic to calc-alkaline join on AFM diagrams) basalt flows to dacite-rhyolite pyroclastics, capped by a banded iron formation.

Note: Information for this table modified after Rocque *et al*. (2006). **Hoyle Formation* is defined as units north of the PDDZ. Table of assemblages herein does not conform to the usage of Jackson and Fyon, 1991.

In the Porcupine Gold Camp, deposits are associated with quartz-carbonate alteration within volcanic stratigraphy or an adjacent sedimentary facies (Tisdale, Hoyle, Porcupine or Timiskaming units, see Table 2 below), and showing local geological complexity – frequently the more complex the structural setting, the larger the scale of orebody concentration. For instance, the Dome Mine lies on the south limb of a syncline (the Porcupine syncline) where Tisdale volcanic rocks are overlain unconformably by “Timiskaming” assemblage slates and conglomerates (some looking like reworked blocky screes). At Dome, gold mineralization has *apparent different structural settings* consisting, for instance, of continuous quartz-carbonate veins crosscutting stratigraphy, quartz-tourmaline veins, quartz stockworks and disseminated-sulphide associations (Rocque *et al*. 2006). At The McIntyre Mine just east of downtown Timmins, hypabyssal felsic porphyry intrusions are spatially related to gold mineralization. Age dating has established that the mineralization was post-porphyry in age, the porphyries acting brittly but still carrying less productive gold lodes than their metavolcanic surrounds.

There is some suggestion that hydrothermal sulphidizing events and Fe-carbonate precipitation occurred in units around the PDDZ soon after the initiation of Timiskaming half-graben formation (quartz-carbonate clasts in Timiskaming sediments). Porphyries commonly intruded after Tisdale volcanics were turned on edge, but prior to Timiskaming deposition. In common with most mesothermal systems, albitization then followed, and gold mineralizing events reached culmination.

The Hoyle Pond Gold Mine to the east of the Bell Creek Complex has gold mineralization predominantly hosted within two mafic volcanic packages on both sides of an ultramafic core zone and small cross-cutting porphyries. Mineralization at Hoyle Pond is of a higher grade than that of the Porcupine Gold Camp generally, and is found in narrow quartz veins, that are both sub-vertical and flat lying. Gold occurs as free gold most frequently, or is associated with pyrite (FeS_2) and sometimes with rare sphalerite [$(Zn,Fe^{2+})S$] or minor arsenopyrite (FeAsS). Farther east the Pamour Gold Mine is located along and adjacent to an unconformity between older Tisdale volcanics and younger "Timiskaming" sediments - there are higher-grade narrow quartz veins in the volcanic and sedimentary units, as well as lower-grade "extensional-vein sets" in and around conglomerate units. A regional Timmins geological sketch is shown in Figure 8.

9.3 Post-Archean Geology

Generations of Proterozoic magmatism criss-cross the region and show as long magnetic lineaments (Figure 9). Intrusion of the extensive NNW-trending Matachewan and N-trending Hearst dyke swarms occurred at 2,470 and 2,450 Ma, respectively (Heaman, 1997). The western Abitibi is also overprinted by NE-, NW- and NNW-striking brittle faults associated with the formation of the Paleoproterozoic Cobalt Embayment exposed to the south, and the Phanerozoic Timiskaming Rift to the SE (Jackson and Fyon, 1991).

The NNW-trending Onaping Fault System constitutes a profound NNW-NNE-striking lineament set in this part of the Abitibi as well. The Onaping faults are generally straight, indicating a high angle disposition. They are known to offset the 2,167 Ma, NE-trending Biscotasing dykes by 7-8 km of sinistral wrench displacement (Buchan and Ernst 1994), and this movement sense is seen also in the Archean greenstone units. Onaping faults displace the NW-striking 1,240 Ma Sudbury olivine diabase dykes that also cross the region, but generally only by a few tens of meters. Notably, these faults do not displace the 1,140 Ma Abitibi diabase dykes that strike NE through the Porcupine District. All the dyke swarms show tholeiitic chemistry (Osmani, 1991).

9.4 Vogel and Schumacher III Estate Properties Geology

There are no outcrops on the Vogel Property. Widespread organic layers between 0.5 to 2 m thick (locally thickening to 4 m) has been met in drilling, and are underlain by lacustrine clays, sands, and gravels varying in thickness from 10 to 20 m (part of periglacial Lake Ojibway). The Matheson till sheet then follows varying in thickness from 0 to 15 m. Matheson till may be absent in the vicinity of bedrock topographic highs. In areas of extreme bedrock relief, older clay and till sequences may be preserved. Black Hawk drilling found overburden thicknesses of up to 80 m.

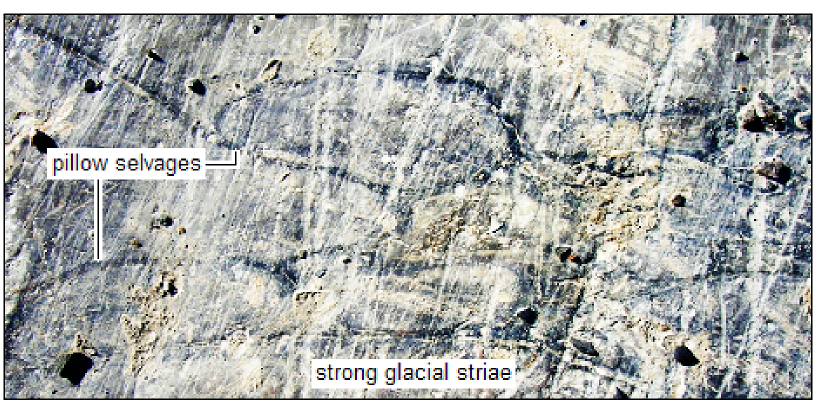
Southern Hoyle Township is underlain by komatiites and mafic volcanics, as well as slate, greywacke and graphitic slate. Units strike to the east and dip steeply both to the north and south. Drilling suggests that stratigraphy faces south. It has previously been argued that many of the units hosting the gold mineralization are stratigraphically equivalent to Tisdale units hosting the gold deposits of the main Timmins' deposits *circa* 4 to 10 km SW (Titaro, George and Brady, 1999). Nonetheless, the volcanic units encountered during drilling are intercalated with Hoyle formation sediments. The contact between volcanic and sedimentary units is commonly marked by a graphitic horizon.

Because they are strongly ductile, graphite-bearing layers can be the focus for intense shearing – a process that is often accompanied by brittle fracture sets in adjacent more competent volcanics. These brittle fracture sets then acted as hydrothermal conduits and are, thereby, associated with grey carbonate and silica alteration, quartz veining and gold mineralization within the volcanics. To the immediate east at the PJV's Hoyle Pond Gold Mine, large scale refolding has caused vertically verging z-shapes in earlier formed steep folds, and was thereafter followed by an axial-planar NW-trending fault zone showing dextral strike-slip (including post-mineralization faulting). The drilling on the Schumacher III Estate Property has established similar geology to that found on the Vogel Property immediately to its east. No outcrops are present, and overburden is similar as well. Mineralization encountered on the Schumacher III Estate Property is also similar to Vogel. Thin gold-bearing flat veins are also present.

9.5 Bell Creek Assets Property Geology

Underground mining provides a more detailed picture of the geological units underlying the Bell Creek Assets (Item 11.2 herein). There are outcrops of pillowed basalt beside the Marlhill Gold Mine at the NE corner of the Bell Creek Assets (Sketch 5).

Sketch 5 – Pillows in altered basalt, Marlhill Gold Mine beside NE corner Bell Creek Assets.



10. DEPOSIT TYPES

10.1 Target Type – Archean Mesothermal Gold Lodes

The only known economic targets of interest on the Bell Creek Complex are *mesothermal gold lodes* (initially defined by Lindgren, 1933; also known as *quartz-carbonate vein gold deposits*, Wilton, 1997a, 1997b, Dubé and Gosselin, 2005). Large (+1 million ounces) Archean gold deposits may occur in clusters (e.g., around Timmins, Kirkland Lake to Virginiatown, Kalgoorlie), or as singleton zones (e.g., Homestake, Hemlo, Musselwhite, Big Bell and Crixas). Although gold deposits may be found in adjacent granitoid batholiths (e.g., Renabie, Ontario), most sizeable deposits occur in greenstones. Larger deposits have characteristics that can be summarized as follows:

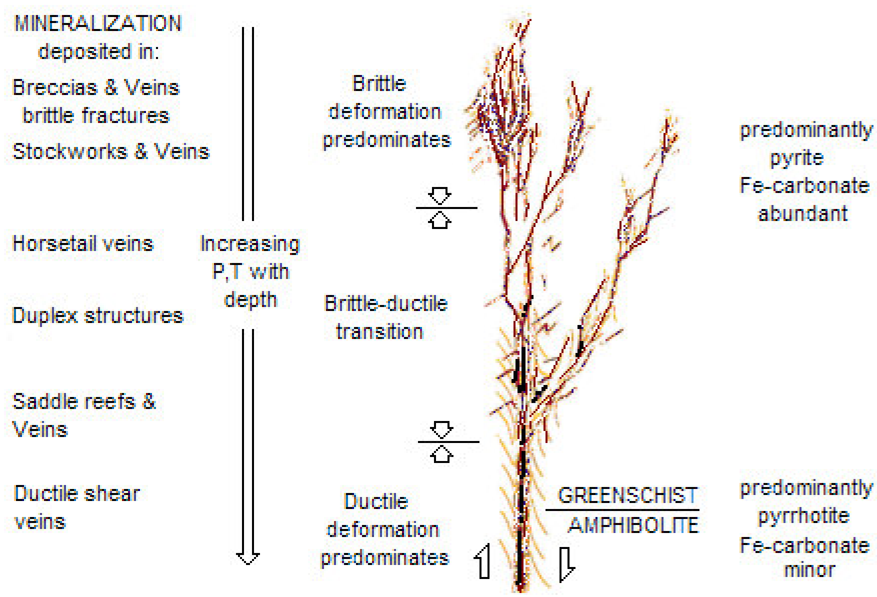
a) *Mesothermal gold deposit host rocks* comprise common "greenstone" rock types with *high* total Fe or high Fe/(Fe+Mg) ratios - compositions inducing sulphidization reactions and gold precipitation. From (Palin, 2000) *edited quote*, "Reaction of CO_2-bearing hydrothermal fluids with wall rock to form Ca-Mg-Fe carbonates is a characteristic feature of mesothermal gold deposits and is particularly extensive in *giant deposits* such as […] Hollinger-McIntyre […]. If such alteration reactions involve carbonation of ferric iron-bearing minerals, then significant oxidation of the fluid can result. Concurrent sulphidation of iron-bearing minerals may either intensify or weaken the oxidation effects of wall rock carbonation depending on the coefficients in the reaction. Gold solubility will initially increase as a pyrite-saturated mineralizing solution becomes oxidized during wall rock alteration. From the point where HSO_4^- becomes the dominant dissolved [sulphurous] species until the solution reaches hematite or magnetite saturation, progressive conversion of H_2S to HSO_4^- will cause a rapid decrease in H_2S relative to H_2 *and result in a precipitous drop in gold solubility*. The largest decreases in H_2S and Au occur around the H_2S/HSO_4^- *equal-activity boundary and thus coincide with the point where sulphide sulphur isotope compositions are most strongly shifted to negative values*. [For] wall rock alteration, gold solubility will progressively decrease as the solution undergoes reduction until pyrrhotite stability is reached. Further changes in H_2S and H_2 will be buffered by pyrite-pyrrhotite equilibrium up to magnetite saturation. No sulphur isotope shifts occur along this reaction path because the solution remains entirely within the H_2S predominance field for dissolved sulphur. The wide spread of pyrite $d^{34}S$ values in several giant to super-giant mesothermal gold deposits indicates that mineralization was accompanied by oxidation of the ore fluid in excess of the amount possible by wall rock sulphidation alone. The fact that wall rock alteration is capable of driving fluid oxidation to the point of aqueous sulfate dominance with consequent large decreases in gold solubility and sulphide sulphur isotope values suggests that wall rock carbonation may play an important role in generating these important deposits."

b) *Age dating* has established that quartz-carbonate vein gold deposits were formed during the final orogenic phases of Archean tectonism – as part of a late culminating metamorphic and latest batholithic dewatering process associated with the stiffening of the continental crustal column (Groves *et al*., 2000).

c) *At the regional scale*, deposits seem to occur in the vicinity of large deformation zones, at locations commonly described as zones of "secondary or tertiary" deformation. According to Cox (2000), *edited quote*, "… *Most mesothermal gold systems develop in low displacement faults and shear zones adjacent to large, crustal-scale deformation zones*. The deposits form while the faults and shear zones are active and permeable, and at depths typically within the continental seismogenic regime, *or immediately below the seismic-aseismic transition*. By analogy with the distribution of slip in modern seismogenic systems, the low displacement fault networks which host mesothermal gold deposits and associated high fluid fluxes are interpreted *as aftershock structures whose formation and continued activity was related to repeated large slip events on nearby crustal-scale faults and shear zones*. Aftershocks tend to be located in domains where stress redistribution due to mainshocks brings low displacement faults closer to failure." According to Weinberg *et al.* (2004), in the regional Archean Boulder-Lefroy deformation zone of Western Australia, large and giant gold deposits follow a pattern of deflections at a scale of 30 to 40 km, locations at the scale of the thickness of the continental crust. *Silica* is a common released product of metamorphic reactions, and especially in greenschist-facies reactions. As opposed to barren quartz veins, gold-bearing structures show evidence of multi-generation dewatering (precipitation-resolution). In short, they can be interpreted to occur in "long-lived" middle-crustal episodic hydrothermal discharge zones.

d) *Clusters of large deposits* commonly occur in greenschist-facies country rocks, and to a lesser extent in amphibolite-facies units. Deposit clusters enclosed in greenschist-facies country rocks may be more widely dispersed away from a regional deformation zone (Sketch 6, below).

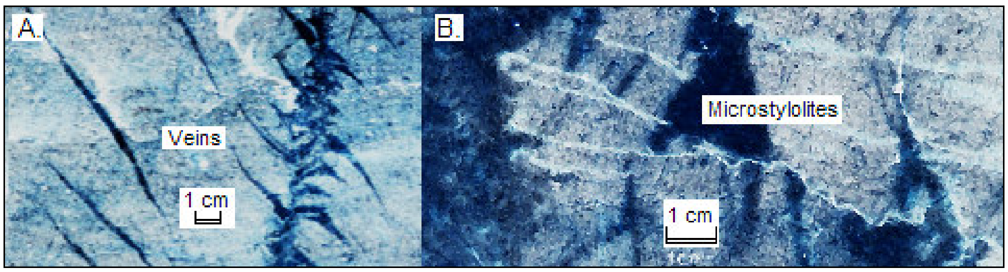
Sketch 6 – Mesothermal gold system dispersal as a function of crustal depth.



e) *At the mine scale,* gold mineralization usually occurs in dilatent structures - shear fractures, brittle fractures, stockworks, saddle reefs, as "reaction-bed replacement deposits," and in areas that might be described as "strain-shadow zones." In zones showing high rates of strain, gold-bearing structures can be stretch-diluted by ductile wall rocks – boudinaged by these wall rocks to lower grades (e.g., upper levels at Crixas, Brazil or at Paracatu, Brazil). Moreover, ductile walls can seal a hydrothermal conduit.

f) *At the stope scale*, ore characteristics show that these gold deposits were often formed around the *brittle-ductile transition zone* of the continental crust. Evidence includes strain-ribboned and sygmoidal shear veins, cross-cut by breccia veins and gash veins, sometimes with jewel box gold and gold-rich vein tips (horsetail veins), commonly intermixed at many scales. Microstylolites and other dissolution features in both veins and country rock walls indicate complex precipitation-resolution as an on-going process during ore formation. Veins have reaction walls (alteration) in adjacent country rock that may or may not carry gold values largely depending on whether the walls abut shear veins or brittle fracture veins. Precipitation-resolution in ore zones is a primary process and telescoping of vein styles is common.

Sketch 7 – Typical microstructures in gold-bearing veins (shown as negative images to emphasize detailed structure) – sygmoidal veins on the left, microstylolites on the right.



g) *Ground preparation*: Stiffening of former ductile units can occur due to early silica and carbonate flooding. These stiffened units provide brittle-ductile contrasts to adjacent rocks and can then act as ore traps (e.g., the Kerr-Addison deposit in Virginiatown - formerly ductile komatiites were stiffened by silica and carbonate flooding forming a fuchsite-bearing rock that in this particular case acted as a relatively brittle ore trap).

h) *Alteration*: The metamorphic grade of alteration inside a gold deposit is commonly lower than the metamorphic grade of the wall rocks. This is caused, in part, by the quantity of water in the hydrothermal discharge system that can change metamorphic mineral assemblages even at constant P-T.[4]

i) *Gold grade* is nearly constant through vertical depths of *circa* 2.5 km (e.g., Lake Shore in Kirkland Lake to a depth of 8,500 ft) – *evidence for the large-scale crustal processes involved in their creation*. A P-T-controlled ore locus can migrate vertically by fault displacement, depositional loading or erosional unroofing, or any combination of these.

j) *Associated hypabyssal intrusions* have remarkably varied compositions from felsic porphyry through diorite to lamprophyre. It appears likely that these magmas also access the dilatent conduits along with the hydrothermal fluids and the timing among such phenomena is arbitrary – for instance, gold mineralization may occur prior to or after such intrusions adding local complexity to ore search. For example, Rock and Groves (1988), *edited quote*, "Associations between calc-alkaline lamprophyres and mesothermal gold deposits (Archean to Tertiary) in which the lamprophyres are coeval (as well as cospatial) with mineralization are increasingly recognized

[4] The "Artificial Facies of Yoder:" In 1952, H.S. Yoder at the Geophysical Laboratory in Washington worked on the system $MgO-Al_2O_3-SiO_2-H_2O$ at constant P-T (600°C and 1,200 Atm.) and created all metamorphic facies from greenschist to granulite simply by varying the water content. In localized structures (so-called retrogressed shears) metamorphic facies are not a reliable indicator of regional P-T.

worldwide. Our suggested hypothesis regards lamprophyres as transporting agents for Au from Au-rich sources in the deep mantle, which then undergo extensive crustal interactions, generating felsic magmas or releasing their Au into metamorphic-hydrothermal systems. Such a model not only may reconcile the conflict between the extant magmatic and metamorphic models for mesothermal deposits but also may resolve the inconclusive relations between gold deposits and felsic (porphyry-granitoid) intrusions, because lamprophyres may act as parents to both. The gold-lamprophyre association implies that exceptionally deep-seated magmatism repeatedly accompanied gold mineralization in postcollisional orogenic, island-arc, oblique subduction, or graben environments. This has important implications for the late-stage evolution of mineralized Archean greenstone belts in particular, and for gold deposit genesis in general."

11. MINERALIZATION

11.1 Mineralization in the Porcupine Gold Camp

As reported in Item 9.2 herein, mesothermal gold mineralization in the Porcupine Gold Camp has apparent varied settings. Around Timmins, deformation (called D2) of Archean units prior to the deposition of Timiskaming assemblage units resulted in E-W striking north-verging periclinal folds an event dated at 2,682 Ma (Rocque *et al*., 2006), but no F2 planes have been recognized. Contact-parallel folding on E-W axes then followed, and on-going compression resulted in thrust-slicing events slightly clockwise to the folds, causing Tisdale volcanics to be thrust over younger Porcupine sediments.

Structural analysis suggests that the subsequent D3-D4 events (also associated with obvious PDDZ motion) occurred during and after the mesothermal gold-depositing event around 2,665 Ma. The D3 and D4 foliations are recognized since they are ~20º apart with F4 rotated clockwise relative to F3. Notable left-lateral displacement occurred on the PDDF around this time. Peak metamorphism followed (final dewatering of the greenstone pile) and the greenstone pile started acting as a coherent deformable (extruding) plate and shows lineations generally dipping to the NE.

In the Porcupine Gold Camp, gold-mineralized structures most commonly form in relatively competent volcanics that may be intruded by felsic porphyry stocks and dykes prior to the deposition of "Timiskaming" assemblages. Known porphyry dates occur between 2,688±2 and 2,691±3 Ma, intruding into already folded and faulted greenstone sequences. Albitites are then associated with the initiation of the mesothermal systems. At both Pamour and Dome Mines there are pyrrhotite and gold-mineralized clasts within "Timiskaming" conglomerates, which are then mineralized by the main gold event. This seems to indicate that the gold event was prolonged from the creation of the steep south-dipping PDDZ and associated half-graben up to the latest episodes of crustal stabilization. Such a prolonged gold event and its associated deformation complex is the likely reason why the P-T-chemical-controlled gold loci migrate *laterally* by fault displacement along PDDZ-generated subsidiary structures, and *vertically* (>1.5 km) by combinations of depositional loading ("Timiskaming" sedimentation) and/or erosional unroofing, and/or any combination of all these factors.

Fracture intensity increases towards mineralized zones. Bulk and fracture-controlled sericite production, Fe-dolomite to ankerite, quartz and dark-green chlorite occur towards mineralized zones. Microfractures contain late chlorite and carbonate veinlets, and distal carbonatization (grey carbonate) is quite common. At the district-scale, albitites, sodic porphyries and lamprophyres range in age from 2,670 to 2,680 Ma – essentially corresponding to "Timiskaming" sedimentation and part of the gold event.

11.2 Mineralization at the Bell Creek Complex

For the Vogel and Schumacher III Estate Properties, mineralization is seen in drill core only. For the Bell Creek Assets, the Bell Creek Mine underground workings (currently flooded) have been described by former mine geologists. The gold mineralization occurs in south facing carbonate-altered komatiites and mafic metavolcanics (tholeiites). The mineralized zones tend to strike roughly E-W and dip steeply to the south. Quartz stringers and veinlets containing roughly 10% sulphides and brown tourmaline $[(Ca,K,Na)(Al,Fe,Li,Mg,Mn)_3(Al,Cr,Fe,V)_6(BO_3)_3(Si,Al,B)_6O_{18}(OH,F)_4]$ occur within the carbonate-altered zones. Sulphides include pyrite (FeS_2), pyrrhotite ($Fe_{0.83-1}S$), sphalerite $[(Zn,Fe^{2+})S]$, and arsenopyrite (FeAsS). In the mine, there are two main mineralized structures, the Bell Creek Zone and the North Zone with mineralised vein widths varying from 0.7 to 4.3 m in true width.

Drilling indicates that the Vogel Property is underlain by an east-striking, south-facing, steeply dipping sequence of metavolcanic rocks underlain to the north and overlain to the south by Hoyle assemblage metasediments. Both the top and bottom contacts of the metavolcanic package are marked by graphite metasedimentary horizons that allowed the regional stress field to sandwich the metavolcanic package in a zone of strong ductility contrast. Metavolcanic unit thickness varies from 170 to 230 m and consists of a lower komatiite that is from 40 to 70 m thick and an upper massive to pillowed metabasalt from 100 to 160 m thick.

Gold mineralization occurs within east-striking steep-dipping zones of carbonate-silica alteration and quartz veining. Alteration is recognized in drill core because the normally dark grey-green to black colour of the metavolcanics becomes a light grey to buff colour depending upon the content of silica and carbonate alteration, as well the iron content of the carbonate. Generally, quartz is present in the significant gold zones along with some isolated occurrences of gold associated in disseminated sulphide veinlets (Figures 10a and 10b). Quartz veining itself tends to comprise clusters of narrow irregular shear veins.

Drilling on the Vogel Property to define flat veins like those at the Hoyle Pond Gold Mine found that such structures were present but of a thinner character. In the zone drilled, presumably, horizontal brittle-vein fillings caused by vertical extension of the metavolcanic package were not as pronounced as that seen at Hoyle Pond (Richard J. Labine P.Geo, *personal communication*). The presently drilled Schumacher III Estate veining appears to be the western extension of the Vogel mineralised culmination and has similar features. A regional outline of mineralised structures in southern Hoyle Township is shown in Figure 11.

12. EXPLORATION

12.1 Earlier Exploration Bell Creek Complex

Exploration on all properties comprising the Bell Creek Complex consisted of airborne geophysics followed by diamond drilling campaigns. For data of this history see Items 8.3 to 8.9 herein. Lake Shore has most of this data stored in electronic formats. Nonetheless, there is data currently stored by the PJV in paper form that is being scrutinized since the properties have gone through the hands of so many companies, some of which are now defunct. Drilling campaigns are discussed under Item 13 herein.

Sketch 8 – PJV paper file storage examined by the author on May 17, 2007.

12.2 Current Exploration Bell Creek Complex

Until recently, exploration by Lake Shore has been confined to the Vogel and Schumacher III Estate Properties – in the form of surface diamond drilling campaigns. A surface 3-hole diamond-drilling campaign has commenced on the Bell Creek Assets to aid corporate decisions *for the underground exploration campaign recommended in this report*. To this end, internal Lake Shore qualified geologists have nearly completed data summaries in preparation for computer-generated 3D models of currently known gold-bearing drill intersections on all properties of the Bell Creek Complex to determine the following:

a) The reliability (or otherwise) of former mineralization estimates (and their envelopes) made by previous exploration operators on the land package.
b) To determine threshold tonnages and grades to make such an undertaking economically feasible and, thereby:
c) Determine subsequent underground levels and/or ramps and position *vis a vis* the mineralization of the currently suggested underground exploration program recommended in this report so that drill stations can be optimized for cross-section fan drilling, and future bulk sampling campaigns.

Lake Shore has qualified personnel available with the extensive experience necessary to undertake and supervise this *computer-generated three-dimensional study* (for instance, Lorraine Dupuis P.Geo.) and other personnel who have been directly active in both underground mining and surface exploration in this part of the Porcupine Gold Camp (for instance, Richard J. Labine, P.Geo. or David Beilhartz, P.Geo. and etc.).

13. DRILLING

13.1 Previous Drilling on Vogel and Schumacher III Estate Properties

Prior to Lake Shore's involvement to the end of 2004, a total of 54,175 m of diamond drilling had been undertaken on the Vogel Property. During 2005, Lake Shore conducted an 18-hole exploration diamond drill program for 4,475 m to delineate subhorizontal gold-bearing veins. In 2006, a further 6 holes for a total of 2,467 m were drilled (Labine for Lake Shore, 2006a). In short 61,117 m of drilling has been accomplished from the surface of the Property.

Prior to Lake Shore's involvement on the Schumacher III Estate Property 17,992.3 m of diamond drilling had been undertaken. Lake Shore has itself drilled 4,765 m from the surface. Past exploration focus has been on the eastern part of the property where historical mineralization was found (Item 8.7 herein). This mineralization appears to represents the western continuation of the immediately adjacent Vogel Property gold mineralizing system. A sketch plan of diamond drill hole traces for the Bell Creek Complex is given in Figure 12 (prepared by Lorraine Dupuis P.Geo). Pre-Lake Shore drill core is stored on pallets that can only be accessed through the security system at the Hoyle Pond Gold Mine, and the pallets are in good condition. Many early drill intersections were whole-core sampled. At this time the sample pulps and rejects from these earlier campaigns are stored in a hardened steel container on the Property (see Figure 13). Other Lake Shore drilling has had gold intersections cut in half with a diamond saw (half-core retained) and core is stored in racks at the Bradley Bros. compound in Timmins with high-grade intersections secured behind locked doors.

13.2 Previous Drilling on Bell Creek Assets

As noted above, Figure 12 shows a plan view of drill hole traces for the Bell Creek Mine and environs. Figure 14 shows *preliminary computer-generated models* of projected mineralization in the Bell Creek Mine prepared courtesy Lorraine Dupuis P.Geo using Datamine™ software. This model is part of a Lake Shore study of Bell Creek Assets based on underground drilling data provided by the PJV.

13.3 Current Drilling on Bell Creek Assets

A recently proposed program of three diamond drill holes for 3,300 m has just commenced (Labine, 2008). On February 11, 2008, Hole BC 08-01 was proceeding at a depth of 770 m. The holes are spaced along a 500 m strike length and are planned to intersect prospective geology ~750-900 m below surface.

14. SAMPLING METHOD AND APPROACH

Lake Shore follows due diligence procedures during sampling, whether the campaign be rock samples or the cutting of diamond drill cores with a diamond saw. All sample collection is supervised by a qualified person (most recently, Richard J. Labine P.Geo), and the samples themselves are secured directly from the site to the laboratory, and resultant pulps, rejects and assay certificates are kept in secure locations for essential future reference, security and legal requirements. Mineralized drill core is sliced by a diamond saw and the sampling of core is controlled by lithological boundaries, vein boundaries, alteration boundaries and other visual clues. Half drill core samples are then sent to the laboratory for sample preparation (including crushing and grinding), and the other half is retained at a secure location for future reference and data corroboration.

15. SAMPLE PREPARATION, ANALYSES AND SECURITY

15.1 Sample Preparation

Lake Shore's procedure for diamond drill core starts with the supervised boxing of drill core at the drill site, and geological logging and sample identification (marked) by a qualified person (in all cases, an experienced Lake Shore geologist) in a core shack. After the zones to be sampled are spaced using geological boundaries or maximum ~l m lengths and marked on the whole core, the drill core is cut in half with a diamond saw by a Lake Shore technician. One half of the core is retained in the resealed original core boxes at a secure Lake Shore site for future study and reference, and the other half core (the sampled half core) is then sent to *an independent and qualified laboratory* for crushing, grinding and all necessary sample preparation procedures. Assay certificates from the qualified laboratory are kept in a secure location, and sample pulps and rejects are kept for any future assays and independent conformation of the results obtained.

15.2 Sample Analyses

All laboratories used by Lake Shore have current accreditation with the Standards Council of Canada under ISO/IEC 17025:2005 and/or international standards under ISO 9001:2000, and have an internal laboratory information management system designed in such a way that laboratory assurance protocols provide the traceability of all laboratory procedures to conform to stringent NI43-101 requirements.

All assays for the Vogel and Schumacher III Estate Properties were undertaken by Swastika Laboratories, 1 Cameron Avenue, Swastika, Ontario, P0K1T2 (a 9001:2000 certified laboratory). According to the Standards Council of Canada website @ http://palcan.scc.ca/SpecsSearch/SpecsSearchAction.do, laboratories used or likely to be used by Lake Shore are currently accredited. All laboratories used have both blank and standards inserted in all assay batches as well as standard-protocol reassay procedures on random samples and all samples with higher assay results. Lake Shore has not conducted any analyses on samples from the Bell Creek Assets, having only recently acquired this land package. A diamond drill program (Item 13.3 herein) has just commenced.

15.3 Rock Quality Designation (RQD)

During drilling, the Rock Quality Designation ("RQD") of the core is estimated. The RQD is defined as the cumulative length of core pieces longer than 10cm in a run divided by the total length of the core run. Total length of core includes all lost core. Mechanical breaks caused by drilling or in extracting the core from the core barrel are ignored. Core disking due to high stress should not be used in the RQD calculation but noted separately in the drill logs. The RQD is measured as soon as possible after drilling. From the RQD, a Rock Mass Classification based on the formula - (sum of lengths of core sticks >10cm long *x* 100) ÷ (total length of core run) - can help create a Rock Quality Classification for any future mining engineering studies.

15.4 Specific Gravity Tests

Mineralized sections of drill core submitted for assay to qualified laboratories have specific gravity ("SG") tests performed, and preliminary SG standard deviations are calculated. This procedure then leads to reliable tonnage factors. Heavily carbonated or sulphidized zones have a higher tonnage factor than quartz-rich mineralized sections. By way of example, the method used by Accurassay is as follows, *edited quote*: "Weigh out 100 – 120 grams of sample; place [sample] in a beaker and allow [it] to soak in distilled deionized water, (Ws). Weigh a dry volumetric flask; fill [the] flask to [a] mark with distilled deionized water and record [combined] weight, (Wbw); [then] empty [the] flask. Transfer [the soaked] sample to [the emptied] flask and fill to the mark with distilled deionized water and record the weight, (Wbws). Transfer sample to evaporating dish and evaporate to dryness. Record the weight, (Ws). Take [the] temperature of the water used and apply a temperature correction factor. [… Results formula] is Specific Gravity (g/mL) = (Ws) ÷ (Ws + Wbw –Wbws)."

15.5 Sample Security

Currently, all Lake Shore drill core with gold results is kept in a locked warehouse at the Bradley Bros. gated and fenced compound in Timmins. Other drill core is kept on pallets as shown in Figure 13. Laboratory sample pulps, rejects and assay certificates are kept in secure locations for scientific, reference, security and legal requirements. Samples are secured and supervised by a qualified person from drill site to core shack to laboratory. Lake Shore geologists may photograph mineralized core and geological logging is done directly on a laptop computer using the program DHLogger. Pick lists are used to record some data and geological comments and descriptions are also entered. In the opinion of the author, the drill logs and the logging details are both useful and of good quality. Such logs are useful as confirmation reports when combined with the assay results, and are very useful when confirming geology associated with fine (not visible) gold.

16. DATA VERIFICATION

Confirmation of assay results and other data for the Vogel and Schumacher III Estate portions of the Bell Creek Complex is discussed under Items 15.1, 15.2, 15.3, and 15.5 herein. A thorough review of *drill logs and assay certificates* issued during previous exploration campaigns shows *internal consistency across all the results*. Accordingly, the author believes the data to be reliable within the testable parameters. Such direct comparisons from different and unrelated company sources also show that there was no need to reassay representative or composite gold samples to accompany this report.

Ultimately, techniques such as arithmetic histograms of the raw assay data will lead to composite sample statistics and, for instance, semivariogram analyses and block grade interpolations might be made. Once the extensive drilling campaigns are combined with former mine data using 3D computer modeling software, then such things as estimates of "ore resource block" grade can be made. For instance, mathematical manipulation such as "kriging" (often referred to as "BLUE," best, linear, unbiased estimator) might be used to determine weighted averages - the solution of a set of linear equations in which the "unknowns" are sample-weighing factors (that sum to one) and known coefficients are variances and covariances determined from the semivariogram model.

17. ADJACENT PROPERTIES

At the time of writing, Lake Shore has no interest or carried interest in any mining leases, patents or claims contiguous with the Bell Creek Complex (Vogel, Schumacher III Estate and Bell Creek Assets). The Hoyle Pond Gold Mine to the east is currently producing gold for the PJV. The Owl Creek (including Owl Creek West pit), Bell Creek, Marlhill and several undeveloped gold resources (Mill Creek, 100 Zone, Vogel, Thunderwood and Schumacher III Estate zones) comprise the rest of the known gold discoveries in southern Hoyle Township.

The geological host of the Owl Creek (West) Pit was described by Coad *et al*. (1986) as a wedge-shaped mass of tholeiitic metavolcanics within a sequence of south-facing greywackes. Strata strike E-W and dip steeply to the north (overturned). The southern contact between metavolcanics and metasediments is marked by a 10 to 30 m thick graphitic horizon. A massive quartz vein that can be up to 20 m wide occurs along the graphite-metavolcanic contact with flat to moderate N-dipping veins extending laterally across the mafic volcanics that may locally roll into steeply dipping structures. Further unmined mineralization extends below the bottom of the now flooded open pit.

The Hoyle Pond and 1060 zones occur within a south-facing sequence of komatiitic and tholeiitic volcanic rocks both underlain and overlain by greywackes. The metavolcanic-metasediment sequence has been regionally drag-folded into a Z-shaped, E-plunging anticlinal form in the mine. A stacked series of gold-bearing veins follow the E-plunging antiform with both steeply dipping limb vein systems and flat vein systems across the axis of the fold. Mineralization usually comprises coarse free gold in white to grey quartz veins within a carbonate-sericite alteration envelope along with pyrite, arsenopyrite, and tourmaline. The 1060 zone is described as a steeply dipping vein set on the south limb of the antiform. Mineralization is generally similar to the vein systems adjacent, but fuchsite and sphalerite have also been noted in the 1060 zone. Gold-bearing veins range in width from 0.2 to 7 m with a minimum mining width set at 1.5 m.

18. MINERAL PROCESSING AND METALLURGICAL TESTING

This Item does not apply to the Bell Creek Complex *at this immediate time*. Lake Shore is reviewing past results from the Bell Creek Mine and Mill. According to historical reports, the calculated gold-recovery rate of 93.7% for the Bell Creek Mine included some co-mingled ore from the nearby Marlhill deposit *that is not part of the land package described in this report*. Tests on Vogel and Schumacher III Estate Properties' mineralization will be subject to future study. Since the mineralization among all southern Hoyle Township is so similar, expected recovery rates should not deviate too much from the reported results for the Bell Creek Mine, but this has yet to be determined.

19. MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

19.1 BCC Historical Reports

Data on previous "historical resource" estimates (prior to the implementation of NI43-101) are given under Items 8.4, 8.5, 8.7 and 8.9 herein. The BCC historical resource results have the expected range of assay-value consistency and the normal range of variability to be expected from a surface drill hole analysis of the mesothermal gold lodes in southern Hoyle Township.

19.2 Vogel Reported Resources

In 2003, Glencairn conducted a revised resource calculation for the Vogel Property. Their estimates were determined to be *circa* 642,000 tonnes of "measured and indicated" resource grading 12.2 g/mt Au and *circa* 933,000 tonnes of "inferred" resource at 12.2 g/mt Au. This report slightly increases tonnage but definitely increases grade when compared with the historical resource results described in Item 8.4 herein. Lake Shore is currently studying the current and historical resource estimates that are based exclusively on surface diamond-drilling results. The author recommends and due diligence requires that Lake Shore should not automatically adopt these resource estimates until such time as their own internal assessments are completed.

19.3 Bell Creek Mine Reported Resources

The most recent NI43-101 estimate for drilled resources at the Bell Creek Mine was reported by the PJV on December 31, 2004. At that time, the PJV reported 190,922 tonnes at 8.25 g/mt Au for 50,641 ozs gold "indicated" and 346,936 tonnes at 7.70 g/mt for 85,888 ozs gold "inferred." Gold price used for this calculation was US $425. These results were derived from a polygonal model that was updated with a new block model in 2005 giving similar numbers, but was reclassified by the PJV to "mineral inventory." The author recommends and due diligence requires that until a complete analysis of all mine and drilling data is addressed by an independent study, Lake Shore should not automatically adopt this resource estimate.

20. OTHER RELEVANT DATA AND INFORMATION

20.1 Environment

As discussed in Item 6.4 herein, regulations require that all mining exploration programs follow stipulations of the MNDM, MNR, MOE, and Ministry of Labour. For the Bell Creek Mine the PJV has filed a closure plan with the MOE in accordance with the regulations. Ontario Regulation 240/00 under the Mining Act of Ontario, Part VII, entitled “Mine Development and Closure” requires that advanced exploration projects and new mines are required to file a certified Closure Plan, including financial assurance to indicate the method, schedule and cost of all rehabilitation on the site upon commencement of closure.

In April 2007, Blue Heron Solutions for Environmental Management Inc. (“Blue Heron”), environmental consultants, submitted a report to Lake Shore concerning acquisition of the Bell Creek Mine and Mill complex. The Blue Heron report describes the condition of current tailings facilities, the effluent treatment facility, the water discharge and runoff controls, groundwater issues and likely air emissions based on historical data, the currently active permits for the site and necessary upgrades, industrial and sanitary sewage facilities and the current closure plan – issues that are consistent with the proper operation of a former mine and mill site. A series of recommendations were included for Lake Shore’s review, *but are outside the scope of this technical (geological) report*. Lake Shore’s Environmental Coordinator in Timmins is reviewing the Blue Heron recommendations as part of the Bell Creek Mine and Mill re-activation assessment.

20.2 Consultation

For the Timmins West Project, Lake Shore is undertaking consultation with all appropriate regulatory agencies, the general public in and around Timmins, the Métis Nation of Ontario, the Wabun Tribal Council and the First Nation communities of Flying Post First Nation and Mattagami First Nation, who are represented by Wabun Tribal Council. Consultation provides an opportunity to identify and address the concerns of external stakeholders and expedite the authorization process. The consultations have been held in order to comply with Lake Shore corporate policy and the provincial requirements of Ontario Regulation 240/00 and the Environmental Bill of Rights. Such processes will be on going for the Bell Creek Complex as well.

21. INTERPRETATION AND CONCLUSIONS

21.1 Interpretation

The Bell Creek Complex contains a series of classic Archean mesothermal gold lode systems similar in aspect to immediately adjacent mineralization at the current Hoyle Pond and former Owl Creek Gold Mines.

Mineralization as shear and brittle-fracture veins occurs on all properties of southern Hoyle Township in a remarkably similar geological setting – in slices of metavolcanics (tholeiite and komatiite) sandwiched between slices of metasediments with common graphitic sediments along many of the metavolcanic-metasediment boundaries. This setting suggests the reason for the similarity among known gold occurrences – a situation indicating that exploration should concentrate on this style of occurrence to a very high degree. There may be other settings, for instance, brittle-fractured porphyry or quartz-carbonated ultramafics (fuchsitic zones) but the whereabouts of such features would likely be ascertained during *underground exploration drilling campaigns* looking for the standard southern Hoyle Township target types, and probably fairly close to target zones.

21.2 Conclusions

After an examination of the available data, *the author concludes that the Bell Creek Complex land package is a property of merit with excellent potential for finding further economic mesothermal gold resources*. If future studies indicate that the resources are in themselves insufficient to support a stand-alone economic gold-mining operation, their immediacy to the soon-to-be rehabilitated mill, the Bell Creek Mill, would greatly help their economic potential. Ideally, that mill would be processing gold-bearing ore from other Lake Shore assets. Therefore, a smaller resource on the Bell Creek Complex land packages would be ideally proximate - for instance, maintaining the mill at an ideal full capacity, a necessary requirement for profitable milling operations.

For these reasons, Lake Shore should actively continue its current exploration programs including computer-generated "asset-resource calculations" on the data as it is currently available. In particular, *and as an immediate exploration target*, preparations should be made to do *underground exploration and definition drilling* on the Vogel and Schumacher III Estate Properties. Underground drilling to better define mineralized assets is the next logical step for the eastern part of the Bell Creek Complex since sufficient preliminary drilled mineralization seem to have been outlined by surface exploration to justify such a campaign. At this stage, a major definition drilling campaign from the surface would largely be a waste of effort – a fact based on normal experience and budgeting strategies for the stringent methodologies required to make mesothermal gold exploration economically feasible.

Excluding modeling methodologies for large-scale open pit (bulk tonnage) resources, NI43-101 resource calculations for underground-accessible mesothermal gold assets are more readily produced from *underground exploration campaigns* – a fact that is based on industry-wide experience since the 1930's. In the particular case of mesothermal gold underground assets, "defined resource categories" are often not created too far ahead of active mine headings. Mesothermal gold lodes have unusually complex and difficult geometries, and features such as "nugget effect" on drill-indicated grades, high intensity mining in narrow-vein areas, fluctuating gold price, and the careful underground *daily control* of what is "ore" or "waste" makes mine planning budget control an essential ingredient to profitability. In many cases, excessive drilling to define resources far ahead of mine headings eats profitability.

22. RECOMMENDATIONS

22.1 General Strategy

To access underground on Vogel-Schumacher properties the Company reviewed an option to drive an exploration drift from the Bell Creek mine once it has been dewatered. However, at this time the Company is reviewing a proposal to drive a ramp from surface down to approximately the 100 m level. After the initial environmental and geotechnical studies to locate the most feasible portal location are determined, the preliminary engineering work on a proposed ramp would be undertaken. Assuming that this scenario continues to be economically feasible, and the ramp has been completed, an underground diamond-drilling program of approximately 15,000 meters would be undertaken. Following successful completion of the diamond drilling program, the next step would be an underground bulk sample of ~20,000 mt would be excavated and processed through a sample tower and then milled to further define the parameters and controls of the mineralization. *The author has reviewed current Lake Shore exploration program outlines and strategies and concurs with the general tenor of these exploration recommendations*.

22.2 Budget Outline

In April, 2008, the most recent preliminary budget estimates by Hannu Virtanen P.Eng are as follows:

a) Initial environmental, geotechnical and engineering works to facilitate an underground exploration program are estimated to cost $1.4 million.
b) Underground access ramp and portal cost is estimated to be ~$6.5 million.
c) Drifting to access drilling stations and sampling locations underground is estimated to cost $2.5 million.
d) Diamond drilling costs are estimated to be $1.9 million.
e) Bulk sampling, handling and treatment is estimated to cost $4.0 million.

Total estimated cost is, therefore, $16.3 million. A contingency of 25% amounting to $4.1 million is added due to inherent uncertainties in developing underground access to a completely new and previously undeveloped mineralized zone giving a total estimated cost of $20.4 million.

23. REFERENCES

Barnett, P.J. (1992): Quaternary Geology of Ontario; in *Geology of Ontario*, Ontario Geological Survey Special Volume 4, Part 2, pp. 1011-1088.

Blue Heron Solutions for Environmental Management Inc. (April, 2007): Lake Shore Gold Corp. due diligence review acquisition of the Bell Creek Mine and Mill.

Booth, B.R. and Brown, M. (2007a): Lake Shore Gold acquires the Bell Creek Mine and Mill in Timmins, Ontario from Goldcorp and Kinross; Lake Shore *News Release* dated January 31, 2007 @ http://www.lsgold.com/press/January31_2007.html.

Booth, B.R. and Brown, M. (2007b): Lake Shore intersects additional high grade gold at Vogel Timmins, Ontario; Lake Shore *News Release* dated February 21, 2007 @ http://www.lsgold.com/press/February21_2007.html.

Brown, M. (2007): Lake Shore finalizes Bell Creek Acquisition (Lake Shore *News Release* dated December 18, 2007 @ www.lsgold.com/press/December18_2007.pdf.

Buchan K. L. and Ernst R. E. (1994): Onaping fault system: age constraints on deformation of the Kapuskasing structural zone and units underlying the Sudbury Structure. *Canadian Journal of Earth Sciences,* v.31, pp.1197-1205.

Coad, P.R., Labine, R.J., and Caron, D. (1986): Owl Creek Mine, in *Gold '86 Excursion Guidebook*, pp. 34-36.

Corfu, F., Krogh, T.E., Kwok, Y.Y. and Jensen, L.S. (1989): U-Pb zircon geochronology in the southwestern Abitibi greenstone belt, Superior Province; *Canadian Journal of Earth Sciences*, v.26, pp.1747-1763.

Cox, S. (2000): Controls on localisation of mesothermal gold systems - applications of stress transfer modelling," *Australian National University summary*.

Crick, D. (1997): Schumacher (III) Property - "Drill-Indicated Resource Estimate.

Dubé, B. and Gosselin, P. (2005): Lode gold: Greenstone-hosted quartz-carbonate vein deposits (orogenic, mesothermal, lode gold, shear-zone-related quartz-carbonate or gold-only deposits): Geol. Surv. Canada, *Mineral Deposits of Canada* on-line paper @ http://gsc.nrcan.gc.ca/mindep/synth_dep/gold/greenstone/pdf/deposit_synthesis.gold_greenstone.dube_gosselin.pdf

Fyon, J.A., Breaks, F.W., Heather, K.B., Jackson, S.L., Muir T.L., Stott, G.M. and Thurston, P.C. (1992): Metallogeny of Metallic Mineral Deposits in the Superior Province of Ontario; in *Geology of Ontario*, Ontario Geological Survey Special Volume 4, Part 2, pp.1091-1174.

Groves, D.I. et al. (2000): Late kinematic timing of orogenic gold deposits and significance of computer based exploration techniques with emphasis on the Yilgarn Block Western Australia," *Ore Geology Reviews,* v. 17, pp. 1-38.

Heaman L. M. (1997): Global magmatism at 2.45 Ga: Remnants of an ancient large igneous province? *Geology,* v.25, pp.299-302.

Innes, D. and Booth, B.R. (2005a): Lake Shore acquires the Vogel Gold Property and continues to increase its gold assets in Timmins Gold Camp; Lake Shore *News Release* dated March 7, 2005 @ http://www.lsgold.com/contact.html.

Innes, D. and Booth, B.R. (2005b): Lake Shore acquires the Schumacher Estate Property adjacent to the company's Vogel Property, Timmins, Ontario; Lake Shore *News Release* dated December 1, 2005 @ http://www.lsgold.com/contact.html.

Jackson, S. L. and Fyon, J.A. (1991): The Western Abitibi Subprovince in Ontario; in *Geology of Ontario*, Ontario Geological Survey Special Volume 4, Part 1, pp.405-482.

Jarvi, U. (1996): Estimate of Resources, Black Hawk Mining Inc. Property, Hoyle Twp., Timmins Area, Ontario; April 4, 1996.

Jensen, L.S. and Langford F.F. (1985): Geology and petrogenesis of the Archean Abitibi Belt in the Kirkland Lake area, Ontario; *Ontario Geological Survey, Misc. Paper 123*.

Kinross Gold Corp. (1997): Feasibility Study Vogel Project, dated October 20,1997.

Kinross Gold Corp. (1998): Combination Scenario Report for Vogel Project dated January 20, 1998.

Kinross Gold Corp. (1998): Gemcom drill-hole database and models for Vogel Project.

Labine, R.J. (2006a): 2005/2006 Vogel Half Lot – Hoyle Township; detailed drill logs.

Labine, R.J. (2006b): Schumacher Estate III half lot, First and Second Quarterly Reports.

Labine, R.J. (2006c): Third Quarterly Report of 2006, Schumacher III Estate Property – Hoyle Township.

Labine, R.J. (2007): Estimated costs for an underground program from the Bell Creek Mine; internal Lake Shore report.

Labine, R.J. (2008): A 2008 3-hole drill program on the Bell Creek Complex; internal Lake Shore report.

Lapierre, K., (1996): Diamond Drill Report for Black Hawk Mining Inc., Hoyle (Vogel) Gold Property; April 22, 1996.

Lindgren, W. (1933): *Mineral Deposits*, McGraw-Hill, New York.

MacRae, W. (1997): 1996/1997 Diamond Drill Summary Report on the Black Hawk Mining Vogel Property for Kinross Gold Corporation; Kinross internal report, undated, 6 pages plus appendices.

Mortensen J.K. (1987): U-Pb chronostratigraphy of the Abitibi Greenstone belt (abstract); in *GAC-MAC Joint Annual Meeting*, v.12, p. A75.

O'Reilly, S.Y. (1) and Griffin W.L. (1,2) (1999): Petrologic and Geophysical Characteristics of the Lithosphere and the Lithosphere-Asthenosphere boundary through time: (1) *GEMOC Macquarie University*, (2) *CSIRO Exploration & Mining*, Australia.

Osmani, I.A. (1991): Proterozoic Mafic Dike Swarms in the Superior Province of Ontario; in *Geology of Ontario*, Ontario Geological Survey Special Volume 4, Part 1, pp.661-682.

Palin, M. (2000): Carbonation and sulphidation of wall rock in mesothermal gold deposits; *Australian National University summary*.

Percival, J.A. (2006): Geology and metallogeny of the Superior Province; *Geol. Surv. Canada*, preliminary paper @ http://gsc.nrcan.gc.ca/mindep/synth_prov/superior/index_e.php.

Postle, J.T. (1997): Valuation of the Schumacher III Property.

Rock, N.M.S and Groves, D.I. (1988): Can lamprophyres resolve the genetic controversy over mesothermal gold deposits? *Geology:* Vol. 16, No. 6, pp. 538–541.

Rocque, P., Mah, S., Hamilton, R., Wilson, G. and Kilpatrick R. (2006): Review of Porcupine Joint Venture Operation Ontario, Canada, *NI 43-101 Technical Report* for Goldcorp Inc., by Amec Americas Ltd., 240 p.

Rogers, D.S. (1997): Schumacher (III) Property, "A review of the Mineral Resource Estimates."

Sawyer, E.W. and Barnes, S.J. (1994): Thrusting, magmatic intraplating, and metamorphic core complex development in the Archaean Belleterre-Angiers Greenstone Belt, Superior Province, Quebec, Canada; *Precambrian Research*, v.68, pp.183-200.

Stanton, R.L. (1972): *Ore Petrology*, McGraw-Hill, New York.

Still, A. (2007a): Pages 86 and 87 of an "Independent Technical Report" prepared for by SRK Consulting for Kinross Gold Corp., in an e-mail dated January 23, 2007, from alastair.still@goldcorp.com.

Thurston, P.C Osmani, I.A. and Stone, D. (1991): Northwestern Superior Province: Review and Terrane Analysis; in, *Geology of Ontario*, Ontario Geological Survey Special Volume 4, Part 1, pp. 81-142.

Titaro, D, George, P.T. and Brady, B.S (1999): Feasibility Study of Development Alternatives, Vogel Gold Project, Timmins, Ontario; for Black Hawk Mining Inc., by A.C.A. Howe International Limited, Toronto, Ontario, Canada.

Tylee, K.D. (1998): Summary Report, 1997 Surface exploration program at the Schumacher (III) Property.

Virtanen, H. (2008): Budget estimates for ramp on Vogel-Schumacher III; internal lLake Shore report April, 29, 2008.

Wilton, D. (1997a): Quartz-Carbonate vein gold deposits, Part 1; *Northern Miner*, Toronto @ http://www.northernminer.com/Tools/Geology101/geo101.asp.

Wilton, D. (1997b): Quartz-Carbonate vein gold deposits, Part 2; *Northern Miner*, Toronto @ http://www.northernminer.com/Tools/Geology101/geo101.asp.

Weinberg, R.F., Hodkiewicz, P.F. and Groves, D.I. (2004): What controls gold distribution in Archean terranes? *Geology*, July 2004, v 32, No 7, pp.545-548.

24. DATE AND SIGNATURE PAGE

I, Hadyn R. Butler, B.Sc. Hons, P.Geo, Consultant Geologist with residence and business address at 647 Silver Lake Road, Sudbury, Ontario, P3G 1J9, do hereby certify that:

1. I have practiced my profession for 42 years as a geologist in the private sector (since 1966) throughout Australia, Papua New Guinea, Indonesia, Brazil and Canada.
2. I graduated with a degree in geology in 1974 (Batchelor of Science, with First Class Honours and University Medal) at the University of New England, Armidale, New South Wales, Australia.
3. I am a Professional Geoscientist - a Practicing Member of the Association of Professional Geoscientists of Ontario (APGO No. 350).
4. My first field experience with Archean mesothermal gold ores was in 1972.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association (as defined by NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI43-101.
6. I am responsible for the preparation of all sections (Items 1 through 26) of the technical report entitled, "Technical (Geological) Report on the Bell Creek Complex," and dated April 29, 2008 (the "Technical Report"). Unless otherwise indicated, I have prepared the illustrations for this report. As of the date of the certificate, I certify, that to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical data required to be disclosed to make the report not misleading.
7. I have had no prior involvement with the properties that are the subject of the Technical Report, and most recently visited the land package on May 17, 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 independent of the issuer (Lake Shore Gold Corp.) applying tests in section 1.4 of National Instrument 43-101, and there were no circumstances that were or could be seen to interfere with my judgment in preparing the Technical Report.
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 that form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated in Sudbury, Ontario, this 29th Day of April, 2008

(signed by) "Hadyn R. Butler" *(sealed)*

Hadyn R. Butler, B.Sc. Hons, P. Geo (APGO No. 350)

25. ADDITIONAL REQUIREMENTS FOR TECHNICAL REPORTS ON DEVELOPMENT PROPERTIES AND PRODUCTION PROPERTIES

This Item does not apply to the Bell Creek Complex land package at the present time.

26. ILLUSTRATIONS

Figure 1 - Aspect of the landscape, Vogel and Schumacher III Estate Properties on May 17, 2007: **A.**, Looking SW from the Vogel Property's northern boundary: **B.**, Looking south along the Vogel and Schumacher III Estate Properties' common surveyed boundary: **C.**, Looking east from the NW corner of the Schumacher III Estate Property along its northern surveyed boundary. The landscape is remarkably flat caused by the "clay belt" remains of Pleistocene periglacial Lake Ojibway. Photographs are by the author.

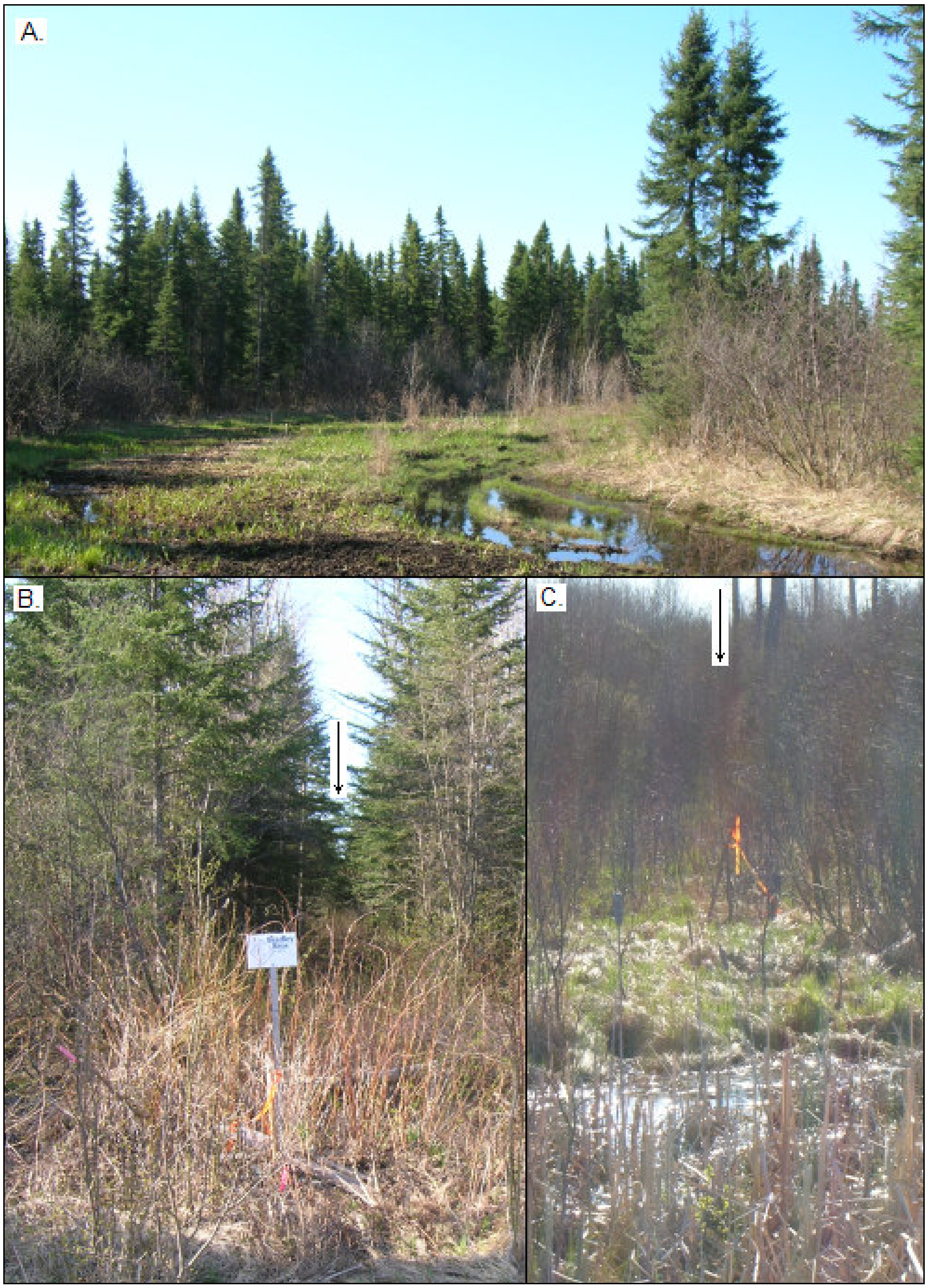


Figure 2 - Aspect of the landscape and assets on the Bell Creek Assets Property, May 17, 2007: **A.**, Bell Creek Mill (left and middle) and Bell Creek Mine headframe (right): **B.**, Bell Creek looking north on east side of Property: **C.**, Inner wall of tailings at Bell Creek Mill with active water polishing pond on the right. Roads are in good condition. Photographs are by the author.

Figure 3 – Bell Creek Complex property parcel outline in Hoyle Township. Base map data courtesy MNDM @ www.mndm.gov.on.ca/mndm/mines/lands/claimap3/Default_e.asp.

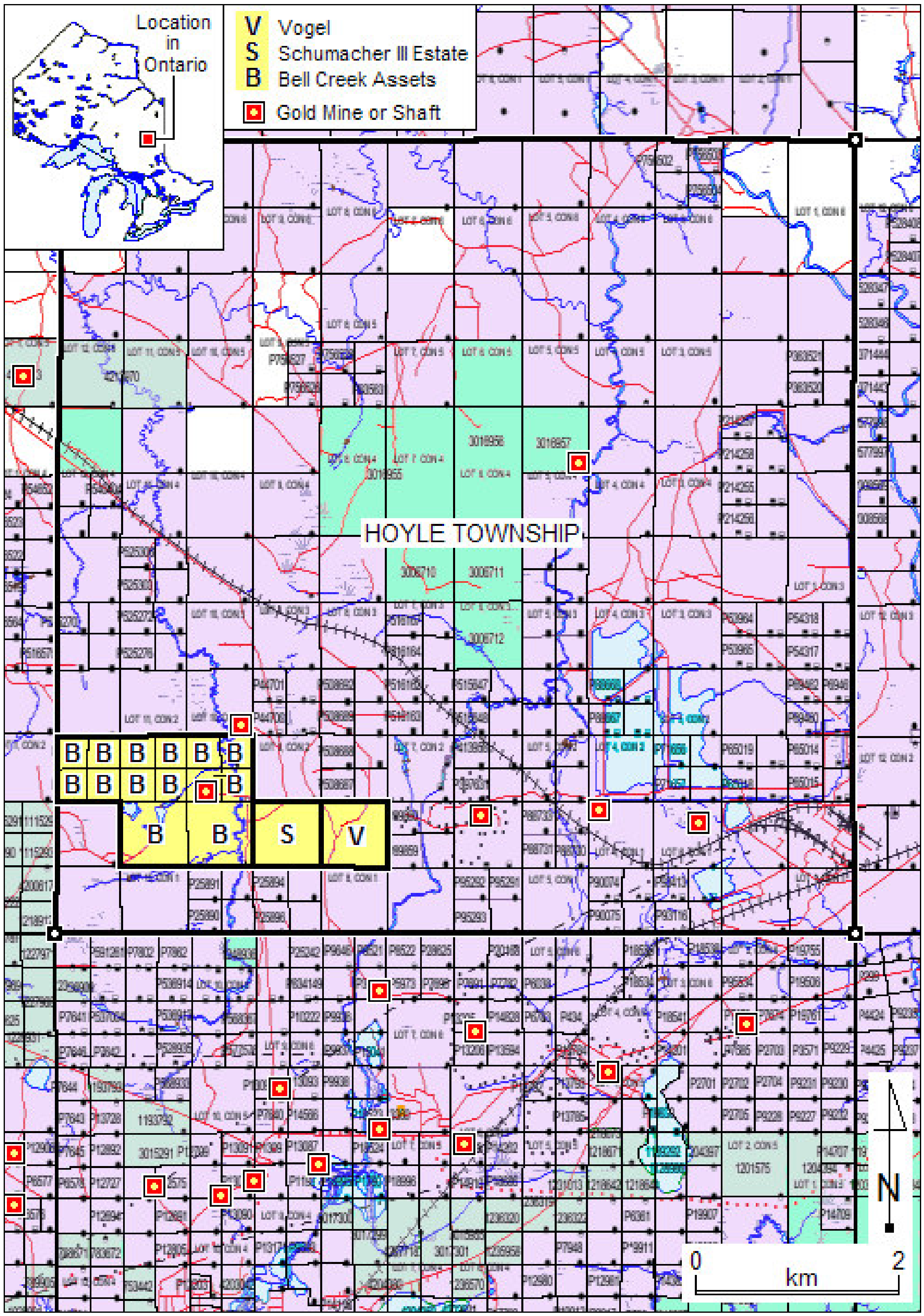


Figure 4 - Main access routes to the Bell Creek Complex: **A.** Sketch based on map courtesy of Ministry of Natural Resources; **B.** Photograph by author of north end of Florence St. extension.

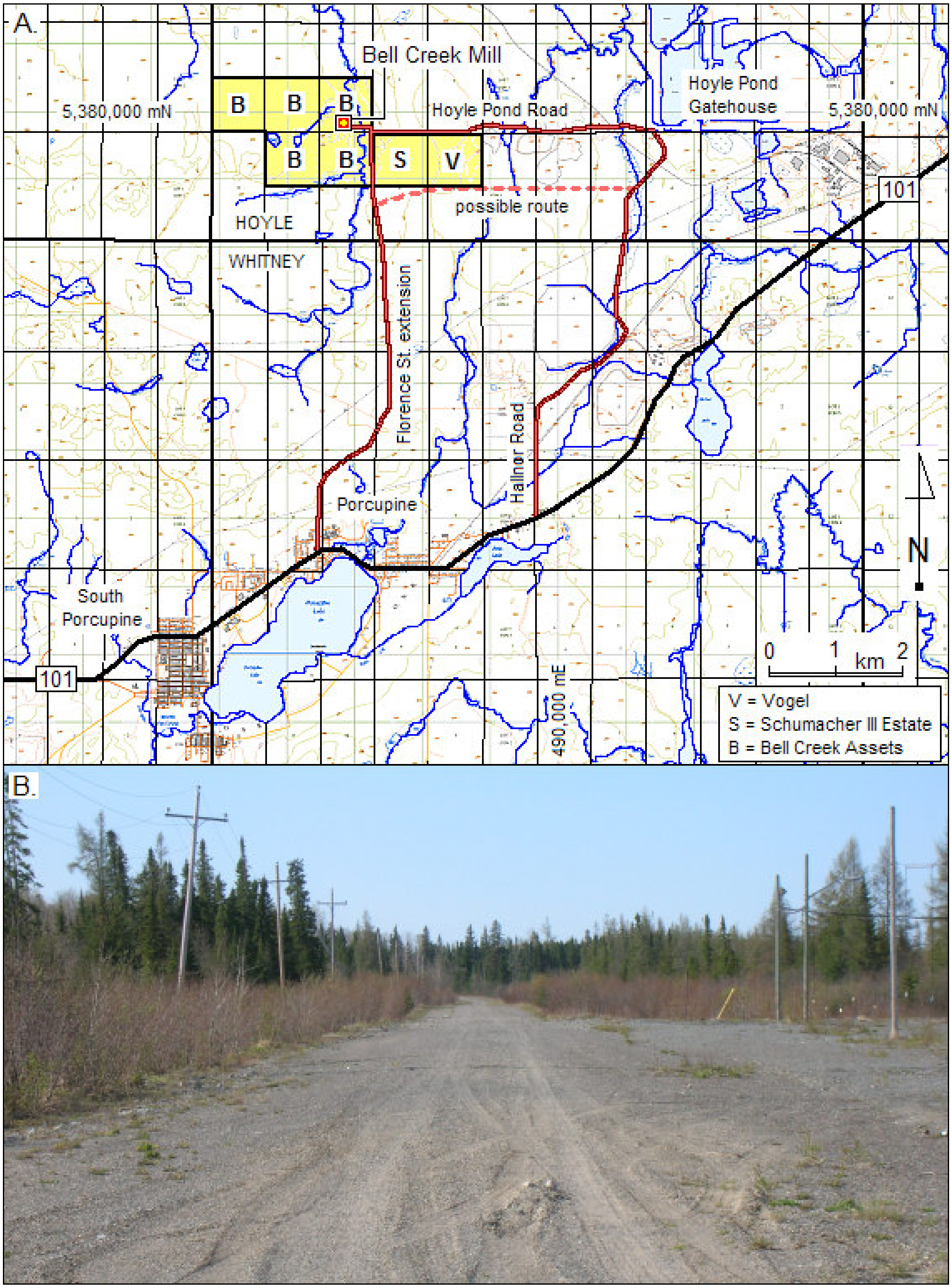


Figure 5 – False colour satellite mosaic of Bell Creek Complex Properties and surrounds (satellite data courtesy of NASA). Areas of active mine tailings as well as city streets are seen as pinkish colours with light blue clayey water ponds. Clean water ponds are black on the image. Trunk roads have been emphasized with white traces. Heavily treed areas are dark, and the remains of former farming lands are in a lighter shade of green.

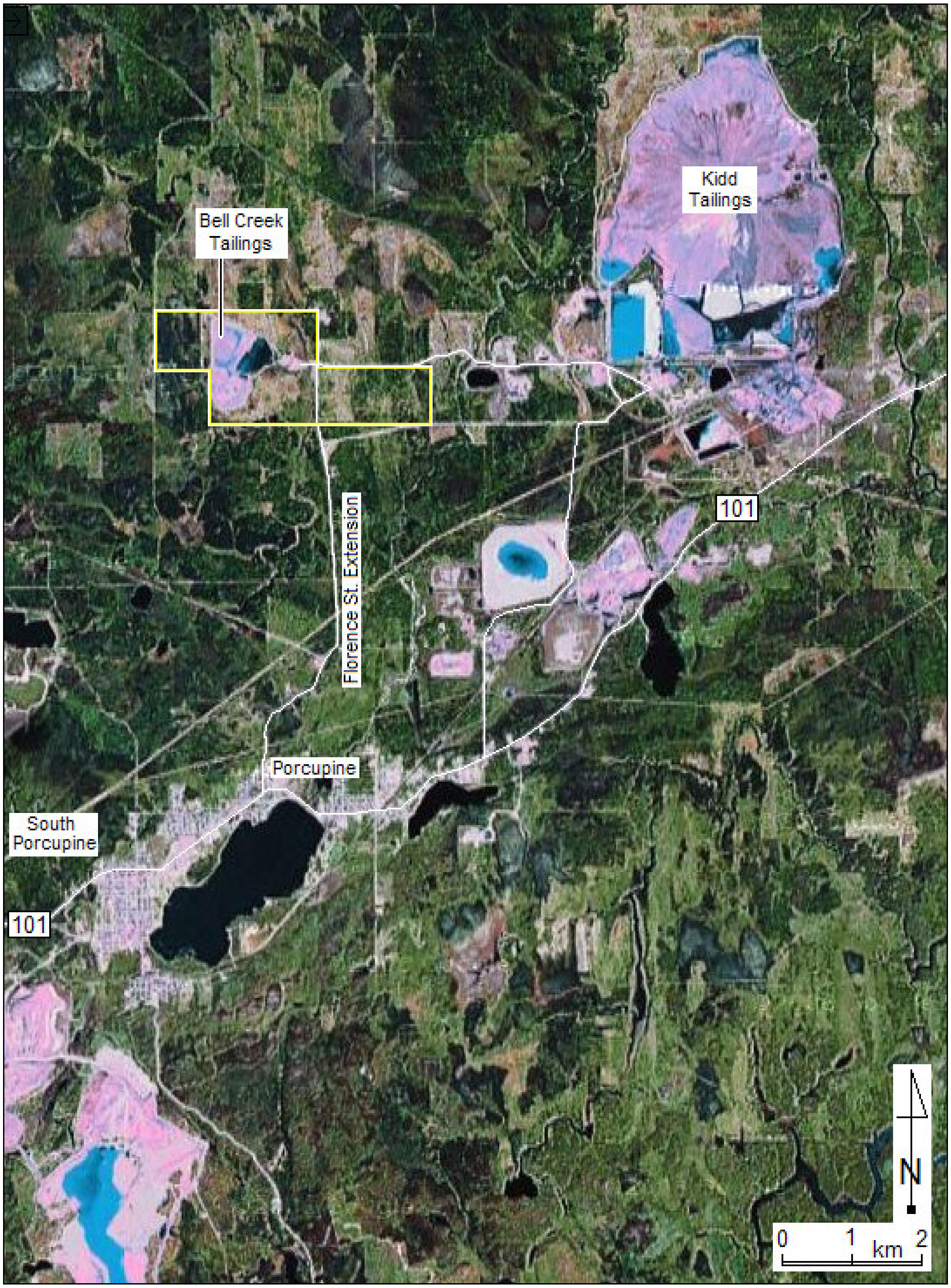


Figure 6 – Location of Bell Creek Complex in the southern Superior Province, Abitibi Subprovince. Map shows Archean Superior Province subdivisions in the Province of Ontario – data modified after Ontario Geological Survey maps and Percival (2006). It is currently thought by some regional-geology analysts that the Superior Province in Ontario grew by the assemblage of disparate gneiss-greenstone-granitoid and turbidite assemblages in a sequence from north to south as part of the Composite Superior Superterrane ("CSS"). This view is not universally accepted, however, since greenstone volcanics do not closely resemble modern subduction-generated arc volcanics in style, detailed mineral chemistry or ore types.

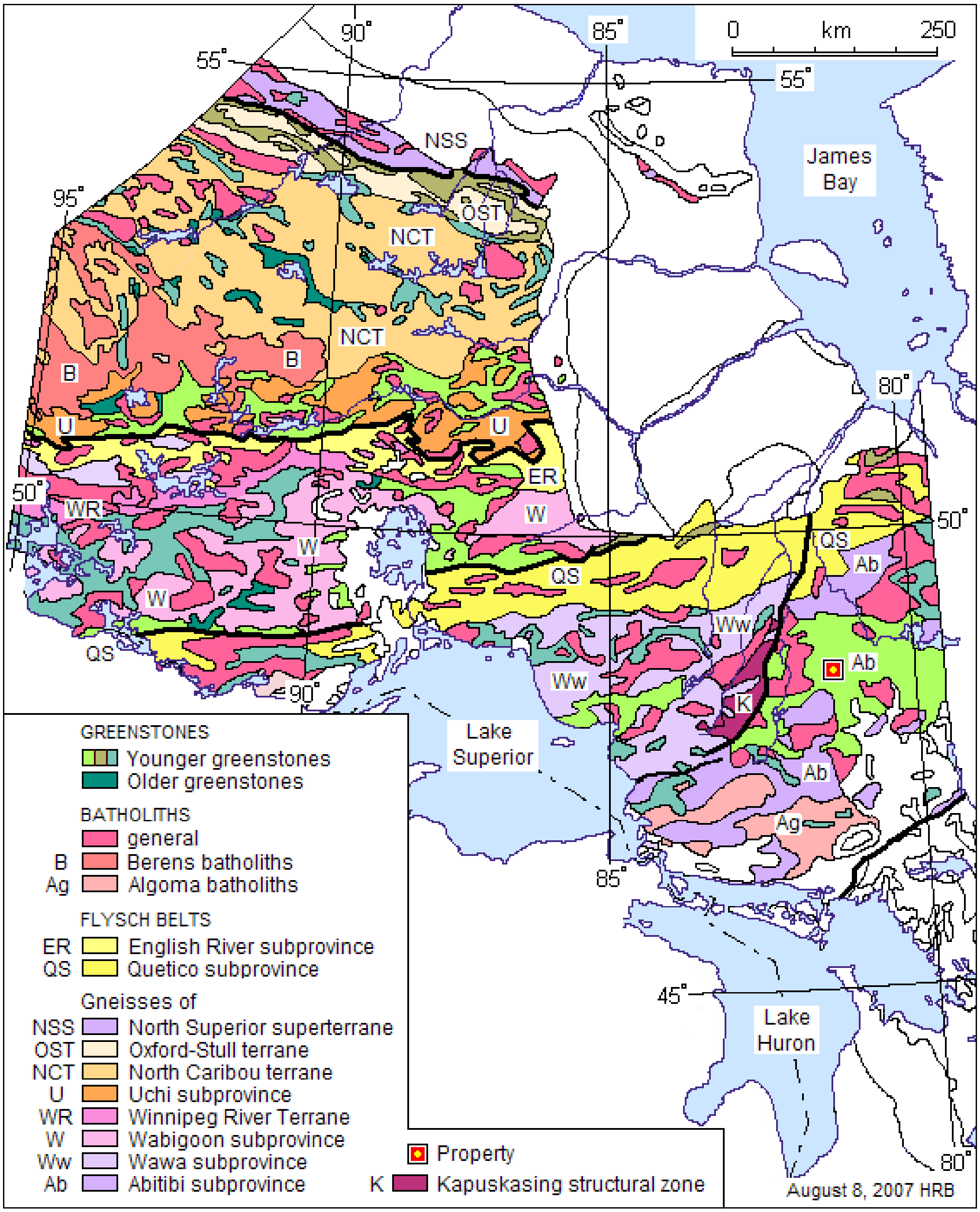


Figure 7 – Abitibi Greenstone Belt and notable gold discoveries.

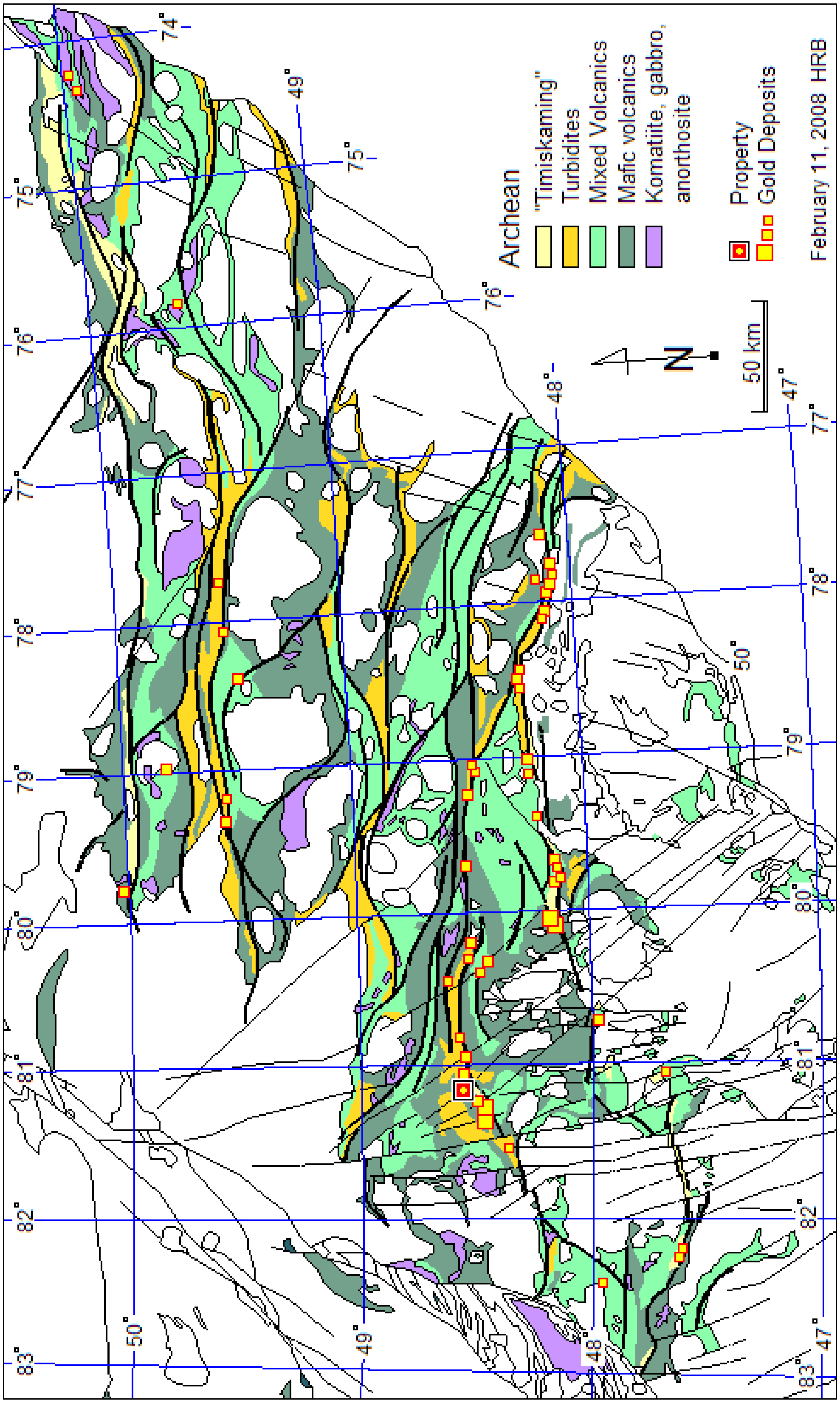


Figure 8 – Regional geological sketch surrounding Timmins.

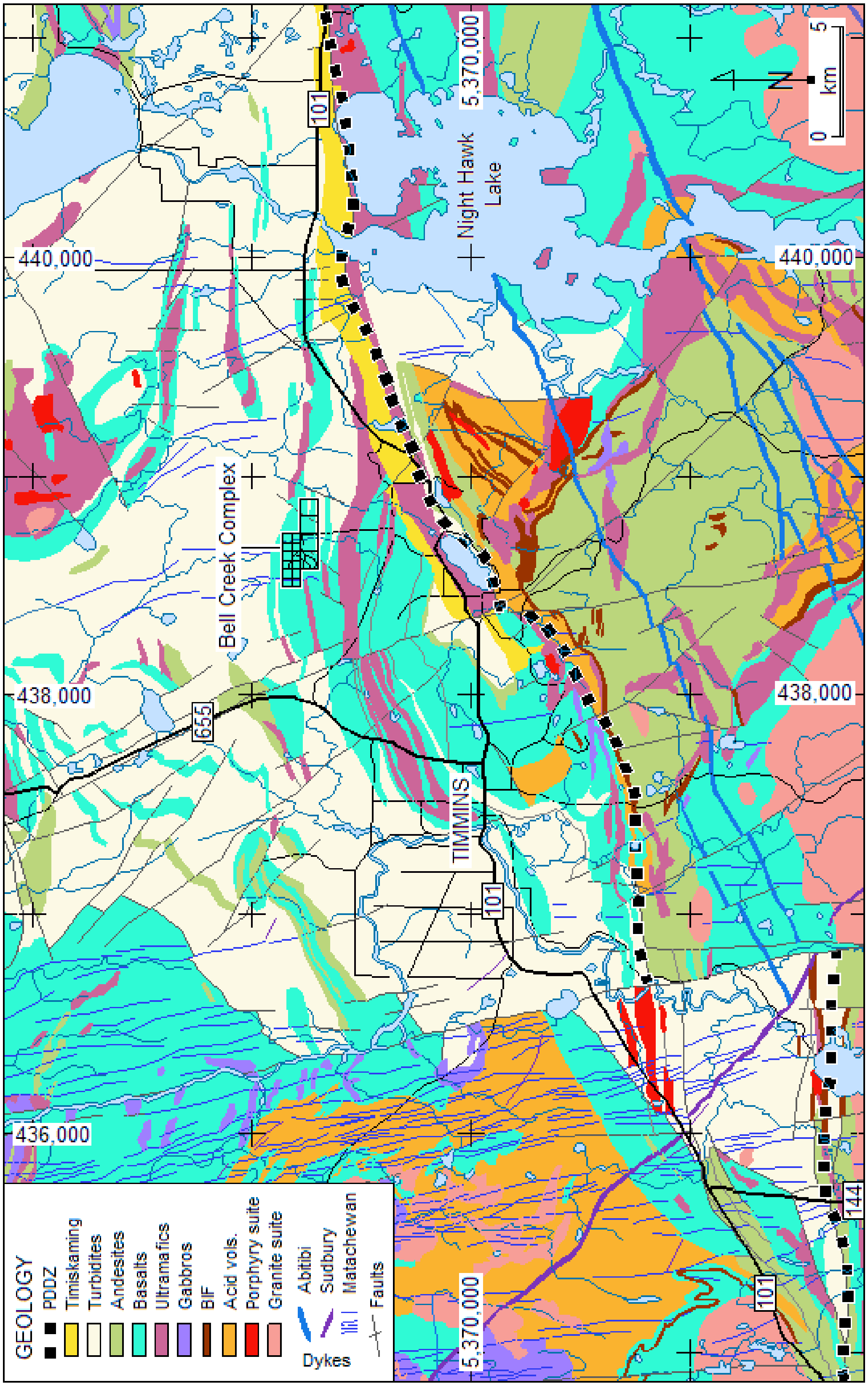


Figure 9 – Regional airborne magnetic image central and southern Hoyle Township - courtesy of Ontario Geological Survey public data release. The magnetic image shows prominent N-S and NNW-striking Proterozoic Matachewan dykes and some magnetic komatiites (marked ultramafic on the image). Graphitic conductors in southern Hoyle Township are also shown.

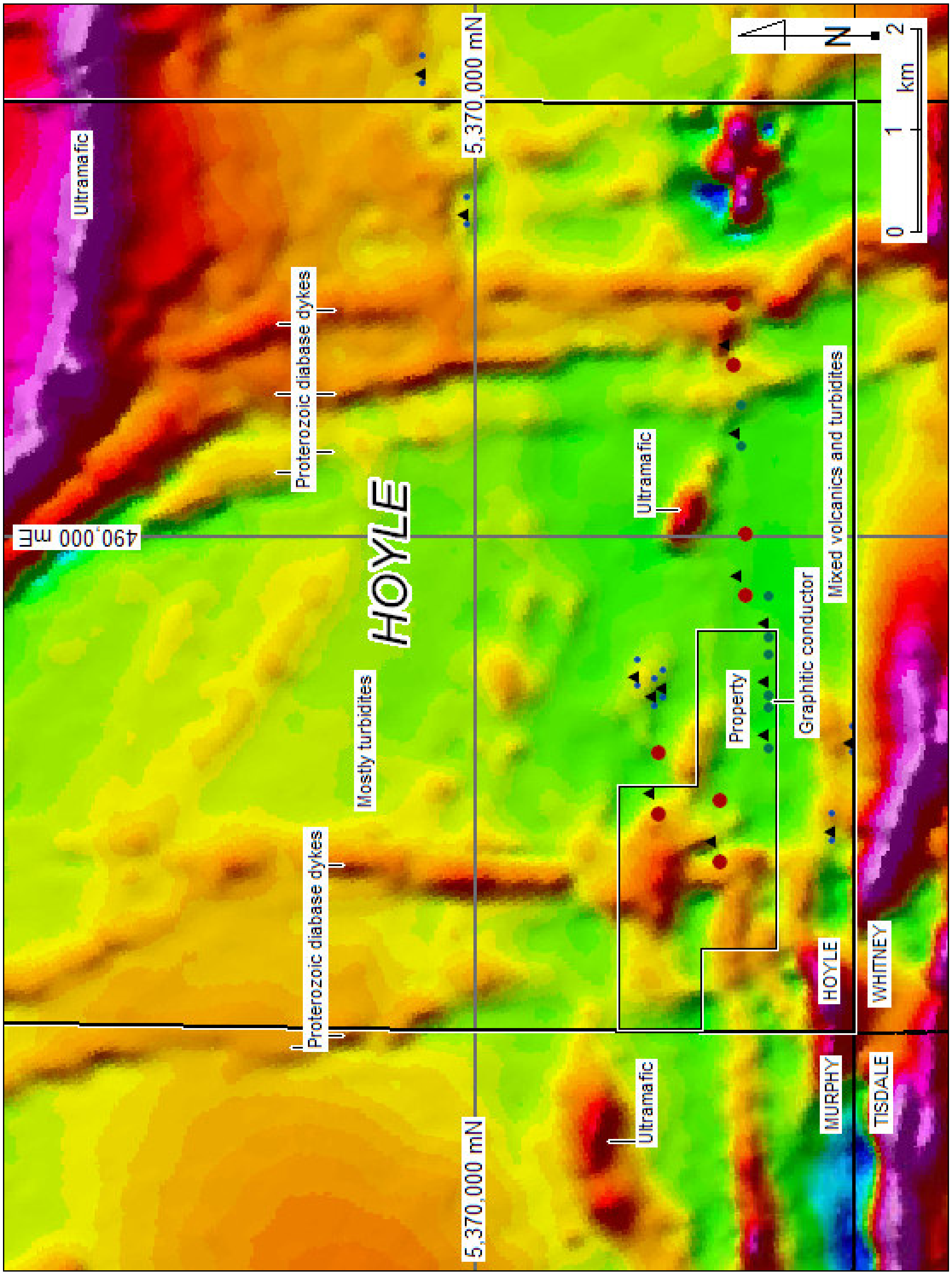


Figure 10a – Gold-mineralized drill core with *contrast-stretched colours* emphasizing alteration: **A.** sulphidized zone in carbonated metavolcanics; **B.** shear fracture quartz veins in carbonate with later brittle fractures; **C.** brittle fracture in quartz; **D.** amoeboid dissolution breccia; **E.** weathering emphasizes brown Fe-rich carbonate; **F.** altered metavolcanic shatter breccia infiltrated with Fe-rich carbonate: py = weathered pyrite, cb = carbonate, qz = quartz.

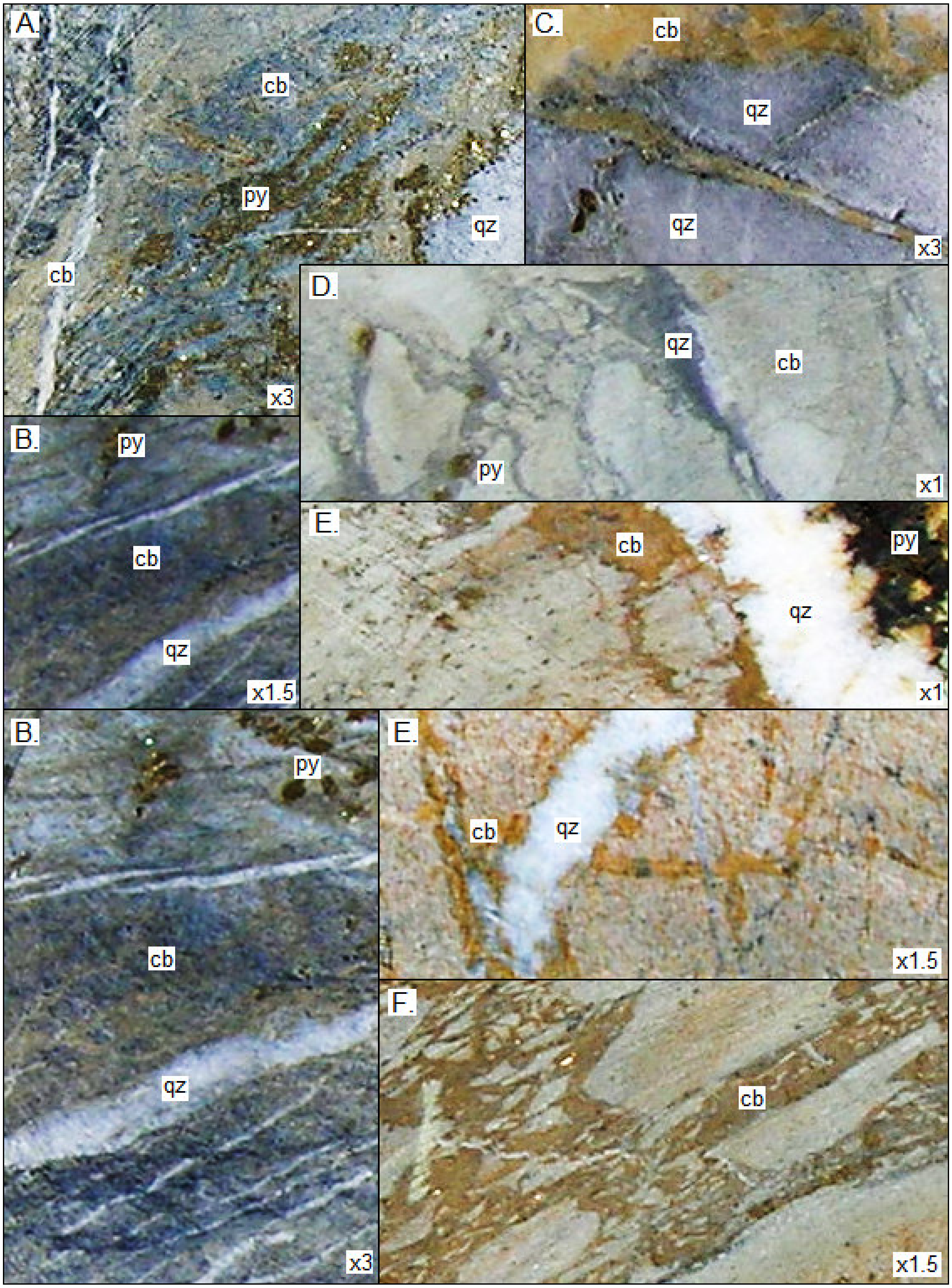


Figure 10b – Fresh mineralized Vogel core in the Lake Shore core shack: **A.** quartz vein with pyritic selvages; **B.** microstylolite in quartz; **C.** contrast stretched photographs emphasizing microstructure; **D.** free gold; **E.** red-brown sphalerite crystals; **F.** pyrite cubes that are commonly distal to mineralization. Photographs in Figures 10a and 10b are by the author.

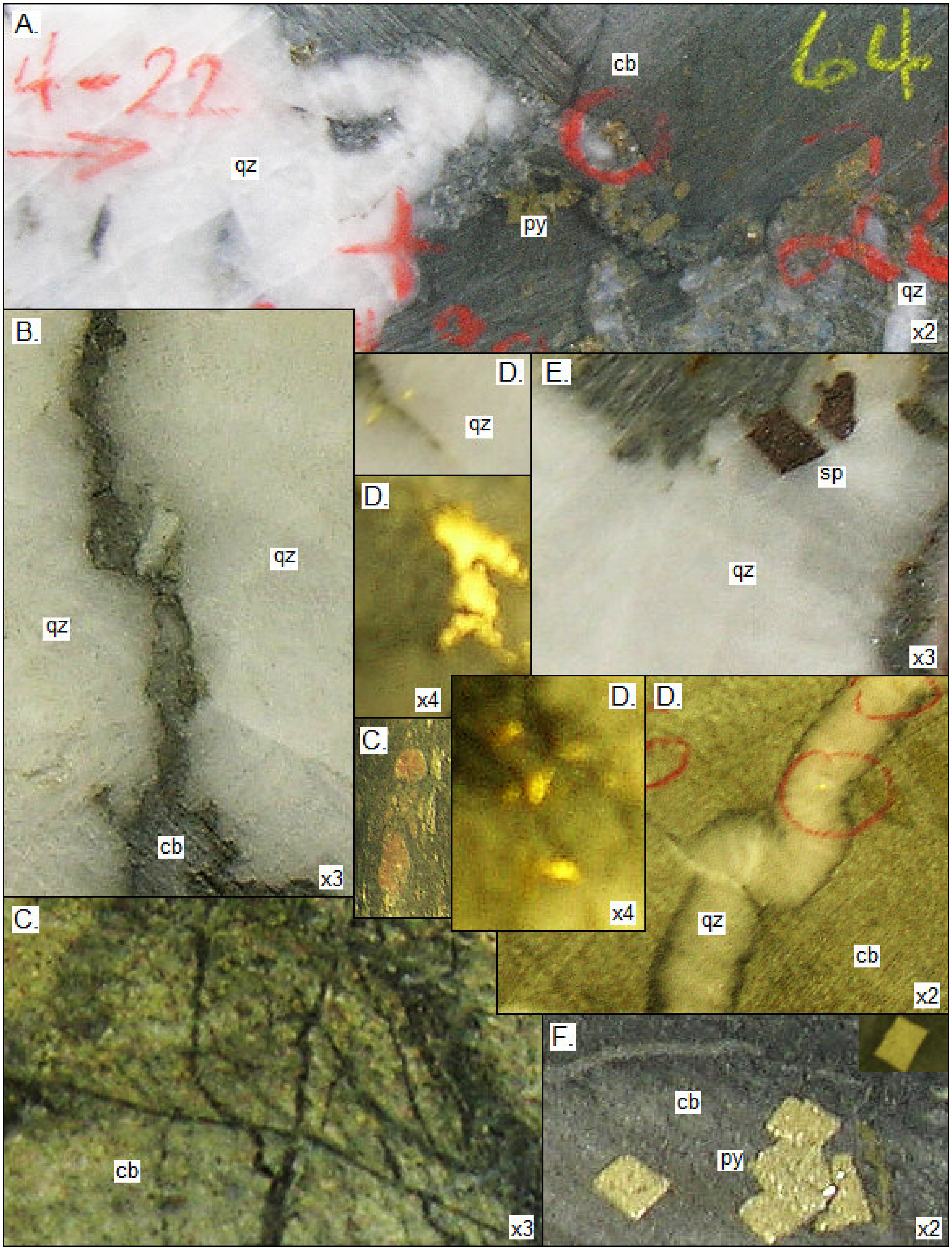


Figure 11 – Simplified geology of southern Hoyle Township gold-bearing zones.

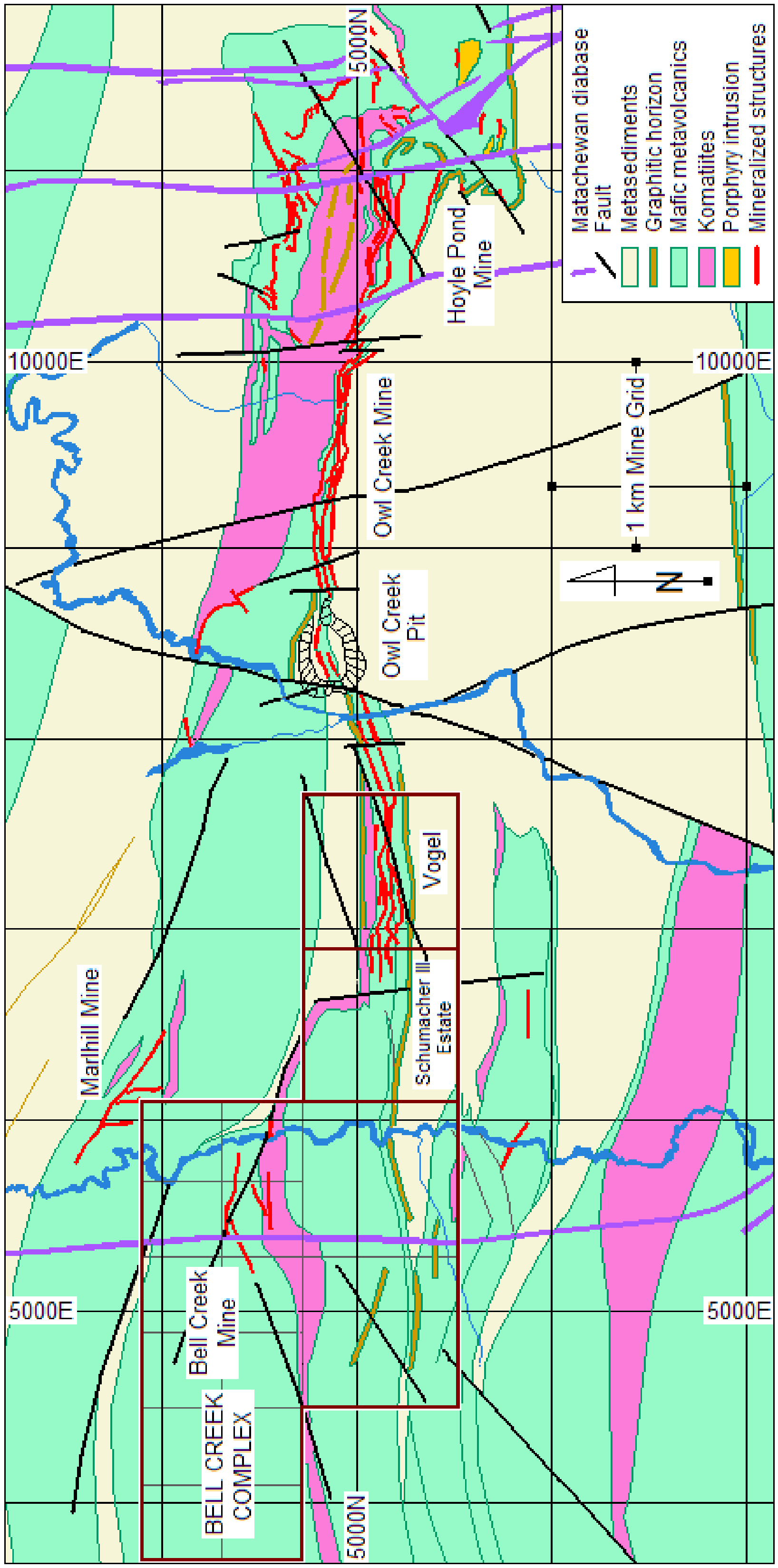


Figure 12 – Drill traces for the Bell Creek Complex prepared by Lorraine Dupuis P.Geo.

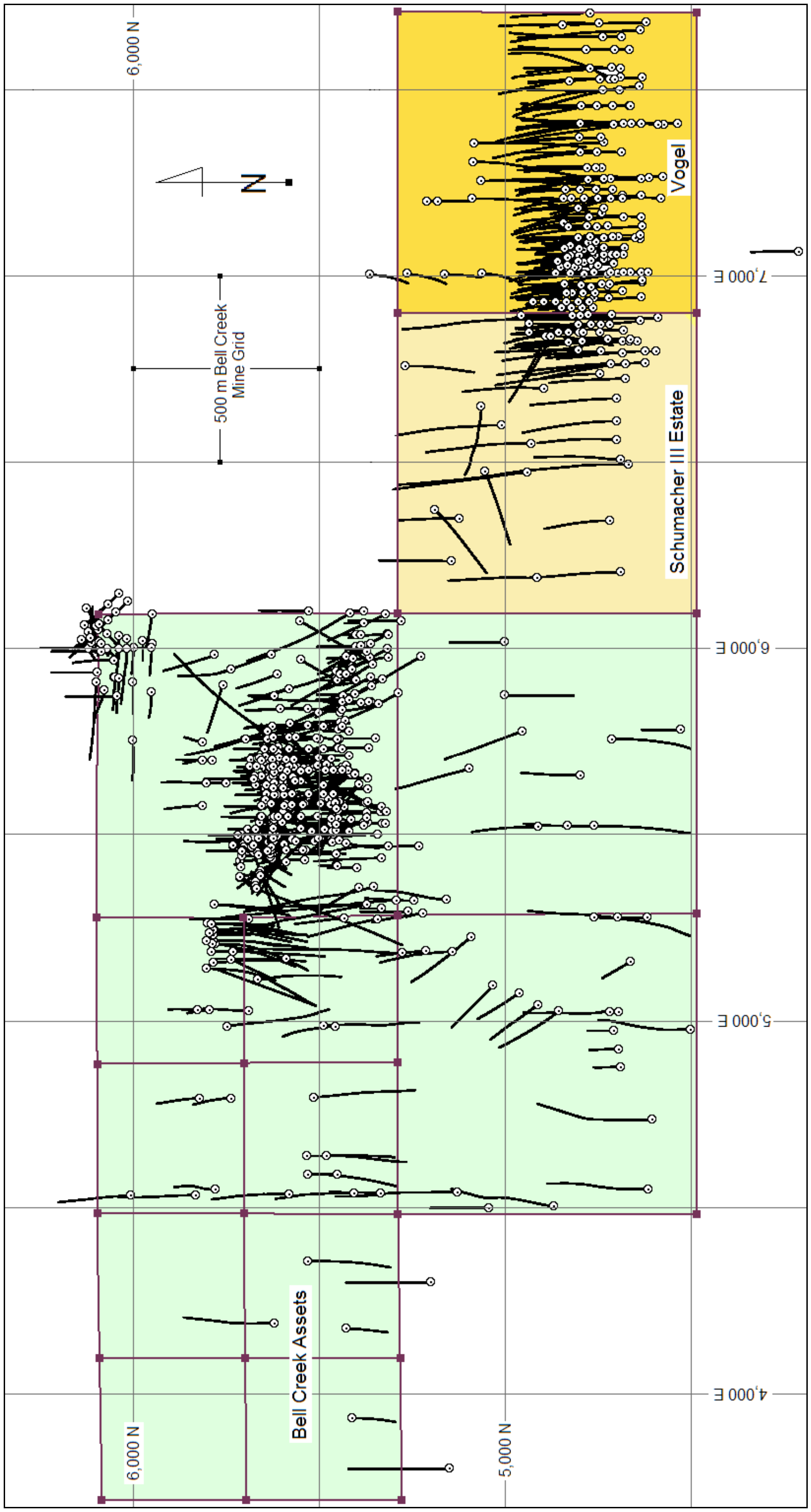


Figure 13 – Core storage on pallets: **A.**, green steel container with pulps and rejects from earlier drill programs; **B.**, palleted core in good condition; **C.**, diamond saw sliced mineralization.

Figure 14 – Simplified plan of the Bell Creek Mine workings, courtesy Lorraine Dupuis, P.Geo.