Updated Resource Estimate for the Schaft Creek Deposit, Northwest British Columbia, Canada

Technical Report on a Mineral Property

Pursuant to National Instrument 43-101 of the Canadian Securities Administrators

Prepared for:

Copper Fox Metals Inc.
Calgary, Canada

Prepared by:

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Effective Date: June 22, 2007

EXECUTIVE SUMMARY

Associated Geosciences Ltd. ("AGL") of Calgary, Canada has been assisting Copper Fox Metals Inc. with some aspects of the development of the Schaft Creek Project. AGL was requested to complete an updated mineral resource estimate for the property.

On May 09, 2007 (filed on SEDAR) Copper Fox Metals Inc. released a resource estimate for Schaft Creek prepared by Associated Geosciences Ltd. The public disclosure of a resource estimate on a material property where there has been >100% change from a previously reported mineral resource estimate triggers a requirement within National Instrument 43-101 to complete and file an independent technical report in support of the resource estimate within 45 days.

A summary of the Schaft Creek resource estimate which forms the subject of this report follows:

Schaft Creek Mineral Resource Estimate Summary ≥0.20 % Copper Equivalent Cut-Off						
	Tonnes	**Cu (%)**	**Mo (%)**	**Au (g/t)**	**Ag (g/t)**	**CuEq Grade (%)**
Measured Mineral Resources	463,526,579	0.30	0.019	0.23	1.55	0.46
Indicated Mineral Resources	929,755,592	0.23	0.019	0.15	1.56	0.36
Measured + Indicated Mineral Resources	1,393,282,171	0.25	0.019	0.18	1.55	0.39
Inferred Mineral Resources	186,838,848	0.14	0.018	0.09	1.61	0.25

The formula used to estimate the recoverable copper equivalent grades for the Schaft Creek deposit is as follows:

CuEq%=((((Cu % x 10 x Lb_Kg x Price_Cu x Rec_Cu)+(Mo% x 10 x Lb_Kg x Price_Mo x Rec_Mo)+(Au_g/t x Price_Au/Oz-g x Rec_Au)+(Ag_g/t x Price_Ag/Oz-g x Rec_Ag))/Price_Cu)/(Lb_Kg x 10))

The determination of metal equivalents may vary between companies and AGL has used the following assumptions in the copper equivalent estimation:

Metal	Commodity Prices	Metallurgical Recoveries
Copper (Cu)	US$1.50/lb	91%
Molybdenum (Mo)	US$10.00/lb	63%
Gold (Au)	US$550/oz	76%
Silver (Ag)	US$10/oz	80%

It is the considered opinion of AGL that mineralized material below a copper equivalent cut-off grade of 0.20% at Schaft Creek cannot be considered as mineral resources as they are potentially uneconomic. As such, only mineral resources ≥0.20% copper equivalent cut-off have been reported.

During the preparation of this report a number of errors were identified in the copper equivalent formula used to prepare the estimate released on May 09, 2007 which affected the contribution of metal values to the copper equivalent grade. The formula was subsequently corrected and independently peer reviewed by Gilles Arseneau, Ph.D., P.Geo., Manager Geology of Wardrop Engineering Inc.

The mineral resources presented in this report and summarized above have been updated to reflect the corrected formula.

Where a final mineral resource estimate supported by a technical report differs from a previously disclosed estimate, NI 43-101 requires that the two estimates be reconciled. While the overall tonnes and grades at a 0% copper equivalent cut-off for the individual elements in all mineral resource categories has not changed there has been a considerable rearrangement of the tonnes and grades assigned at various copper equivalent cut-offs (particularly above a 0.20% CuEq). This has had the effect of increasing the tonnage at any particular copper equivalent cut-off while raising the copper equivalent grade.

AGL recommends that Copper Fox continue to advance the scoping study currently underway.

The proposed 2007 budget of C$16.7 million is reasonable and warranted.

The effective date of this report is June 22, 2007.

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1.0 INTRODUCTION

The 10,371 ha Schaft Creek project is located in northwestern British Columbia, Canada and has been explored extensively since mineralization was first discovered on the property in 1957. Mr. G. Salazar acquired an option on the property from TeckCominco in 2002 and subsequently incorporated it into the holdings of Copper Fox Metals Inc. in 2005.

Copper Fox Metals Inc. ("Copper Fox") has conducted seasonal exploration programs during 2005 and 2006, with another program underway. A scoping study leading to a pre-feasibility assessment is underway.

The project is comprised of a mineralized (Cu±Mo, Au, Ag) low-grade porphyry system consisting of three distinct, structurally modified zones. These zones include the Main/Liard zone, the West Breccia zone, and the Paramount zone. The deposit is located within the Stikina terrane, and associated with the Hickman Batholith.

Associated Geosciences Ltd. ("AGL") of Calgary, Canada has been assisting Copper Fox Metals Inc. with some aspects of the development of the Schaft Creek Project. AGL was requested to complete an updated mineral resource estimate for the property. This was disclosed by Copper Fox on May 09, 2007.

The public disclosure of a resource estimate on a material property where there has been >100% change from a previously reported mineral resource estimate triggers a requirement within National Instrument 43-101 to complete and file an independent technical report in support of the resource estimate within 45 days.

The current technical report was prepared to conform to the requirements of the National Instrument 43-101 and the TSX Venture Exchange for an independent report supporting the issuance of a new mineral resource estimate on a material property.

During the preparation of this report a number of errors were identified in the copper equivalent formula which affected the contribution of metal values to the copper equivalent grade. The formula was subsequently corrected and independently peer reviewed by Gilles Arseneau, Ph.D., P.Geo., Manager Geology of Wardrop Engineering Inc.

The mineral resources presented in this report have been updated to reflect the corrected formula.

1.1 Reliance on Other Experts

Numerous authors have contributed to the preparation of this technical report including staff and consultants from Copper Fox Metals Inc. and Associated Geosciences Ltd.

Several sections of this report have been summarized, with express permission from the authors, from a previous report filed on SEDAR titled, "2006 Diamond Drill Report, Schaft Creek Property, Northwestern British Columbia, for Copper Fox Metals Inc., Final Report".

Co-authors of this report were Dr. Peter Fisher, Walter Hanych, and Sheena Ewanchuk, Geol.I.T., with additional contributions from James Scott. Dr. Fisher and Mr. Hanych managed the 2005 and 2006 field program at Schaft Creek.

The geological model and resource estimate were completed by Riaan Herman, a sub-consultant to AGL with assistance from Susan O'Donnell, Geol.I.T.

Portions of the data verification section, pertaining to the 2006 Quality Assurance and Quality Control program, have been summarized from a memo written by D.Beauchamp, P.Geol., a Copper Fox consultant.

Information regarding geotechnical investigations has been prepared by Peter Cain, Ph.D., P.Eng., of Associated Geosciences Ltd. Data compilation has been performed by Susan O'Donnell, Geol.I.T., also of Associated Geosciences Ltd.

A summary of the status of the environmental scoping process has been provided by Clem Pelletier, Project Manager with Rescan Environmental Services Ltd.

This report was prepared under the direction of Keith McCandlish, P.Geo., Vice President & General Manager, Associated Geosciences Ltd.

While AGL has relied on these experts, Mr. Keith McCandlish, P.Geo. as an independent "Qualified Person" as defined in the National Instrument 43-101 takes full responsibility for the technical content of this report.

1.2 Sources of Data

As mentioned, several sections of this report have been reproduced or summarized from the 2006 Diamond Drill Report. Other sources of data include various publications from prior property owners such as Asarco, Hecla Mining Corporation, and Teck Corporation; however, older material was largely used for reference.

The 2005 and 2006 drilling program resulted in the completion of a total of 57 holes, or 12,167 m of core. The majority of the information included in this report is based on these exploration programs.

1.3 Disclaimers

Reliance on technical reports published by Copper Fox and other authors has been substantially verified by subsequent fieldwork. Data from previous Copper Fox reports on the property has been found to be qualitatively reliable and adequate for the stage of exploration where the data was collected.

1.4 Units

All measurement units in this report conform to metric usage within the context of the International System of Units (SI) except where stated otherwise. Gold weights may be expressed in gram (g) or ounces Troy (31.10347 g). Currencies are expressed in the Canadian Dollar (C$) unless otherwise stated.

The term "mineral resource" and/or "mineral reserve" conform to the usage defined in the *CIM Definition Standards on Mineral Resources and Reserves*, which usage is mandated in NI 43-101.

1.5 Effective Date

The report has an effective date of June 22, 2007.

2.0 PROPERTY DESCRIPTION AND LOCATION

The Schaft Creek property is situated in northwestern British Columbia, approximately 60 km south of the village of Telegraph Creek, within the upper source regions of Schaft Creek, which drains northerly into Mess Creek and onwards into the Stikine River. Located within the Boundary Range of the Coast Mountains, the elevation of the valley at the Schaft Creek camp site is 866 m with nearby mountains exceeding 2,400 m. The property lies in proximity to the southwest corner of Mount Edziza Provincial Park, and is located 45 km due west of Highway 37 (Figure 2.1).

Referenced to Energy, Mines, and Resource Canada topographic sheet 104G, Telegraph Creek, the geographic co-ordinate at the campsite is 57º21' north latitude, 130º 59' west longitude. In terms of UTM co-ordinates, NAD 27, the location is Zone 9, 378700m E, 6358600m N. The actual deposit is situated 2 km east of the camp.

The Schaft Creek property consists of 12-contiguous claims staked in accordance with British Columbia Energy Mines and Resources regulations. The claims encompass an area totaling approximately 10,371 ha. The deposit is situated on claims 514603 and 614637, straddling the south and north boundaries respectively. The claims and their current status are listed on the following page in Table 2.1.

Table 2.1: List of claims

Tenure Number	Tenure Type	Claim Name	Owner	Map Number	Area	Good To Date	Status
514595	Mineral		126548 (100%)	104G	1653.042	2015/oct/30	GOOD
514596	Mineral		126548 (100%)	104G	1550.962	2015/oct/30	GOOD
514598	Mineral		126548 (100%)	104G	1412.623	2015/oct/30	GOOD
514603	Mineral		126548 (100%)	104G	1291.057	2015/oct/30	GOOD
514637	Mineral		126548 (100%)	104G	1256.712	2015/oct/30	GOOD
514721	Mineral		126548 (100%)	104G	1169.948	2015/oct/30	GOOD
514723	Mineral		126548 (100%)	104G	139.745	2015/oct/30	GOOD
514724	Mineral		126548 (100%)	104G	471.387	2015/oct/30	GOOD
514725	Mineral		126548 (100%)	104G	313.607	2015/oct/30	GOOD
514728	Mineral		126548 (100%)	104G	435.569	2015/oct/30	GOOD
515035	Mineral		126548 (100%)	104G	383.005	2015/oct/30	GOOD
515036	Mineral		126548 (100%)	104G	191.645	2015/oct/30	GOOD
548487	Mineral	BLOCK B1	126548 (100%)	104G	434.782	2008/jan/02	GOOD
548488	Mineral	BLOCK B2	126548 (100%)	104G	434.989	2008/jan/02	GOOD
548489	Mineral	BLOCK B3	126548 (100%)	104G	365.568	2008/jan/02	GOOD
548490	Mineral	BLOCK B4	126548 (100%)	104G	121.904	2008/jan/02	GOOD
548492	Mineral	BLOCK C1	126548 (100%)	104G	435.603	2008/jan/02	GOOD
548493	Mineral	BLOCK C2	126548 (100%)	104G	435.829	2008/jan/02	GOOD
548494	Mineral	BLOCK C3	126548 (100%)	104G	436.064	2008/jan/02	GOOD
548495	Mineral	BLOCK C4	126548 (100%)	104G	436.309	2008/jan/02	GOOD
548496	Mineral	BLOCK C5	126548 (100%)	104G	436.695	2008/jan/02	GOOD
548498	Mineral	BLOCK C6	126548 (100%)	104G	227.243	2008/jan/02	GOOD
548759	Mineral	AREA A	126548 (100%)	104G	365.065	2008/jan/05	GOOD
548760	Mineral	AREA C1	126548 (100%)	104G	436.903	2008/jan/05	GOOD
548761	Mineral	AREA C2	126548 (100%)	104G	437.115	2008/jan/05	GOOD
548762	Mineral	AREA C3	126548 (100%)	104G	367.411	2008/jan/05	GOOD
548763	Mineral	AREA C4	126548 (100%)	104G	122.542	2008/jan/05	GOOD
548764	Mineral	AREA B1	126548 (100%)	104G	366.043	2008/jan/05	GOOD
548766	Mineral	AREA B2	126548 (100%)	104G	418.111	2008/jan/05	GOOD
548767	Mineral	AREA B3	126548 (100%)	104G	435.382	2008/jan/05	GOOD
548768	Mineral	AREA B4	126548 (100%)	104G	435.6	2008/jan/05	GOOD
548769	Mineral	AREA B5	126548 (100%)	104G	418.185	2008/jan/05	GOOD
548770	Mineral	AREA B6	126548 (100%)	104G	418.186	2008/jan/05	GOOD
548771	Mineral	AREA B7	126548 (100%)	104G	418.189	2008/jan/05	GOOD
548772	Mineral	AREA B8	126548 (100%)	104G	418.189	2008/jan/05	GOOD

2.1 Environmental

The Schaft Creek project is part of the Telegraph Creek Community Watershed and therefore all mineral exploration, including road construction, maintenance and deactivation, is to be conducted according to the guidelines for community watersheds outlined in *Mineral Exploration Code*. Copper Fox has met or exceeded all of its environmental obligations to date.

2.2 Land Use

2.2.1 Cassiar Iskut-Stikine Land and Resource Management Plan (LRMP) Area

The Schaft Creek mineral claims are contained within the Cassiar Iskut-Stikine Land and Resource Management Plan (LRMP) area. The Cassiar Iskut-Stikine LMRP encompasses a total of 5.2 million hectares. The LMRP supports opportunities for mineral and energy exploration and development, including roads for resource development, in all zones outside of Protected Areas subject to standard regulatory approval processes and conditions and consistent with the management direction in the LRMP.

Existing mineral tenure rights are upheld by the Cassiar Iskut-Stikine LMRP, with the exception of two tenures within the Chukachida portion of the Upper Stikine Spatsizi Extension Protected Area. New mineral tenures can be staked and recorded on all mineral lands outside of Protected Areas according to the *Mineral Tenure Act* and Regulations.

The Cassiar Iskut-Stikine LRMP outlines three categories of management direction for the LRMP area:

1. General Management Direction
2. Area-Specific Management, and
3. Protected Areas.
4.

General Management Direction represents a baseline for resource activities on all Crown land outside of Protected Areas. The General Management Direction applies in all geographic zones, except where different objectives and strategies were developed for certain resource values or activities, outside of Protected Areas. Area-Specific Management refers to geographic resource management zones with distinct biophysical characteristics and resource issues.

The LRMP includes fifteen geographic resource management zones which are distinct with respect to biophysical characteristics and resource issues:

- Hottah-Tucho Lakes
- McBride
- Klappan
- Iskut Lakes
- Mount Edziza
- Kakkidi/Mowdada/Nuttlude Lakes
- Todagin
- Middle Iskut/Lower Iskut
- Unuk River
- Lower Stikine-Iskut Coastal Grizzly Salmon
- Telegraph Creek Community Watershed
- Chutine

- Tuya
- Metsantan

The Schaft Creek project is part of the Telegraph Creek Community Watershed and therefore falls under Area-Specific Management requirements stipulated in the LRMP. This zone includes the domestic water supply for the community of Telegraph Creek and is formally designated as a *Community Watershed*. The objective of the management approach is: "*To maintain the quality and quantity of community water supply and to maintain natural stream flow regimes within the natural range of variability*". The LRMP states that mineral exploration, including road construction, maintenance and deactivation, is to be conducted according to the guidelines for community watersheds outlined in the *Mineral Exploration Code*.

2.2.2 Tahltan Nation

The Schaft Creek mineral claims are located in traditional lands that Tahltan Nation have occupied and used. Copper Fox Metals Inc. has initiated discussions with Tahltan Nation Development Corporation, which represents the economic arm of the Tahltan Nation, to set out the joint understanding and intention of both parties to cooperate in carrying out the work at the Schaft Creek project.

On May 4, 2007, Copper Fox and the Tahltan Nation announced that they had completed a "Memorandum of Understanding". The agreement defines the scope of work, program commitments, cooperation, and communication that Copper Fox will follow at Schaft Creek, and recognizes that the Tahltan Nation Development Corporation will be a "preferred contractor".

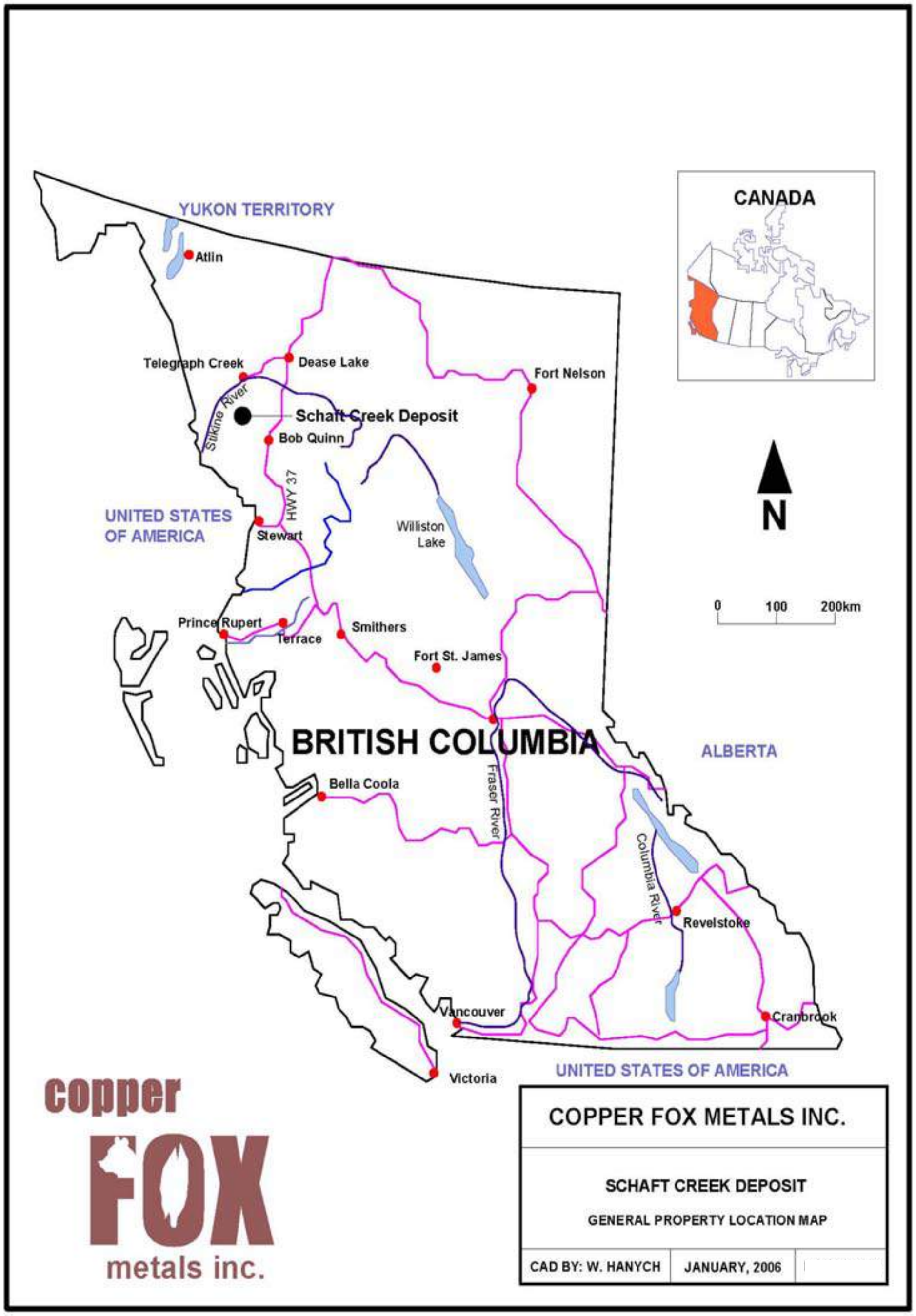

Figure 2.1: Schaft Creek claims area, Tahltan First Nation, British Columbia

3.0 ACCESSIBILITY, CLIMATE, PHYSIOGRAPHY, LOCAL RESOURCES AND INFRASTRUCTURE

3.1 Access

The Schaft Creek property is best accessed by helicopter from Bob Quinn, a small outpost located 80 km southeast of the property on Highway 37. Bob Quinn serves as a base for several helicopter companies. The Burrage airstrip, situated 37 km east of Schaft Creek, located on Highway 37 also provides a means of access by helicopter and fixed wing, although the government does not sanction its use and there is no supporting infrastructure for aircrafts at this location. Alternatively, fixed wing aircraft can be chartered from Smithers, B.C. and fly directly to the Schaft Creek camp, utilizing either of the two gravel airstrips that exist at the camp.

3.2 Infrastructure

Infrastructure is all but non-existent in the immediate project area. An old, overgrown and now frequently flooded bulldozer trail exists on the east side of the broad Schaft Creek valley heading north to Telegraph Creek. The local network of re-established drill roads exists only in a 3 x 3 km area and totals approximately 10 km of gravel and mud trails, 4 m in width.

3.3 Climate

The climate at the campsite is alpine, warm in the summer (10ºC to 28ºC) and cold during the winter (-10ºC to -20ºC). The valley bottom at Schaft Creek is snow free from approximately early May through late October. Annual precipitation is said to be low in the immediate project area. Wind velocities during the summer can be high and incessant in duration.

3.4 Physiography

Physiographically, the Schaft Creek valley area is the up-stream extension of the Telegraph Creek Lowlands. The immediate area of the Schaft Creek property is approximately 3 x 3 km in size rising rapidly eastward from the valley bottom to near-tree line elevation at the saddle in the vicinity of Snipe Lake, and towards Mess Creek to the east. The surrounding mountain to the south and west of the deposit is steep and rugged, rising to > 2,000 m from the valley floor to snow capped mountain peaks and ice fields within a few kilometres of the camp. To the east, the elevation drops from the Snipe Lake saddle to Mess Creek. To the north of the deposit is the west-facing slope of Mount Lacasse, 2,200 m above sea level. The broad, 1 km wide, north-south trending valley of Schaft Creek to the west of the camp site is a braided stream plain made up of thick, glaciofluvial and fluvial deposits. The gradient of Schaft Creek up-stream of the campsite is fairly steep, causing high water velocities and strong erosional forces rapidly changing the multiple creek channels during early summer melting and run-off.

3.5 Site Facilities and Equipment

Original construction of the camp facilities at Schaft Creek commenced circa 1965 and in 1967 a D6 Cat bulldozer was walked to the site from Telegraph Creek. A 4,000 foot runway was constructed, for material handling and personnel transportation by fixed wing aircraft. In 1968 Hecla Mines Ltd. acquired the property, extended the runway to 5,280 ft and erected several new buildings.

During the interval from 1968 to 1981 when Hecla Mines and subsequently Teck Corp. aggressively explored the property, most of the site infrastructure was established. This included: two 30 x 150 ft Quanset style buildings, a fuel storage depot consisting of three 30 ft long 10 ft diameter tanks, two bunk houses, a kitchen and dining facility, mechanic's shop, generator shack, core shack, log assay shack, recreation hall, sleep cabins, office buildings, and a small, pre-fabricated cedar log cabin owned by a helicopter company. The airstrip system was extended to include two gravel strip runways, one oriented in a general north-south direction was established immediately west of the camp, adjacent to the eastern bank of Schaft Creek, while the second is oriented in a northeast-southwest direction and effectively bisects the camp compound.

The project was shelved by Teck Corp. in 1982 and the camp site was abandoned. Precautions were taken to ensure the survivability of the buildings against weather and rodent damage. Nevertheless, the prolonged disuse took its toll on some of the structures and with the initiation of exploration in the summer of 2005, some of the structures were assessed for demolition.

During the 2005 program a band-aid approach was implemented to re-establish the camp for human occupation, as the main focus was on a general site clean-up. During 2006, the camp was re-built to accommodate in excess of 35-personnel.

Itemized below are the clean-up and construction activities that took place during the course of the 2006 program:

- General clean-up of the camp grounds and sorting of debris and refuse into metal and wood/burnable piles;
- Demolition and burning of the old recreation building;
- Construction of two bunkhouse accommodating 32-personnel in total;
- Construction of a new kitchen and dining facility with a 42-person capacity;
- Construction of a new shower and laundry facility attached to the lavatory building;
- Establishing a new office and first-aid facility by renovating last years core processing facility;
- Equipping the camp with two high-speed satellite internet system;
- Relocation of an existing bunkhouse for future use as a recreation facility.

3.6 Power Line

The government of British Columbia has initiated an environmental assessment study into a power line through the northwest corridor that would have the capacity to service the Schaft Creek project- such a power line would be greatly beneficial to operations at Schaft Creek.

4.0 HISTORY

Schaft Creek was the subject of intense and extensive exploration since mineralization was first discovered on the property in 1957. The culmination of this exploration lead Teck Corp. to commission a pre-feasibility study which included condemnation drilling in the early 1980's. Prevailing economic conditions for the next 20 years prevented the deposit from advancing. Realizing its potential, Mr. G. Salazar, acquired the right to secure a significant ownership of the property in 2002 and subsequently incorporated it into the holdings of Copper Fox Metals Inc. in 2005. Copper Fox Metals Inc. then raised the necessary funding to undertake the 2005 program.

The history of the property is summarized below:

- 1957, discovery at Galore Creek spurred exploration northward into the Schaft Creek-Mess Creek areas, leading to the discovery of mineralization at Schaft Creek.
- Area staked in 1957 for the BIK Syndicate; subsequently completed 3,000 ft of hand trenching.
- 1956, mapping, IP survey and 3-holes were drilled by Silver Standard Mines Ltd., totaling 2,063 ft.
- 1966, Liard Copper Mines Ltd. was formed to consolidate area land holdings.
- 1966, Asarco options the property; a 4,000 ft airstrip was constructed, a camp was built and 24-holes were drilled, totaling 11,000 ft.
- 1967, in mid spring of the year, a D6 cat walked from Telegraph Creek. A second 4,000 ft airstrip was built and construction of the camp continued. Asarco initially drills 2-holes and continues to complete 22-additional holes for a program total of 24-holes, amounting to 11,000 ft. Paramount Mining drills 1-hole.
- 1968, Asarco drops option and Hecla Mining acquires the property. The airstrip was extended to 5,280 ft.
- 1968, Hecla drills 9-holes, totaling 13,095 ft. 3 of the holes were drilled in the Paramount Zone.
- 1969, Hecla drills 9-holes, totaling 15,501 ft.
- 1970, Hecla drills 26-holes, totaling 32,575 ft. 5 of the holes were drilled in the Paramount Zone.
- 1971, Hecla drills 25-holes, totaling 22,053 ft. 3 of the holes were drilled in the Paramount Zone.
- Total Hecla footage; 83,224 ft, of which 8,610 ft were drilled on the Paramount Property and 74,614 were drilled on the Schaft Creek Property.
- 1972-1977, Hecla drilled 35-holes, totaling 38,386 ft.
- 1977, 104-holes drilled on the properties held by Hecla, totaling 113,000 ft. A reserve of 505 Mt with 0.38% Cu and 0.039% MoS_2 delineated.
- Between 1978 and 1979, Hecla Mining forfeits option and Teck Corp. acquires the property.

- 1980, Teck Corp. drilled 47,615 ft, in 45 holes, between mid May to Mid November. The drill sites were prepared with a D6 Caterpillar bulldozer. Assaying of core on 10 ft sample intervals, by Afton Mines Ltd. in Kamloops.
- 1981, between June and September, Teck Corp. drilled 33,315 ft, in 73-holes, and 3,503 ft of condemnation drilling for a tailings pond and mill sites.
- Resource expanded to a global estimate of 1 Gt with 0.30% Cu and 0.034% MoS_2.
- Total property drilling is 197,500 ft, in 230-holes.

5.0 GEOLOGICAL SETTING

5.1 Regional Geological Overview

The Schaft Creek copper porphyry (Cu±Mo, Au, Ag) deposit is one of a number of porphyry deposits of similar age and affinity distributed throughout the Canadian Cordillera. The Canadian Cordillera is comprised of a number of disparate tectonic terranes that have been accreted to the western margin of North America. These terranes are organized into a number of super terranes based upon a common assemblage prior to accretion to the craton. Five super terranes exist in the Canadian Cordillera, the most important of which with respect to porphyry copper formation is the Intermontane belt.

The Intermontane belt includes three Terranes which are known to host significant porphyry copper mineralization. East to west, these are the Quesnellia, Cache Creek, and Stikina terranes. These terranes were amalgamated prior to accretion to ancestral North America, an event which is believed to have occurred sometime during the mid to late Jurassic. The majority of porphyry mineralization in these terranes occurred prior to the major accretionary event, and many of these pre-accretionary deposits are associated with island arc settings.

The Schaft Creek deposit is located in the Stikina Terrane, which is the westernmost and most aerially extensive terrane of the Intermontane belt. A large number of porphyry copper deposits occur in this Terrane, particularly in the north-central portion. The Stikina Terrane is composed of Devonian to Jurassic arc-related volcanic and sedimentary rocks with coeval plutons. The Stikina Terrane is the largest of the allochthonous terranes and bears a unique pre-Jurassic geological history, paleontological, and paleomagnetic signature, all indicating an origin spatially separated from the paleomargin of North America. The terrane was amalgamated with the Cache Creek, Quesnellia, and Slide Mountain Terranes at some time prior to final accretion with the North American craton. The terrane is made up of a number of assemblages, two of the most significant of which are the Stikine group of Devonian to Permian age, and the Stuhini group of Triassic age.

Besides the Schaft Creek deposit, other significant deposits within the Stikina Terrane include the Red-Chris, Galore Creek, Kerr, Kemess, and Huckleberry deposits. The Kemess deposit is calc-alkaline in affinity and has been dated at ~202 Ma. Published dates for Red-Chris, Kerr, Galore Creek, and Schaft Creek are ~210 MA, ~197 Ma, ~210 Ma, and ~220 Ma respectively, although new geochronological data with respect to the Schaft creek deposit is currently in preparation. This close clustering both spatially and temporally indicates very favorable local conditions for porphyry copper formation at this time prior to the accretion of Stikina to western North America.

The Schaft Creek deposit is hosted within the intermediate rocks of the Stuhini group. This group is comprised of a package of volcanic and sedimentary rocks that becomes dominated by sedimentary rocks eastwards, a trend which is consistent with the presence of a westerly volcanic arc. The Mess Lake facies hosts the Schaft Creek deposit and includes the most westerly volcanic rocks of the Stuhini group, which are predominantly made up of basaltic andesitic to andesitic volcanic flows and subaerial tuffs, representing a proximal volcanic facies. The rocks of the Mess Lake facies unconformably overlie the Stikine Assemblage limestones of Lower Permian age to the northwest, and are unconformably overlain by Lower Jurassic conglomerates both to the west of Mess Creek and at their eastern margin. To the west, the rocks of the Mess Lake facies are bounded by the Hickman batholith. To the south, they are in fault contact with Paleozoic rocks of various affinities.

The Hickman batholith is a complexly-zoned intrusive body associated with the Middle to Late Triassic Stikine plutonic suite. Historical work indicated the presence of a cross-cutting intrusive body believed to be associated with the Three Sisters plutonic suite. This was the Yehiniko intrusive; however, recent U-Pb zircon dating supports a single zoned Triassic-aged intrusive rather than two distinct intrusive bodies. It is believed that it is this body which provided the mineralizing fluids that formed the Schaft Creek deposit.

5.2 Property Geology

The Schaft Creek deposit is in part situated in the valley of Schaft Creek and in part along the western slope of Mount Lacasse. The deposit is bounded to the west by the Hickman batholith and to the east by volcanic rocks of the Mess Lake facies. The valley floor exposes the Stuhini group volcanics and conform to the contact zone of these volcanics with the east margin of the Hickman batholith. Topography within the valley floor is very subdued and largely covered by glacio-fluvial gravels. Bedrock exposures are very scarce in the lower elevations of the valley floor.

The deposit is hosted by north striking, steep, easterly dipping volcanic rocks comprised of a package of: andesitic pyroclastics ranging from tuff to breccia tuff; and aphanitic to augite-feldspar-phyric andesite. The deposit is elongated in a general north-south direction, as a result of being modified by regional stress regimes and has been structurally transformed by post formation faulting.

Narrow, discontinuous feldspar porphyry and quartz feldspar porphyry dikes, genetically related to the Hickman batholith, intrude the volcanic package, occupying structural planes of weakness. The orientation of the mineralizing structures, originally related to local stress fields, is associated with the emplacement of the batholith. Potassic alteration envelopes are associated with the dykes. Besides the genetic association of the dykes with the Hickman batholith, the batholith is also considered to be the source of the magmatic-hydrothermal fluids, which ultimately formed the mineralized breccias, veins and stockworks of the deposit.

Although the deposit is spatially related to the Hickman batholith, its exact position with respect to the batholith remains uncertain. The draping of the host volcanic rocks along the intrusion’s eastern margin suggests that the deposit flanks the contact zone, but is related to one or more apohpyses stemming from the main body of the Hickman batholith. This relationship is further complicated by structural modification associated with accretionary tectonics.

Three geologically distinct, but not necessarily disparate, spatially separate zones, representing distinct porphyry environments constitute the Schaft Creek deposit. The largest of these zones is the Main zone, which is characterized by syn-intrusive poly-phase quartz-carbonate veins and stockworks, and mineralized with variable amounts of chalcopyrite, bornite and molybdenite and late fracture molybdenite.

The second largest zone is the Paramount zone, which is characterized by; primary sulphide mineralization associated with an intrusive breccia phase, containing chalcopyrite, bornite and molybdenite; quartz-carbonate stockworks; and late fracture molybdenite mineralization. This zone represents a deeper cupola environment.

The smallest of the zones is the West Breccia zone. It is characterized by quartz tourmaline veining, pyrite and a hydrothermal breccia. This zone represents a low temperature epizonal environment. Feldspar porphyry, in part, propagated a fault and breccia network that allowed the introduction of hydrothermal fluids and a volatile phase. Eventually this process created a breccia-pipe.

5.2.1 Lithology

In term of the deposit as whole, 17 rock types were observed and recorded. Table 5.1 lists those rock types and the percentage of mass they represent within the Schaft Creek deposit. The most common rock type observed is andesitic lapilli tuff, representing 16% of the total rock types. The majority of the rock types are characteristic of a volcano-sedimentary basin, representing 67% of the total rocks observed. Felsic intrusive rocks genetically related to the Hickman batholith constitute 13% of the total. The degree and intensity of faulting and to a lesser extent shearing, represented by 5.0% of the total rock types, reflects a tectonic setting that structurally modified the basin and the deposit's gross geometry.

Mineralization related lithologies for the West Breccia and Main zones amount to 12% and 10% respectively, while the host volcanics for these zones amount to 68% and 77% respectively. These observations are in sharp contrast to the Paramount zone where mineralization related lithologies represent 61% of the total and host volcanics represents 16% of the total. These differences between the West Breccia and Main zones with the Paramount zone demonstrates the distal or high level environment of the former zones in comparison to the proximal or lower level intrusive related environment of the Paramount zone. Despite the Main zone hosting 10% of the mineralization related lithologies, it contains the largest mineral resource of the deposit, reflecting a uniform distribution of metals within a large volume of genetically unrelated rock.

Table 5.1: Legend and table of lithologies, in order of decreasing abundance

Lithology	Abundance	Rock Code
Andesitic lapilli tuff	16.0%	ANLP
Feldspar-augite phyric andesite	16.0%	ANAP
Feldspar phyric andesite	12.0%	ANPF
Andesitic breccia	8.0%	ANBX
Andesite	8.0%	ANDS
Andesitic tuff	6.0%	ANTF
Granodiorite	5.0%	GRDR
Fault zone	5.0%	SHER/FAUL
Feldspar porphyry	5.0%	PPPL
Volcanic breccia	4.0%	BRVL
Augite-phyric andesite	3.0%	ANAU
Basic dyke	3.0%	D/BS
Hydrothermal vein breccia	2.0%	HVBX
Alteration zone	2.0%	ANXX
Other	2.0%	OTHR
Feldspar quartz-porphyry	2.0%	PPFQ
Intrusive breccia	1.0%	BRIG

These percentages vary considerably on a zone basis.

Interestingly, the degree of post formational faulting is reflected by the amount of observed fault zones; 6% and 4% for the West Breccia zone and Main zone respectively and 9% for the Paramount zone.

The most abundant rock types at Schaft Creek are andesitic volcanics, which constitute 73% of the 2006 core.

5.2.2 Mineralization

5.2.2.1 Associated Occurrences

Within a 20 km north-south trend, marginal to the eastern contacts of the Yehiniko and Hickman Plutons, 6-mineral showings occur in addition to the Schaft Creek deposit. They are summarized below in Table 5.2.

Table 5.2 Summary of mineral occurrences proximal to Schaft Creek

Minfile No.	Name	NTS Map	UTM	Minerals	Description
104G63	Late	104G/06	378850E, 6368000N	cp, bn, py	Sheared contact of the Yehiniko pluton with Stuhini volcanics
104G78	Arc, Post	104G/06	376800E, 6366000N	cp, bn, cc, py	Mineralization with purple volcanics of the Stuhini along shears within the Yehiniko pluton

Minfile No.	Name	NTS Map	UTM	Minerals	Description
104G30,31,32	Nabs 13, 21,30	104G/06	378600E, 6362500N	cp, bn	Chloritized quartz monzonite of the Yehiniko pluton at contact with the Stuhini volcanics
104G37	Hicks	104G/06	378400E, 6356200N	bn, cp, mo, py	Mineralization in the Stuhini volcanics near the east margin of the Hickman pluton

5.2.2.2 Styles of Mineralization

The deposit is defined by three distinct zones that appear to be semi-continuous, and are related genetically. The source of mineralizing fluids stem from one or several cupolas associated with the Hickman batholith. The Paramount zone is considered to be at the deepest level of the porphyry system, while the Main zone and the West Breccia zone represent higher levels. Two of these zones are dominated by breccia facies, namely the West Breccia zone and the Paramount zone; the third, the Main zone, is characterized by stockworks and structurally controlled vein system. In decreasing order of abundance, for the deposit as a whole, the following sulphide minerals occur: chalcopyrite (50%), pyrite (22.8%), bornite (14.2%), and molybdenite (13%).

Copper sulphide mineralogy is dominated by chalcopyrite and bornite, the most essential copper ore minerals, which occur in stockworks, as disseminations, and in breccias. Less commonly, chalcopyrite is observed as very thin (10-100 micron) partial coatings on ubiquitous, decimetre spaced fractures and joints.

Molybdenite is also a critical sulphide component of the ore. It occurs as disseminated blebs and stringers in stockworks and veins and is quite common in the breccia zones. Quite often it forms thin coatings on slickensides and fractures.

Rare accessory ore minerals observed are sphalerite, galena, native copper and possibly tetrahedrite.

Stockwork and vein associated mineralization form the largest component of the ore. A wide range of widths of quartz-carbonate-sulphide veins exists; from 0.1 to 1.0 mm to the most common width of 1 to 10 mm, while rare 5 to 20 cm veins exist. 0.5 to 3 mm wide chalcopyrite stringers and crackle breccia veinlets of millimetre to centimetre spacing, 0.5 to 1 mm wide, randomly oriented, sulphide filled, distensional vein system are also common sulphide bearing veins. The orientation of sulphide bearing veins is considered random, but with a preference for being steep dipping.

Medium- to fine-grained disseminated chalcopyrite, bornite, and pyrite are a common type of mineralization associated with feldspar porphyry dykes and their centimetre to decimetre wide potassic alteration halos. Disseminated sulphides also occur in the millimetre to centimetre potassic halos around veins.

Very fine disseminated sulphides of chalcopyrite and pyrite, 20 to 200 microns in size are observed in polished and thin section samples of weakly altered andesitic volcanic rocks. These sulphide grains are dispersed throughout the rock and are associated with <1 mm clusters of quartz-chlorite-sericite.

Very thin sulphide coatings on fractures are common. These coatings are commonly very thin chalcopyrite or minor molybdenite film. The estimated thickness of the coatings are in the order of 20 - 100 microns. This feature differs from molybdenite coated slickensides as it lacks striations.

Hydrothermal breccia matrix is the infilling of inter-clast space for hydrothermally deposited chlorite, carbonate, quartz, tourmaline and sulphides. This style of mineralization is an important but volumetrically smaller ore type in the West Breccia and Paramount zones. Chalcopyrite, bornite, minor molybdenite and trace pyrite are the dominant sulphides and are generally coarse-grained, ranging from 1 to 10 mm.

The deposition of sulphides at Schaft Creek is the result of a complex polyphase series of mineralizing events.

5.2.2.3 Description of Mineralized Zones

Three distinct mineralized zones are recognized at Schaft Creek: the Liard Main zone, the West Breccia zone, and the Paramount zone. All three outline an elongated shape in the north-south direction.

5.2.2.3.1 Main Zone

The Main zone has currently defined dimensions of 1,000 x 700 x 300 m depth. It has a 20º northerly plunge and is U-shaped in cross section, with the west boundary dipping 45º east and the east boundary dipping 80º west. Fracture, vein, sheeted vein and stockwork-controlled mineralization is hosted mainly by andesite flows. This zone presently hosts the largest volume of mineralized material. Chalcopyrite is the dominant sulphide, followed by bornite, pyrite and molybdenite.

The overall geometry of the zone in cross section, defined by metal distribution, is bowl or “U”-shaped. This suggests modification by late structural events. Initially, steep, easterly dipping, volcanic successions influenced the distribution of upwardly migrating hydrothermal solutions that originate from an apophysys of the Hickman batholith. Subsequent to this, the lower portion of the zone was block faulted and rotated westerly by an ascending intrusion related to a later phase of the Hickman batholith.

Higher gold values are associated with higher temperatures and bornite mineralization, whereas phyllic overprinting reflects lower temperatures, producing the pyrite-chalcopyrite association.

5.2.2.3.2 West Breccia Zone

The West Breccia zone has currently defined dimensions of 500 x 100 x >300 m depth, and lies immediately west of the Main zone. Mineralization is contained within a fault controlled tourmaline and sulphide rich hydrothermal breccia and feldspar porphyry. Chalcopyrite is the dominant sulphide, followed by pyrite, bornite, and molybdenite.

The breccia of the zone exhibit multi-phase brecciation, heating and sulphide mineralization. Initially, an early phase of ghost-like brecciation of a fine-grained felsic rock deposited fine sulphide disseminations, resulting in a polygonal pattern. Subsequent to this, an igneous phase brecciated the protolith and formed a matrix of fine-grained, flow oriented lath-like feldspar rock. This was followed by a hydrothermal breccia phase that precipitated coarse sulphides, chalcopyrite and molybdenite. The last event was another hydrothermal phase that is sulphide deficient but rich in tourmaline and quartz. The margins of the zone exhibit late phase, metal deficient, intense, pervasive sericitic and carbonate alterations.

5.2.2.3.3 Paramount Zone

The Paramount zone is the most northerly of the zones and has currently defined dimensions of 700 x 200 x 500 m depth. This east-dipping zone is situated north of the Main zone. The mineralization is contained in an intrusive breccia within altered andesite and granodiorite. Chalcopyrite is the dominant sulphide, followed by molybdenite, pyrite and bornite.

The zone is characterized by a large volume of granodiorite, exhibiting a complex multi-phase intrusive, thermal and metasomatic history. The early granodiorite was brecciated by an overpressure event that intruded feldspar-quartz porphyry, which formed the matrix of the breccia. Subsequently, concentrically zoned sulphides exhibiting a core of pyrite, and successively rimmed by chalcopyrite and molybdenite were deposited by a hydrothermal fluid along with disseminated sulphides. This hydrothermal fluid metasomatically replaced potassic feldspar with plagioclase feldspar. The recrystallization of feldspar produced a fine grained, hornfelsic, mosaic rock. Late pervasive silica flooding introduced and remobilized sulphides, forming quartz veins high in pyrite, chalcopyrite and molybdenite. In comparison to the other zones, the feldspars exhibit little to no alteration and are remarkably fresh. The fine-grained mosaic texture of the matrix feldspar is interpreted to be a result of high temperature thermal metamorphism.

5.2.3 Alteration

Alteration is the process of partial or total replacement of primary igneous silicate minerals by secondary, often hydrous, lower temperature minerals, i.e. chlorite, sericite, carbonate, epidote, hematite, magnetite, quartz, tourmaline and biotite. The term ‘pervasive’ is commonly used to describe core that exhibits significant alteration effects over a considerable amount of intervals. The term “alteration” can also describe millimetre to centimetre halos associated with veins, stockworks, crackle breccia and dykes.

Various alteration types occur at Schaft Creek, including potassic alteration, phyllic alteration, propylitic alteration, epidote alteration, silicification, hematite alteration, and supergene alteration.

5.2.3.1 Potassic Alteration

Potassic alteration is a hydrothermal alteration characterized by the presence of potassium feldspar, minor sericite and to lesser extent biotite. The outstanding visual feature of this alteration is its pink to orange color. It forms pervasive zones as well as millimetre to decimetre halos associated with quartz-carbonate veins and feldspar porphyry. Commonly, disseminated chalcopyrite occurs with the presence of potassic alteration. This alteration is usually the earliest.

In plan view, the distribution of potassic alteration at Schaft Creek is atypical of a “normal” porphyry system in that it occurs as three distinct linear zones 100 to 300 m in width and 1,000 to 1,200 m in length. This suggests that hydrothermal solutions and associated feldspar porphyry were channeled in a complex system of conduits controlled by north-south structures.

5.2.3.2 Phyllic Alteration

Phyllic alteration is a hydrothermal alteration, characterized by the assemblage quartz-sericite-pyrite. It occurs as a late overprinting, imparting a yellowish tinge to the rock. It is much more pervasive in its distribution but appears to have been controlled by the same ‘plumbing’ system as the potassic alteration. In plan view, it forms a linear, continuous zone, 200 - 300 m in width, stemming from the Paramount zone in a general south direction. In the vicinity of the Main zone it curves northeastward forming a “U” shape. Normally the phyllic zone is the next outward zone or layer in a “conventional” porphyry system.

5.2.3.3 Propylitic Alteration

Propylitic alteration is a low temperature, low pressure event, characterized by the assemblage of chlorite-epidote-carbonate and delineates the outer margins of a porphyry system. At Schaft Creek it forms an extensive zone hundreds of m in width, loosely conforming, but extending well beyond the zones of potassic and phyllic alteration.

5.2.3.4 Epidote Alteration

Epidote alteration is locally abundant in the outer fringes of the West Breccia zone. It may overlap with the deposit scale propylitic zone.

5.2.3.5 Silicification

Silicification occurs as decimetre to decametre sections of quartz flooding and stockworks. Bornite and chalcopyrite mineralization in the form of disseminations and stringers are commonly associated with it. Silicification typically overprints the host rocks, imparting a hard glossy luster.

5.2.3.6 Hematite

Hematite alteration forms extensive zones, imparting a reddish tinge to the rocks. It is a late alteration, commonly affecting the volcanics. In the past, rocks that were recognized to be hematized were termed 'purple volcanics'.

5.2.3.7 Supergene Alteration

Supergene alteration oxidized copper and iron minerals, forming malachite and limonite. Extensive areas in the vicinity of the Saddle contain fractures painted and disseminated with malachite. In drill core, open vuggy quartz veins and fractures exhibit the effects of oxidizing conditions up to 30 m depths.

5.2.4 Veining

Veining and stockworks at Schaft Creek cover an area 1,400 m long by 300 m wide and form a complex system. Various terminologies are used to refer to and describe veining. Information on veining is derived from all three zones, the Main, West Breccia, and Paramount. As a sulphide carrying geological feature, veining is most prevalent in the Main zone and less so in the two other zones. Veining at Schaft Creek has been recognized as a multiphase, complex, hydrothermal feature which was active during a long time interval and interspersed with deformation events. Considerably more work has to be done to sort out the age sequence and mineralogy of veins in the three zones.

5.2.4.1 Liard/Main Zone

Veining in the Liard/Main zone is ubiquitous and abundant; it is the primary sulphide carrier. The largest ore reserve and the highest grades at Schaft Creek are the result of a high concentration of mineralized veins. Seven mineralized vein types have been recognized; veins *sensu-stricto*, stockwork, crackle-breccia, hairline, breccia, sheeted, and stringer. Vein widths vary from less than 1/10 mm to greater than 20 cm. The most common widths are 2 to 10 mm.

Mineralogy of the veins is variable but is dominated by quartz and carbonate in varying proportions, while the crystallinity of veins is mostly fine-grained. Wider veins, 2 to >10 cm display centers with 1 to 3 mm euhedral quartz and carbonate crystals, suggesting decompression. Ribbon veins are uncommon, but do occur, indicating continued distension of vein walls while gangue and minor sulphide minerals are being deposited.

The position of sulphides within veins varies; commonly sulphides occur in the center but are also concentrated along a margin of a vein, possibly indicating topping direction during crystallization. Sulphide species are dominated by, in order of decreasing abundance, chalcopyrite, pyrite, bornite and molybdenite. Other minerals that have been observed include sphalerite, galena, native copper and rarely cuprite. Malachite is most common in the oxidizing environment, usually associated with fractures.

The relative sulphide abundance in veins varies strongly. Most commonly, total sulphides range from 1 - 10%, the remaining balance is usually quartz, carbonate and chlorite. Chalcopyrite stringers, 0.5 - 2 mm wide, are widespread and most commonly occur as sub-parallel clusters within the propylitic zone. Totally sulphide free veins are uncommon and restricted to late veins of carbonate and gypsum.

Vein density is generally in the order of 10 - 20 veins per metre; however, high densities ranging from 100 - 200 veins per metre do occur. At the other end of the spectrum, low densities ranging from 5 - 10 veins per metre are also present.

The orientation of veins is generally assumed to be random. Commonly, wider veins of 10 to 20 cm of quartz-carbonate have steep to vertical orientations relative to the core axis.

In summary, the following veins have been recognized with the Liard/Main zone and arranged from early to late:

i. Early quartz veins with molybdenite and no carbonate;
ii. Early quartz veins with high bornite;
iii. Late quartz-carbonate-veins with minor chlorite, containing chalcopyrite, bornite and trace molybdenum. These are the most common veins;
iv. Late barren carbonate veins;
v. Late carbonate-gypsum veins.

5.2.4.2 West Breccia Zone

Veining in hydrothermal and intrusive breccias is much less prevalent than in andesitic volcanic rocks of the West Breccia zone. The veins are mineralogically composed of varying amounts of quartz-carbonate-chlorite. These veins are usually a late phase and sulphide-poor. The dominant vein assemblage is mono-mineralic and usually carbonate, varying in widths from 1 to 3 mm and commonly vuggy. Rare quartz-molybdenite-chalcopyrite veins occur in breccia rocks, preferentially within a few m of the contact with volcanic rocks.

5.2.4.3 Paramount Zone

Veining in the Paramount zone exhibits a spatial preference to granodiorite and is commonly associated with quartz flooding. Sulphide mineralized stockworks are rare. These veins often display diffuse wall boundaries and within the zone of flooding may contain millimetre to centimetre wide chalcopyrite and molybdenite stringers. Chlorite veinlets form a coalescing network resulting in a crackle breccia mineralized with molybdenite, chalcopyrite and tourmaline.

A summary of the significant features of veining within the Paramount zone is listed below:

- Have variable densities, from millimetre to metre spacing;
- Have variable vein-widths, from <1-10 mm to 50 cm;
- Dips are generally steep, but horizontal dips also exist. Scattered, 1 mm wide, parallel chalcopyrite stringers commonly have a shallow dip relative to the horizontal;
- The strikes of major veins most likely conform with regional trends, stockworks and major vein sets. They are probably controlled by local stress fields, but may have concentrated along specific lithologic horizons, contacts or bedding planes;
- The Hickman batholith was the source of hydromagmatic and hydrothermal fluids from which the veins were generated.

5.2.5 Structure

The Schaft Creek deposit is spatially and genetically associated with the east contact of the Hickman batholith. The three zones that constitute the deposit occur within a north-south trending volcano-sedimentary package that was tilted to form a steep, easterly dipping succession, which controlled ascending hydrothermal solutions. Accretionary tectonics modified the succession by longitudinal block faulting and uplift, resulting in a bowl shaped mineralized zone, with respect to the Main zone.

The West Breccia zone is fault controlled, but is thought to connect with the Paramount zone via a fault feeder channel. Similar fine-grained felsic igneous rocks occur in both zones, despite being separated by 1000 m. The Main zone mineralization is controlled by syn-intrusive overpressure fractures and faults that propagated along bedding and lithologic discontinuities and also formed regional scale longitudinal faults. The ground preparation served to accommodate the intrusion of feldspar porphyry dykes, hydrothermal veins, stockworks, vein sets and sheeted veins.

The Paramount zone is the most proximal zone to the magmatic hydrothermal system, from which the mineralized solutions emanated. The Paramount zone is characterized by intrusive breccias, granodiorite and intense quartz flooding, associated with quartz veins hosted by the granodiorite.

Some of the salient structural features associated with the deposit as a whole are outlined below:

- The deposit is situated east of and in proximity to the contact of the Hickman batholith;
- The eastern limit of the mineralization is recognized as a series of strong faults;
- In part, the known western boundary of the mineralization at present coincides with the West Breccia zone;
- The volcanic succession has an approximate north-south strike;
- Intrusive felsic dykes for a generally north-south trending network.

Fracturing and faulting are ubiquitous and generally strong, in all zones. Various structural features are discussed below along with relevant attributes.

5.2.5.1 Fracturing

- Generally moderate to high density, commonly centimetre, occasionally decimetre spacing, resulting in low RQD numbers;
- Several conjugate fracture directions;
- Steep and moderate dip angles relative to the core axis

5.2.5.2 Microfaulting

- Microfaulting is defined as thin fractures that visibly offset a vein or other litholigical features in one core sample;
- Microfaulting is common, often occurring as groups of parallel, centi m-spaced microfaults showing several *en echelon* offsets of a vein. Each offset is 5 mm to 1 cm, which would add up to 5 cm over 10 cm, or 1 m offset over 2 m. If the same amount of deformation is carried through a consistent off-set, it can be extrapolated to tens of metres over 100 m.

5.2.5.3 Slickensides

- Very common;
- Decimetre to metre spacing;
- Fairly random dips, including horizontal;
- Unknown strike;
- Striations are common, both in the vertical as well as in the horizontal component (relative to the horizontal plane);
- Commonly coated with either molybdenite or specular hematite.

5.2.5.4 Crushed zones

- Uncommon although exists in several holes, both in the Liard zone but especially in the Paramount zone;
- Occurs particularly in granodiorite, which is permeated by tens to >100 per m of a random or weakly oriented, dense net of fractures, often lined with a thin clay film;
- Commonly dark gray and with a minor coating of molybdenite;
- Interpreted as a result of strong compression, with little to no lateral translatory movement;
- Resulting in rubble, 1 to 5 cm size.

5.2.5.5 Faulting

- Faulting is common with spacing at metre to 10 metre intervals;

- Generally the dips are steep with variable strike, assumed to be preferentially north-south;
- Fault gouges are 1 cm to 20 cm wide, with comminuted rock particles and clay;
- Strongly fractured rock portion (30 - 50 fractures per metre) are commonly logged as ‘fault zones’.

5.2.5.6 Foliation, Shears

- Foliation is defined as a rock unit showing a distinct fabric or foliation, which is fairly rare;
- Foliated units are 1 to 10 m wide, generally with steep dips and an unknown strike orientation;
- Foliation generally includes brecciation and an introduction of chlorite;
- Some foliated rocks exhibit strongly oriented, eye-shaped relics (2 x 10 mm) of a felsic protolith, enveloped by 1 mm wide, sub-parallel epidote-chlorite stringers. This is interpreted as an oriented, hydrothermally overprinted, barren assemblage;
- Minor, strongly foliated, feldspar porphyry, associated with several mylonite units, fault gouges and diabase dykes, indicates zones of structural weakness and strong deformation. This is associated with an epidote-chlorite-hematite breccia matrix and oriented quartz veins.

6.0 DEPOSIT TYPE

6.1 Porphyry Copper Definition

Porphyry copper deposits are large, low grade, intrusion related deposits which provide the major portion of the world's copper and molybdenum and to a minor degree, gold. The deposits are formed by a shallow magma chamber of hydrous, intermediate composition at depths of <5 km. When the magma crystallizes, fluids are released; the fluids' movement upwards through overlying rocks results in hydrothermal alteration and deposition of sulphide minerals both as disseminations and as stockwork mineralization. There is a clear spatial and genetic association between the intrusion and the alteration zones at a regional and local scale.

The defining characteristics that distinguish porphyry deposits are:

- Large size;
- Widespread alteration;
- Structurally controlled ore minerals superimposed on pre-existing host rocks;
- Distinctive metal associations;
- Spatial, temporal, and genetic relationships to porphyritic intrusions.

The Schaft Creek deposit possesses all of these salient features and based on its economic mineral content is considered to be a porphyry copper-molybdenum-gold deposit.

6.2 Schaft Creek Porphyry System

The Schaft Creek deposit is a complex, low grade porphyry system consisting of three distinct, structurally modified zones, genetically related to the Hickman batholith. The three zones appear to be associated with a multi-phase magmatic-hydrothermal system related to either; one northerly plunging apophysys, or; several temporally discrete, smaller dykes and apophysys', stemming from a cupola(s) linked to the main body of the Hickman batholith. Dykes and sheeted veins are controlled by a regional fracture pattern, while mineralized stockworks, crackle veins and breccias are related to high local overpressure. Disseminated mineralization is associated with dykes and their accompanying alteration envelopes.

The Paramount zone, which is the most northerly of the three, represents the deeper portion of the epizone of the porphyry. Characteristics of this zone suggesting proximity to the cupola are: extensive igneous brecciation of the earlier feldspar porphyry intrusion, primary igneous zoned sulphides associated with the breccia matrix; and a higher abundance of chalcopyrite and molybdenite mineralization.

The Main zone represents the mid level of the epizonal environment of the porphyry and is largely structurally controlled. In this zone: quartz-carbonate veins; sheeted veins; and stockworks, mineralized with chalcopyrite, bornite and molybdenite, were generated by a multi-phase overpressure event resulting from increasing hydrothermal fluid pressures, stemming from the Hickman batholith. This multi-phase event produced several generations of veining, representing different thermal regimes, overprinting alteration, fracturing and faulting within the host volcanic rocks. Hydrothermal fluids preferentially formed veins and stockworks along shallow and steeply dipping planes of weakness within a homoclinal volcanic succession, dominated by a regional easterly dip. Later, post formational overpressure and upward doming associated with a postulated, additional intrusive phase of the Hickman batholith structurally modified the Main zone, producing a pseudo-synclinal mineralized cross-section. Late stage mineralization associated with this event is reflected by fracture associated molybdenite. Concomitant with all the events, feldspar porphyry dykes intruded into the volcanic pile.

The West Breccia zone occurs immediately west of the Main zone and represents a high level of epizonal environment to the deposit. A poly-phase system commencing with the intrusion of feldspar porphyry along a pre-existing plane of weakness, indicated a rapidly expanding hydrothermal phase and then continued to self propagate more fractures. Eventually, both phases contributed to the formation of a breccia pipe. This breccia pipe features low temperature mineral assemblages, which are exhibited by propylylitic alteration and high pyrite content. The boron-rich nature of the volatiles in this zone is reflected by the presence of tourmaline in quartz veins. Ascending solutions affected the wall rock of this zone to varying degrees and the complexity of the system is highlighted by the overprinting of the following alterations; potassic, epidote, chloritic, silicic and hematitic. A very limited, late, high pressure gas and fluid event is evident by mm to dm wide, flow-textured pneumatolytic breccia veins and dykes.

In summary, the Schaft Creek deposit is a large, multi-phase, complex, porphyry system, genetically related to the Hickman batholith. The individual zones represent differing levels within the porphyry and correspond with increasing depth in the following order; the West Breccia zone occupies the high level, the Main zone occupies the medium level and the Paramount zone the deepest level. All of the zones have been structurally controlled, with the earliest mineralizing event strongly influenced by syn-intrusive fracturing and faulting; while, post formational faulting associated with accretionary tectonics modified the deposit considerably.

7.0 EXPLORATION

7.1 Recent Exploration Summary

The 2005 diamond drill campaign conducted by Copper Fox Metals Inc. ended with the completion of 15-PQ diamond drill holes, totaling 3,160 m. During the period from August 11th to September 30th, a total of 1,089 core samples were collected and submitted for assaying and 782 core metallurgical samples were collected. The 782 core samples collected for a metallurgical bulk sample represent a total combined weight exceeding 39,000 lbs.

The 2006 drill campaign ended with the completion of 42-holes, totaling 9,007 m of drilling. Of this drilling, 5,300 m included 25-PQ holes and 3,707 m included 17-HQ holes. During the period from July 12th to October 23rd, a total of 2,107 samples were submitted for assaying, and 896 samples were collected for the metallurgical composites sample. The total of the metallurgical samples collected represents a combined weight of 44,800 lbs.

The two campaigns produced a total of 3,196 assay samples, 1,678 metallurgical samples and 12,167 m of core.

7.2 2006 Exploration Program

Field preparation for the 2006 program began on May 30th, while diamond drilling commenced on July 10th. The drill equipment was airlifted by a Bell 205 and a Chinook helicopter transported construction materials, Kubotas and a D5 dozer from Burrage Creek and Bob Quinn to the camp in the initial airlift. Coring commenced on July 10th, and the drill program was terminated on October 23rd, after having completed 42-holes totaling 9,007 m. The Lyncorp drill was stored on the property in the eastern Quonset hut. The two Hytech drills were mobilized off the property on October 26th.

7.2.1 Program Objectives

The 2006 drill program, designed by Associated Mining Consultants Ltd. (AMCL) and G. Salazar to twin historical drill holes, had a three-fold purpose: to confirm the integrity of the archival database derived from earlier drilling, to check the assay results in this database, and to provide a sufficient amount of higher grade material for floatation tests. Time constraints allowed the completion of 9,007 m of drilling in 42-holes, coming very close to completing the original validation program of 43-holes and exceeding the original planned mage of 5,053 m. Due to the limitations of the drill to bore large dia m shallow, angled holes, three of the planned shallow dipping holes had to be re-positioned and in fact did not twin their historical counterpart, but rather intercepted the zone at a steeper angle in the immediate intersection of interest. Two of the original PQ-holes were down-graded to HQ-holes, while two of the HQ-holes were up-graded to PQ-holes.

7.2.2 Field Protocol

The field protocol established for the 2006 program was the same as that for the 2005 program, but with the addition of in-fill drilling which recovered HQ-dia m core. The program's protocols are as outlined below.

PQ Core Protocol:

- 25-archival holes were selected to be 'twinned' in order to validate a large, archival database. The old collars were established by GPS-mapping of old drill roads, spotting casings and matching the resulting co-ordinate points with archival drill plans.
- New 'twin' holes were drilled within a few metres from old casings with the same azimuth, dip and length. Only a few holes had to be drilled from new locations, due to equipment limitations.
- Inclined holes were down-hole surveyed by Reflex instrument. Normally in holes less than 100 m in length, a reading was taken just beyond the bedrock interface and near the bottom of the hole. Deeper holes had additional readings taken at midpoints between bedrock and the bottom.
- All PQ and HyTech's allocation of HQ holes were cored using metric rods (1.5 m and 3.0 m lengths), while Lyncorp's allocation of HQ-holes were cored utilizing imperial length rods of 10 ft.
- All new core was photographed and the photos digitally archived. Core recovery was noted and RQD (rock quality designation) measurements were recorded as the cumulative length of intact core greater than two times its dia m (16-centi m within a core run). Sample numbers were assigned along 3.05 m intervals for the entire core length for assay samples, as well as for metallurgical samples (MET), using the same fixed 3.05 m intervals. MET samples, however, were taken only along AMCL's pre-defined ore intervals, utilizing the old database.
- The core was sawed twice: the whole core was cut in half, and then one of the halved sections was halved once more, resulting in one half and two quarter sections of core.
- The core was logged before sampling in metric units, recorded first in tabular form, employing historical lithological codes and nomenclature with strict adherence to 3.05 m sample runs, and secondly in descriptive format, respecting lithologic breaks.
- The core was sampled using; a) the ¼ sections for assay samples, b) the ½ sections for metallurgical samples. Both assay and metallurgical samples were placed in separate, numbered plastic pails with security lids.
- ¼ of the core is stored on site as reference material in the original, labeled core trays.
- All core data was entered into Excel spreadsheets by field geologists. Assay samples were shipped to IPL Lab in Vancouver, British Columbia, using bonded

trucking firm, locked containers, observing all security precautions to maintain a continuous, intact 'chain of custody'.

- MET samples were shipped to Process Research Associates Lab in Vancouver, British Columbia, adhering to the same chain of custody as for the assay samples.

HQ Core Protocol

- The treatment of HQ-size core was similar to PQ-size core with the exception that no metallurgical samples were obtained from it. Therefore, this core only required one cut that produced two halves. One half was sent for assay analysis, while the other half was retained for archiving.

7.2.3 Drill Program

Hytech Diamond Drilling Ltd. of Smithers, B.C., was contracted to undertake the drilling of the PQ portion of the program as well as a segment of the HQ-portion. Lyncorp International Ltd. of Calgary, Alberta was also commissioned to complete a portion of the HQ-program. Helicopter air-support for the program was provided by Quantum Helicopters Ltd., of Terrace B.C., while fixed wing air support was supplied by Northern Thunderbird Air, of Prince George B.C. and Tsayta Air Ltd. of Fort St. James, B.C.

A total of 42-holes were completed, 17-HQ-holes and 25-PQ-holes, totaling 9,007.6 m. Hytech drilled 34-holes: 25-PQ-holes and 9-HQ-holes; while Lyncorp drilled 8-HQ-holes.

7.2.4 Core Recovery and RQD

Routinely, core recovery and rock quality designation (RQD) were determined for each 3.05 m core run. The RQD was determined by cumulatively adding intact core greater than 16 cm in length for PQ-core and greater than 12 cm for HQ-core, expressed as a percentage of the run. The intact lengths are derived as two different lengths; PQ-core diameter which is 8 cm and 6 cm for the HQ core.

The results of these measurements are recorded in Table 7.1 and separated on a zone basis.

Table 7.1: Estimates of RQD and core recovery, 2006 drill program

Drill Hole ID	Hole RQD	RQD Rating	Core Recovery
West Breccia Zone			
05CF234	61.7	Fair	98
05CF235	51.5	Fair	94
06CF249	22.2	Very Poor	96
06CF250	19.1	Very Poor	95
06CF252	20.2	Very Poor	97
06CF253	27.0	Poor	97
06CF254	28.3	Poor	94
06CF279	15.2	Very Poor	95
06CF280	32.7	Poor	97
06CF281	12.3	Very Poor	93
06CF282	29.9	Poor	100
06CF283	18.4	Very Poor	95
Zone average	28.2	Poor	95.9
Liard Main Zone			
05CF236	20.6	Very Poor	97
05CF237	32.3	Poor	98
05CF238	31.4	Poor	97
05CF239	43.2	Poor	98
05CF240	24.3	Very Poor	98
05CF241	51.0	Fair	98
05CF242	52.5	Fair	98
05CF243	57.9	Fair	95
05CF244	74.3	Fair	98
05CF245	17.9	Very Poor	97
05CF246	40.7	Poor	97
05CF247	74.8	Fair	99
05CF248	59.4	Fair	97
06CF251	28.8	Poor	99
06CF255	35.4	Poor	97
06CF256	35.8	Poor	97
06CF257	38.6	Poor	98
06CF258	32.2	Poor	97
06CF259	22.3	Very Poor	93
06CF260	24.5	Very Poor	99
06CF261	28.4	Poor	93
06CF262	19.9	Very Poor	96
06CF263	31.9	Poor	99
06CF264	29.9	Poor	98
06CF265	29.5	Poor	99
06CF266	18.4	Very Poor	86
06CF267	16.0	Very Poor	90
06CF268	15.4	Very Poor	85
06CF269	18.3	Very Poor	91
06CF270	29.8	Poor	100
06CF271	30.5	Poor	99
06CF272	47.2	Poor	96
06CF273	49.2	Poor	96
06CF274	49.0	Poor	100
06CF275	40.1	Poor	96
06CF276	37.8	Poor	99
06CF277	37.9	Poor	97
06CF278	25.1	Poor	99
06CF284	21.0	Very Poor	93
06CF285	29.1	Poor	97
Zone Average	35.1	Poor	96.4

Table 7.1: /*continued…*

Drill Hole ID	Hole RQD	RQD Rating	Core Recovery
Paramount Zone			
06CF286	11.0	Very Poor	79
06CF287	18.0	Very Poor	85
06CF288	14.7	Very Poor	92
06CF289	15.0	Very Poor	90
06CF290	2.5	Very Poor	47
Zone Average	12.2	Very Poor	78.6
RQD Rating			
0-25%	Very Poor	75-90%	Good
25-50%	Poor	90-100%	Excellent
50-75%	Fair		

Core recovery of holes drilled in all of the zones is excellent with the exception of two holes drilled in the Paramount zone. Core from the Paramount zone can be highly fractured, crumbly, and broken, displaying decimetre to decametre of gouge and rubble, and hence, the very low RQD value of 12.2% and lower recoveries averaging 78.6% for the zone. In comparison to the West Breccia and Main zones, which have recoveries of 95.9% and 96.4% respectively, the core recovery from the Paramount zone is substantially lower. However, like the Paramount zone, the RQD value for the West Breccia zone averaging at 28.2% and 35.1% for the Main zone falls into the poor zone.

RQD is a function of fracture and fault density, while recovery is the ability of the drilling process to extract core. The large diameter core allows for high recovery rates in generally moderate to highly fractured ground and through gouge zones. Low recoveries were experienced in section of grit and rubble filled faults, where this material was washed out by the drilling process. Under extremely repetitive caving conditions, the drill string would freeze-up as the annulus collapsed in the grit and rubble sections, resulting in extremely slow drilling and in abandoning of the hole in two instances.

7.2.5 Overburden Sampling

The eastern portions of the Main zone and the Paramount zone are covered by overburden that has partially incorporated locally derived talus material. The bedrock exposures of this material along the west slope of Mount Lacasse exhibit malachite stained fractures. During the coring process, metre lengths of intact overburden with fragments of talus were recovered by the drilling. To determine to what extent this material is mineralized, the overburden from the 2005 and 2006 drilling was sampled and analyzed for Cu, Mo, Au, and Ag. Overburden includes glacial till, fluvio-glacial material, locally derived purple clay and local bedrock talus.

Overburden material was collected in fixed 10 ft (3.05 m) intervals. The amount of overburden material retrieved varies greatly for each drill hole. The best recovery of 50 - 90% is experienced with purple, clay-rich, consolidated, local, volcanic talus material intermixed with minor foreign boulders.

Coarse, boulder glacial till is comprised of centimetre to decimetre foreign material and a small proportion of fine-grained sandy fractions. This till had a poor recovery, ranging from 10 - 30%.

Fine-grained, sandy and clay-rich glacial material had the poorest recovery of 1 - 20%, as most of the fine-grained material was washed away during the drilling process.

Consequently, with recovery rates of overburden spanning a large range, the assay results of low recovered portions is not representative. Assay results reflect only the chemical characteristics of the small, coarser fraction which was preserved; however, the exception to this is the purple clay-rich talus.

In a few cases, the overburden sample immediately above the bedrock contains a variable percentage of broken in-situ bedrock, mineralized with traces of sulphides or malachite and intermixed with overburden material.

7.2.5.1 Overburden Sample Results

Overburden material, although representing a very heterogeneous sample population is not entirely barren and not entirely below the detection limits for the metals tested. Mineralized broken bedrock understandably exhibits anomalous values for all the metals. Approximately ¼ to ½ of all samples are foreign material, transported pebbles and boulders. These exhibit Cu values of >1,000 ppm and ¼ of the samples returned values of >0.1 g/t Au. Samples exhibiting anomalous molybdenum and silver values were the fewest. Of these, half a dozen samples had 100 ppm Mo, and half a dozen had >1.0 g/t Ag, with three samples between 3.0 and 12.0 g/t Ag.

Further work is recommended to determine the possible recovery of these metals from an economic perspective, and whether or not they are present as recoverable sulphides or tied-in with silicates.

7.3 Proposed Exploration Program

The 2007 exploration program started up in May 2007. Table 7.2 outlines the proposed drill holes for the program. Depending on weather and permitting approvals, the following is a list of proposed work to take place throughout the program:

- Supplies, materials and equipment for the 2007 exploration program will be mobilized during the season from an expediting camp located on the Burrage Creek airstrip;
- All drilling for this program is being proposed to be helicopter supported;
- There will be thirty-four (34) geotechnical holes drilled at the potential dam sites for the three (3) tailings management facilities (TMP) and waste dump;
- There will be sixteen (16) exploration holes, located in the West Liard zone and along the ridge;
- The existing camp will continue to be utilized with addition of eight (8) new tent frames and a fully equipped tool crib in 2007. The camp is being expanded from a 30 to 60 person infrastructure;
- There is a proposal to expand the core racks for the additional 20,000 m of core;
- As part of this expansion a new septic system and electrical system will be installed, and two (2) - 20,000 l Enviro tanks will be brought in 2007;
- Additional equipment on-site will include a helicopter, two Kubota mules, a 315 Cat excavator and 50KW generator.

Table 7.2: Proposed 2007 Drill Holes

Zone	Access	Zone	Depth (m)	Type of Work	Core	Easting NAD 83	Northing NAD 83
Zone C	Helicopter	W	300	Geotechnical	HQ	367890	6366643
Zone C	Helicopter	W	300	Geotechnical	HQ	367885	6366493
Zone C	Helicopter	W	300	Geotechnical	HQ	367881	6366343
Zone C	Helicopter	W	300	Geotechnical	HQ	367874	6366143
Zone C	Helicopter	W	300	Geotechnical	HQ	367869	6365994
Zone C	Helicopter	E	300	Geotechnical	HQ	374708	6369152
Zone C	Helicopter	E	300	Geotechnical	HQ	374905	6368926
Zone C	Helicopter	E	300	Geotechnical	HQ	375036	6368775
Zone C	Helicopter	E	300	Geotechnical	HQ	375200	6368586
Zone C	Helicopter	E	300	Geotechnical	HQ	375352	6368337
Zone A	Helicopter	N	300	Geotechnical	HQ	381794	6375314
Zone A	Helicopter	N	300	Geotechnical	HQ	381950	6375118
Zone A	Helicopter	N	300	Geotechnical	HQ	382137	6374883
Zone A	Helicopter	N	300	Geotechnical	HQ	382292	6374688
Zone A	Helicopter	N	300	Geotechnical	HQ	382448	6374492
Zone A	Helicopter	S	300	Geotechnical	HQ	383020	6367229
Zone A	Helicopter	S	300	Geotechnical	HQ	382770	6367229
Zone A	Helicopter	S	300	Geotechnical	HQ	382520	6367229
Zone A	Helicopter	S	300	Geotechnical	HQ	382320	6367229
Zone A	Helicopter	S	300	Geotechnical	HQ	382020	6367229
Zone A	Helicopter	W	300	Geotechnical	HQ	380417	6373342
Zone A	Helicopter	W	300	Geotechnical	HQ	380417	6373192
Zone A	Helicopter	W	300	Geotechnical	HQ	380417	6373042
Zone B	Helicopter		300	Geotechnical	HQ	379283	6355126
Zone B	Helicopter		300	Geotechnical	HQ	378983	6355126
Zone B	Helicopter		300	Geotechnical	HQ	378683	6355126
Zone B	Helicopter		300	Geotechnical	HQ	378383	6355126
Zone B	Helicopter		300	Geotechnical	HQ	378083	6355126
Connector	Helicopter		1,000	Exploration	NQ	380654	6367030
Connector	Helicopter		1,000	Exploration	NQ	380654	6366030
Connector	Helicopter		1,000	Exploration	NQ	380654	6365030
Connector	Helicopter		1,000	Exploration	NQ	380654	6364030
Connector	Helicopter		1,000	Exploration	NQ	380654	6363030
Connector	Helicopter		1,000	Exploration	NQ	380654	6362030
Waste Dump	Helicopter		300	Geotechnical	HQ	377965	6358641
Dirth	Helicopter		300	Exploration	HQ	379004	6360680
Dirth	Helicopter		300	Exploration	HQ	378889	6360372
Dirth	Helicopter		300	Exploration	HQ	378465	6360795
Dirth	Helicopter		300	Exploration	HQ	378350	6360487
Dirth	Helicopter		300	Exploration	HQ	377926	6360910
Dirth	Helicopter		300	Exploration	HQ	377811	6360602
Dirth	Helicopter		300	Exploration	HQ	377387	6361025
Dirth	Helicopter		300	Exploration	HQ	377272	6360717

Zone	Access	Zone	Depth (m)	Type of Work	Core	Easting NAD 83	Northing NAD 83
Dirth	Helicopter		300	Exploration	HQ	376848	6361140
Dirth	Helicopter		300	Exploration	HQ	376733	6360832
Waste Dump	Helicopter		300	Geotechnical	HQ	377474	6359049
Waste Dump	Helicopter		300	Geotechnical	HQ	376983	6359457
Waste Dump	Helicopter		300	Geotechnical	HQ	377613	6358264
Waste Dump	Helicopter		300	Geotechnical	HQ	377122	6358672
Waste Dump	Helicopter		300	Geotechnical	HQ	376631	6359080
			19200	**34 - Geotechnical**		**16 - Exploration**	

7.3.1 2007 Geophysical Program

At the request of Copper Fox Metals Inc., Associated Geosciences Ltd. (AGL) has proposed an outline for conducting geophysical surveys to map the potential porphyry copper resource at the Schaft Creek Project located north of Stewart, British Columbia.

There are two main objectives for the geophysical surveys:

- To map mineralization to depths of 300 to 800 m in a region to the north of an existing camp;
- To determine if known mineralization, occurring at relatively shallow depth, is continuous beneath an existing swamp.

A brief review of the existing literature has revealed that the Schaft Creek Project copper-gold-molybdenum mineralized zones are related to quartz feldspar porphyry dykes and breccias. Three individual mineralized zones have been identified; the Liard, West Breccia and Paramount Zones. The three zones are distinguished one from another by sulphide mineral types and alteration mineral suites. Specifically:

- Within the Liard Zone, a pyrite halo surrounds chalcopyrite, bornite and molybdenite mineralization in altered and faulted andesite.
- Within the West Breccia Zone, pyrite is the principle sulphide mineral, with lesser quantities of chalcopyrite and molybdenum.
- Pyrite, bornite and chalcopyrite are present in equal proportions within the Paramount Zone.

Discussions with Copper Fox Metals Inc. personnel suggest that total sulphide mineralization may range between 1% and 5%.

Induced polarization (IP), electromagnetic and magnetic methods are expected be sensitive in varying degrees to the geological conditions apparent at the Schaft Creek Project.

To map structure and to determine if known mineralization is continuous beneath an existing swamp IP, magnetometer and very low frequency electromagnetic (VLF-EM) surveys are recommended. As access may be problematic, a pole-dipole IP configuration may be preferred to minimize movement of the transmitter and transmitting power source. Magnetic susceptibility and VLF-EM response would be measured continuously as the operator walks along survey lines perpendicular to the geologic strike.

To investigate the mineralized zone immediately to the east and northeast of the swamp where surface topography increases substantially, a combination of IP, magnetics/VLF-EM and either controlled source audio magnetotellurics (CSAMT), magnetotellurics (MT) or magnetic IP (MIP) methods is recommended.

It is expected that portions of the proposed survey grid will be inaccessible due to the severe variations in surface topography. Also, as the depth of the swamp to the west and southwest is unknown, full coverage of this area may not be possible.

8.0 SAMPLING METHOD AND APPROACH

8.1 Drilling Methods

A total of 287 drill holes have been captured in the database for the purposes of resource modeling and estimation. Several of the last holes from the 2006 drilling program have not been included in the current resource estimate due to time constraints.

Drilling procedures at the Schaft Creek project are as follows:

- The geologist sets out the holes in an area accessible to the drill rigs- the planned positions are typically marked by a steel peg;
- Drill pads are subsequently prepared by bulldozing, with the supervision of the geologist and the drill operator, in order to obtain a level platform on which to position the drill rig;
- The boreholes are drilled according to the geologist's instructions. Core or chips are laid out for the geologist to inspect;
- The geologist instructs the drill operator when to shut down the holes;
- Hole positions are surveyed by ground survey methods. Dip and azimuth angles are measured, and for some deeper holes a down-hole survey is taken;
- The geologist logs the core, prepares and dispatches samples for analysis.

Table 8.1 summarizes various drilling campaigns done on the project area.

Table 8.1: Summary of Drilling Campaigns

Series	Holes	Total Length	Average Length	Minimum Length	Maximum Length
06CopperFox	42	9,066.80	215.88	78.00	351.00
05CopperFox	15	3,158.72	210.58	49.07	341.99
ASARCO	23	3,181.52	138.33	98.45	351.00
SILVER STD	3	628.81	209.60	189.89	221.29
HECLA	75	27,863.77	371.52	29.11	911.96
HECLA Paramount	10	2,923.95	292.39	140.21	477.62
TECK	119	24,804.34	208.44	89.00	593.45
	287	**71,627.90**	**249.57**	**29.11**	**911.96**

As can be seen from the table, drill hole length is not necessarily related to the drilling campaign. In total, 287 holes were drilled with an average length of 250 m, yielding a total of 71.6 km of drilling. Figure 8.1 depicts the distribution of drill holes throughout the project area.

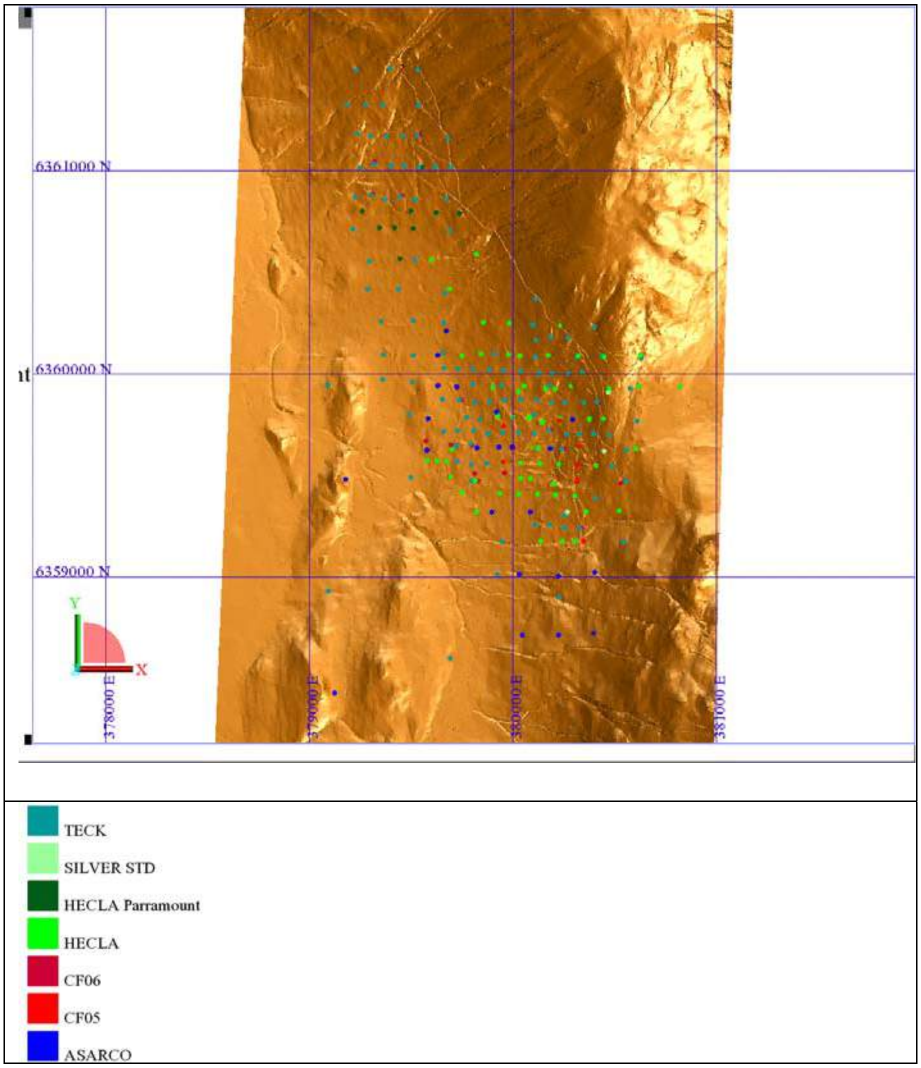

Figure 8.1: Distribution of drill holes

8.2 Analysis of Down Hole Surveys

Of the total 287 holes drilled, 217 (76%) have more than one down hole survey.

A chart plotting the difference between measured and planned position of the holes is depicted in Figure 8.2 and Figure 8.3. Total deviation is calculated using the first survey on the collar as the planned position and calculating the cumulative deviations on all subsequent down hole surveys.

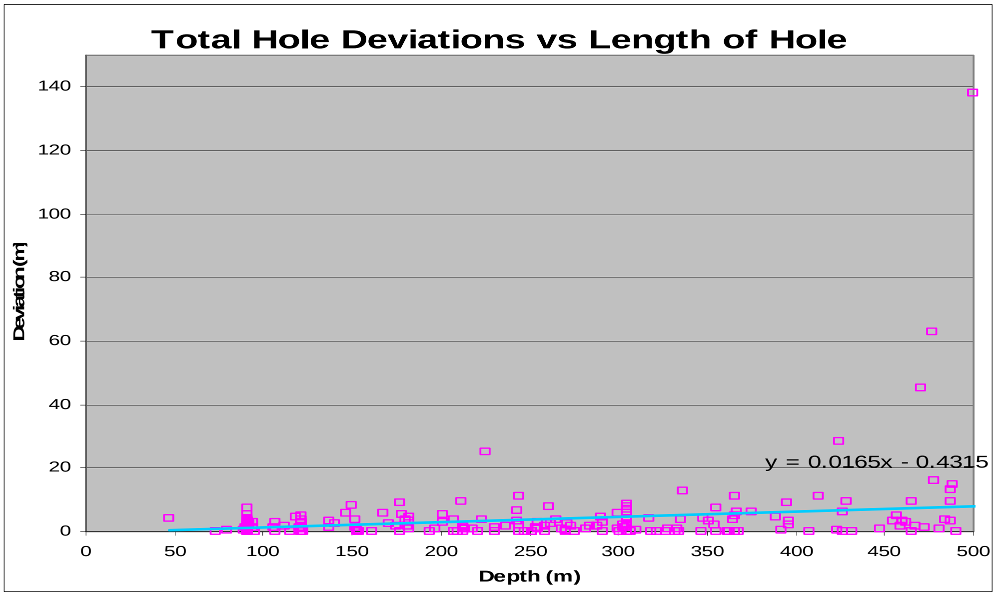

Figure 8.2: Deviations between measured and planned drill holes (hole deviation vs length)

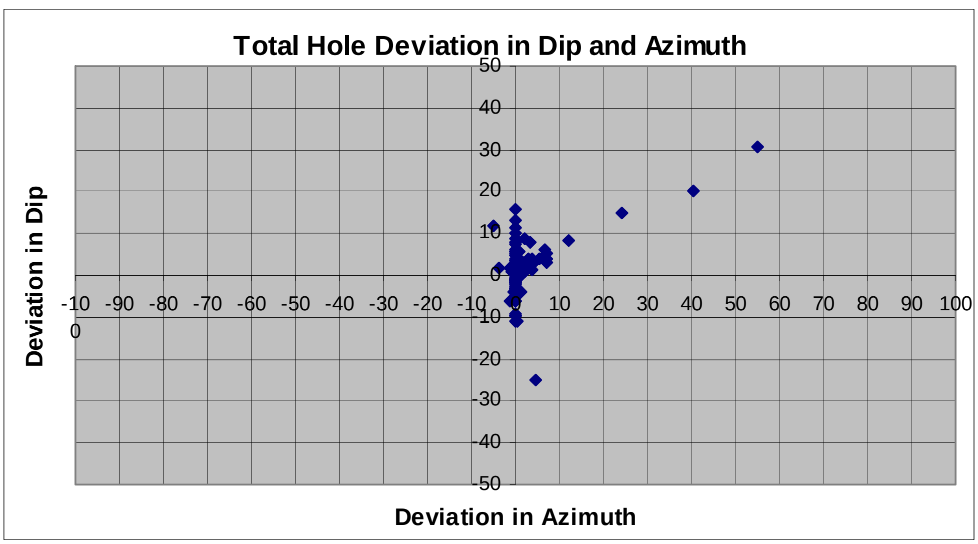

Figure 8.3 Deviations between measured and planned drill holes (deviation in dip and azimuth)

From this chart it is clear that holes drilled did not deviate by much, as the average deviation was 3.92 m; however there were five holes that deviated by more than 20 m. Four of the five holes were drilled by TECK and one was from the 2006 Copper Fox drilling program. These holes are listed in Table 8.2. Thirteen holes deviated by more than 10 m from the planned position. The deviations that have occurred are a result of both dip and azimuth changes.

Table 8.2: Drill holes deviating by more than 20 m from the planned position

Hole ID	Drill depth	Total Deviation
T80CH145	499.87	138.19
T80CH139	477.01	62.78
T80CH146	470.92	45.19
T80CH148	424.43	28.33
06CF261	225.00	25.23

In the opinion of the authors, these deviations are not excessive; however, this leads to the recommendation that holes drilled to depths greater than 200 m should be routinely down hole surveyed and that the resulting deviations should be no more than 5 m from the planned positions.

8.3 Drill Hole Logging

Core logging of diamond drill core was performed by a geologist and recorded onto a log sheet. Core logging hinges around identifying lithological units. Once identified, the lithological units were put into a rock-TCC field in the database. A Copper Fox geologist worked through this list and broke these codes up into the rock-CCU1 field for modeling purposes.

Core description was done by identifying minerals, grain sizes (where applicable), mineral assemblages, color, and lastly by giving a rock identifier code. Log sheets were then captured into excel.

8.4 Sampling Protocol, 2006 Drilling Program

A sampling protocol conforming to the Canadian National Securities Administrator's 43-101 requirements were implemented for both the 2005 and the 2006 exploration program. Great care was taken to ensure sample integrity, quality and chain of custody. PQ and HQ core were drilled for different purposes, therefore requiring different handling procedures. A summary of procedures employed in the 2006 program is as follows:

- All PQ-core, for the purpose of twinning and verifying archival results and obtaining material for metallurgical testing, was sawed in half and one half quartered. As the core was broken, the rubble was scooped out and divided according to samples. Pieces larger than 10 cm were sawed. Continuous sampling for assay samples was done in fixed 3.05 m intervals, for the purpose of matching samples of previous archival sampling.
- For PQ-core, assigning two sets of sample numbers for: a) Assays, taking ¼ of the core approximately 35 lbs, and b) 'Metallurgical' (MET) samples for selected intervals, taking ½ of the core, weighing 70 lbs. One quarter of the core is retained as a reference sample in the core boxes on site.

- For HQ core, no MET sampling was required. The core is sawed in half and one half is sampled for assay, while the other half is kept as a reference in the core box on site.
- For HQ core, no MET sampling was required. The core is sawed in half and one half is sampled for assay, while the other half is kept as a reference in the core box on site.
- Assay samples were placed in numbered 5 gal plastic pails and MET samples in numbered 10 gal pails, both with security lids. The sample tag for each pail is inserted into a small zip lock plastic bag and affixed to the inside of the pail's rim. Each sample pail carries a shipping tag fixed to the outside of the pail with the laboratory's address.
- Assay samples were shipped to International Plasma Labs Ltd. (IPL) in Richmond, B.C., and MET samples were sent to Process Research Assoc. Ltd (PRA) in Richmond, B.C. For this purpose both sample groups were air lifted to a strip at the road and stored in a locked Seacan container. At weekly intervals, a bonded trucking firm retrieves both sample groups and delivers them directly to the laboratories.

9.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

9.1 Sample Preparation, at IPL Labs

- Blind duplicates, standards and blanks are inserted, in the field, into the sample stream at a 40 sample interval, for quality control;
- Assay samples are analyzed for:
  a) Cu %, Mo %, Au g/t (2 assay tons), Ag g/t
  b) Multi element spectral analysis;
- Sample preparation for assay samples: A 4 to 5 kg portion of the core sample is crushed to 2 mm size and homogenized. A split of approximately 300 g is pulverized to minus 150 mesh and homogenized by rolling.

9.2 Ore Grade Elements by Multi-Acid Digestion/ICP or ASS

- 0.25 to 1.0 g of sample is weighed and transferred into a 150 ml beaker. HCl, HNO_3, $HCIO_4$, and HF acid solutions are added and digested on a hot plate until dry. The sample is boiled again with 80 ml of 25% HCl for 10 min, cooled, bulked up to a fixed volume with distilled H2O and thoroughly mixed;
- Cu, Mo, and Ag are determined using an inductively coupled plasma emission spectrometer. All elements are corrected for inter-element interference and all data are stored onto a computer diskette.
- Quality control: the spectrophotometer is first calibrated using three known standards and a blank. The samples to be analyzed are then run in batches of 38 or fewer samples. Two tubes with an in-house standard and an acid blank are digested with the samples. A known standard with characteristics best matching the samples is chosen and inserted after every 15th sample. Every 20th sample is re-weighed and analyzed at the end of the batch. The blank used at the beginning of the run is analyzed again. The readings of the control samples are compared with the 'pre-rack known' to detect any calibration drift.

9.3 Fire Assay Gold Assay

- Duplicates of 50 g (2 assay tons) are weighed into fusion pots together with various flux materials, including lead oxide. After thorough mixing of silver inquart, a thin borax layer is added.
- The sample is placed into a fire assay furnace at 2000 degrees Fahrenheit (ºF) for 1 hr. Elemental lead, from lead oxide, collects the Au and Ag.
- After 1 hr fusion, the sample is poured into a conical cast iron mold. The Au- and Ag-bearing lead button/bead at the bottom is separated from the slag.
- The lead button is placed in a preheated cupel into the furnace for a second separation at 1650ºF. Lead is absorbed by the cupel, whereas gold and silver remain on the surface of the cupel.

- After 45 min of cupellation, the cupel is removed from the furnace and cooled. The dore bead containing the precious metals is transferred to a test tube (sample duplicates are combined) and dissolved in hot *aqua regia*.
- The Au in solution is determined with an atomic absorption spectrophotometer. The Au value in ppb or g/t is calculated by comparing the reading with that of a standard.
- Fire assay quality control: every group of 24 fusion pots contains 22 samples, one internal standard or blank, and a re-assay of every 20th sample. Samples with Au >1,000 ppb are automatically checked by fire assay/AA. Samples with Au >10,000 ppb are automatically checked by fire assay/gravimetric methods.

10.0 DATA VERIFICATION

The Schaft Creek deposit has been the object of detailed exploration since the late 1960's to 1981 by various operators. A significant database was developed during that period that included more than 18,000 samples with analyses.

D. Beauchamp, P. Geol and consultant to Copper Fox reviewed these historic sample analyses. The historic database was found to include assay results from at least six different laboratories. Many of the laboratories did not describe the analytical methods in any detail that were used on the samples. There are no records of any field-based quality control program or any indication of the quality control practices by the laboratories.

Comparative analyses between several of the labs indicated that the reproducibility for copper was satisfactory, although several of the labs show a distinct bias one to the other. Comparison of Mo, Au, and Ag analyses were more problematic.

A small re-assay program of 160 samples was undertaken in 2004 by Process Research Associates of Vancouver using their affiliate, IPL as the analytical laboratory. These repeat analyses were done on the other half of drill core from four holes. The Cu data showed a scatter around the 1:1 line when compared to the original analyses, but there was little overall bias. The scatter is not unusual when comparing two halves of core. The Mo, Au, and Ag did not repeat as well. This is a clear indication that the original assay data is valid for at least Cu, but additional confirmatory analysis is required for other elements.

Hence, an essential component of the 2005 and 2006 field program was the twinning of historical drill holes to verify the reliability of the archival database; this was accomplished by duplicating the original assay intervals with new core samples along the same specified intervals. The databases generated from the two sets of records were then statistically compared to provide a level of confidence in the incorporation of the historic results to future ore reserves and ore modeling.

10.1 2006 Quality Assurance and Quality Control

In 2006, a program of Quality Assurance and Quality Control (QA/QC) was implemented as part of the diamond drilling and sampling program at the Schaft Creek Project operated by Copper Fox Metals Inc. The purpose of this program was to ensure that reliable and dependable assay results were reported for samples that were sent to the laboratory.

This report summarizes the QA/QC procedures that were used in the field and laboratory. The field procedures are based on a guidebook that describes in detail the sampling procedures and data recording methods so that consistent methods are applied throughout the program.

10.1.1 Field Procedures - Core Sampling

The drill core was sampled at intervals of 3.05 m so that the results would be comparable with historical data that was carried out at 10 ft intervals. The core was split with a rock saw, and half was submitted for analysis and the other half of the core was returned to the core box.

As part of the QA/QC program, a blank sample, a standard sample and a duplicate sample were submitted in each batch of 40 samples.

The purpose of the blank sample is to determine whether there is any contamination in the laboratory from one analysis to another. If the blank sample returns values that are at or below detection limit, we can be confident that there is no contamination.

The purpose of the standard sample is to determine whether the laboratory is providing accurate results. The recommended value for the standard samples was determined by carrying out several assays on the sample, and the results provided by the laboratory should be within a known range. Consulting Geochemist, Barry Smee, has suggested that results should be within ±3 standard deviations of the recommended value for each element. A total of six standard samples were used during the 2006 program. Two of these were from Canadian Laboratories, and four were prepared by International Plasma Laboratories (IPL) for Copper Fox from samples from the property.

Duplicate samples were submitted by further splitting the half core in half. The two samples are numbered sequentially and submitted for analysis. The duplicated are two different samples and results of the assays could vary if mineralized veins are unevenly distributed in the two adjoining samples.

10.1.2 Laboratory Procedures

The laboratory procedures included discussions with laboratory personnel to establish a consistent and routine protocol for the assays and reporting of the results, and an unannounced visit to the laboratory to examine procedures, cleanliness and set-up in late September. The samples were processed and assayed for gold using two-assay ton samples and for a 30-element ICP package.

In total, 77 blanks, 77 duplicates and 78 standards were analyzed. Limited of detection are of 0.01% Cu, 0.01% Mo and 0.5 g/t Ag by ICP method and 0.01 g/T Au by assay.

10.1.3 Evaluation of the Field Procedures

The field procedures were followed meticulously and few problems occurred. Overall, the field personnel carried out the splitting and numbering of more than 3000 samples in a remarkably consistent manner.

The few variations in procedures that were recognized included the following:

- One shipment of metallurgical samples was sent to the assay laboratory instead of the metallurgical laboratory;
- On two occasions a standard sample was not included in the sample pails;
- Once the sample sequence between the standard and blank sample as inverted.

Neither of these lapses were of any significance in the QA/QC process.

10.1.4 Evaluation of the Laboratory Procedures

The laboratory provided results within 10 - 14 days of receiving the samples in Vancouver. Management personnel were very attentive and helpful in answering questions or queries on results and on the procedures used.

An unannounced visit to the laboratory in late September revealed that the facility is clean, well organized and is operated in an efficient manner. In-house clerical procedures ensure that the laboratory personnel are unaware whose samples are being processed, providing an additional level of security for the company's results.

Several minor procedural issues were noticed during the course of the program:

- In drill hole 06CF255, the first sample of the drill hole reported a value of 95.0 g/t Au and a re-assay by IPL on the same sample gave 93.1 g/t Au. Elements in the ICP package that were also elevated include 14.7 ppm Ag, 327 ppm As, 776 ppm Pb and 73 ppm W.

  After several discussions the sample was sieved to 150 mesh. Both fractions were assayed separately, giving results of 83.95 in the coarse fraction and 0.42 g/t Au in the finer one, confirming the presence of the gold nugget effect in this sample.

- Results were originally reported to an accuracy of two decimals in percent for copper and molybdenum. Only later in the program was it suggested that all results should be to three decimals. IPL reprocessed the results recorded during the analysis and provided results to three decimals for copper and molybdenum.
- In two standard samples, assay results for gold were about 50% of the recommended value. Upon questioning, IPL inquired and reported that the two halves of the two assay ton analysis had not been added, but only for these two samples. Two assay ton samples are analyzed in two 30 g crucibles and the quantities reported are added. The larger crucibles available have a capacity of only 50 g.

10.1.5 Statistical Analysis of the Results

Graphical representation of the blank samples show that they are at the level of detection or below for each of the four metals of interest.

- Results for standard samples show that samples plot within its respective mean ±3 standard deviations of the expected results for their group and element.
- Statistical analysis of all duplicate samples by ANOVA (Analysis of Variance) shows that there is no significant difference between the results of the paired duplicates samples for copper, molybdenum, gold and silver.
- In order to verify the accuracy of the ICP analysis, ten samples were submitted for copper, molybdenum, gold and silver assay. The results show a correlation of 98.5 to 99.9% and a study by ANOVA shows that the samples are well within the same probability distribution.

10.1.6 2006 Quality Assurance and Quality Control Conclusions

The core splitting and sampling in the field was carried out according to the requirements. The minor variations in the procedures or slip-ups were of no consequence on the results or on the reliability of the results.

Laboratory procedures were followed correctly, and the occasional change in procedure was detected and corrected without any consequences to the analytical results or trustworthiness of the outcome.

Data verification using different statistical methods on the blank, duplicate and standard samples show that the data is dependable and that all evidence supports the conclusion that the results are reliable and accurate.

For these reasons the assay results for the 2006 drilling program are deemed to be up to standards and within acceptable limits.

10.2 Review of Analytical Database for Resource Modeling

10.2.1 Sampling

A total of 22,148 samples were submitted for analysis. Table 10.1 provides an overview of the samples sent for analysis relative to the drilling campaign.

Table 10.1: Overview of Samples Relative to Drilling Campaign

	Holes	Geological	Samples (#)
06CopperFox	42	2,910	2,932
05CopperFox	15	1,023	1,034
ASARCO	23	1,155	986
SILVER STD	3	239	194
HECLA	75	10,483	8,730
HECLA Paramount	10	1,033	872
TECK	119	10,043	7,400
Total	287	**26,886**	**22,148**

Sampling for both sets of drilling were submitted to the same laboratory (IPS) and the results were entered into spreadsheets for both the RC and diamond drilling holes. The major fields captured in the spreadsheet included Cu%, Mo%, Au(g/t), Ag(g/t) along with their respective duplicates and check samples which had been submitted to a different laboratory (Chemex).

10.2.1.1 Validation of Sampling and Check Sampling

Only the recent drill holes done by Copper Fox were subjected to reliable quality control. Out of the current database used for modeling purposes, a total of 1.8% of the samples were directed toward quality control. Table 10.2 demonstrates the amount of quality control samples examined.

Table 10.2: – Quality Control Samples

	Sampling	Duplicate	Chemex
06CopperFox	2932	19	-
05CopperFox	1034	27	26
	3966	46	26

Looking at the individual statistics we see that there is a good correlation between the original samples and check samples submitted for analysis. This correlation is depicted in Table 10.3, below, where the average grade, minimum and maximum grades for the two data sets as well as the Correlation Coefficient and R squared values are given.

Table 10.3: – Correlation between original and check samples (first laboratory)

Duplicates	46 samples	Cu%	Mo%	Au	Ag
Original Sample	Minimum	0.01	0.001	0.01	0.00
	Maximum	0.92	0.065	1.02	6.90
	Average	0.34	0.018	0.23	1.75
Check Sample	Minimum	0.01	0.001	0.01	0.00
	Maximum	1.00	0.080	1.09	7.60
	Average	0.36	0.019	0.25	1.65
Correlative Statistics	Correlation Coefficient	0.933	0.826	0.807	0.933
	R-squared	0.870	0.682	0.652	0.870

Table 10.4: Correlation between original and check samples (2nd laboratory)

2nd Laboratory	26 samples	Cu%	Mo%	Au	Ag
Original Sample	Minimum	0.05	0.00	0.02	0.00
	Maximum	2.31	0.25	1.02	14.40
	Average	0.52	0.03	0.23	3.05
Check Sample	Minimum	0.04	0.00	0.02	1.00
	Maximum	2.20	0.25	1.50	11.00
	Average	0.49	0.03	0.27	3.96
Correlative Statistics	Correlation Coefficient	0.997	0.992	0.966	0.997
	R-squared	0.995	0.985	0.932	0.995

For a perfect correlation the correlation coefficient and R-squared would be equal to 1.00. Figure 10.1 below depict the statistics for the 46 check samples compared with the original sample results, plotted on a Q-Q plot.

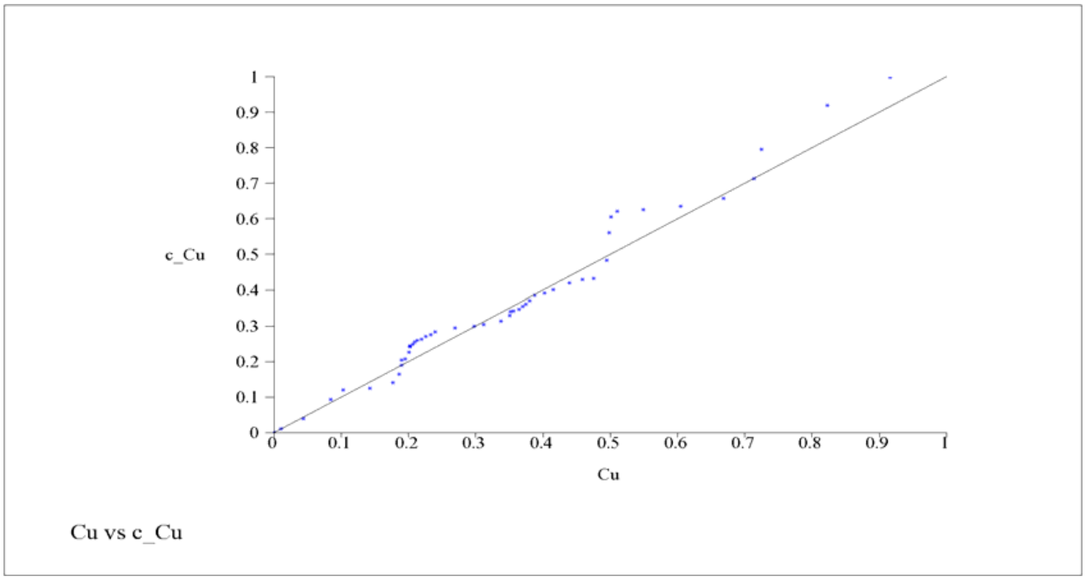

Figure 10.1: Statistics for check samples (1st laboratory), Q-Q plot of Cu *vs* check Cu

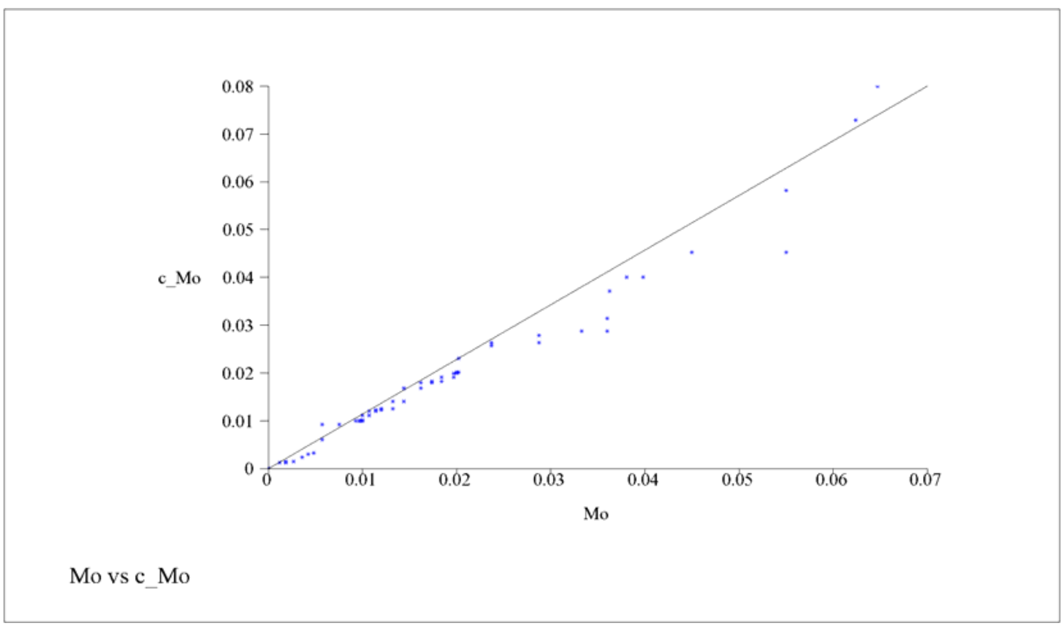

Figure 10.2: Statistics for check samples, 1st laboratory, Q-Q plot of Mo *vs* check Mo

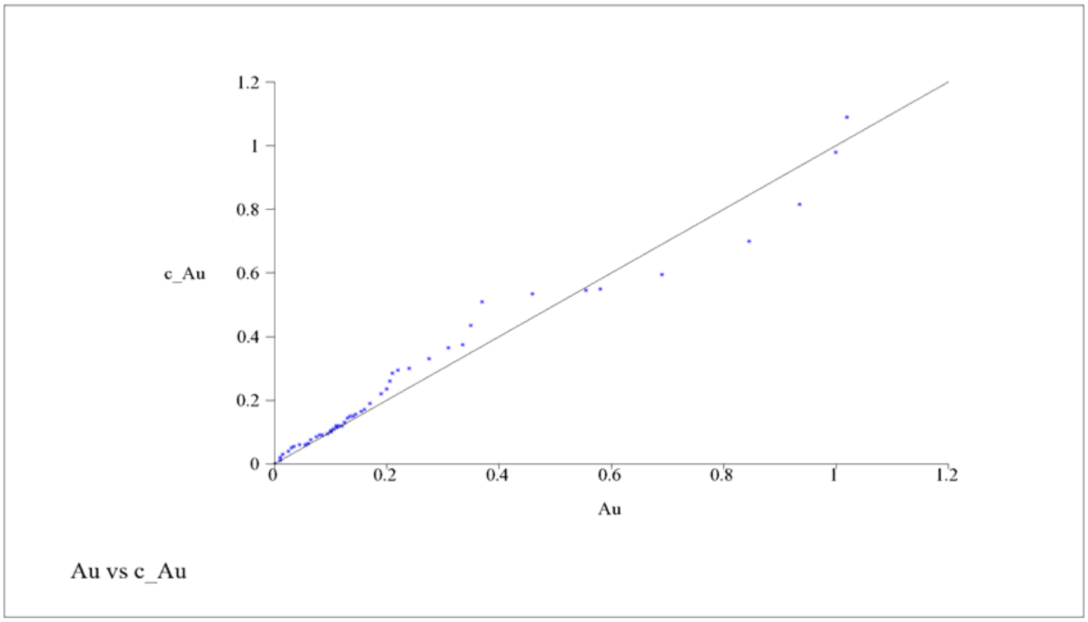

Figure 10.3: Statistics for check samples, 1st laboratory, Q-Q plot of Au *vs* check Au

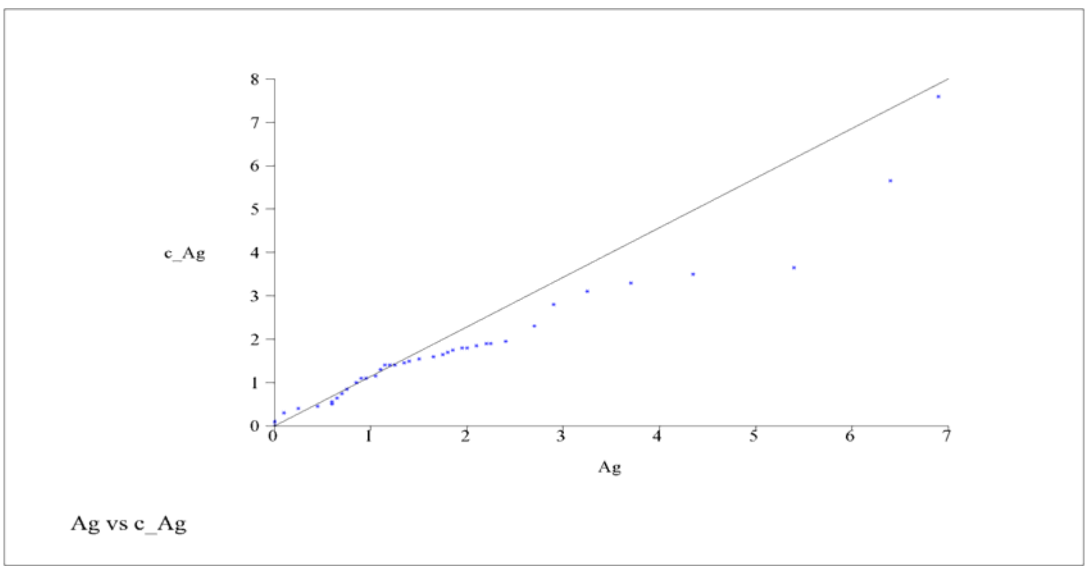

Figure 10.4: Statistics for check samples, 1st laboratory, Q-Q plot of Ag *vs* check Ag

Good correlation exists for the Cu and Au sample populations whereas the Mo shows slightly lower grades in the check samples than the original samples above 0.025%. The Ag shows lower grades in the check samples for the Ag population above a grade of 1.5 g/t.

Figure 10.5: below depict the statistics for the 26 samples put into the second laboratory for check analysis plotted on a Q-Q plot.

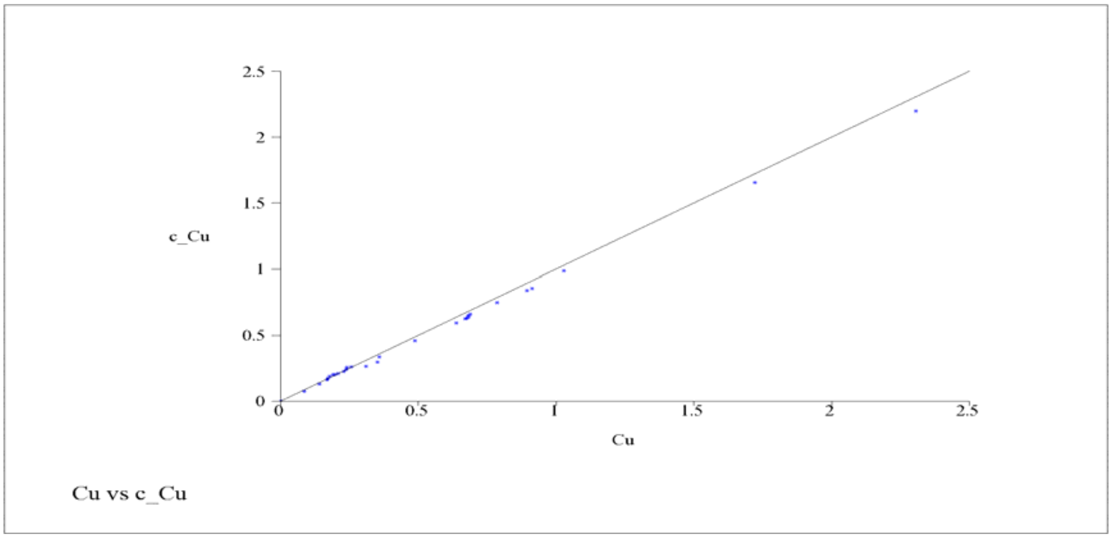

Figure 10.5:: Statistics for check samples, 2nd laboratory, Q-Q plot of Cu *vs* check Cu

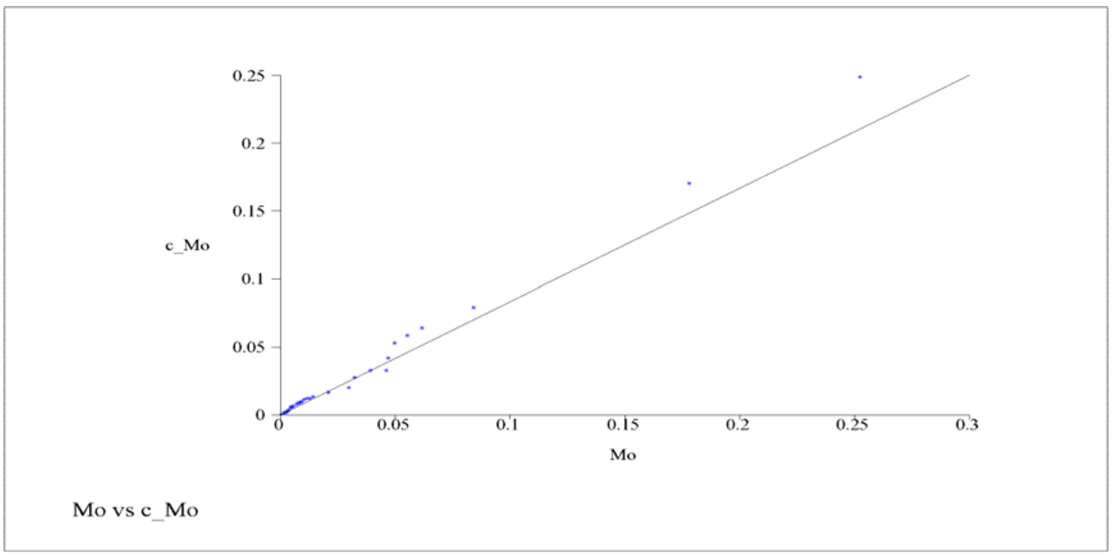

Figure 10.6: Statistics for check samples, 2nd laboratory, Q-Q plot of Mo *vs* check Mo

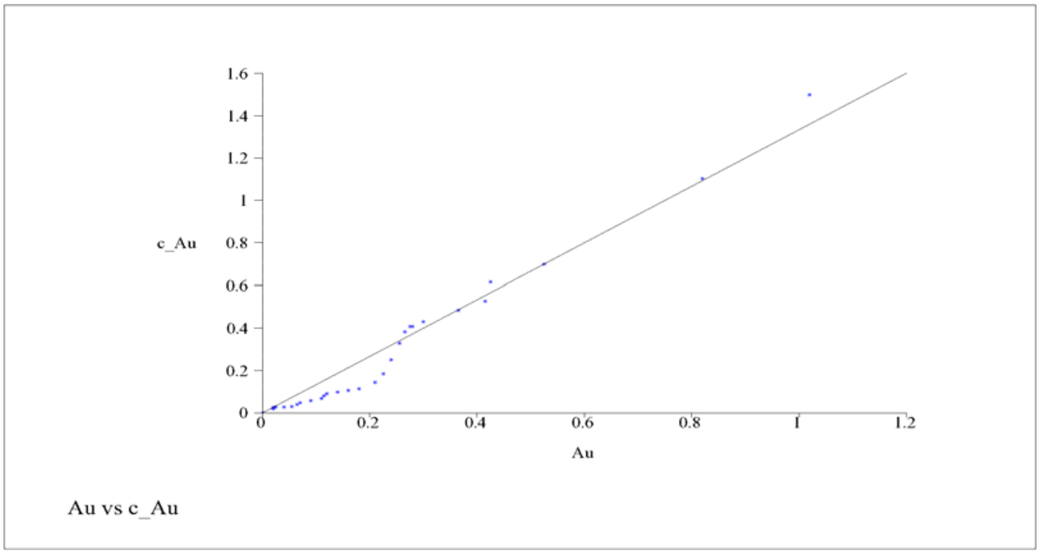

Figure 10.7 Statistics for check samples, 2nd laboratory, Q-Q plot of Au *vs* check Au

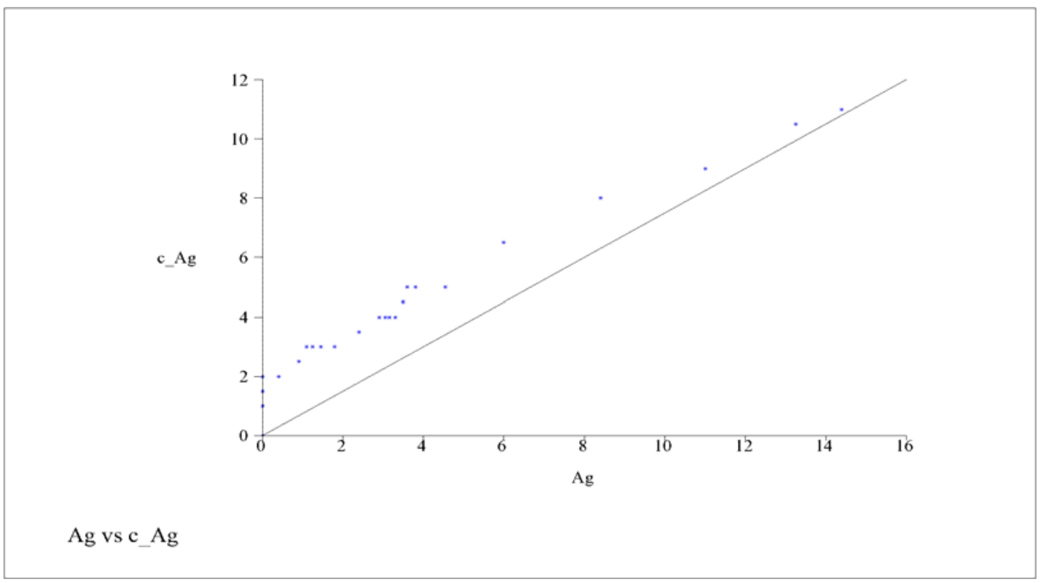

Figure 10.8: Statistics for check samples, 2nd laboratory, Q-Q plot of Ag *vs* check Ag

Good correlation exists for the Cu and Mo sample populations whereas the Ag shows higher grades for the check samples throughout the grade ranges. The Au shows lower grades in the check up to 0.3 g/t- thereafter good correlation exists.

It is in the author's opinion that the check samples show a good repeatability and have a spread that is to be expected for detailed statistical and spatial statistical analysis; this is also evident by the good correlation coefficient and R squared values. It has to be noted though that the check samples represent only a small portion (1.8%) of the total sample population.

11.0 GEOLOGICAL MODELLING AND GEOSTATISTICS

11.1 Mineral Resource Data Collection

11.1.1 Survey Data

A photogrammetric survey to a resolution of 2 m was completed over the entire project area with the initial proposed mine site at 1 m resolution. Drill holes were surveyed using ground survey methods, and reduced to the map coordinates. There were some discrepancies between the collar coordinates compared to the digital terrain model (DTM). With respect to the Z axis (elevation), the 287 collar coordinates have an average discrepancy of 2.63 m with a standard deviation of ±2.7 m (see Figure 11.1).

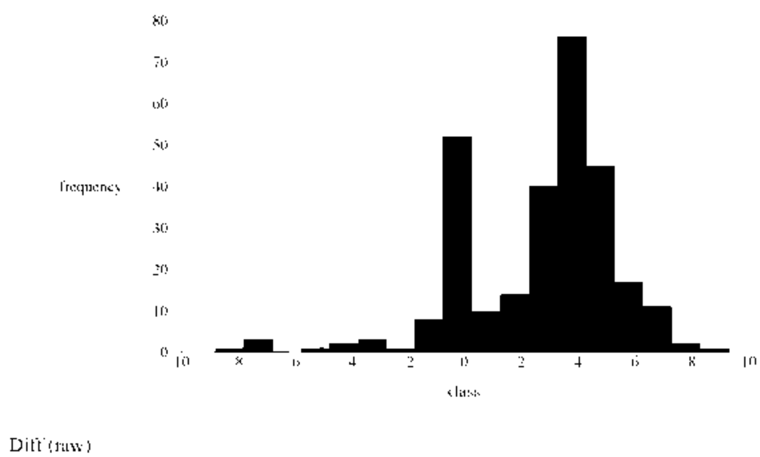

Figure: 11.1 - Difference (Collar – DTM elevation) in collar elevation.

As evident in Figure 11.1, 15% of the drill collars have a discrepancy >5 m, and a maximum discrepancy <9 m. It looks as if there are 2 elevation populations: one around 4 m and one around 0 m elevation difference.

Overall, the drill collar elevation discrepancies were found to be minor and within acceptable error for the scope and level of the resource estimate. Collar elevations were kept as they were in the solar file for modeling purposes and in this report. There will be new area survey data available during this upcoming year.

11.1.2 Resource Database

The resource was evaluated using diamond drilling techniques. Data was captured into Microsoft Excel® spreadsheets and subsequently loaded into Gemcom-Surpac™ software *via* a Microsoft

Access® database. The database consists of a number of tables, each of which contains a number of data fields. Tables included in the database are Collar, Survey, Assay and Geology.

When data is loaded into the database there were validation checks done to ensure the integrity of the database. The validation routines checked for the following errors or inconsistencies:

- Holes missing for assay and survey and geology tables,
- overlapping assay and geology intercepts,
- data deeper than maximum depth set out in the collar table,
- sampling data outside limits set on element grades (upper and lower), and;
- valid entries for geology coding for (modeling purposes).

11.2 Geological Modeling

Geological modeling was done using sectional interpretation of the grade values obtained from the assay tables. Cut-off values were based around 0.20% Cu and 0.0075% Mo with the zones modeled as continuous zones of higher-grade mineralization. It is apparent that the lithology or rock type could not assist in modeling of the resource.

There are 3 identified mineralized zones; the Main zone, the Paramount zone and the West Breccia zone. From the 287 drill holes included in the database 29 sections were generated (Figure 11.2) on average 70 m separation. Sections are oriented in an east to west direction. Drill hole collar spacing along the section lines is on average 70 m but with differing drill hole orientations resulting in the average distance of data in these sections (and also in 3D) as less than 50 m apart.

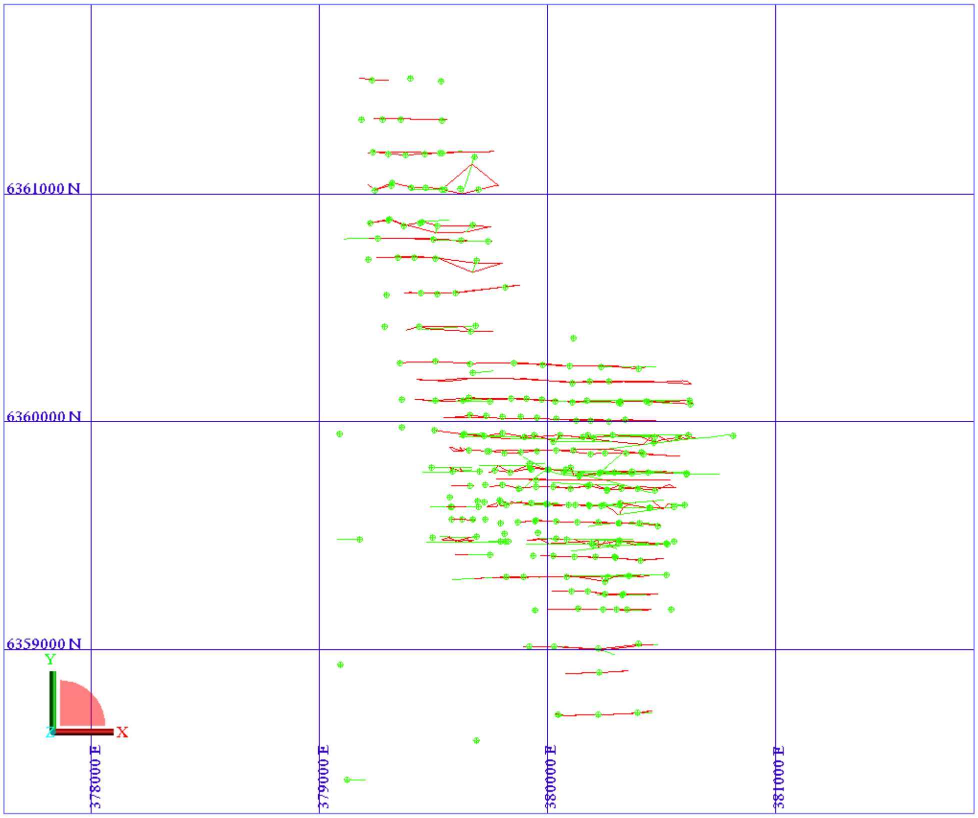

Figure: 11.2 - Sections used for constructing the zoned model

Drill holes were displayed on screen and coded according to various grade boundaries to aid modeling. The computer model sections constructed for the project area were digitized in true 3D by selecting on the actual drill hole trace. Once the interpretation was constructed, it was discussed with the geologists in charge of the project. Some of the interpreted sections are depicted in Figures 11.3 to 11.6. The color-coding on the drill hole traces are based around the Cu cutoffs as indicated at the top of the figures.

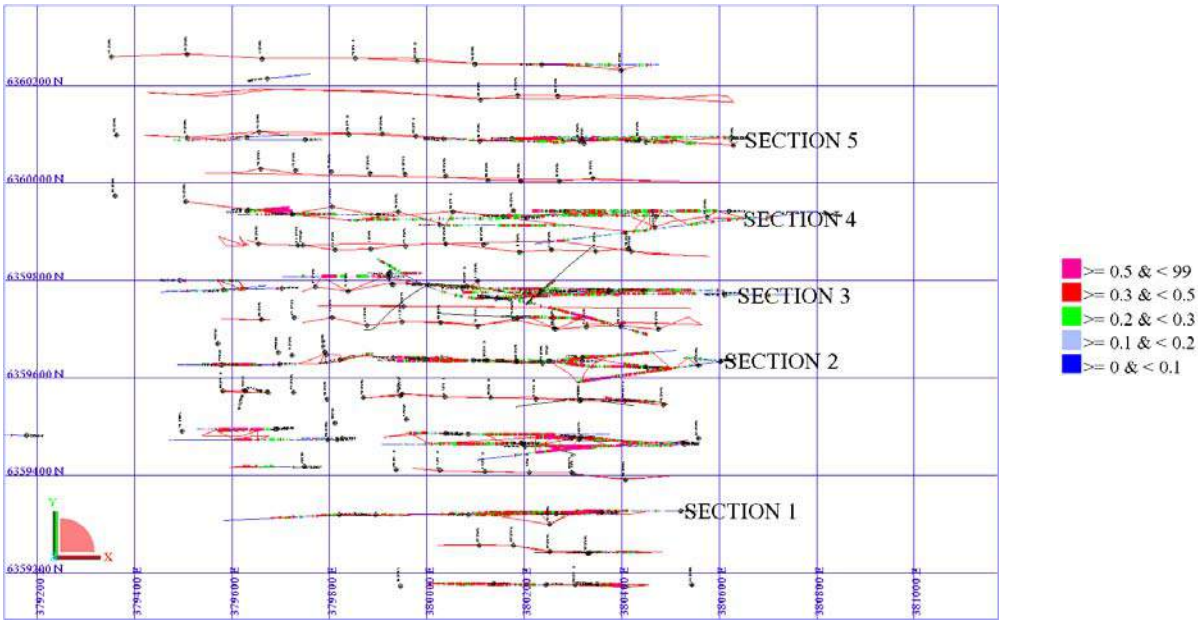

Figure: 11.3 – Location plan of interpreted sections

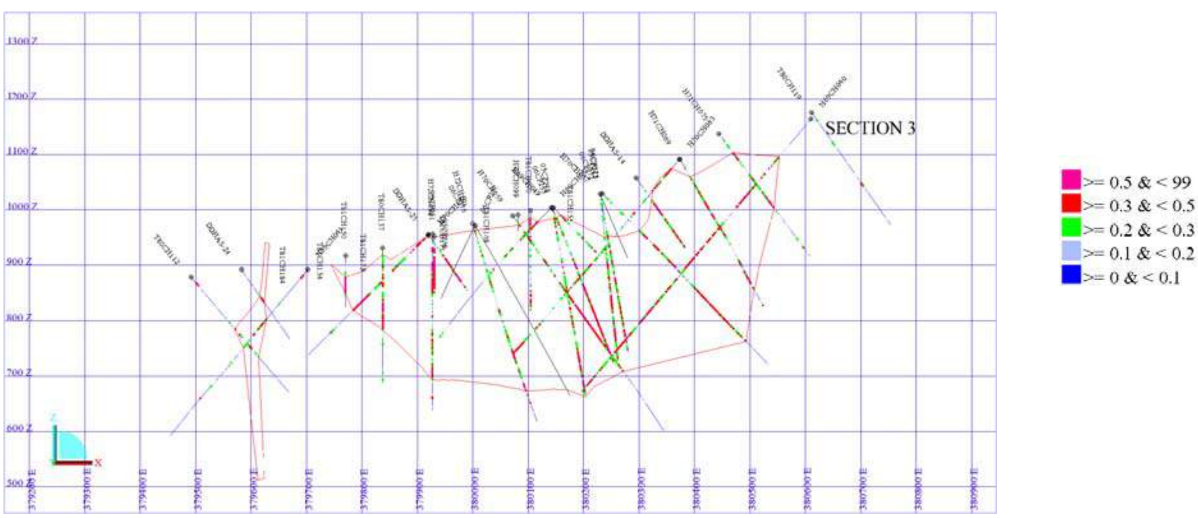

Figure: 11.4 – Interpreted section 3

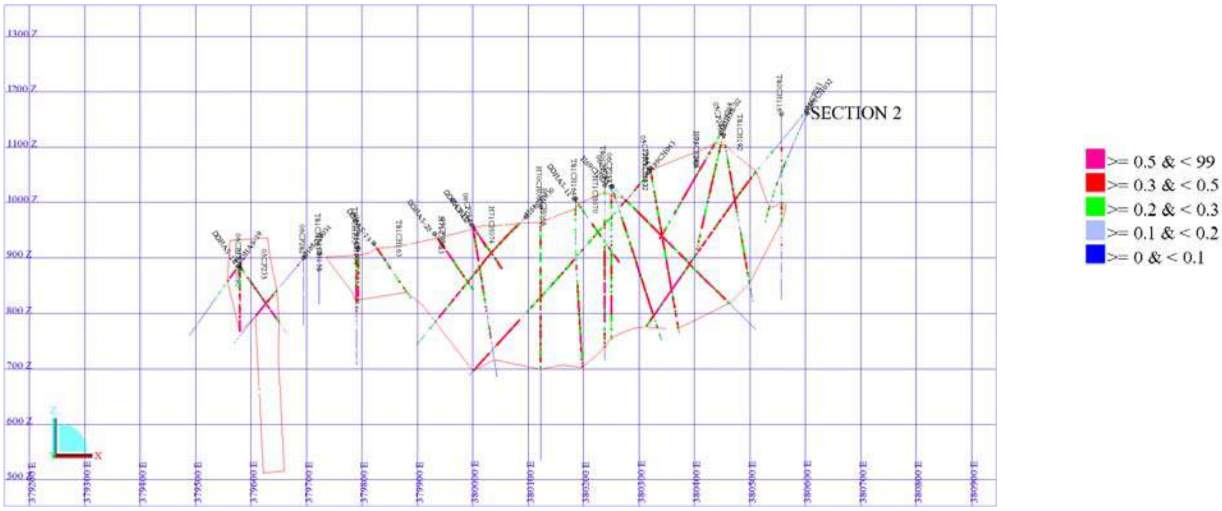

Figure: 11.5 – Interpreted section 2

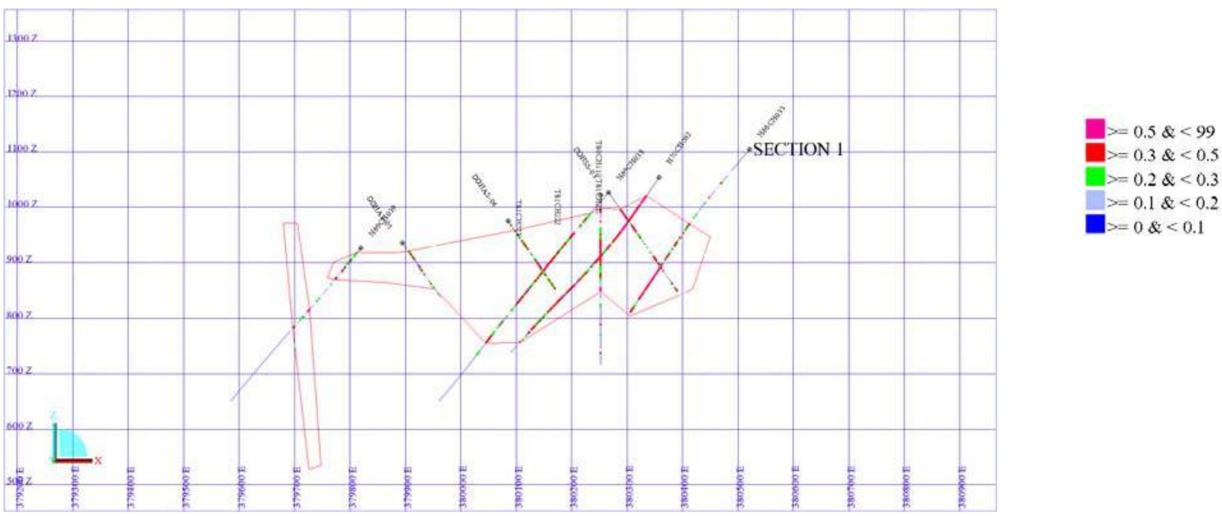

Figure: 11.6 – Interpreted section 1

One pronounced fault (striking east to west) separates the Main zone from the Paramount zone. With the use of solids modeling and the aforementioned sectional interpreted sections, the interpreted fault was "stitched" from each section to the corresponding next section. The result can be seen in the Figure 11.7 below.

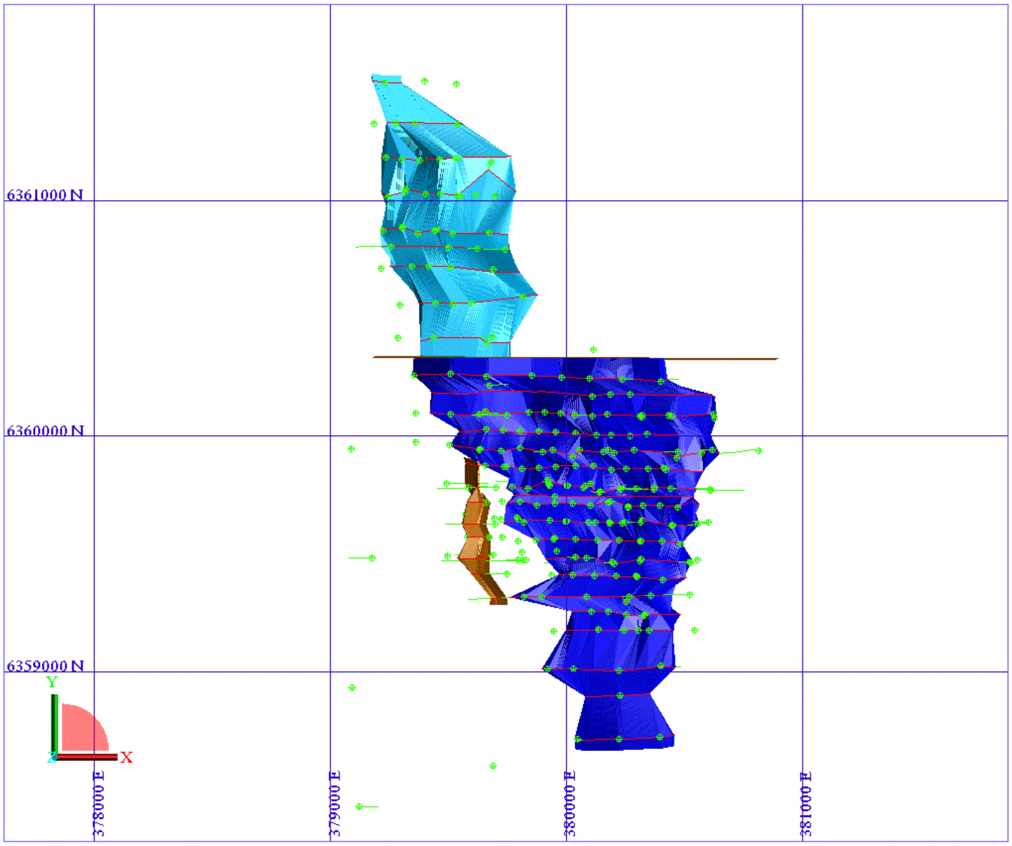

Figure: 11.7 – Interpreted fault, separates the Main zone and the Paramount zone

The drill hole database was then coded based according to the three zones interpreted. These zones can then be extracted separately for statistical and geostatistical purposes.

11.3 Statistical Analysis of Sample Data

From the 287 holed drilled a total of 22148 samples were submitted for analysis. Samples were taken at 10ft (3.048 m) increments. 371 samples were less than 3.048 m (1.7%) and 151 samples were greater than 3.1 m (0.7% of the sample population).

11.3.1 Global Statistical Analysis and Cutting of High-grade Values

Global statistical, special statistical work and grade estimation was performed on the West Breccia zone, Main zone, and Paramount zones as well as for the material that falls outside these mineralization zones.

The statistics of each element are given in Tables 11.1-11.8 in the following section.

Various statistical results are found in the tables, including:

- Percentiles are the grade at which the specified cumulative frequency percentage of the sample values occurs. The median is 50%. To determine the X percentile out of Y data points, X/100 * Y is used. If the Y is a even number, the next sample is (Y + 1) is added to Y and the total divide by 2. X percentile = (Y + (Y+1))/2

- The mean is the arithmetic average of the data and is computed by dividing the sum of a set of data by the number of data points.

$$\bar{X} = \frac{1}{n}\sum X_i$$

- The variance describes the variability of the distribution or the spread of the data

$$S^2 = \frac{1}{n}\sum (X - \bar{X})^2$$

- The standard deviation is simply the square root of the variance.

- The skewness is a measure of the symmetry of the distribution. In a normal distribution, where the distribution is symmetric, the skewness is zero. The skewness is negative for distributions tailing to the left and positive for distributions tailing to the right.

- The kurtosis is a measure of how peaked the distribution is, or the steepness of ascent near the mode of the distribution. It has a value of zero in a normal distribution and so is a good test for distribution normality. Most gold deposits display a very steep curve near the mode of the distribution so the value for the kurtosis can be expected to be quite high.

- The coefficient of variation is a measure of the relative variation of the data and is calculated by dividing the standard deviation by the mean of the distribution. It provides a very useful guide to the variability of the data and their subsequent suitability for use in geostatistics or variogram analysis. As a general rule, those distributions with a coefficient of variation less than one should produce a reasonable variogram model; if the coefficient of variation is greater than one it implies that the data are quite variable and it is difficult to produce a good variogram model; if the coefficient of variation is greater than two there is virtually no chance of producing a good variogram model.

Statistics for the raw sample data are depicted in Tables 11.1-11.8 below:

Table 11.1: - Cu Statistics for raw sample data

		West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zones
		Cu	Cu	Cu	Cu
Variable	**Samples**	**Samples**	**Samples**	**Samples**	**Samples**
Number of samples	21065	470	10745	2348	7485
25.0 Percentile	0.08	0.18	0.19	0.148	0.02
50.0 Percentile (median)	0.2	0.3	0.28	0.26	0.06
75.0 Percentile	0.333	0.54	0.402	0.407	0.13
90.0 Percentile	0.498	1.005	0.56	0.579	0.206
95.0 Percentile	0.635	1.36	0.7	0.74	0.26
99.0 Percentile	1.02	2.85	1.071	1.06	0.441
100.0 Percentile	4.1	4.1	2.75	1.68	3.472
Mean	**0.241**	**0.469**	**0.321**	**0.305**	**0.09**
Variance	0.052	0.28	0.043	0.05	0.012
Standard Deviation	0.228	0.529	0.208	0.223	0.111
Coefficient of variation	0.947	1.129	0.648	0.73	1.245
Skewness	3.1	3.183	2.218	1.476	7.5
Kurtosis	28.216	16.188	14.048	6.481	157.674

Table 11.2: Mo Statistics for raw sample data

	All Samples	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zone
	Mo	**Mo**	**Mo**	**Mo**	**Mo**
Variable	**Samples**	**Samples**	**Samples**	**Samples**	**Samples**
Number of samples	20606	449	10571	2343	7224
25.0 Percentile	0.002	0.007	0.005	0.006	0.001
50.0 Percentile (median)	0.008	0.014	0.01	0.015	0.001
75.0 Percentile	0.017	0.027	0.02	0.03	0.006
90.0 Percentile	0.033	0.044	0.038	0.056	0.012
95.0 Percentile	0.05	0.081	0.055	0.077	0.02
99.0 Percentile	0.109	0.249	0.122	0.195	0.049
100.0 Percentile	0.587	0.348	0.517	0.587	0.418
Mean	**0.014**	**0.024**	**0.018**	**0.025**	**0.005**
Variance	0.001	0.001	0.001	0.001	0
Standard Deviation	0.025	0.037	0.026	0.037	0.012
Coefficient of variation	1.753	1.562	1.468	1.458	2.317
Skewness	6.953	4.973	6.512	5.49	11.732
Kurtosis	86.257	34.209	76.063	52.484	266.381

Table 11.3: Au Statistics for raw sample data

	All Samples	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zone
	Au	Au	Au	Au	Au
Variable	Samples	Samples	Samples	Samples	Samples
Number of samples	10542	224	6580	1425	2279
25.0 Percentile	0.06	0.05	0.103	0.051	0.021
50.0 Percentile (median)	0.14	0.08	0.185	0.12	0.045
75.0 Percentile	0.261	0.144	0.309	0.288	0.096
90.0 Percentile	0.439	0.213	0.48	0.528	0.182
95.0 Percentile	0.59	0.27	0.626	0.703	0.259
99.0 Percentile	1.031	0.767	1.109	1.239	0.519
100.0 Percentile	20.86	1.41	20.86	10.834	1.43
Mean	0.204	0.112	0.246	0.226	0.081
Variance	0.103	0.018	0.117	0.165	0.013
Standard Deviation	0.321	0.134	0.342	0.406	0.112
Coefficient of variation	1.575	1.192	1.39	1.799	1.389
Skewness	30.272	5.814	34.401	14.588	4.555
Kurtosis	1750.09	50.259	2011.652	343.47	35.754

Table 11.4: Ag Statistics for raw sample data

	All Samples	**West Breccia Zone**	**Main Zone**	**Paramount Zone**	**Low Grade Zone**
	Ag	**Ag**	**Ag**	**Ag**	**Ag**
Variable	**Samples**	**Samples**	**Samples**	**Samples**	**Samples**
Number of samples	10214	221	6348	1361	2250
25.0 Percentile	0.686	0.85	0.686	1.029	0.343
50.0 Percentile (median)	1.4	1.7	1.44	1.68	1.131
75.0 Percentile	2.16	2.949	2.263	2.811	1.611
90.0 Percentile	3.189	5.613	3.189	4.44	2.263
95.0 Percentile	4.183	7.474	4.1	5.76	2.846
99.0 Percentile	7.371	10.85	6.8	8.726	5.143
100.0 Percentile	35.4	14.4	35.4	11.589	29.143
Mean	**1.656**	**2.334**	**1.686**	**2.138**	**1.215**
Variance	2.571	5.76	2.427	3.169	2.001
Standard Deviation	1.603	2.4	1.558	1.78	1.415
Coefficient of variation	0.968	1.028	0.924	0.832	1.165
Skewness	4.462	1.87	4.706	1.739	8.147
Kurtosis	53.857	7.244	63.106	7.167	127.428

A mining bench height of 15 m has been considered the most likely scenario therefore it was decided that compositing to a length of 15 m would be appropriate.

As a result of an analysis based on the statistics of the selected composite length it is the opinion of AGL that there was no need to cut any of the 15 m composite grade values. The statistics for the 15 m composites for each zone are depicted below. Tables 11.5-11.8 present the statistics for 15 m composites for each zone and element of interest.

Table 11.5: Statistics for Cu 15 m Composites

	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zones
	Cu	**Cu**	**Cu**	**Cu**
Variable	**15m-composite**	**15m-composite**	**15m-composite**	**15m-composite**
Number of samples	93	2183	479	1641
25.0 Percentile	0.224	0.217	0.189	0.029
50.0 Percentile (median)	0.391	0.295	0.279	0.075
75.0 Percentile	0.586	0.395	0.4	0.143
90.0 Percentile	0.958	0.522	0.536	0.216
95.0 Percentile	1.226	0.633	0.614	0.266
99.0 Percentile	2.422	0.873	0.872	0.494
100.0 Percentile	2.939	1.467	0.978	1.196
Mean	**0.48**	**0.322**	**0.306**	**0.101**
Variance	0.17	0.026	0.028	0.011
Standard Deviation	0.413	0.161	0.168	0.103
Coefficient of variation	0.86	0.5	0.549	1.018
Skewness	2.968	1.509	0.922	3.052
Kurtosis	15.888	7.446	4.144	21.843

Table 11.6: Statistics for Mo 15 m Composites

	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zone
	Mo	**Mo**	**Mo**	**Mo**
Variable	**15m-composite**	**15m-composite**	**15m-composite**	**15m-composite**
Number of samples	93	2175	479	1604
25.0 Percentile	0.01	0.007	0.009	0.001
50.0 Percentile (median)	0.018	0.013	0.018	0.002
75.0 Percentile	0.03	0.023	0.033	0.007
90.0 Percentile	0.043	0.036	0.05	0.013
95.0 Percentile	0.067	0.047	0.069	0.02
99.0 Percentile	0.171	0.087	0.117	0.042
100.0 Percentile	0.246	0.218	0.243	0.138
Mean	**0.024**	**0.018**	**0.025**	**0.006**
Variance	0.001	0	0.001	0
Standard Deviation	0.029	0.017	0.026	0.009
Coefficient of variation	1.237	0.981	1.021	1.672
Skewness	4.984	3.362	3.435	6.053
Kurtosis	35.956	23.526	22.208	65.459

Table 11.7: Statistics for Au 15 m Composites

	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zone
	Au	**Au**	**Au**	**Au**
Variable	**15m-composite**	**15m-composite**	**15m-composite**	**15m-composite**
Number of samples	45	1409	306	638
25.0 Percentile	0.068	0.129	0.073	0.029
50.0 Percentile (median)	0.097	0.205	0.146	0.055
75.0 Percentile	0.145	0.315	0.297	0.117
90.0 Percentile	0.186	0.444	0.518	0.223
95.0 Percentile	0.252	0.574	0.629	0.288
99.0 Percentile	0.325	0.859	1.065	0.496
100.0 Percentile	0.325	4.774	2.503	1.43
Mean	**0.114**	**0.245**	**0.224**	**0.094**
Variance	0.004	0.044	0.058	0.013
Standard Deviation	0.062	0.209	0.241	0.112
Coefficient of variation	0.549	0.852	1.076	1.193
Skewness	1.395	8.394	3.814	4.409
Kurtosis	5.454	162.502	29.818	39.935

Table 11.8: Statistics for Ag 15 m Composites

	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zone
	Ag	**Ag**	**Ag**	**Ag**
Variable	**15m-composite**	**15m-composite**	**15m-composite**	**15m-composite**
Number of samples	45	1377	301	638
25.0 Percentile	1.377	0.857	1.219	0.761
50.0 Percentile (median)	1.833	1.558	1.889	1.269
75.0 Percentile	3.219	2.263	2.821	1.766
90.0 Percentile	4.535	2.965	4.016	2.416
95.0 Percentile	6.063	3.706	4.698	3.171
99.0 Percentile	6.699	5.668	6.737	5.475
100.0 Percentile	6.699	17.361	7.533	11.429
Mean	**2.376**	**1.682**	**2.143**	**1.372**
Variance	2.416	1.522	1.923	1.36
Standard Deviation	1.554	1.234	1.387	1.166
Coefficient of variation	0.654	0.733	0.647	0.85
Skewness	0.943	3.133	1.058	2.964
Kurtosis	3.495	30.886	4.465	21.044

11.4 Assessment of Grade Continuity – Spatial Statistics

Spatial statistics or variography is a recognized means of determining grade continuity in various directions. This is done by comparing sample pairs with each other at various distances and plotting the average variance at each of these distances. A mathematical equation is then fitted on the graph.

This process is done in various directions, as continuity changes depending on the direction being evaluated. Three principal directions, which are mutually perpendicular to each other are generated and constitute: a major, semi-major and a minor axis. By calculating the anisotropy ratio or ratios between major/semi-major direction and major/minor directions we can determine the importance that each of the directions have on the grade interpolation.

11.4.1 Variography

Since the orientation of the mineralized zones could differ for each of the zones as well as for each element they all were done separately. Tables and Figures 11.9 through 11.24 display the results of all the statistics both for the raw and 15 m composite values.

Once variogram parameters have been obtained, we can compare the fitted model by estimating the grade in each known value and then comparing these two datasets (Kriged vs raw). Looking at some comparative statistics can also assist in this process. These enable us to see if the parameters obtained from the variogram analysis are appropriate to use in the grade interpolation process. This process is known as validation or cross-validation.

In general it could be said the variogram were moderate to good, and validated reasonably well to well. There was a good correlation with grade in the Kriged *vs* raw grades.

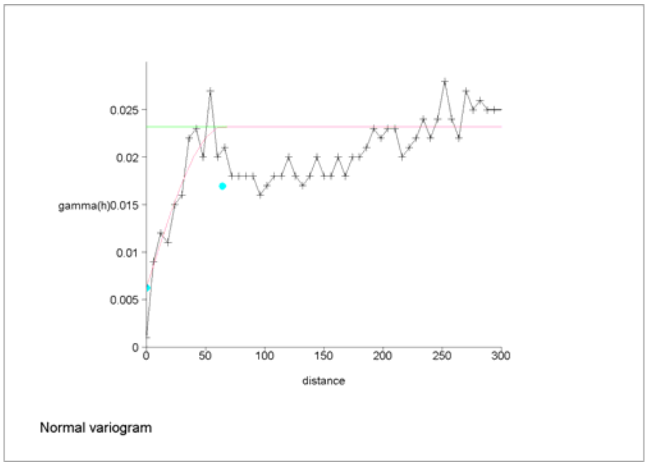

Figure: 11.9-A West Breccia zone Cu, variogram

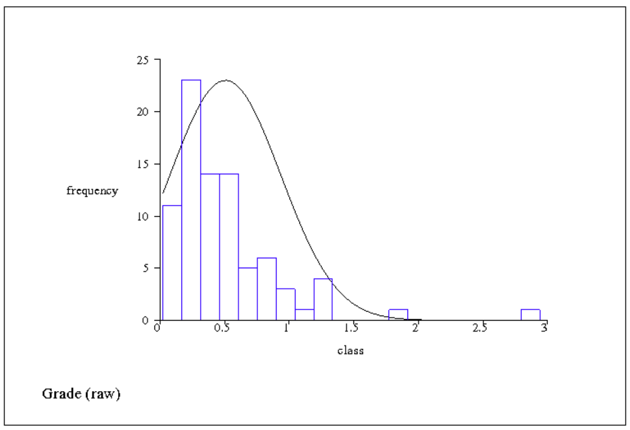

Figure: 11.9-B West Breccia zone Cu, raw grade distribution

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;

Bearing	180.00
Dip angle	0.00
Tilt angle	90.00

ANISOTROPY FACTORS;

Semi-major axis	1.00
Minor axis	1.00
TYPE OF VARIOGRAM =	NSP
Sill	0.1730
Nugget effect	0.0700

MODEL	C VALUE	RANGE
1	0.038	25.
2	0.065	127.

OTHER INTERPOLATION PARAMETERS

Max search distance of major axis	127.
Max vertical search distance	127.
Max number of samples used per block	30
Min number of samples used per block	15

SUMMARY STATISTICS OF KRIGING ERRORS

MEAN	0.0070
VARIANCE	0.1419
STD. DEVIATION	0.3768
AVG. SQ. ERROR	0.1403
WEIGHTED SQ. ERR.	0.1415
SKEWNESS	-2.8891
KURTOSIS	16.0024
NO. OF ASSAYS	83
AVG KRIG VARIANCE	0.1252
PERCENTAGE OF ERRORS WITHIN TWO STD. DEVIATIONS	95.18

Block Variance 0.0165406

Figure: 11.9-C West Breccia zone Cu, variogram parameters

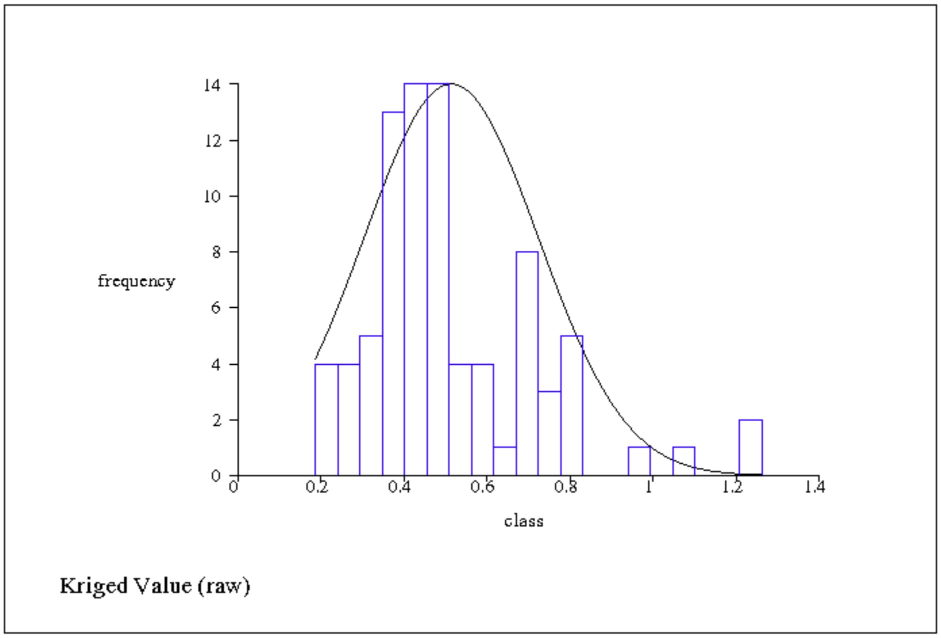

Figure: 11.9-DWest Breccia zone Cu, Kriged grade distribution

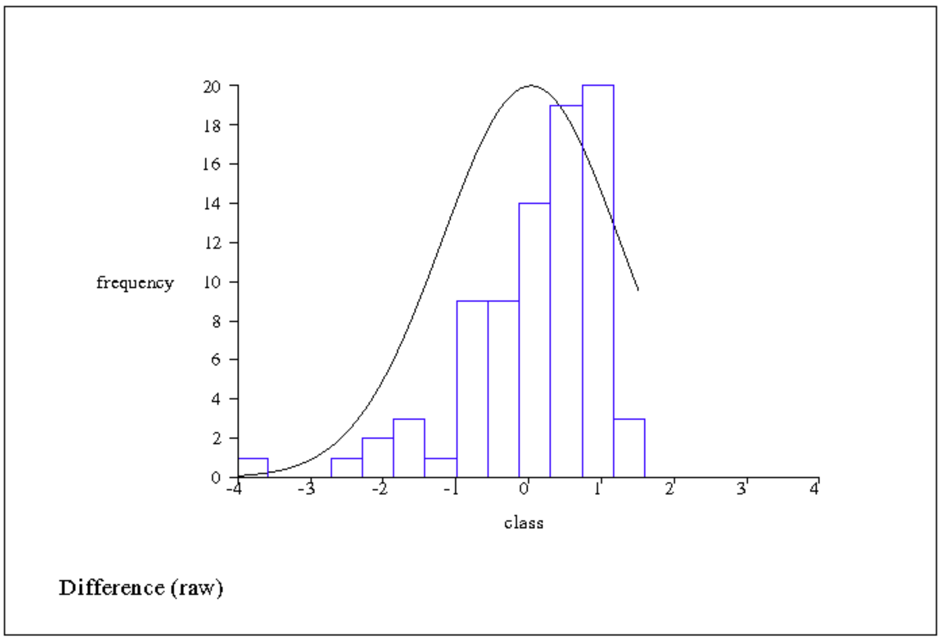

Figure: 11.9-E West Breccia zone Cu, difference between Kriged grade distribution and raw grade distribution

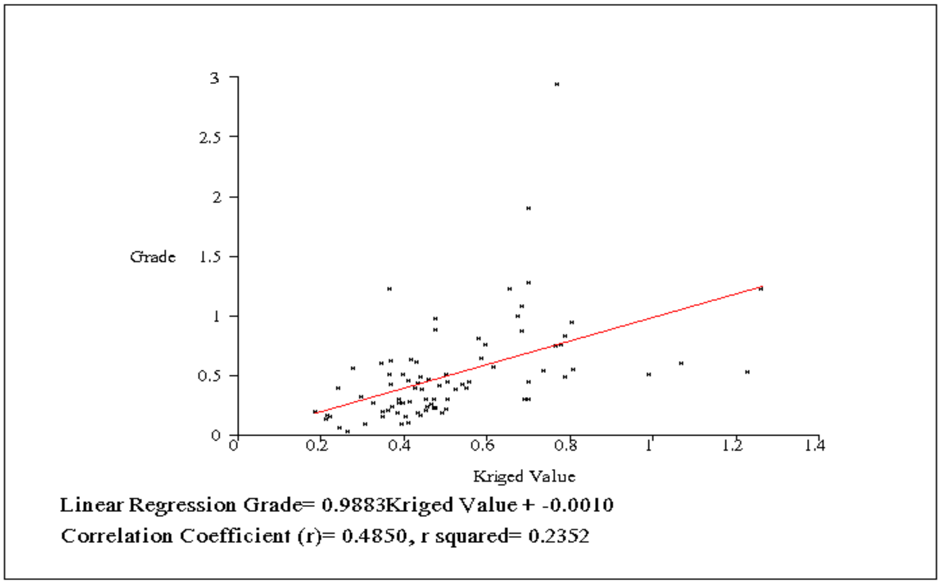

Figure: 11.9-F West Breccia zone Cu, correlation between Kriged grade distribution and raw grade distribution

West Breccia Zone			
	Cu		
Variable	**Samples**	**15m-composite**	**Kriged Value from Validation**
Number of samples	470	93	83
25.0 Percentile	0.18	0.224	0.386
50.0 Percentile (median)	0.3	0.391	0.458
75.0 Percentile	0.54	0.586	0.636
90.0 Percentile	1.005	0.958	0.782
95.0 Percentile	1.36	1.226	0.899
99.0 Percentile	2.85	2.422	1.245
100.0 Percentile	4.1	2.939	1.262
Mean	**0.469**	**0.48**	**0.514**
Variance	0.28	0.17	0.044
Standard Deviation	0.529	0.413	0.21
Coefficient of variation	1.129	0.86	0.409
Skewness	3.183	2.968	1.3
Kurtosis	16.188	15.888	5.155

Table: 11.9 West Breccia Zone Cu, statistics for raw and 15 m composite values

The omni direction variogram obtained looks good and has two structures, with a range of influence of 127 m and a low nugget. No directional variogram were obtained due to a lack of data (93 samples).

The validation obtained was good with the percentage of errors within 2 standard deviations of 95.18% (for perfect distribution 95%).

Comparing the statistics for the Kriged (0.514%) results compared to the raw data (0.480%), they are very close.

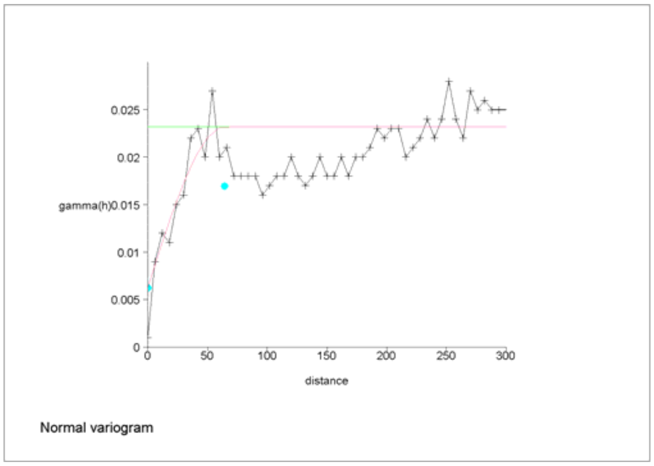

Figure: 11.10A Main zone Cu, variogram

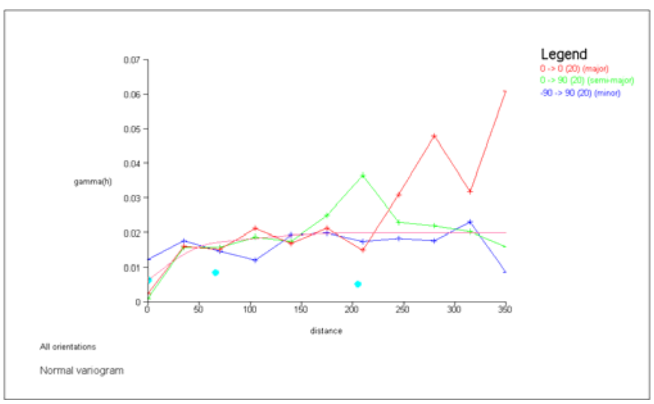

Figure: 11.10B Main zone Cu, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 2.00
TYPE OF VARIOGRAM = NSP
Sill 0.0190
Nugget effect 0.0060

MODEL	C VALUE	RANGE
1	0.008	66.
2	0.005	205.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 205.
Max vertical search distance 205.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS
MEAN 0.0020
VARIANCE 0.0122
STD. DEVIATION 0.1103
AVG. SQ. ERROR 0.0122
WEIGHTED SQ. ERR. 0.0126
SKEWNESS -1.1960
KURTOSIS 10.9202
NO. OF ASSAYS 2156
AVG KRIG VARIANCE 0.0133
PERCENTAGE OF ERRORS WITHIN
TWO STD. DEVIATIONS 95.64

Block Variance 0.00609291

Figure: 11.10C Main zone Cu, variogram parameters

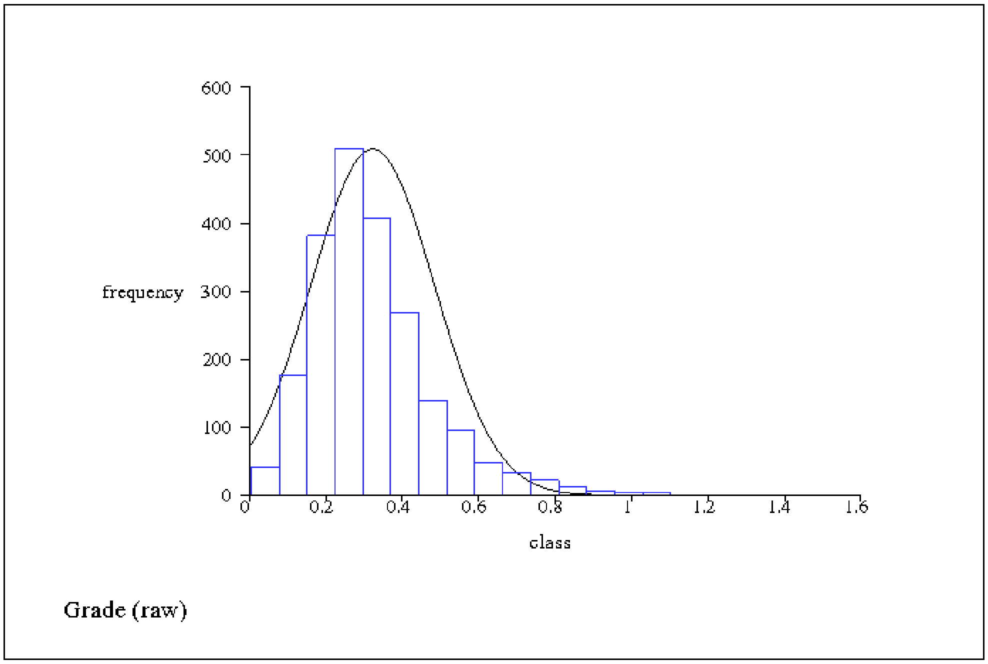

Figure: 11.10D Main zone Cu, raw grade distribution

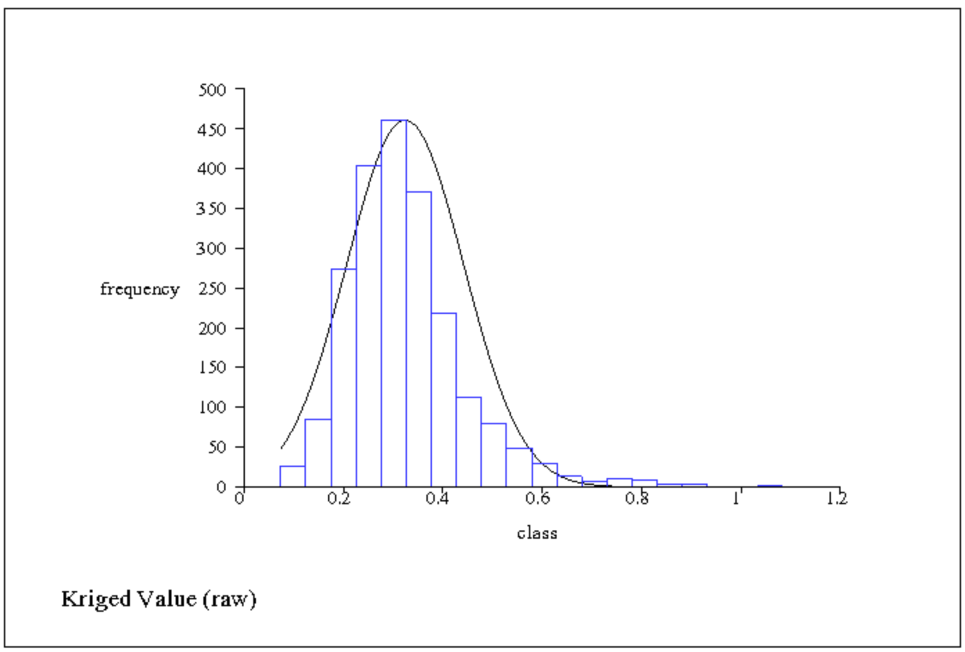

Figure: 11.10E Main zone Cu, Kriged grade distribution

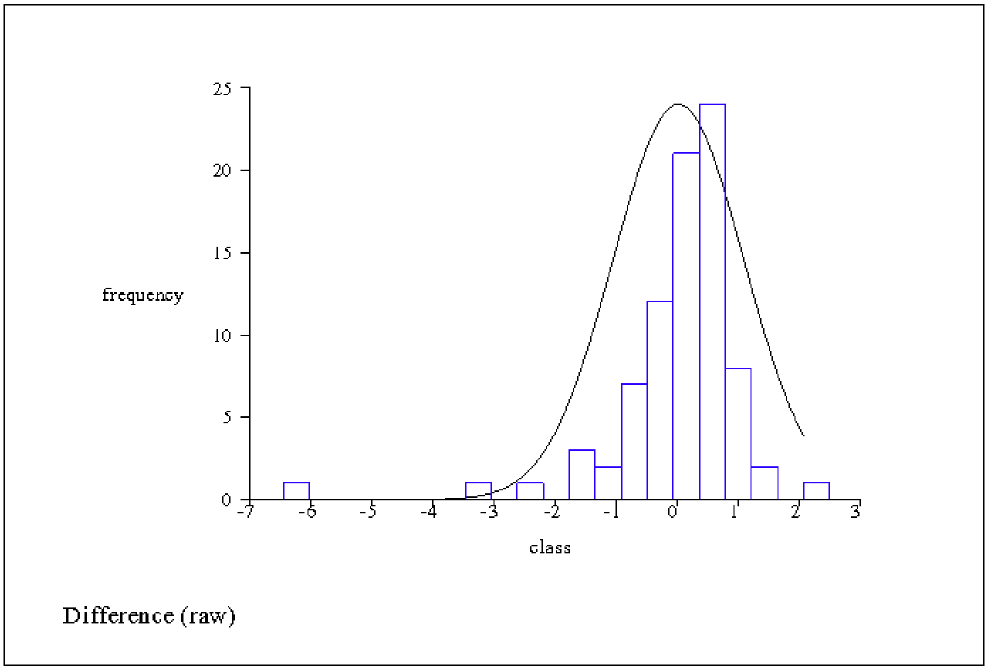

Figure: 11.10F Main zone Cu, difference between Kriged grade distribution and raw grade distribution

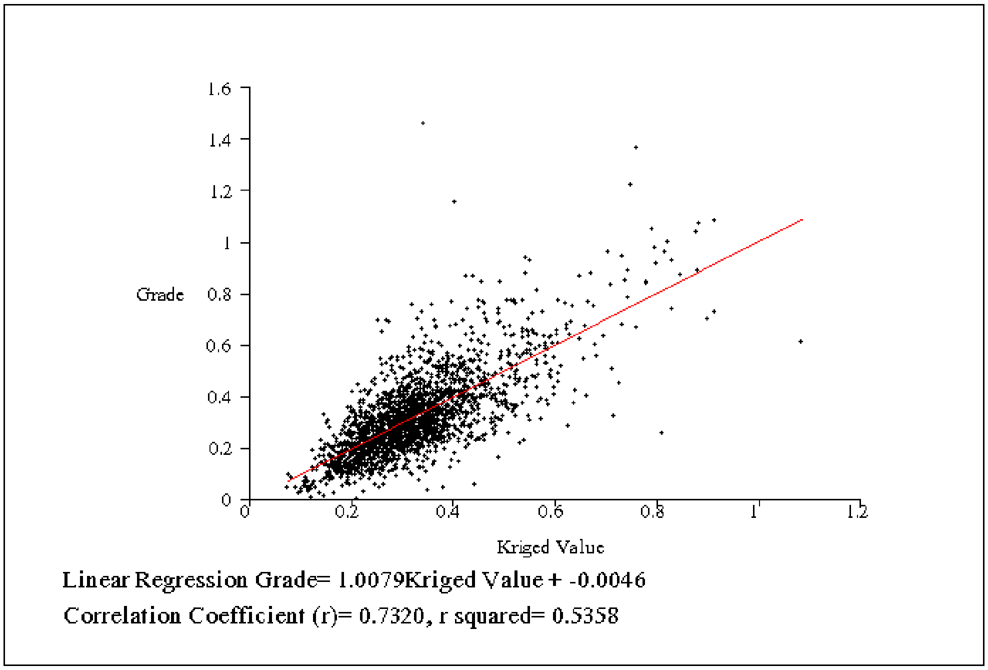

Figure: 11.10G Main zone Cu, correlation between Kriged grade distribution and raw grade distribution

Table: 11.10 – Main zone Cu, statistics for raw and 15 m composite values

Main Zone			
	Cu		
Variable	**Sample**	**15m-composite**	**Kriged Value from Validation**
Number of samples	10745	2183	2156
25.0 Percentile	0.19	0.217	0.245
50.0 Percentile (median)	0.28	0.295	0.309
75.0 Percentile	0.402	0.395	0.376
90.0 Percentile	0.56	0.522	0.466
95.0 Percentile	0.7	0.633	0.543
99.0 Percentile	1.071	0.873	0.742
100.0 Percentile	2.75	1.467	1.084
Mean	**0.321**	**0.322**	**0.324**
Variance	0.043	0.026	0.014
Standard Deviation	0.208	0.161	0.118
Coefficient of variation	0.648	0.5	0.362
Skewness	2.218	1.509	1.389
Kurtosis	14.048	7.446	6.674

The directional variogram obtained looks good and has two structures, with a major range of influence of 205 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 95.64% (for perfect distribution 95%).

Comparing the statistics for the Kriged (0.324%) results compared to the raw data (0.322%), they are very close. The validation gave a correlation coefficient of 0.73.

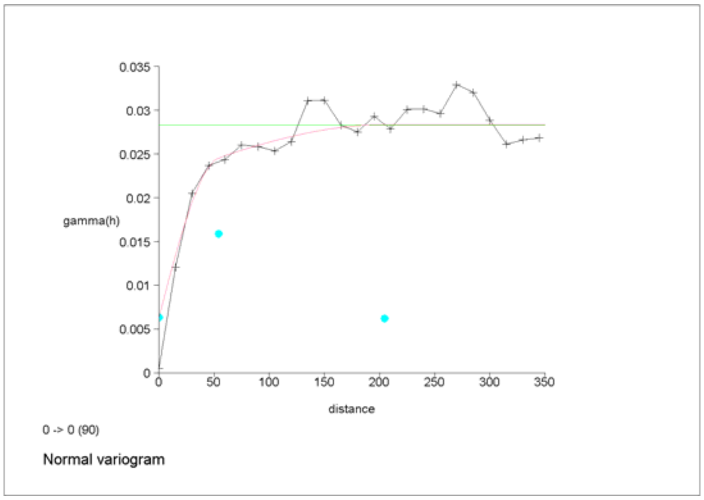

Figure 11.11A: Paramount zone Cu, variogram

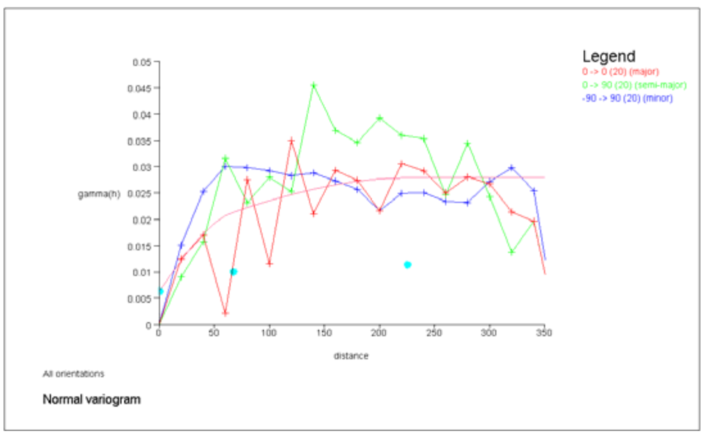

Figure: 11.11B Paramount zone Cu, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.20
Minor axis 1.80
TYPE OF VARIOGRAM = NSP
Sill 0.0280
Nugget effect 0.0060

MODEL	C VALUE	RANGE
1	0.010	67.
2	0.012	225.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 225.
Max vertical search distance 225.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS

MEAN	0.0006
VARIANCE	0.0128
STD. DEVIATION	0.1132
AVG. SQ. ERROR	0.0128
WEIGHTED SQ. ERR.	0.0128
SKEWNESS	-0.8762
KURTOSIS	5.3046
NO. OF ASSAYS	468
AVG KRIG VARIANCE	0.0167
PERCENTAGE OF ERRORS WITHIN TWO STD. DEVIATIONS	96.79

Block Variance 0.00742105

Figure: 11.11C Paramount zone Cu, variogram parameters

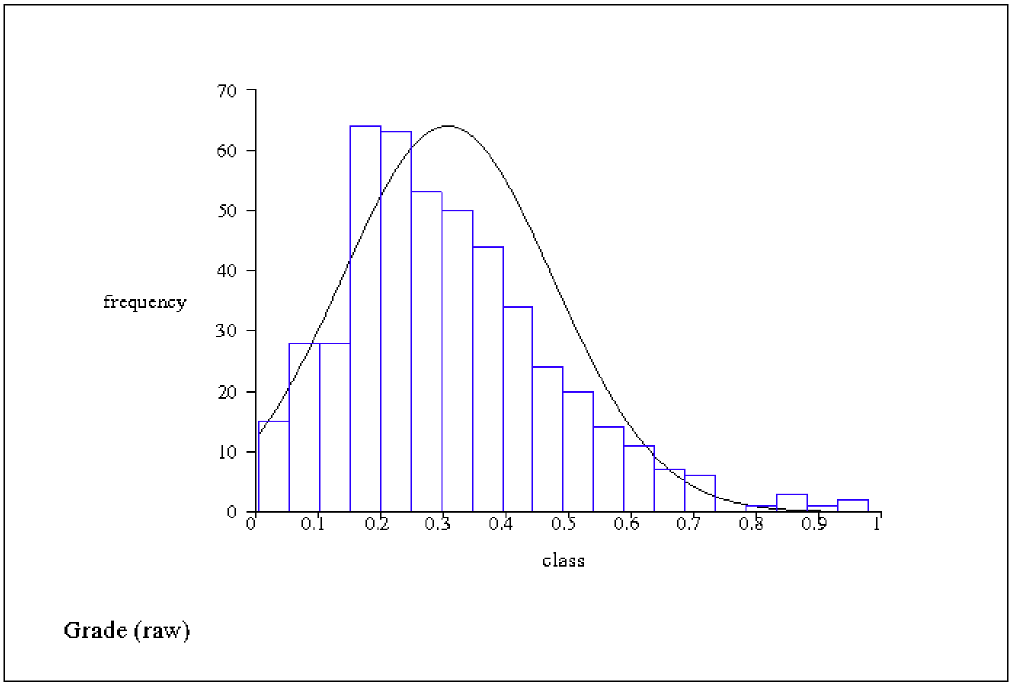

Figure: 11.11D Paramount zone Cu, raw grade distribution

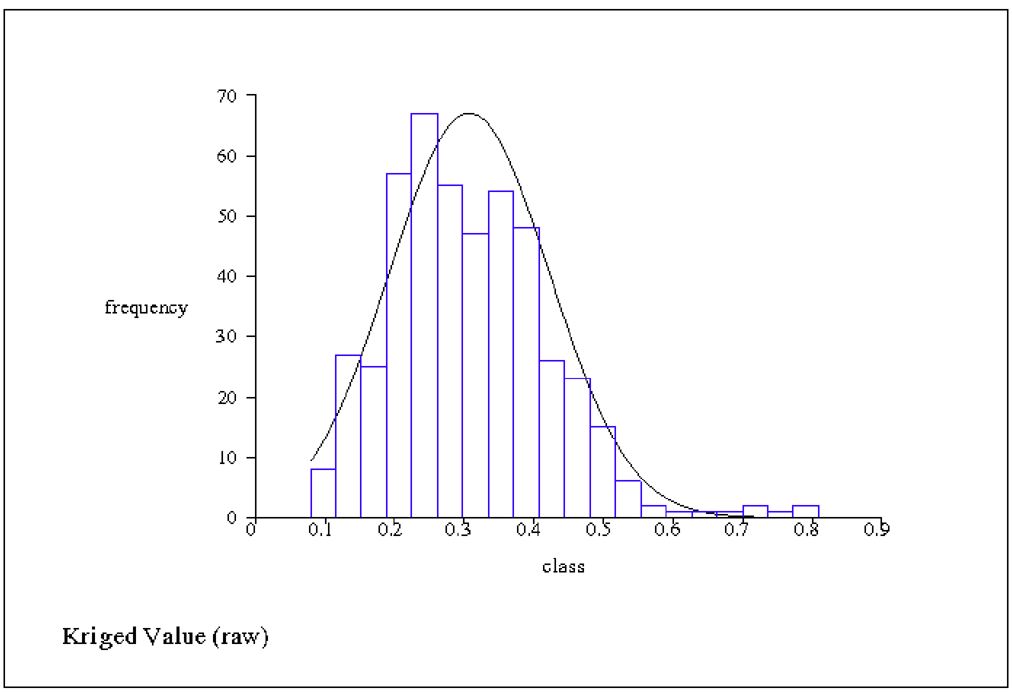

Figure: 11.11E Paramount zone Cu, Kriged grade distribution

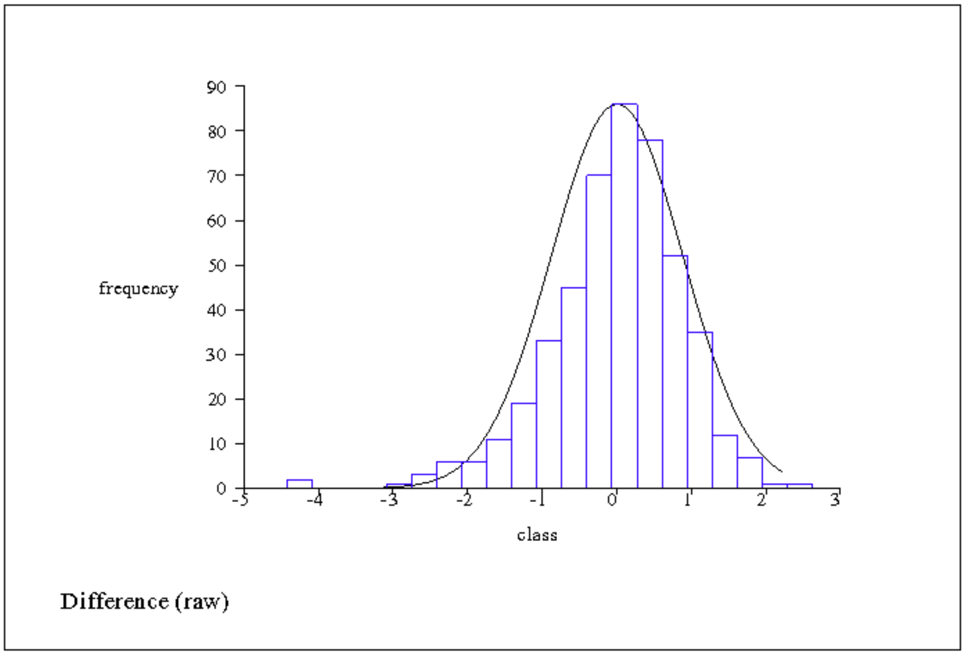

Figure: 11.11F Paramount zone Cu, difference between Kriged grade distribution and raw grade distribution

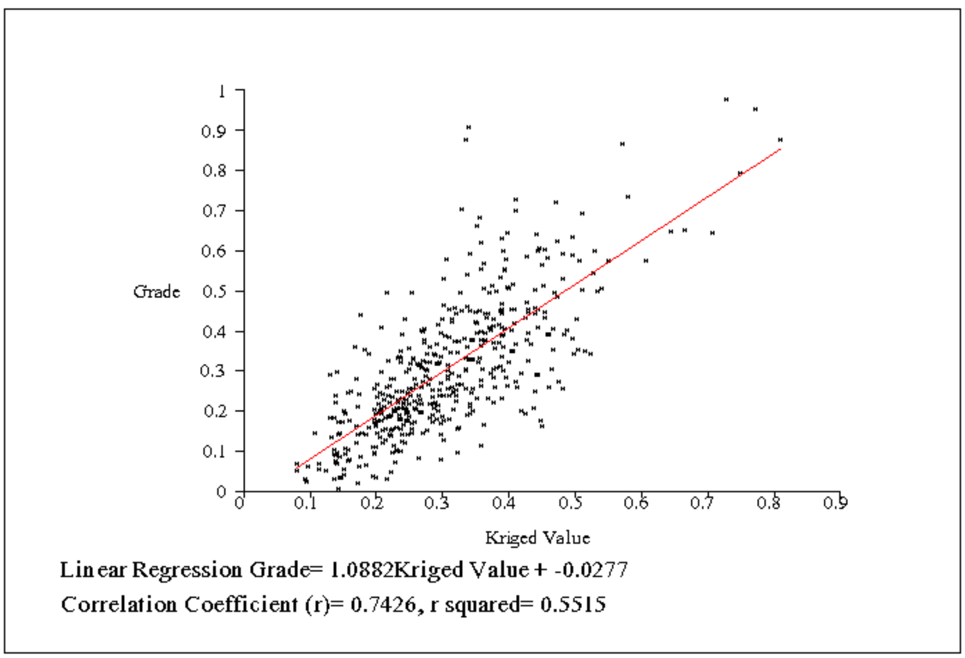

Figure: 11.11G Paramount zone Cu, correlation between Kriged grade distribution and raw grade distribution

Table: 11.11 – Paramount zone Cu, statistics for raw and 15 m composite values

Paramount Zone			
	Cu		
Variable	**Samples**	**15m-composite**	**Kriged Value from Validation**
Number of samples	2348	479	468
25.0 Percentile	0.148	0.189	0.225
50.0 Percentile (median)	0.26	0.279	0.296
75.0 Percentile	0.407	0.4	0.379
90.0 Percentile	0.579	0.536	0.451
95.0 Percentile	0.74	0.614	0.498
99.0 Percentile	1.06	0.872	0.686
100.0 Percentile	1.68	0.978	0.809
Mean	**0.305**	**0.306**	**0.307**
Variance	0.05	0.028	0.013
Standard Deviation	0.223	0.168	0.115
Coefficient of variation	0.73	0.549	0.373
Skewness	1.476	0.922	0.828
Kurtosis	6.481	4.144	4.487

The variogram obtained looks pretty good and has two structures, with a major range of influence of 225 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 94.79% (for perfect distribution 95%).

Comparing the statistics for the Kriged (0.307%) results compared to the raw data (0.306%), they are very close. The validation gave a correlation coefficient of 0.74.

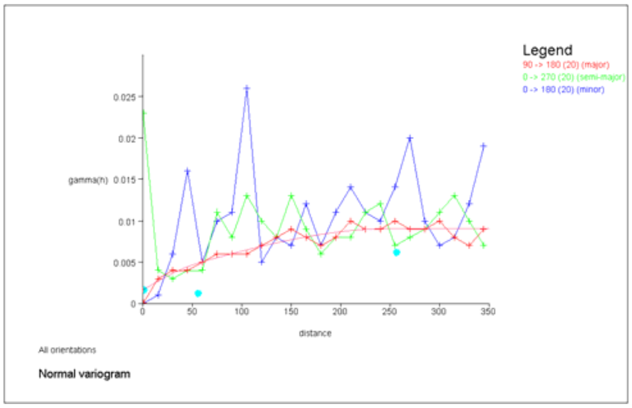

Figure: 11.12A Low Grade zone Cu, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;

Bearing	180.00
Dip angle	90.00
Tilt angle	0.00

ANISOTROPY FACTORS;

Semi-major axis	1.60
Minor axis	1.60
TYPE OF VARIOGRAM =	NSP
Sill	0.0090
Nugget effect	0.0020

MODEL	C VALUE	RANGE
1	0.001	55.
2	0.006	256.

OTHER INTERPOLATION PARAMETERS

Max search distance of major axis	256.
Max vertical search distance	256.
Max number of samples used per block	30
Min number of samples used per block	15

SUMMARY STATISTICS OF KRIGING ERRORS

MEAN	-0.0022
VARIANCE	0.0076
STD. DEVIATION	0.0872
AVG. SQ. ERROR	0.0076
WEIGHTED SQ. ERR.	0.0067
SKEWNESS	-3.7154
KURTOSIS	37.9731
NO. OF ASSAYS	1401
AVG KRIG VARIANCE	0.0041
PERCENTAGE OF ERRORS WITHIN TWO STD. DEVIATIONS	94.08
Block Variance	0.000563447

Figure: 11.12C Low Grade zone Cu, variogram parameters

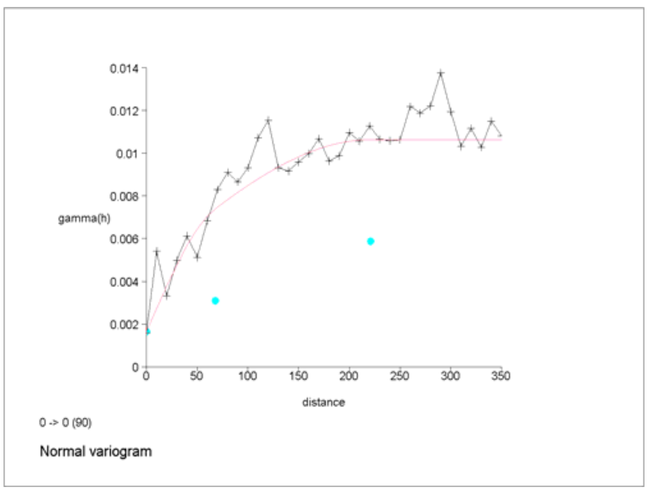

Figure: 11.12B Low Grade zone Cu, variogram

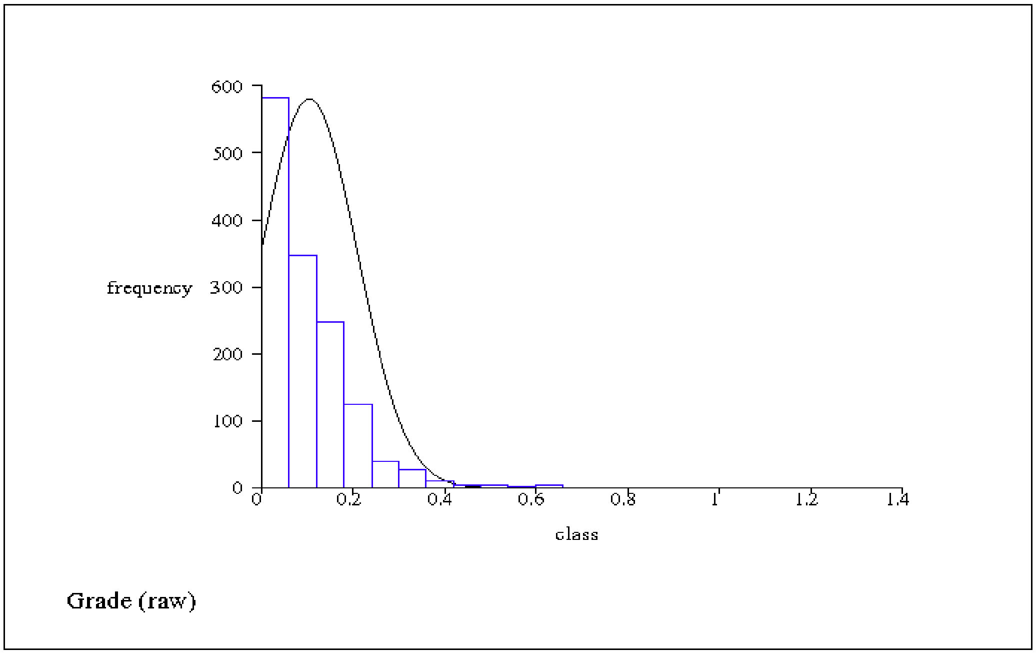

Figure: 11.12D Low Grade zone Cu, raw grade distribution

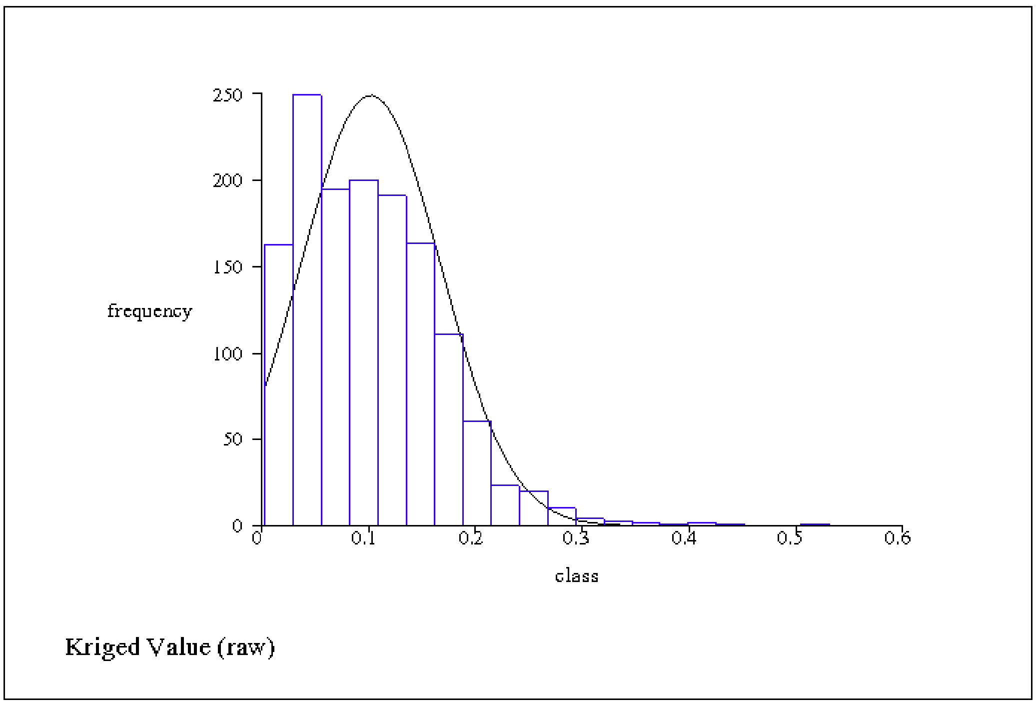

Figure: 11.12E Low Grade zone Cu, Kriged grade distribution

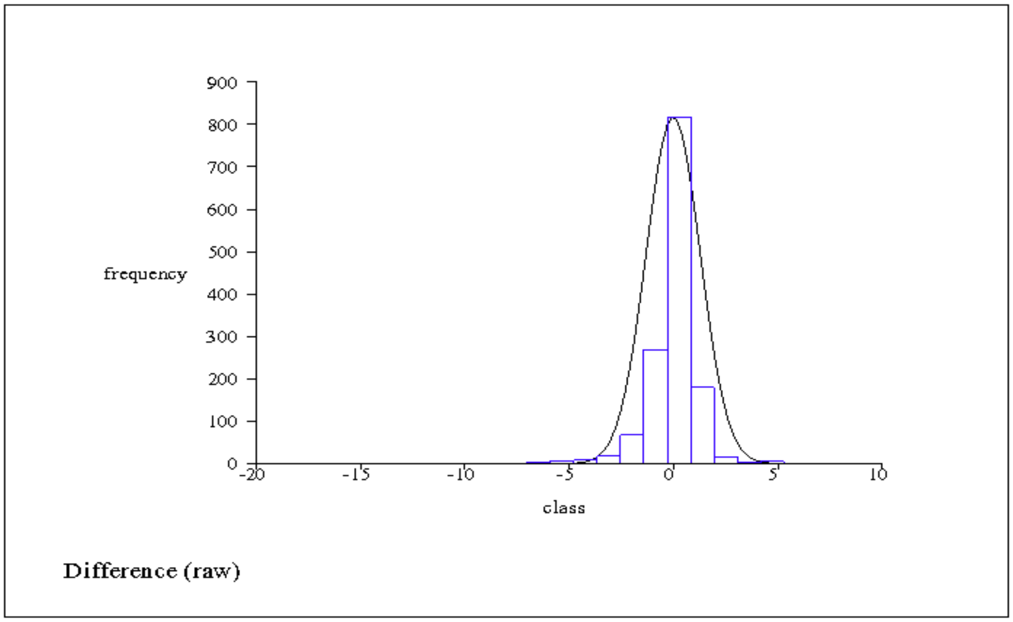

Figure: 11.12F Low Grade zone Cu, difference between Kriged grade distribution

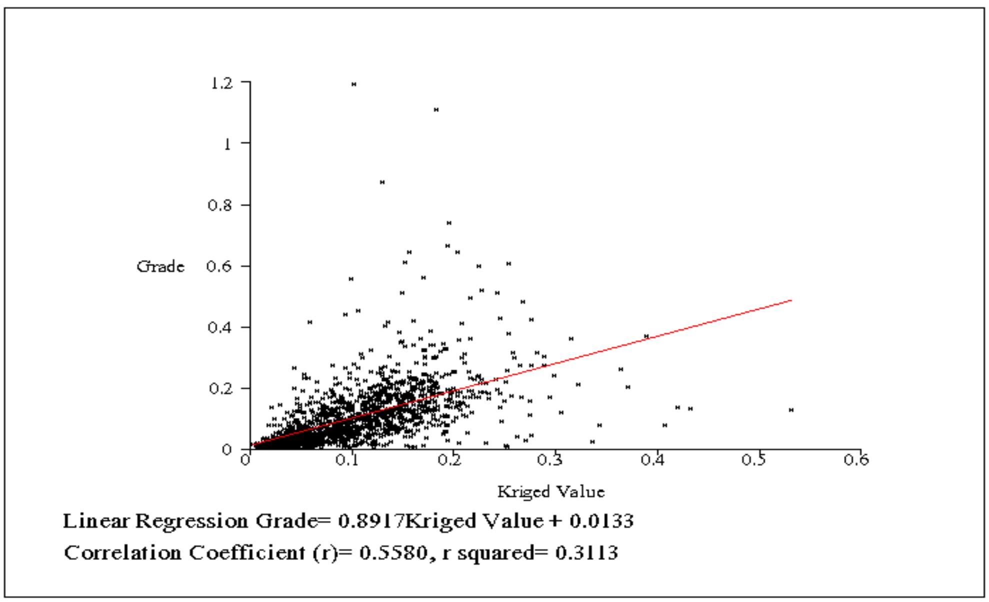

Figure: 11.12G Low Grade zone Cu, correlation between Kriged grade distribution

Table: 11.12 – Low Grade zone Cu, statistics for raw and 15 m composite values

Low Grade Zones			
	Cu		
Variable	**Samples**	**15m-composite**	**Kriged Value from Validation**
Number of samples	7485	1641	1401
25.0 Percentile	0.02	0.029	0.049
50.0 Percentile (median)	0.06	0.075	0.094
75.0 Percentile	0.13	0.143	0.144
90.0 Percentile	0.206	0.216	0.183
95.0 Percentile	0.26	0.266	0.214
99.0 Percentile	0.441	0.494	0.292
100.0 Percentile	3.472	1.196	0.532
Mean	**0.09**	**0.101**	**0.102**
Variance	0.012	0.011	0.004
Standard Deviation	0.111	0.103	0.066
Coefficient of variation	1.245	1.018	0.641
Skewness	7.5	3.052	1.092
Kurtosis	157.674	21.843	5.547

The variogram obtained looks good and has two structures, with a major range of influence of 256 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 94.08% (for perfect distribution 95%).

Comparing the statistics for the Kriged (0.102%) results compared to the raw data (0.101%), they are very close.

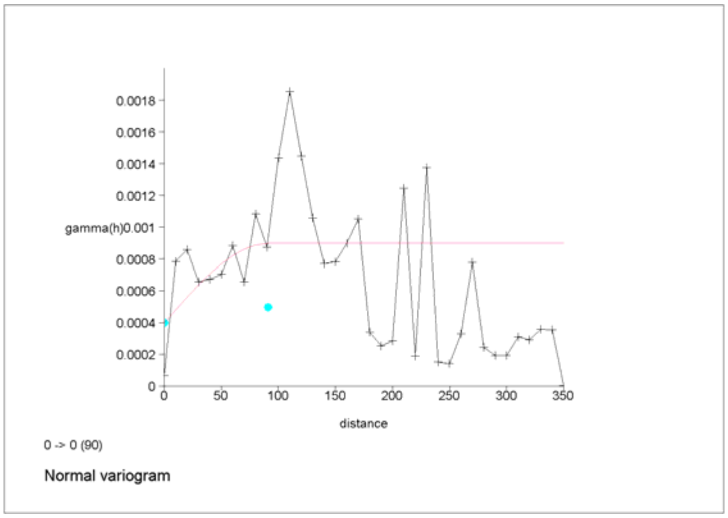

Figure: 11.13A West Breccia zone Mo, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;

Bearing	0.00
Dip angle	0.00
Tilt angle	0.00

ANISOTROPY FACTORS;

Semi-major axis	1.00
Minor axis	1.00

TYPE OF VARIOGRAM = SPH
Sill 0.0009
Nugget effect 0.0004

MODEL	C VALUE	RANGE
1	0.001	91.

OTHER INTERPOLATION PARAMETERS

Max search distance of major axis	90.
Max vertical search distance	90.
Max number of samples used per block	30
Min number of samples used per block	15

SUMMARY STATISTICS OF KRIGING ERRORS

MEAN	-0.0005
VARIANCE	0.0009
STD. DEVIATION	0.0293
AVG. SQ. ERROR	0.0008
WEIGHTED SQ. ERR.	0.0009
SKEWNESS	-4.3748
KURTOSIS	31.0482
NO. OF ASSAYS	68
AVG KRIG VARIANCE	0.0006
PERCENTAGE OF ERRORS WITHIN TWO STD. DEVIATIONS	94.12

Figure: 11.13B West Breccia zone Mo, variogram parameters

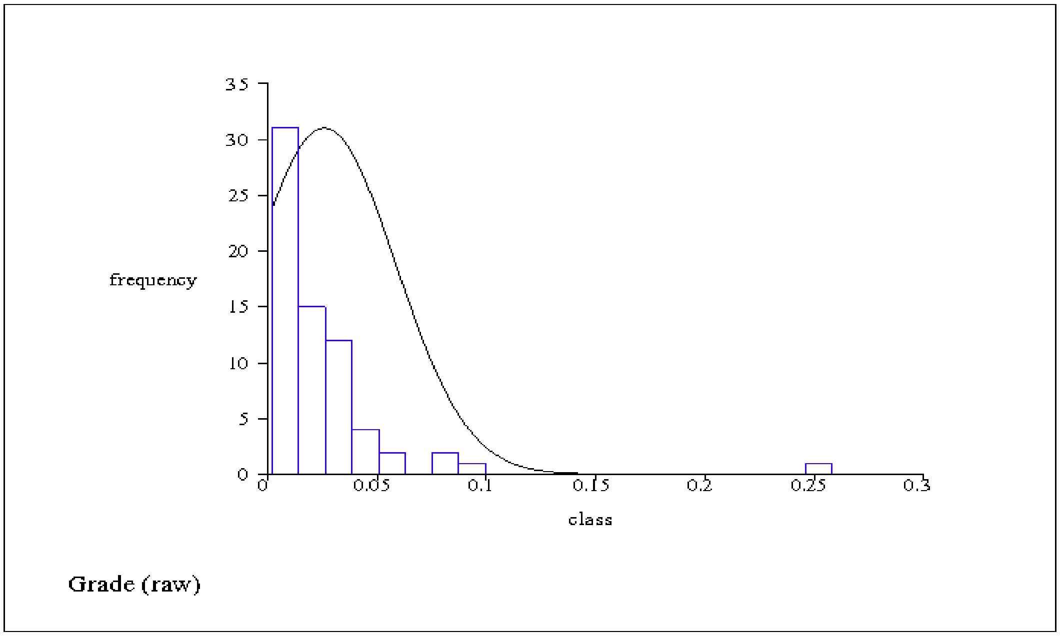

Figure: 11.13C West Breccia zone Mo, raw grade distribution

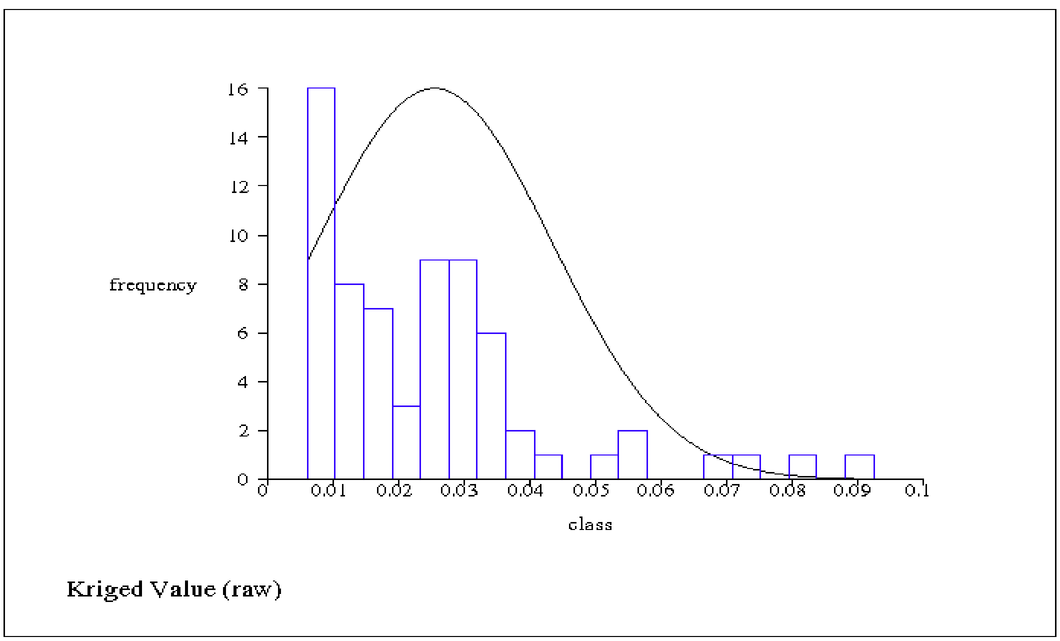

Figure: 11.13D West Breccia zone Mo, Kriged grade distribution

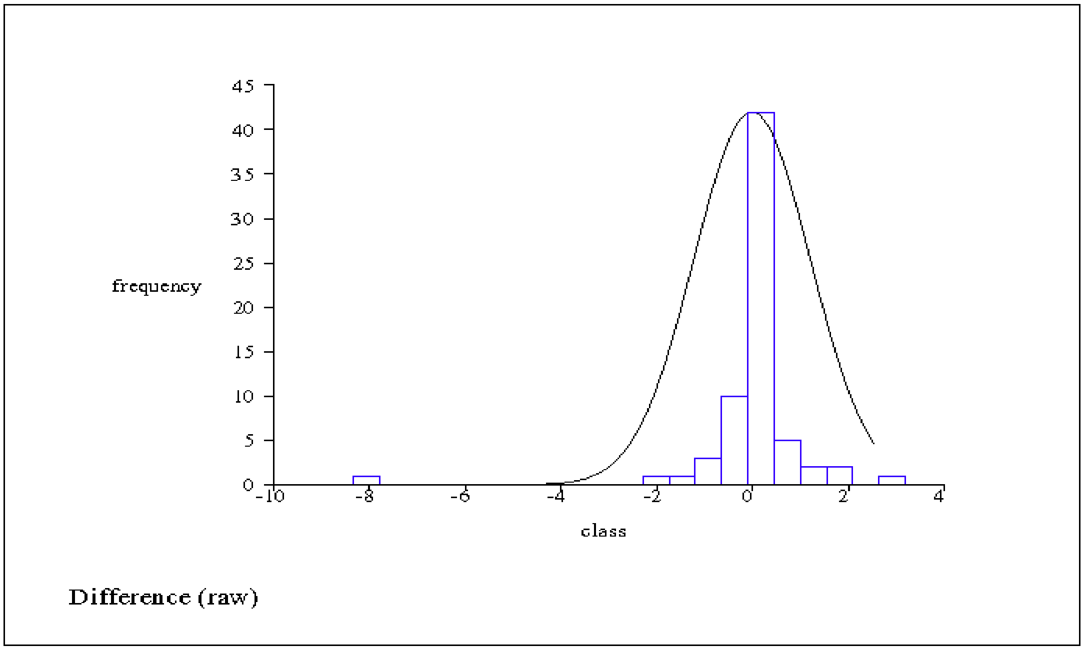

Figure: 11.13E West Breccia zone Mo, difference between Kriged grade distribution and raw grade distribution

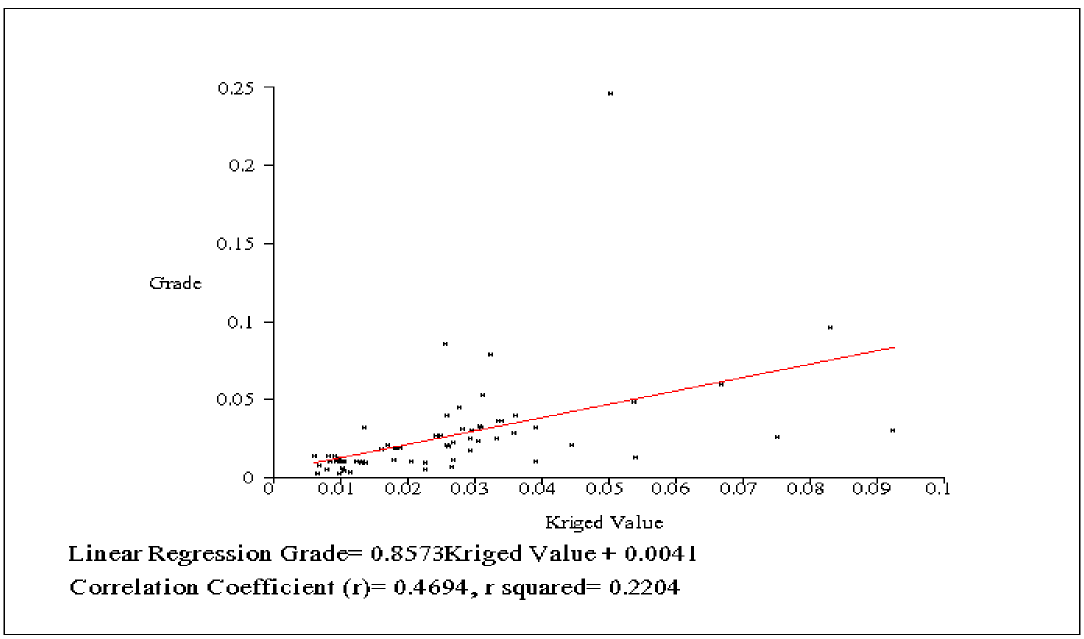

Figure: 11.13F West Breccia zone Mo, correlation between Kriged grade distribution and raw grade distribution

Table: 11.13 – West Breccia zone Mo, statistics for raw and 15 m composite values

West Breccia Zone			
	Mo		
Variable	**Samples**	**15m-composite**	**Kriged Value**
			from Validation
Number of samples	449	93	68
25.0 Percentile	0.007	0.01	0.01
50.0 Percentile (median)	0.014	0.018	0.023
75.0 Percentile	0.027	0.03	0.031
90.0 Percentile	0.044	0.043	0.047
95.0 Percentile	0.081	0.067	0.071
99.0 Percentile	0.249	0.171	0.088
100.0 Percentile	0.348	0.246	0.092
Mean	**0.024**	**0.024**	**0.025**
Variance	0.001	0.001	0
Standard Deviation	0.037	0.029	0.018
Coefficient of variation	1.562	1.237	0.705
Skewness	4.973	4.984	1.69
Kurtosis	34.209	35.956	6.173
Trimean	0.016	0.019	0.022
Biweight	0.015	0.018	0.022

The omni direction variogram obtained looks poor and has one structure modeled, with a range of influence of 91 m and a low nugget. No directional variogram were obtained due to a lack of data (93 samples).

The validation obtained was good with the percentage of errors within 2 standard deviations of 94.12% (for perfect distribution 95%).

Comparing the statistics for the Kriged (0.025%) results compared to the raw data (0.024%), they are very close.

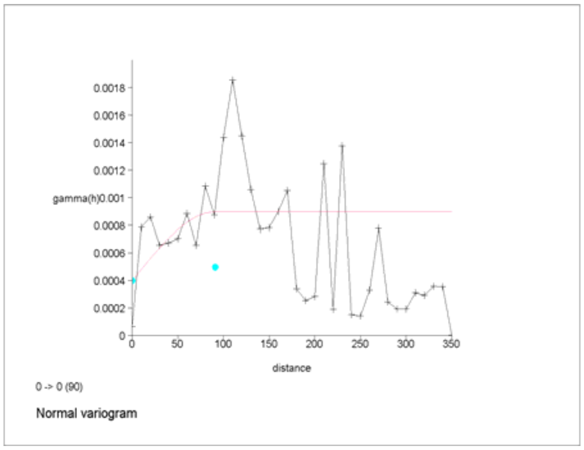

Figure: 11.14A Main zone Mo, variogram

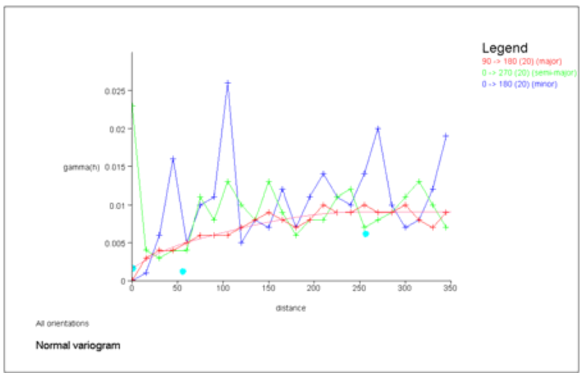

Figure: 11.14B Main zone Mo, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 1.67
TYPE OF VARIOGRAM = NSP
Sill 0.0003
Nugget effect 0.0001
MODEL C VALUE RANGE
1 0.000 79.
2 0.000 235.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 234.
Max vertical search distance 234.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS
MEAN 0.0001
VARIANCE 0.0002
STD. DEVIATION 0.0126
AVG. SQ. ERROR 0.0002
WEIGHTED SQ. ERR. 0.0002
SKEWNESS -2.7662
KURTOSIS 19.7743
NO. OF ASSAYS 2161
AVG KRIG VARIANCE 0.0002
PERCENTAGE OF ERRORS WITHIN
TWO STD. DEVIATIONS 96.11

Figure: 11.14C Main zone Mo, variogram parameters

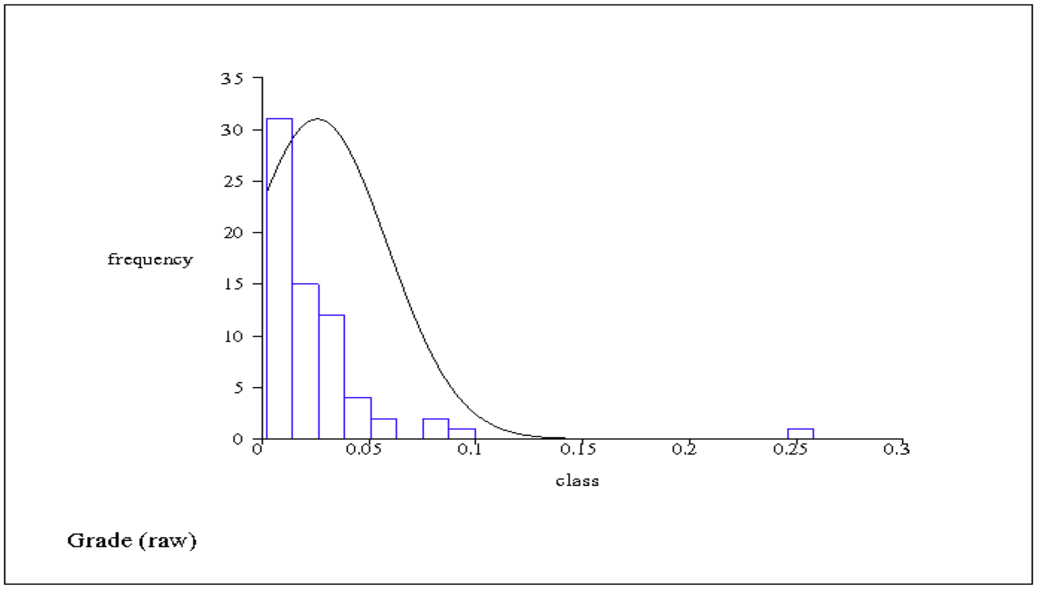

Figure: 11.14D Main zone Mo, raw grade distribution

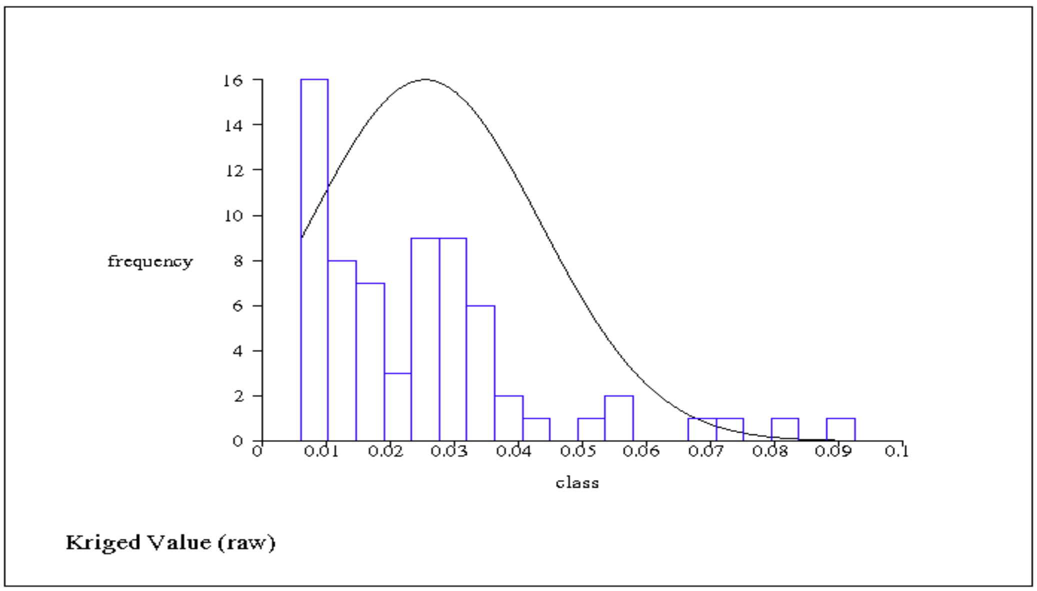

Figure: 11.14E Main zone Mo, Kriged grade distribution

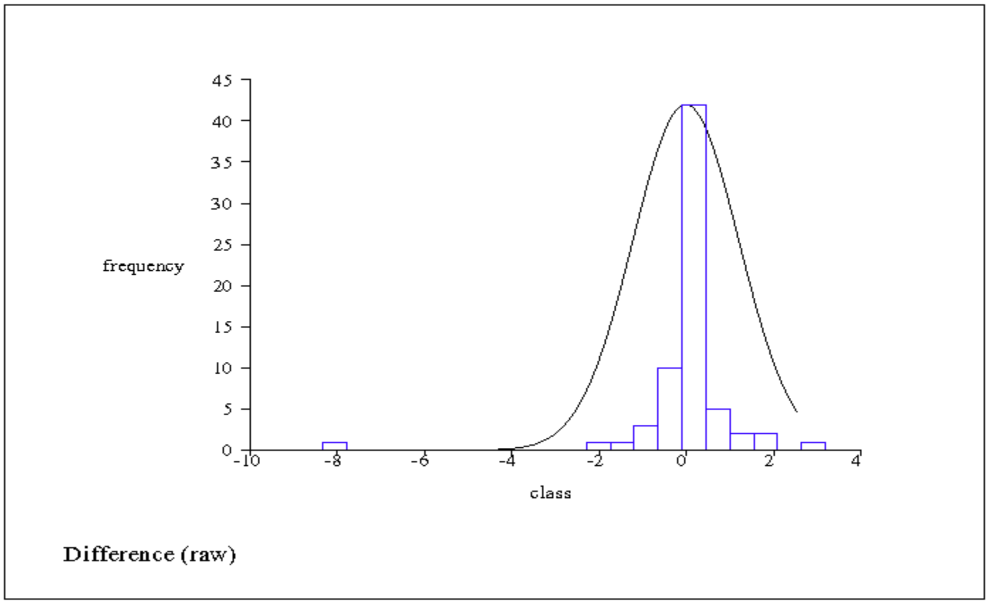

Figure: 11.14F Main zone Mo, difference between Kriged grade distribution and raw grade distribution

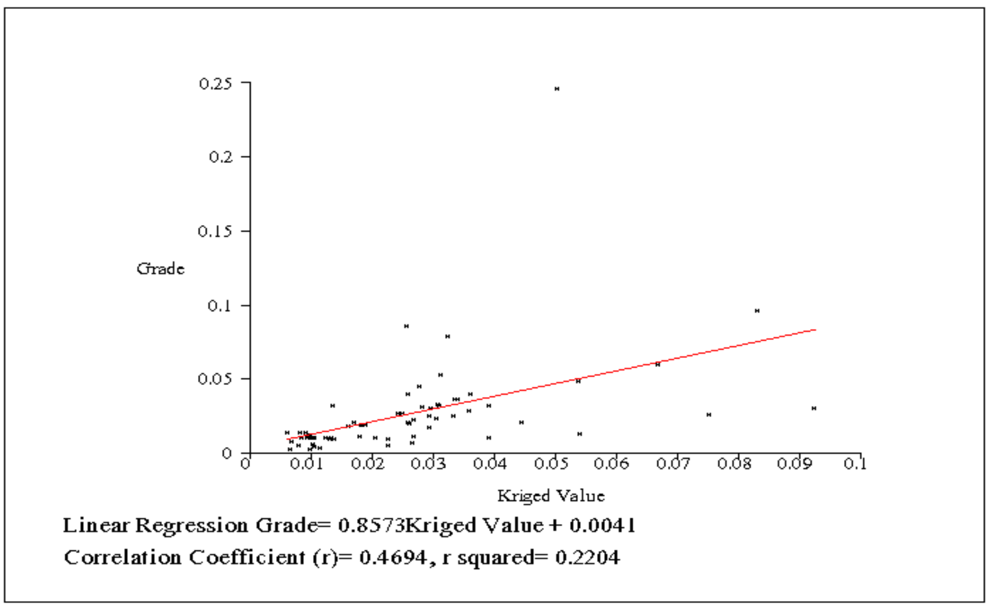

Figure: 11.14G Main zone Mo, correlation between Kriged grade distribution and raw grade distribution

Table: 11.14 – Main zone Mo, statistics for raw and 15 m composite values

Main Zone			
	Mo		
Variable	**Samples**	**15m-composite**	**Kriged Value from Validation**
Number of samples	10571	2175	2161
25.0 Percentile	0.005	0.007	0.01
50.0 Percentile (median)	0.01	0.013	0.015
75.0 Percentile	0.02	0.023	0.023
90.0 Percentile	0.038	0.036	0.032
95.0 Percentile	0.055	0.047	0.039
99.0 Percentile	0.122	0.087	0.06
100.0 Percentile	0.517	0.218	0.12
Mean	**0.018**	**0.018**	**0.018**
Variance	0.001	0	0
Standard Deviation	0.026	0.017	0.012
Coefficient of variation	1.468	0.981	0.662
Skewness	6.512	3.362	2.191
Kurtosis	76.063	23.526	12.331

The directional variogram obtained looks pretty good and has two structures, with a major range of influence of 234 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 96.11% (for perfect distribution 95%).
Comparing the statistics for the Kriged (0.018%) results compared to the raw data (0.018%), they are very close.

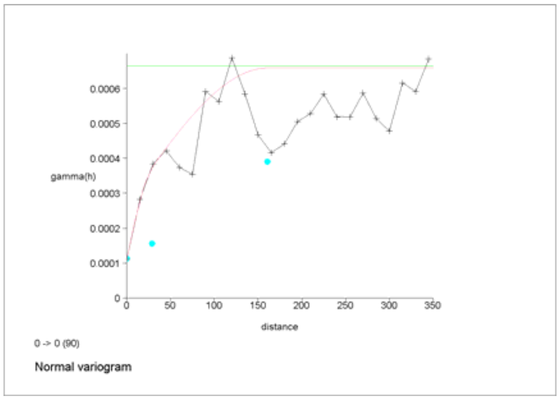

Figure: 11.15A Paramount zone Mo, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;

Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 1.00
TYPE OF VARIOGRAM = NSP

Sill 0.0006
Nugget effect 0.0001

MODEL	C VALUE	RANGE
1	0.000	29.
2	0.000	161.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 157.
Max vertical search distance 157.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS

MEAN 0.0002
VARIANCE 0.0004
STD. DEVIATION 0.0194
AVG. SQ. ERROR 0.0004
WEIGHTED SQ. ERR. 0.0004
SKEWNESS -2.1344
KURTOSIS 15.3567
NO. OF ASSAYS 457
AVG KRIG VARIANCE 0.0003
PERCENTAGE OF ERRORS WITHIN
TWO STD. DEVIATIONS 93.44

Figure: 11.15C Paramount zone Mo, variogram parameters

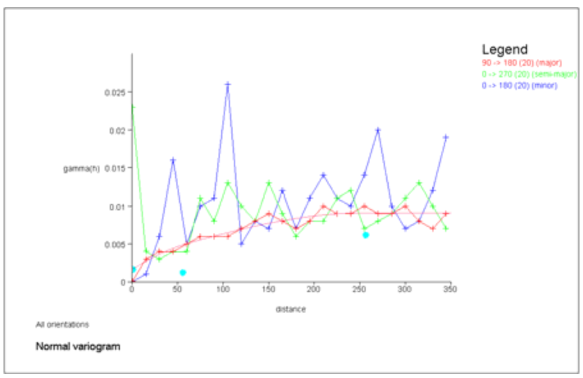

Figure: 11.15B Paramount zone Mo, variogram

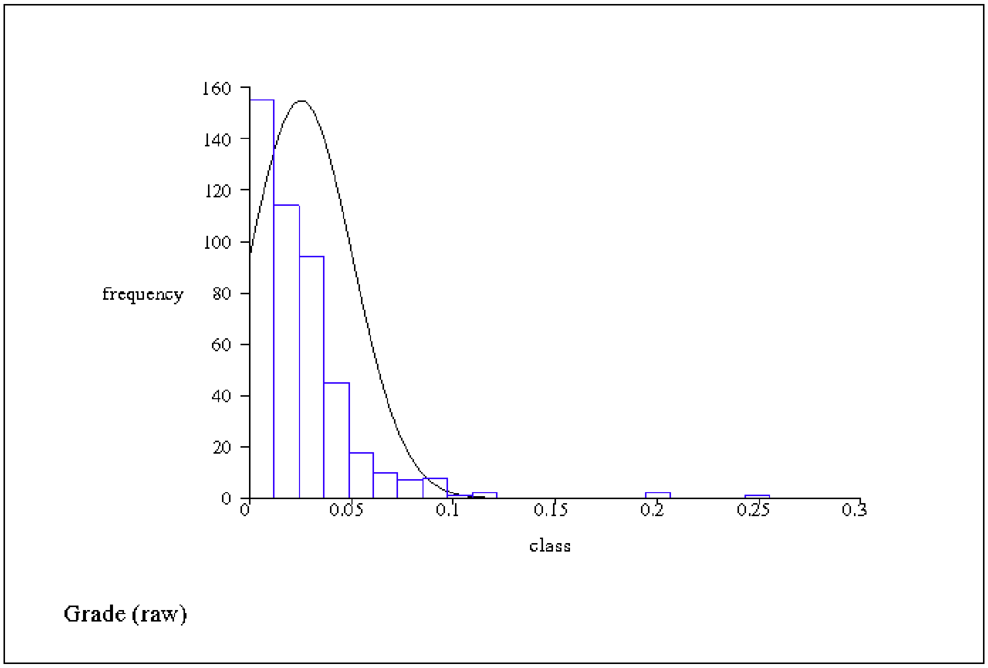

Figure: 11.15D Paramount zone Mo, raw grade distribution

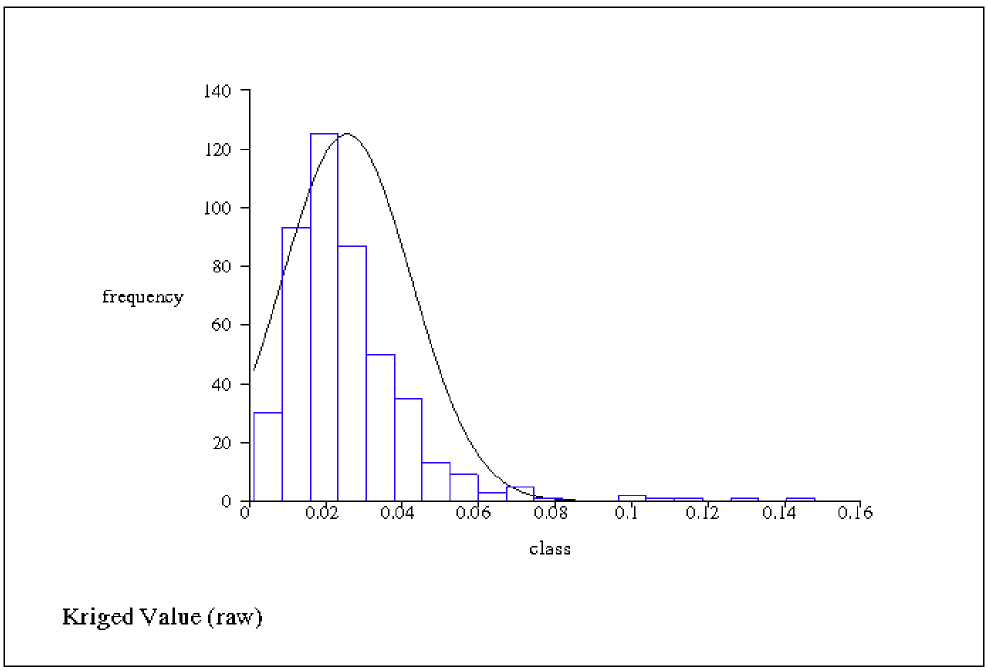

Figure: 11.15E Paramount zone Mo, Kriged grade distribution

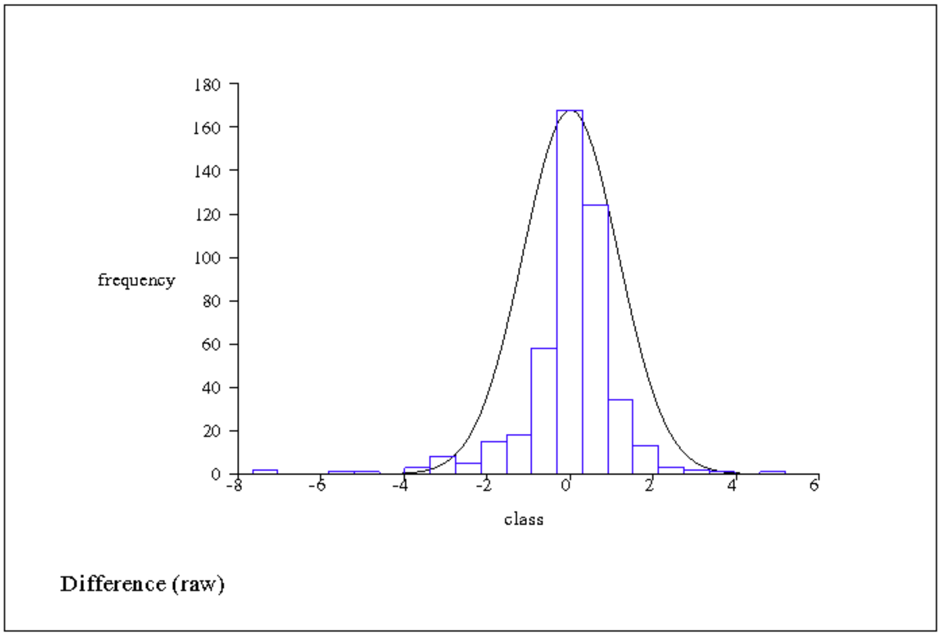

Figure: 11.15F Paramount zone Mo, difference between Kriged grade distribution and raw grade distribution

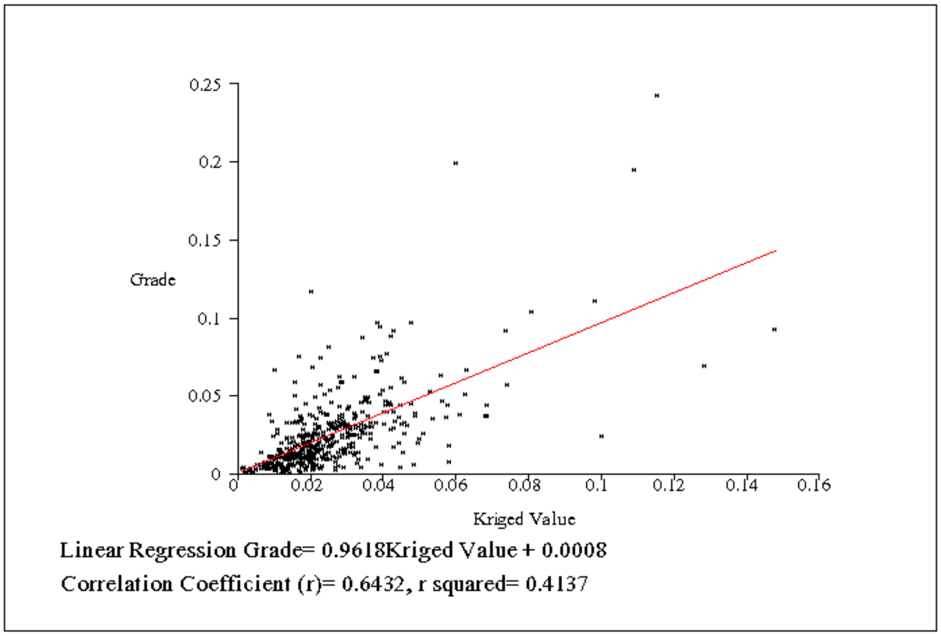

Figure: 11.15G Paramount zone Mo, correlation between Kriged grade distribution and raw grade distribution

Table: 11.15 – Paramount zone Mo, statistics for raw and 15 m composite values

Paramount Zone			
	Mo		
Variable	**Samples**	**15m-composite**	**Kriged Value**
			from Validation
Number of samples	2343	479	457
25.0 Percentile	0.006	0.009	0.015
50.0 Percentile (median)	0.015	0.018	0.022
75.0 Percentile	0.03	0.033	0.032
90.0 Percentile	0.056	0.05	0.043
95.0 Percentile	0.077	0.069	0.053
99.0 Percentile	0.195	0.117	0.099
100.0 Percentile	0.587	0.243	0.148
Mean	**0.025**	**0.025**	**0.025**
Variance	0.001	0.001	0
Standard Deviation	0.037	0.026	0.017
Coefficient of variation	1.458	1.021	0.663
Skewness	5.49	3.435	2.672
Kurtosis	52.484	22.208	15.259

The variogram obtained looks pretty good and has two structures, with a major range of influence of 141 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 93.44% (for perfect distribution 95%).

Comparing the statistics for the Kriged (0.025%) results compared to the raw data (0.025%), they are very close.

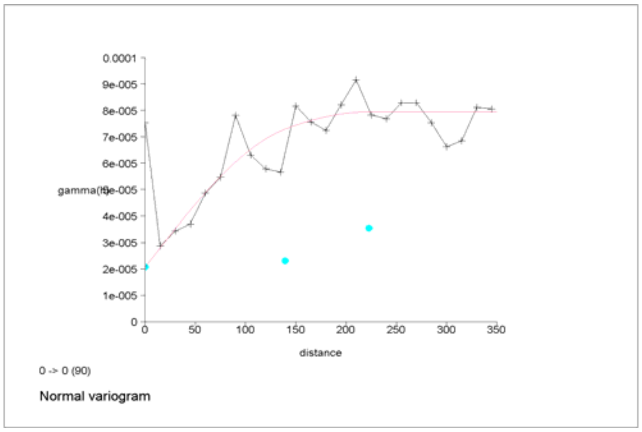

Figure: 11.16A Low Grade zone Mo, variogram

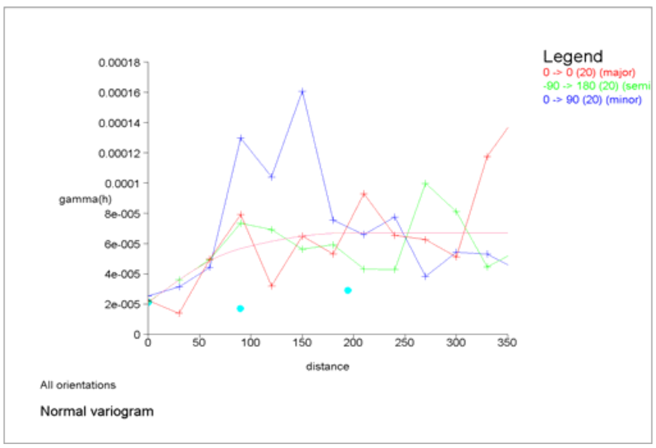

Figure: 11.16B Low Grade zone Mo, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;

Bearing	0.00
Dip angle	0.00
Tilt angle	0.00

ANISOTROPY FACTORS;

Semi-major axis	1.00
Minor axis	1.00
TYPE OF VARIOGRAM =	NSP
Sill	0.0001
Nugget effect	0.0000

MODEL	C VALUE	RANGE
1	0.000	89.
2	0.000	194.

OTHER INTERPOLATION PARAMETERS

Max search distance of major axis	194.
Max vertical search distance	194.
Max number of samples used per block	30
Min number of samples used per block	15

SUMMARY STATISTICS OF KRIGING ERRORS

MEAN	-0.0001
VARIANCE	0.0001
STD. DEVIATION	0.0081
AVG. SQ. ERROR	0.0001
WEIGHTED SQ. ERR.	0.0001
SKEWNESS	-6.9175
KURTOSIS	98.1714
NO. OF ASSAYS	1512
AVG KRIG VARIANCE	0.0000
PERCENTAGE OF ERRORS WITHIN TWO STD. DEVIATIONS	95.17

Figure: 11.16C Low Grade zone Mo, variogram parameters

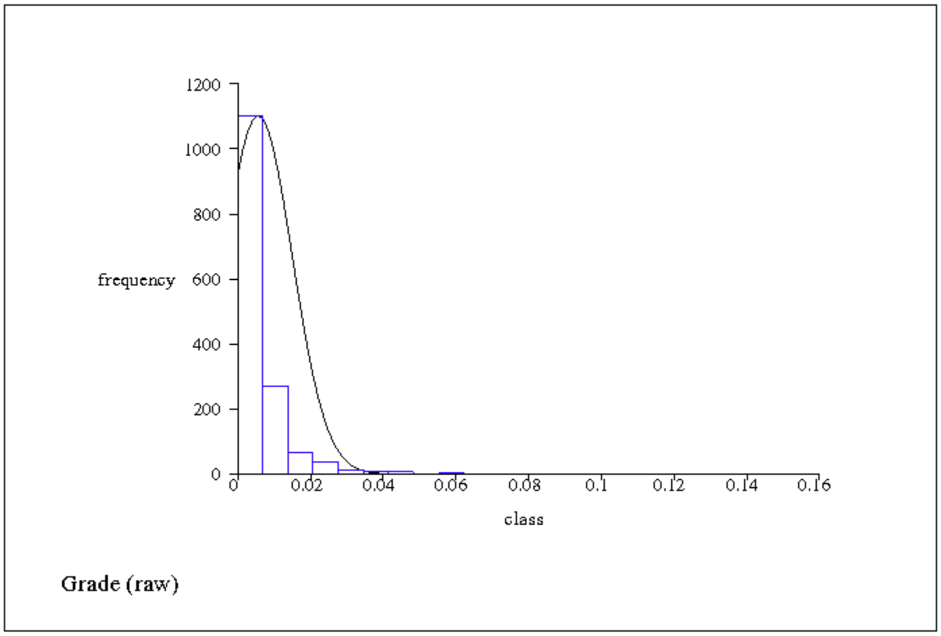

Figure 11.16D Low Grade zone Mo, raw grade distribution

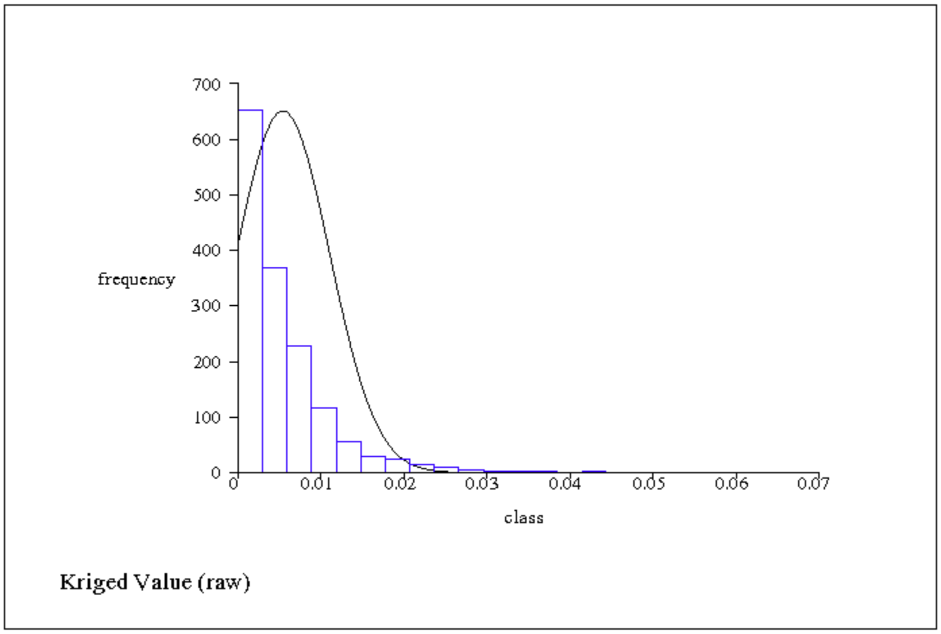

Figure: 11.16E Low Grade zone Mo, Kriged grade distribution

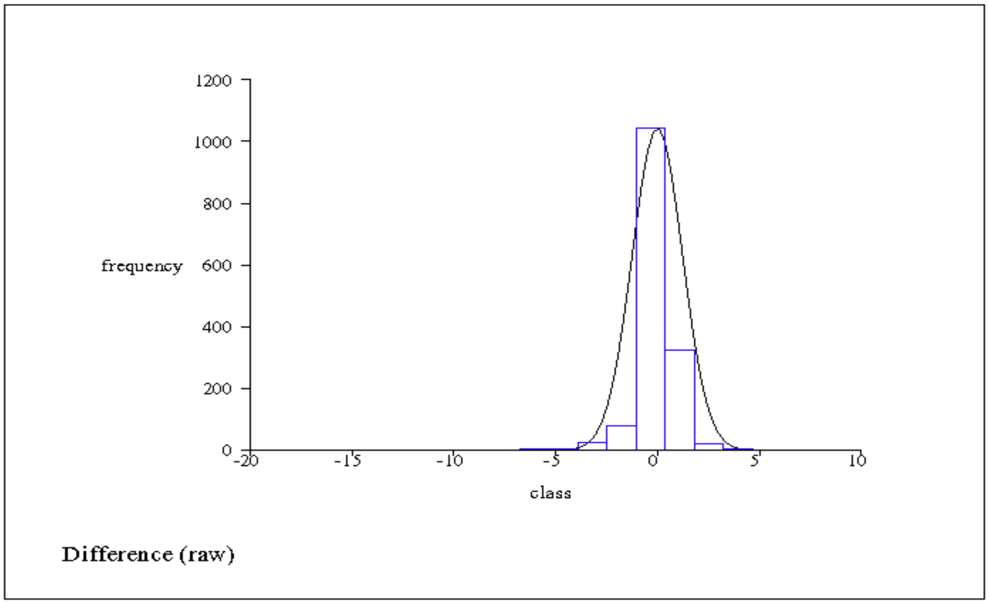

Figure: 11.16F Low Grade zone Mo, difference between Kriged grade distribution and raw grade distribution

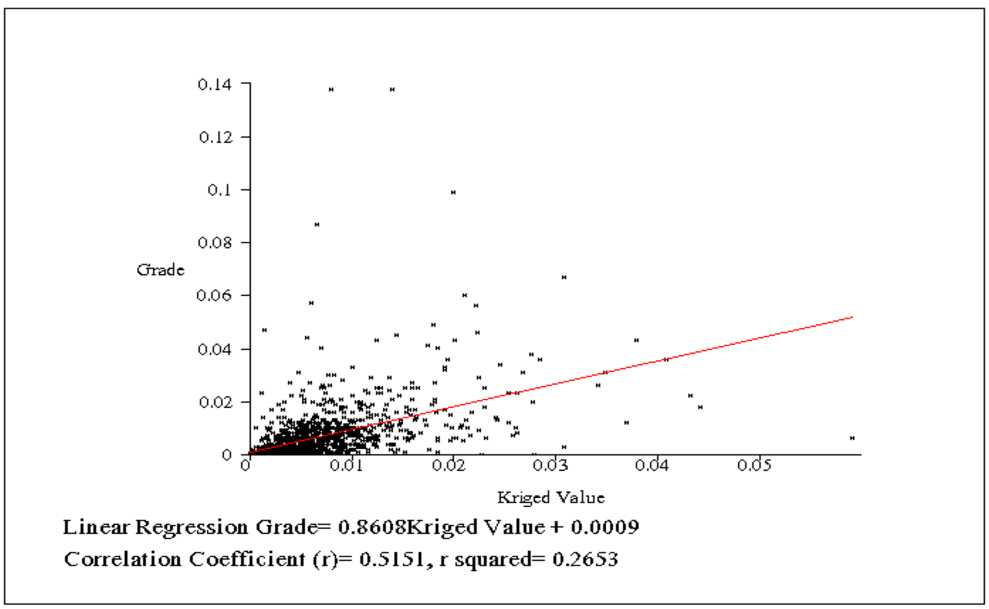

Figure: 11.16G Low Grade zone Mo, correlation between Kriged grade distribution and raw grade distribution

Table: 11.16 – Low Grade zone Mo, statistics for raw and 15 m composite values

Low Grade Zone			
	Mo		
Variable	Samples	15m-composite	Kriged Value
			from Validation
Number of samples	7224	1604	1512
25.0 Percentile	0.001	0.001	0.002
50.0 Percentile (median)	0.001	0.002	0.004
75.0 Percentile	0.006	0.007	0.007
90.0 Percentile	0.012	0.013	0.012
95.0 Percentile	0.02	0.02	0.016
99.0 Percentile	0.049	0.042	0.027
100.0 Percentile	0.418	0.138	0.059
Mean	**0.005**	**0.006**	**0.005**
Variance	0	0	0
Standard Deviation	0.012	0.009	0.006
Coefficient of variation	2.317	1.672	1.037
Skewness	11.732	6.053	2.789
Kurtosis	266.381	65.459	15.909

The variogram does not look too good and has two structures, with a major range of influence of 194 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 95.17% (for perfect distribution 95%).
Comparing the statistics for the Kriged (0.005%) results compared to the raw data (0.006%), they are very close.

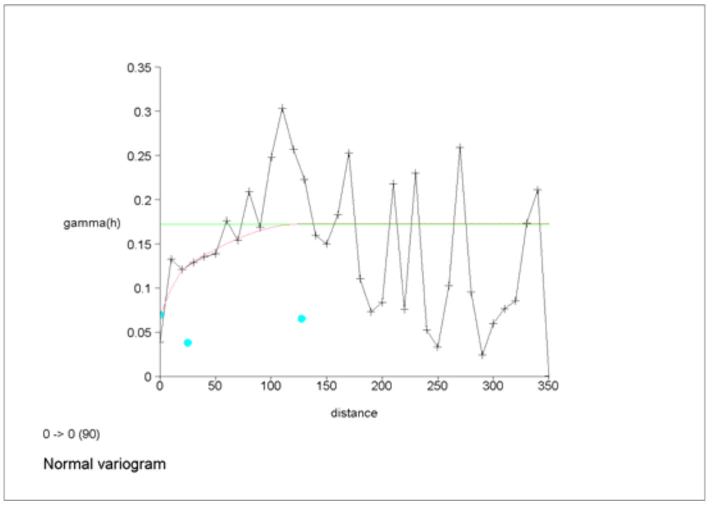

Figure: 11.17A West Breccia zone Au, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 1.00
TYPE OF VARIOGRAM = NSP
Sill 0.0058
Nugget effect 0.0010

MODEL	C VALUE	RANGE
1	0.001	27.
2	0.004	105.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 105.
Max vertical search distance 105.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS

MEAN	0.0005
VARIANCE	0.0049
STD. DEVIATION	0.0700
AVG. SQ. ERROR	0.0048
WEIGHTED SQ. ERR.	0.0044
SKEWNESS	-0.7765
KURTOSIS	4.8025
NO. OF ASSAYS	37
AVG KRIG VARIANCE	0.0027
PERCENTAGE OF ERRORS WITHIN TWO STD. DEVIATIONS	91.89

Figure: 11.17B West Breccia zone Au, variogram parameters

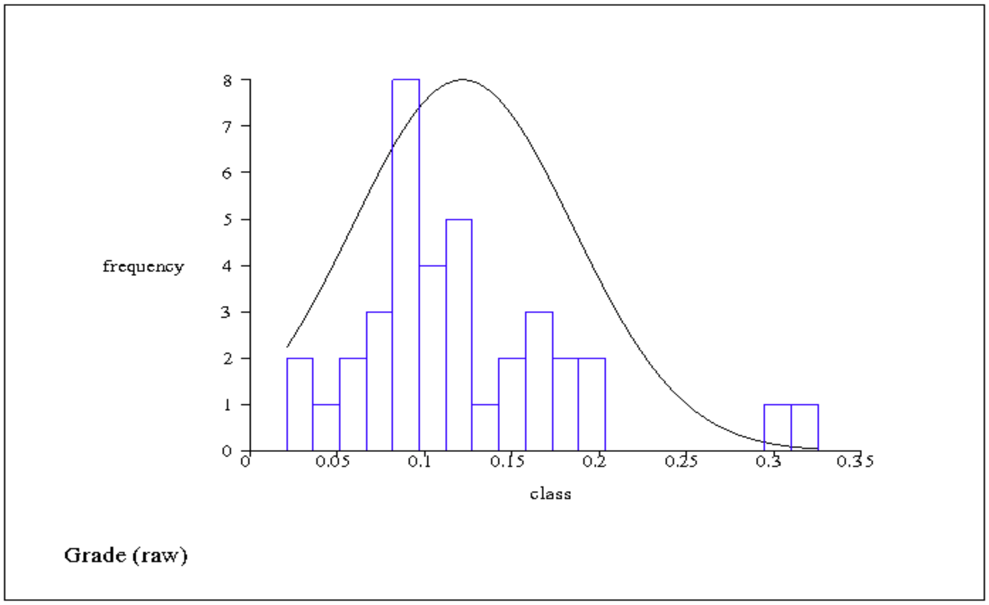

Figure: 11.17C West Breccia zone Au, raw grade distribution

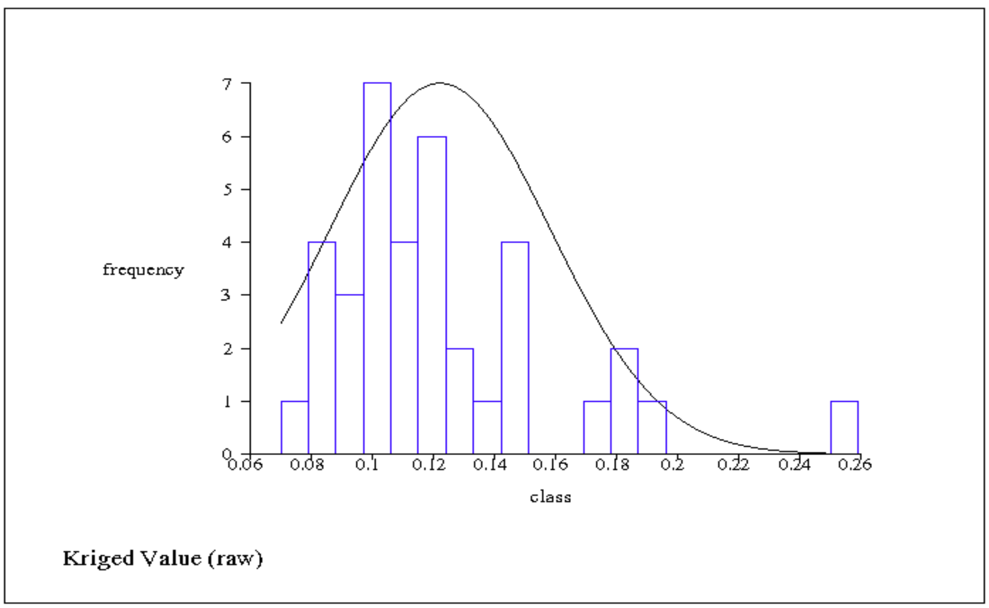

Figure: 11.17D West Breccia zone Au, Kriged grade distribution

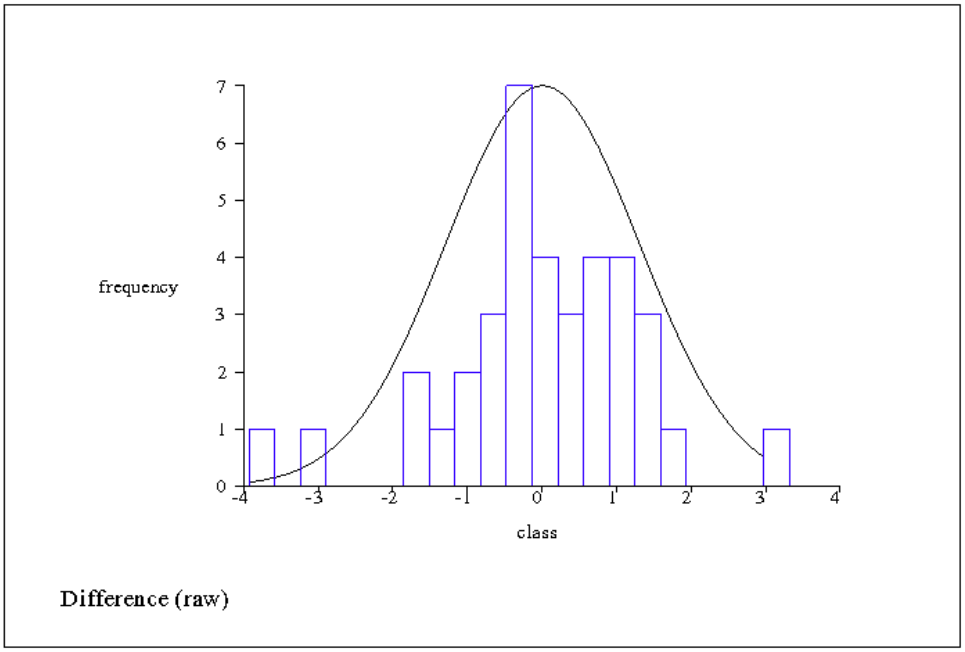

Figure: 11.17E West Breccia zone Au, difference between Kriged grade distribution and raw grade distribution

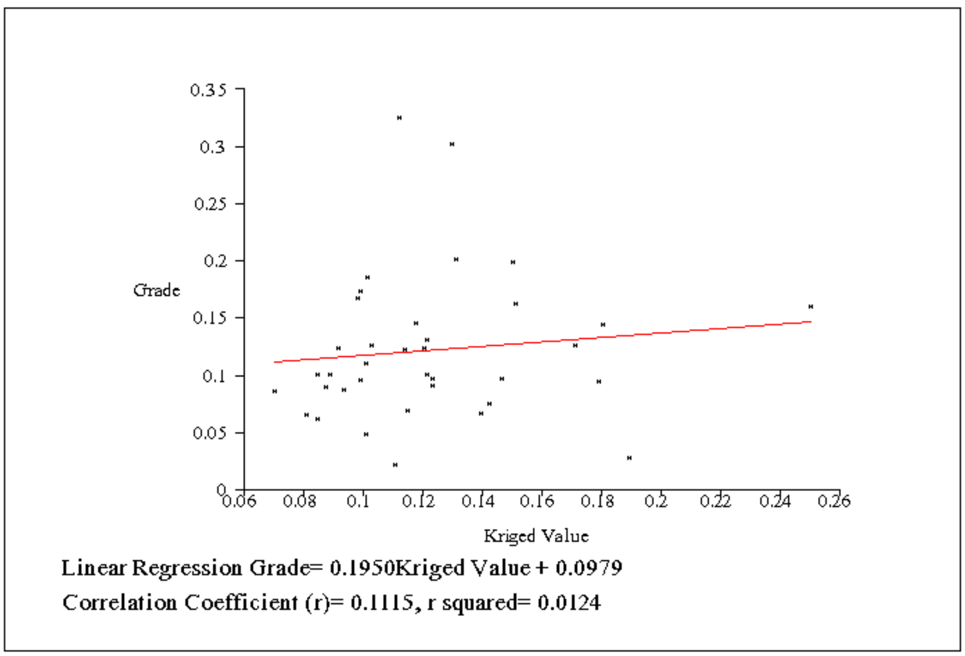

Figure: 11.17F West Breccia zone Au, correlation between Kriged grade distribution and raw grade distribution

Table: 11.17 – West Breccia zone Au, statistics for raw and 15 m composite values

West Breccia Zone			
	Au		
Variable	**Samples**	**15m-composite**	**Kriged Value**
			from Validation
Number of samples	224	45	37
25.0 Percentile	0.05	0.068	0.098
50.0 Percentile (median)	0.08	0.097	0.115
75.0 Percentile	0.144	0.145	0.141
90.0 Percentile	0.213	0.186	0.175
95.0 Percentile	0.27	0.252	0.185
99.0 Percentile	0.767	0.325	0.25
100.0 Percentile	1.41	0.325	0.25
Mean	**0.112**	**0.114**	**0.122**
Variance	0.018	0.004	0.001
Standard Deviation	0.134	0.062	0.036
Coefficient of variation	1.192	0.549	0.295
Skewness	5.814	1.395	1.408
Kurtosis	50.259	5.454	5.402

The omni directional variogram obtained looks pretty good and has two structures, with a range of influence of 105 m and a low nugget. No directional variograms were obtained due to a lack of data (45 samples).

The validation obtained was not very good with the percentage of errors within 2 standard deviations of 91.89% (for perfect distribution 95%), this is due to the lack of data.

Comparing the statistics for the Kriged (0.122g/t) results compared to the raw data (0.114g/t), they are very close.

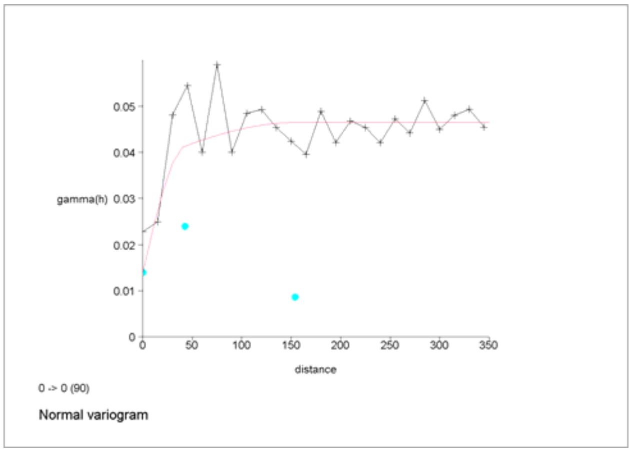

Figure: 11.18A Main zone Au, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 1.40
TYPE OF VARIOGRAM = SPH
Sill 0.0430
Nugget effect 0.0140
MODEL C VALUE RANGE
1 0.029 171.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 171.
Max vertical search distance 171.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS
MEAN 0.0001
VARIANCE 0.0311
STD. DEVIATION 0.1762
AVG. SQ. ERROR 0.0310
WEIGHTED SQ. ERR. 0.0323
SKEWNESS -11.8577
KURTOSIS 295.3708
NO. OF ASSAYS 1373
AVG KRIG VARIANCE 0.0228
PERCENTAGE OF ERRORS WITHIN
TWO STD. DEVIATIONS 96.87

Figure: 11.18 Main zone Au, variogram parameters

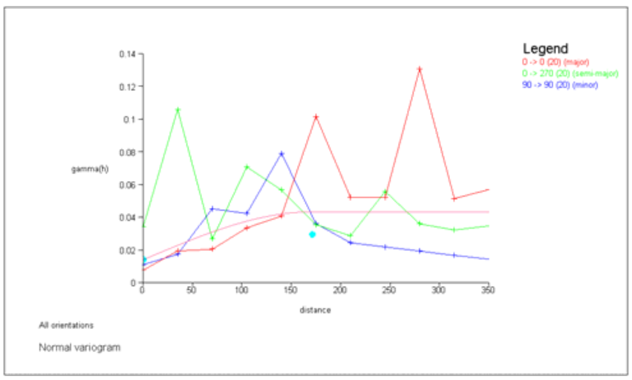

Figure: 11.18B Main zone Au, variogram

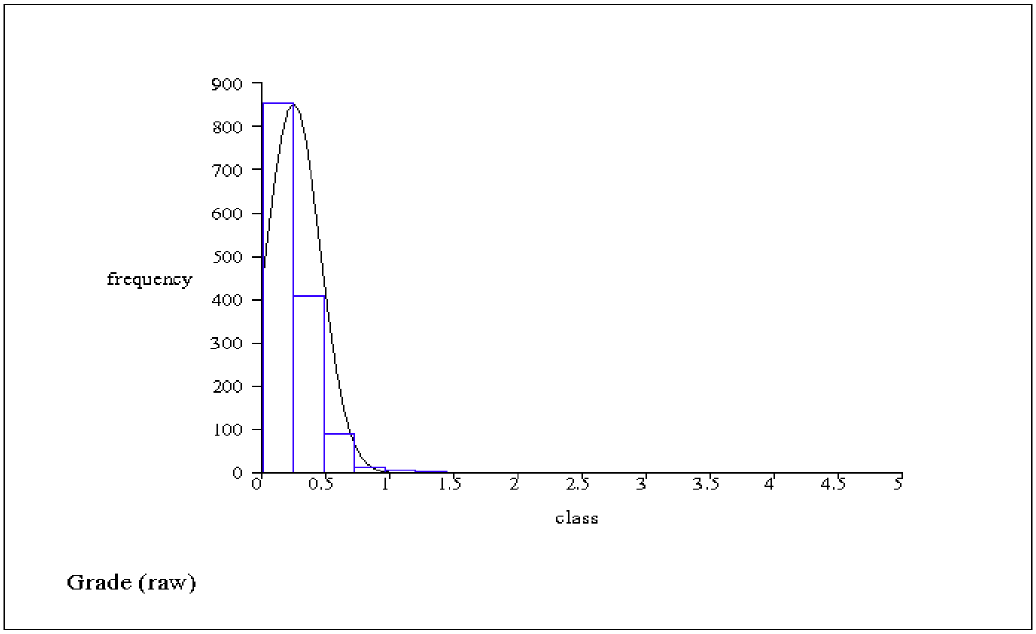

Figure: 11.18D Main zone Au, raw grade distribution

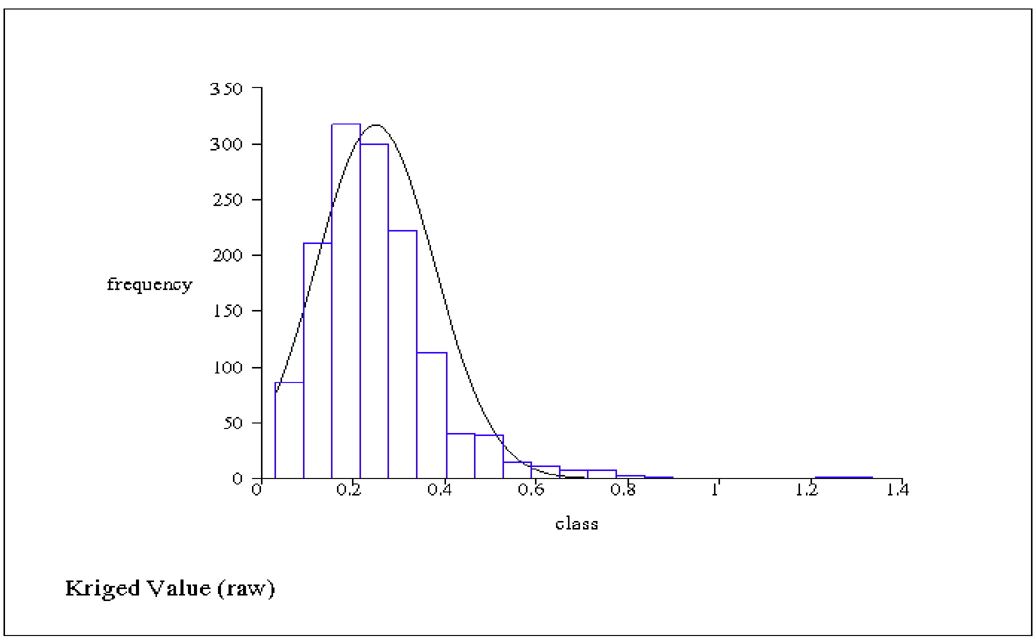

Figure: 11.18E Main zone Au, Kriged grade distribution

Associated Geosciences

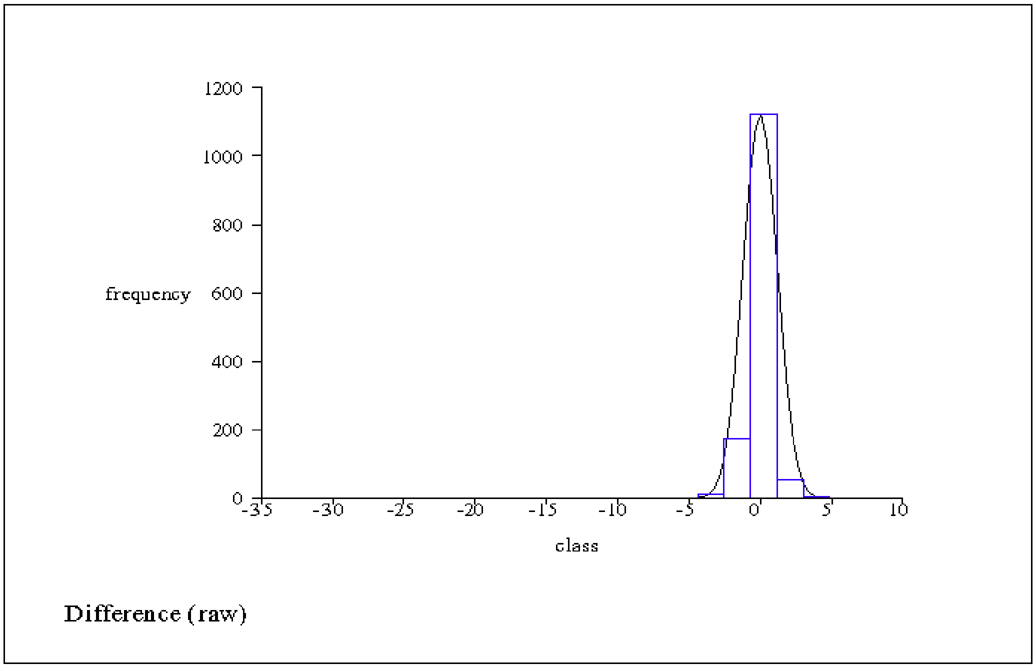

Figure: 11.18F Main zone Au, difference between Kriged grade distribution and raw grade distribution

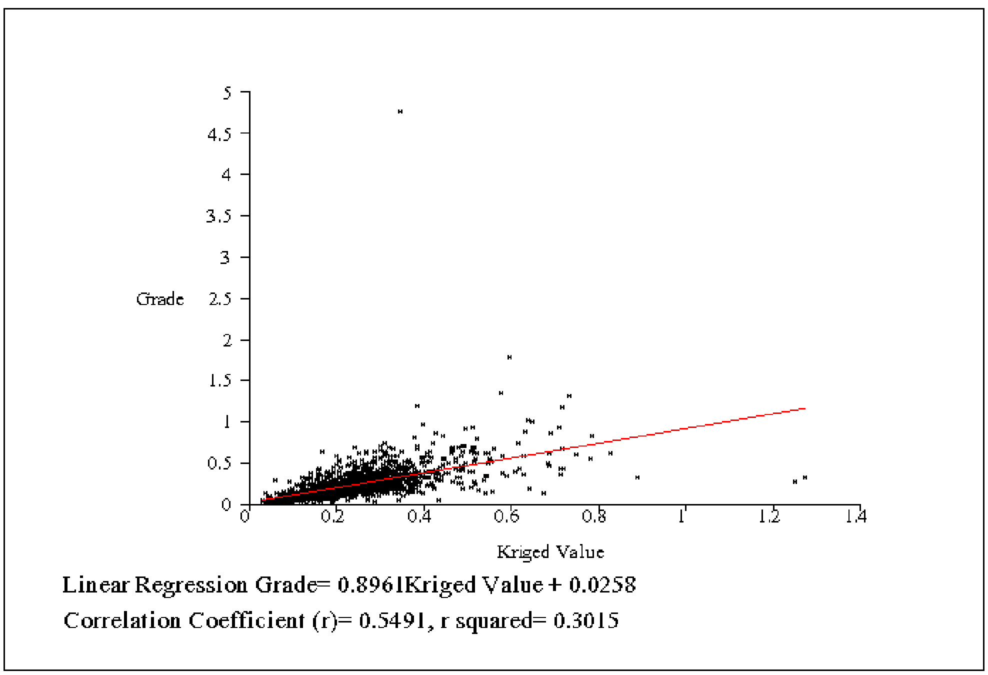

Figure: 11.18G Main zone Au, correlation between Kriged grade distribution and raw grade distribution

Table: 11.18 – Main zone Au, statistics for raw and 15 m composite values

Main Zone			
	Au		
Variable	**Samples**	**15m-composite**	**Kriged Value**
			from Validation
Number of samples	6580	1409	1373
25.0 Percentile	0.103	0.129	0.163
50.0 Percentile (median)	0.185	0.205	0.232
75.0 Percentile	0.309	0.315	0.307
90.0 Percentile	0.48	0.444	0.389
95.0 Percentile	0.626	0.574	0.487
99.0 Percentile	1.109	0.859	0.701
100.0 Percentile	20.86	4.774	1.273
Mean	**0.246**	**0.245**	**0.249**
Variance	0.117	0.044	0.017
Standard Deviation	0.342	0.209	0.129
Coefficient of variation	1.39	0.852	0.518
Skewness	34.401	8.394	1.773
Kurtosis	2011.652	162.502	10.287

The directional variogram obtained looks pretty good and has two structures, with a major range of influence of 171 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 94.87% (for perfect distribution 95%).

Comparing the statistics for the Kriged (0.249g/t) results compared to the raw data (0.245g/t), they are very close.

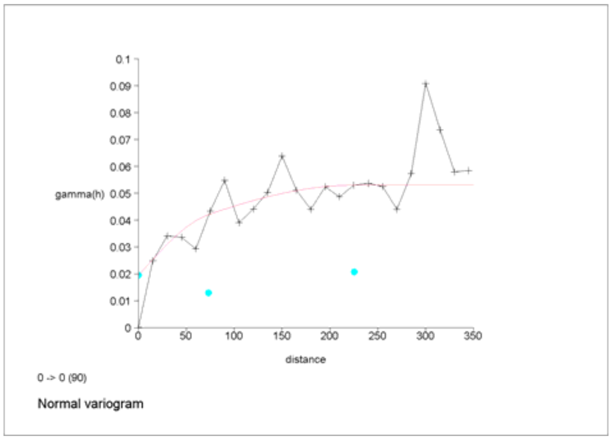

Figure: 11.19A Paramount zone Au, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 1.00
TYPE OF VARIOGRAM = NSP
Sill 0.0530
Nugget effect 0.0190

MODEL	C VALUE	RANGE
1	0.013	73.
2	0.021	225.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 225.
Max vertical search distance 225.
Max number of samples used per block 30
Min number of samples used per block 15

UMMARY STATISTICS OF KRIGING ERRORS
MEAN -0.0007
VARIANCE 0.0432
STD. DEVIATION 0.2078
AVG. SQ. ERROR 0.0430
WEIGHTED SQ. ERR. 0.0407
SKEWNESS -4.6622
KURTOSIS 47.5270
NO. OF ASSAYS 298
AVG KRIG VARIANCE 0.0313
PERCENTAGE OF ERRORS WITHIN
TWO STD. DEVIATIONS 96.31

Figure: 11.19B Paramount zone Au, variogram parameters

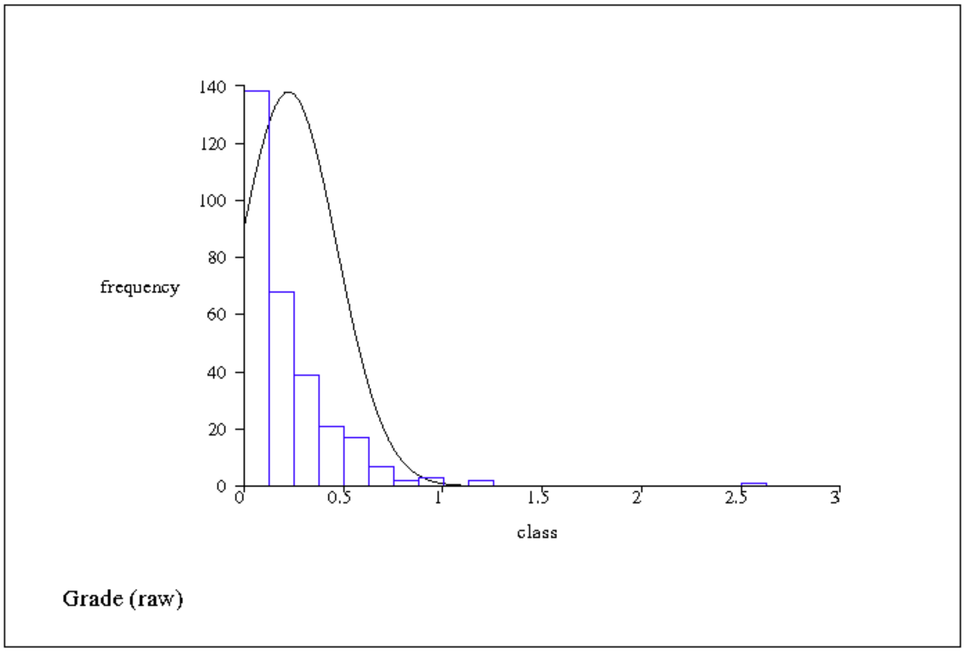

Figure: 11.19C Paramount zone Au, raw grade distribution

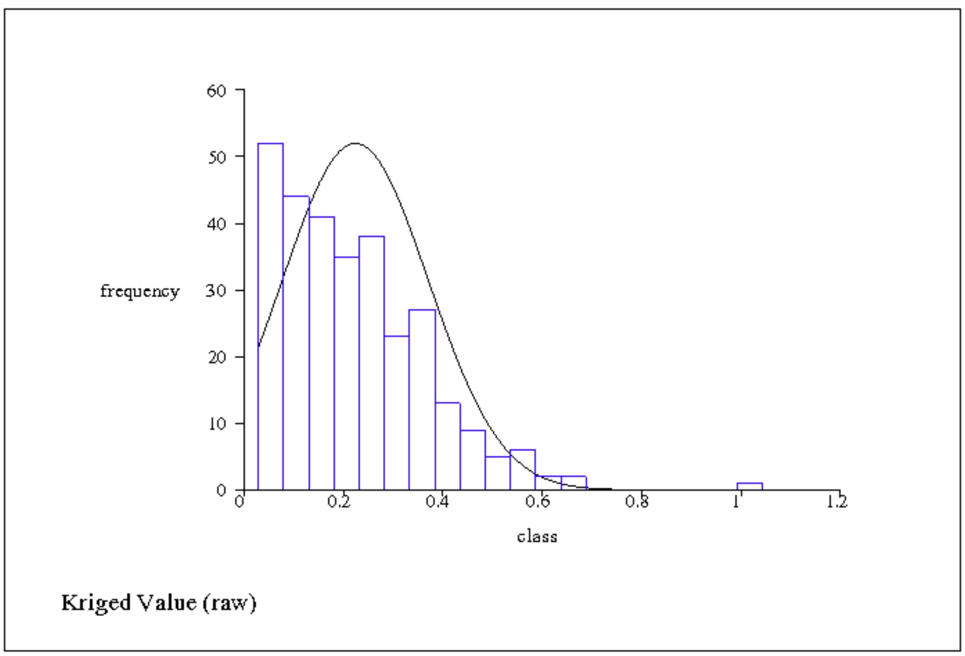

Figure: 11.19D Paramount zone Au, Kriged grade distribution

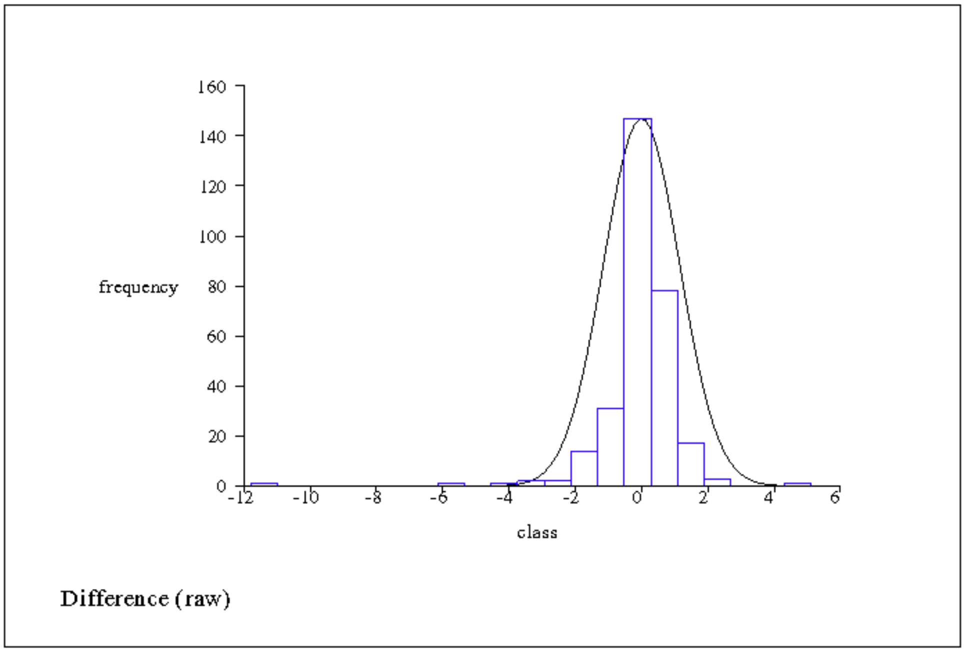

Figure: 11.19E Paramount zone Au, difference between Kriged grade distribution and raw grade distribution

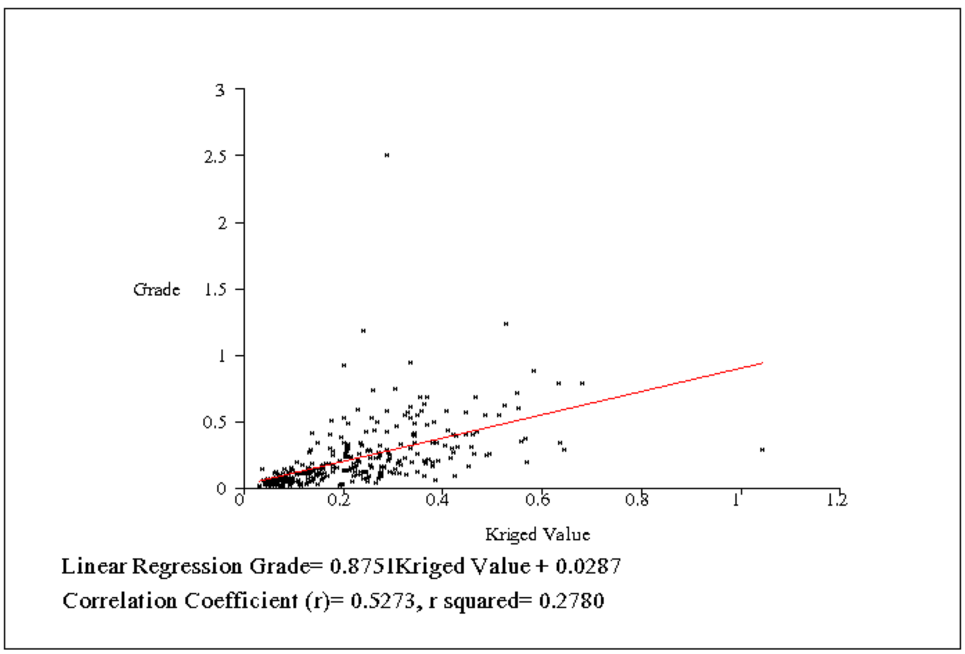

Figure: 11.19F Paramount zone Au, correlation between Kriged grade distribution and raw grade distribution

Table: 11.19 – Paramount zone Au, statistics for raw and 15 m composite values

Paramount Zone			
	Au		
Variable	**Samples**	**15m-composite**	**Kriged Value**
			from Validation
Number of samples	1425	306	298
25.0 Percentile	0.051	0.073	0.105
50.0 Percentile (median)	0.12	0.146	0.203
75.0 Percentile	0.288	0.297	0.307
90.0 Percentile	0.528	0.518	0.419
95.0 Percentile	0.703	0.629	0.492
99.0 Percentile	1.239	1.065	0.64
100.0 Percentile	10.834	2.503	1.043
Mean	**0.226**	**0.224**	**0.224**
Variance	0.165	0.058	0.021
Standard Deviation	0.406	0.241	0.147
Coefficient of variation	1.799	1.076	0.653
Skewness	14.588	3.814	1.241
Kurtosis	343.47	29.818	5.834

The variogram obtained looks pretty good and has two structures, with a major range of influence of 225 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 96.31% (for perfect distribution 95%).

Comparing the statistics for the Kriged (0.224g/t) results compared to the raw data (0.224g/t), they are very close.

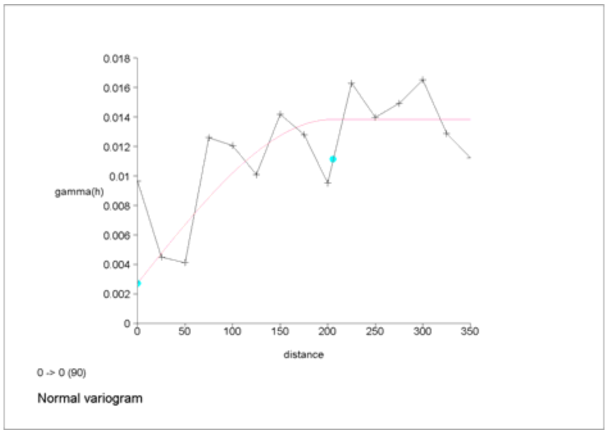

Figure: 11.20A Low Grade zone Au, variogram

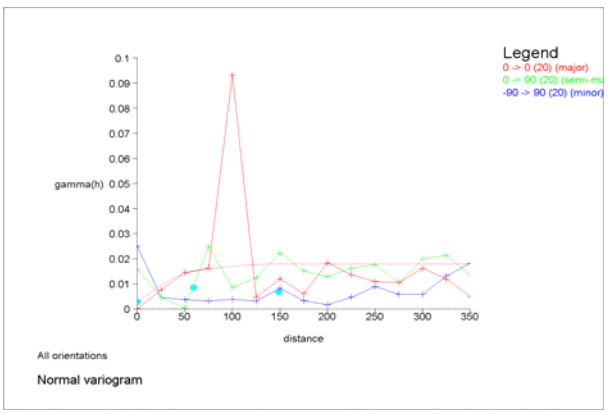

Figure: 11.20B Low Grade zone Au, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 1.00
TYPE OF VARIOGRAM = NSP
Sill 0.0180
Nugget effect 0.0030

MODEL	C VALUE	RANGE
1	0.008	59.
2	0.007	149.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 148.
Max vertical search distance 148.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS
MEAN -0.0015
VARIANCE 0.0148
STD. DEVIATION 0.1215
AVG. SQ. ERROR 0.0147
WEIGHTED SQ. ERR. 0.0104
SKEWNESS -4.1514
KURTOSIS 40.2369
NO. OF ASSAYS 263
AVG KRIG VARIANCE 0.0095
PERCENTAGE OF ERRORS WITHIN
TWO STD. DEVIATIONS 95.44

Figure: 11.20C Low Grade zone Au, variogram parameters

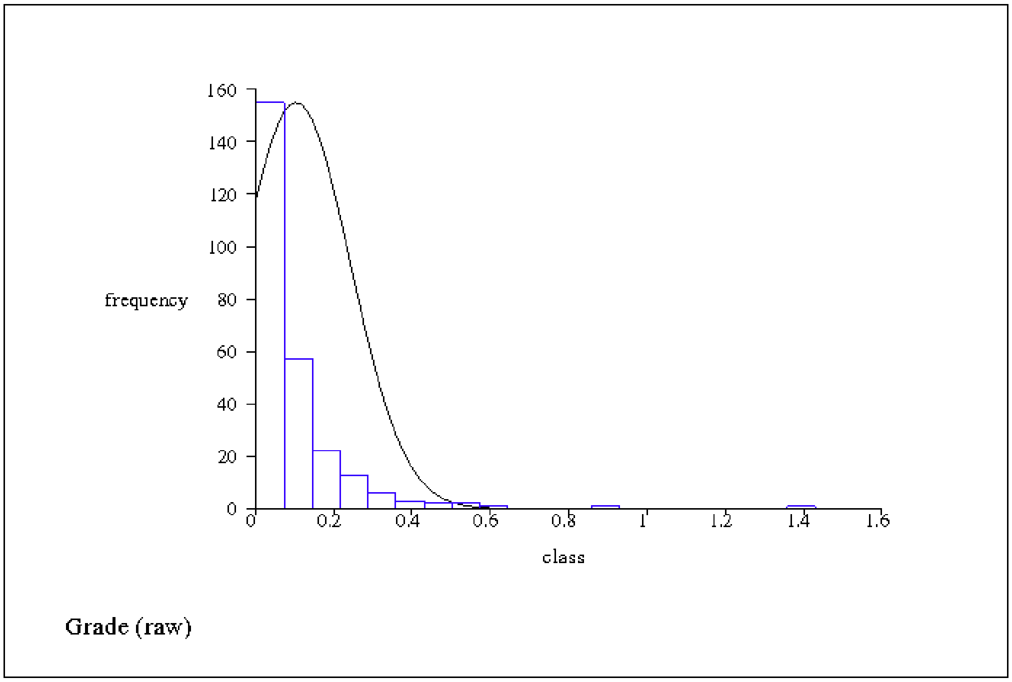

Figure: 11.20D Low Grade zone Au, raw grade distribution

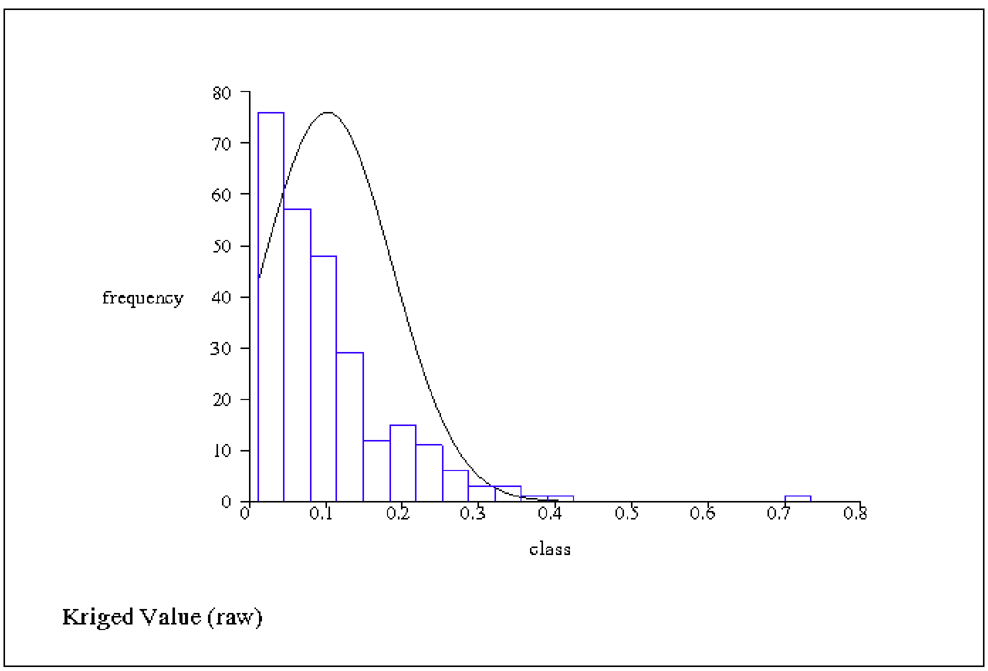

Figure: 11.20E Low Grade zone Au, Kriged grade distribution

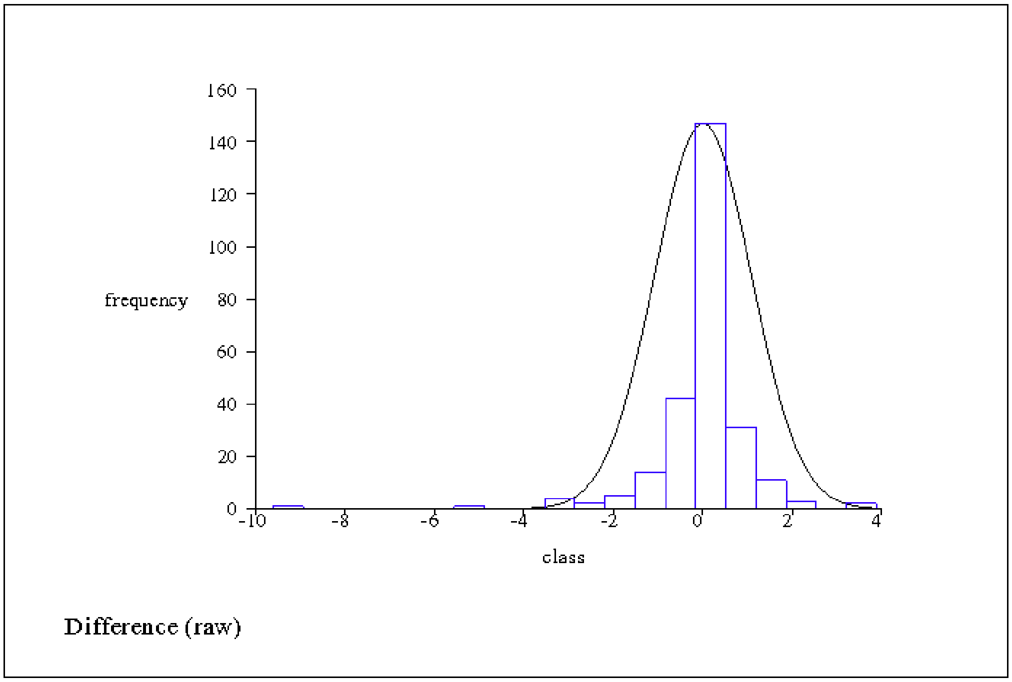

Figure: 11.20F Low Grade zone Au, difference between Kriged grade distribution and raw grade distribution

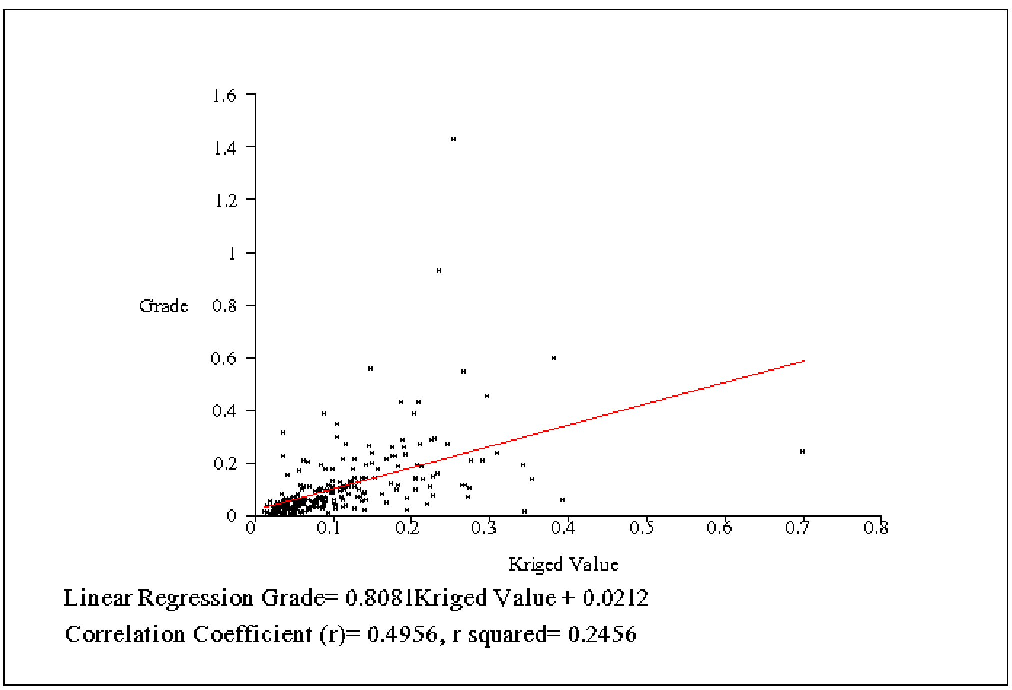

Figure: 11.20G Low Grade zone Au, correlation between Kriged grade distribution and raw grade distribution

Table: 11.20 – Low grade zone Au, statistics for raw and 15 m composite values

Low Grade Zone			
	Au		
Variable	**Samples**	**15m-composite**	**Kriged Value from Validation**
Number of samples	2279	638	263
25.0 Percentile	0.021	0.029	0.041
50.0 Percentile (median)	0.045	0.055	0.079
75.0 Percentile	0.096	0.117	0.132
90.0 Percentile	0.182	0.223	0.216
95.0 Percentile	0.259	0.288	0.268
99.0 Percentile	0.519	0.496	0.368
100.0 Percentile	1.43	1.43	0.7
Mean	**0.081**	**0.094**	**0.102**
Variance	0.013	0.013	0.007
Standard Deviation	0.112	0.112	0.085
Coefficient of variation	1.389	1.193	0.831
Skewness	4.555	4.409	2.28
Kurtosis	35.754	39.935	12.338

The variogram obtained looks good and has two structures, with a major range of influence of 149 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 95.44% (for perfect distribution 95%).

Comparing the statistics for the Kriged (0.102g/t) results compared to the raw data (0.094g/t), they are very close.

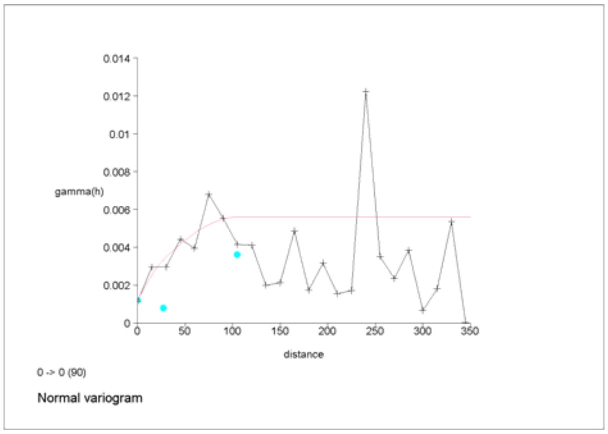

Figure: 11.21A West Breccia zone Ag, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 1.00
TYPE OF VARIOGRAM = NSP
Sill 2.7910
Nugget effect 0.7750

MODEL	C VALUE	RANGE
1	1.336	39.
2	0.680	120.

OTHER INTERPOLATION PARAM
Max search distance of major axis 120.
Max vertical search distance 120.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS
MEAN -0.0140
VARIANCE 2.3768
STD. DEVIATION 1.5417
AVG. SQ. ERROR 2.3161
WEIGHTED SQ. ERR. 2.4229
SKEWNESS -0.4443
KURTOSIS 2.2935
NO. OF ASSAYS 39
AVG KRIG VARIANCE 1.8570
PERCENTAGE OF ERRORS WITHIN
TWO STD. DEVIATIONS 94.87

Figure: 11.21B West Breccia zone Ag, variogram parameters

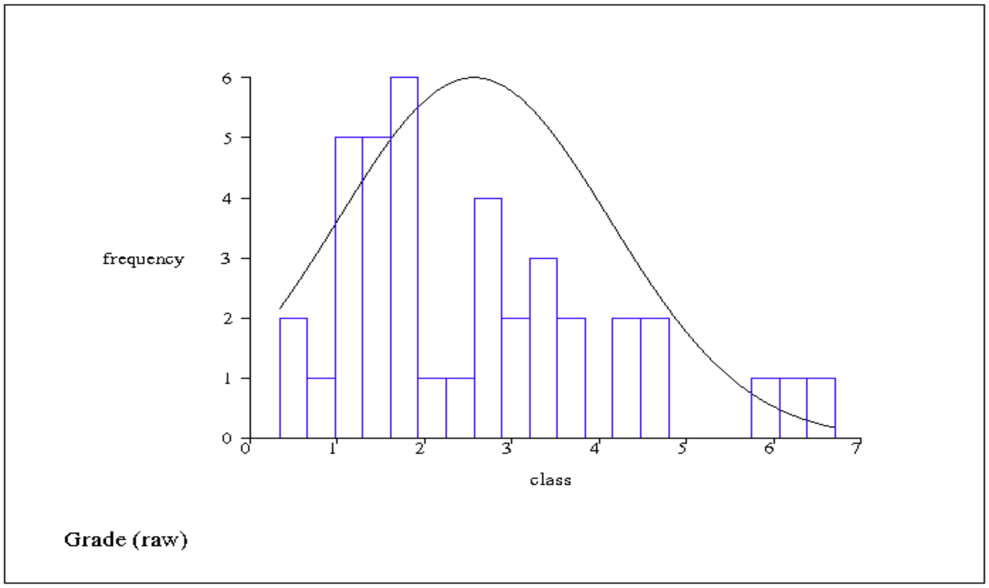

Figure: 11.21C West Breccia Zone Ag, raw grade distribution

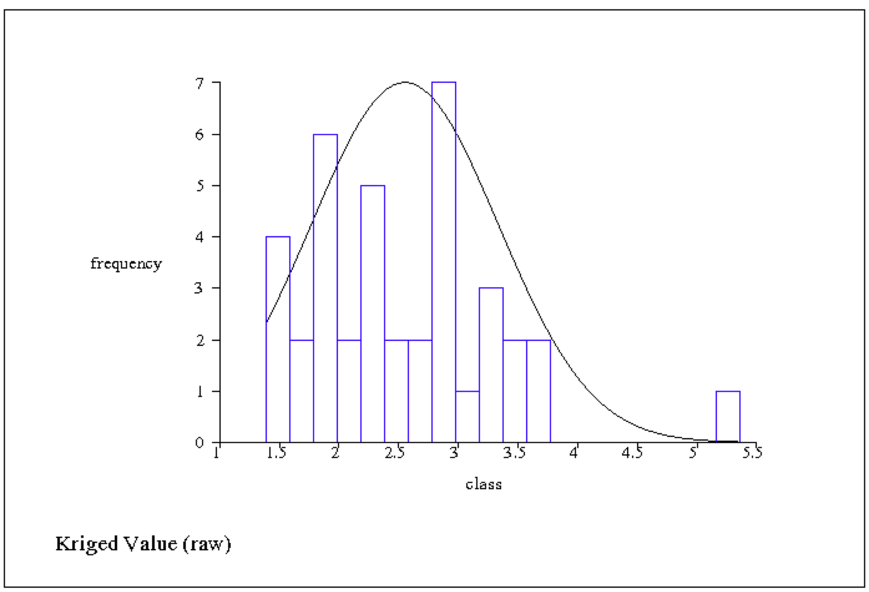

Figure: 11.21D West Breccia Zone Ag, Kriged grade distribution

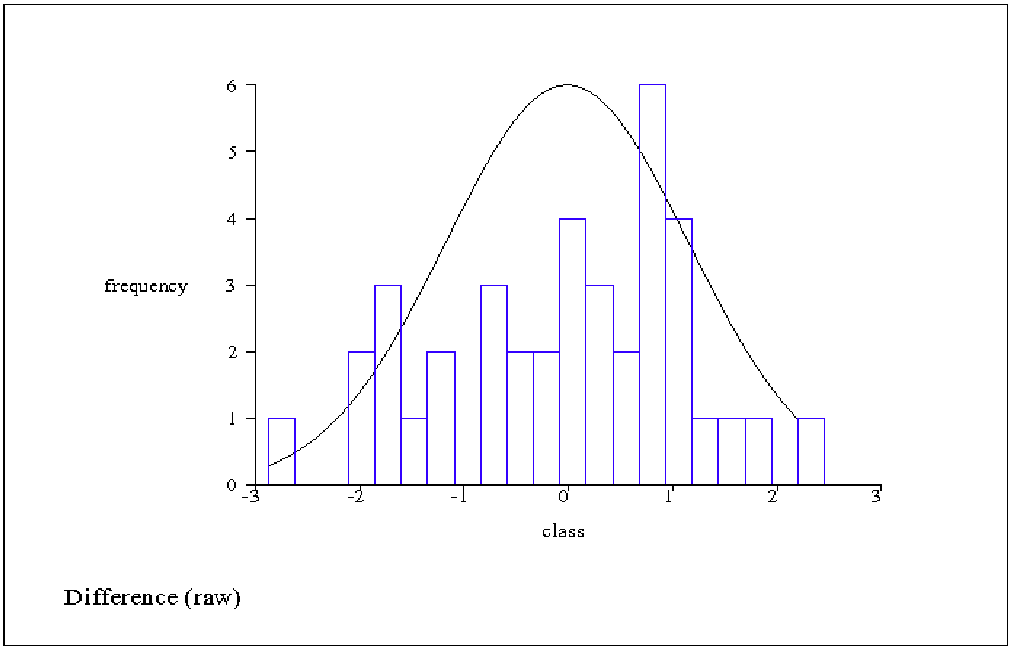

Figure: 11.21E West Breccia Zone Ag, difference between Kriged grade distribution and raw grade distribution

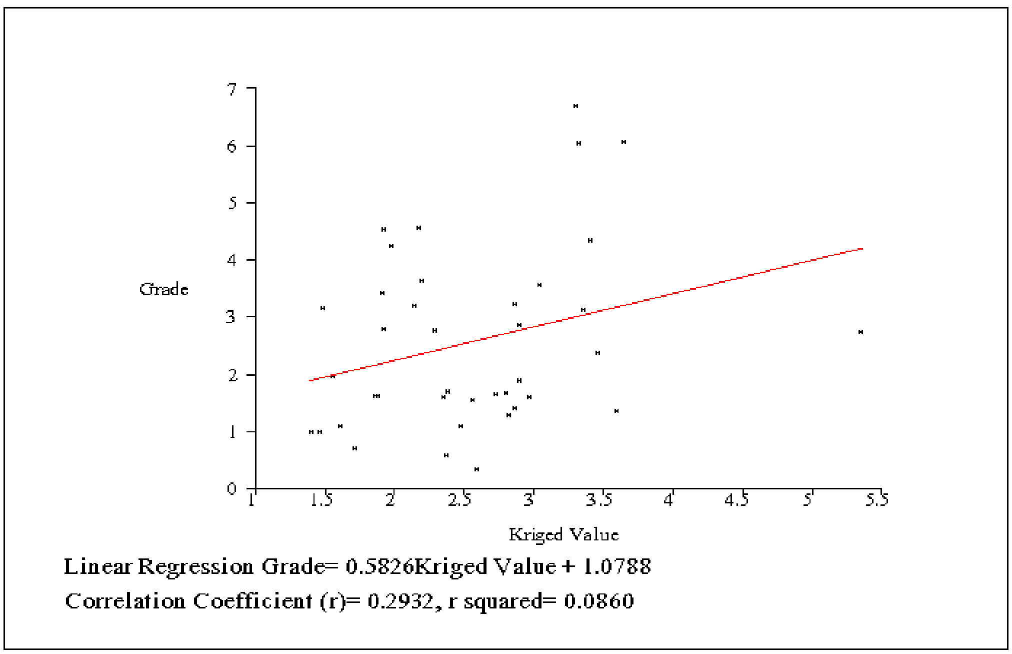

Figure: 11.21F West Breccia Zone Ag, correlation between Kriged grade distribution and raw grade distribution

Table: 11.21 – West Breccia zone Ag, statistics for raw and 15 m composite values

West Breccia Zone			
	Ag		
Variable	**Samples**	**15m-composite**	**Kriged Value from Validation**
Number of samples	221	45	39
25.0 Percentile	0.85	1.377	1.923
50.0 Percentile (median)	1.7	1.833	2.473
75.0 Percentile	2.949	3.219	2.931
90.0 Percentile	5.613	4.535	3.431
95.0 Percentile	7.474	6.063	3.619
99.0 Percentile	10.85	6.699	5.355
100.0 Percentile	14.4	6.699	5.355
Mean	**2.334**	**2.376**	**2.551**
Variance	5.76	2.416	0.612
Standard Deviation	2.4	1.554	0.782
Coefficient of variation	1.028	0.654	0.307
Skewness	1.87	0.943	1.034
Kurtosis	7.244	3.495	5.118

The omni direction variogram obtained looks good and has two structures, with a range of influence of 120 m and a low nugget. No directional variogram were obtained due to a lack of data (93 samples).

The validation obtained was good with the percentage of errors within 2 standard deviations of 94.87% (for perfect distribution 95%).

Comparing the statistics for the Kriged (2.551 g/t) results compared to the raw data (2.376 g/t), they are very close.

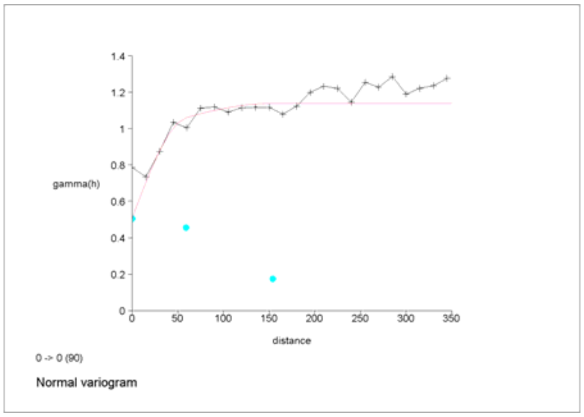

Figure: 11.22A Main zone Ag, variogram

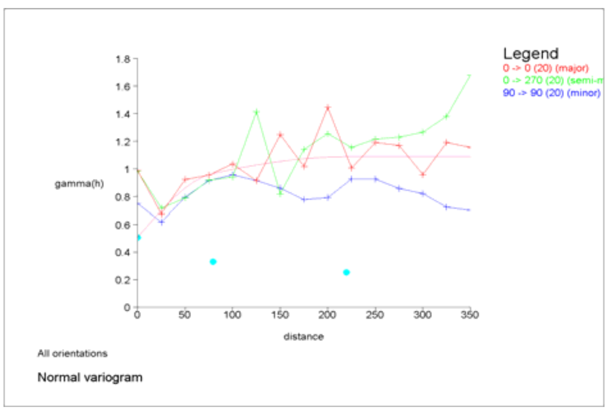

Figure: 11.22B Main zone Ag, variogram

VARIOGRAM PARAMETERS

ANGLES OF ROTATION OF THE MAJOR AXIS;

Bearing 0.00
Dip angle 0.00
Tilt angle 0.00

ANISOTROPY FACTORS;

Semi-major axis 1.00
Minor axis 1.00

TYPE OF VARIOGRAM = NSP
Sill 1.0870
Nugget effect 0.5060

MODEL	C VALUE	RANGE
1	0.329	79.
2	0.252	220.

OTHER INTERPOLATION PARAMETERS

Max search distance of major axis 219.
Max vertical search distance 219.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS

MEAN	0.0072
VARIANCE	0.7954
STD. DEVIATION	0.8919
AVG. SQ. ERROR	0.7949
WEIGHTED SQ. ERR.	0.8006
SKEWNESS	-2.2929
KURTOSIS	23.2644
NO. OF ASSAYS	1370
AVG KRIG VARIANCE	0.7523
PERCENTAGE OF ERRORS WITHIN TWO STD. DEVIATIONS	95.47

Figure: 11.22C Main zone Ag, variogram parameters

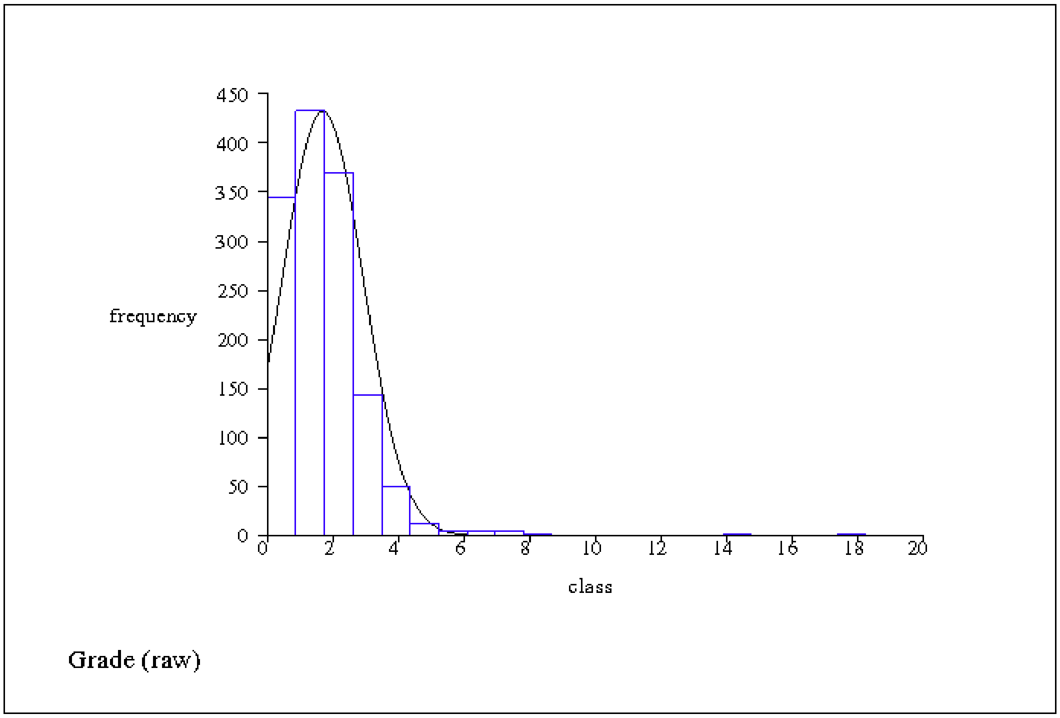

Figure: 11.22D Main zone Ag, raw grade distribution

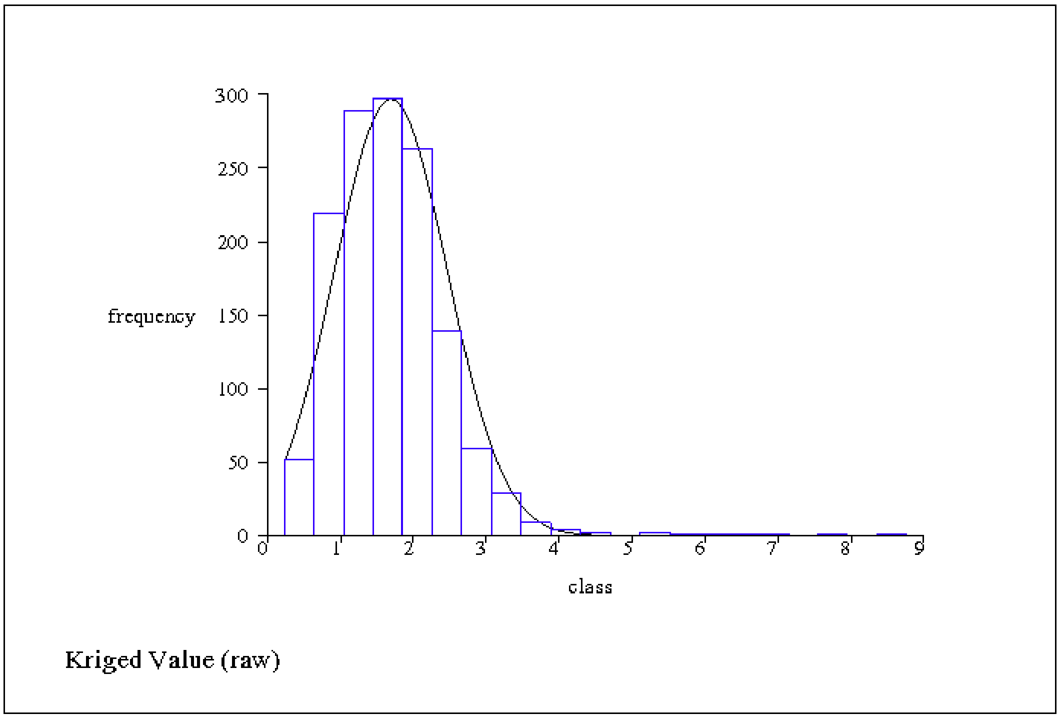

Figure: 11.22E Main zone Ag, Kriged grade distribution

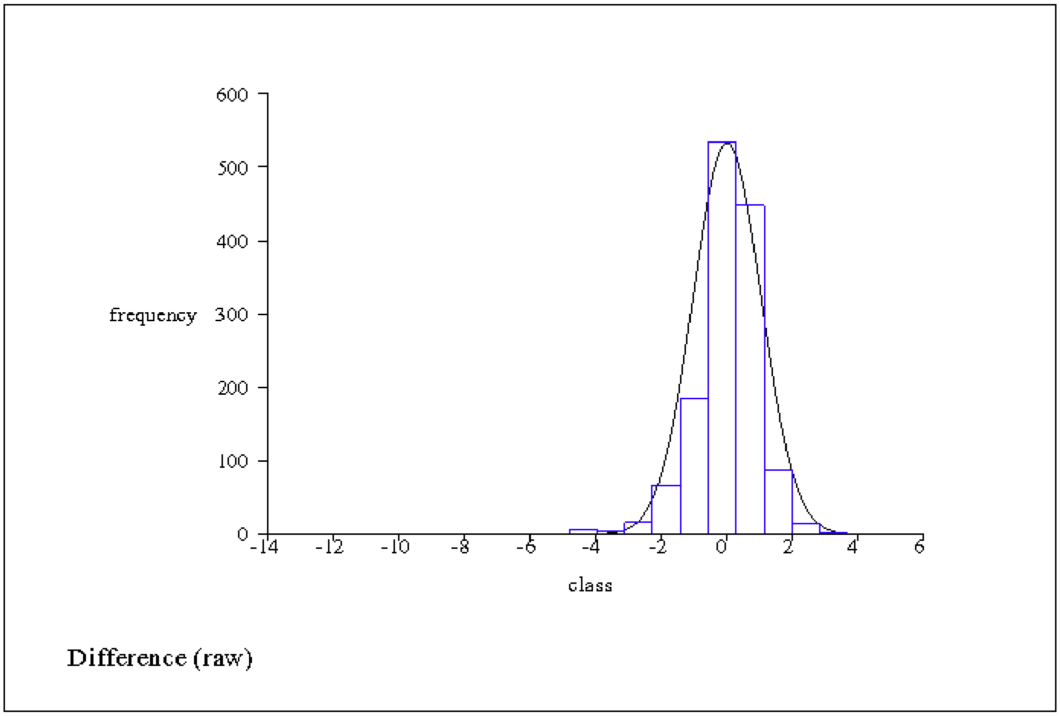

Figure: 11.22F Main zone Ag, difference between Kriged grade distribution and raw grade distribution

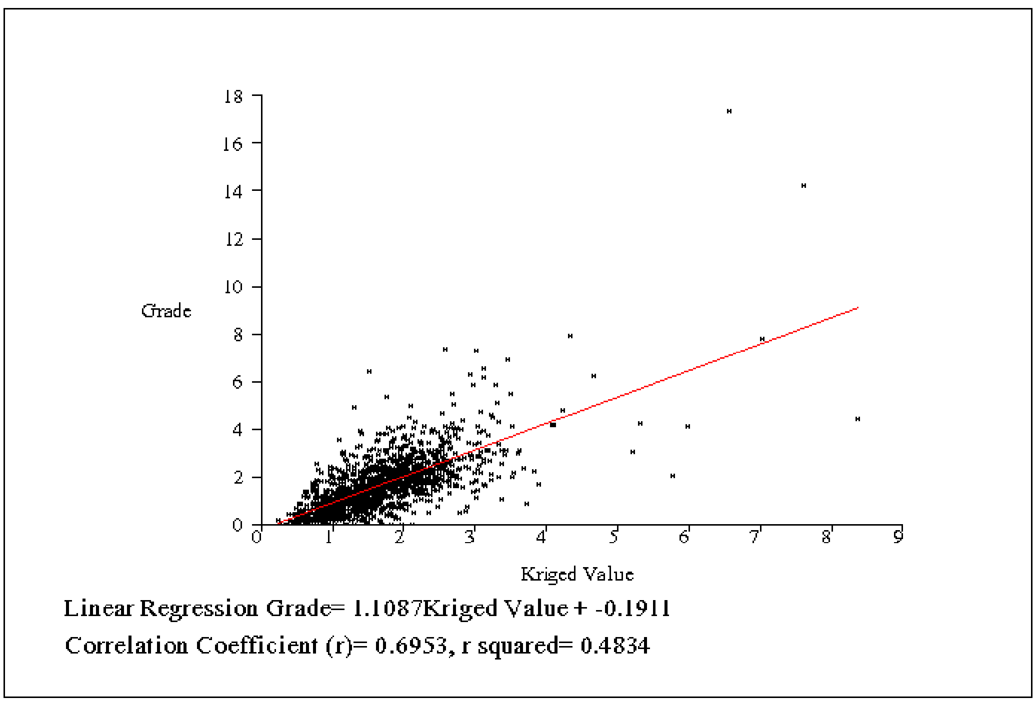

Figure: 11.22G Main zone Ag, correlation between Kriged grade distribution and raw grade distribution

Table: 11.22 – Main zone Ag, statistics for raw and 15 m composite values

Main Zone			
	Ag		
Variable	**Samples**	**15m-composite**	**Kriged Value**
			from Validation
Number of samples	6348	1377	1370
25.0 Percentile	0.686	0.857	1.14
50.0 Percentile (median)	1.44	1.558	1.618
75.0 Percentile	2.263	2.263	2.086
90.0 Percentile	3.189	2.965	2.578
95.0 Percentile	4.1	3.706	2.967
99.0 Percentile	6.8	5.668	3.858
100.0 Percentile	35.4	17.361	8.364
Mean	**1.686**	**1.682**	**1.692**
Variance	2.427	1.522	0.6
Standard Deviation	1.558	1.234	0.774
Coefficient of variation	0.924	0.733	0.458
Skewness	4.706	3.133	1.907
Kurtosis	63.106	30.886	13.197

The directional variogram obtained looks good and has two structures, with a major range of influence of 220 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 95.47% (for perfect distribution 95%).

Comparing the statistics for the Kriged (1.692 g/t) results compared to the raw data (1.682g/t), they are very close.

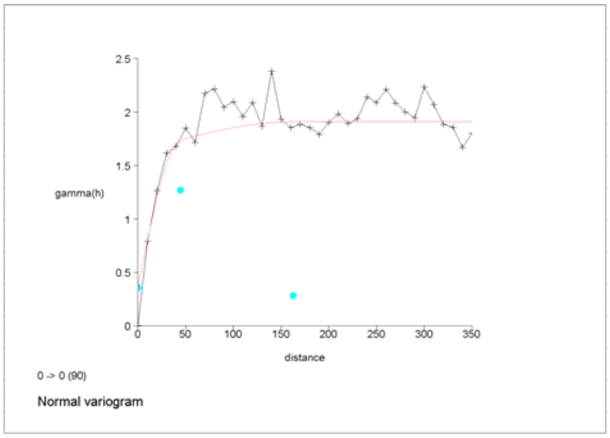

Figure: 11.23A Paramount zone Ag, variogram

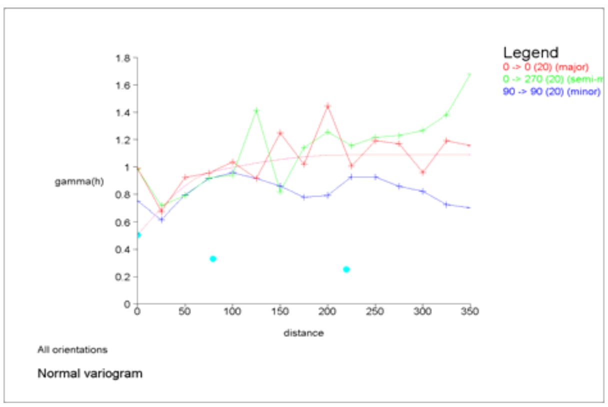

Figure: 11.23B Paramount zone Ag, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 1.00
TYPE OF VARIOGRAM = NSP
Sill 1.9080
Nugget effect 0.3560

MODEL	C VALUE	RANGE
1	1.269	44.
2	0.283	162.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 162.
Max vertical search distance 162.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS
MEAN 0.0148
VARIANCE 1.0923
STD. DEVIATION 1.0451
AVG. SQ. ERROR 1.0884
WEIGHTED SQ. ERR. 1.0688
SKEWNESS -1.0676
KURTOSIS 6.0166
NO. OF ASSAYS 266
AVG KRIG VARIANCE 1.2382
PERCENTAGE OF ERRORS WITHIN
TWO STD. DEVIATIONS 95.86

Figure: 11.23C Paramount zone Ag, variogram parameters

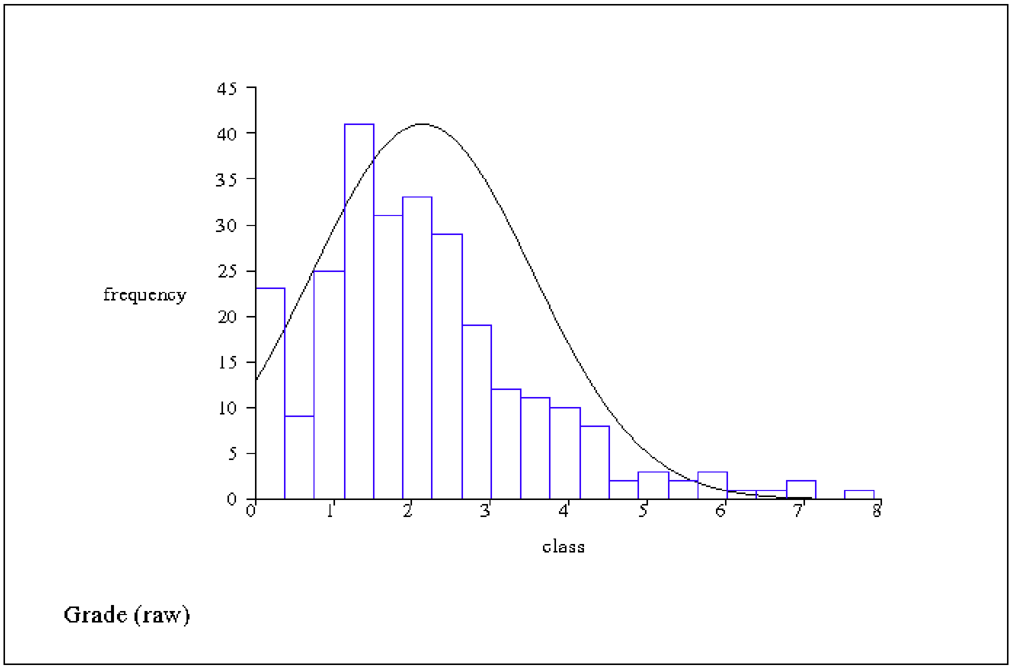

Figure: 11.23D Paramount zone Ag, raw grade distribution

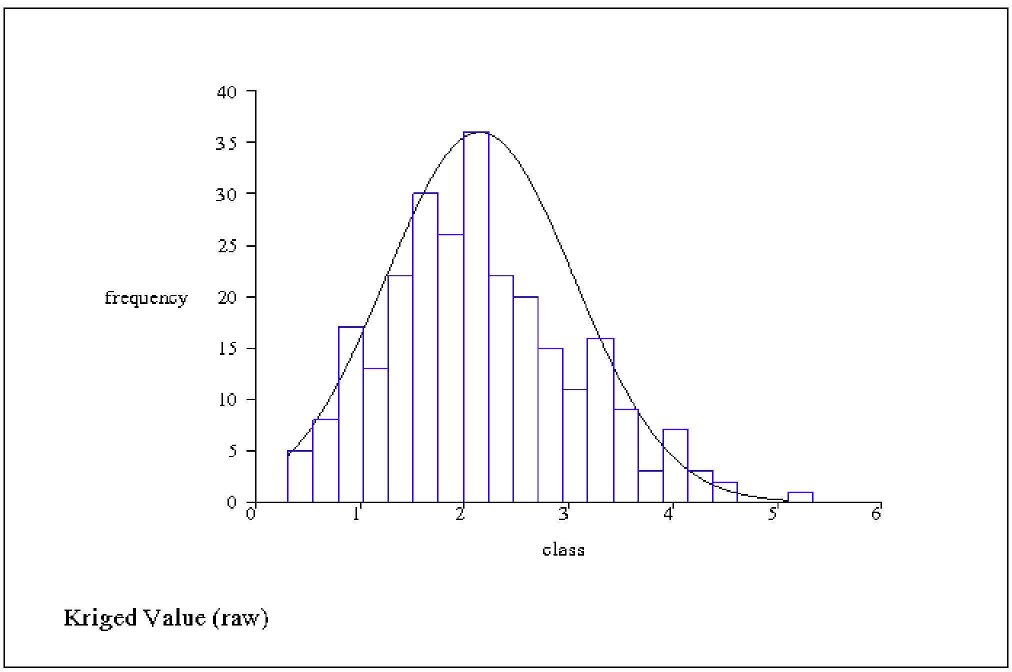

Figure: 11.23E Paramount zone Ag, Kriged grade distribution

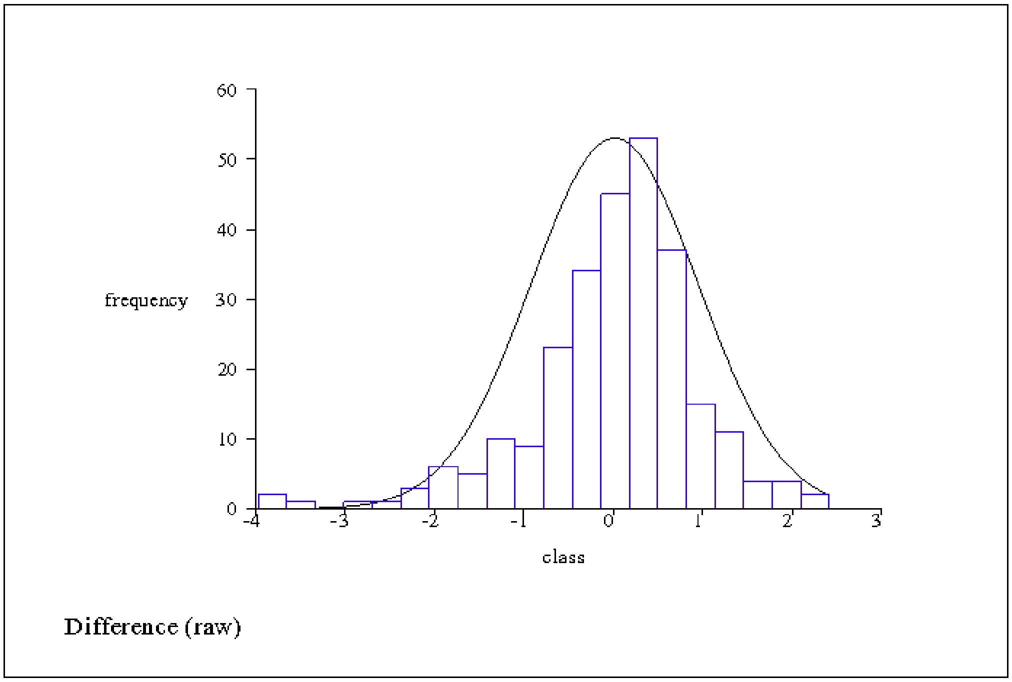

Figure: 11.23F Paramount zone Ag, difference between Kriged grade distribution and raw grade distribution

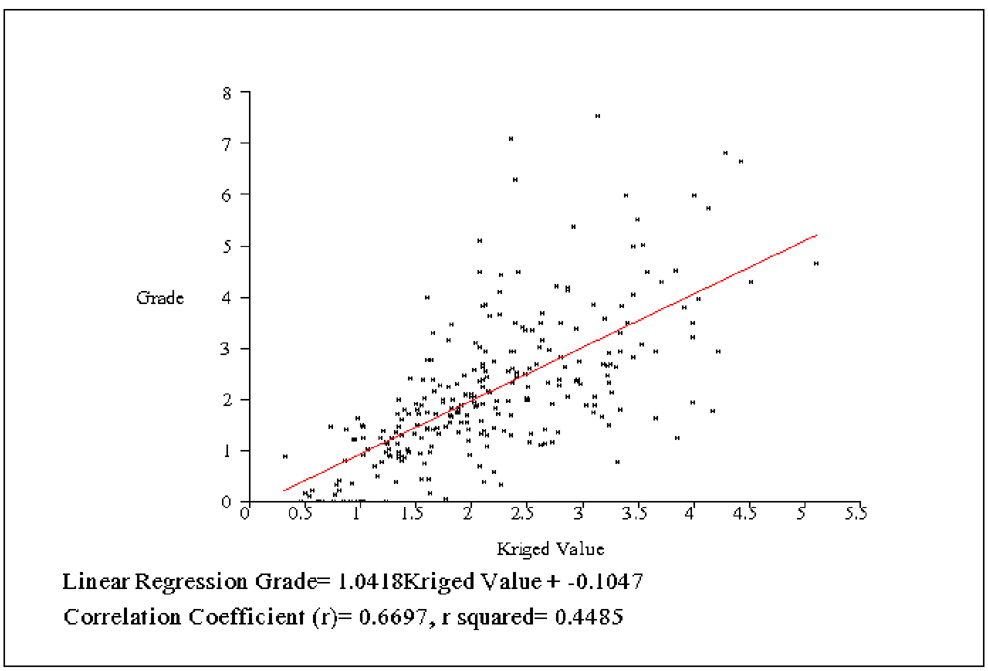

Figure: 11.23G Paramount zone Ag, correlation between Kriged grade distribution and raw grade distribution

Table: 11.23 – Paramount zone Ag, statistics for raw and 15 m composite values

Paramount Zone			
	Ag		
Variable	**Samples**	**15m-composite**	**Kriged Value from Validation**
Number of samples	1361	301	266
25.0 Percentile	1.029	1.219	1.512
50.0 Percentile (median)	1.68	1.889	2.076
75.0 Percentile	2.811	2.821	2.72
90.0 Percentile	4.44	4.016	3.374
95.0 Percentile	5.76	4.698	3.877
99.0 Percentile	8.726	6.737	4.359
100.0 Percentile	11.589	7.533	5.099
Mean	**2.138**	**2.143**	**2.151**
Variance	3.169	1.923	0.814
Standard Deviation	1.78	1.387	0.902
Coefficient of variation	0.832	0.647	0.42
Skewness	1.739	1.058	0.469
Kurtosis	7.167	4.465	2.879

The variogram obtained looks pretty good and has two structures, with a major range of influence of 162 m and a low nugget in a direction of 0 degrees.

The validation obtained was good with the percentage of errors within 2 standard deviations of 95.84% (for perfect distribution 95%).

Comparing the statistics for the Kriged (2.151 g/t) results compared to the raw data (2.143g/t), they are very close.

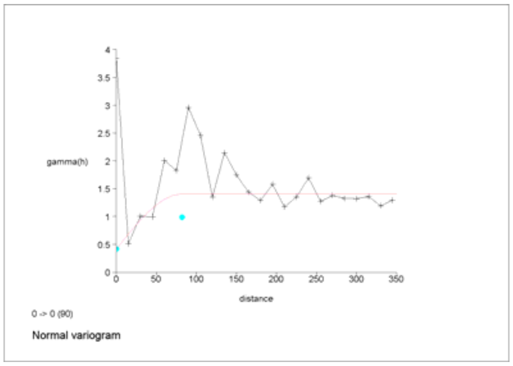

Figure: 11.24A Low grade zone Ag, variogram

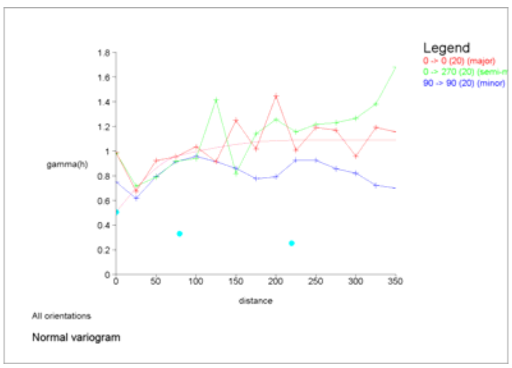

Figure: 11.24B Low grade zone Ag, variogram

VARIOGRAM PARAMETERS
ANGLES OF ROTATION OF THE MAJOR AXIS;
Bearing 0.00
Dip angle 0.00
Tilt angle 0.00
ANISOTROPY FACTORS;
Semi-major axis 1.00
Minor axis 1.00
TYPE OF VARIOGRAM = NSP
Sill 0.7160
Nugget effect 0.3390
MODEL C VALUE RANGE
1 0.377 41.

OTHER INTERPOLATION PARAMETERS
Max search distance of major axis 106.
Max vertical search distance 106.
Max number of samples used per block 30
Min number of samples used per block 15

SUMMARY STATISTICS OF KRIGING ERRORS
MEAN -0.0158
VARIANCE 2.9747
STD. DEVIATION 1.7247
AVG. SQ. ERROR 2.9476
WEIGHTED SQ. ERR. 3.1127
SKEWNESS -3.1376
KURTOSIS 21.4114
NO. OF ASSAYS 109
AVG KRIG VARIANCE 0.6312
PERCENTAGE OF ERRORS WITHIN TWO STD. DEVIATIONS 93.58

Figure: 11.24C Low grade zone Ag, variogram parameters

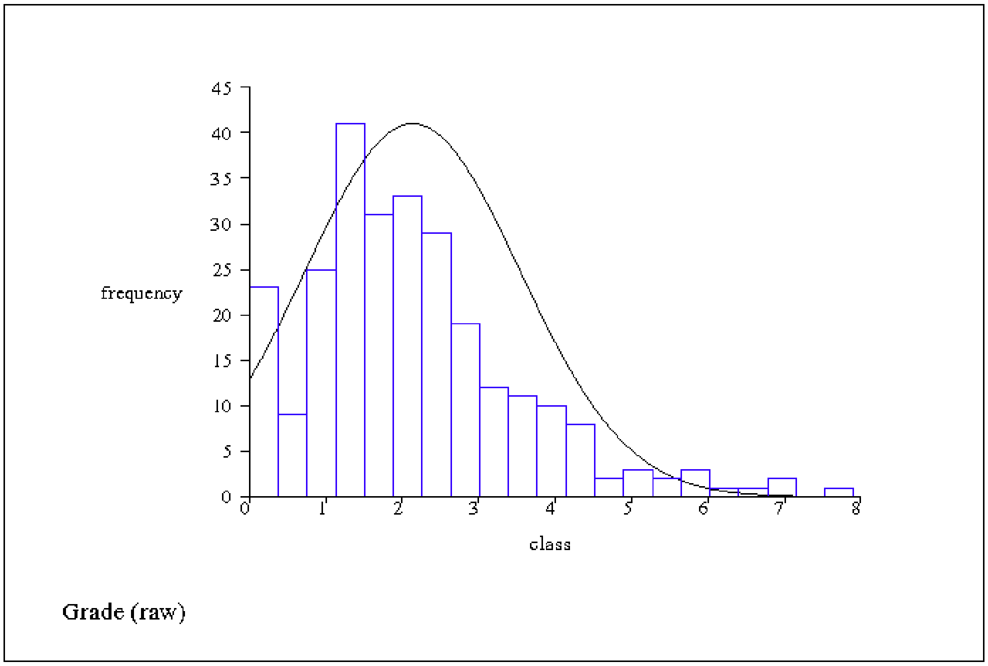

Figure: 11.24D Low Grade zone Ag, raw grade distribution

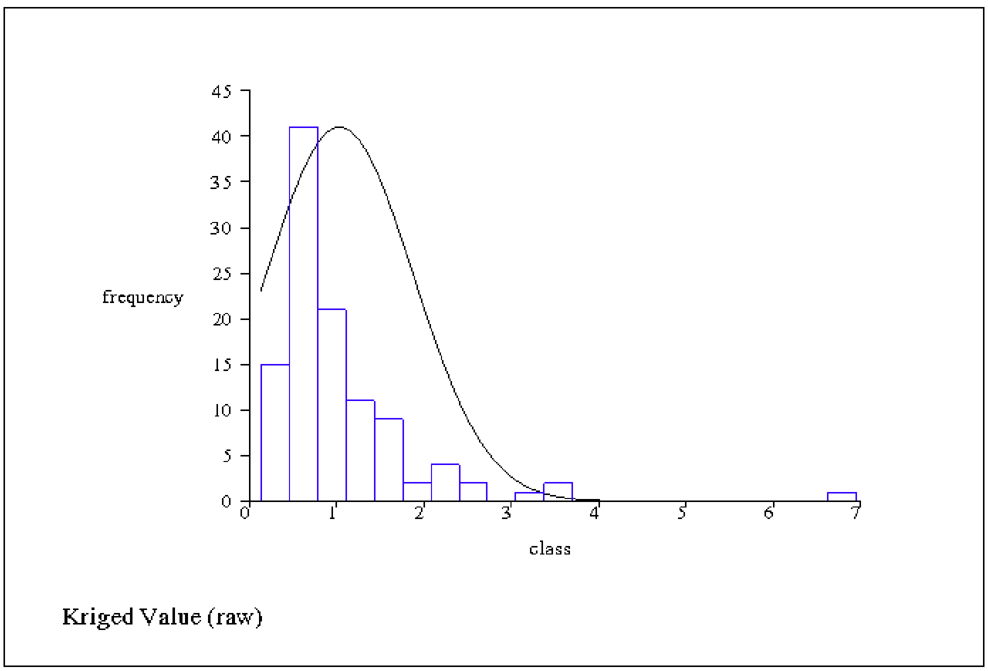

Figure: 11.24E Low Grade zone Ag, Kriged grade distribution

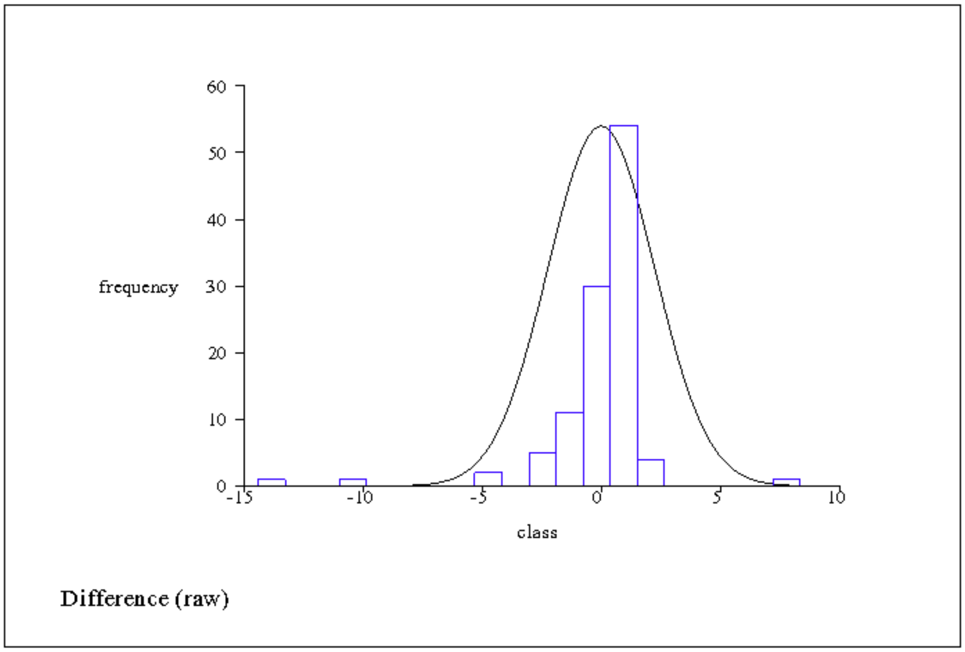

Figure: 11.24F Low Grade zone Ag, difference between Kriged grade distribution and raw grade distribution

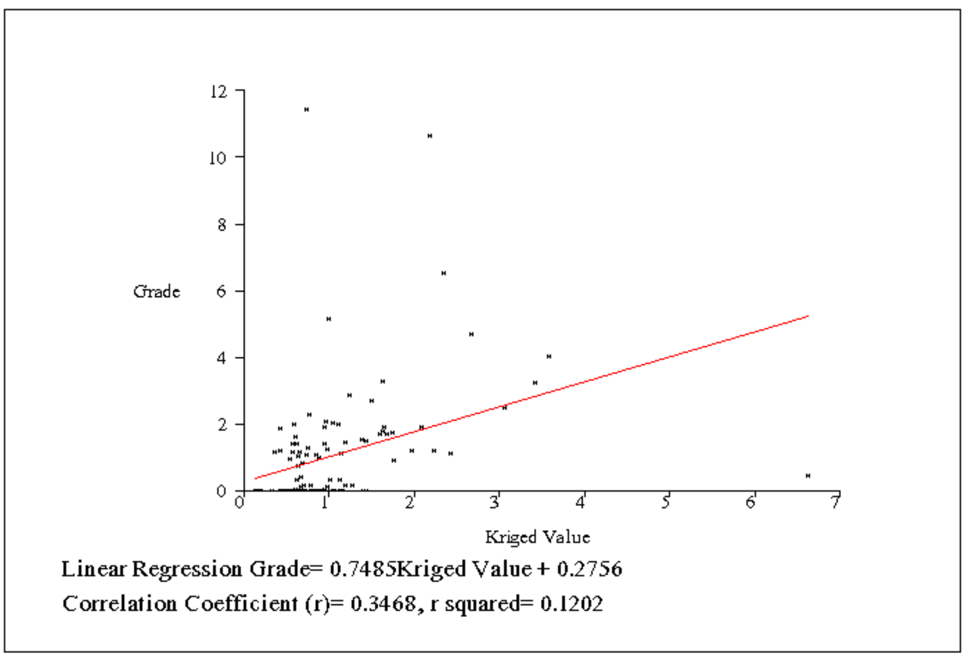

Figure: 11.24G Low Grade zone Ag, correlation between Kriged grade distribution and raw grade distribution

Table: 11.24 – Low Grade zone Ag, statistics for raw and 15 m composite values

Low Grade Zone			
	Ag		
Variable	**Samples**	**15m-composite**	**Kriged Value from Validation**
Number of samples	2250	638	109
25.0 Percentile	0.343	0.761	0.594
50.0 Percentile (median)	1.131	1.269	0.766
75.0 Percentile	1.611	1.766	1.167
90.0 Percentile	2.263	2.416	1.87
95.0 Percentile	2.846	3.171	2.543
99.0 Percentile	5.143	5.475	5.1
100.0 Percentile	29.143	11.429	6.619
Mean	**1.215**	**1.372**	**1.033**
Variance	2.001	1.36	0.708
Standard Deviation	1.415	1.166	0.842
Coefficient of variation	1.165	0.85	0.815
Skewness	8.147	2.964	3.399
Kurtosis	127.428	21.044	19.972

The variogram obtained looks pretty good and has two structures, with a major range of influence of 41 m and a low nugget in a direction of 0 degrees.
The validation obtained was good with the percentage of errors within 2 standard deviations of 93.58% (for perfect distribution 95%).

Comparing the statistics for the Kriged (1.033g/t) results compared to the raw data (1.372g/t), they are very close.

11.5 Block Modeling

The geological solids model, including the mineralized zones, mineralized envelope grade information, as well as specific gravity was loaded into the block model.

11.5.1 Block Model Dimensions

The block model origin and extents were chosen to cover the whole of the Schaft Creek project area. Block sizes or dimensions were chosen to reflect the results of the spatial statistics, drill hole and data density, as well as looking at a 15 m bench height. A technique called sub blocking was used to accurately model the structural and geological complexity of the modeled zones. Table 11.25 depicts the parameters used in the block modeling process.

Table:11.25 - Block modeling parameters

Type	Y	X	Z
Minimum Coordinates	6358400	378900	430
Maximum Coordinates	6361800	381000	1705
User Block Size	25	25	15
Min. Block Size	12.5	12.5	7.5
Rotation	0.000	0.000	0.000

11.5.2 Structural and Geological Constraints

Spatial constraints were created that represent each and every zone modeled. Attributes were created and these constraints were then used to assign the different zones:

1. West Breccia Zone
2. Main Zone
3. Paramount Zone
4. Low Grade Zone

Figure: 11.25 depicts the block model color-coded according to zones.

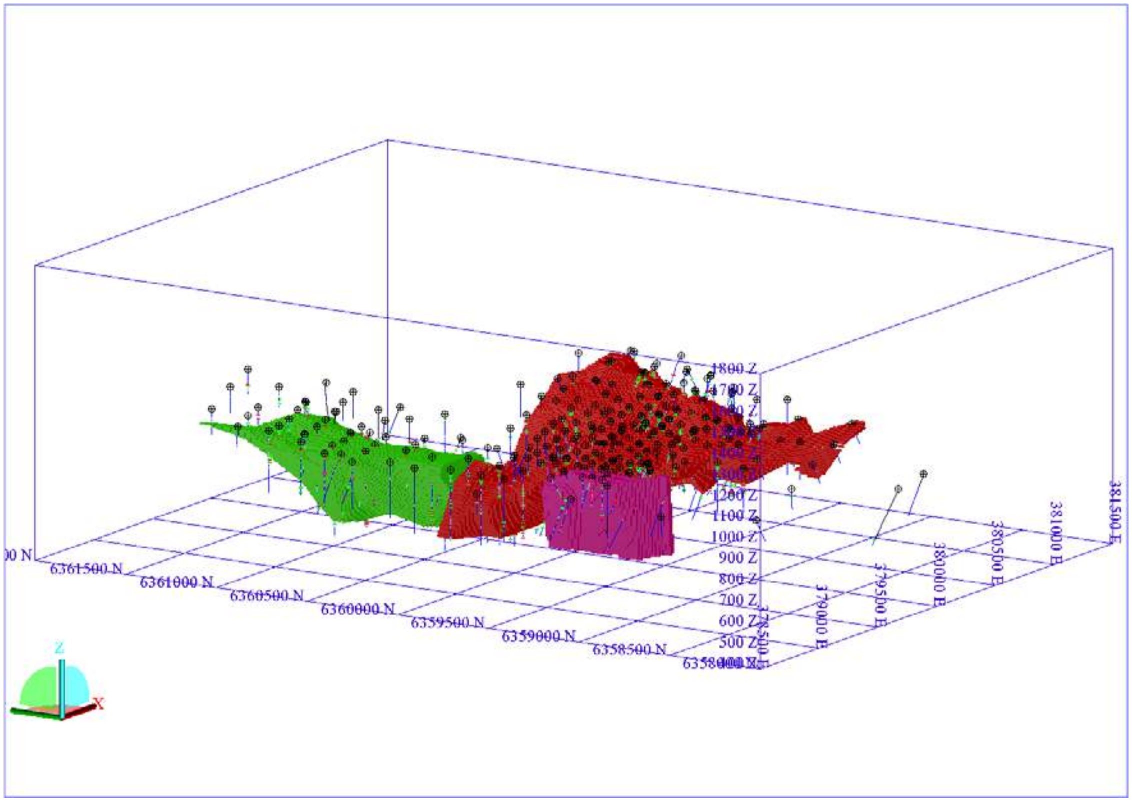

Figure: 11.25 – Block model, color-coded based on various zones within the project area

11.5.3 Grade Interpolation

Grade was interpolated using ordinary Kriging. This interpolation method was selected because data distribution and density was sufficient for interpolating using ordinary Kriging. A good variogram were obtained during the special statistical part of the project and reasonable to good validation was obtained.

Each element was individually interpolated into each of the modeled zones. Table 11.26 depicts the Kriging parameters used during the interpolation of grades into the block model. A minimum of 5 samples and a maximum of 15 samples were used in determining block grade.

Table 11.26 – Kriging parameters, used for interpolation of grades into the block model

Element	SG	Cu				Mo				Au				Ag			
Zone Estimated	ALL	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zone	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zone	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zone	West Breccia Zone	Main Zone	Paramount Zone	Low Grade Zone
Search Type	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid	Ellipsoid
min samples in block estimation	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
min samples in block estimation	10	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Max search distance for block estimate	250	150	225	250	256	90	234	157	194	105	171	225	148	120	219	162	106
Bearing Major Axis	0	180	0	0	180	0	0	0	0	0	0	0	0	0	0	0	0
Plunge Major Axis	0	0	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0
Dip Major Axis	0	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anisotropy Semi Major / Major	1	1	1	1.2	1.6	1	1	1	1	1	1	1	1	1	1	1	1
Anisotropy Minor / Major	1	1	2	1.8	1.6	1	1.67	1	1	1	1.4	1	1	1	1	1	1
Interpolation methord	Distance	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging	Kriging
Discritisation Y	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Discritisation X	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Discritisation Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of Structures		2	2	2	2	1	2	2	1	2	1	2	2	2	2	2	1
Nugget C0		0.07	0.006	0.006	0.002	0.0004	0.0001	0.0001	0	0.001	0.014	0.019	0.003	0.775	0.506	0.356	0.339
Sill C1		0.038	0.008	0.01	0.001	0.0001	0	0	0.0001	0.001	0.029	0.013	0.008	1.336	0.329	1.269	0.377
Range 1		25	66	67	55	91	79	29	194	27	171	73	59	39	79	44	41
Bearing 1		180	0	0	180	0	0	0	0	0	0	0	0	0	0	0	0
Plunge 1		0	0	0	90	0	0	0	0	0	0	0	0	0	0	0	0
Dip 1		90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SemiMajor / Major 1		1	1	1.2	1.6	1	1	1	1	1	1	1	1	1	1	1	1
Minor / Major 1		1	2	1.8	1.6	1	1.67	1	1	1	1.4	1	1	1	1	1	1
Sill C1		0	0	0	0		0	0		0.004		0.021	0.007	0.68	0.252	0.283	
Range 2		0	0	0	0		235	161		105		225	149	120	220	162	
Bearing 2		180	0	0	180		0	0		0		0	0	0	0	0	
Plunge 2		0	0	0	90		0	0		0		0	0	0	0	0	
Dip 2		90	0	0	0		0	0		0		0	0	0	0	0	
SemiMajor / Major 2		1	1	1.2	1.6		1	1		1		1	1	1	1	1	
Minor / Major 2		1	2	1.8	1.6		1.67	1		1		1	1	1	1	1	
Second estimation pass Factor	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Pass 2 Min Samples	5	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	15
Pass 2 Max Samples	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Third estimation pass Factor	5	2.5	2.5	2.5	2.5	3	3	3	3	4	4	4	4	3	3	4	9
Pass 3 Min Samples	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Pass 3 Max Samples	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15

Estimation is done for each block by doing a number of point estimations and then averaging to give a block average or block grade. This process is called discretisation an for the estimation a discretisation of 2 x 2 x 1 was used for the 25 x 25 x 15 user block size. This has the effect that points at 12.5 x 12.5 x 15 were used (homogeneous axis lengths in all directions).

During the estimation, attributes were added based on the data used during the estimation process of each block. For each element these include: the closest sample, average distance of samples used, number of samples used, as well as the Kriging variance.

11.5.4 In Situ (Bulk) Density

Bulk densities (g/cm^3) were obtained from 2790 samples. These were composited to a 3 m composite length. These were then estimated using Inverse Distance to the power of 2. Table 11.27 demonstrates the statistics for the bulk densities.

Table 11.27 – Statistics for bulk density values

	All Data
	SG
Variable	**Cut 3m Composites**
Number of samples	2734
Minimum value	1.96
Maximum value	2.98
1.0 Percentile	2.48
50.0 Percentile (median)	2.69
99.0 Percentile	2.88
Mean	2.689
Variance	0.005
Standard Deviation	0.071
Coefficient of variation	0.026
Skewness	-1.523
Kurtosis	17.857

11.5.5 Validation

11.5.5.1 Graphically

In Gemcom Surpac™, the block model was color-coded according to various elements and then compared to the drill hole information / composite values. The geometry of the interpolated blocks was also examined against the solid models.

The graphical validation was successful and higher grades are found in the region of high-grade drill holes and visa versa. The interpolation was acceptable using graphical methods. The result of the graphical validation for two sections is given in Figures 11.26A and 11.26B. The blocks depict the Cu grade and the drill holes depict the Cu grade from the database. Notice the blocks are constrained on the edges of the ore boundaries, and also the good correlation between the drill hole grades and the block grades.

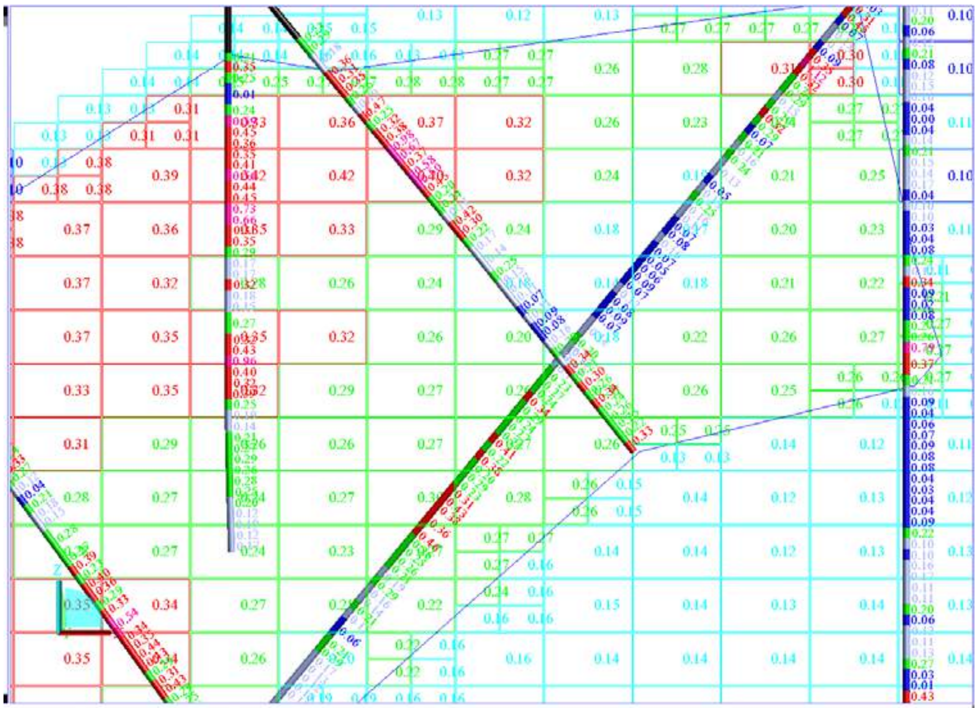

Figure: 11.26A – Graphical validation of the block model

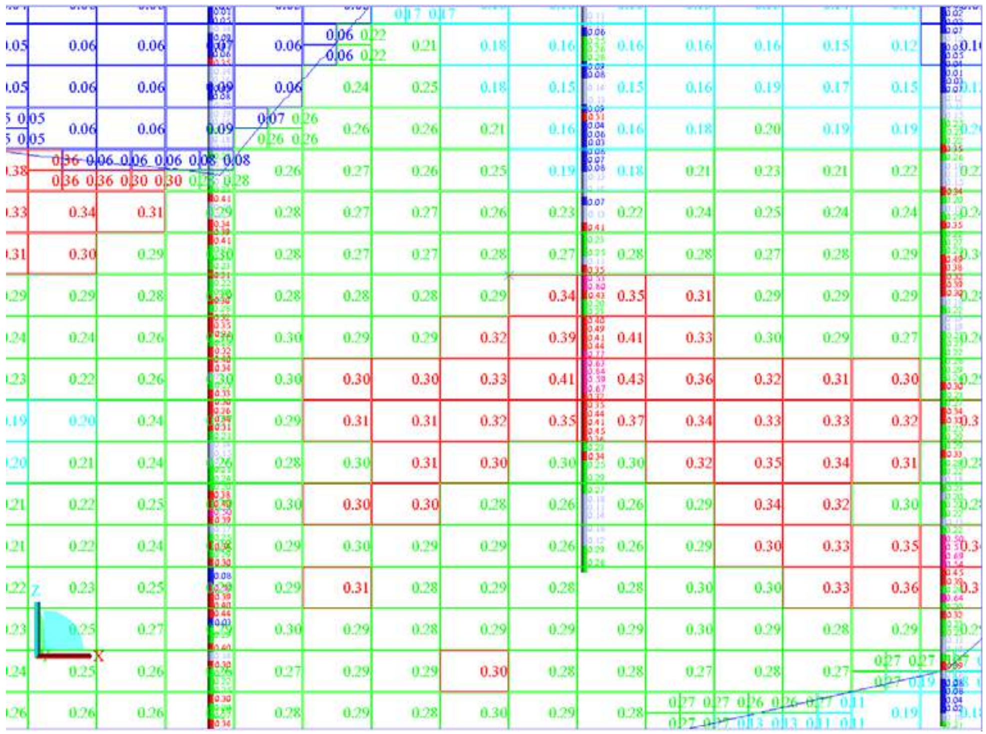

Figure: 11.26B – Graphical validation of the block model

11.5.5.2 Graphing:

An additional method that was used to determine the acceptability of the interpolated grades is to compare the average composite grades with the average interpolated grade from the block model along various section lines 250 m apart from South to North. One would expect that where a larger volume of interpolated blocks is found, more sample data would be available in these areas; in these places one would have good correlation with the two datasets.

The graphing also yielded positive results with higher composite sample grades reporting higher interpolated blocks especially where larger volumes are found in the model. Figures 11.27 through 11.32 depict the graphing validation used in this project; these are for each element and zone combinations.

1	West Breccia Zone
2	Main Zone
3	Paramount Zone
4	Low Grade Zone
BM	Block Model Grade and Volumes
CMP	15 meter Composite Grades

Figure: 11.27 Legend for validations Figure 11.28 through Figure 11.32

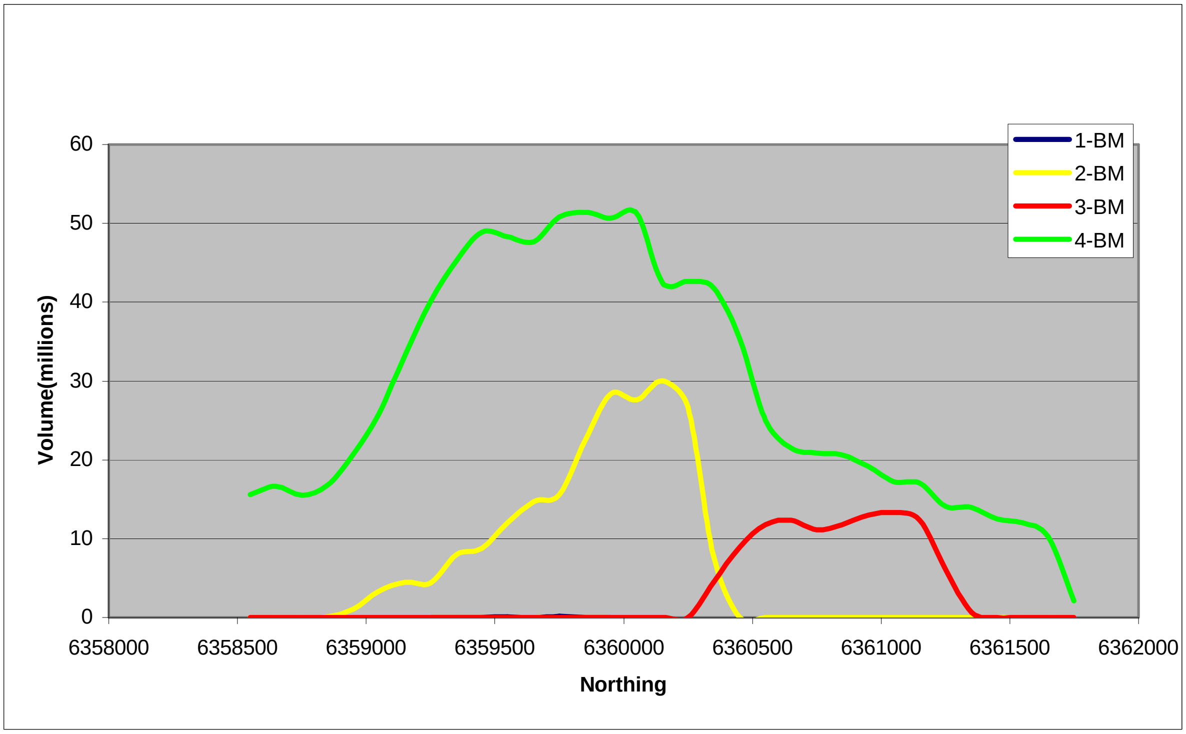

Figure: 11.28 Validation, total volume of measured resource

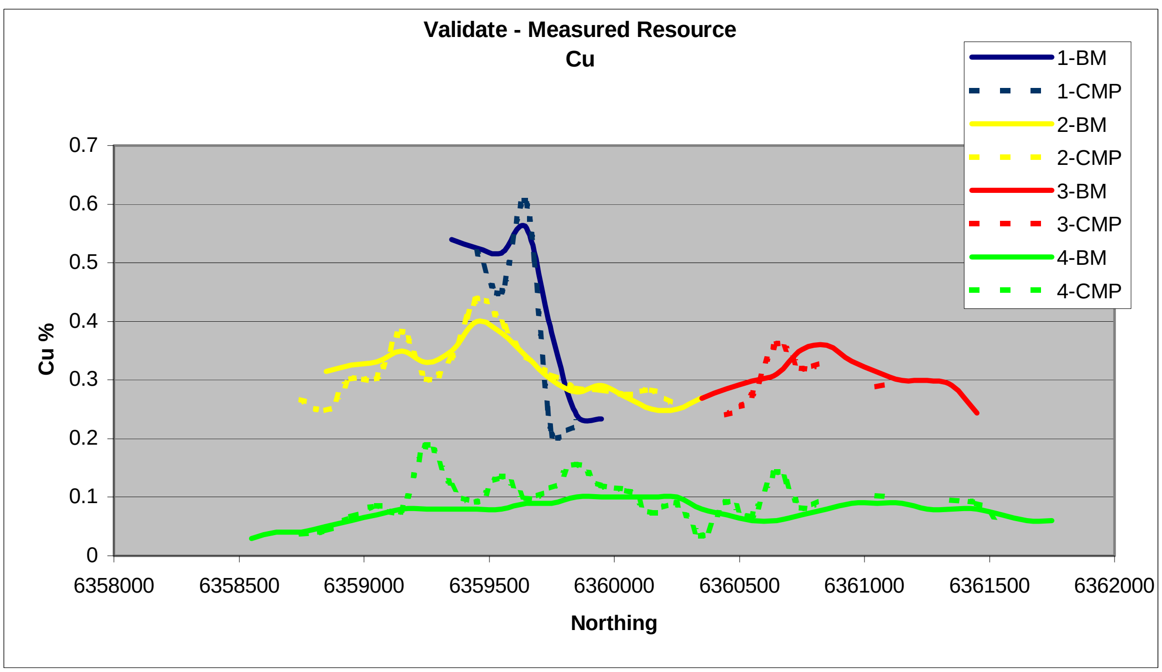

Figure: 11.29 Validation, measured resource Cu

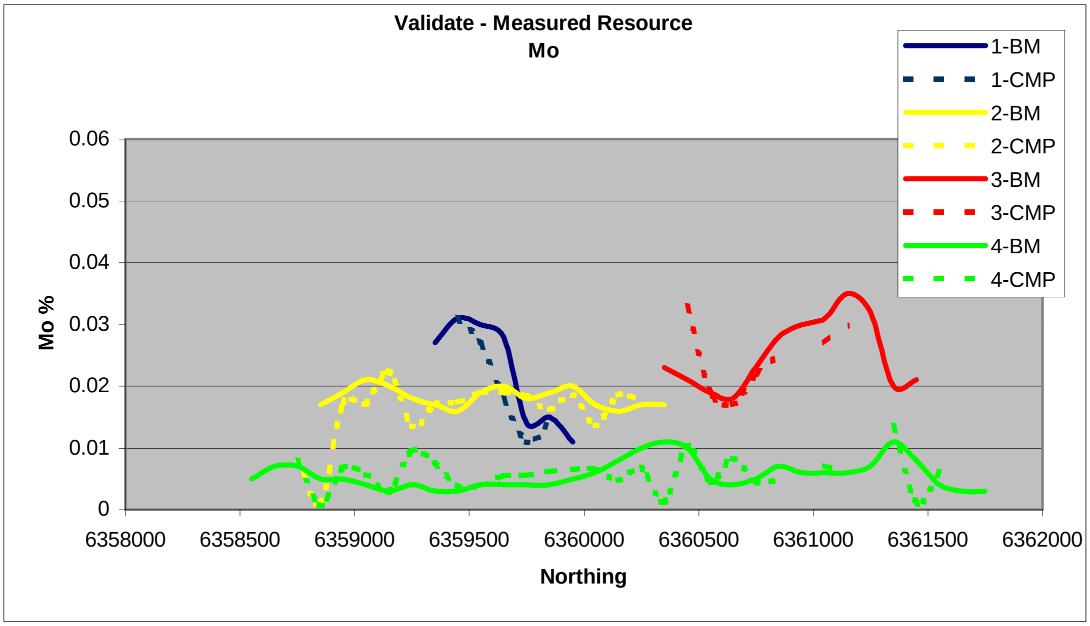

Figure: 11.30 Validation, measured resource Mo

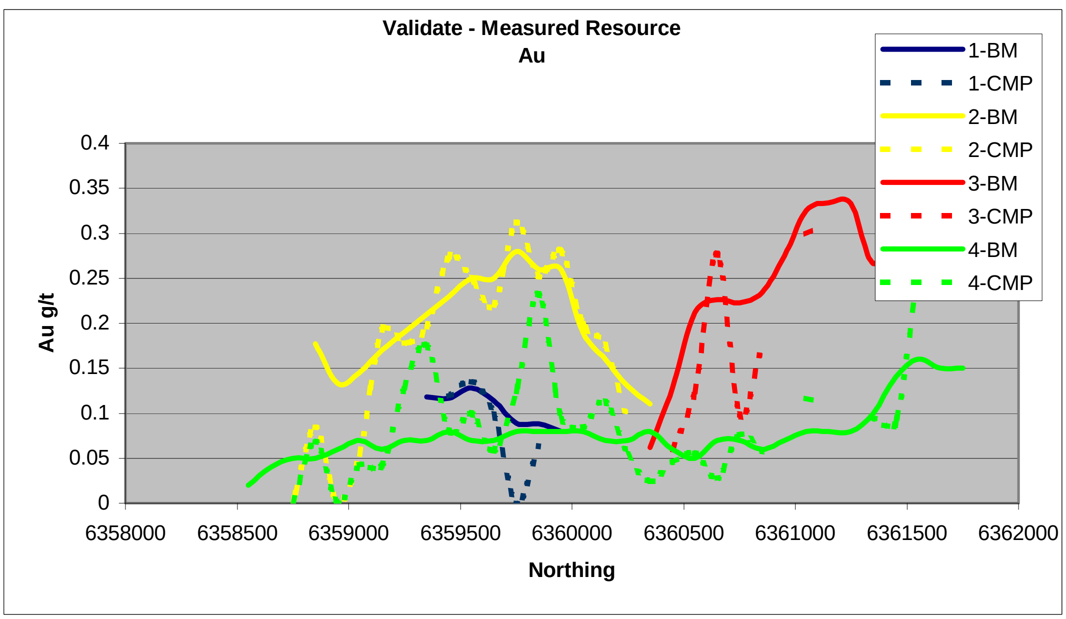

Figure: 11.31 Validation, measured resource Au

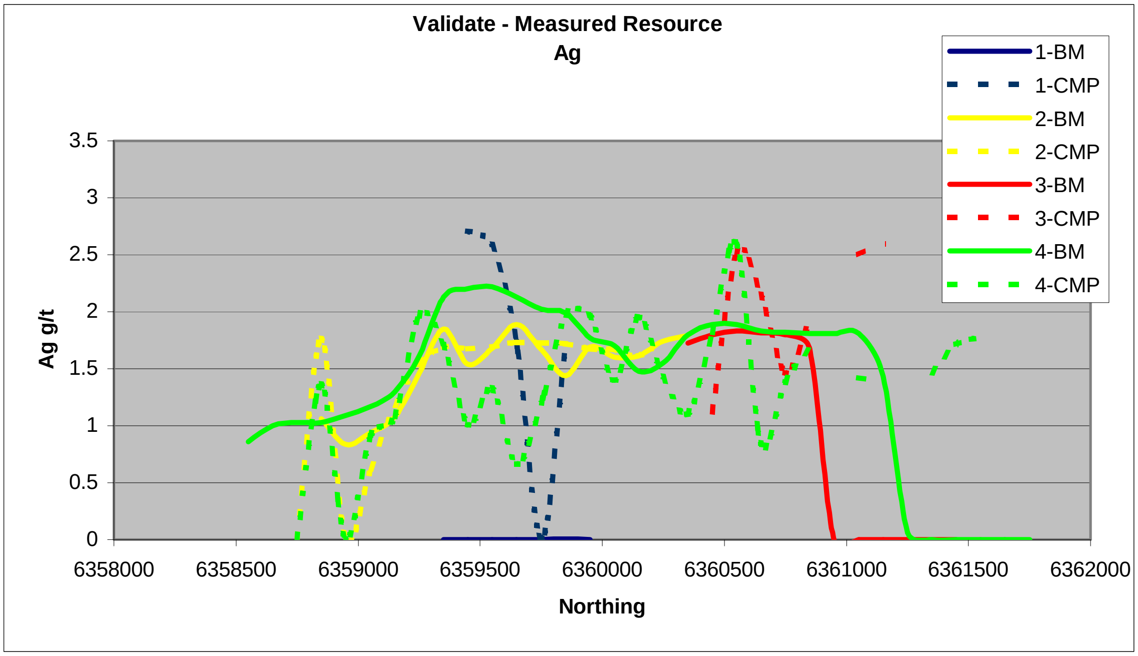

Figure: 11.32 Validation, measured resource Ag

12.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

12.1 Mineral Resource Estimate

AGL has reported a mineral resource estimate for the Schaft Creek Deposit which has been classified in the measured, indicated and inferred categories of mineral resources based on the CIM Definition Standards on Mineral Resources and Mineral Reserves.

A Mineral Resource is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

This definition suggests that it is necessary to apply an economic cut-off grade even at an early stage of resource estimation. It is the considered opinion of AGL that mineralized material below a copper equivalent cut-of grade of 0.20% at Schaft Creek can not be considered as mineral resources as they are potentially uneconomic. The CIM definitions for resource categories are defined following:

An "Inferred Mineral Resource" is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

An "Indicated Mineral Resource" is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such outcrops, trenches, pits, workings, and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

A "Measured Mineral Resource" is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

A summary of the mineral resources of the Schaft Creek Deposit follows (Table: 12.1):

Table: 12.1 Schaft Creek Mineral Resource Estimate Summary ≥0.20 % Copper Equivalent Cut-Off						
	Tonnes	**Cu (%)**	**Mo (%)**	**Au (g/t)**	**Ag (g/t)**	**CuEq Grade (%)**
Measured Mineral Resources	463,526,579	0.30	0.019	0.23	1.55	0.46
Indicated Mineral Resources	929,755,592	0.23	0.019	0.15	1.56	0.36
Measured + Indicated Mineral Resources	1,393,282,171	0.25	0.019	0.18	1.55	0.39
Inferred Mineral Resources	186,838,848	0.14	0.018	0.09	1.61	0.25

The mineral resource estimate has also been reported at various copper equivalent cut-off grades from ≥0.20 % CuEq for different mineral resource categories in Tables: 12.2-12.5**.**

Table: 12.2 Measured Mineral Resources (≥0.20 CuEq % Cut-Off)						
CuEq Cut-Off %	**Tonnes**	**Cu (%)**	**Mo (%)**	**Au (g/t)**	**Ag (g/t)**	**CuEq Grade (%)**
0.200	463,526,579	0.30	0.019	0.23	1.55	0.46
0.250	427,185,355	0.32	0.019	0.23	1.48	0.48
0.300	406,104,927	0.33	0.020	0.24	1.48	0.49
0.350	366,510,032	0.34	0.021	0.24	1.50	0.51
0.400	308,920,880	0.36	0.022	0.25	1.53	0.53
0.450	237,822,543	0.37	0.024	0.27	1.59	0.56
0.500	160,958,217	0.40	0.026	0.29	1.70	0.61
0.550	100,681,743	0.43	0.028	0.32	1.85	0.65
0.600	60,312,284	0.46	0.030	0.35	2.07	0.71
0.650	36,461,242	0.51	0.031	0.38	2.38	0.76
0.700	23,605,744	0.54	0.031	0.41	2.65	0.81
0.750	15,877,150	0.58	0.031	0.43	2.92	0.86
0.800	10,557,072	0.60	0.032	0.47	3.16	0.90
0.850	6,933,279	0.63	0.032	0.49	3.39	0.94
0.900	4,246,088	0.66	0.032	0.53	3.64	0.98
0.950	2,520,582	0.68	0.032	0.57	4.02	1.019

Table: 12.3 Indicated Mineral Resources (≥0.20 CuEq % Cut-Off)						
CuEq Cut-Off %	**Tonnes**	**Cu (%)**	**Mo (%)**	**Au (g/t)**	**Ag (g/t)**	**CuEq Grade (%)**
0.200	929,755,592	0.23	0.019	0.15	1.56	0.36
0.250	619,933,986	0.27	0.023	0.18	1.44	0.43
0.300	508,789,414	0.30	0.024	0.20	1.41	0.46
0.350	416,625,183	0.32	0.026	0.22	1.38	0.50
0.400	326,015,999	0.33	0.028	0.25	1.34	0.53
0.450	234,441,849	0.35	0.030	0.29	1.28	0.57
0.500	161,657,679	0.37	0.032	0.32	1.22	0.61
0.550	108,335,598	0.40	0.034	0.36	1.19	0.66
0.600	74,247,442	0.42	0.036	0.38	1.21	0.69
0.650	51,100,769	0.44	0.036	0.39	1.21	0.73
0.700	31,393,004	0.47	0.037	0.40	1.24	0.76
0.750	13,509,785	0.51	0.038	0.39	1.43	0.80
0.800	5,427,378	0.56	0.042	0.36	1.59	0.85
0.850	2,104,031	0.59	0.046	0.37	1.61	0.89
0.900	627,451	0.63	0.057	0.26	1.92	0.94
0.950	183,848	0.61	0.079	0.19	1.79	0.978

Table: 12.4 Measured + Indicated Mineral Resources (≥0.20 CuEq % Cut-Off)						
CuEq Cut-Off %	**Tonnes**	**Cu (%)**	**Mo (%)**	**Au (g/t)**	**Ag (g/t)**	**CuEq Grade (%)**
0.200	1,393,282,171	0.25	0.019	0.18	1.55	0.39
0.250	1,047,119,341	0.29	0.022	0.20	1.46	0.45
0.300	914,894,341	0.31	0.022	0.22	1.44	0.48
0.350	783,135,215	0.33	0.023	0.23	1.44	0.50
0.400	634,936,879	0.34	0.025	0.25	1.43	0.53
0.450	472,264,392	0.36	0.027	0.28	1.44	0.57
0.500	322,615,896	0.39	0.029	0.31	1.46	0.61
0.550	209,017,341	0.41	0.031	0.34	1.51	0.66
0.600	134,559,726	0.44	0.033	0.36	1.59	0.70
0.650	87,562,011	0.47	0.034	0.39	1.69	0.74
0.700	54,998,748	0.50	0.034	0.41	1.84	0.78
0.750	29,386,935	0.55	0.034	0.41	2.24	0.83
0.800	15,984,450	0.59	0.035	0.43	2.62	0.88
0.850	9,037,310	0.62	0.035	0.46	2.97	0.93
0.900	4,873,539	0.66	0.036	0.49	3.42	0.97
0.950	2,704,430	0.68	0.035	0.54	3.87	1.02

Table: 12.5 Inferred Mineral Resources (≥0.20 CuEq % Cut-Off)						
CuEq Cut-Off %	**Tonnes**	**Cu (%)**	**Mo (%)**	**Au (g/t)**	**Ag (g/t)**	**CuEq Grade (%)**
0.200	186,838,848	0.14	0.018	0.09	1.61	0.25
0.250	75,777,298	0.17	0.026	0.08	1.56	0.30
0.300	19,312,810	0.22	0.034	0.10	1.55	0.39
0.350	8,321,377	0.29	0.040	0.11	1.49	0.49
0.400	4,381,796	0.41	0.033	0.14	1.70	0.59
0.450	3,096,952	0.49	0.032	0.16	1.91	0.66
0.500	2,546,608	0.53	0.034	0.15	2.08	0.70
0.550	2,419,163	0.53	0.035	0.15	2.11	0.71
0.600	2,065,526	0.55	0.036	0.15	2.06	0.73
0.650	1,405,022	0.58	0.040	0.16	1.99	0.77
0.700	1,065,789	0.60	0.043	0.17	1.96	0.81
0.750	852,113	0.62	0.043	0.15	2.06	0.83
0.800	496,784	0.66	0.044	0.14	2.09	0.87
0.850	379,508	0.69	0.045	0.11	2.21	0.88
0.900	39,039	0.74	0.043	0.11	2.84	0.92
0.950	0	0	0	0	0	0

The distribution of mineral resource by zone is broken down in Table: 12.6:

Table: 12.6 Distribution of mineral resource by zone

≥0.20% CuEq cutoff	**Measured**	**Indicated**	**Inferred**
West Breccia Zone	**1%**	**6%**	**6%**
Main Zone	**73%**	**42%**	**1%**
Paramount Zone	**20%**	**31%**	**3%**
Low Grade Zone	**6%**	**23%**	**86%**

12.2 Metal Equivalents

A recoverable copper equivalent (CuEq) grade has been estimated for the polymetallic Schaft Creek deposit at the request of Copper Fox Metals Inc. Form 43-101F1 states that:

"when the grade for a polymetallic mineral resource or mineral reserve is reported as a metal equivalent, report the individual grades of each metal, and consider and report the recoveries, refinery costs and all other relevant conversion factors in addition to metal prices and the date and sources of such prices."

Information or data regarding recoveries, mining costs, treatment charges, refining costs, *etc.* does not, generally, become available until a project has been the subject of at least a scoping level study or, more generally, a pre-feasibility assessment. While AGL accepts that metal equivalents can be a useful tool for the mining professional in assessing the comparative merits of different projects, the reader is cautioned that metal equivalent grades calculated as part of a resource assessment can be misleading unless all of the relevant data used in the calculations are fully understood and that the calculations are on an equivalent basis. AGL has reported all of the individual metal grades.

Metal price data used in the recoverable copper equivalent calculation have been provided by Copper Fox. Metal recoveries are preliminary estimates from metallurgical testing forming part of the on-going Schaft Creek scoping study.

The formula used to estimate recoverable copper equivalent grades for the Schaft Creek deposit is as follows:

CuEq%=((((Cu % x 10 x Lb_Kg x Price_Cu x Rec_Cu)+(Mo% x 10 x Lb_Kg x Price_Mo x Rec_Mo)+(Au_g/t x Price_Au/Oz-g x Rec_Au)+(Ag_g/t x Price_Ag/Oz-g x Rec_Ag))/Price_Cu)/(Lb_Kg x 10))

or:

CuEq%=((((Cu%*10*2.204622622*1.5*.91)+(Mo%*10*2.204622622*10*.63)+(Au_g/t*(550/31.10348)*.76)+(Ag_g/t*(10/31.10348)*.8))/1.5)/(2.204622622*10))

The formula incorporates the four principal elements of economic interest; copper, molybdenum, gold and silver. The assumptions used in the formula are as follows:

Table: 12.7 Assumptions used in the copper equivalent estimation

Metal	Commodity Prices	Metallurgical Recoveries
Copper (Cu)	US$1.50/lb	91%
Molybdenum (Mo)	US$10.00/lb	63%
Gold (Au)	US$550/oz	76%
Silver (Ag)	US$10/oz	80%

The conversion factors used were; 1 kilogram (kg) =2.2046226 avoir pounds (lb) and 1 Troy ounce (oz) = 31.10348 gram (g).

As an example, using a 0.3% copper equivalent cut-off in the measured mineral resource category, the input grades to the formula would be 0.33% Cu, 0.020% Mo, 0.24 g/t Au and 1.48 g/t Ag yielding a recovered copper equivalent grade of 0.49%.

On May 09, 2007 (filed on SEDAR) Copper Fox Metals Inc. released a resource estimate for Schaft Creek prepared by Associated Geosciences Ltd.. The public disclosure of a resource estimate on a material property where there has been >100% change from a previously reported mineral resource estimate triggers a requirement within National Instrument 43-101 to complete and file an independent technical report in support of the resource estimate within 45 days.

During the preparation of this report a number of errors were identified in the copper equivalent formula including an incorrect conversion factor where a conversion of kilogram to pounds (Troy) was used instead of pounds (Avoir), an incomplete term in the denominator and the misplacement of a bracket. The impact of the error affected the contribution of metal values to the copper equivalent grade.

The formula was subsequently corrected and the geological resource model and methodology independently peer reviewed by Gilles Arseneau, Ph.D., P.Geo., Manager Geology of Wardrop Engineering Inc.

The mineral resources presented in this report have been updated to reflect the corrected formula. Where a final mineral resource estimate supported by a technical report differs from a previously disclosed estimate, NI 43-101 requires that the two estimates be reconciled. While the overall tonnes and grades at a 0% copper equivalent cut-off for the individual elements in all mineral resource categories has not changed there has been a considerable rearrangement of the tonnes and grades assigned at various copper equivalent cut-offs (particularly above a 0.20% CuEq). This has the effect of increasing the tonnage at any particular copper equivalent cut-off while raising the copper equivalent grade.

12.3 Discussion

The low grade zone dominates the mass below a 0.20% CuEq cut-off.. In the measured category the majority of material comes from the Main Zone, whereas the majority of material in the Indicated category is obtained from the Main and Paramount Zone above a CuEq cutoff of 1%. The following figures illustrate the percentages of materials according to resource category:

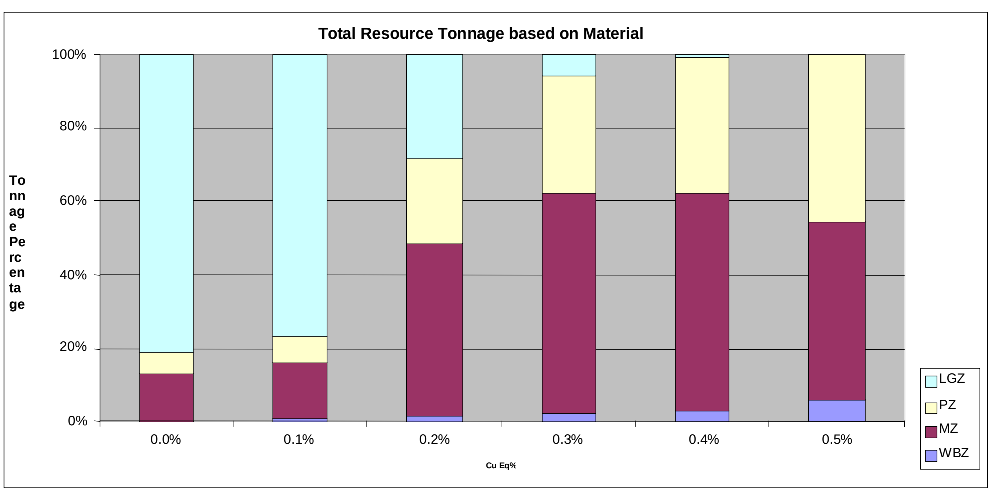

Figure: 12.1 Percentages of total resource tonnage based on various zones

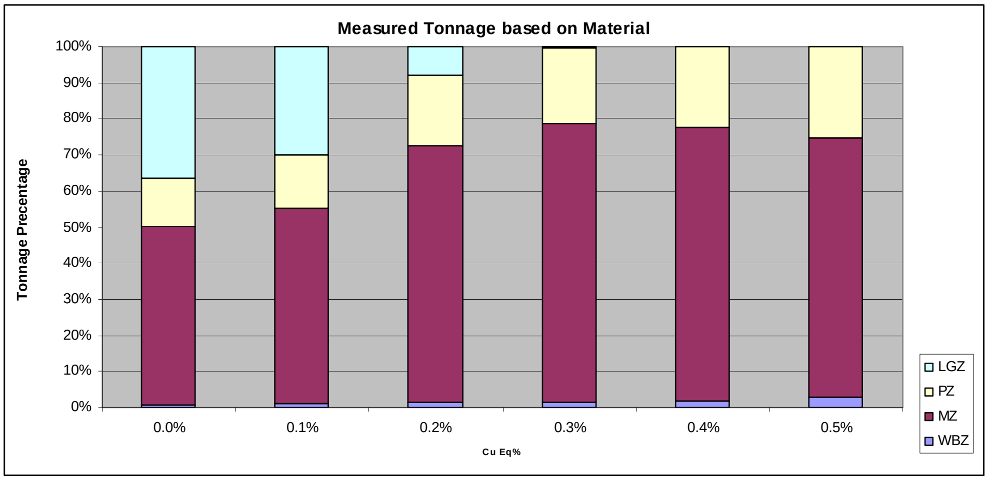

Figure: 12.2 Percentages of measured resource tonnage based on various zones

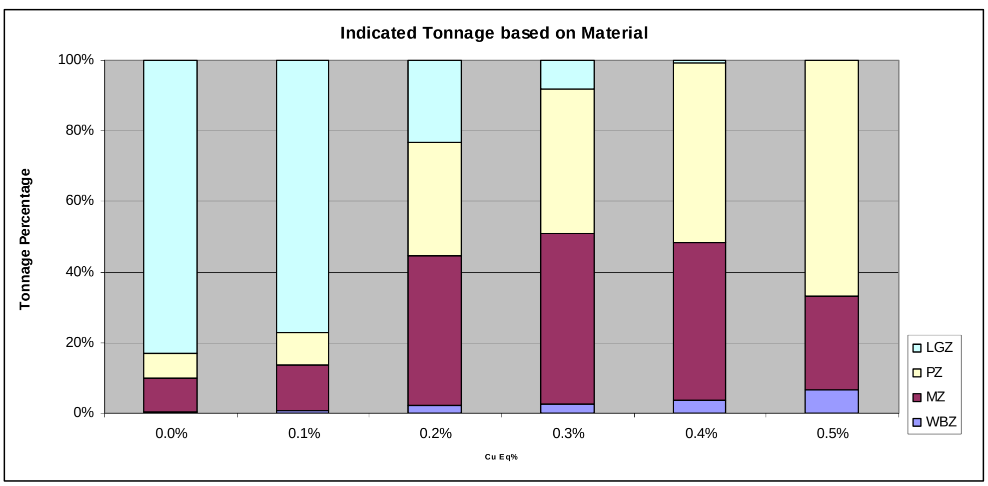

Figure: 12.3 Percentages of indicated resource tonnage based on various zones

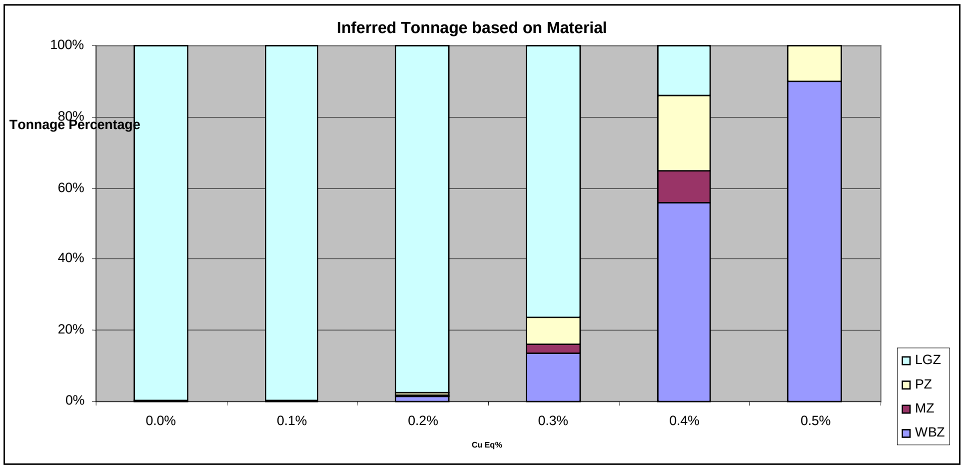

Figure: 12.4 Percentages of inferred resource tonnage based on various zones

12.4 Grade-Tonnage Curves

Grade tonnage curves for the measured, indicated, measured & indicated and inferred resources categories are displayed in Figure: 12.5 to Figure: 12.8.

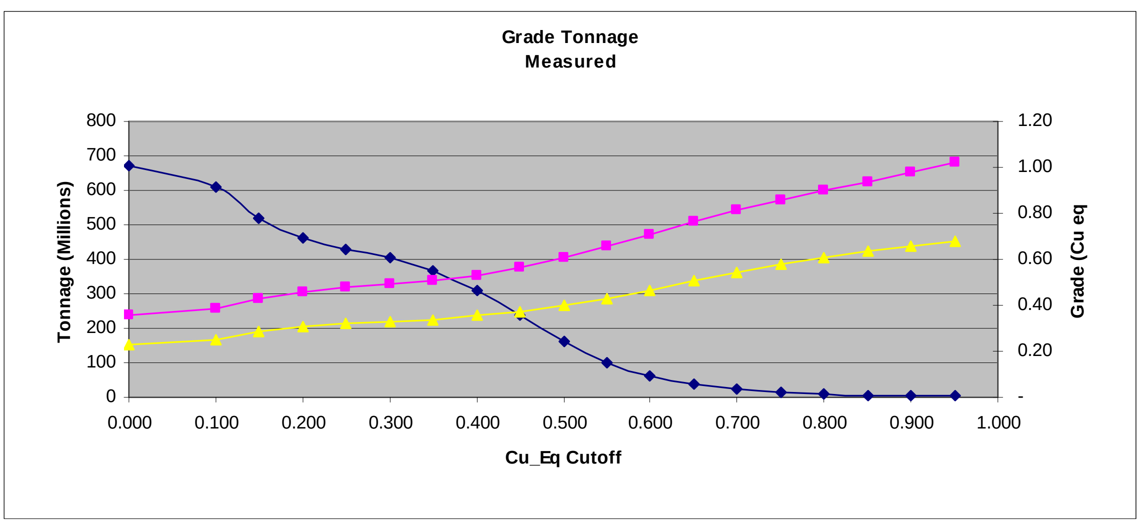

Figure: 12.5: CuEq Grade Tonnage curve, measured resource category

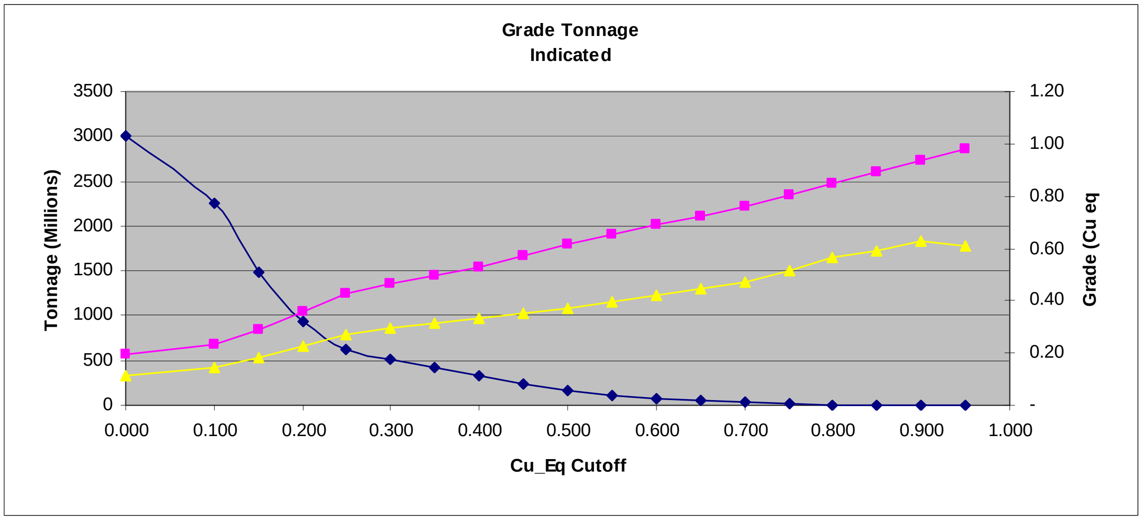

Figure: 12.6 CuEq Grade Tonnage curve, indicated resource category

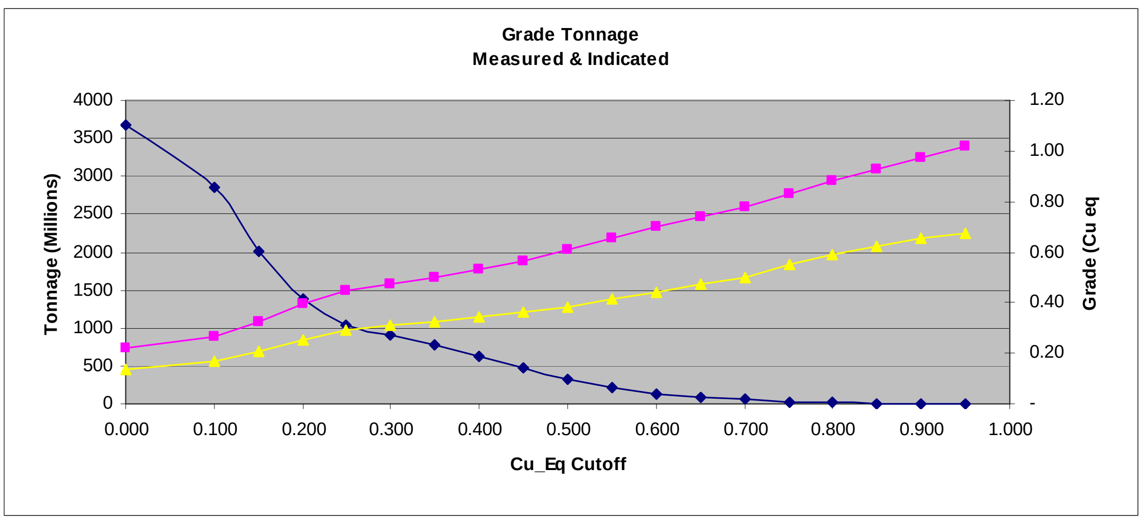

Figure: 12.7 CuEq Grade Tonnage curve, measured and indicated resource categories

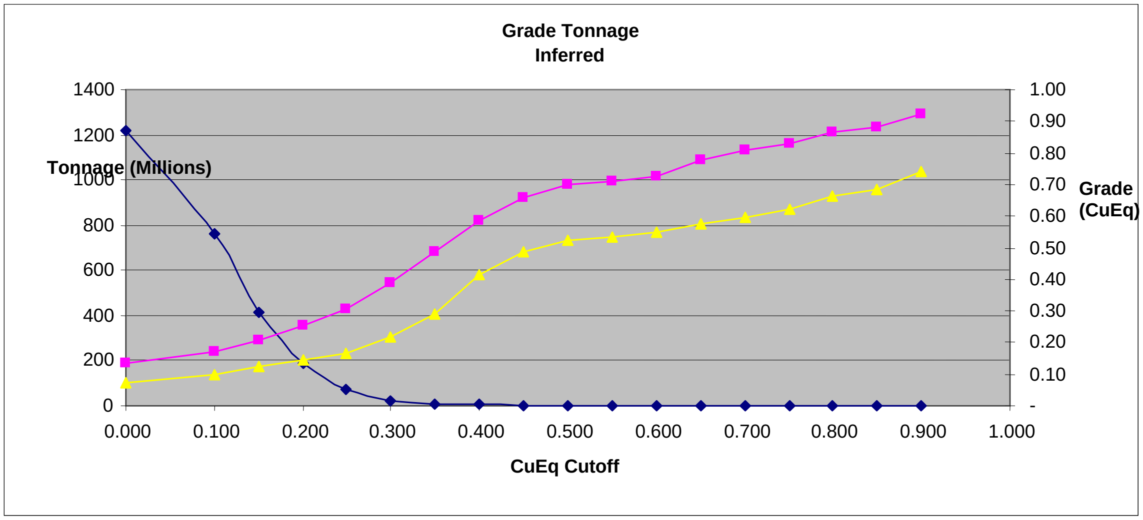

Figure: 12.8 CuEq Grade Tonnage curve, inferred resource category

12.5 Copper Cutoff Grade-Tonnage Curves

Grade Tonnage curves at a Cu% cutoff for the various zones are depicted below (Figure: 12.9) and are followed by a detailed grade breakdown for each zone based on Cu% (Table 12.8).

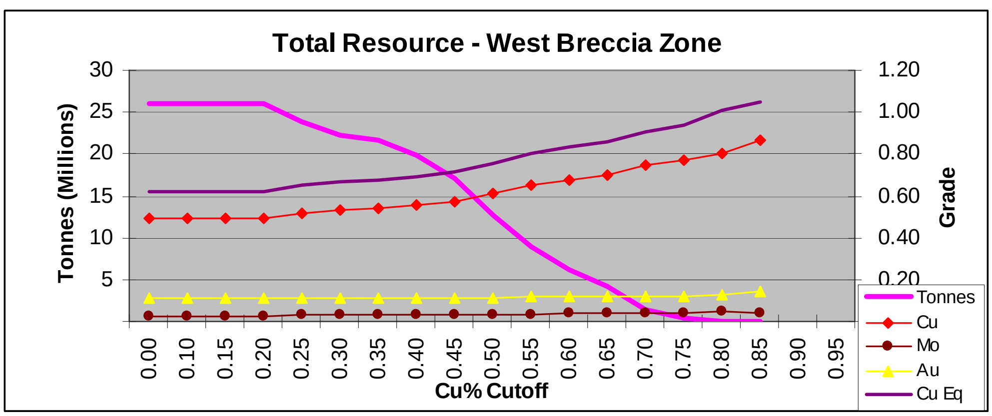

Figure: 12.9 Cu% cutoff Grade Tonnage Curve, West Breccia zone

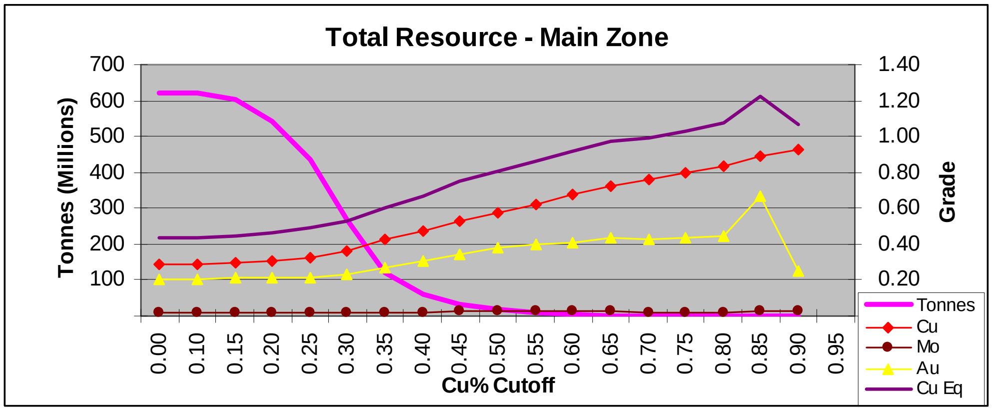

Figure: 12.10 Cu% cutoff Grade Tonnage Curve, Main zone

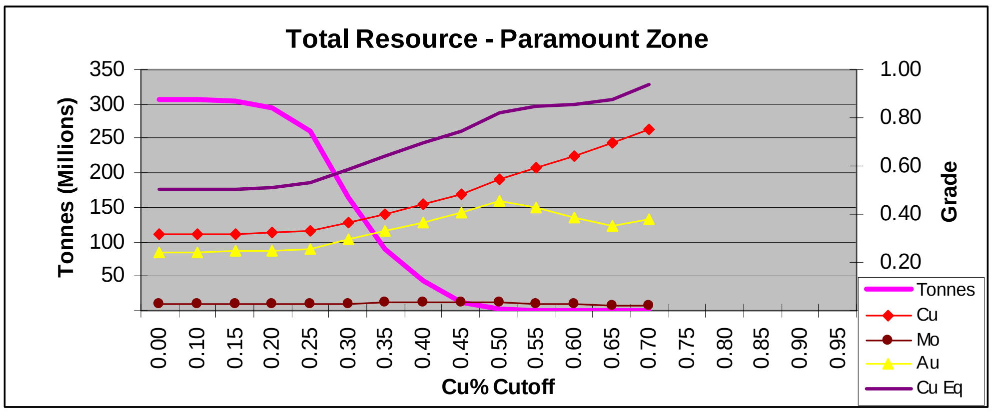

Figure: 12.11 Cu% cutoff Grade Tonnage Curve, Paramount zone

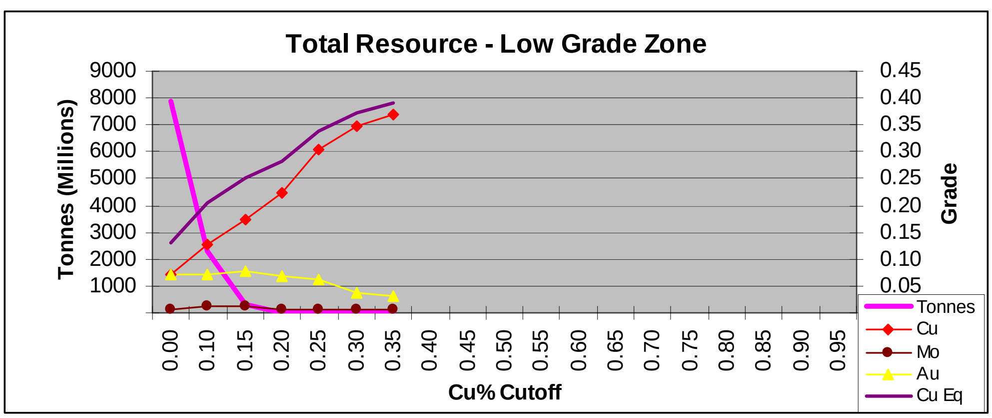

Figure: 12.12 Cu% cutoff Grade Tonnage Curve, Low Grade zone

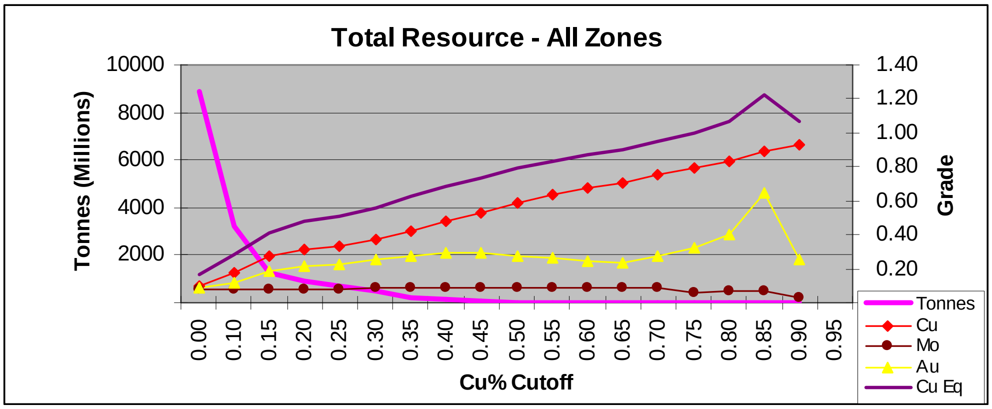

Figure: 12.13 Cu% cutoff Grade Tonnage Curve, all zones

12.6 Resource Classification

The resource was classified into measured, indicated and inferred mineral resource categories category. This categorization was based on various factors. These factors included the variogram ranges obtained, sample to block estimation distances and number of samples used in the estimation process.

Table: 12.8 depicts the process used in the resource classification. This classification was based around the major element Cu%.

Table: 12.8 – Process used in the resource classification process

Cu% Estimation		Estimation Pass	Number of Samples	Average distance of Samples
West Breccia Zone	Measured	1	10	64
	Indicated	1	5	127
	Inferred	2	5	190.5
Main Zone	Measured	1	10	103
	Indicated	1	5	205
	Inferred	2	5	307.5
Paramount Zone	Measured	1	10	113
	Indicated	1	5	250
	Inferred	2	5	375
Low Grade Zone	Measured	1	10	128
	Indicated	1	5	256
	Inferred	2	5	384

Figure: 12.14 depict the resource classification for the Schaft creek deposit. The red depicts the measured resource, green the indicated and blue the inferred resources. The first image depicts the West Breccia, Main and Paramount zones; the next image includes the Waste Zone; and the last the block model illustrates the total model excluding the Air. Similarly, Figures 12.14A to Figure 12.14F depict the interpolated element grades converted to a copper-equivalent value.

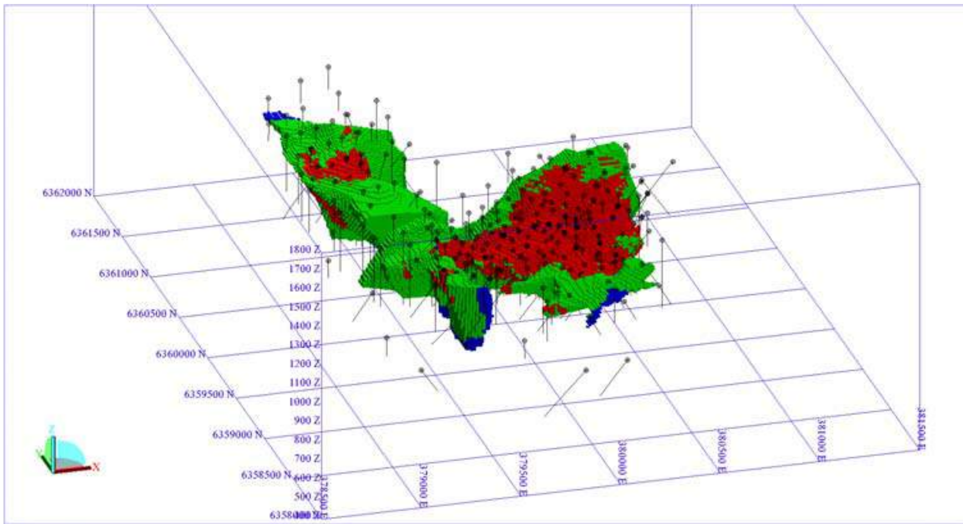

Figure: 12.14A Resource classification of the three main zones

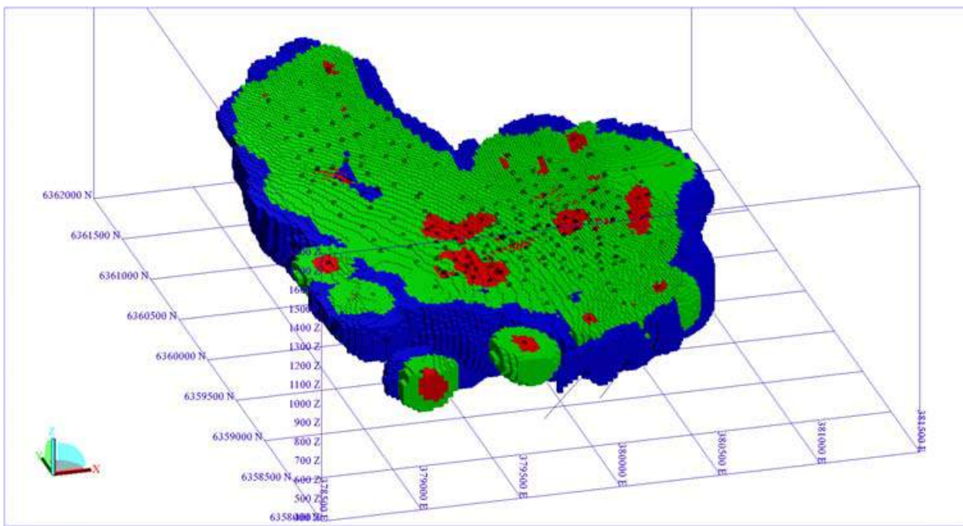

Figure: 12.14B Resource classification of the three main zones, waste zone included

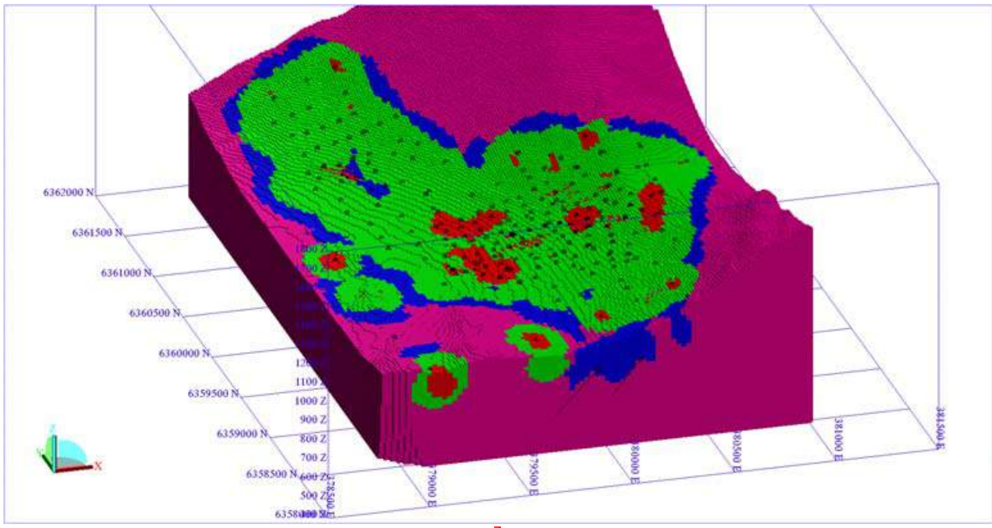

Figure 12.14C Resource classification of the three main zones, total model excluding air

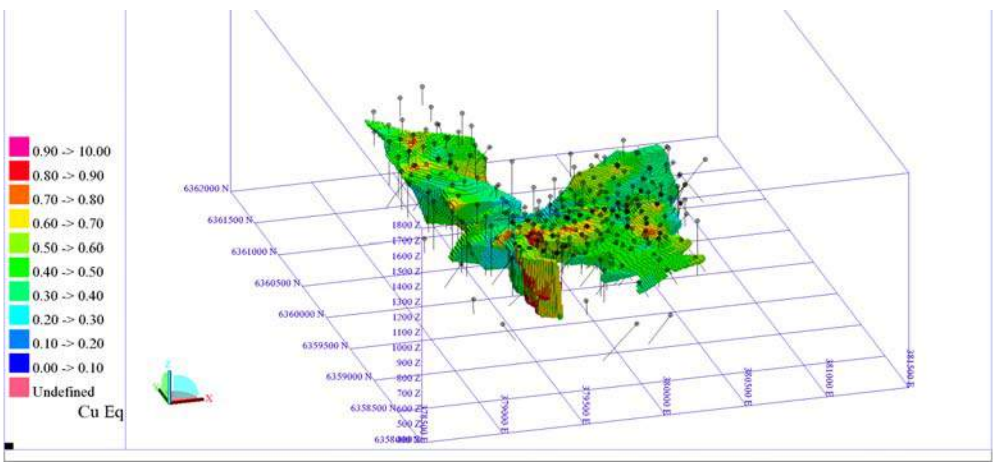

Figure 12.14D - Interpolated element grades converted to a Cu equivalent value within the three main zones

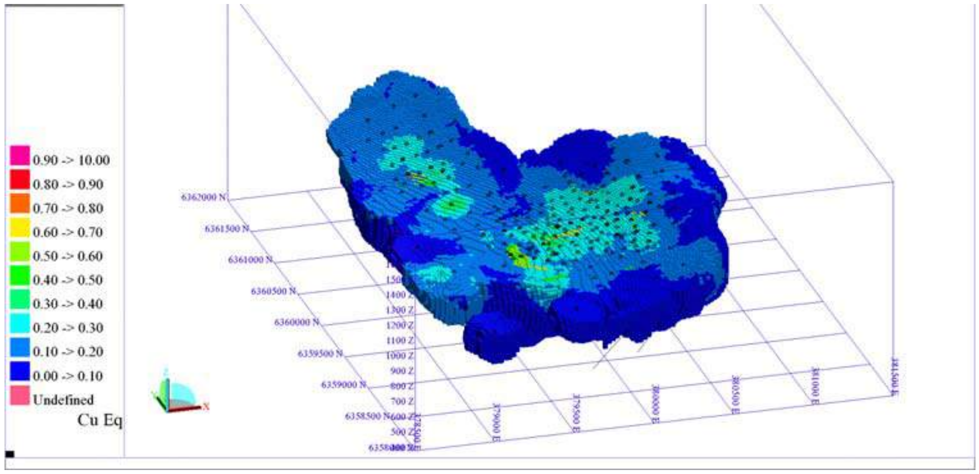

Figure 12.14E- Interpolated element grades converted to a Cu equivalent value, main zones and waste zone included

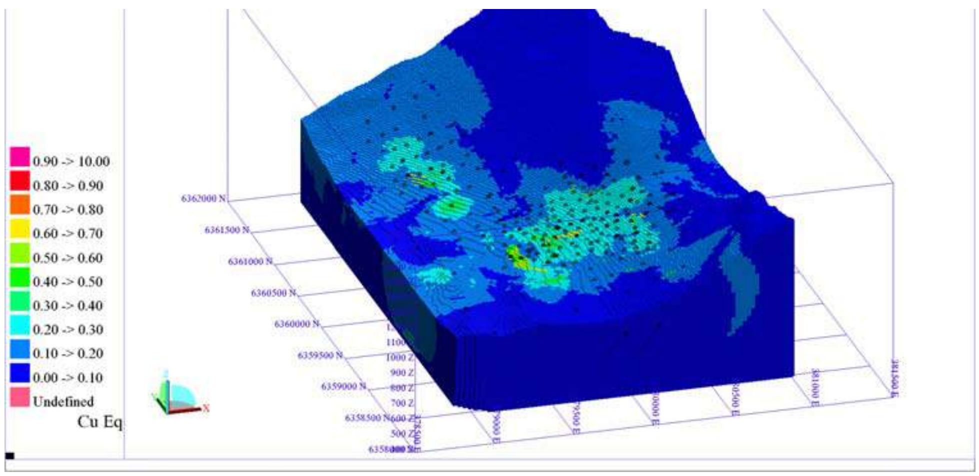

Figure 12.14F - Interpolated element grades converted to a Cu equivalent value, main zones, waste zone, and air included

12.7 Mineral Reserve Estimates

No mineral reserves are being reported for the property at this time.

13.0 ADJACENT PROPERTIES

There are no mineral properties located directly adjacent to Schaft Creek.

14.0 OTHER RELEVANT DATA AND INFORMATION

14.1 Geotechnical Investigations

DST Consulting Engineers Ltd. (DST) of Thunder Bay, Ontario and AGL have been retained by Copper Fox Metals to complete a program of geotechnical investigations related to tailings impoundment design, waste dump stability and open pit wall stability. Fieldwork for a full feasibility study will be completed in 2007 before winter conditions set in with a pre-feasibility level report published later the same year.

The program components include:

- Establish Tailings Management Parameters including, but not limited to:
  - design criteria including hydrologic and seismic criteria
  - tailings water balance
  - slurried tailings characteristics
  - freeboard requirements
  - reclaim/discharge plan
  - requirement to submerge tailings/waste rock (Acid Rock Drainage (ARD) and potential
  - concomitant metals leaching assessment
  - spillway sizing
  - timing of excess water release
  - freshwater diversion system

  All pre-feasibility level tailings dam design work will be conducted with regard to the Canadian Dam Safety Guidelines. The establishment of suitable management parameters would be undertaken concurrently with the overall tailings storage assessment.

- Assess Storage Capabilities and perform a screening level geo-hazard assessment for each proposed tailings site.

  Digital elevation data will be used to assess the storage capabilities of the three proposed tailings storage areas. A site-wide water balance will be determined to develop suitable freeboard requirements for impoundments. Tailings storage volume capabilities will be estimated by simulating impoundment configurations.

- Geotechnical Assessment
  - Geotechnical drilling of impoundment foundations, containment areas and potential borrow sources.
  - Geological mapping of drill core and any associated fracture zones.
  - Geological outcrop mapping in areas not previously mapped.

- Standard Penetration Testing (SPT) of overburden to assess soil density and collect samples.
- Hydrogeological investigations including packer testing during drilling to assess bedrock hydraulic conductivities.
- Install piezometers to assess groundwater elevations through conducting falling/rising head tests.
- Seismic refraction transverses around the preferred tailings dam footprint is recommended in the spring of 2008 in support of feasibility-level design.

- Assessment of Suitable Option(s) - Report

  The results of the field investigation will be assembled into a pre-feasibility level Geotechnical Assessment Report presenting all field data and engineering assessments related to each of the tailings storage areas assessed. The report will include engineering drawings illustrating the geotechnical aspects of each of the tailings storage options as well as an outline of the management requirements associated with maintaining the regulatory criteria. The prefeasibility level report is intended to present suitable option(s) to undergo feasibility-level engineering design in 2008.

- Condemnation drilling of the ground below the proposed tailings impoundments to confirm the absence of mineralization.

- Geotechnical investigation of the proposed waste dump site foundations

- Development of design criteria for pit wall stability.

  - A review of existing geotechnical information to determine the information required for the development of design criteria for the waste dump and open pit walls and selection of geotechnical hole sites.
  - Field supervision of the drilling program and analysis of data

The total cost of the program is approximately $200,000.

14.2 Environmental Assessment Studies

A preliminary environmental assessment study was completed by J.B. Krusche, P.Eng., for the Schaft Creek deposit in 2005. The report recommended several phases of environmental assessment, as outlined in Table: 14.1. The phases were intended to provide a guideline for the environmental assessment process.

Table: 14.1 – Environmental Assessment, Preliminary Phases

Phase I	Defining Issues of Concern	Preliminary Term of Reference (TOR)	
		Preliminary Valued Ecosystem Components (VEC)	
	Literature Review	Review past assessments and reports on Schaft Creek for data useful to the EA process	
	LMRP Review	Review of Cassiar Iskut – Stikine Land and Resource Management Plan (LRMP) and LRMP Monitoring report	
	Regulatory Review	Identify preliminary issues of concern	Environmental regulatory acts, regulations, and guides
			First Nations documents
			Non Governmental Agencies (NGOs) and Public Groups
Phase II	Preliminary Engineering	Siting	
		Timing	
		Tonnage	
		Process	
		Geotechnical and metallurgical	
		ARD assessment	
		Life expectancy	
		Reclamation	
		Access	
Phase III	Identify Project Issues	Compare preliminary engineering results to regulations	
		Review engineering data collection requirements	
		Review environmental baseline information needed	
		Design program to collect environmental and engineering baseline information	
		Regulator review of aquatics and terrestrial field program (i.e. DFO, MEM, WLAP)	
		Review past EA process for key issues to avoid or improve	
		Review concerns of NGOs and Public for issues of concern	
		Design program for open house presentations	
		Organize meetings with regulators and First Nations	
Phase IV	Baseline collection and Preliminary Project Mitigation	Collection of baseline information	
		Study impact potentials	
		Design preliminary mitigative steps	
Phase V		Detailed Mine Planning	
		Establish approximate EA Schedule	
		Compilation of environmental baseline information	
		Summary of impact assessment and mitigation plans	
		First Nations issues summary and mitigation plans	
		Public concerns summary and mitigation plans	
		Established preliminary TOR	
Phase VI	Official EA Process begins – project submittal.		

Schaft Creek environmental baseline studies began in October 2005 and are currently ongoing. Baseline studies completed in 2006 included wildlife (moose, goats and bird studies), water quality, aquatic biology, fisheries, hydrology, meteorology, archaeology and metal leaching and acid rock drainage (ML/ARD). These studies were reviewed by federal and provincial regulators and the Tahltan Nation.

The scope of work for the 2007 baseline studies has increased relative to 2006. The broad scope is aimed at fulfilling requirements of both a federal and provincial environmental assessment process. In addition, the 2007 work includes specific studies requested by the Tahltan Nation. Recently, the 2007 environmental baseline studies were presented and approved by the government and First Nations, these studies include: socio-economics, traditional knowledge, country foods, wetlands, hydrogeology, soils, ecosystem mapping, vegetation, archaeology, human health, fisheries and aquatics, wildlife, hydrology and ML/ARD.

The baseline studies from 2005 through 2007 will form the basis of the Schaft Creek environmental assessment application. Work on the application begin in 2007 and will continue through 2008. The anticipated completion date of the application for an environmental assessment certificate is forth quarter 2008.

15.0 BUDGET AND EXPENDITURES

15.1 2007 Exploration Budget

Details of the proposed budget for 2007 are listed in Table 15.1.

Table 15.1 – Proposed 2007 Budget

Description	Amount (C$)	Totals (C$)
Camp Costs	9,981,700	
Power Supply	150,000.00	
Geophysics Program	250,000.00	
Metallurgical	500,000.00	
RESCAN	2,500,000.00	
Road	200,000.00	
Tahltan	200,000.00	
Pit Optimization	300,000.00	
Scoping Study	500,000.00	
	Subtotal	$14,581,700.00
Contingency @15%	2,114,655.00	
	Subtotal	$ 2,114,655.00
	Grand Total	**$16,696,355.00**

15.2 Expenditures

Details of all expenditures to date are listed in Table 15.2, below.

Table 15.2 – Expenditures to date (as of June 13, 2007)

Account	Amount
Advertising	464.36
Assaying	219,970.15
Buildings	549,000.00
Camp Groceries	147,507.48
Camp Personnel	1,019,240.16
Camp rebuild	444,913.09
Computer Hardware/Software	15,400.06
Consulting Fees	2,193.75
Drilling Services	1,747,655.94
Dues and Subscriptions	38,117.97
Electrical	83,093.70
Engineering	397,621.36
Environmental	1,492,180.06

Table: 15.2/*continued…*

Account	Amount
Equipment Costs	420,457.17
Excavator Services	73,705.00
Expediting	66,153.62
Field Supplies	240,019.47
Fixed Wing	158,812.44
Freight	79,500.68
Fuel	215,900.26
Geological Services	771,110.36
Heavy Equip/Camp Vehicles	551,770.35
Helicopter	1,662,326.88
Licenses & Permits	75,510.00
Mapping	184,797.72
Meals	11,484.09
Metallurgy	566,881.04
Model Price Studies	12,205.50
Office Supplies	16,187.26
Permitting	3,762.50
Postage and Delivery	269.74
Printing and Reproduction	40,831.83
Project Administration	58,835.10
Repairs & Maintenance	57,523.58
Reporting	1,775.00
Research	19,539.92
Scoping	12,036.13
Social License	41,100.59
Storage	13,960.25
Surveying	22,679.64
Telephone & Internet	26,643.48
Tractor Operations	61,965.11
Transportation	328,195.60
Travel	170,121.09
Grand Total	**12,123,419.48**

16.0 INTERPRETATIONS AND CONCLUSIONS

- The Schaft Creek Deposit has been explored extensively prior to its acquisition by Copper Fox Metals Inc. In order to validate the historic drilling database, a large component of the 2005 and 2006 drilling programs was to twin older drill holes. Analyses of the twinned holes have yielded satisfactory results, and AGL is relatively confident in the accuracy of the historic database.

- The Quality Assurance/Quality Control (QA/QC) procedures currently being practiced by Copper Fox Metals Inc. at Schaft Creek are well within industry recognized standards.

- The current mineral resource estimate has been prepared according to the CIM Definition Standards on Mineral Resources and Mineral Reserves. A substantial resource base has been identified and classified in the measured, indicated and inferred mineral resource categories.

- It is the considered opinion of AGL that mineralized material below a copper equivalent cut-off grade of 0.20% at Schaft Creek cannot be considered as mineral resources as they are potentially uneconomic. As such only mineral resources ≥0.20% copper equivalent cut-off have been reported.

- The Memorandum of Understanding between Tahltan Nation Development Corporation and Copper Fox Metals Inc. is the successful first step towards a full Participation Agreement with the Tahltan First Nation

- The government of British Columbia has initiated an environmental assessment study into a power line through the northwest corridor that would have the capacity to service the Schaft Creek project- such a power line would be greatly beneficial to operations at Schaft Creek.

- The Schaft Creek project is part of the Telegraph Creek Community Watershed and therefore all mineral exploration, including road construction, maintenance and deactivation, is to be conducted according to the guidelines for community watersheds outlined in *Mineral Exploration Code*. Copper Fox has met or exceeded all of its environmental obligations to date.

- Overburden material has been found to contain metal values. Further work is warranted to determine the possible recovery of these metals from an economic perspective, and whether or not they are present as recoverable sulphides or tied-in with silicates.

- Very little tonnage is attributed to the resource base from the Low Grade Zone above a 0.20% CuEq cut-off. By definition, this zone sits outside the 0.2% Cu cut-off modeled for the 3 zones and therefore should not contain much tonnage.

- Several of the last holes from the 2006 drilling program have not been included in the current resource estimate due to time constraints. The current resource estimate has already delineated a large quantity of measured, indicated, and inferred material. As such, the remaining holes should be added to the model but are not expected to materially alter the results of the resource estimate.

- During the preparation of this report a number of errors were identified in the copper equivalent formula that affected the contribution of metal values to the copper equivalent grade. The formula was subsequently corrected and independently peer reviewed by Gilles Arseneau, Ph.D., P.Geo., Manager Geology of Wardrop Engineering Inc.

17.0 RECOMMENDATIONS

- Associated Geosciences Ltd. recommends that Copper Fox continue with its plans to bring the project to a pre-feasibility stage scoping study.

18.0 REFERENCES

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19.0 GLOSSARY OF TERMS

Allochthonous:

Rocks or materials formed someplace other than in their present site; of foreign origin.

Andesite:

A medium-colored dark gray volcanic rock containing 53-63 percent silica with a moderate viscosity when in a molten state. Intermediate in color, composition, and eruptive character between basalt and dacite.

Augite:

Augite - A monoclinic pyroxene mineral composed of calcium magnesium silicate with considerable aluminum and iron; an important component of basalts and andesites.

Batholith:

A great irregular mass of coarse-grained igneous rock with an exposed surface of more than 100 square km, which has either intruded the country rock or been derived from it through metamorphism.

Braided Stream:

A stream consisting of interwoven, anastomosing channels. Characteristic of stream with a high sediment load and high rate of discharge.

Breccia:

A clastic rock composed of particles more than 2 millimetres in diameter and marked by the angularity of its component grains and rock fragments.

Cassier Iskut-Stikine Land Resource Management Plan (LRMP):

Encompasses 5.2 million hectares in northwestern British Columbia. The plan represents the consensus reached as a result of a three-year interest-based negotiation process that involved approximately 25 public, First Nations, and provincial government representatives. The Cassiar Iskut-Stikine LRMP is consistent with provincial government policy for land use planning, as described in the *Provincial Land Use Charter* (1992) and the policy document *Land and Resource Management Planning, A Statement of Principles and Process* (1993). There are four main sections to the plan: Management Direction, Research and Inventory Priorities, Economic Strategy Priorities, and Implementation and Monitoring.

Copper:

Copper is a chemical element in the periodic table that has the symbol Cu and atomic number 29. It is a distinctively colored metal used for electric wiring, plumbing, heating and roof and building construction, and in automobile brake linings.

Craton:

A craton is an old and stable part of the continental crust that has survived the merging and splitting of continents and supercontinents for at least 500 million years. Cratons are generally found in the interiors of continents and are formed of a crust of lightweight felsic igneous rock such as granite attached to a section of the upper mantle. A craton may extend to depth of 200 km.

Cupola:

A small, dome-like rock formation projecting from an igneous intrusion.

Facies:

The set of all characteristics of a sedimentary rock that indicates its particular environment of deposition and which distinguish it from other facies in the same rock.

Fault:

A planar or gently curved fracture in the Earth's crust across which there has been relative displacement.

Fluvial deposits:

All sediments, past and present, deposited by flowing water, including glaciofluvial deposits.

Foliation:

Any planar set of minerals or banding of mineral concentrations including cleavage, found in a metamorphic rock.

Geochronology:

The science of absolute dating and relative dating of geologic formations and events, primarily through the measurement of daughter elements produced by radioactive decay in minerals.

Glaciofluvial Deposits:

Deposits of sediment on the bottom of rivers, deposited either by rivers or by meltwaters which could have taken different flow form, that helped to drain the melting glaciers. The drift that was released from the ice was carried away by the rivers. Lighter materials like sand, silt and clay remained suspended in the river water and were carried downstream, while the heavier materials like rock and gravel (sedimentary rocks) were deposited on the riverbed.

Gold:

Gold is a chemical element in the periodic table that has the symbol Au (L. aurum) and atomic number 79. A soft, shiny, yellow, heavy, malleable, ductile (trivalent and univalent) transition metal, gold does not react with most chemicals but is attacked by chlorine, fluorine and *aqua regia*. The metal occurs as nuggets or grains in rocks and in alluvial deposits and is one of the coinage metals.

Host Rock:

The rock within which the ore deposit occurs.

Hydrothermal activity:

Any process involving high-temperature groundwaters, especially the alteration and emplacement of minerals and the formation of hot springs and geysers.

Hydrothermal vein:

A cluster of minerals precipitated by hydrothermal activity in a rock cavity.

Intrusion:

An igneous rock body that has forced its way in a molten state into surrounding country rock.

Lapilli:

A fragment of volcanic rock formed when magma is ejected into the air by expanding gases. The size of the fragments ranges from sand- to cobble-size.

Lithology:

The systematic description of rocks, in term of mineral composition and texture.

Malachite:

A hydrous carbonate of copper, malachite is an opaque green stone characterized by bands of light and dark green which have very pronounced contrast and are often concentric. A source of copper.

Molybdenum:

A soft, silvery metal used in steel and other metal alloys, electrodes, and catalysts. Chemical formula = Mo. Molecular weight = 95.94 g/mol.

Overburden:

Material covering a mineral seam or bed that must be removed before the mineral can be removed in strip mining.

Petrography:

Petrography is that branch of petrology which focuses on detailed descriptions of rocks. The mineral content and the textural relationships within the rock are describes in detail. Petrographic descriptions start with the field notes at the outcrop and include megascopic description of hand specimens. However, the most important tool for the petrographer is the petrographic microscope.

Pluton:

An igneous intrusion; that is, a body of rock that formed when a molten mass cooled subsurface.

Porphyry Copper:

A deposit of disseminated copper minerals in or around a large body of intrusive rock.

Pyroclastic:

Adjective used to describe rock materials formed by fragmentation as a result of volcanic action.

Rock Quality Designation (RQD):

RQD is a function of fracture and fault density. At Schaft Creek, RQD was determined by cumulatively adding intact core greater than 16-centi m in length for PQ-core and greater than 12-centi m for HQ-core, expressed as a percentage of the run. The intact lengths are derived as two different lengths; PQ-core dia m which is 8-centi m and 6-centi m for the HQ core.

Silicates:

Silicates are minerals composed of silicon and oxygen with one or more other elements. Silicates make up about 95% of the Earth's crust.

Silver:

Silver is a chemical element in the periodic table that has the symbol Ag (from the traditional abbreviation from the Latin Argentum) and atomic number 47. A soft white lustrous transition metal, silver has the highest electrical and thermal conductivity of any metal and occurs in minerals and in free form. This metal is used in coins, jewelry, tableware, and photography.

Stockworks:

Complex system of structurally controlled or randomly oriented veins. Stockworks are common in many ore deposit types and especially notable in greisens. They are also referred to as stringer zones.

Sulphides:

Compounds of sulphur with other metallic elements.

Talus:

An accumulation of angular rock debris at the base of a cliff or steep slope that was produced by physical weathering.

Terrane:

A fault-bounded body of rock of regional extent, characterized by a geological history different from that of contiguous terranes or bounding continents.

Till:

An unsorted sediment deposited directly by a glacier and not reworked by meltwater.

Vein:

A deposit of foreign minerals within a rock fracture or joint.

Weathering:

The set of all processes that decay and break up bedrock, by a combination of physically fracturing or chemical decomposition.

20.0 CERTIFICATES OF QUALIFICATION

KEITH M^c^CANDLISH, P.GEO..

I, Keith M^c^Candlish, P.Geo..:

1. Am currently employed by: Associated Geosciences Ltd. (AGL)
   Suite 415, 708-11th Avenue S.W.
   Calgary, Alberta, CANADA, T2R 0E4

   in the capacity of: Vice President & General Manager

2. Am a Professional Geologist (P.Geol.) registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA-Member No.: M45717) and a Professional Geoscientist (P.Geo.) licensed with the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC-Member No.: 31222)

   A summary of my relevant experience follows:

   Over twenty-five years of consulting geological and engineering experience in minerals, oil sands/heavy oil, precious stones, coal and industrial minerals. In 1988 I joined Associated Mining Consultants Ltd. In 2006 I was transferred to Associated Geosciences Ltd. where I am now Vice President & General Manager focusing on corporate finance, due diligence and technical audits.

   Have been actively involved on due diligence evaluations of mining projects covering a range of mineral commodities and has had extensive experience in exploration property valuations, analysis of project economics, exploration logistics, assaying and project management. Detailed evaluations have been conducted on a number of copper and polymetallic related mining operations and exploration projects, internationally, including:

   - Tyler Resources Inc. Bahuerachi copper porphyry project in Chihuahua State, Mexico
   - Sunshine Mining's Pirquitas silver/tin/zinc proposed development, Argentina
   - Navan Resources Chelopech copper-gold and Almagrera copper-zinc underground mines in Bulgaria and Spain, respectively
   - Avocet Resources Zervashan gold operations and copper-gold exploration areas, Tajikistan
   - Copper Fox Metals Inc. Schaft Creek copper porphyry project in northwestern British Columbia
   - Carmen Copper Corporation copper porphyry project on Cebu in the Philippines.
   - Mercator Minerals Mineral Park copper porphyry project at Kingman, Arizona

I have specific experience in the exploration for, and mining of calc-alkaline copper-gold porphyries.

3. I have read the definition of "Qualified Person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a Professional Association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

4. Have been involved with the Schaft Creek Project since it was acquired by Copper Fox Metals Inc. and have visited the site on two occasions.

5. Have been involved in all aspects of the preparation of this report.

6. Am not aware of any material fact or material change with respect to the subject matter of this technical report which is not reflected in the report, which the omission to disclose would make the technical report misleading.

7. Am independent of the issuers applying all of the tests in Section 1.5 of National Instrument 43-101.

8. Have read National Instrument 43-101 and Form 43-101F1, and the technical report has been prepared in compliance with this instrument and Form 43-101F1.

9. 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 website accessible by the public of the technical report.

Dated this 22nd day of June, 2007 at Calgary, Alberta, Canada

Keith McCandlish, P.Geo.,
Vice President & General Manager

21.0 DATE AND SIGNATURE PAGE

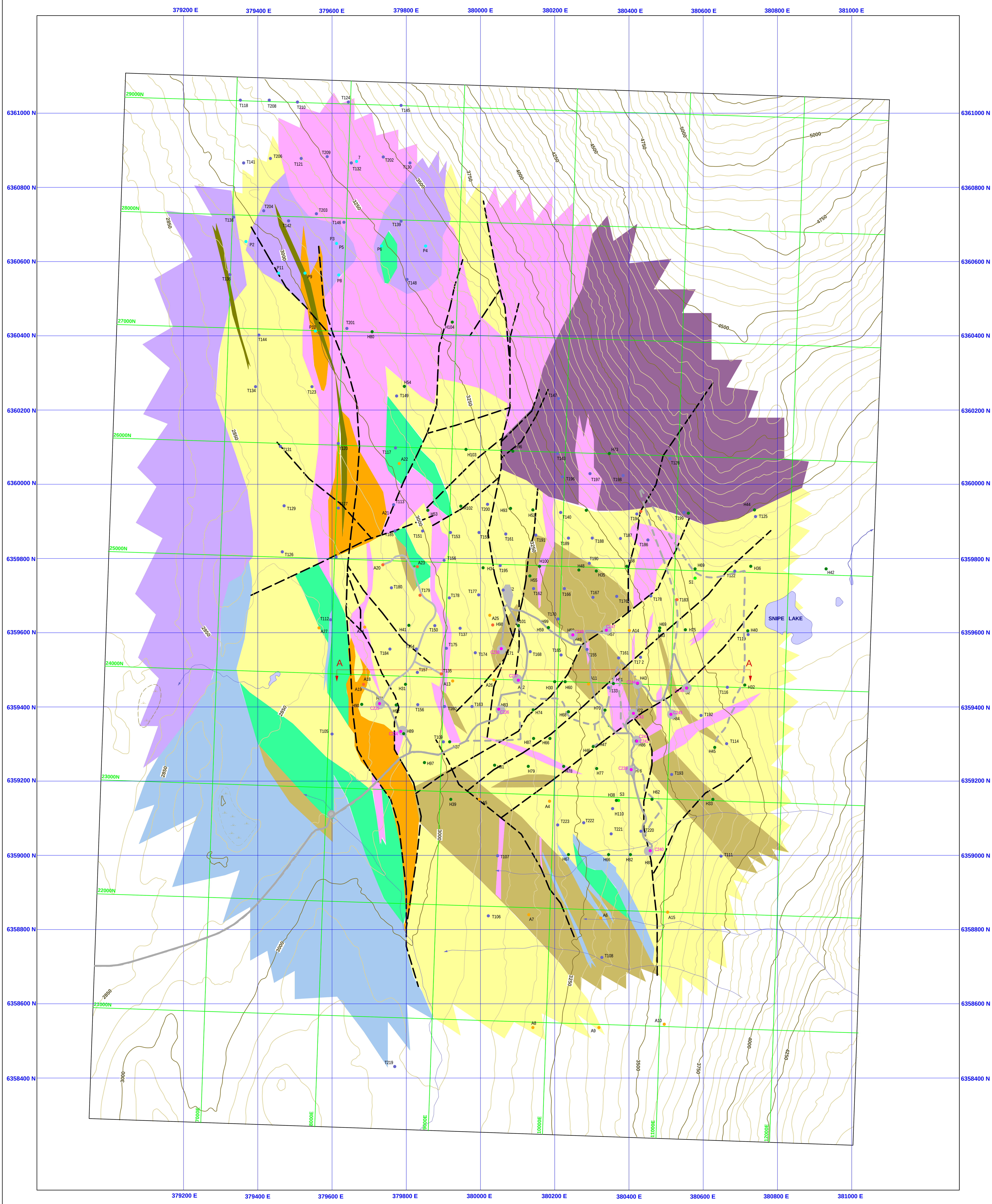
Dated this Friday, June 22, 2007 at Calgary, Alberta, Canada

Keith McCandlish, P.Geo.
Vice President & General Manager

PERMIT TO PRACTICE
ASSOCIATED GEOSCIENCES LTD.
Signature
Date JUN 2 2 20[illegible]
PERMIT NUMBER : P 9454
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

APPENDIX A

Geological Map



Lithological Legend

Granodiorite	Faults
Feldspar-phyric Andesite	Basic Dykes
Andesite	Purple Volcanics
Augite-phyric andesite	Tourmaline Breccia
Volcanic Sediments	Quartz-Feldspar Porphyry

Note: Geology by Teck Corporation, April, 1980

Diamond Drill Hole Legend

C234	Copper Fox Metals Phase-1, 2005
C244	Copper Fox Metals Phase-2, 2005
T184	Teck Corp, 1980-81
H69	Hecla Mining Co., 1968-77
P5	Hecla-Paramount, 1968-73
A23	Asarco, 1966-67
S2	Silver Standard, pre 1966

Grid Legend

UTM NAD 27, 200 METER GRID

HECLA FIELD GRID, 1000 FOOT GRID, ORIENTED TO TRUE NORTH

0 50 100 150 200 meters

Copper Fox Metals Inc.

SCHAFT CREEK PROPERTY

Diamond Drill Hole Location
Plan and Geology

NTS 104 G/6 & 7	57- 22 N lat / 131-00 W long
Comp and CAD by: WH	March 2006	Figure 11-34