National Instrument 43-101 Technical Report: Updated Mineral Resource Estimate for the Empire Mine Project Custer County, Idaho USA

Report Date: November 25, 2020
Effective Date: October 30, 2020

Prepared for:

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IMPORTANT NOTICE

This report was prepared as a National Instrument 43-101 Technical Report for Konnex Resources, Inc., Phoenix Copper Limited (AIM:PXC) (OTCQX:PXCLF), and ExGen Resources, Inc. (TSX V:EXG) (OTC:BXXRF), collectively "Konnex", by Hard Rock Consulting, LLC ("HRC"). The quality of information, conclusions, and estimates contained herein is consistent with the scope of HRC's services based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Konnex subject to the terms and conditions of their contract with HRC, which permits Konnex to file this report with Canadian Securities Regulatory Authorities pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law, any other use of this report by any third party is at that party's sole risk.

CERTIFICATES OF QUALIFIED PERSONS

I, Richard A. Schwering, P.G., SME-RM, do hereby certify that:

1. I am currently employed as Principal Resource Geologist by:

   Hard Rock Consulting, LLC
   7114 W. Jefferson Ave., Ste. 313
   Lakewood, Colorado 80235 U.S.A.

2. I am a graduate of the University of Colorado, Boulder with a Bachelor of Arts in Geology, in 2009 and have practiced my profession continuously since 2013.

3. I am a:

   3.1 Registered member of the Society of Mining and Metallurgy and Exploration (No. 4223152RM)

   3.2 Licensed Professional Geologist in the State of Wyoming (PG-4086)

4. I have worked as a Geologist for 11 years and as a Resource Geologist for a total of 7 years since my graduation from university; as an employee of a junior exploration company, as an independent consultant, and as an employee of various consulting firms with experience in structurally controlled precious and base metal deposits.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I was previously involved in the Project during preparation of the NI 43-101 Technical Report filed in 2017.

7. I am responsible for the preparation of the report titled "National Instrument 43-101 Technical Report, Updated Mineral Resource Estimate for the Empire Mine Project, Custer County, Idaho, USA", dated November 25, 2020 with an effective date of October 30, 2020, with specific responsibility for Sections 1, 10, through 12, and 14 of this report.

8. I have had no prior involvement with the property that is the subject of this Technical Report.

9. As of the date of this certificate and as of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information required to be disclosed to make the report not misleading.

10. I am independent of the issuer, vendor, and property applying all of the tests in section 1.5 of NI 43-101.

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

Dated this 25th day of November 2020

"Signed" Richard A. Schwering

Signature of Qualified Person

Richard A. Schwering; SME-RM

Printed name of Qualified Person

CERTIFICATE OF QUALIFIED PERSONS

I, Jennifer J. Brown, P.G., do hereby certify that:

1. I am currently employed as Principal Geologist by:

   Hard Rock Consulting, LLC
   7114 W. Jefferson Ave., Ste. 308
   Lakewood, Colorado 80235 U.S.A.

2. I am a graduate of the University of Montana and received a Bachelor of Arts degree in Geology in 1996.

3. I am a:
   - Licensed Professional Geologist in the State of Wyoming (PG-3719)
   - Registered Professional Geologist in the State of Idaho (PGL-1414)
   - Registered Member in good standing of the Society for Mining, Metallurgy, and Exploration, Inc. (4168244RM)

4. I have worked as a geologist for over 20 years since graduation from the University of Montana, as an employee of various engineering and consulting firms and the U.S.D.A. Forest Service. I have more than 10 collective years of experience directly related to mining and or economic and saleable minerals exploration and resource development, including geotechnical exploration, geologic analysis and interpretation, resource evaluation, and technical reporting.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I was previously involved in the Project during preparation of the NI 43-101 Technical Reports filed in 2017 and 2019, and I personally inspected the Project on May 29, 2019.

7. I am responsible for the preparation of the report titled "National Instrument 43-101 Technical Report: Updated Mineral Resource Estimate for the Empire Mine Project, Custer County, Idaho USA," dated November 25, 2020 with an effective date of October 30, 2020, with specific responsibility for Sections 2 through 9, 15 through 16 and 19 of this report.

8. As of the date of this certificate and as of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information required to be disclosed to make the report not misleading.

9. I am independent of the issuer, vendor, and property applying all of the tests in section 1.5 of NI 43-101.

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

Dated this 25th day of November 2020

"Signed" Jennifer J. (J.J.) Brown

____

Jennifer J. (J.J.) Brown, SME-RM
Printed name of Qualified Person

CERTIFICATE OF QUALIFIED PERSONS

I, Jeffery W. Choquette, P.E., do hereby certify that:

1. I am currently employed as Principal Engineer by:

   Hard Rock Consulting, LLC
   7114 W. Jefferson Ave., Ste. 308
   Lakewood, Colorado 80235 U.S.A.

2. I am a graduate of Montana College of Mineral Science and Technology and received a Bachelor of Science degree in Mining Engineering in 1995

3. I am a:

   - Registered Professional Engineer in the State of Montana (No. 12265)
   - QP Member in Mining and Ore Reserves in good standing of the Mining and Metallurgical Society of America (No. 01425QP)

4. I have 22-plus years of domestic and international experience in project development, resource and reserve modeling, mine operations, mine engineering, project evaluation, and financial analysis. I have worked for mining and exploration companies for fifteen years and as a consulting engineer for seven years. I have been involved in industrial minerals, base metals and precious metal mining projects in the United States, Canada, Mexico and South America.

5. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

6. I was previously involved in the Project during preparation of the NI 43-101 Technical Reports filed in 2017 and 2019, and I personally inspected the Project on July 19 and 20, 2019 and October 14, 2020.

7. I am responsible for the preparation of the report titled “National Instrument 43-101 Technical Report: Updated Mineral Resource Estimate for the Empire Mine Project, Custer County, Idaho, USA,” dated November 25, 2020, with an effective date of October 30, 2020, with specific responsibility for Section 13 of this report.

8. As of the date of this certificate and as of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information required to be disclosed to make the report not misleading.

9. I am independent of the issuer, vendor, and property applying all of the tests in section 1.5 of NI 43-101.

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

Dated this 25th day of November 2020

“Signed” Jeffery W. Choquette

Jeffery W. Choquette, P.E.
Printed name of Qualified Person

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AAL	American Assay Laboratories
AS	Acid Soluble
AAS	Atomic Absorption Spectrum
BLM	Bureau of Land Management
CFP	Cumulative Frequency Plot
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
CRIRSCO	Committee of Mineral Reserves International Reporting Standards
CRM	Certified Reference Materials
DDH	Diamond Core
ExGen	ExGen Resource, Inc.
ft	feet
HRC	Hard Rock Consulting LLC
IOCG	Iron-Oxide-Copper-Gold Deposits
ID	Inverse Distance
IDL	Idaho Department of Lands
IDS	International Directional Services
KCA	Kappes, Cassiday and Associates
kV	kilovolt
m	meters
NEPA	National Environmental Protection Agency
NI 43-101	National Instrument 43-101
NEPA	National Environmental Policy Act
NN	Nearest Neighbor
OK	Ordinary Krige
oz/t	ounces per ton
PGM	Phoenix Global Mining Limited
PLS	Pregnant Leach Solution
ppm	Parts per million
PXC	Phoenix Copper Limited
QA/QC	Quality Assurance and Quality Control
QP	Qualified Person
RC	Reverse circulation
ROW	Right-of-way
RM	Registered member
SME	Society for Mining, Metallurgy, and Exploration
t	ton
tpd	tons per day
US$	U.S. dollars
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

1. EXECUTIVE SUMMARY

1.1 Introduction

Konnex Resources, Inc. is a base metal exploration company engaged in the acquisition, exploration, and development of North American mineral properties. Konnex Resources, Inc. has retained Hard Rock Consulting, LLC ("HRC") to prepare an updated mineral resource estimate for the company's principal property, the Empire Mine Project (the "Empire Project" or "Project"), a past-producing high-grade copper, gold, silver and tungsten property located in Custer County, Idaho, USA.

Konnex Resources, Inc. is the Idaho registered operating company, and is an 80% owned subsidiary of Phoenix Copper Limited ("PXC") (AIM:PXC) (OTCQX:PXCFL), a private resource company incorporated in the British Virgin Islands and previously known as Phoenix Global Mining ("PGM"). ExGen Resources, Inc (TSX V:EXG) (OTC:BXXRF), the Issuer of this report, holds a 20% interest in Konnex. For the purposes of this report, the Issuer, PXC, and Konnex Resources, Inc. are referred to collectively as "Konnex".

This report presents the results of the updated mineral resource estimate and associated work completed by HRC and is intended to fulfill the reporting Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101 ("NI 43-101"). This report was prepared in accordance with the requirements and guidelines set forth in Companion Policy 43-101CP and Form 43-101F1 (June 2011). The mineral resource estimate presented herein is classified according to Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards for Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 10, 2014. The mineral resource estimate reported herein for the Empire Mine resource area is based on all available technical data and information as of October 30, 2020. The mineral resource estimate for the Red Star resource area is based on all available technical data and information as of April 10, 2019. The effective date of this report in full is October 30, 2020.

1.2 Property Description and Ownership

The Empire Project is located in southeast-central Idaho, in the Alder Creek Mining District approximately 3.3 miles southwest of the town of Mackay, and 97 miles west of Idaho Falls. The Project area covers approximately 5,717 acres (2314 hectares) of land surface within Section 1, T6NR22E; Sections 1 and 2, T6NR23E; Section 6, T6NR24E, Sections 25, 26, 35, and 36, T7NR22E; Sections 20, 21, 25 through 32 and 34 through 36, T7NR23E; and Sections 30 through 32, T7NR24E, Boise Prime Meridian. Approximately 95% of the Empire Mine deposit is located beneath patented (private) land surface. The remainder of the deposit is located within public lands administered by the U.S. Forest Service (USFS), and to a lesser extent the Bureau of Land Management (BLM).

The Project area is comprised of a combined 307 patented and unpatented mining and millsite claims. Prior to 2017, the Project area was limited to 55 contiguous mining claims, which together are comprised of the Honolulu Copper claim group and the Mackay claim group. The Honolulu Copper group consists of 13 unpatented mining claims, 18 patented mining claims, and 5 unpatented mill site claims. The Mackay group consists of 14 unpatented mining claims and 3 patented mining claims. Konnex holds 100% of the mineral rights to the claims via lease agreements with Honolulu Copper Corp. (Honolulu Copper group) and Mackay, LLC (Mackay group), with the exception of two Honolulu Copper group claims, for which Konnex controls a 50% share of the mineral rights. The claim area was expanded in 2017 to include 54 unpatented lode claims covering the northern extension of known mineralization through to the old Horseshoe lead/zinc/copper mine, and another 4 claims to the south of the existing pit. In early 2019, Konnex added 194 unpatented claims to the north (Windy Devil) and west (Navarre Creek) of the main claim block. Konnex holds 100% of the mineral rights for all claims added in 2017 and 2019.

The ownership of Konnex and the Empire Project is characterized by three agreements between ExGen and Phoenix: the Konnex Option dated July 15, 2015, the Supplemental Option Agreement dated November 9, 2016, and Supplemental Option Agreement No. 2 dated April 21, 2017. The terms of these agreements were fully satisfied as of June 29, 2017, establishing Phoenix's 80% ownership of Konnex Resources, Inc., and ExGen's 20% interest in the Project.

1.3 Geology and Mineralization

The Empire Project is located in the historic Alder Creek mining district of east-central Idaho. This portion of east-central Idaho lies within the Cordilleran fold and thrust belt, and in the Basin-and-Range structural and geo-physiographic province. Rocks types and structures throughout the region reflect a long and complex history of deformation. Strata were deposited here in the Mesoproterozoic Belt intracratonic rift basin, and episodically in the late Neoproterozoic and Paleozoic Cordilleran miogeocline.

The Empire Project area overlies a north-trending contact zone between an Eocene granitic complex, including the Mackay Granite and Mackay Porphyry, and the Upper Mississippian age White Knob Limestone. This contact zone includes a garnet-pyroxene-magnetite skarn developed in both the carbonate and intrusive rocks. The skarn hosts the polymetallic copper mineralization which characterizes the Empire Mine.

At the Empire Mine, both copper-oxide (carbonates, malachite and azurite) and sulphide (chalcopyrite/chalcocite) mineralization is developed to varying degrees within exoskarn in rafted limestone fragments and endoskarn in porphyry. The copper oxide mineralization occurs as veinlets, stockworks, and disseminated oxide/sulphides. The sulphides have similar characteristics, but also occur as massive lenses, both copper sulphides and magnetite, along skarn-hosted fault breccias. In both breccia types, the degree of mineralization appears to be a function of the amount of contained skarn fragments.

Drilling has encountered a skarn-hosted body of disseminated and stockwork copper-oxide mineralization extending over a strike length of 1200 m, with a thickness of 6 m to 73 m from surface, and a width of up to 130 m. The "width" figure is a function of topography; the skarn is exposed along a steeply inclined north-trending ridge-crest, with the northern most outcrop being 255 m lower in elevation than the southernmost exposure. All of the mineralized intercepts are in endoskarn, exoskarn and skarn-hosted breccias. The mineralization intersected is oxidized from surface to a vertical depth of approximately 120 m, with sulphide mineralization dominating below that depth. The transition zone between oxide and sulphide extends over tens of meters

1.4 Status of Exploration

Exploration at the Empire Mine has been conducted via a variety of drilling programs carried out between the mid-1900's and present day. Drilling at Empire covers approximately 180 acres, totals 117,615 feet, and consists of both RC and diamond core drilling. Drilling has been conducted predominately from the surface, except for drilling completed by U.S.B.M in 1943, which was conducted from existing underground mine developments. Drilling exploration has largely been concentrated in the southern portion of the Project area.

In 2017, Konnex completed 33 drillholes totaling 9,193 feet. The 2017 drilling program included infill and step out holes to test mineralization continuity up dip to the west. Twenty-two RC drillholes account for 5,257 feet, and 11 diamond drillholes total 3,936 feet. Results from the 2017 drilling program show infill drilling encountered favorable mineralization in expected areas. Step out drilling confirmed mineralization continuity up dip and to the west.

In 2018, Konnex completed 7,318 ft of core drilling and 20,350 feet of RC drilling. The 2018 drilling campaign was designed with three primary objectives: first, to target the inferred areas within the proposed pit boundary and improve understanding of mineralization in those areas; second, to target peripheral mineralization in the northern and eastern portions of the Project area outside of the pit; and third, to obtain a sufficient amount of core sample to be used for metallurgical test work. Stepout drilling in 2018 intercepted previously unknown mineralization to the east and west of the proposed pit and confirmed the presence of significant mineralization in the newly discovered Red Star area. Based on the 2018 drill results, known mineralization now covers a strike length of roughly 2.2 miles.

In 2020, Konnex completed 356.4 ft of core drilling and 5,215 ft of RC drilling. The 2020 drilling campaign was designed to confirm the presence and extent of near surface, high grade gold in the southern half of the Project area. The infill drilling program intersected expected mineralization, and confirmed the presence of near surface assay values greater than 0.5 g/t.

1.5 Mineral Resource Estimate

In the spring of 2020 HRC updated the 2019 mineral resource estimate for the Empire Mine resource area with a new methodology that incorporates a geologic domain (versus grade domain) based estimate. This latest update incorporates of 356.4 ft of core drilling and 5,215 ft of RC drilling completed in 2020. The mineral resource estimate for the Red Star sulfide resource area was completed in 2019. No changes have been made to the estimate, so the associated effective date for Red Star mineral resource statement remains April 10, 2019.

Richard A. Schwering, SME-RM, a Resource Geologist with HRC is responsible for the mineral resource estimate presented herein. Mr. Schwering is a Qualified Person as defined by NI 43-101 and is independent of Konnex, the vendor and the property. HRC estimated the mineral resource for the Project based on drillhole data constrained by grade boundaries with an Ordinary Krige ("OK") algorithm. Leapfrog Geo V5.1.2 ("Leapfrog") software was used to complete the resource estimate. The metals of interest at the Project are copper, zinc, gold and silver.

The mineral resource estimate reported herein was prepared in a manner consistent with the Committee of Mineral Reserves International Reporting Standards ("CRIRSCO"), of which both the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") and Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code") are members. The mineral resources are classified as Measured, Indicated and Inferred in accordance with "CIM Definition Standards for Mineral Resources and Mineral Reserves", prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council on May 10, 2014. Classification of the resources reflects the relative confidence of the grade estimates.

The geologic model for the Empire mineral resource estimate was created in two steps using Leapfrog V5.1.2. First, broad geologic domains where created from drillhole data for five (5) geologic units; The Mackay Granite, limestone, a general grouping of skarns (magnetite, iron oxide breccia, pyroxene and garnet), granite porphyry, and overburden. Following the construction of these domains, an indicator estimation methodology was used to estimate the individual lithologies (granites, limestone, iron oxide breccia, magnetite skarn, pyroxene skarn, garnet skarn, granite porphyry, and latite dikes) into the general skarn and granite porphyry domains using an inverse distance to the power of 2.5 with a maximum distance of 300 ft. Blocks were assigned a lithology based on the majority percentage from the indicator estimate. Blocks without an estimate were assigned a lithology from the broad geologic domains. Wireframes were created from the block model using Datamine Studio RM V1.1.20.0 and represent the final estimation domains.

The copper, zinc, gold and silver grades were estimated from 20-foot down-hole composites using OK. Composites were coded according to the estimation domain. The search volumes were established based on practitioner's experience with similar style deposits. The estimation was completed in a single pass with the maximum search volume set to 400 feet and using an approximate anisotropic ratio of 3:2:1. The same search volume was used to select samples for the mineral resource estimation for all metals in three domains, and an Inverse Distance (ID) to the power of 2.5 was used to estimate grade for all metals in a single domain. A true thickness composite length weighted ID to the power of 2.5 was used to estimate grade for the Red Star Sulfide Area.

The "reasonable prospects for economic extraction" requirement prescribed by NI 43-101 was tested by designing a series of conceptual open pit shells using Lersch Grossman pit optimizations. After review of several scenarios considering different metal prices, HRC utilized a pit optimization with a long-term copper equivalent (CuEq) price of US$3.30/lb to determine the limit of reasonable prospects for economic extraction.

The economic parameters used for this analysis are based upon estimated project operating costs scaled to reflect production rates and expected processing costs, and upon estimated copper recoveries from metallurgical tests completed to date. The CuEq is calculated based on the following assumptions: a long-term copper price of US$3.30/lb; gold price of US$1,650/oz; silver price of US$19.25/oz; zinc price of $1.21/lb; metallurgical recoveries of 85% for copper, 85% for gold; 65% for silver and 60% for zinc. The assumed processing method is a grinding mill followed by an acid tank leach with separate SX/EW circuits for recovery of copper and zinc followed by a tank leach operation for recovery of gold and silver with a Merrill Crowe plant. Table 14-8 summarizes the cost and recovery parameters used in the analysis. Blocks classified as Measured, Indicated, and Inferred were used to define the resource pit shell.

The mineral resource estimate for the Empire Mine resource area is summarized in Table 1-1. The mineral resource estimate is based on all data obtained as of October 30, 2020 and has been independently verified by HRC. Mineral resources are not mineral reserves and do not have demonstrated economic viability such as diluting materials and allowances for losses that may occur when material is mined or extracted; or modifying factors including but not restricted to mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors. HRC knows of no existing environmental, permitting, legal, title, taxation, socio-economic, or other relevant factors that might materially affect the mineral resource estimate. Inferred mineral resources are that part of the mineral resource for which quantity and grade or quality are estimated on the basis of limited geologic evidence and sampling, which is sufficient to imply but not verify grade or quality continuity. Inferred mineral resources may not be converted to mineral reserves. It is reasonably expected, though not guaranteed, that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with continued exploration.

Table 1-1 Mineral Resource Statement for the Empire Mine, October 30, 2020

Classification	Tons	Copper		Zinc		Gold		Silver		Copper Equiv.	
	(x1000)	%	lb (x1000)	%	lb (x1000)	g/tonne	oz (x1000)	g/tonne	oz (x1000)	%	lb (x1000)
Measured	9,138	0.418	76,407	0.219	40,039	0.327	87.0	11.4	3,031.8	0.81	147,749
Indicated	16,115	0.362	116,608	0.176	56,689	0.322	151.4	9.7	4,563.4	0.72	233,487
Measured + Indicated	**25,253**	**0.382**	**193,015**	**0.192**	**96,727**	**0.324**	**238.4**	**10.3**	**7,595.2**	**0.755**	**381,237**
Inferred	11,698	0.397	92,818	0.137	32,123	0.343	117.1	7.4	2,538.6	0.75	174,832

***Notes:**

Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are that part of the mineral resource for which quantity and grade or quality are estimated on the basis of limited geologic evidence and sampling, which is sufficient to imply but not verify grade or quality continuity. Inferred mineral resources may not be converted to mineral reserves. It is reasonably expected, though not guaranteed, that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with continued exploration.

Mineral resources are reported at a 0.292% CuEq cutoff. The CuEq is calculated based on the following assumptions: a long-term copper price of US$3.30/lb; gold price of US$1,650/oz; silver price of US$19.25/oz; zinc price of $1.21/lb; assumed combined operating ore costs of US$15.50/t (process, general and administrative and mining taxes); refining costs of $0.10/lb of CuEq; metallurgical recoveries of 85% for copper, 85% for gold; 65% for silver and 60% for zinc and a 2.5% royalty.

These Mineral Resource are considered to be amenable to open-pit mining and are constrained by a conceptual Lersch Grossman pit shell generated on the same costs, metal prices and recoveries used in the above CuEq calculation and an average mining cost of $1.80/t and variable pit slope angles that ranged from 45–52°

Rounding may result in apparent differences between when summing tons, grade and contained metal content. Tonnage and copper and zinc grade measurements are in Imperial units. Gold and silver grades are reported in metric g/tonne units to remain consistent with past reporting formats.

The mineral resource estimate for the Red Star sulfide resource area is presented in Table 1-2. HRC considers that reporting resources at a silver 100 g/t cutoff constitutes reasonable prospects for economic extraction based on a bulk underground mining method and assumed recoveries from a flotation processing system.

Table 1-2 Mineral Resource Statement for the Red Star Resource Area, April 10, 2019

Class	Tons	Ag	Ag	Au	Au	Pb	Pb	Zn	Zn	Cu	Cu
	tons (x1000)	g/t	oz (x1000)	g/t	oz (x1000)	%	lb (x1000)	%	lb (x1000)	%	lb (x1000)
Inferred	114.13	173.4	577.3	0.851	2.8	3.85	8,791.2	0.92	2,108.8	0.33	745.0

***Notes:**

(1) Inferred resource cut-off grades were 100 g/tonne silver.

(2) Metallurgical recovery is assumed at 95%.

(3) Price assumptions are $17.00 per ounce for silver for resource cutoff tabulations.

1.6 Conclusions

The structural controls on the mineralization are well understood. Detailed descriptions are provided in historical reports, but the geologic interpretations compared to the mineralization should be reviewed periodically. The dynamic anisotropy used by HRC to guide the interpolation indicates that the mineralization in the resource area is hosted in gently dipping skarn material with local variations to the strike and dip related to higher angle trans-Challis structures. These zones may represent favorable limestone horizons that have been folded and displaced by faulting within the region. This is consistent with the descriptions provided in the historical reports, and efforts to confirm the structural orientations of the mineralization should be made in the field, where available.

Potential exists for each resource area to be expanded through targeted drilling programs. Infill drilling along the northern extent will likely result in the expansion of the mineral resources. Additionally, downdip targets should be considered as the extents of the historic mine extended nearly 1600 feet.

Exploration drilling to date has consisted of both diamond core and Reverse Circulation holes. The orientation of the drillholes is typically perpendicular to the targeted mineralization, however due to the changes in both strike and dip of the mineralized bodies, drillholes often intersected mineralization at oblique angles. A more thorough understanding of the structural controls will increase the probability of expanding the resource within the current optimized pit limits; specifically, the structural trends that extend mineralization in a northeasterly direction.

As a result of the work completed by Konnex on digitizing the historical data, HRC has been able to complete validation work on the analytical database. HRC concludes that the historical and current QA/QC protocols in effect for the drilling, logging, sample generation, sample preparation and analytical procedures at the Empire Mine Project have been completed in a professional manner that meets or exceeds what HRC considers industry standard. Konnex is continuing to identify and digitize the historical geologic information; however, review of the geologic logs indicates that the data currently stored in the database is adequate to develop geologic models.

HRC finds that the density of data within the resource base is adequate for the use in more advanced studies of the project. The mineral resource estimation is appropriate for the geology. Additional modeling and drilling should be conducted to refine the geologic interpretations to better reflect the mineralization and to define the alteration/oxidation state of the host rocks to support further metallurgical characterization.

The oxidation state has not been systematically collected in the database from operator to operator and will need to be addressed with drilling targeting areas that do not contain acid soluble assays. Konnex geologists are delineating the oxidation state in an effort to refine the model for use in more advanced studies.

1.7 Recommendations

1.7.1 General Recommendations

During the course of this study, HRC made a number of observations regarding data handling, document management, and general drilling and sampling procedures and protocols for which modifications and/or improvements could positively affect the level of confidence in the drillhole data and subsequent mineral resource estimations. Based on these observations, HRC recommends that Konnex carry out the following:

- An in-house effort to compile, organize, prioritize, digitize, and validate hard-copy historic data and documents.
- Production and implementation of formal and specific written protocols with regard to both wet and dry reverse circulation drilling, diamond core drilling, sampling methods and sample handling procedures, and geologic logging.
- Inclusion of photographing drill core as a standard step in the core logging procedure; existing core stored on site should also be photographed as time and budget allows, with the intent of compiling a digital visual record of all core recovered prior to purging the core inventory of unnecessary core storage.
- Production and implementation of formal data management and document handling procedures with regard to exploration; specifically, written guidelines and prepared templates for the collection and organization of exploration data in order to ensure that all pertinent information is captured and catalogued in a practical and efficient manner for ease of future use.
- Standardization of quality assurance-quality control procedures including collection of field duplicate, blank, and standard samples, comparison checks between different drill contractors and types of drilling, comparison checks between lithology logs recorded by different exploration staff, review of core recoveries versus grade, review of RC data for potential downhole contamination, and selection and review of downhole survey methods and measurements, etc.
- Detailed structural maps should be completed and checked in the field. HRC recommends working with a structural geologist with experience in mapping similar mineralized systems. The geologic model should be updated as this information becomes available. Additionally, drill targets designed to expand the resource base should be based on this interpretation.
- Due to the complex nature of the mineralization, HRC recommends that Konnex employ oriented coring methods in exploration. Utilizing the structural data collected from the core will reduce risk associated with geometries of the ore zones and assist in creating a geologic model consistent with the mineralization.
- As the geologic understanding improves, the resource models should be updated to reflect the increase in confidence in the estimates. Estimates for the other constituents within the system should be added to the estimates to assist in metallurgical delineation of the ores.

- Metallurgical testing should continue with material composite samples that would approximate the head grade and material type corresponding to the annual mining plan. This information would be used in the economic model to predict annual production rates. Additional test work could be conducted to evaluate the extraction rate and acid consumption rate when processing coarser sized material. It may be possible to reduce acid consumption while maintaining the extraction rate and leach time schedule.
- Testing should also continue with material composited sample by copper grade, distributed by low grade, medium low, medium high and high grade and should be tested in bottle roll and column test to determine if the grade%/recovery relationship exists. Additional metallurgical testwork should continue to evaluate the ability to economically recover siver and gold, as well to evaluate the recovery zinc along with copper through the SX/EW process.

1.7.2 Recommended Work Plan and Budget

HRC understands that Konnex plans to advance the Project to the feasibility study level based on the results of internal studies, preliminary mine design and engineering in conjunction with the results of the 2020 drilling program. As part of that effort, HRC recommends that Konnex complete detailed trade-off studies as appropriate and necessary to establish the specific operating parameters and production rates on which the economic analysis required of the feasibility study will be based. HRC recommends these studies as part of a single-phase work plan, which also includes the detailed engineering and permitting and environmental tasks that must be completed in order to bring the Project to development. The trade off- studies should also include alternatives for processing of ores from the project as the processing costs and recoveries are refined by metallurgical testwork. The anticipated costs for the recommended scope of work are presented in Table 1-3.

Table 1-3 Recommended Scope of Work for the Empire Project

Recommended Scope of Work	Expected Cost (US$)
Operating Trade-Off Studies	$150,000
Environmental Permitting	$150,000
Metallurgical Testwork	$200,000
Infrastructure Geotechnical Studies	$150,000
Feasibility Study and Detailed Engineering	$2,000,000
Subtotal	**$2,650,000**
15% Contingency	$397,500
Total Budget	**$3,047,500**

2. INTRODUCTION

2.1 Issuer and Terms of Reference

Konnex Resources, Inc. is a base metal exploration company engaged in the acquisition, exploration, and development of North American mineral properties. Konnex Resources, Inc. has retained Hard Rock Consulting, LLC ("HRC") to prepare an updated mineral resource estimate for the company's principal property, the Empire Mine Project (the "Empire Project" or "Project"), a past-producing high-grade copper, gold, silver and tungsten property located in Custer County, Idaho, USA.

Konnex Resources, Inc. is the Idaho registered operating company, and is an 80% owned subsidiary of London and New York listed Phoenix Copper Limited ("PXC") (AIM:PXC) (OTCQX:PXCFL), a private resource company incorporated in the British Virgin Islands and previously known as Phoenix Global Mining. ExGen Resources, Inc (TSX V:EXG) (OTC:BXXRF), the Issuer of this report, holds a 20% interest in Konnex. For the purposes of this report, the Issuer, PXC, and Konnex Resources, Inc. are referred to collectively as "Konnex".

This report presents the results of the updated mineral resource estimate and associated work completed by HRC and is intended to fulfill the reporting Standards of Disclosure for Mineral Projects according to Canadian National Instrument 43-101 ("NI 43-101"). This report was prepared in accordance with the requirements and guidelines set forth in Companion Policy 43-101CP and Form 43-101F1 (June 2011). The mineral resource estimate presented herein is classified according to Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards for Mineral Resources and Mineral Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 10, 2014. The mineral resource estimate reported herein for the Empire Mine resource area is based on all available technical data and information as of October 30, 2020. The mineral resource estimate for the Red Star resource area is based on all available technical data and information as of April 10, 2019. The effective date of this report in full is October 30, 2020.

Items 15 through 22 of Form 43-101F1 (Mineral Reserve Estimates, Mining Methods, Recovery Methods, Project Infrastructure, Market Studies and Contracts, Environmental Studies, Permitting and Social or Community Impact, Capital and Operating Costs, and Economic Analysis, respectively) are not required of a technical report on mineral resources and are not considered in this report.

2.2 Sources of Information

A portion of the background information and technical data presented in this report was obtained from the following documents:

SRK Exploration Services Ltd., 2017. *An Independent Competent Person's Report on the Empire Mine, Idaho, USA*; Internal report prepared for Phoenix Global Mining Ltd., May 2017.

Hatch, R.M., 2006. *Empire Mine Project*; NI-43-101 Technical Report prepared for Journey Resources Corporation, August 2006.

Van Angeren, P., 2004. *Geological Assessment and Exploration Proposal for the Empire Mine Project*; Internal report prepared for Tri Gold Corp, March 2004.

Sierra Mining & Engineering, LLC, 2001. *Sultana Preliminary Feasibility Report*; Internal report prepared for Sultana Resources, LLC, July 2001.

Schnabel, R.A., 1997. *Sultana Project 1996 Exploration Report*; Internal report prepared for Cambior Inc., February 1997.

The information contained in current report Sections 4 through 8 was largely presented in, and in some cases, is excerpted directly from, the reports listed above. HRC has reviewed this material in detail, and finds the information contained herein to be factual and appropriate with respect to guidance provided by NI 43-101 and associated Form NI 43-101F1.

Additional information was requested from and provided by Konnex. In preparing Sections 9 through 13 of this report, the authors have relied in part on historical information including exploration reports, technical papers, sample descriptions, assay results, computer data, maps and drill logs generated by previous operators and associated third party consultants. Historical documents and data sources used during the preparation of this report are cited in the text, as appropriate, and are summarized in current report Section 19.

2.3 Qualified Persons and Personal Inspection

This report is endorsed by the following Qualified Persons, as defined by NI 43-101: Mr. Richard A. Schwering, Ms. J.J. Brown, P.G., and Mr. Jeffrey Choquette, P.E., all of HRC.

Mr. Schwering, SME-RM, has 7 years of experience working on structurally controlled gold and silver resource and reserve estimate projects. Mr. Schwering completed the mineral resource estimate for the Project and is specifically responsible for report Sections 1, 10 through 12, and 14.

Ms. Brown, P.G., SME-RM, has 20 years of professional experience as a consulting geologist and has contributed to numerous mineral resource projects, including more than twenty gold, silver, and polymetallic resources throughout the southwestern United States and South America over the past five years. Ms. Brown is specifically responsible for report Sections 2 through 9.

Mr. Choquette, P.E., is a professional mining engineer with more than 20 years of domestic and international experience in mine operations, mine engineering, project evaluation and financial analysis. Mr. Choquette has been involved in industrial minerals, base metals and precious metal mining projects around the world and is responsible for current report Sections 13 and 17 through 19.

HRC representative and QP J.J. Brown conducted an on-site inspection of the Empire Project on May 29, 2019. While on site, Ms. Brown conducted general site and geologic field reconnaissance, including inspection of on-site facilities, examination of surface bedrock exposures, and ground-truthing of reported drill collar locations. Ms. Brown also examined select core intervals from historic and recent drilling, and reviewed with Konnex geology staff the conceptual geologic model, data entry and document management protocols, and drilling and sampling procedures and the associated quality assurance and quality control ("QA/QC") methods presently employed. HRC's Jeff Choquette, P.E., also personally inspected the Empire Project, including the Project site and core logging and office facilities, on July 19 and 20, 2019 and again on October 14, 2020.

2.4 Units of Measure

Unless otherwise stated, all measurements reported herein are Imperial units and currencies are expressed constant 2020 US dollars ("US$"). Gold and silver values are reported in parts per million ("ppm") or in Troy ounces per ton ("oz/t"). Tonnage is reported as short tons ("t"), unless otherwise specified.

3. RELIANCE ON OTHER EXPERTS

HRC has fully relied upon and disclaims responsibility for information provided by Konnex regarding property ownership, mineral tenure, and permitting and environmental aspects of the Empire Project. Such information is presented in Section 4 of this report. Property title and mineral tenure was provided by personal communication with Ryan McDermott, CEO of Konnex, on May 29, 2019, and in written format via the following documents:

- *Konnex Option Agreement*, July 15, 2015
- *Supplemental Option Agreement*, November 9, 2016
- *Supplemental Option Agreement No. 2*, April 21, 2017
- *Opinion as to Condition of Title – Mining Claims,* May 4, 2019 (David P. Claiborne, Sawtooth Law Offices LLC)

4. PROPERTY DESCRIPTION AND LOCATION

4.1 Project Location and Ownership

The Empire Project is located in southeast-central Idaho, in the Alder Creek Mining District approximately 3.3 miles southwest of the town of Mackay, and 97 miles west of Idaho Falls (Figure 4-1). The Project area covers approximately 5,717 acres (2314 hectares) of land surface within Section 1, T6NR22E; Sections 1 and 2, T6NR23E; Section 6, T6NR24E, Sections 25, 26, 35, and 36, T7NR22E; Sections 20, 21, 25 through 32 and 34 through 36, T7NR23E; and Sections 30 through 32, T7NR24E, Boise Prime Meridian. The approximate geographic center of the Project is 43°53'N latitude and 113°40'W longitude. Topographic map coverage of the Project area is provided by the 1:24,000-scale, Mackay Reservoir 7.5-minute U.S.G.S. Topographic Quadrangle.

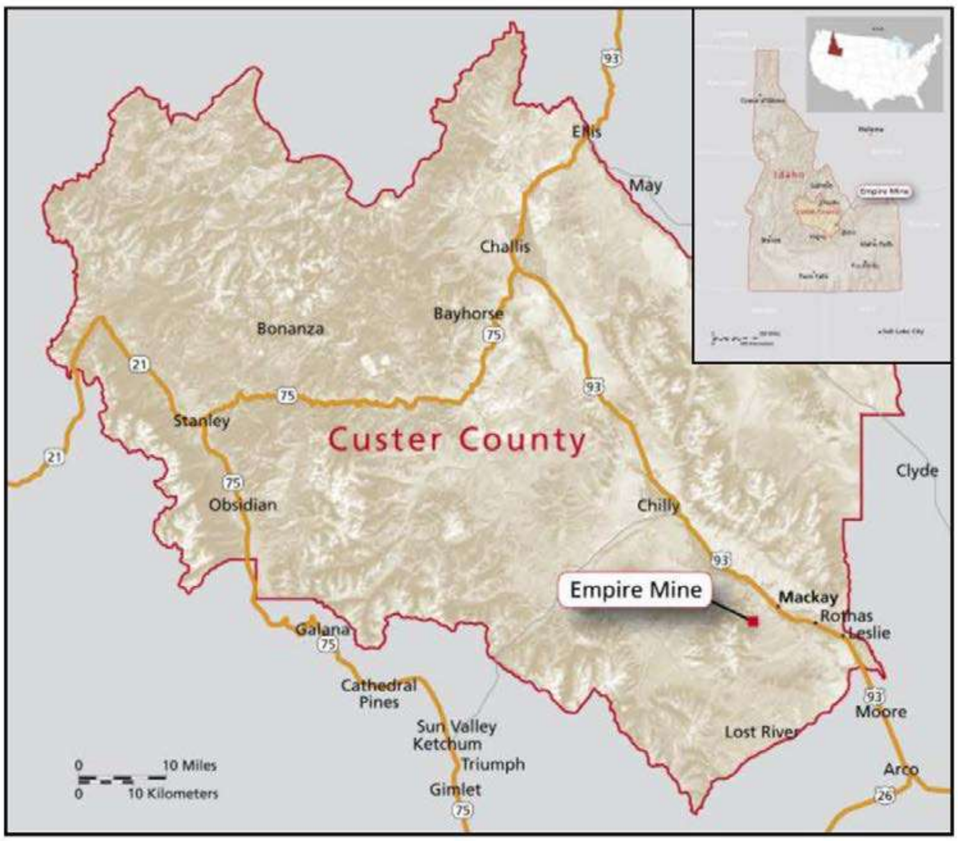

Figure 4-1 Empire Mine Project Location

The ownership of Konnex and the Empire Project is characterized by three agreements between ExGen and PGM (now PXC): the Konnex Option dated July 15, 2015, the Supplemental Option Agreement dated November 9, 2016, and Supplemental Option Agreement No. 2 dated April 21, 2017 (collectively the "Option Agreements").

The Option Agreements allow Phoenix to acquire 80% of the common shares of Konnex, ExGen's wholly owned subsidiary which holds the leases to the Empire Mine Project, on the following terms and conditions, including a term requiring the return of the Konnex common shares to ExGen in certain circumstances:

4.1.1 Project Participation

- Upon the deposit by Phoenix of US $1,000,000 into the Konnex bank account (discussed below under Project Expenditures by Phoenix), 80% of Konnex's common shares were transferred to Phoenix
- ExGen to retain a 20% carried interest until commencement of mine construction
- ExGen to be granted a 2.5% net smelter returns royalty for all metals on the Empire Mine Project (the "**2.5% NSR**")
- 30-mile area of interest, which applies to both ExGen's 20% carried interest and the 2.5% NSR
- If any of the cash or share payments, or project expenditure requirements, both as described below, are not completed as required pursuant to the Option Agreements, or if the Option Agreements are terminated, then the 80% of the Konnex common shares will be returned to ExGen without ExGen paying any consideration

4.1.2 Cash and Shares

- ExGen was paid a cash payment of US $50,000 on signing the Original Option (PAID)
- ExGen was issued 5,000,000 common shares of Phoenix on signing the Original Option (ISSUED)
- ExGen was paid a cash payment of US $50,000 within 60 days of signing the Original Option (PAID)
- ExGen was paid a cash payment of US $50,000 on signing the Amendment (PAID)
- ExGen was issued an additional 5,000,000 common shares of Phoenix (substantially pursuant to the Original Option terms) and an additional 1,300,000 common shares of Phoenix on signing the Amendment (ISSUED)
- ExGen to be paid a cash payment of US $100,000 on the earlier of the Phoenix IPO date or by March 31, 2017 (PAID)
- ExGen to be paid US $100,000 on each anniversary date of the earlier of the Phoenix IPO or March 31, 2017 until the completion of a bankable feasibility study on the Empire Mine Project
- The IPO Anniversary Payment increases 100% to US $200,000 for any payment where during the prior 12 months period the minimum expenditures on the Empire Mine Project has not been met (please see below for minimum expenditure requirements)

4.1.3 Project Expenditures by Phoenix

- Phoenix to have deposited a minimum of US $1,000,000 into the Konnex bank account by the earlier of the Phoenix IPO date or by June 30, 2017
- Phoenix to spend the US $1,000,000 on the Empire Mine Project within 12 months of deposit into the Konnex bank account

- Phoenix to fund all Empire Mine Project property maintenance and sustaining costs of Konnex
- Phoenix to spend a minimum of US $500,000 on the Empire Mine Project every 12 months until completion of the bankable feasibility study

4.1.4 Deal Protection and Corporate Structure

- Should Phoenix sell its 80% interest in Konnex prior to the commencement of commercial production, ExGen shall have the right but not the obligation to either sell its 20% interest in Konnex on the same terms as Phoenix. Alternatively, ExGen may elect to have any acquiring party fund all of ExGen's *pro rata* share of project capital costs by way of loan from Konnex, with interest payable by Konnex, without dilution to ExGen's 20% joint venture interest.

4.2 Mineral Tenure, Agreements and Encumbrances

The Project area consists of 307 mining claims covering roughly 5,717 acres of land surface (Figure 4-2). Prior to 2017, the Project area was limited to 55 contiguous mining claims, which together are comprised of the Honolulu Copper claim group and the Mackay claim group (Figure 4-3). The Honolulu Copper group consists of 13 unpatented mining claims, 18 patented mining claims, and 5 unpatented mill site claims. The Mackay group consists of 14 unpatented mining claims and 3 patented mining claims. Konnex holds 100% of the mineral rights to the claims via lease agreements with Honolulu Copper Corp. (Honolulu Copper group) and Mackay, LLC (Mackay group), with the exception of two Honolulu Copper group claims, for which Konnex controls a 50% share of the mineral rights. The claim area was expanded in 2017 to include 54 unpatented lode claims covering the northern extension of known mineralization through to the old Horseshoe lead/zinc/copper mine, and another 4 claims to the south of the existing pit. In early 2019, Konnex added 194 unpatented claims to the north (Windy Devil) and west (Navarre Creek) of the main claim block. Konnex holds 100% of the mineral rights for all claims added in 2017 and 2019. Pertinent claim information for all claims, including name and serial/patent number, is tabulated in Appendix A.

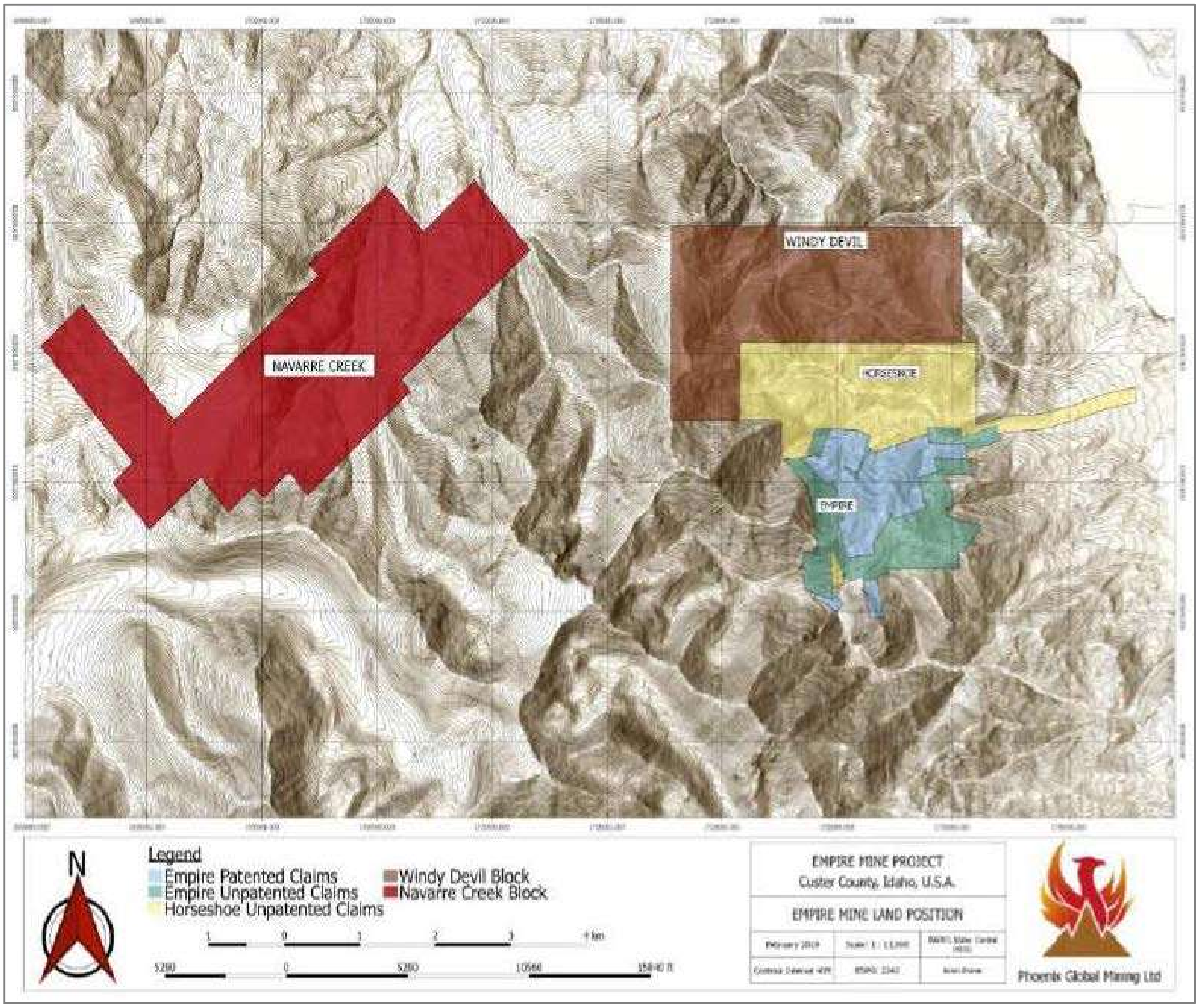

Figure 4-2 Empire Mine Project Claim Areas

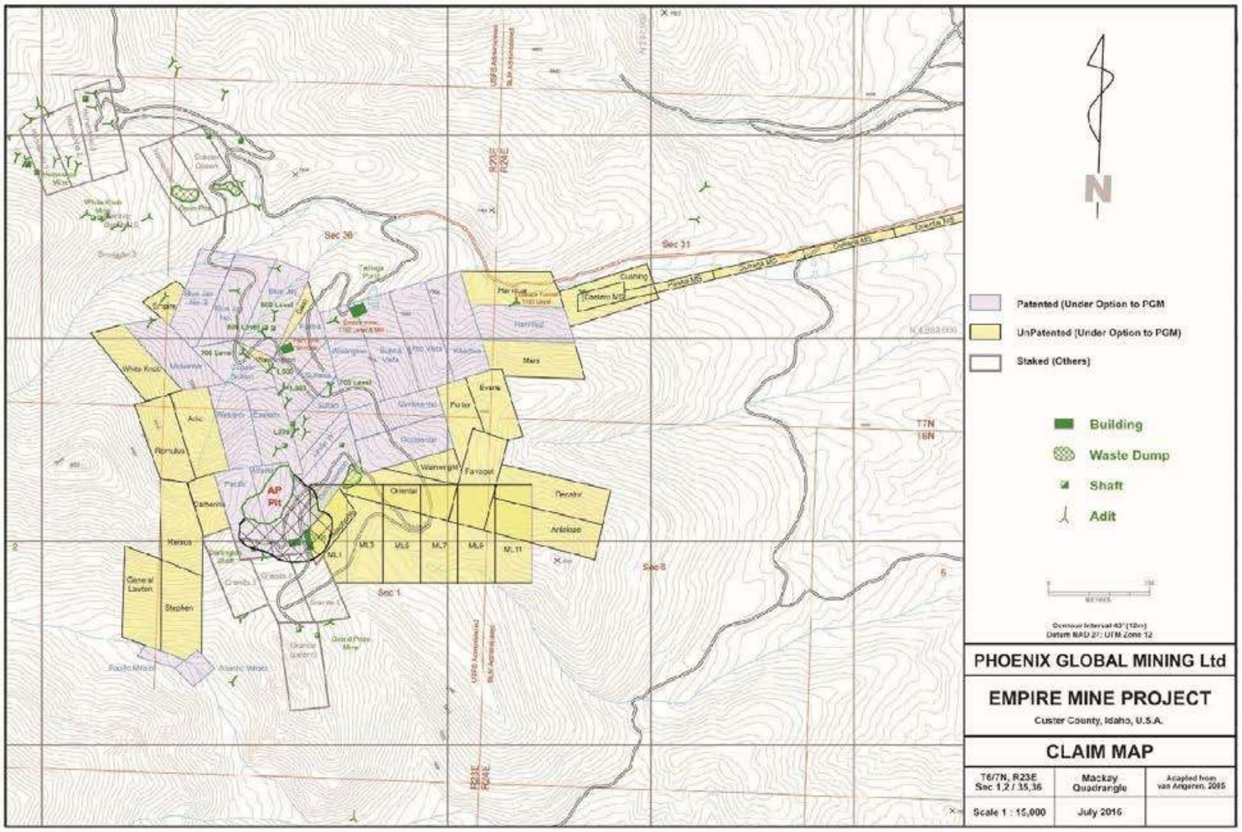

Figure 4-3 Empire Project Honolulu and Mackay Group Claim Areas

4.3 Permitting and Environmental Liabilities

Approximately 95% of the Empire Mine deposit is located on patented lands. The remainder of the deposit is located on public lands administered by the U.S. Forest Service (USFS), and to a lesser extent the Bureau of Land Management (BLM).

Permitting for exploration on patented claims requires simple submission of a letter and map to the Idaho Department of Lands indicating the proposed location of drilling and road construction. Exploration on unpatented claims further requires reclamation bonds to be filed with the appropriate federal land surface administrative agency, either the Bureau of Land Management and/or US Forest Service. An existing water right was decreed by the Idaho adjudication court and is administered by the Idaho Department of Water Resources to appropriate surface water from Cliff Creek to support mining operations.

Preliminary environmental audits were conducted by Gochnour and Associates of Denver, Colorado, and RTR Resources Management, Inc. of Boise, Idaho, in 1997 and 2000, respectively. These audits identified no obvious fatal permitting problem in relation to the Empire Mine. In 2000, the BLM, USFS, and State of Idaho Department of Lands ("IDL") met with property representatives to outline the regulatory requirements for mine development. The agency representatives outlined basic criteria for permitting with regard to both patented ground and public land surface.

IDL's Bureau of Minerals governs mining operations conducted within the state, regardless of surface ownership. Future operations at the Empire Mine will require submission of an application including maps of the proposed mining operation and a mineral control map of appropriate scale for boundary identification. This permitting requirement is estimated to cost US$5,000. A reclamation plan must be submitted in map and narrative form, and must include description or depiction of the surface profile before and after mining, all roads to be reclaimed, plans for re-vegetation, and the estimated cost of all reclamation activities. This permitting requirement is estimated to cost US$100,000. A water management plan must also be submitted, and must identify and assess foreseeable, site specific non-point sources of water quality impacts upon adjacent surface waters. This permitting requirement is estimated to cost US$150,000. Total cost of submittals to the IDL is estimated to be US$150,000, with an additional contingency of US$50,000 for response to public comments, for a total initial permitting cost of US$450,000.

The project access route crosses federally managed land and will require a Right of Way (ROW) Grant from the BLM and USFS. The ROW application process may require an Environmental Assessment, National Environmental Policy Act (NEPA) preparation to evaluate the project's impact on local resources. Estimated cost of the ROW and Environmental Assessment is US$ 15,000 to US$ 30,000.

Two 2.5-acre triangular areas of federal land surface are located within the patented claim block. These areas may be avoided, or a trade with the USFS might be negotiated. Mitigation or trade cost could range between US$ 20,000 and US$ 50,000, depending on the terms and conditions.

The total permitting cost will also include local building permits and compliance with the Idaho Fire Marshall's office, air quality permitting, water quality permitting, and other incidental permits as required by the federal, state and local regulatory agencies. These permits will likely cost US$ 10,000 to US$20,000. The total anticipated cost of Project permitting is between US$ 75,000 and US$ 115,000.

4.3.1 Environmental Studies

In June 2017, CES commenced baseline environmental studies for the Empire Project, including the open-pit oxide copper, the deeper copper sulphides and the Red Star area. These studies have been conducted to plan the project to minimize and mitigate potential environmental impacts and to supply critical information for environmental reviews and permits by government regulatory agencies. Study areas include all of the Empire patented claims, the unpatented claims on the Salmon-Challis National Forest (SCNF) associated with the copper oxide resource and the unpatented claims for the heap leach and SX-EW plant on public land managed by the Bureau of Land Management (BLM).

Detailed plant and wildlife surveys have been conducted by CES botanists and wildlife biologists over the past two years for threatened and endangered species, as well as common and sensitive species. The results of 2017, 2018, and 2019 wildlife surveys show no indication of threatened or endangered wildlife species at or near the Empire site. Most notably, CES wildlife specialists did not identify any Sage Grouse or Sage Grouse leks (breeding areas) on or adjacent to the Empire properties. The results of the 2017/2018 botanical survey also indicate no threatened or endangered flora.

Surveys were also conducted over a broad area on and around the Empire site for both sensitive and common wildlife and plant species. The surveys did observe a pair of Northern Goshawk (sensitive species) for one day and no nests were found. Acoustic surveys for bats in suitable habitat, especially around historic mine adits, had numerous detections of common bat species but a very low detection rate of one sensitive species (Townsend's big eared bat). Camera trap surveys with carrion bait to attract carnivores documented a pair of juvenile wolverines (sensitive species) during one week in April 2018 and one adult on one day in March 2019. CES biologists concluded that the sensitive species identified at the Empire site were passing through the area and that no critical habitat existed for any of the sensitive species. It is well understood that these species have expansive ranges. The botanical survey identified that Whitebark Pine (sensitive species) are present on a ridge above the oxide resource but well outside of any proposed operational footprint. No sensitive botanical or wildlife species were identified on portions of BLM claims.

CES has also conducted water resources investigations at Empire under the guidance of an Idaho-licensed geologist. Eight quarterly water monitoring events of streams and springs in a broad area surrounding the mine identified no surface water present within the oxide resource area and no evidence of acid rock drainage or other chemical contamination from legacy operations. Nearly two years of continuous streamflow monitoring in Cliff Creek at the Empire water right point of diversion documents the availability and seasonal variability to supply water at the mine. Hydrologic test holes were drilled at three locations on the pediment below the oxide resource. All of the holes were dry, including one that was 104 meters deep. The absence of shallow groundwater reduces the potential for contamination from surface activities. Using geothermal temperature gradient analysis, CES hydrologists have estimated the depth to groundwater below the open-pit copper oxide at 340 meters.

CES archaeologists spent 2018 conducting detailed archaeological and cultural surveys of the Empire patented and unpatented claims. The surveys identified the remains of food can dumps from historical mining, but no significant artefacts were found. These surveys were conducted by a professional archaeologist with the required survey permits.

The Empire Project is not subject to any known environmental liabilities, and HRC knows of no other significant factors or risks which might impact Konnex's access, title, or right or ability to perform work on the property.

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

5.1 Access and Climate

Primary access to the Empire Mine Project is provided by State Highway 93 East out of Idaho Falls, Idaho, for roughly 94 miles to the city of Mackay, and then 3.3 miles of well-maintained, all-weather gravel road from Mackay to the Project area. Access throughout the claim block, including to old workings and drill pads, is provided by an assortment of secondary gravel roads and jeep trails requiring four-wheel-drive or all-terrain vehicles.

The climate in the vicinity of the Project area is semi-arid, with long snowy winters and short, cool, dry summers. Maximum annual temperatures range from a high of 27.9°C in July to a low of -13.7°C in January. Precipitation occurs largely as spring rainstorms and winter snowfall. Total annual precipitation includes rainfall of about 9.7 inches and approximately 27.6 inches of snowfall. Exploration can generally be carried out year-round, though occasional periods of severe inclement weather may limit exploration activities during the winter months.

5.2 Local Resources and Infrastructure

The community nearest to the Project area is the city of Mackay, which hosts a population of about 550. Mackay offers standard municipal amenities including lodging and services, and a limited supply of foodstuffs and hardware. The nearest major supply center is Idaho Falls, roughly 100 miles east of the Project area. Commercial air and rail service are both available in Idaho Falls, which is served by the Idaho Falls Regional Airport and the Eastern Idaho Railroad. Rail access is also available in the communities of Blackfoot and Pocatello, roughly 30 and 50 miles south of Idaho Falls, respectively. Ample skilled and unskilled labor can be found in Mackay, Idaho Falls, and a variety of other communities throughout the regional area.

A water right granted to Honolulu Copper Corporation with a priority date of June 1, 1884, was decreed for diverting up to 0.75 cubic feet per second (approximately 336 gallons per minute) from Cliff Creek to the Project area for mining consumptive use throughout the year. Additional water may be rented from the Idaho Water Supply Bank administered by the Idaho Department of Water Resources. A 7.2 kilovolt (kV) distribution line owned by the Lost River Electric Cooperative extends to the Empire Mill from a substation in Mackay. This line would likely need to be upgraded to 24.9 kV to support the project. Costs to upgrade the line have not been assessed. Existing surface rights are sufficient to support all proposed exploration and mining activities, including tailings and waste storage areas and processing facilities.

5.3 Physiography

The Empire Mine Project area is situated along the north-eastern edge of the White Knob Mountains, on the eastern flank of Mackay Peak, at elevations ranging from 6200 ft to 9100 ft above mean sea level. Local terrain is generally steep and rugged, with numerous ridges and gullies. Northern slopes are sparsely to densely forested with a mixture of Doug fir, Poderosa and Lodgepole pine, and Engelmann spruce, while the southern slopes are generally open with a low cover of scrubby sagebrush and grasses.

6. HISTORY

6.1 Historical Ownership, Exploration and Development

A variety of publicly available documents exist which describe the early history of the Empire Mine in greater detail than is presented here. The reader is directed to "History of Selected Mines of the Alder Creek Mining District, Custer County, Idaho" (Mitchell, 1997) and "Geology and Ore Deposits of the Mackay Region, Idaho" (Umpleby, 1917) for a more thorough discussion of the early history of the Project.

The first significant advancement of the Empire Mine was accomplished by the Empire Copper Company between 1907 and 1921. The following paragraphs describe the mine and associated development work as of 1917 (Umpleby, 1917):

"The Empire group of claims lies on the steep mountain side 3.5 miles southwest of Mackay, where the company's smelter is situated. The mine may be reached from Mackay either by wagon road or by a railroad owned by the Empire Copper Co. The railroad accomplishes the rise of 2,000 feet to the mine by a circuitous route 7.75 miles in length. It is equipped with two 23-ton Shay mountain-climbing locomotives and 38 cars.

Development at the mine comprises between 20,000 and 25-,000 feet of underground work. There are four principal groups of workings- the Darlington shaft, the Alberta tunnel, the Copper Bullion tunnel, and the Cossack tunnel. Of these, the Darlington shaft, 700 feet deep, is no longer accessible, and the Cossack tunnel, now 1,900 feet long, is still 2,000 feet from a point beneath the north Alberta shoot. This tunnel enters the hill from the northeast at an elevation of about 6,760 feet.

The Copper Bullion tunnel, situated at an elevation of 7,610 feet, is about 1,600 feet lo.ng, and its laterals, raises, and winzes total perhaps 800 feet more. The Alberta tunnel, at an elevation of 7,700 feet, which comprises a main adit 2,800 feet long connecting with the Darlington shaft, and laterals totaling about 3,000 feet, is the most important single piece of development. At 400 feet above it is tunnel No. 300, which is approximately 1,000 feet long. Directly above this tunnel, at an elevation 125 feet higher, is the North tunnel. Southward around the hill from the North tunnel at elevations between 8,200 and 8,400 feet are several tunnels, chief among which are the Davis, Hunter, South, Starlight, Sunlight, Iron, and Quarry tunnels, each representing from 100 to 900 feet of work.

The property is equipped with steam, gasoline, water, and air power, both at the mine and the smelter. There are three hoists and an 8-drill air compressor at the mine. An excellent machine shop is situated at the smelter. The smelter has two 125-ton blast furnaces 44 by 160 inches at the tuyeres but is without converters."

The Empire Copper Company operated almost continuously from 1907 to 1921, shipping crude ores to Salt Lake smelters. In October 1921, the Idaho Copper Company succeeded the Empire Copper Company and installed a mill and tramway. Milling began in 1924 and both concentrates and crude ores were shipped to Salt Lake smelters until operations ceased in 1930. From 1928 to 1930, the mine was worked by Mackay Metals, Inc. which went into voluntary receivership in 1931, at which time the patented claims were taken over by Custer County. A small amount of crude ore was produced by lessees in 1935-1937. The Mackay Exploration Company took over the property in 1939 under lease and bond agreements with Custer County and with Mackay Metals, Inc. (Farwell and Full, 1944).

In 1942, USBM mapped, drilled and sampled the Empire Mine concurrently with the US Geological Survey. Twenty-one underground core holes, and nearly 400 samples were taken, which included samples from level 300 under the oxide mineralization identified on surface. The mine was surveyed and mapped on at least eight of the nine main levels and a small resource mineral resource was delineated for sulphide mineralization in an orebody at the northern end of the level 1000 (Farwell and Full, 1944).

During the USBM's 1942 survey, mineralization was accessible on at least six of the main nine production levels and was reported by the USBM to be in overall good ground (geotechnical) condition. In all, the USBM estimated that over 60,000 ft (18,300m) of development were made into the Empire orebody, although only 35,000 ft (10,650m) were accessible at the time. Historically, the main mining method used in the Empire Mine was shrinkage stoping.

Between 1964 and 1972, a variety of companies carried out drilling exploration in the AP Pit area. These companies include the Cleveland Cliffs Iron Co. (CCDH 2-9, 1962), New Idria Mines (NI 1-20, 1967), Hile Exploration Co. (H 1-58, 1969), Capital Wire & Cable Co. (CW 1- 14, 1970), and US Silver and Mining Corp. (Behre Dolbear: BDH 1-41, 1972). All holes were assayed for copper, and nine were assayed for gold (NI series). During 1972 a mill was constructed, and the ore developed by the USBM was exploited at the 1100 level. In 1975, Exxon Company explored for copper and molybdenum. Exxon drilled ten holes that were also assayed for gold. By 1975, a total of 151 holes had been drilled on the property, almost all in the AP pit area. Historic ownership/operation of the Empire Mine through 1977 is summarized in Table 6-1 (Mitchell, 1997).

Table 6-1 Historic Operators of the Empire Mine (Mitchell, 1997) (Reproduced)

Company Name	Officer	Date Incorporated	Charter Forfeited	Year(s) at Mine
White Knob Copper Co.	John W. Mackay, President	1	1	1
MacBeth Lease, Inc.	Ravenal Macbeth	1	1	1904-1907
White Knob Copper and Development Co.	1	1	1	?-1905
Empire Copper Co.	Frank M. Leland, President	June 28, 1907	December 1, 1921 (Company reorganized as Idaho Metals Co.)	1907-1921
Idaho Metals Co	L.R. Eccles, President	October 8, 1921	1	1921-1928
(In Receivership)	---	---	---	1928
Mackay Metals, Inc.	W.E. Narkaus, Manager	June 4, 1928	December 1, 1930	1928-1931
(In Receivership)	J. Ray Weber, Receiver	---	---	1931-1936
Mackay Exploration Co.	Ted Cherry, President; J. Ray Weber, Manager	August 21, 1939; Reinstated March 25, 1974	1971; 1974	1939-1960
Custer Copper Corp. (lessee)	W.P. Barton, President	June 28, 1946	Active through 1967	1946-1956?
Idaho Alta Metals Corp. (lessee)	E.G. Bowen, Executive Vice President	November 19, 1954; Reinstated January 24, 1957	1956?; November 30, 1959	1956-1958
R.V. Lloyd & Co.	R.V. Lloyd, President	1	Company reorganized as Lost River Mines, Inc.	1960-1965
Lost River Mines, Inc. (Empire Copper, Inc.)	R.V. Lloyd, President	March 4, 1965	November 30, 1966	1965-1966
J.R. Simplot Co.	J.R. Simplot, President	February 2, 1946	Active	1970
Ivie Mining Co.	W.W. Ivie, President	December 10, 1969; Reinstated January 30, 1974	1971; 1975 (Company taken over by Honolulu Copper Co.	1971-1974
Honolulu Copper Co.	1	1	1	1972-[1]
Myko, Inc.	Ivan Taylor, Vice President	March 7, 1973	Not reported as active in 1981	1973-1974[1]
Exxon	1	1	Still Active	Exploration: 1977

The first systematic modern-day exploration was conducted by Cambior Exploration USA Inc. ("Cambior"), who explored the property from 1995 to 1997. This exploration entailed data compilation, surface mapping, surface sampling, and ground and airborne magnetic surveys. Between 1996 to 1997 the company drilled 47 core holes (totaling roughly 24,100 ft) on approximately 330-ft (100-m) spaced fences along the N-S strike of the deposit, including 21 in the AP Pit area.

Sultana Resources, LLC leased the property in October 1999, but there is little information available regarding exploration or other activities, including transfer of Project ownership, carried out between 1999 and 2004. In December 2004, Trio Gold Corporation ("Trio") completed a 10-hole, 2300-ft (700-m), reverse-circulation ("RC") and PQ-core drill program in the AP Pit area. The salient results of the program are documented by van Angeren (2005). The drilling program consisted of nine 4.5-in diameter RC drillholes (2,200 ft) and one 3.4-in diameter PQ-core drillhole (95 ft). All of Trio's drillholes were vertical.

RC cuttings were sampled at 1.5 m intervals. Two samples, ranging from 900 g to 5440 g, were bagged from each interval, sample size depending on sample recovery. It is not known how these samples were split. A total of 398 RC samples were sent for assay to American Assay Laboratories (AAL) in Reno and 45 duplicate samples were sent to Loring Laboratories Ltd., Calgary. Trio's PQ-core hole was drilled at the north end of the AP pit for metallurgical purposes. The core and other bulk sample material were sent for testing at Kappes, Cassiday & Associates Inc. ("KCA") in Reno, Nevada.

Trio's drill program was successful in improving the thickness of mineralization to at least 220 ft, and in confirming the grades of copper, gold and silver in the AP pit area. Due to the nearly flat-lying nature of the AP Pit oxide skarn, thicknesses are considered reasonably true. Results of the drilling exploration indicate that copper favors exoskarn, whereas gold is more closely associated with limonitic (FeOx) breccias and stockworks.

Based on the results of Trio's 2004-2005 drilling exploration, a 65-drillhole infill drilling program, along with comprehensive metallurgy, was planned for 2005 and 2006 (van Angeren, 2005). The new drill locations were proposed to test mineralization below existing drilling, and to test the precious metals content within the known copper orebody as well as to extend precious metals testing to greater depth.

In 2006, Journey Resources Corporation ("Journey") drilled 33 of the 65 holes proposed by Trio. All the drillholes were in the AP pit area focusing on oxide mineralization, with the balance planned for 2007. The 33 holes totaled 13,240 ft and consisted of five NQ core and 28 RC, with two of the RC drillholes lost. Summary significant results from this drilling were reported by Anderson (2007). All drillholes were inclined at -45° to the west, and true thicknesses are considered to be approximately 75% of drilled values.

Journey's drill program was successful in confirming the grades and widespread distribution of copper, gold and silver in the AP pit area, and further confirmed the results of the previous drilling exploration carried out by Trio. In April 2007, Anderson Resource Associates Inc. produced a technical report on the Empire Mine Project for Trio and Journey. This report included a mineral resource and mineral reserve estimate for the oxide portion of the Empire Mine deposit. The planned next phase of exploration, to complete the remaining 32 drillholes of the 65-drillhole schedule, was conducted by Musgrove in 2011.

Musgrove completed 14,265 ft of RC drilling in 24 drillholes in 2011 (van Angeren, 2014). Seventeen holes were drilled in the northern half of the skarn deposit, in the area subject to the most intense historical underground development. The other seven drillholes were in the AP pit area. All drillholes were inclined at -50° to the west. True thicknesses of the mineralized zones are variable and unknown but are considered to be up to 75% of drilled intervals. Highlights of the 2011 campaign completed by Musgrove were reported by van Angeren (2014).

Finally, in 2013, Boxxer Gold Corporation ("Boxxer") initiated follow-up work on Trio's 2005 metallurgical testing by extracting four bulk samples from four test pits representing the four different mineralized rock types encountered. The results of the 2013 Boxxer Gold testwork are presented in Section 13.3 of this report. No other work is known to have been completed between 2013 and Konnex's acquisition of the Project.

6.2 Historic Estimates

The mineral resource estimate described in the following paragraphs pre-dates current NI 43-101 reporting standards and is not classified according to current CIM definition standards. The historic mineral resource estimate described here is not considered contemporary, accurate or reliable, and is included here for historical completeness only. Konnex does not intend to imply that the historical estimate validates, corroborates or otherwise impacts the current mineral resource statement as presented in Section 14 of this report.

In 1997, based on the results of the drilling exploration completed at that time, Cambior reported mineral resources of 27 million Tonnes grading 0.42% copper, mostly within the AP pit area (Schnabel & Lloyd, 1997, and Cambior, 1997). Cambior used geologically representative search distances of 100 feet and 200 feet from contiguous 5-ft core samples on 20x20x20 foot blocks in an inverse distance algorithmic model, with commercially available Techbase software. Most of Cambior's drill fences are 100m to 330m apart, with holes on 60m centers.

While Cambior's estimate was based on extensive diamond drilling and was calculated by a reputable Canadian mining company using modern, industry accepted standards and practices, the estimate does not conform to current NI 43-101 Standards of Disclosure. Cambior's terminology, including "drill indicated oxide resource", does not conform to the requirements of Sections 1.3 and 1.4 of NI 43-101, and a qualified person has not done sufficient work to classify the historical estimate according to modern reporting requirements. Konnex is not treating the historical estimate completed by Cambior as current.

6.3 Historic Production

The Empire Mine produced 694,000 tonnes with a recovery of 3.64% Cu, 1.64 g/t Au and 53.8g/t Ag from underground workings during the period 1901 to 1942 (Farwell & Full, 1944). Actual head-grades are unknown, although mine inspector reports indicate that direct-shipments to the smelter averaged 6% Cu (Anonymous, 1911, 1912 and 1923). A further 115,500 tonnes at 2.27% Cu, 1.11 g/t Au and 23.76 g/t Ag were mined intermittently from 1943 to 1971, (USGS Bull 2064-I, 1995). No production records are available for material extracted after 1971.

Historical production from numerous adits and shafts in the Horseshoe claim block, including the former Horseshoe Mine, Blue Bird Mine, and White Knob Mine, was predominantly from skarnified limestone in contact with porphyritic intrusive bodies. Documented production was predominantly high-grade silver, lead, and zinc occurring as galena and sphalerite. The White Knob and Blue Bird Mines produced in excess of 12 million pounds of lead and 300,000 oz of silver prior to WWII with reported average grades of 10 oz per tonne of silver and 17% lead. Grades at the Horseshoe Mine are reported as 20% lead and over 100 oz of silver per tonne.

7. GEOLOGICAL SETTING AND MINERALIZATION

A portion of the text presented in this section is modified and/or excerpted directly from '*An Independent Competent Person's Report on the Empire Mine, Idaho, USA*' prepared by SRK (SRK, 2017). The author has reviewed this information and the available supporting documentation in detail, and finds the descriptions and interpretations presented herein to be reasonable and suitable for use in this report.

7.1 Regional Geology

This portion of east-central Idaho lies within the Cordilleran fold and thrust belt, and in the Basin-and-Range structural and geo-physiographic province. Rocks types and structures throughout the region reflect a long and complex history of deformation. Strata were deposited here in the Mesoproterozoic Belt intracratonic rift basin, and episodically in the late Neoproterozoic and Paleozoic Cordilleran miogeocline. A regional geologic map of the Project vicinity is presented as Figure 7-1.

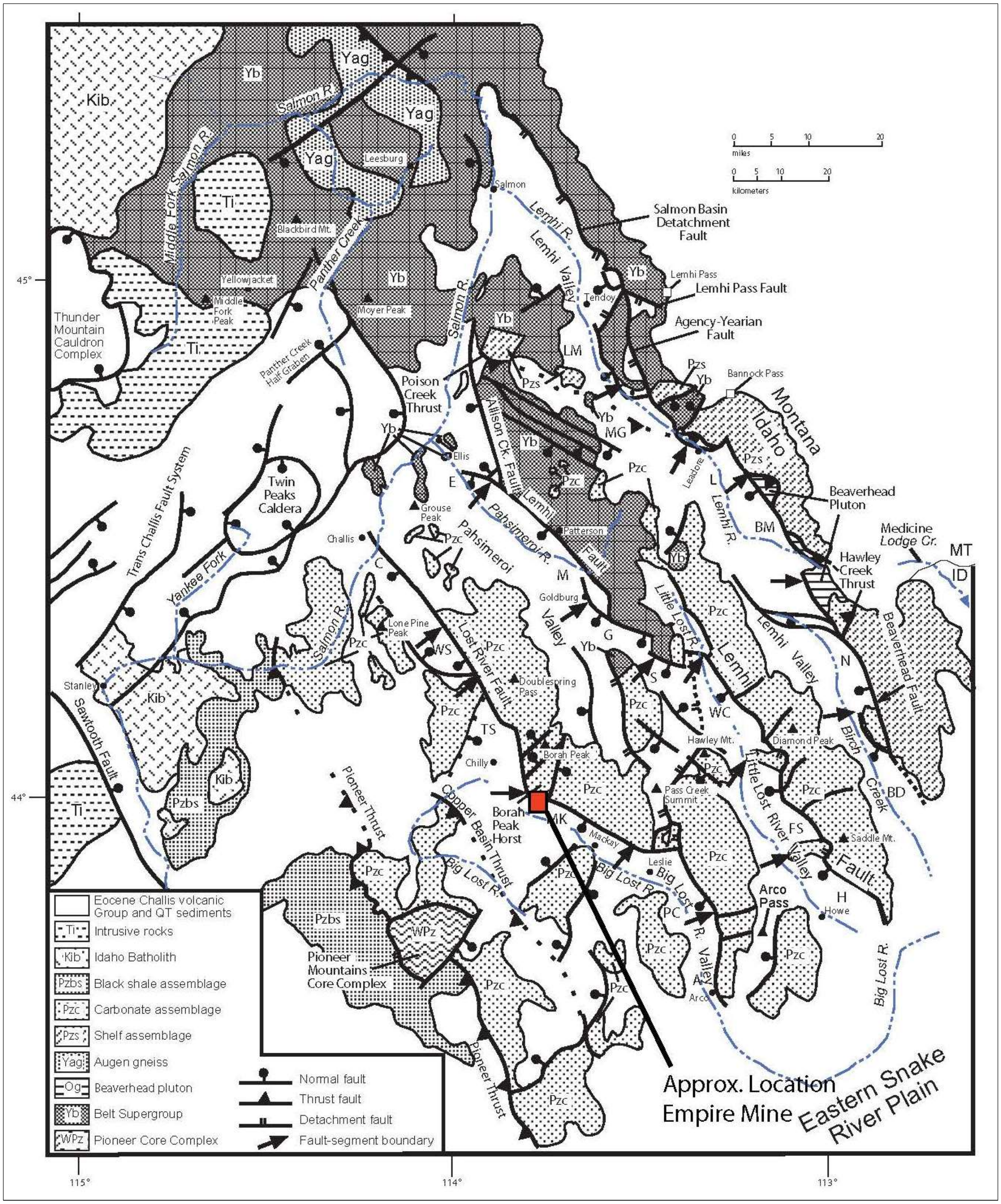

Figure 7-1 Regional Geologic Setting of the Empire Mine Project (Chang and Meinert, 2008)

Paleozoic tectonostratigraphic events include: transpressional latest Devonian and Mississippian Antler deformation, Early Mississippian faulted foreland-basin deposition east of the Antler belt, and inversion tectonics during the Pennsylvanian and Permian Ancestral Rockies orogeny. Large carbonate bank systems were present in Silurian, Late Devonian, and Late Mississippian time. In the central-Idaho black-shale mineral belt, syngenetic sedimentary exhalative base-metal deposits of the Devonian Milligen Formation formed in normal-fault bounded marginal-basins. The Early Mississippian Madison Group carbonate bank did not prograde west into east-central Idaho. Deformation and intrusion of the Mesozoic Cordilleran orogenic belt produced regional northeast-vergent thrust faults, numerous folds (Ross, 1947), and, in the western part of the area, the extensive, mainly Late Cretaceous, Atlanta lobe of the Idaho batholith.

Extension along several sets of normal faults began before Middle Eocene Challis volcanism, exhumed the Pioneer metamorphic core complex, and produced numerous Tertiary half-grabens in a system of north-trending Paleogene basins. The Challis Volcanic Group and associated shallow plutons covered and intruded much of the northern and western parts of the area and produced diverse mineral deposits. The region is actively extending along a system of dominantly north-northwest-striking normal faults. Today, this portion of east-central Idaho is on the northern flank of the late Cenozoic track of the Yellowstone-Snake River Plain hotspot, which has produced bimodal volcanic rocks along the plain and an east-northeast-trending topographic bulge.

7.2 Local and Property Geology

The Empire Mine Project is located within the Alder Creek Mining District of east central Idaho. This region lies to the east of the Idaho Batholith and north of the Snake River Basalt Plain, within the Cordilleran thrust belt at the northern edge of the Basin and Range structural province. The rock formations of the district comprise a thick series of Carboniferous limestones intruded by a batholithic mass of late Cretaceous granite to early Eocene porphyry, all traversed by narrow dikes of trachyte porphyry closely related to the granite porphyry in age and composition but differing from it markedly in general appearance. A thick series of Miocene lavas and tuffs occupies erosional depressions along the eastern and southern margins of the district. These volcanic rocks are partially covered by Quaternary gravels.

The Empire Project area overlies a north-trending contact zone between an Eocene granitic complex, including the Mackay Granite and Mackay Porphyry, and the Upper Mississippian age White Knob Limestone. This contact zone includes a garnet-pyroxene-magnetite skarn developed in both the carbonate and intrusive rocks. The skarn hosts the polymetallic copper mineralization which characterizes the Empire Mine. The intrusive contact is sharp and dips steeply eastward.

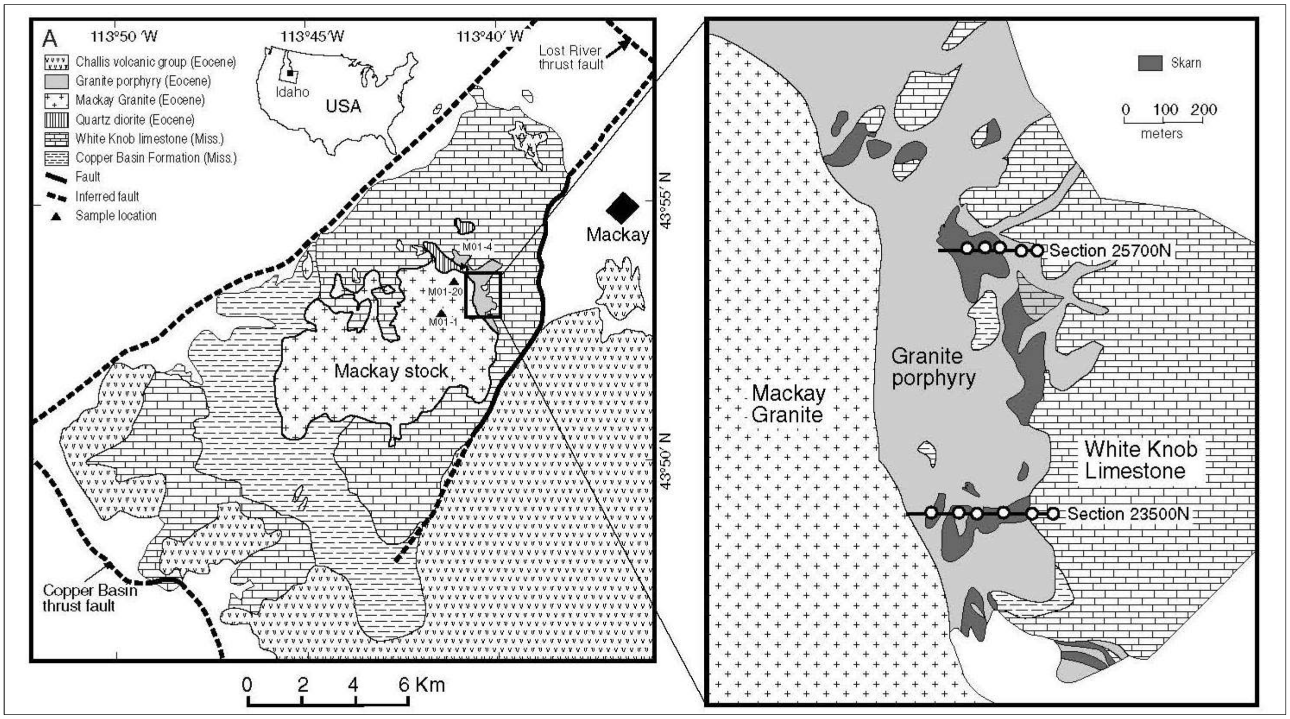

Figure 7-2 Local Geologic Setting of the Empire Mine Project (Chang and Meinert, 2008)

7.2.1 Lithology

Bedrock geology in the Empire Mine Project area is comprised of Paleozoic sedimentary rocks and Tertiary volcanics and intrusives. The oldest rocks in the Project area belong to the Copper Basin Formation and the White Knob Limestone, both ranging in age from Early Mississippian to Early Permian. The White Knob Limestone consists primarily of light to dark gray pure limestone in beds that range from a few inches to about 10 feet in thickness. The White Knob Limestone is both underlain by and interfingered with the Copper Basin Formation, which is largely composed of non-carbonate clastic rocks ranging from shale to conglomerate. Within the Project area, the Copper Basin Formation is represented by medium to dark gray argillaceous siltstones and fine grained quartzites. The sedimentary strata together are folded, with anticlinal and synclinal axes generally trending north-northwest, and fold limbs dipping moderately to steeply to the northeast and southwest.

The sedimentary rocks are both intruded and overlain by Tertiary igneous rocks. The Tertiary Mackay Granite is the largest intrusive body in the vicinity of the Project and is exposed over an area of approximately 30 km^2, trending roughly northeast, just west of the claim block. The Mackay Granite consists of gray, medium grained granitic rocks ranging in specific composition from quartz monzodiorite to granophyre to porphyritic granite. The Mackay Porphyry is a very fine grained, gray to white, leucocratic granite porphyry (or leucogranite porphyry) which occurs as a 500-m wide border phase of the Mackay Granite. The Mackay Porphyry is traceable for at least 2100 m within and beyond the Project area, separating the Mackay Granite from the White Knob Limestone, and hosting all the embayments and pendants of the latter.

Skarnification within the Mackay Porphyry was facilitated by its high fluorine content; fluorine, a volatile, indicates that the porphyry was a "wet" intrusion, which would have facilitated fluid and mineral transfer between the intrusive and wallrocks, resulting in calc-silicate skarnification rather than simple thermal metamorphism of the limestone. The Mackay Granite, on the other hand, was "dry" (depleted in volatiles), and it did not result in skarnification in the limestone. Field relationships observed in the mine workings and in core confirm that the Mackay Porphyry was an early, volatile-rich, apophysis of the Mackay Granite, and was later intruded by the granite and its attendant aplite dykes.

Various granodiorite and aplite dykes intrude all other formations and appear to postdate skarn formation. Aplite also forms a seemingly plug-like mass underlying the site at shallow depth. Aplite does not appear to have caused skarn-formation in the White Knob Limestone.

The Empire Mine calc-silicate skarn forms a 150-m wide sinuous belt extending for more than 2500 m along the limestone - porphyry contact from the south end of the property to the White Knob Mine (Figure 7-2). The skarn consists of garnet with significant quantities of diopside, along with subordinate amounts of magnetite, hematite, actinolite, scapolite, wollastonite, epidote, and fluorite. Well-banded green diopside skarn (exoskarn) is developed in the limestone and siltstone where they form embayments and pendants within the intrusive complex. These pendants are a significant host of low-grade copper mineralization.

Three types of skarn have been identified, i.e. green exoskarn, brown endoskarn and black magnetite skarn. Brown endoskarn dominates over green exoskarn, which in turn dominates over black magnetite skarn:

i) Green exoskarn (derived from limestone) consists primarily of well-banded diopside-garnet ± laminae of coarse magnetite grains.

ii) Brown endoskarn (derived from porphyry) is massive, sucrosic and garnet-dominant. Most of the garnet is iron-rich brown andradite and translucent-yellow grossularite (Umpleby, 1917).

iii) Magnetite skarn occurs as massive, fine-grained, crudely bedded magnetite with rare "rip-up" clasts of exoskarn, and less-so as magnetite-cemented breccia with abundant fragments of exoskarn and/or endoskarn.

All three skarn-types contain subordinate amounts of hematite, actinolite, scapolite, wollastonite, epidote and fluorite. Exoskarn typically forms large masses which appear to have "rafted" into the porphyry as pendants and embayments. The inner edges of the larger exoskarn bodies often grade to massive magnetite skarn at their contact with endoskarn or porphyry. This is most evident at the southern edge of the large exoskarn mass which underlies the AP Pit. Remnant bedding can still be traced into the magnetite from the rest of the exoskarn body. The magnetite breccias may represent the pathways which provided access of mineralizing hydrothermal fluids into the then developing skarn. At the outer margin of the skarn is a narrow discontinuous belt of marble separating it from fresh limestone.

The Empire Mine skarn is cut lengthwise by several linear bodies of gossanous, clay-altered, iron oxide breccia (FeOx breccia), which may represent post-skarnification faults. These structures are a significant host of copper-gold mineralization.

7.2.2 Structure

The Project area occupies a portion of the Idaho-Wyoming fold and thrust belt, and specifically the White Knob thrust plate, which is bounded by the Cretaceous Copper Basin Thrust to the southwest and the Big Lost River Thrust to the northeast (Figure 7-1). Within the White Knob thrust plate, two northeast-striking Eocene faults define the northwest and southeast margins of the White Knob horst. Within the White Knob horst, Mississippian sedimentary rocks are folded with anticlines and synclines generally trending north-northwest, with some local variation. Fold limbs dip moderately to steeply to the northeast and southwest. The uplift of the horst and pluton emplacement were thought to be synchronous, but recently it has been proposed that the uplift may be earlier than the intrusion (Chang and Meinert, 2008).

In addition to the dominant northeast-striking extensional structures including the horst, faults, intrusions and dyke swarms, there are also northwest-striking Neogene faults in the vicinity of the Project area. These faults are a product of Basin and Range extension and are prevalent throughout the Challis Volcanic Group within and on the northwest and southeast sides of the horst.

7.3 Alteration and Mineralization

Copper-gold-zinc-silver mineralization at the Empire Mine falls into the skarn-hosted, polymetallic deposit type. In fact, historical results and mining records suggest that skarn mineralization at Empire may exhibit depth zonation with copper giving way to zinc and finally tungsten mineralization. The exact process of this zonation is as yet unknown. This skarn has been overprinted by a later epithermal event along pre-existing structures resulting in the gold and silver mineralization encountered.

Both copper-oxide (carbonates, malachite and azurite) and sulphide (chalcopyrite/chalcocite) mineralization is developed to varying degrees within exoskarn in rafted limestone fragments and endoskarn in porphyry. The copper oxide mineralization occurs as veinlets, stockworks, and disseminated oxide/sulphides. The sulphides have similar characteristics, but also occur as massive lenses, both copper sulphides and magnetite, along skarn-hosted fault breccias. In both breccia types, the degree of mineralization appears to be a function of the amount of contained skarn fragments. The copper and iron were apparently introduced into the skarn during the latter stages of the skarnification processes (Chang, 2003). Brittle faulting/shearing and ductile deformation during the skarnification process likely provided the conduits for mineralizing fluids. These conduits may be exemplified by magnetite breccia.

At the northern end of the property, mineralized zones dip eastward at about 45° to 90°, somewhat parallel to the limestone-porphyry contact (but cross-cutting the west-dipping limestone), At the southern end, in the vicinity of the AP Pit area, the dip of both exoskarn and mineralization ranges from 30° to 50° towards the east, suggesting that the skarn body may represent a detached raft of limestone.

Drilling has encountered a skarn-hosted body of disseminated and stockwork copper-oxide mineralization extending over a strike length of 1200 m, with a thickness of 6 m to 73 m from surface, and a width of up to 130 m. The "width" figure is a function of topography; the skarn is exposed along a steeply inclined north-trending ridge-crest, with the northern most outcrop being 255 m lower in elevation than the southernmost exposure. All of the mineralized intercepts are in endoskarn, exoskarn and skarn-hosted breccias. The mineralization intersected is oxidized from surface to a vertical depth of approximately 120 m, with sulphide mineralization dominating below that depth. The transition zone between oxide and sulphide extends over tens of meters.

The Empire Mine skarn is overprinted by a series of north-trending anastomosing faults which are represented by gossanous breccias, veins and stockworks up to several meters in width. Herein termed “FeOx breccias”, these structures consist of intensely clay-altered, chalky and brecciated wallrock (exoskarn, endoskarn and porphyry) cemented by siliceous limonite and goethite (sulphide derived iron-oxide?). Brecciation clearly post-dates skarnification. The breccias appear to have been affected by advanced argillic alteration (clay+pyrite+silica), and have open-space textures, both of which are strong epithermal signatures. These FeOx breccias are auriferous and represent a late stage, epithermal, gold-rich, hydrothermal regime overprinted upon the skarn. The copper in these epithermal structures may have been scavenged, in-part, from the pre-existing skarn.

The highest-grade mineralization at the Empire Mine occurs as a poorly defined, steeply dipping, locally iron-rich, 5 m to 15 m thick, copper-gold zone located within and below the large body of skarn-hosted disseminated copper mineralization. Drill core indicates that the skarn in this high-grade zone has been sheared, brecciated and overprinted with iron oxides (FeOx brecciation). This structure may have been active throughout skarn formation and may have been the major pathway for both the skarn-aged copper mineralization and the late-stage auriferous mineralization. In the deeper levels of the mine, this structure contains lenses and veins of copper-bearing massive sulphide. This higher-grade zone forms the bulk of the historical Empire Mine, which has been partially worked for 350 m vertically and 900 m laterally. The near-surface oxide mineralization is interpreted to remain open along strike. The higher-grade sulphide zone, which underlies the oxide zone, is open in all directions, and remains virtually unexplored.

The scale of the processes of skarn development and associated hydrothermal mineralization is characteristic of a large (3.5 km long by 40 to 150 m wide) skarn system flanking a poorly understood parent intrusive body measuring 3,500 m in the north-south extent and some 250 to 500 m in width (Maund, 2016). Previous exploration at the Empire Mine has primarily focused on a shallow copper oxide resource comprising a 400-m section of the 3,500 m length of the skarn body and has largely discounted or ignored supergene and sulphide Cu, Au, Ag, Zn, W mineralization.

8. DEPOSIT TYPES

A portion of the text presented in this section is modified and/or excerpted directly from '*An Independent Competent Person's Report on the Empire Mine, Idaho, USA*' prepared by SRK (SRK, 2017). The author has reviewed this information and the available supporting documentation in detail, and finds the descriptions and interpretations presented herein to be reasonable and suitable for use in this report.

Mineralization at the Empire Mine is representative of a polymetallic skarn deposit. Several other similar deposits occur in the near vicinity of the Empire Mine, including the White Knob Mine and Copper Basin Mine, located 1.0 km north and 16 km southwest, respectively, of the Project area.

Polymetallic skarn systems can host mineralization containing a number of metals including Au, Cu, Pb, Zn, Fe, Mo, W, Ag and Sn. The term skarn is used to refer to the metasomatic replacement of carbonate rocks such as limestones by calc-silicate mineral assemblages during contact or regional metamorphism. Mineral deposits associated with skarn assemblages are referred to as skarn deposits and are typically the product of contact metamorphism and metasomatism associated with the intrusion of granite or porphyritic systems into carbonate sediments. The different metals found in skarn deposits are a product of differing compositions, oxidation state and metallogenic affinity of the intrusion that provides the source fluids. The metals observed at the Empire Mine Project are indicative of an intermediate I-type granite source. If the skarn is hosted in limestone such as those within the White Knob limestone, then they are referred to as a calcic exo-skarn as the metasomatic assemblage is hosted external to the Eocene intrusive.

Figure 8-1, modified from Robb (2005), illustrates a typical environment in which polymetallic skarns normally form. When a granite or porphyry stockwork intrudes into a carbonate sedimentary sequence, the fluids associated with the intrusion pass through the contact sediments. This creates prograde hydrothermal alteration of varying intensities as a function of the host sediment composition and reactivity of this with the fluids. In the case of the Empire Mine Project, the reactive porous Mississippian age sedimentary sequence form the hosts to the exoskarn mineralization and are pervasively altered. A distinct zonation is often evident in both the alteration suite and tenor of mineralization, with both increasing toward the center of the intrusive stockwork.

Figure 8-1 Example Ore-bearing Magmatic-Hydrothermal Fluid Association with Granitic Stock (Modified from Robb, 2005)

At the Empire Mine Project, intrusion of the Mackay Granite is considered the fluid source for alteration and mineralization of both the endoskarn and the exoskarn within the reactive, porous, Mississippian age limestone sequence. Skarns tend to exhibit zoned alteration from hematite-magnetite and epidote-garnet-magnetite close to the intrusions center, to more distal epidote-garnet and other alteration products. Mineralization can also exhibit zonation with copper dominate mineralization being replaced distally by zinc and then by tungsten and tin.

Past observations suggest that the gold and silver mineralization observed at the Empire Mine project are later stage and may cut across and over printed earlier skarn mineralization. This mineralization has been classed as late stage epithermal mineralization and is associated with continued hydrothermal circulation through the Mackay Porphyry.

Epithermal gold systems are metalliferous sources that can host mineralization containing a number of metals including gold (Au), lead (Pb), zinc (Zn), silver (Ag), mercury (Hg), antimony (Sb), copper (Cu), selenium (Se) and bismuth (Bi). These systems generally form near surface or at depths less than 1500 m. They occur associated with extrusive or near surface intrusive rocks and often occupy normal fault or joint systems bottoming out at 300-900 m below surface before erosion. The zone's themselves can be observed to be formed of simple veins with some irregular development of mineralization chambers commonly in pipes or stockworks.

Figure 8-2 (modified from Robb, 2005) illustrates a typical environment in which low and high sulphidation epithermal gold deposits might occur. For high sulphidation veins acidic fluids from the intrusive porphyry system follow a direct structural discontinuity to surface creating advanced argillic alteration in the wall rock and forming veins, veinlets or breccias. These are generally gold and copper bearing at temperatures of approximately <200°C.

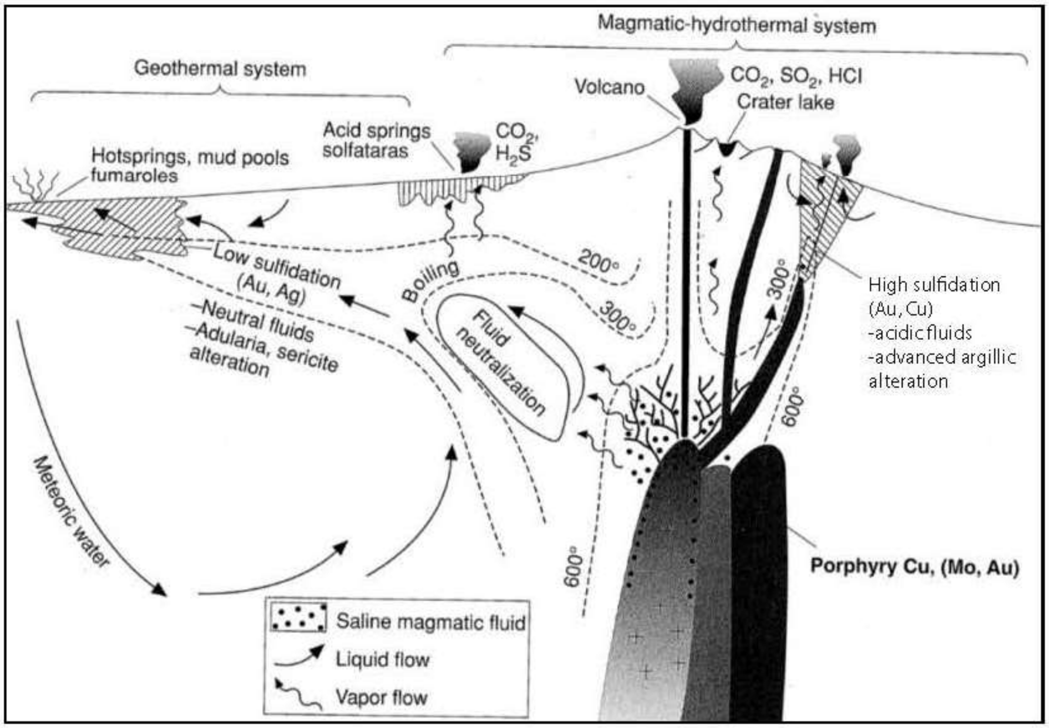

Figure 8-2 Geological Setting and Characteristics of Low-sulfidation and High-sulfidation Epithermal Deposits (Robb, 2005)

For low sulphidation veins, acidic fluids from the intrusive porphyry system follow a structural discontinuity where they interact with meteoric waters and are neutralized. These neutral fluids then continue to surface creating adularia and sericite alteration of the wall rock before forming veins and veinlets that are gold and silver bearing at temperatures of 100-200°C. Some examples of these gold systems can be observed in the USA at the Cripple Creek deposit in Colorado and the Comstock deposit in Nevada.

Both skarn and epithermal deposits are continuum of deposits styles related to igneous intrusions. Other related deposit types include porphyry copper deposits, which commonly occur adjacent to and below skarn deposits, as do iron-oxide-copper-gold deposits (IOCG). Vein-type copper-lead-zinc deposits are often found in the calcareous formations distal to the skarn mineralization. Although no porphyry copper or IOCG system has yet been detected at the Empire Mine Project, several high-grade Pb/Zn + Ag veins occur in the White Knob Limestone, well away from the skarn.

9. EXPLORATION

In 2018, Konnex geologists collected channel samples from rock outcrops in areas difficult to drill due to topographical constraints (Figure 9-1). The channel samples were collected as continuous 5-foot samples, end-to-end, and oriented cross dip as much as possible to mimic the trace of a drill hole and represent the true thickness of mineralization. Konnex geologists attempted to collect sample weights consistent with that of one-half of an HQ core sample. Channel samples were assayed using the same methodology as core and RC chip samples. HRC knows of no other sampling or recovery factors that might materially impact the accuracy of the channel sampling results.

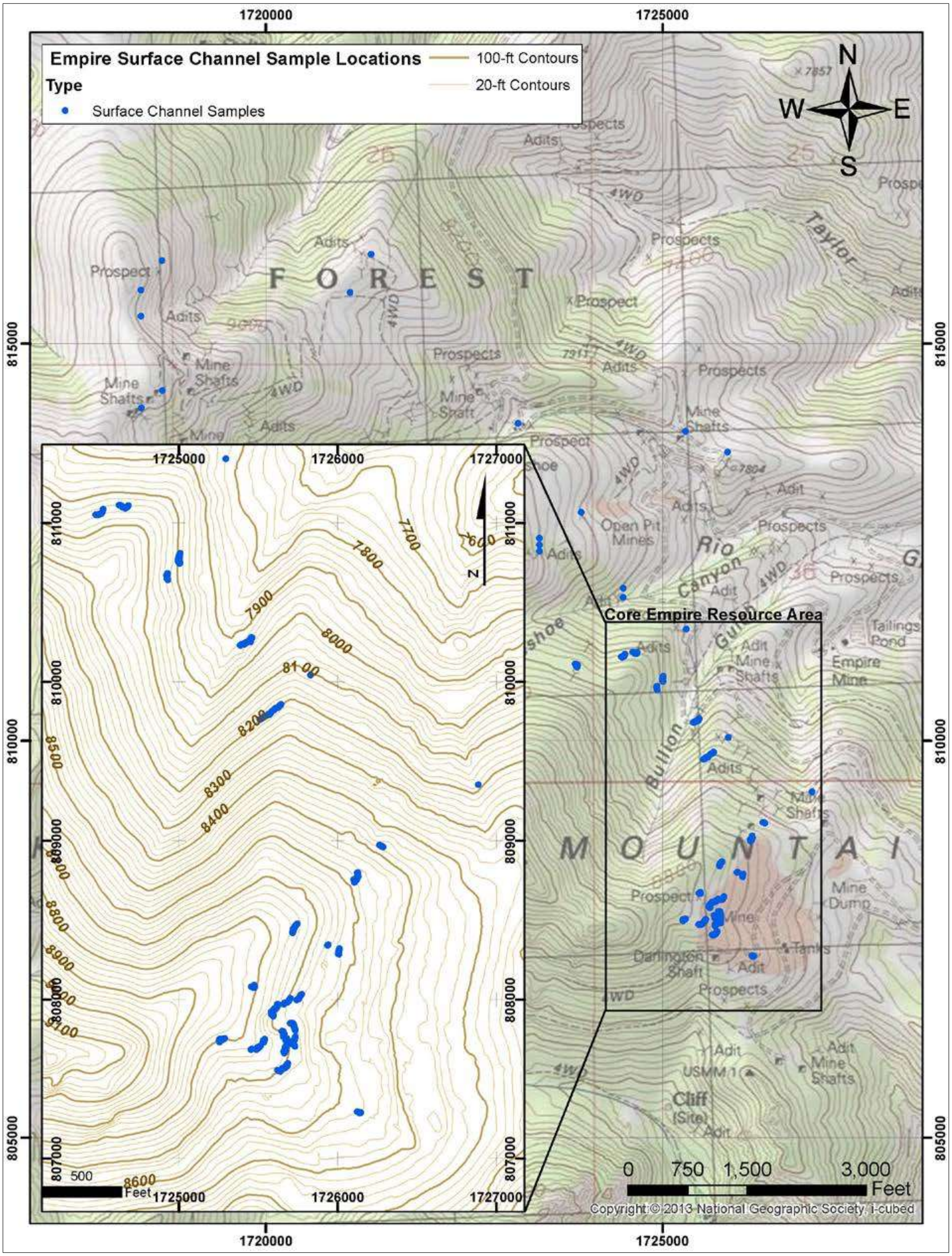

Figure 9-1 Konnex Channel Sample Locations

Results of the channel sampling program extended known mineralization to the surface within the proposed pit limit and led to the discovery of the Red Star resource area, which is located roughly 1000 ft to the northwest of the proposed pit. Of the 329 channel samples collected, 161 contained greater than 0.1% Cu. In the Red Star area, one continuous channel comprised of 12 individual 5-ft samples returned a composite assay of 0.65% Cu, 0.12% Zn, 0.36 g/t Au, and 16.4 g/t Ag.

HRC is not aware of any other exploration activity, other than drilling, with sufficient supporting documentation or detail to warrant presentation in this report.

10. DRILLING

Drilling at Empire covers approximately 180 acres, totals approximately 123,590 feet, and consists of both RC and diamond core drilling. Drilling has been conducted predominately from the surface, except for drilling completed by U.S.B.M in 1943, which was conducted from existing underground mine developments. Drillholes at ground surface are oriented either vertically or perpendicular to mineralized skarn, and drilling is largely concentrated in the southern portion of the Project area. Drillhole collar locations are presented in Figures 10-1 and 10-2, and drillhole collar coordinates and orientations are tabulated in Appendix B.

10.1 Konnex Drilling 2017, 2018, and 2020

In 2017, 2018, and 2020 Konnex completed a total of 42,852 feet of drilling in 40 core and 120 RC drillholes (Figure 10-1). Konnex's 2017 drilling campaign consisted of 33 drillholes totaling 9193 feet in 2017 within the 175.6-acre area. The drilling program included infill and step out holes to test mineralization continuity up dip to the west. Twenty-two RC drillholes account for 5,257 feet, and 11 diamond drillholes total 3,936 feet. Drillholes were oriented either vertically or angled west to be perpendicular to mineralized skarn. Given the shallow-dipping nature of the deposit, significant intercepts are considered to slightly exaggerate the true thickness of mineralization. One drillhole was angled back towards the east. Drillhole collar locations were surveyed using handheld GPS and are accurate to within 12 feet of the collar location.

Drilling was contracted through AK Drilling, Inc., of Butte, MT. Core holes were drilled using a track mounted drill rig, and RC holes were drilled using a wheel mounted prospector buggy rig with an articulating boom. Core and RC recoveries were generally excellent, except when drilling intersects historic underground workings. Twelve RC drillholes and three core holes were surveyed downhole by International Directional Services, LLC (IDS) using a surface recording gyro (SRG) wireline tool.

Results from the 2017 drilling program show infill drilling encountered favorable mineralization in expected areas. Step out drilling confirmed mineralization continuity up dip and to the west. Only two drillholes (KX17-14 and KX17-21) did not encounter mineralization. Table 10-1 summarizes significant intercepts with total copper, gold, silver, and zinc grades from the 2017 campaign.

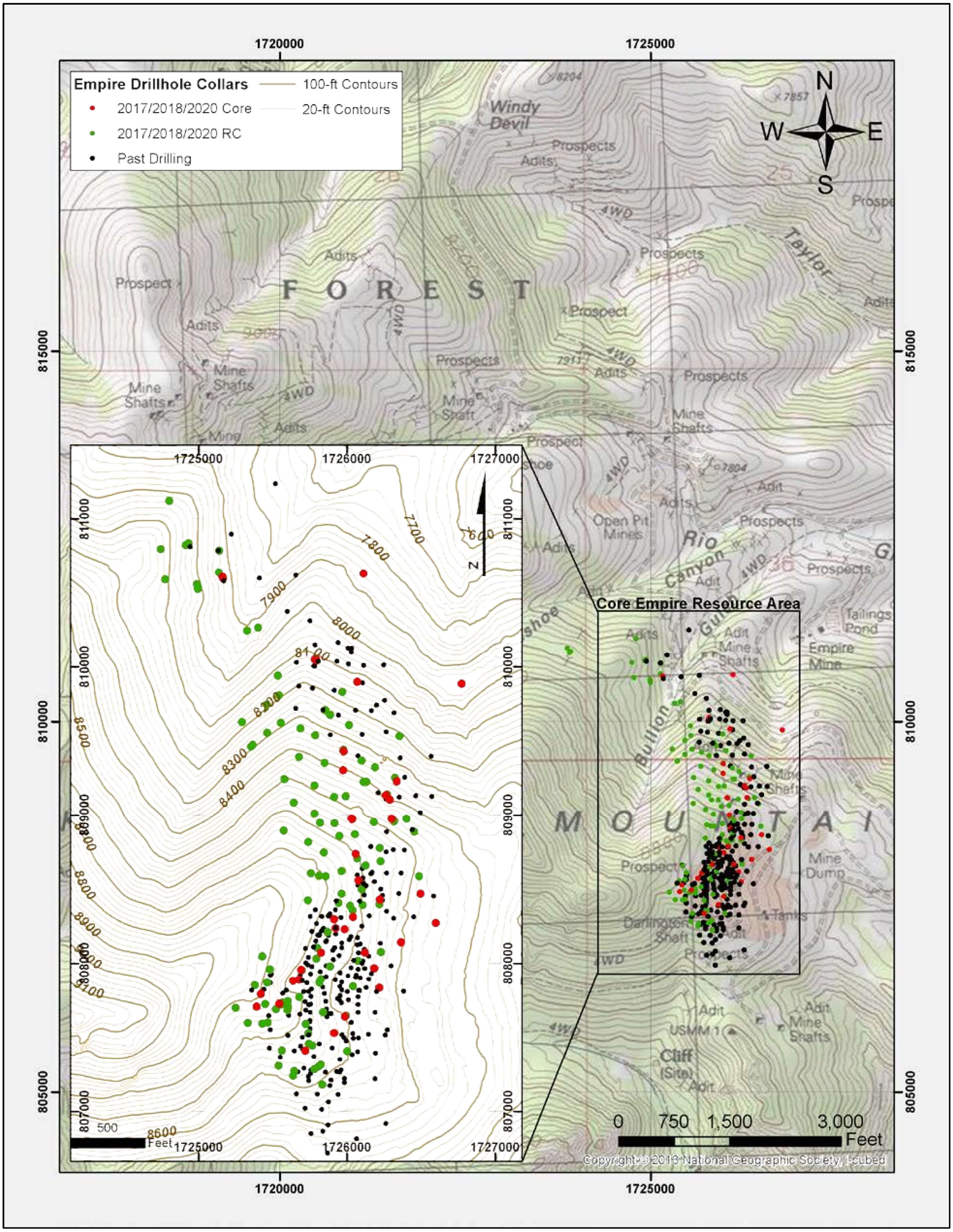

Figure 10-1 Konnex Drillhole Collar Locations, 2017, 2018 and 2020 Drilling

Table 10-1 Selected intervals from Konnex Resources 2017 Drilling Campaign

Drillhole	From (ft)	To (ft)	Length (ft)	Cu %	Au g/t	Ag g/t	Zn %
KX17-1	5	15	10	0.06	0.01	7.95	0.18
KX17-2	45	95	50	0.69	0.24	10.22	0.07
KX17-3	55	75	20	1.65	0.16	79.07	0.07
KX17-4	260	280	20	0.37	0.09	7.38	0.11
KX17-5	140	155	15	0.17	0.01	6.23	0.24
KX17-6A	45	60	15	1.46	0.05	14.20	0.04
KX17-7	90	115	25	0.93	0.07	26.58	1.04
KX17-8	35	60	25	0.40	0.04	12.34	0.07
KX17-9	0	55	55	0.82	0.12	11.91	0.13
KX17-10	60	120	60	0.38	0.02	12.60	0.12
KX17-11	175	190	15	0.40	0.10	9.60	0.22
KX17-12	80	100	20	0.72	0.09	20.85	0.16
KX17-13	25	45	20	0.22	0.08	5.33	0.04
KX17-15	195	210	15	0.22	0.13	15.07	0.13
KX17-16	140	165	25	1.73	3.22	65.22	0.14
KX17-17	0	20	20	1.06	0.86	50.47	0.48
KX17-18	0	20	20	0.58	0.32	9.34	0.11
KX17-19	135	150	15	0.11	<0.01	3.80	0.14
KX17-20	120	135	15	0.30	0.04	4.87	0.02
KXD17-1	80	100	20	1.31	0.06	24.90	0.52
KXD17-2	25	145	120	0.88	0.19	24.23	0.68
KXD17-3	175	230	55	1.74	1.25	41.41	0.14
KXD17-4	70	90	20	0.57	0.59	16.30	0.06
KXD17-5A	15	70	55	0.56	0.18	31.72	0.34
KXD17-6	50	75	25	0.46	0.03	320.42	0.05
KXD17-7	30	50	20	2.08	2.48	55.42	0.09

In 2018, Konnex completed 7,318 ft of core drilling and 20,350 feet of RC drilling. The 2018 drilling campaign was designed with three primary objectives: first, to target the inferred areas within the proposed pit boundary and improve understanding of mineralization in those areas; second, to target peripheral mineralization in the northern and eastern portions of the Project area outside of the pit; and third, to obtain a sufficient amount of core sample to be used for metallurgical test work.

Drilling in 2018 was again conducted by AK Drilling, Inc., of Butte, MT. A total of 27 core holes were drilled using a track mounted drill rig, and 65 RC holes were drilled using a wheel mounted prospector buggy rig with an articulating boom. Downhole surveys were completed using a Reflex Instruments Mims Gyro tool that was operated by the drilling contractor. Both core and RC recoveries were reported as excellent, and HRC knows of no other drilling, sampling, or recovery factors that might materially impact the accuracy of the drilling results.

Stepout drilling in 2018 intercepted previously unknown mineralization to the east and west of the proposed pit and confirmed the presence of significant mineralization in the newly discovered Red Star area. Based on the 2018 drill results, known mineralization now covers a strike length of roughly 2.2 miles. Significant intercepts encountered during the 2018 drilling program are summarized in Table 10-2. The 2018 drillholes were largely oriented perpendicular to the orientation of mineralization, and for this reason significant intercepts are considered generally representative of the true thickness of mineralization.

Table 10-2 Selected Intervals from Konnex 2018 Drilling Campaign

Drillhole	Depth Interval (ft)		Composite	%		g/t		Drillhole
	From	To	Length (ft)	TCu	Zn	Au	Ag	Type
KXD18-9	86.6	95.5	8.9	2.99	5.07	0.33	39.2	stepout
KXD18-10	24.0	105.0	81.0	1.58	1.96	1.2	28.7	infill
including	39.0	44.0	4.9	2.85	4.8	7.93	43.2	infill
including	86.9	96.5	9.5	4.53	0.19	4.02	256.3	infill
KXD18-12	276.9	290.0	13.1	0.55	0.07	0.03	15	stepout
KXD18-16	62.0	126.6	64.6	1.1	1.1	0.23	12	infill
including	100.1	121.1	21.0	1.49	1.3	0.53	17.9	infill
KXD18-18	20.3	35.1	14.4	1.17	0.02	0.12	52.3	infill
and	137.1	199.2	62.0	1.26	0.15	1.01	12.8	stepout
including	154.9	181.4	26.6	2.26	0.21	1.98	14.1	stepout
including	171.6	176.5	4.9	3.94	0.13	2.52	15.8	stepout
KXD18-20	105.2	139.5	34.3	1.2	0.7	0.25	14.72	infill
KXD18-22	111.5	131.0	19.5	3.33	0.16	0.31	147.95	infill
including	111.5	116.0	4.5	12.05	0.13	0.98	444.4	infill
and	263.6	426.1	162.5	0.57	0.82	0.22	11.74	infill
KXD18-23	0.0	20.0	20.0	0.48	0.08	0.23	10.7	infill
and	150.0	155.1	5.0	0.56	1.48	0.03	25.52	stepout
KX18-36	310.1	319.9	9.8	1.14	0.04	1.25	9.3	stepout
KX18-39	20.0	44.9	24.9	0.31	0.14	1.1	20	stepout
KX18-44	540.1	605.0	65.0	1.88	0.65	0.79	44.8	infill
including	545.0	569.9	24.9	4.23	0.77	1.71	100.6	infill
including	551.2	556.5	5.2	8.85	0.79	4.56	105	infill
KX18-47	180.1	240.2	60.0	0.96	0.08	0.83	26.3	stepout
and	254.9	270.0	15.1	2.54	0.07	2.85	57	stepout
KX18-52	339.9	400.0	60.0	1.28	0.1	6.22	18.2	stepout
including	339.9	355.0	15.1	2.95	0.2	0.7	44	stepout
KX18-58	105.0	109.9	4.9	1.4	0.4	0.04	39.9	infill
and	140.1	145.0	4.9	0.82	0.19	0.01	15	infill
KX18-59	135.8	150.9	15.1	0.66	0.3	0.06	22.4	stepout
including	137.8	144.4	4.9	1.09	0.38	0.1	36.7	stepout
KX18-62	170.0	190.0	20.0	0.54	0.13	0.06	2.63	infill
and	415.0	435.1	20.0	2.07	0.26	1.79	23.03	stepout
including	424.9	430.1	4.9	7.14	0.81	5.94	76.7	stepout

In 2020, Konnex completed 356.4 ft of core drilling and 5,215 ft of RC drilling. The 2020 drilling campaign was designed to confirm the presence and extent of near surface, high grade gold in the southern half the Project area. Drillholes were generally angled west to be perpendicular to mineralized skarn. Due to topographic constraints, two holes were angled south, one hole was angled southeast, two holes were angled east-southeast, and one hole was angled northeast. Given the shallow-dipping nature of the deposit, significant intercepts (Table 10-3) are considered to slightly exaggerate the true thickness of mineralization. The infill drilling program intersected expected mineralization, and confirmed the presence of near surface assay values greater than 0.5 g/t.

Drilling in 2020 was contracted through AK Drilling, Inc., of Butte, MT. Core holes were drilled using a track mounted drill rig, and RC holes were drilled using a wheel mounted prospector buggy rig with an articulating boom. Core and RC recoveries were generally excellent, except when drilling intersected historic underground workings. Twenty-nine RC drillholes and two core holes were surveyed downhole by AK drilling using a Reflex Instruments Gyro wireline tool. Drillhole collar locations were surveyed using handheld GPS and are accurate to within 12 feet of the collar location.

Table 10-3 Selected Intervals from Konnex 2020 Drilling Campaign

BHID	Depth Interval (ft)		Composite	%		g/t	
	FROM	TO	Length (ft)	TCu	Zn	Au	Ag
KX20-01	5	60	55	0.395	0.056	1.70	8.05
including	15	55	40	0.458	0.060	2.12	9.13
KX20-02	90	125	35	0.208	0.067	1.44	11.76
including	100	115	15	0.327	0.078	2.07	10.57
KX20-03	30	55	25	0.509	0.238	0.15	26.16
and	65	75	10	0.828	0.144	0.46	21.20
KX20-05	15	50	35	0.105	0.120	1.62	9.96
including	15	20	5	0.140	0.295	8.45	29.70
KX20-06	5	20	15	0.159	0.062	0.50	5.67
and	45	65	20	0.052	0.133	0.75	5.00
KX20-07	170	200	30	0.097	0.046	1.22	8.82
including	175	185	10	0.102	0.037	2.22	5.25
KX20-08	0	15	15	1.011	0.083	0.02	16.83
KX20-09	0	15	15	0.131	0.064	0.55	8.87
and	55	75	20	0.074	0.047	2.05	2.20
KX20-12	45	105	60	0.531	0.069	0.13	11.93
including	45	55	10	1.383	0.070	0.03	20.30
and	105	135	30	0.167	0.085	0.79	5.10
KX20-13	0	40	40	0.581	0.257	0.46	10.33
including	10	25	15	0.450	0.288	0.87	9.00
and	135	165	30	0.094	0.052	2.05	3.63
KX20-14	15	65	50	1.006	0.052	0.66	14.01
including	45	60	15	1.097	0.046	1.16	21.43
KX20-15	115	135	20	0.007	0.031	2.62	1.00
including	115	120	5	0.010	0.034	9.78	1.40
KX20-16	15	65	50	0.725	0.125	0.04	10.61
including	40	50	10	1.565	0.077	0.08	10.05
and	80	150	70	0.290	0.473	1.02	7.76
including	90	105	15	0.199	0.546	2.57	7.43
including	120	130	10	0.942	1.062	0.89	22.55
KX20-17	0	120	120	0.804	0.550	0.16	8.83

BHID	Depth Interval (ft)		Composite	%		g/t	
	FROM	TO	Length (ft)	TCu	Zn	Au	Ag
including	5	20	15	1.508	0.133	0.05	13.57
including	60	75	15	1.718	1.216	0.12	24.10
KX20-18	5	25	20	0.475	0.092	0.15	48.18
and	35	120	85	1.398	0.619	0.46	99.79
including	40	50	10	4.370	1.169	1.54	363.00
including	75	115	40	1.439	0.408	0.40	97.15
including	105	115	10	1.850	0.704	1.20	133.60
KX20-19	0	40	40	0.618	0.154	0.08	29.74
including	30	40	10	1.298	0.040	0.15	81.90
and	75	90	15	1.094	0.083	0.28	19.43
and	95	140	45	1.846	0.382	0.17	45.06
and	145	185	40	0.486	0.160	0.63	9.55
KX20-20	0	35	35	0.696	0.180	0.17	31.86
and	55	130	75	1.054	0.371	0.50	50.19
KX20-22	0	10	10	1.037	0.393	0.61	35.85
and	75	90	15	0.638	0.580	0.20	20.13
KX20-23	50	90	40	1.365	0.789	0.22	47.51
and	125	155	30	0.287	2.073	0.89	22.85
KX20-25	0	30	30	0.501	0.073	0.27	21.63
and	45	135	90	0.213	0.051	1.53	6.33
including	75	105	30	0.278	0.045	2.90	9.90
including	75	80	5	0.170	0.047	5.47	6.50
KX20-26	50	120	70	0.011	0.032	1.98	1.48
including	70	95	25	0.008	0.050	4.38	2.49
including	75	85	10	0.010	0.068	8.63	3.55
KX20-28	240	260	20	0.752	0.056	0.68	12.80
including	245	255	10	0.792	0.054	1.18	15.35
KX20-29	10	20	10	0.028	0.052	0.73	2.90
and	135	155	20	0.499	0.080	2.04	24.93
KX20-30	195	220	25	0.032	0.064	1.01	4.54
KXD20-01	26	51	25	0.942	0.039	1.25	11.16
KXD20-02	36	151	115	0.044	0.055	1.04	4.67
including	51	56	5	0.013	0.047	11.10	3.80

10.2 Historic Drilling

Historic drilling carried out by previous operators of the Empire Project accounts for 256 of the drillholes included in the Project database. The earliest drilling was completed in 1943 by U.S.B.M., with various subsequent drilling campaigns completed prior to Konnex's acquisition of the Project. The historic drilling database contains 81 core holes totaling 38,375 feet, and 175 RC holes totaling 42,349 feet. All historic drilling was oriented either vertically or angled to the west in an effort to perpendicularly intercept the mineralized skarn. Only 12 historic drillholes have associated records of downhole survey, and limited details are presently available regarding drilling contractors and procedures specific to each campaign. Historic drillhole collar locations are shown on Figure 10-2, and historic drilling campaigns at the Empire Project are summarized by operator and year in Table 10-4.

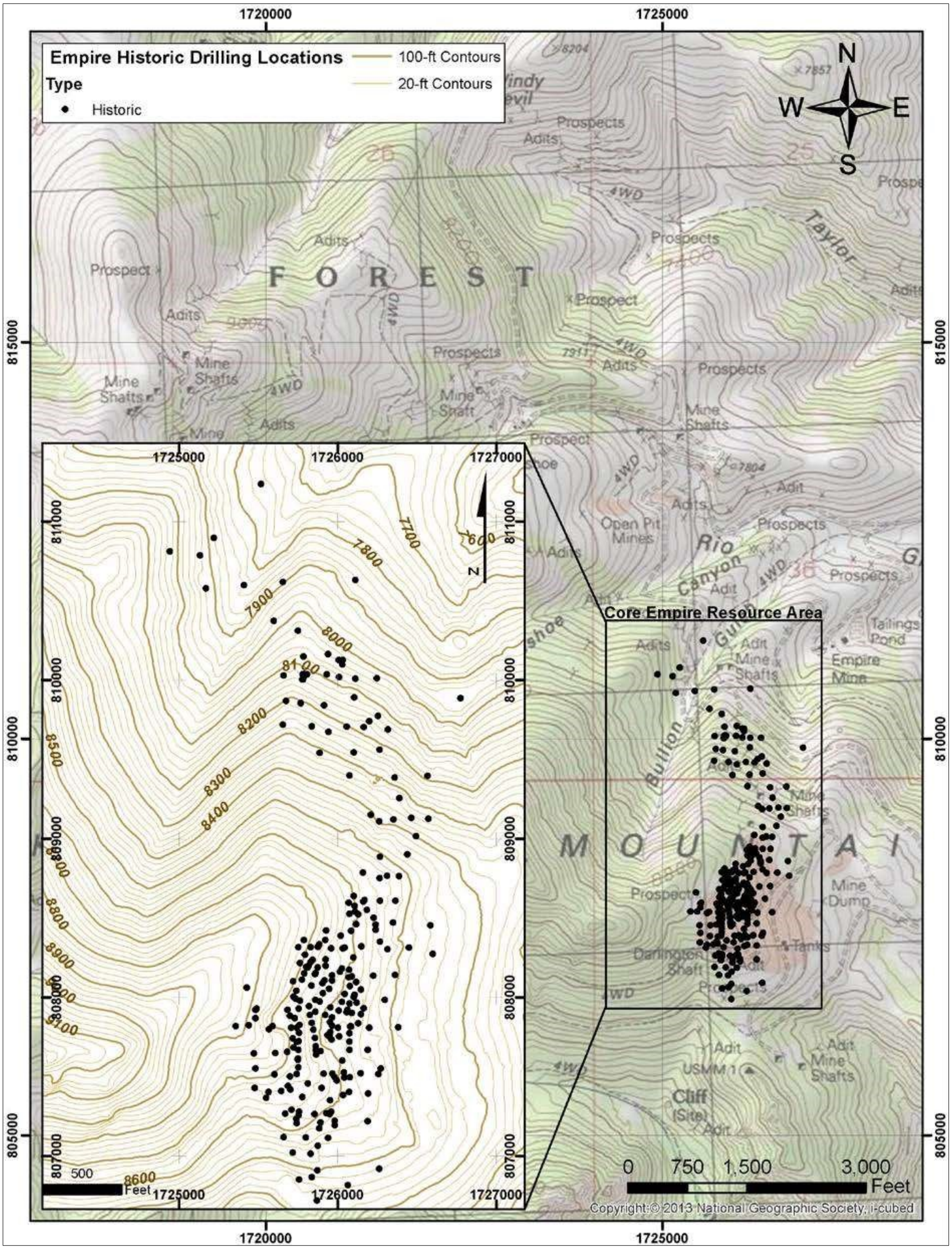

Figure 10-2 Historic Drillhole Collar Locations

Table 10-4 Summary of Drillhole Totals by Year, Operator, and Drillhole Type for Historic Drilling

Year	Operator	Prefix	Drill Type	Count	Footage
1943	U.S.B.M.	B-	Core	11	1,664.90
1962	Cleveland Cliffs	CCDH-	Core	8	2,369.00
1968	New Idria/US Copper	NI-	RC	20	3,002.30
1969	Capital Wire & Cable	CW-	RC	13	1,416.70
	Hile Explorations	Hole-	RC	41	4,616.20
1972	Behre Dolbear	BDH-	RC	41	5,420.90
1975	Exxon	K-	Core	8	7,854.10
1996	Cambior Inc.	S0	Core	39	20,444.10
1997		S0	Core	8	3,738.20
2004	Trio Gold Corp.	TDD04-	Core	1	97.10
		TRC04-	RC	9	2,241.00
2006	Journey Resources	JDD	Core	5	1,904.10
		JRC	RC	27	10,860.50
2011	Musgrove Minerals	EM11-	RC	24	14,790.91
		EMD11-	Core	1	303
Total Historic Drilling				**255**	**80,723.01**
Total Historic Core Drilling				**80**	**38,374.50**
Total Historic RC Drilling				**175**	**42,348.51**

10.2.1 U.S.B.M. 1943

U.S.B.M. drilled as many as 21 diamond drill holes totaling 3,863 feet (U.S. Department of Interior, 1944) from existing underground. Only 11 drillholes totaling 1,664.9 feet are included in the current database. No downhole surveys were recorded for the program. The U.S.B.M. drillholes were used for the estimation of mineral reserves by U.S. Geologic Survey. Drilling was oriented in multiple directions and variably intersected significant copper, gold, and silver mineralization. The results of the U.S.B.M. drilling program confirmed high grade copper, gold, and silver near existing mine developments (Table 10-5).

Table 10-5 U.S.B.M. 1943 Drillhole Data Summary

Hole ID	From (ft)	To (ft)	Length (ft)	Cu %	Au g/t	Ag g/t	Zn %
B2	144	158	14	2.6	0.1	19	Not Analyzed
B10	0	52	52	2.9	3.1	32	Not Analyzed
B11	0	30.5	30.5	2.1	1.6	24	Not Analyzed
B12	0	22	22	2	1.5	24	Not Analyzed
B13	0	9	9	2.5	1.8	28	Not Analyzed
B16	0	45.5	45.5	1.6	0.3	22	Not Analyzed
B17	0	42	42	2.1	0.4	22	Not Analyzed
B23	0	24.5	24.5	3.1	5.5	43	Not Analyzed
B28	0	57.5	57.5	3.1	2.3	44	Not Analyzed

10.2.2 *Cleveland Cliffs 1962*

Cleveland Cliffs drilled 8 core holes totaling 2,369 feet, though only 4 of the 8 holes have associated assay data recorded in the Project database. Cleveland's drilling was located in the southern extent of the AP pit, angled to the west in order to intersect the mineralized skarn dipping east. Drilling was conducted on five fences spaced approximately 200 feet apart. No downhole surveys were recorded for the program. The purpose of the drilling was to evaluate shallow oxide mineralization below the AP pit (SRK,2017). Limited results show the program was successful in intersecting copper grades below the existing AP pit (Table 10-6).

Table 10-6 Cleveland Cliffs 1962 Drillhole Data Summary

Hole ID	From (ft)	To (ft)	Length (ft)	Cu %	Au g/t	Ag g/t	Zn %
CCDH-2	48.0	58.0	10.0	0.29	Not Analyzed	Not Analyzed	Not Analyzed
CCDH-3	98.0	128.0	30.0	0.19	Not Analyzed	Not Analyzed	Not Analyzed
CCDH-4	235.0	289.0	54.0	0.15	Not Analyzed	Not Analyzed	Not Analyzed
CCDH-5	55.0	170.0	115.0	0.39	Not Analyzed	Not Analyzed	Not Analyzed

10.2.3 *New Idria/U.S. Copper 1968*

Twenty irregularly spaced vertical RC holes were drilled by New Idria/U.S. Copper to test below the central portion of the AP pit. Four drillholes do not have assay results in the database, and only 3 drillholes were assayed for gold and silver. No downhole surveys were recorded. Drilling confirmed copper mineralization north of the Cleveland Cliffs drilling program and indicated the presence of gold and silver in the area.

10.2.4 *Capital Wire & Cable 1969*

Capital Wire & Cable drilled 13 vertical RC holes. Drilling confirmed earlier results by New Idria/U.S. Copper, and stepped out to the east and west of existing drilling in the area. Results show copper mineralization being continuous down dip, to the east, and up dip, to the west. Drilling down dip intersected higher copper grades than drilling up dip.

10.2.5 *Hile Explorations 1969*

Hile Explorations drilled 41 vertical RC holes. The program infilled drilling between Cleveland Cliffs and New Idria/U.S. Copper, as well as step out drilling to the southwest. Three drillholes do not have total copper assay, and one drillhole was assayed for copper oxide. No downhole surveys were recorded. The infill drilling demonstrated continuity of mineralization in the AP pit area. Step out drilling in the southwest intersected short intervals of weekly mineralized material.

10.2.6 *Behre Dolbear 1972*

Forty-one vertical RC drillholes were completed by Behre Dolbear and assay for total copper and oxide copper. The program infilled drilling between New Idria/U.S. Copper drillholes, as well as step out drilling to the north. Both the infill and step out drilling intersected high-grade copper results, demonstrating mineralized continuity to the north of the AP pit.

10.2.7 Exxon 1975

Exxon explored for copper and molybdenum with 10 core holes (SRK, 2017). Only eight drillholes are currently in the database. The drillholes are oriented vertically, and no downhole surveys were recorded. Three drillholes were within the AP pit area, the other five explored to the east, north, and at depth. The core was assayed for copper, silver, gold, and molybdenum. Molybdenum results are not known, but drilling did encounter copper, gold and silver mineralization within the AP pit area. Drilling at depth did not return significant mineralization. Exploration to the east and north did not encounter mineralization.

10.2.8 Cambior 1996 – 1997

Between 1996 to 1997 the company drilled 47 core holes on approximately 100 m (300 ft) spaced fences along the N-S strike of the deposit, including 21 in the AP pit area (SRK, 2017). The core holes were angled west, and only two drillholes were surveyed downhole. The 26 drillholes not in the AP pit area, represent the first drilling since 1943 to test for copper mineralization north of the AP pit, and around the existing mine workings. Core was assayed for copper, with select intervals being assayed for oxide copper, gold, silver, and zinc. The programs were successful in demonstrating the north-south extent of the mineralized body.

10.2.9 Trio Gold Corp 2004

> "In December 2004, Trio Gold Corporation ("Trio") completed a 10-hole, 700 m (2,300 ft), reverse-circulation ("RC") and PQ-core drill program in the AP Pit area. The program consisted of nine 11.4 cm diameter RC drillholes (670 m) and one 8.5 cm diameter PQ-core drillhole (29 m). All of Trio's drillholes were vertical (SRK, 2017)." No downhole surveys were recorded. Drilling was conducted in the AP pit area.
>
> "The drill program was successful in improving the thickness of mineralization to at least 67 m, and in confirming the grades of copper, gold and silver in the AP Pit area. Trio's drill program showed that copper favors exoskarn, whereas gold is more closely associated with limonitic (FeOx) breccias and stockworks. Gold mineralization appears to post-date the copper event, and seems to have precipitated, along with iron-oxides, in breccias (reactivated faults?) (SRK, 2017)." "The PQ-core hole is located at the north end of the AP Pit. It was drilled for metallurgical purposes (SRK, 2017)."
>
> "On the basis of the 2004 to 2005 results, a 65 drillhole infill drilling program, along with comprehensive metallurgy, was planned for the Empire Mine project for 2005 to 2006 (van Angeren, 2005). The new drill locations were planned to test mineralization below existing drilling and to test the precious metals content within the known copper orebody as well as extend precious metals testing to greater depth SRK, 2017."

10.2.10 Journey Resources Corporation 2006

The following discussion on the Journey Resources drilling results were presented in SKR's 2017 report. No downhole surveys were recorded for the drillholes. The RC chips and core were assayed for copper, silver, gold, and zinc, with select intervals being assayed for oxide copper and zinc.

> "In 2006, Journey Resources Corporation ("Journey") drilled 33 of the 65 holes which had been proposed by Trio. All the drillholes were in the AP Pit area focusing on oxide mineralization, with

> the balance planned for 2007. The 33 holes totaled 4035 m and consisted of five NQ core and 28 RC, with two of the RC drillholes lost. All drillholes were inclined at -45° towards the west; true thicknesses are considered to be approximately 75% of drilled values.

Journey's drill program was successful in confirming the grades and widespread distribution of copper, gold and silver in the AP Pit area. The program also confirmed Trio's 2004 findings.

Highlights from the 2006 drilling program include: 77 m (253 ft) at 0.65 % Cu and 25 g/t Ag, 53 m (174 ft) at 1.37 % Cu and 30 g/t Ag, (including 9 m (30 ft) of 4.64 % Cu and 127 g/t Ag), 98 m (322 ft) at 0.49 % Cu and 9 m (30 ft) grading 5.72 g/t Au (including 1.5 m (5 ft) at 26.4 g/t Au) (van Angeren, 2007)."

10.2.11 Musgrove Minerals 2011

The following discussion on the Musgrove Minerals drilling results were presented in SKR's 2017 report. Downhole surveys were recorded for all but 11 drillholes. The RC chips and core were assayed for copper, silver, gold, and zinc, with select intervals being assayed for oxide copper and zinc.

> "Musgrove completed 4601 m (15,094 ft) of RC drilling in 25 drillholes in 2011 (van Angeren, 2014). Seventeen drillholes were in the northern half of the skarn deposit. This area has seen the most intense historical underground development. The other seven drillholes were in the AP Pit area. All drillholes were inclined at -50° towards the west. True thicknesses of the mineralized zones are variable and unknown but are considered to be up to 75% of drilled intervals.
>
> Highlights of the 2011 campaign completed by Musgrove were reported by van Angeren (2014) and are reproduced here in Table 6-9 and Figure 6-2 include:
>
> - 6.1 m (20 ft) at 1.32% Cu, 1.13 g/t Au and 21.3 g/t Ag (EM11-08);
> - 48.7 m (159.8 ft) at 0.54% Cu (EM11-15);
> - 4.6 m (15.1 ft) at 1.84% Cu, 33.8 g/t Ag and 0.51% Zn (EM11-16);
> - 35 m (115 ft) at 0.69% Cu and 0.73% Zn (EM11-17); and
> - 27.4 m (89.9 ft) grading 1.35% Cu, 1.34 g/t Au, 80.3 g/t Ag and 0.81% Zn (surrounding an approximately 5 m (16 ft) wide open stope (EM11-23; AP Pit)."

11. SAMPLE PREPARATION, ANALYSIS AND SECURITY

11.1 Operators Prior to 1995

No information is available regarding sampling procedures, QA/QC protocols, and sample security for operations prior to 1995.

11.1.1 U.S.B.M Analysis (1943)

U.S.B.M. analyzed core samples for total copper, gold, and silver. The laboratory and methods used are also unknown. However, there inclusion in resource and reserve estimation by U.S.G.S. in 1944 suggest sampling procedures followed best practices implemented during that time.

11.1.2 Cleveland Cliffs Analysis (1962)

Cleveland Cliffs analyzed core samples for total copper only. The laboratory and methods used are unknown.

11.1.3 New Idria/U.S. Copper Analysis (1968)

New Idria/U.S. Copper analyzed RC chip samples for total copper, oxide copper, silver, gold, zinc, and oxide zinc. The laboratory and methods used are unknown.

11.1.4 Capital Wire & Cable Analysis (1969)

Capital Wire & Cable analyzed RC chip samples for total copper. A handful of samples were analyzed for oxide copper. The laboratory and methods used are unknown.

11.1.5 Hile Explorations Analysis (1969)

Hile Explorations analyzed RC chip samples for total copper. A handful of samples were analyzed for oxide copper. The laboratory and methods used are unknown.

11.1.6 Behre Dolbear Analysis (1972)

Behre Dolbear analyzed RC chip samples for total copper and oxide copper. The laboratory and methods used are unknown.

11.1.7 Exxon Analysis (1975)

Exxon analyzed core samples for total copper, gold, silver, and molybdenum. The laboratory and methods used are unknown.

11.2 Cambior (1995-1997)

The following discussion on Cambior’s sampling procedures and security measures is sourced from Phil Van Angeren’s "Geological Assessment and Exploration Proposal (2004) for the Empire Mine Project", prepared in 2004.

> “Records of sampling methods and approaches were not kept. Cambior (Schnabel and Lloyd, 1997) states that all of the core was split and sampled at 5-foot intervals (1.5m), predicated on breaks in

geology, structure and mineralization, as is dictated by normal industry practices. Core splits and vialed RC-cuttings are in storage in Mackay, Idaho.

The assay laboratories used by Cambior are unknown to this writer. Assay sheets and databases have copper, wet copper, gold, silver, zinc, and multi-element analyses available. This author understands that the term 'wet copper' refers to sulphuric acid soluble copper, which is an important analysis to include in the search for oxide copper mineralization. Review of available documents indicates that normal industry practices were utilized by geologists with professional accreditation (U.S.A.) in collecting and processing the samples."

The following discussion on Cambior's QA/QC protocols and procedures is excerpted from SRK (2017):

"While the Cambior data is incomplete in is QAQC descriptions, it is known that this program involved the insert of Certified Reference Materials (CRMs) or standards and re-runs. Samples that contained standard material have been identified in the sample stream, but the identity of the standard chosen was not provided in the data set. Records show that Cambior produced five in-house CRMs (S1-S5) with various target grades and conducted a Round Robin assaying exercise (six laboratories for gold only) (Table 11-1). However, from reviewing the 103 CRMs inserted, their multi-element characteristics suggest that seven CRMs were used. SRK ES have assigned the original S1 to S5 identifier to five of the seven groups identified. The other two groups are assumed to be unknown standards and have been identified as STD6 and STD7 (Figure 11-1). STD6 and STD7 have only been used 6 and 4 times respectively and as such have not been reported on here.

Table 11-1 ***"Cambior CRM Grades, Target vs Actual"***

Standard	Round Robin	Actual Grade	Target Grade	Average Assay	Target Grade
	g/t Au	g/t Au	g/t Au	% Cu	% Cu
S1	0.99	**0.93**	1.04	0.12	0.09
S2	0.64	**0.63**	0.53	0.87	1.16
S3	0.53	**0.5**	0.39	0.55	0.4
S4	1.14	**1.17**	0.72	1.13	0.79
S5	0.66	**0.64**	0.59	0.52	0.75

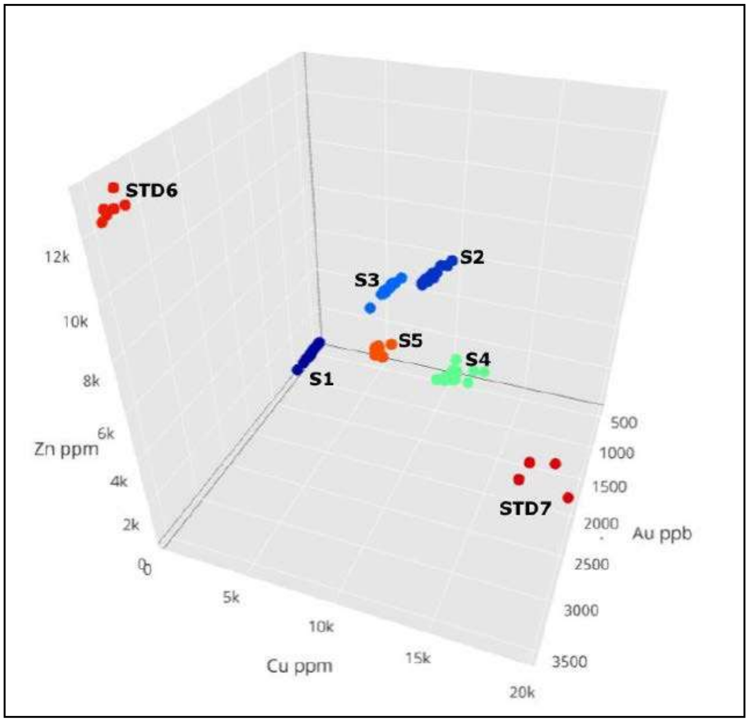

Figure 11-1 ***"Multi-element Characteristics of the Seven Identified CRMs within the Cambior Sample Data"***

The Cambior standards performed well for gold with only a few samples potting more than three standard deviations away from the round robin results (Figure 11-2).

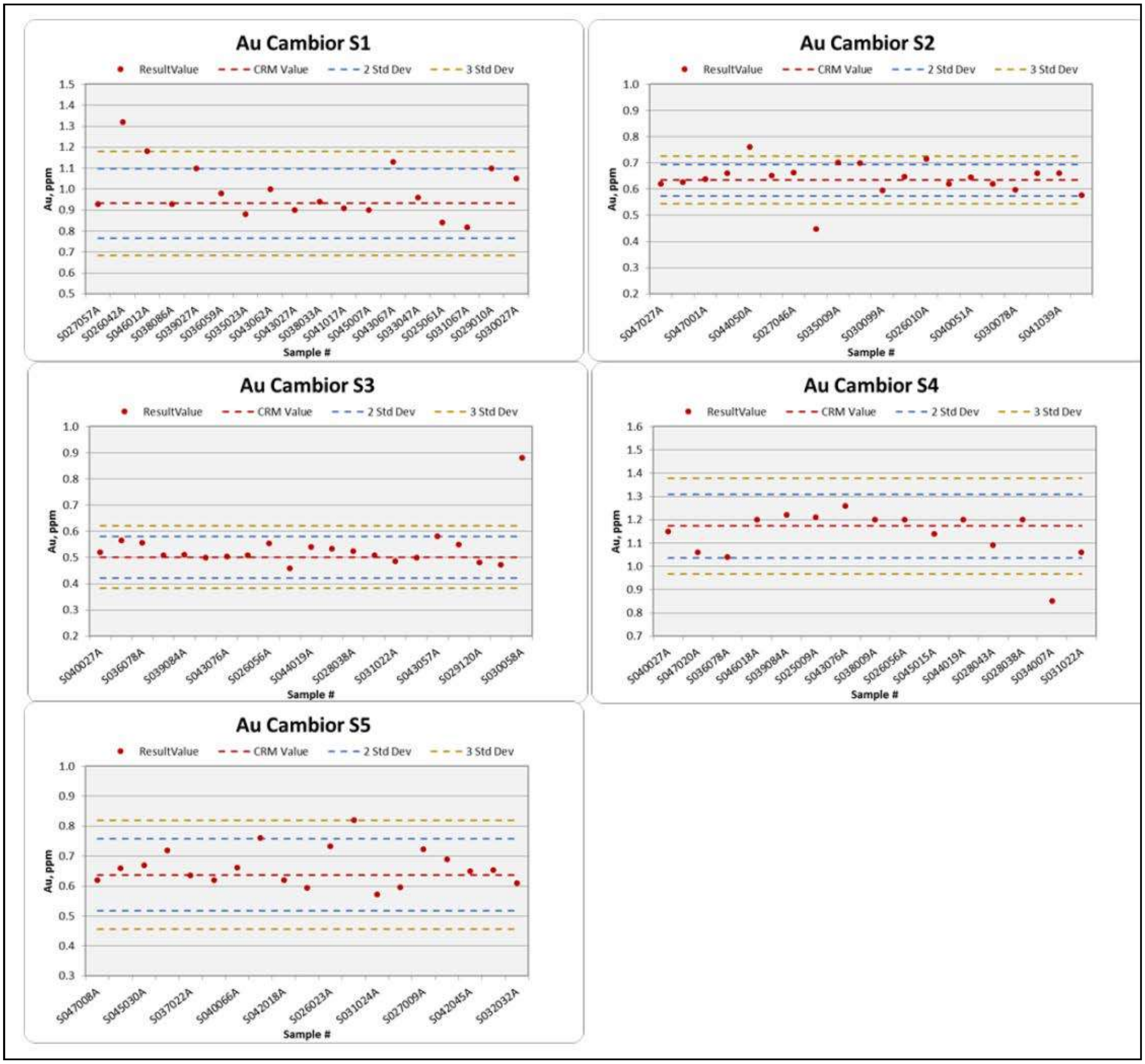

Figure 11-2 ***"Cambior CRM Results – Au"***

No external copper round-robin grades exist within the historical data. The following plots compare individual assay results against the average grade and standard deviation of the population for each standard.

Generally, the results show relatively low level of variance but as no certified mean exists the accuracy of the copper grades has not been effectively tested (Figure 11-3).

Figure 11-3 ***"Cambior CRM Results – Cu (Certified Cu results are not known)"***

A number of pulp samples were duplicated by Cambior during the 1995-97 program. The results of these are illustrated in (Figure 11-4, A and B). Cambior ran further re-assays of these duplicates using different techniques (Figure 11-4, C and D).

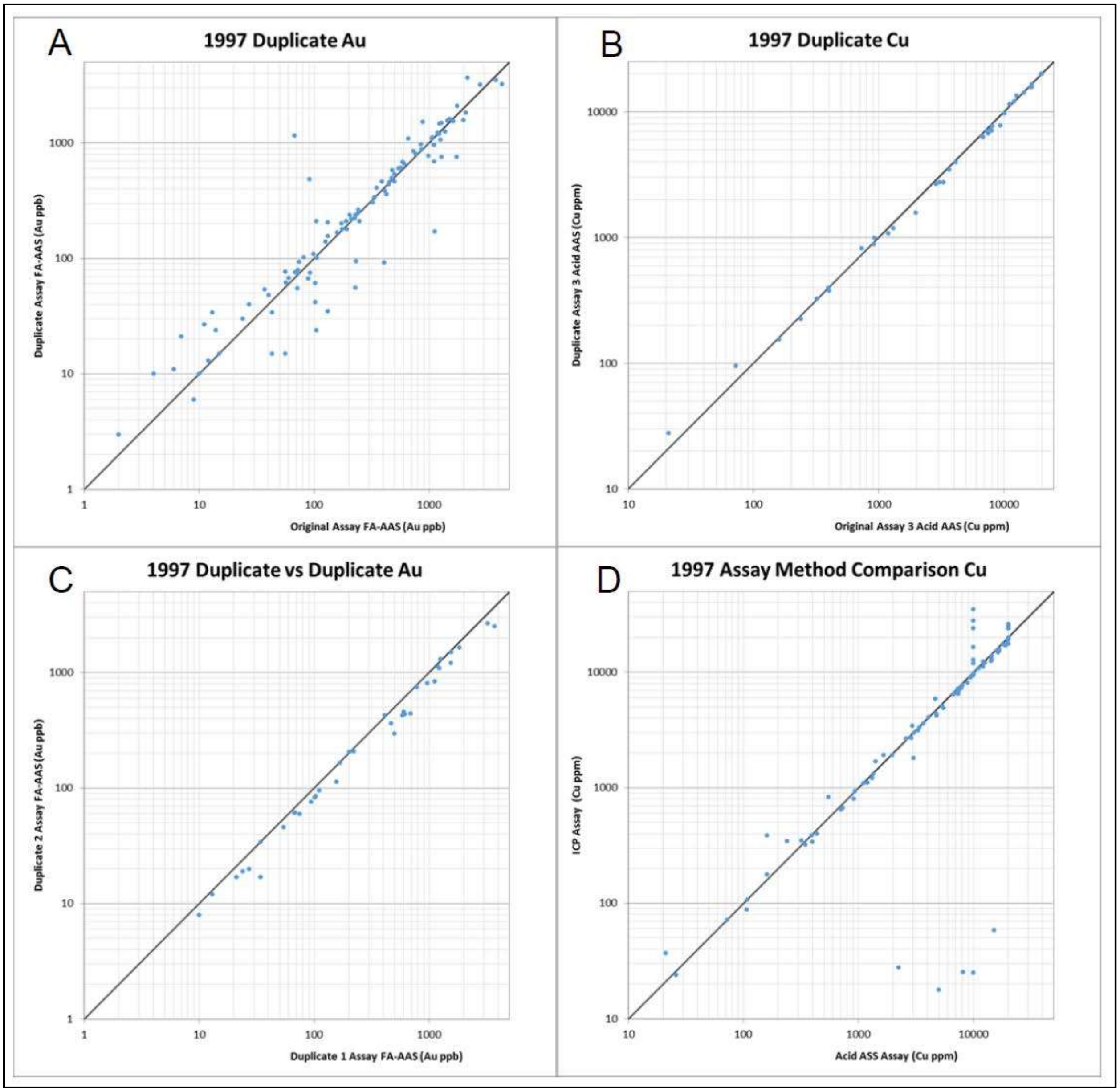

Figure 11-4 "Cambior Duplicate Results"

A – 104 samples duplicated by Au by FA-AAS. The correlation is moderate, 74% of the samples returned Au results within 20% of each other.

B – 37 samples duplicated for Cu by a three-acid digest and AAS finish. Good correlation throughout.

C – 37 of the first set of duplicates were duplicated again for Au by FA-AAS. A good correlation is seen throughout.

D – 89 samples were re-run for Cu by a different assay technique (original assay was ICP, duplicate sample by an acid digest with AAS finish).

The majority of these duplicates correlate well, bar a small population from hole S028 (this hole was assayed by a two-acid digest technique rather than the three-acid digest used in all the other samples)."

11.3 Trio Gold (2004)

RC cuttings were sampled at 1.5 m (5 ft) intervals. Two samples, ranging from 900g to 5440g, were bagged from each interval, sample size depending on sample recovery. It is not known how these samples were split (SRK, 2017).

The following description of Trio's QA/QC protocols and procedures is modified from SRK (2017):

> "This program involved re-assays (check assays) of samples at a 2nd laboratory using a different assay procedure. No blanks or standards were inserted.
>
> American Assay Laboratories of Reno, Nevada (AAL) and Loring Laboratories Ltd. (Loring) of Calgary, Alberta were used for these samples. AAL ran a multi-acid digestion, 69-element, ICP analysis on all samples (providing total-copper values), with an acid-soluble assay (AS) for copper and zinc via sulphuric acid digestion. Gold was assayed separately, by fire assay with atomic absorption finish. Samples containing total Cu and Zn values above 10,000 ppm were also analyzed by atomic absorption.
>
> Loring completed a multi-acid digestion, 32-element, ICP analysis on all of their samples. Gold was assayed separately, by fire assay with atomic absorption finish. Loring also analyzed for copper and zinc above 10,000 ppm by atomic absorption (van Angeren, 2014).
>
> The main findings from this program were (Figure 11-5):
>
> - Both assay laboratories correlated well across the various elements.
> - Loring laboratory returned higher assays for low level Au samples (less than 0.1-0.3 g/t Au).
> - A small number of samples do not correlate, especially some of the higher-grade Ag results and lower grade Au, possibly due to miss numbering."

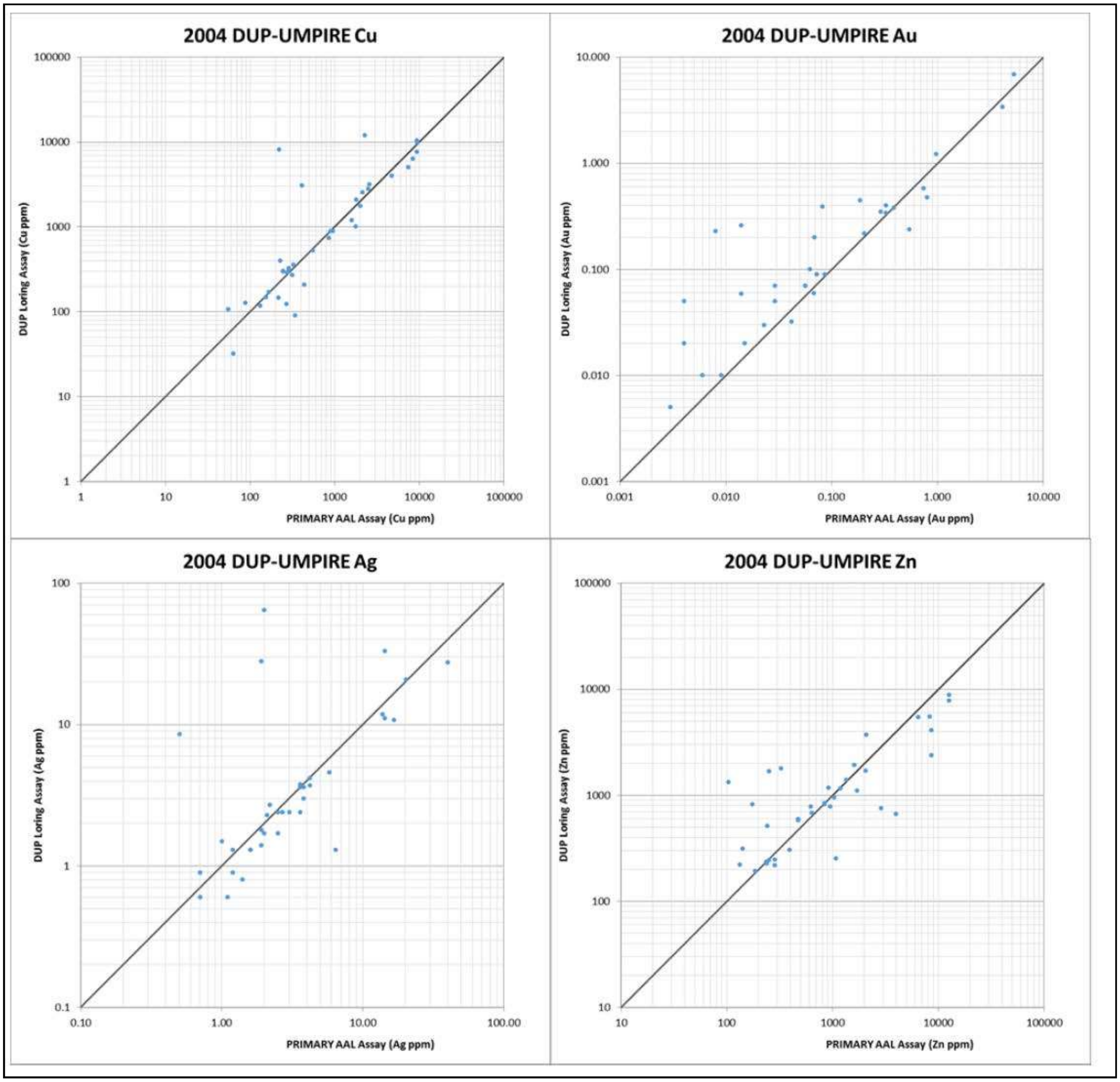

Figure 11-5 ***"Trio Gold Check Assay Results"***

11.4 Journey (2006)

The following discussion of Journey's QA/QC procedures and analysis is modified from SRK (2017):

> "This program involved samples assayed with different techniques as way of a duplicate/check assay, but no blanks or standards were inserted. Samples were assayed at ALS Chemex Laboratories of Reno, Nevada (ALS). ALS ran a two-acid digestion, 41-element ICP analysis on all samples (providing total-copper values). Acid-soluble assays (AS) for copper and zinc greater than 10,000 ppm were conducted via sulphuric acid digestion. All samples were further analyzed for total copper and zinc by atomic

absorption. Gold and silver were assayed separately by fire assay with atomic absorption finish (van Angeren, 2014). There was also a check assay program conducted on these data by Musgrove in 2011.

A total of 2364 samples were assayed for Cu and Zn by ME-ICP41 and again by AA62. The fire assay technique has a higher lower detection limit (for both Cu and Zn) versus the ICP method (100 ppm lowest fire assay verses 4-16 ppm lowest ICP assay).

The Cu results correlates well with the ICP returning slightly higher results overall. The Zn results correlate well, above 0.3%, but the fire assay technique is not considered suitable below these concentrations (Figure 11-6).

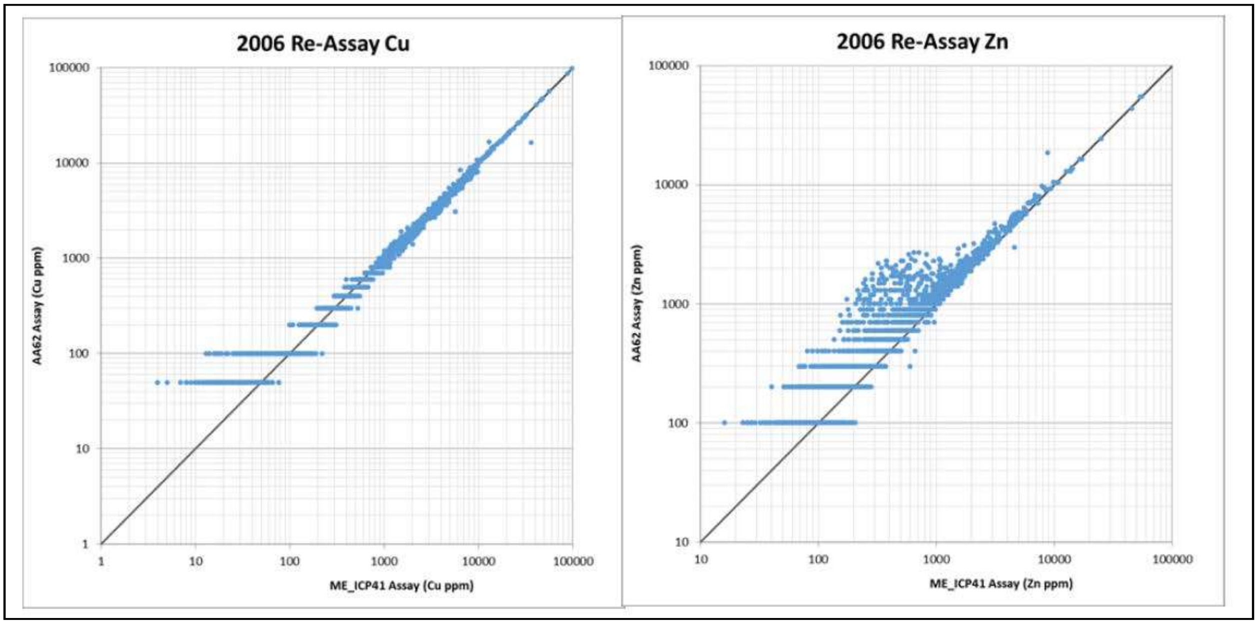

Figure 11-6 ***"Journey Check Assay Results"***

162 samples were re-assayed in 2011 by Musgrove. Samples were assayed by ICP-4D for Cu, Zn and Ag and FA30 for Au. Original 2006 assays were conducted by ME-ICP41 for Cu and Zn and Au by fire assay with atomic absorption finish (11 samples removed from Cu data set as they were over the 1% 2011 assay upper detection limit). The samples are believed to be from the RC reject bags rather than pulps (van Angeren, per. com. 2017).

Overall, the Au does not correlate well but there is a lack of data above 0.3 g/t Au to fully evaluate this. Ag repeats broadly correlate with the 2006 data returning higher assays on average. Finally, the Cu and Zn assays correlate well bar a number of isolated outliers, these are considered to exist as sample switches (Figure 11-7)."

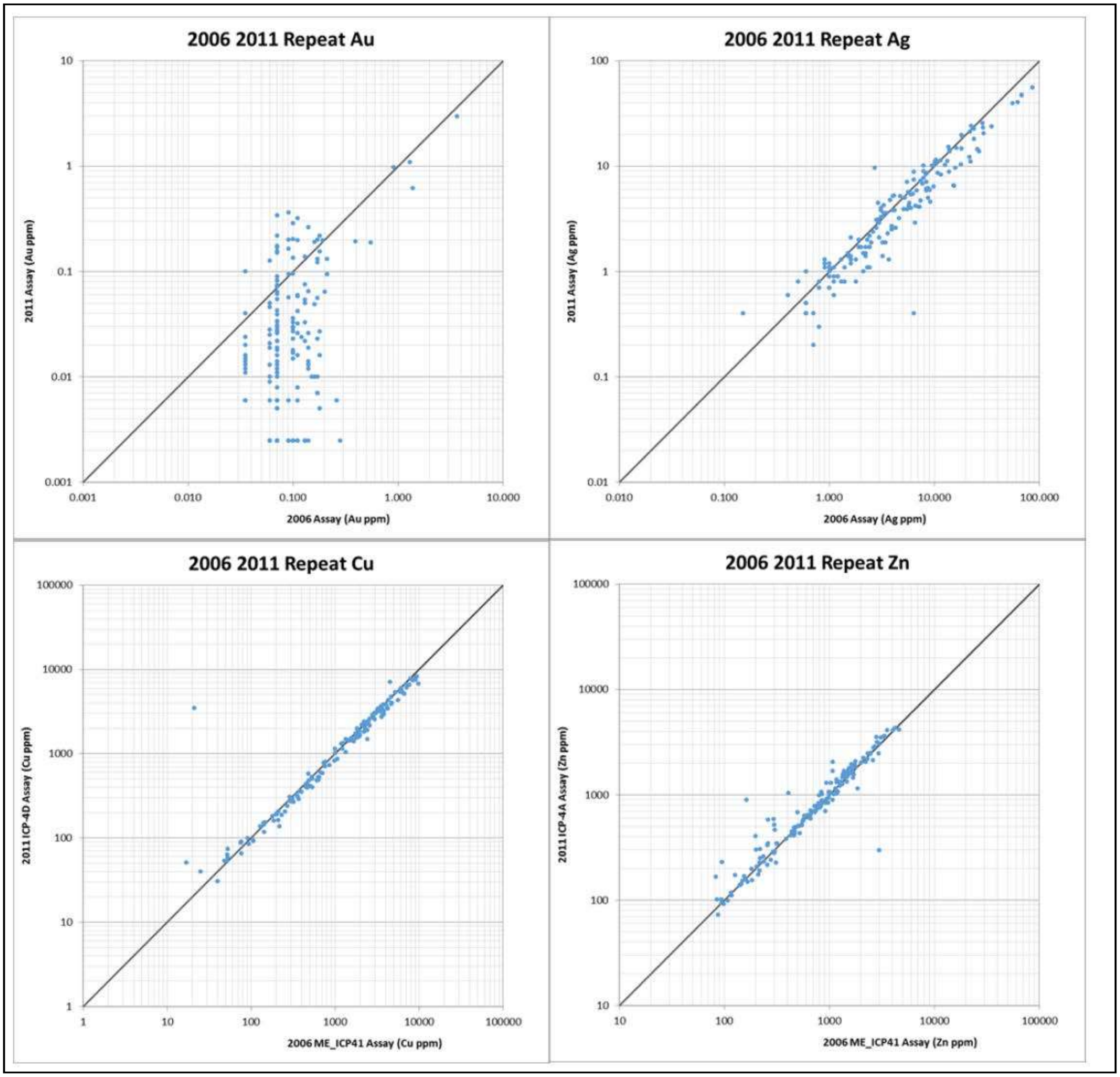

Figure 11-7 ***"Journey 2006 vs Musgrove 2011 Re-Assays"***

11.5 Musgrove (2011)

The following discussion on Musgrove's QA/QC procedures and analysis is modified from SRK (2017):

> "This program involved CRMs, blanks and some check assays (duplicates). Samples were also sent to ALS who ran a four-acid digestion, 33-element, ICP analysis on all samples (providing total-copper values), with an acid-soluble assay (AS) for copper and zinc via sulphuric acid digestion. Gold was assayed separately, via fire assay with atomic absorption finish. Samples containing total Cu, Zn and/or Pb above the ICP limit of 10,000 ppm (0.10%) were also analyzed by ore-grade atomic

absorption. This was similarly completed for samples containing more than 100 ppm Ag (van Angeren, 2014).

145 samples were duplicated, it is believed that this was from reject RC material, (van Angeren, per. com. 2017). This program produced a good correlation suggesting good precision although only 14 samples were above 0.1 g/t Au (Figure 11-8).

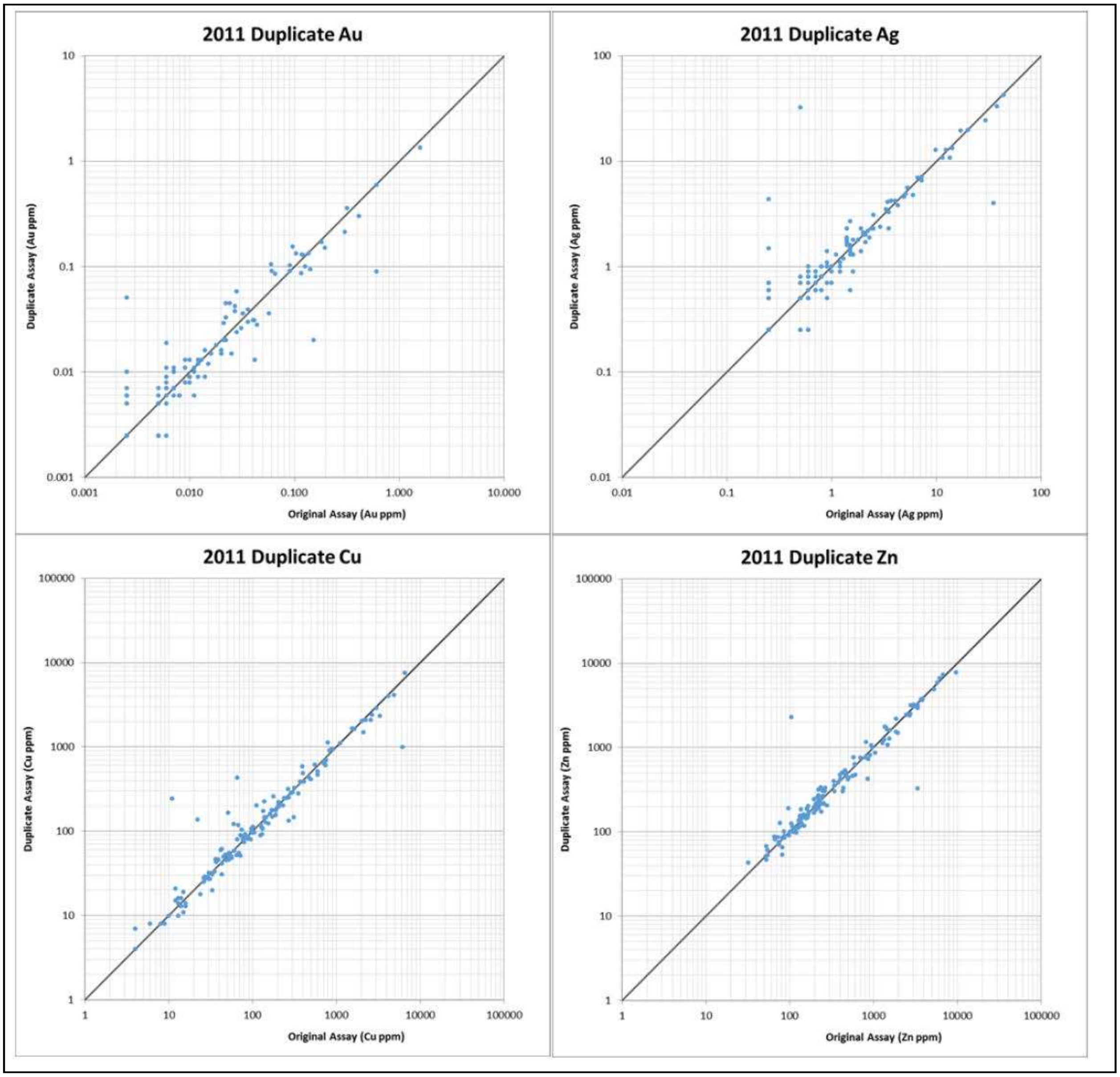

Figure 11-8 ***"Musgrove Duplicate Assay Results"***

A total of 47 blanks were inserted into the sample stream by Musgrove. These were sourced from a rhyolite and were inserted every 50ft. All blanks performed well across all elements. Zn grades were the most variable, but the maximum received grade was only 104ppm.

This indicates a low probability of any contamination during the assaying process.

Two CRMs were employed by Musgrove. These varied in their Ag and Zn values rather than Cu and Au and are polymetallic skarn standards sourced from Shea Clark Smith / MEG Labs of Elko.

52 MEG-Ag-2 samples were inserted. There details are provided in Table 11-2.

Table 11-2 ***"MEG-Ag-2 Certified Grades and Standards Deviations"***

Au g/t	Au StdD	Ag g/t	Ag StdD	Cu %	Cu StdD	Pb %	Pb StdD	Zn %	Zn StdD
1.05	0.04	298.8	20.3	0.25	0.01	6.5	0.22	11.24	0.29

The results from these 52 samples indicate (Figure 11-9):

- Cu and Zn results fall well within the 2SD limit, Cu marginally under reporting (approximately 4%)
- Two Au results fall out of acceptable limits (underreporting from EM11-06 and EM11-07).
- One potentially mislabeled sample is evident in the Ag results (452 ppm) from EM11-05.
- Ag grades appear to be marginally underreporting (approximately 6%)

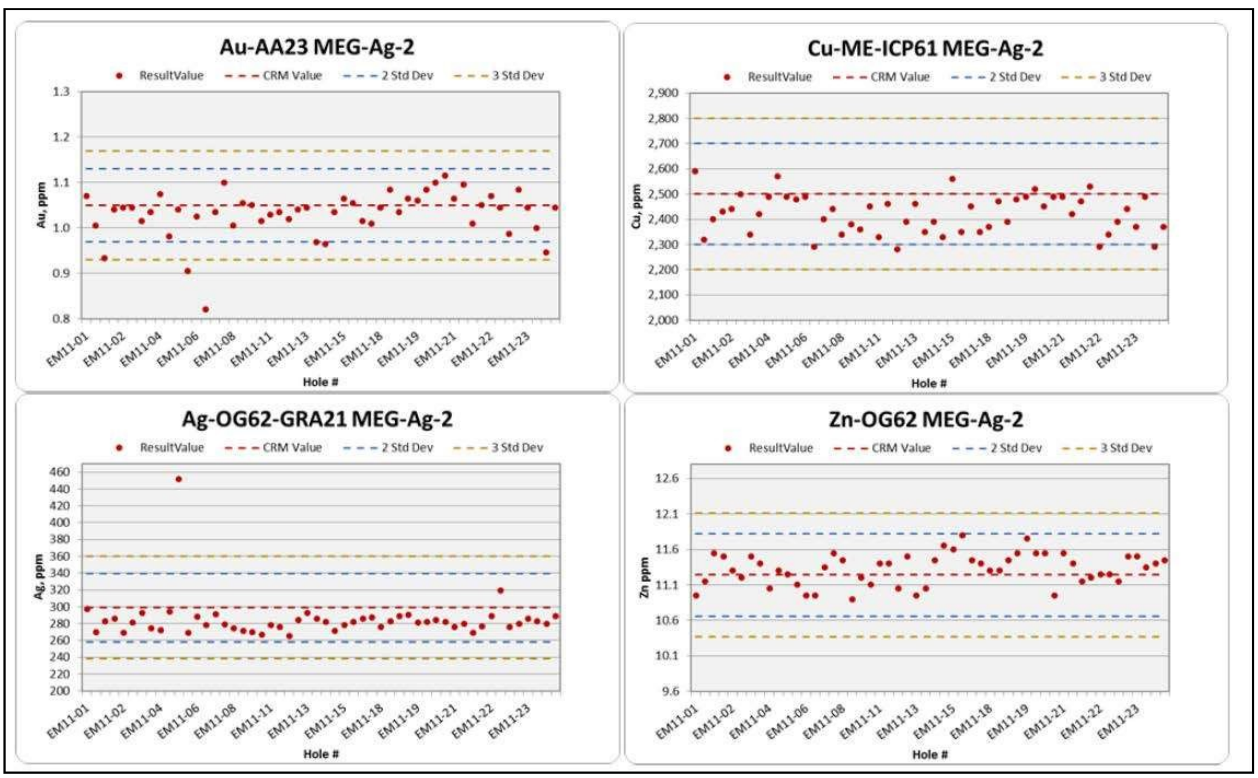

Figure 11-9 ***"Musgrove CRM MEG-Ag-2 Results"***

35 MEG-Ag-3 samples were inserted. There details are provided in Table 11-3.

Table 11-3 *"MEG-Ag-3 Certified Grades and Standards Deviations"*

Au g/t	Au StdD	Ag g/t	Ag StdD	Cu %	Cu StdD	Pb %	Pb StdD	Zn %	Zn StdD
1.57	0.1	2653	168	0.23	0.01	6.23	0.21	10.4	0.28

The results from these 35 samples indicate (Figure 11-10):

- Cu, Ag and Zn all fall within 2SD limit and show acceptable levels of accuracy
- The 24 CRMs assayed for Au perform well however five significantly under-perform. No reasoning is provided for these results"

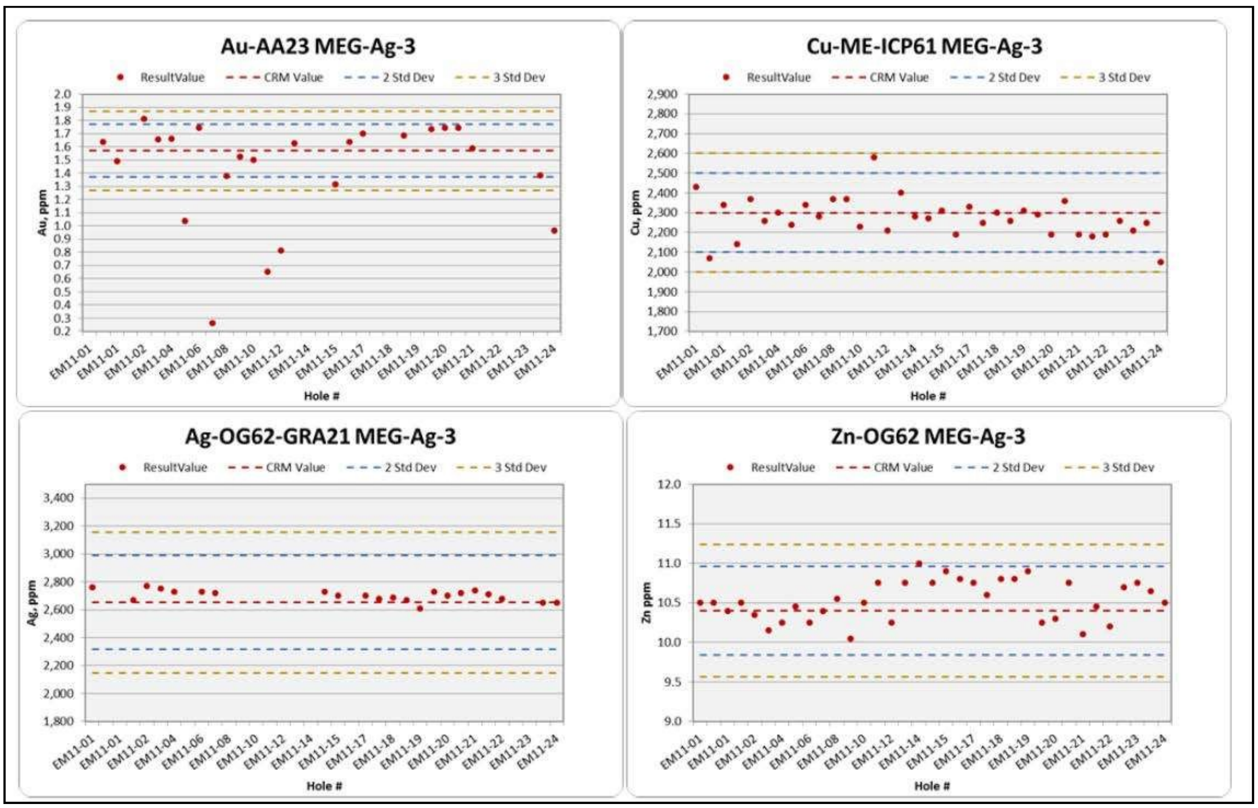

Figure 11-10 *"Musgrove CRM MEG-Ag-3 Results"*

11.6 Konnex (2017, 2018, and 2020)

RC samples were collected by the contracted drillers on 5-ft intervals. Five-gallon buckets with sample bags placed inside of them collected the RC cutting from the cyclone. Duplicates were collected simultaneously by splitting the material ejected from the cyclone with two buckets with sample bags inside.

Drillhole core diameter consists of a mixture of PQ and HQ. All core was sampled on 5-foot intervals, except for core from drillholes KXD18-1 through KXD18-23, for which sample intervals were selected based on lithologic breaks in order to maximize material for metallurgical testing. Konnex geologists cut competent core pieces in half using a tile saw, typically retaining one half of the core in the core box and placing the other half into a labelled sample bag to be sent out for assay. In 2018, PQ core samples were quartered and ¾ of each interval was retained for metallurgical testing. A barcode is placed in each sample bag with the associated sample, and a duplicate barcode is attached to the outside of the bag.

Samples were taken by staff directly to ALS labs in Elko NV by truck. Samples were secured in the back of the truck, not left overnight. Chain of custody forms were signed by both ALS and Konnex personnel for each submittal. Core duplicates are created at the lab with the original sample getting split at the secondary crushing stage when at least 70% of the sample passes through a #10 sieve using either a riffle or rotary splitter. Assay processes in 2018, and 2020 were identical to 2017, with the exception of the splitting procedures, which were modified from PREP-31 (splitting of coarse rejects using riffle split) in 2017 to PREP-31Y (splitting utilized a rotary splitter) in 2018 and 2020.

Assay samples were analyzed by ALS for 33 elements (Table 11-4) using four acid digestion and induced coupled plasma mass spectroscopy (ICP). All samples were analyzed for gold using fire assay plus atomic absorption spectrum (AAS) method. Over limits for copper, zinc, lead, and silver were analyzed using four-acid digestion with ICP or AAS finish. Over limits for silver were also analyzed by fire assay with gravimetric finish. Ore grade copper was analyzed for acid soluble copper content using sulfuric acid leach with AAS finish, and sulfuric acid/ferric sulfate leach with AAS finish methods.

Table 11-4 Elements Analyzed Using ICP Method

Aluminum	Cadmium	Potassium	Nickle	Strontium	Tungsten
Arsenic	Cobalt	Lanthanum	Phosphorus	Thorium	Zinc
Barium	Chromium	Magnesium	Lead	Titanium	
Beryllium	Copper	Manganese	Sulfur	Thallium	
Bismuth	Iron	Molybdenum	Antimony	Uranium	

11.6.1 QA/QC

Standards, duplicates and blanks were inserted into the sample stream for QA/QC purposes. Blanks and duplicates were inserted roughly every 50ft, standards were inserted roughly every 100ft. Blank material was sourced from Greensmix® Marble Chips, which is purposed for lawn decoration. The material was assayed five times to ensure it was inert. In 2017, two types of standard material (MEG-AG-2 and MEG-AG-3) were used to check laboratory accuracy. The material originates from a skarn deposit located in Nevada and was purchased from MEG Labs out of Reno. MEG Labs determined the tolerances for the standard materials using round robin results from 25 different laboratories. The tolerances for gold, silver, copper, and zinc are summarized in Tables 11-5 and 11-6 for MEG-AG-2 and MEG-AG-3 respectively.

Table 11-5 MEG-AG-2 Standard Tolerance and Average Grade Information

MEG-AG-2	Minimum	Maximum	Sample Avg.	Lab Avg.	Std. Dev.	95% Confidence Interval
Cu%	0.23	0.26	0.25	0.25	0.01	0.23-0.27
Zn%	10.81	11.62	11.24	11.24	0.29	10.66-11.82
Ag g/T	270.8	329.4	298.8	292.7	20.3	252.1-333.3
Au g/T	1	1.12	1.05	1.05	0.04	0.97-1.13

Table 11-6 MEG-AG-3 Standard Tolerance and Average Grade Information

MEG-AG-3	Minimum	Maximum	Sample Avg.	Lab Avg.	Std. Dev.	95% Confidence Interval
Cu%	0.21	0.24	0.23	0.23	0.01	0.21-0.25
Zn%	10.12	10.84	10.4	10.4	0.28	9.84-10.936
Ag g/T	2440	2956	2653	2684	168	2348-3020
Au g/T	1.46	1.69	1.57	1.57	0.1	1.37-1.77

In 2018, Konnex added the MEG-CU-1 standard. Copper, zinc, silver and lead tolerances for MEG-CU-1 are summarized in Tables 11-7.

Table 11-7 MEG-CU-1 Standard Tolerance and Average Grade Information

MEG-CU-1	Minimum	Maximum	Sample Avg.	Lab Avg.	Std. Dev.	95% Confidence Interval
Cu%	0.45	0.54	0.48	0.48	0.02	0.44-0.52
Zn%	2.40	2.69	2.53	2.53	0.11	2.30-2.76
Ag ppm	22	28	25	25	1.33	22.34-29.66
Pb ppm	922	1100	1019	1016	49	918-1095

Konnex continued to use the three standards described above in 2020. Due to product shortages from COVID-19, Vigoro brand Marble chips from Home Depot were used as blank material in 2020 as well as the last of Greensmix bags.

11.6.2 Duplicate Analysis

In 2017, HRC compared duplicate results to the original assay values (Figure 11-11) for copper, gold, silver, and zinc. In general, good correlation exists between the duplicate and original assays. However, there is greater dispersion for gold at grades below 0.10 ppm, and zinc does show four sample pairs with significantly different values.

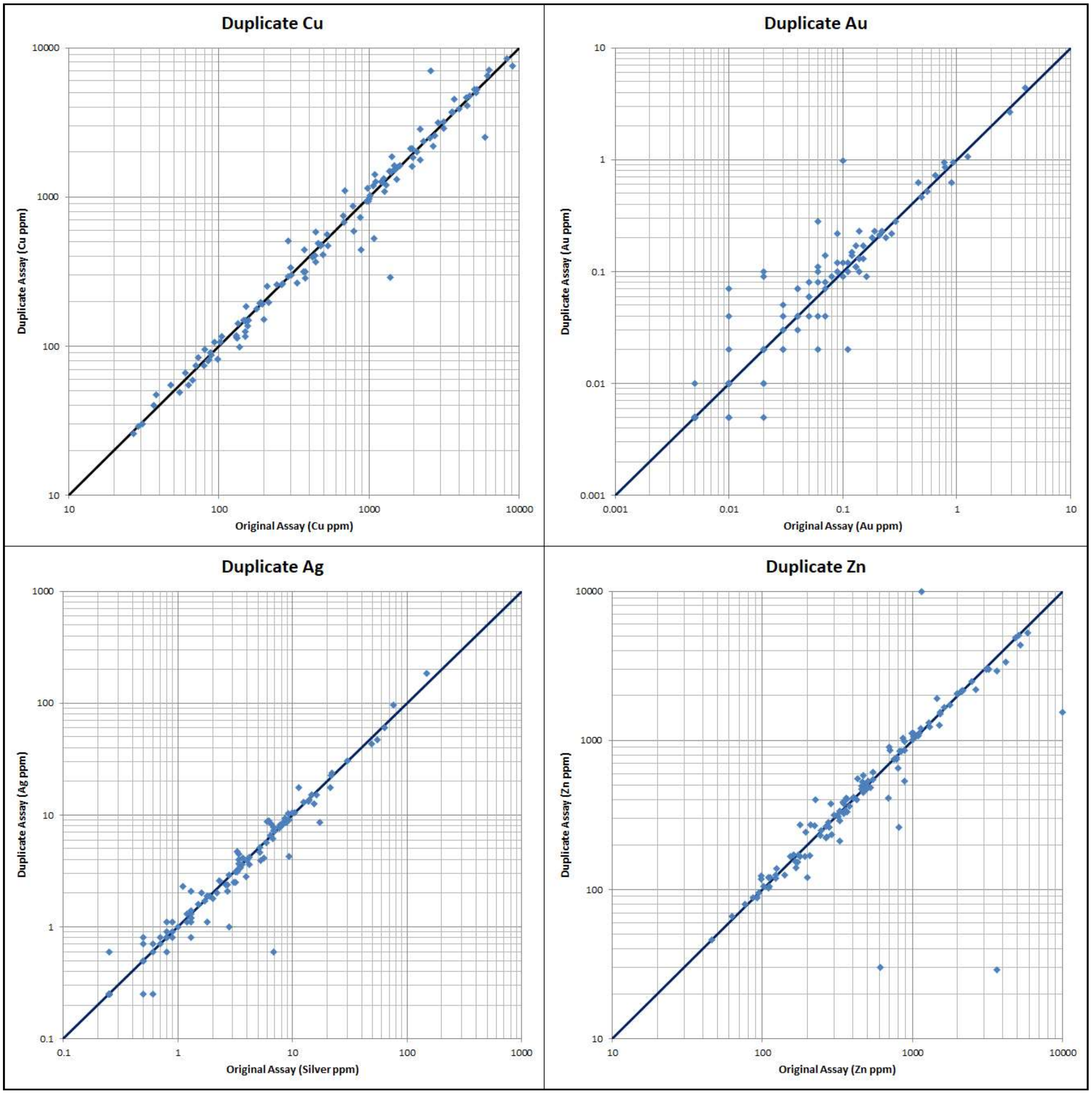

Figure 11-11 Duplicate Analysis for Copper, Gold, Silver, and Zinc

HRC compared duplicate results to the original assay values from the 2020 data (Figure 11-12) for copper, gold, silver, and zinc. In general, good correlation exists between the duplicate and original assays.

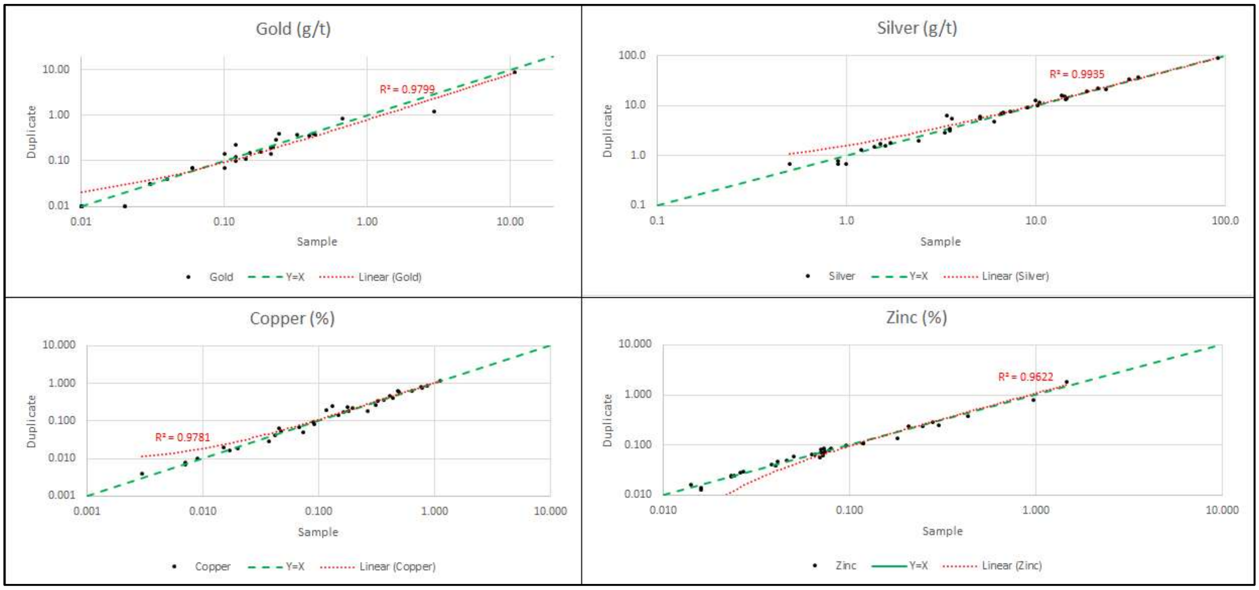

Figure 11-12 2020 Duplicate Analysis for Copper, Gold, Silver, and Zinc

11.6.3 Standard Analysis

HRC reviewed the analysis of copper, gold, silver, and zinc grades for MEG-AG-2 (Figure 11-13) and MEG-AG-3 (Figure 11-14). The majority of samples for both standards fell within 2 standards deviations of the average grade for all four elements, demonstrating the laboratory analysis of samples is accurate. MEG-AG-2 shows 2 samples for gold at below two standard deviations, and 6 zinc samples above two standard deviations. Analysis also demonstrates a slight upward bias for zinc assays. MEG-AG-3 shows 1 sample above, and one sample below two standard deviations for gold, one sample below two standard deviations for silver, and seven samples for zinc above two standard deviations. MEG-AG-3 does show a slight upward bias for gold, silver, and zinc.

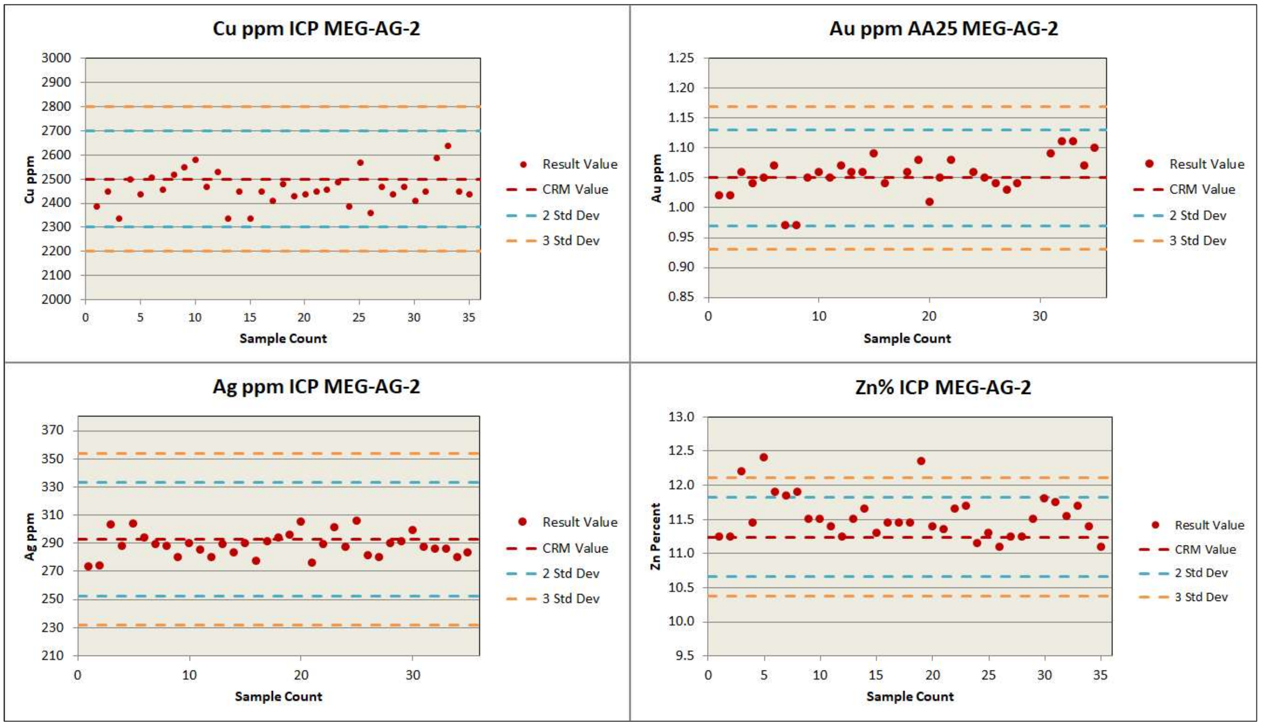

Figure 11-13 Analysis of Standard Results for MEG-AG-2

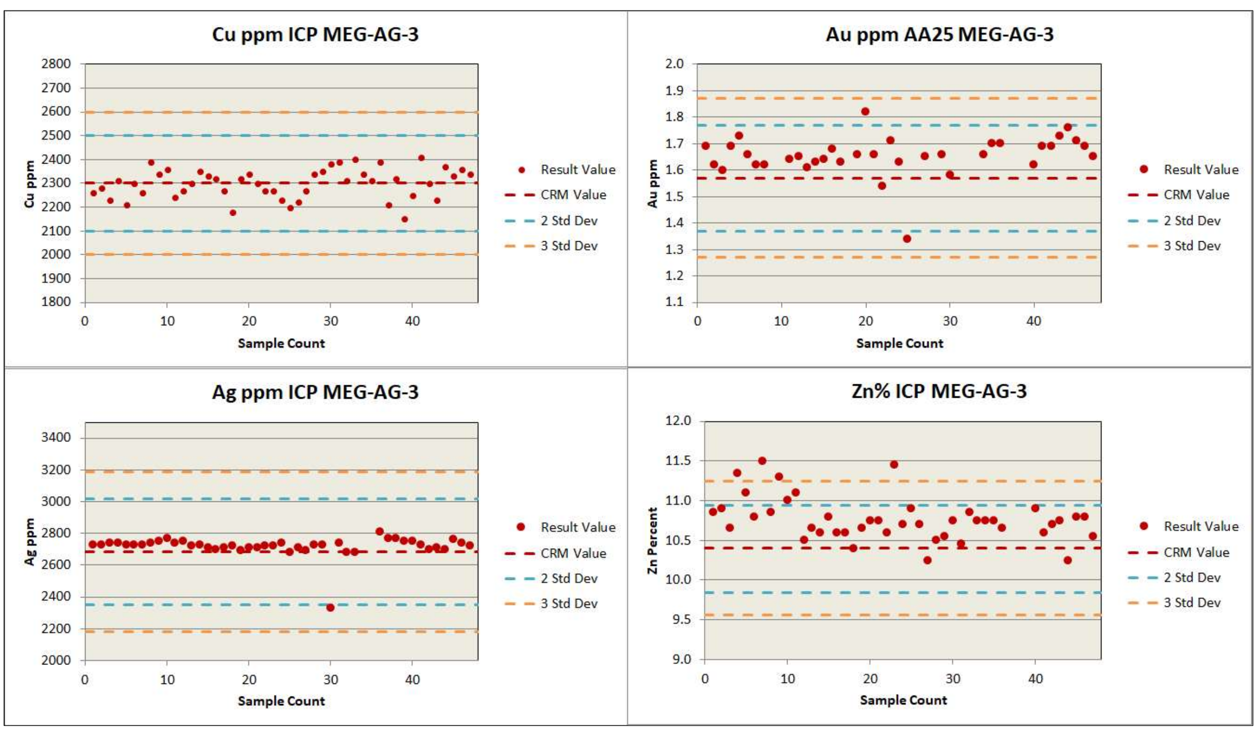

Figure 11-14 Analysis of Standard Results for MEG-AG-3

HRC reviewed the analysis of copper, gold, silver, and zinc grades for MEG-AG-2 (Figure 11-15) and MEG-AG-3 (Figure 11-16) and MEG-CU-1 from the 2020 drilling campaign. The majority of samples for both standards fell within the 95% confidence limits of the average grade for all four elements, demonstrating the laboratory analysis of samples is accurate. MEG-AG-2 showed two results, one for copper and one for zinc, fell outside of the 95% confidence limit. Gold and silver results did not suggest any biased. Copper grades tended to be below the CRM average and zinc grades tended to be higher than the CRM average. MEG-AG-3 showed two results for gold outside the 95% confidence limit. Silver and copper grades did not show any bias. Gold and zinc grades tended to be higher than the CRM average. MRG-CU-1 had no results outside of the 95% confidence limit. Gold was not included for the MEG-CU-1, but silver and copper results did not show any bias. Zinc grades tended to be lower than the CRM average.

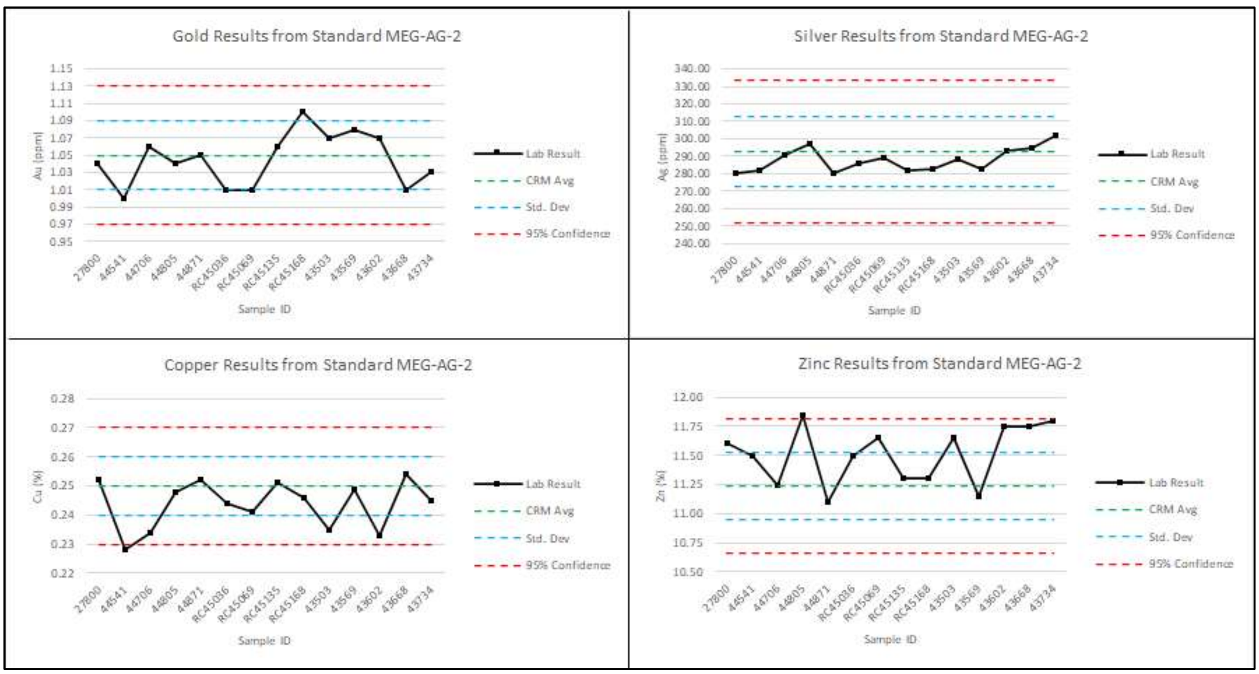

Figure 11-15 Analysis of 2020 Standard Results for MEG-AG-2

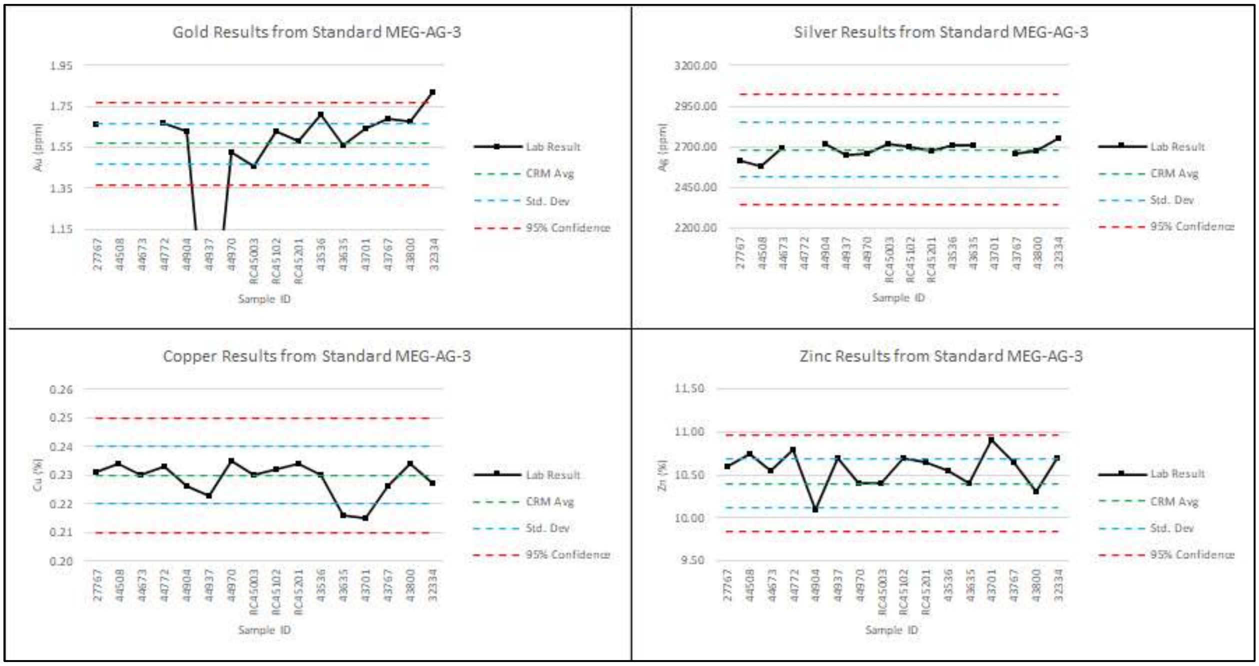

Figure 11-16 Analysis of 2020 Standard Results for MEG-AG-3

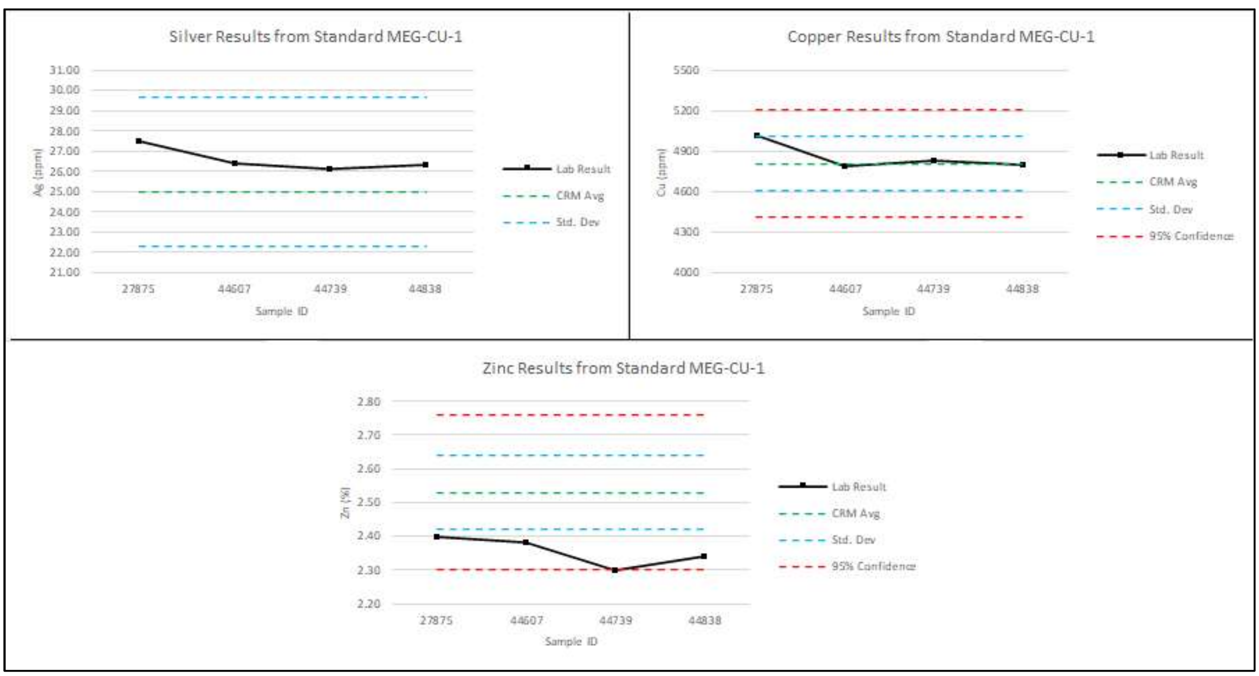

Figure 11-17 Analysis of 2020 Standard Results for MEG-CU-1

11.6.4 Blanks

HRC reviewed the results for blank material based on results through 2017 (Figure 11-18). Gold and zinc demonstrated consistently low assay results with only one sample for each element showing higher grades than expected. Silver also showed consistently low values but does show a greater propensity for higher-than-expected values in eight samples. Copper shows the least consistency and suggests that at lower copper grades, lab results may be over reporting.

HRC evaluated all thirty-seven blank results from the 2020 drilling campaign (Figure 11-19). Most of the samples showed consistently low values for each element. Gold results showed two samples had results higher than 3x the detection limit silver had one sample test higher than 3x the detection limit. Copper had on sample with a result higher than 300 ppm, and zinc had two samples with results greater than 300 ppm. All of the failed blanks occurred in certificate EL20151460.

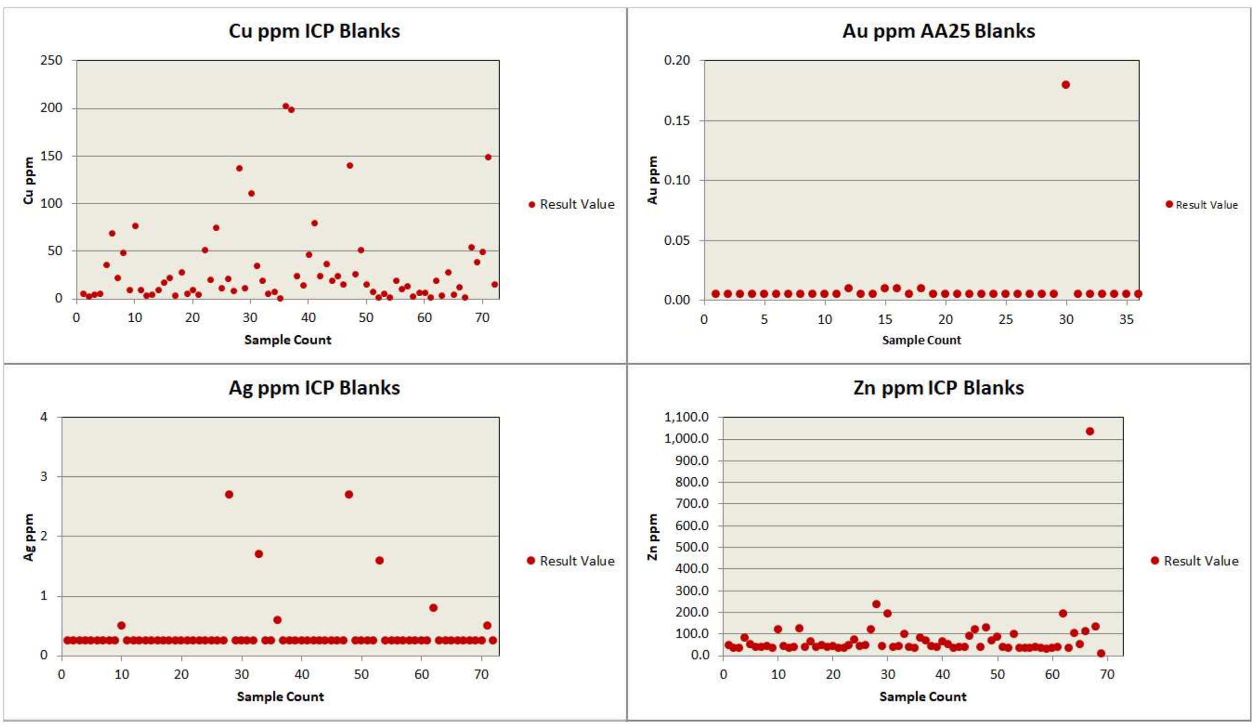

Figure 11-18 Analysis of Blank Results

Figure 11-19 Analysis 2020 of Blank Results

11.7 Sample Storage, and Security.

All current and historic core, chip trays, and pulp rejects are stored in a heated indoor warehouse located at 211 East Custer Street, Building 2, Suite D Mackey Idaho 82351. The facility is approximately 6 miles from the Project site and is secured by lock overnight and when no personnel are working on site.

11.8 Opinion on Adequacy

HRC concludes that the sample preparation, security and analytical procedures employed throughout the history of the Project are acceptable from a relative industry standard perspective, and that the subsequent analytical results are suitable for use in the estimation of mineral resources. The sample methods and density are appropriate, and the samples are of sufficient quality to comprise a representative, unbiased database.

12. DATA VERIFICATION

Data verification efforts carried out by HRC include:

- Discussions with Konnex personnel,
- Personal investigation of the Project and field office,
- Mechanical audit of the exploration drillhole database received from Konnex,
- Detailed review of additional information obtained from historical reports and internal company reports,
- Validation of the database geologic information as compared to the paper logs, and
- Validation of the assay values contained in the exploration database as compared to assay certificates provided by Konnex.

12.1 Site Visit

HRC representative and QP J.J. Brown, P.G., conducted an on-site inspection of the Empire Mine Project on May 29, 2019 accompanied by Konnex CEO Ryan McDermott and staff geologist Nathan Bishop. While on site, Ms. Brown conducted general geologic field reconnaissance, including inspection of on-site facilities and examination of bedrock exposures and drill collar locations. Ms. Brown also examined select core intervals from historic and recent drilling and reviewed with Konnex geology staff the conceptual geologic model, data entry and document management protocols, and drilling and sampling procedures and the associated quality assurance and quality control ("QA/QC") methods presently employed. HRC's Jeff Choquette, P.E., also personally inspected the Empire Project, including the Project site and core logging and office facilities, on July 19 and 20, 2019 and again on October 14, 2020.

Field observations during the site visits generally confirm previous reports on the geology of the Project area. Bedrock lithologies, alteration types, and significant structural features are all consistent with descriptions provided in existing Project reports, and the authors did not see any evidence in the field that might significantly alter or refute the current interpretation of the local geologic setting. A variety of core intervals were selected for visual inspection and check sampling based on a preliminary review of the drill hole logs and associated assay values. The samples were selected from the full range of grade intervals and lithology types.

In most cases, the core samples observed accurately reflect the lithologies recorded on the logs, and the degree of visible alteration and evidence of mineralization was generally consistent with the grade range indicated by the original assay value; however, there were a number of selected sample intervals for which the database lithology was inconsistent with the actual lithology. These intervals were logged according to the lithologic codes available, which were streamlined during a 2018 re-logging program intended to establish consistency between the lithologies recorded during historic and recent drillhole logging. Konnex recognizes the need to review and refine the relogged lithologies to accurately reflect the actual lithology of any given core interval within the database, and those efforts are currently underway. While the 'lumping' of lithologic units within the database may have a minor statistical impact on the distribution of copper grades, it is not considered significant to the overall mineral resource effort at this time. HRC recommends that Konnex carry out coding corrections within the database as a priority effort in 2019.

In 2017, Konnex geologists undertook a relogging program of the historic drill logs to develop more consistent geologic descriptions. The updated geologic logs were used to update the sectional interpretation of the geologic model.

12.2 Database Audit

A mechanical audit of the database was completed using Leapfrog Geo Version 4.4.2. The database was checked for overlaps, gaps, total drill hole length inconsistencies, non-numeric assay values, and negative numbers. Samples below detection limit and un-sampled intervals were assigned values of 0.001. Zero values are assumed to be un-mineralized and are set to 0.001 for the purpose of mineral resource estimation.

Drillholes which are missing lithology data are generally so because complete geologic logs were not available at the time of modeling. These holes are not used for geologic modelling, but the assay values are used for mineral resource estimation.

12.2.1 Overlaps

A large number of overlapping intervals in the lithology table were identified. HRC and Konnex reviewed the logs for these intervals and made corrections accordingly.

12.2.2 Gaps, Non-numeric Assay Values, and Negative Numbers

The software reported missing intervals for copper, zinc, silver, and gold. The non-positive numbers (-9) were assumed to be non-sampled intervals and were omitted from the dataset. All of the other non-positive values were assumed to be below detection limit values and were set to 0.01 for all metals. No non-numeric assays were encountered in the audit. Konnex has recovered the multi-element analysis from the historical data and is in the process of incorporating it into the modeling.

12.2.3 Drillhole Exclusions

Three RC drillholes totaling 130 feet from the 2020 drilling campaign did not reach the target depth. The rock chips were not assayed, and as a result, the drillholes were excluded from the MRE database. These drillhole are KX20-BH1, KX20-BH2, and KX20-BH3.

12.3 Survey Data

The collar coordinate elevations were compared to the corresponding elevation from the surface triangulation. The drillhole collar elevations represent similar elevations to the corresponding topography surface and are considered adequate for use in the mineral resource estimation.

Of 285 drillholes audited in the database only a limited number of drilling has been surveyed down-the-hole. A total of 180 drillholes were not surveyed down-the-hole or the records have not been located. These drillholes were evaluated on section and found to have similar locations for geologic and grade breaks as compared to the surrounding surveyed drillholes.

12.4 Certificates

Konnex reconstructed the drillhole database from the original assay certificates in .csv or .pdf format. A random manual check of 10% of the database against the original certificates was conducted by Konnex to ensure the accuracy of the data entry and validated by HRC. The error rate within the database is considered to be less than 1% based on the number of samples spot checked.

HRC compared all of the assay values from the 2020 drilling campaign within the database to .csv certificates. No errors were found in the 2020 drilling data.

12.5 Adequacy of Data

HRC has reviewed the check assay programs and believes the programs provide adequate confidence in the data. Samples that are associated with failures and the samples associated with erroneous blank samples have been reviewed. Errors have been justified as labeling errors or are infrequent. All of the samples associated with erroneous QA/QC results are reviewed prior to inclusion in the database.

Drill logs are being digitally entered into an updated exploration database organized and maintained by Konnex. The split core and cutting trays are stored at the Project exploration office.

HRC concludes that the sample preparation, security and analytical procedures are appropriate and adequate for the purpose of this Technical Report. The sample methods and density are appropriate, and the samples are of sufficient quality to comprise a representative, unbiased database.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

The copper-gold-zinc-silver mineralization at the Project falls into the skarn hosted, polymetallic category. The oxide (e.g. carbonates such as malachite and azurite) and sulfide (chalcopyrite/chalcocite) mineralization is developed to varying degrees within exoskarn in limestone and endoskarn in porphyry. Four metallurgical test programs have been conducted in the past, one undertaken by METCON Research in 1997 and two undertaken by Kappes, Cassiday and Associates (KCA), one in 2005 and one in 2013, and one by Konnex in 2017. Although the location of the majority of the past metallurgical sampling is not well defined in the available metallurgical reports, it appears that the majority of the test work has been completed on material that is within 100 feet of surface. Future studies should be conducted on material collected at greater depth in order to evaluate the recovery relationship with depth and to develop a better understanding of the oxidation state of material in the deeper portions of the deposit. Numerous metallurgical samples were collected for this purpose by Konnex in 2018, and analysis of these samples is currently underway.

13.1 1997 Leaching Tests by METCON Research for Cambior.

In 1997, METCON Research, of Tucson Arizona, began preliminary metallurgical test work for Cambior. Testing was completed on 11 mineralized composites taken from nine drillholes. The process of using sequential leaching of copper with acid followed by precious metal leaching with cyanide was tested. In general, the results concluded that copper recoveries between 75% to 80% could be achieved at a grind of 50 to 100 mesh under 4 to 8 hours of leaching time. Possible zinc recoveries of 50% to 60% were also indicated. Gold and Silver recoveries were indicated at 75% to 80% and 50% to 60% respectively after 8 to 12 hours of leach time. The testing results are summarized as follows:

- Copper Recovery
  - On 10-mesh material, copper dissolution was 75% after 24 hours at 50 g/I sulfuric acid concentration.
  - On 100-mesh material, copper recovery was 80% after 8 hours at 50 g/1 acid concentration.
  - Leach time of less than 4 hours on minus 50 mesh material should allow recoveries in the 80% range using an acid concentration of 25 g/l.
- Zinc Recovery
  - On 10-mesh material, zinc dissolution was 50% after 24 hours at 50 g/l acid concentration.
  - On 100-mesh, zinc dissolution was 60% after 8 hours at 50 g/l acid concentration.
  - Zinc recovery could be in the range of 50-60% depending on feed size.
  - The flow sheet for recovering zinc needs to be developed.
- Gold Recovery
  - On 10-mesh material, gold recovery was 70% after 24 hours at 1 g/l cyanide concentration.
  - At 100 mesh, gold recovery was 80% after 8 hours al 1 g/l cyanide concentration.
  - Following the copper circuit, gold dissolved more rapidly than in conventional gold circuits, typically requiring 24-48 hours.
  - Cyanide consumption varied from 0.5 to 1.0 kg/tonne.
  - Lime consumption was high at 15 to 20 kg/tonne as the pH had to be raised from 1.0 to 11.5 before cyanidation. Efficient washing should bring lime consumption down to around 10 kg/tonne.

- Silver Recovery
  - Silver recovery ranged from 40% at 10 mesh to 70% at 10 mesh.

13.2 2005 Leach Tests by Kappes Cassiday & Associates for Trio Gold Corp.

In December of 2004, Kappes Cassiday & Associates received three buckets of core and six drums of pit material from the Empire Mine Project. The pit material came from four test pits adjacent to hole TRC04-1 at the center of the AP pit and the six core samples of mineralized exoskarn were taken from hole TDD04-1 PQ.

Primary metallurgical testing was carried out on the bulk drum samples and the drill core samples. Both types of samples were subjected to density analyses as outlined by ASTM method C914-95. Each bulk drum sample was also tested for moisture content before composition. The bulk drum samples were combined into one bulk composite sample and sulfuric acid column leach tests and a cyanide bottle roll leach test were conducted on the composite. One column test was run at the as-received size distribution, and the second column was run on minus 1.5-inch material. The bottle roll leach test was conducted on 500 grams of pulverized material at minus 150 mesh.

Head analyses were conducted on each of the bulk drum samples, the individual core, and the composite sample. The testing included head assays for copper using four acid digestion and a sequential copper leach. The solutions generated by the previous digestions were analyzed by an AAS (Atomic Adsorption Spectrophotometer). Head fire assays for gold and silver were conducted using standard fire assay techniques. LECO analyses for total sulfur, sulfide sulfur, and sulfate sulfur were run, and a multi-element analysis was also conducted. The composite bulk sample was subjected to all the aforementioned tests. The samples generated for the column leach tests were also subjected to head screen analyses with assays by size fraction for copper. Table 13-1 summarizes the results of the copper head assays conducted on the individual bulk and core samples and Table 13-2 summarizes the results of the composite sample.

Table 13-1 Bulk Samples and Core Copper Head Assay Summary

KCA Sample No.	Empire l.D.	Sample Description	Four Acid Digestion Head Assay, ppm Cu	Sequential Copper Leach Average Head Assay, ppm Cu
3310 1 A	PIT 1 - 01	Bulk Drum	8,025	7,694
33101 8	PIT 1 - 02	Bulk Drum	9,100	8,995
33101 c	PIT 2 - 01	Bulk Drum	4,500	4,680
33101 D	PIT 2 - 02	Bulk Drum	7,930	7,664
33101 E	PIT 3 - 01	Bulk Drum	8,520	8,234
3310 I F	PIT 4 - 01	Bulk Drum	5,570	5,196
33102 A	TDH - 04-01	Core	9,970	8,268
33102 B	TDH - 04-01	Core	25,400	23,963
33102 c	TDH - 04-01	Core	5,740	5,644
33102 D	TDH - 04-01	Core	7,480	7,481
33102 E	TDH - 04-01	Core	4,920	4,983
33102 F	TDH - 04-01	Core	135,400	130,219

Table 13-2 Composite Head Assay Summary

KCA Composite No.	Sample Description	Four Acid Digestion Average Head Cu, ppm	Weighted Average Head Cu, ppm	Sequential Copper Leach Calculated Cu, ppm	Weighted Average Head Screen ROM Material, ppm Cu	Weighted Average Head Screen Minus 1 1/2" Material, ppm Cu	Cyanide Soluble Copper, mg/kg
33185	Composite Sample	7,990	7,370	7,917	8,346	7,188	1,688

13.2.1 Bottle Roll Leach Test Results

A cyanide bottle roll leach test was completed on a 500-gram split that was taken from a 1000-gram sample crushed to 10 mesh size of the composite sample. The bottle roll leach tests were completed on dry material pulverized to 100% minus 150 mesh. The average gold recovery for the composited samples was 42% and the average silver recovery was 92%. The results of the bottle roll leach tests for gold and silver are summarized in Table 13-3.

Table 13-3 Bottle Roll Leach Results

KCA Sample No.	KCA Test No.	Sample Description	Calculated Head, oz Au/st	Extracted, oz Au/st	Extracted % Au	Days of Leach	Consumption NaCN, lbs/st	Addition Ca(OH)2, lbs/st
33185	33854 A	Composite Sample	0.003	0.001	0.42	2	5.41	4
KCA Sample No.	**KCA Test No.**	**Sample Description**	**Calculated Head, oz Ag/st**	**Extracted, oz Ag/st**	**Extracted % Ag**	**Days of Leach**	**Consumption NaCN, lbs/st**	**Addition Ca(OH)2, lbs/st**
33185	33854 A	Composite Sample	0.32	0.3	92%	2	5.41	4

13.2.2 Column Leach Test Results

Two column leach tests were completed on the composite bulk sample. The first test (KCA Test No. 33413) was conducted at the as-received size distribution. This test showed an overall copper recovery of 31% after leaching for 82 days. The second test (KCA Test No. 33415) was carried out on material that was crushed to minus 1.5 inch. The results of this test showed a recovery of 61% after 89 days of leaching. The results of the column leach tests for copper are summarized in Table 13-4.

Table 13-4 Column Leach Results

KCA Sample No.	KCA Test No.	Sample Description	Average Head Assay, ppm Cu	Calculated Head, ppm Cu	Cumulative Copper Extracted, ppm Cu	Average Tails, ppm Cu	Extracted % Cu	Crush Size	Days of Leach	Best Estimate of "True" H2S04 Consumption, lbs/st
33185 A	33413	Column Composite	7370	6969	2173.3	4796	31%	As-received	82	19.88
33185 B	33415	Column Composite	7370	8830	5411.7	3418	61%	-"1.5"	89	38.88

13.3 2013 Leach Tests by Kappes Cassiday & Associates for Boxxer Gold Corp.

In August of 2013 KCA received four samples totaling 488.5 kg from Konnex (a subsidiary of Boxxer) to determine the amenability of the Empire Mine ore to acid leaching for copper and cyanide leaching for gold and silver. KCA worked on two of the bulk samples, exoskarn sample EM13-Met1 (KCA sample 69501) and FeOx breccia sample EM13-Met4 (KCA sample 69504). Samples endoskarn EM13-Met2 (KCA sample 69502) and magnetite skarn EM13-Met3 (KCA sample 69503) were not tested and were placed in storage with KCA in Reno.

Portions of the sample head material were ring and puck pulverized and analyzed for gold, silver and copper by standard fire assay and wet chemistry methods. Head material was also assayed utilizing semi-quantitatively for an additional series of elements and for whole rock constituents. In addition to these semi-quantitative analyses, the head material was assayed by quantitative methods for carbon, sulfur and mercury. A cyanide shake test was also conducted on a portion of the pulverized head material and a portion of the head material was utilized for a sequential copper leach analysis. A summary of the head analyses for gold, silver and copper is presented in Table 13-5.

Table 13-5 Head Analysis of Gold, Silver and Copper

KCA Sample No.	Client ID	Sample Description	Average Assay, gms Au/MT	Average Assay, gms Ag/MT	Total Copper, mg Cu/kg
69501	EM-13, MET-1	Exoskarn	0.062	21.65	15,816
69504	EM-13, MET-4	FeOx-clay Breccia	0.273	22.59	10,984

13.3.1 Bottle Roll Leach Test Results

Two sulfuric acid bottle roll leach tests were conducted on split portions of EM-13, MET-1 sample material (KCA Sample No. 69501). One test was conducted for a leach period of 240 hours, utilizing a 10-kilogram portion of coarse head material crushed to a target size of 80% passing 19 millimeters. A second test was conducted for a leach period of 96 hours, utilizing a 1,000-gram portion of head material which was ring and puck pulverized to a target size of 80% passing 0.075 millimeters. Each sulfuric acid leach test was conducted and maintained at a target concentration of 10.0 grams sulfuric acid (98%) per liter of solution.

One cyanide bottle roll leach test was conducted on a split portion of the EM-13, MET-4 sample material (KCA Sample No. 69504). A 1,000-gram portion of head material was ring and puck pulverized to a target size of 80% passing 0.075 millimeters. The pulverized material was then utilized for a 96-hour leach test and maintained at a target concentration of 1.0 grams sodium cyanide per liter of solution. The cyanide bottle roll leach test was assayed for gold and silver content. A summary of the copper extraction results from the sulfuric acid bottle roll leach tests and a summary of the gold and silver extraction results from the cyanide bottle roll leach tests are presented in Table 13-6.

Table 13-6 Sulfuric Acid and Cyanide Bottle Roll Results

KCA Sample Number	KCA Test Number	Client ID	Sample Description	Target p80 Size, mm	Calculated p80 Size, mm	Head Average, mg Cu/kg	Calculated Head, mg Cu/kg	Cu Extracted, %	Leach Time Hours	Estimated Consumption, kg H^2SO^4/MT
69501	69905 A	EM-13, MET-1	Exoskarn	--	17.1	15,816	16,974	52%	**240**	22.92
69501	69905 B	EM-13, MET-2	Exoskarn	0.075	--	15,816	15,229	95%	**96**	34.98
KCA Sample Number	**KCA Test Number**	**Client ID**	**Sample Description**	**Target p80 Size, mm**	**Head Average, gms Au/MT**	**Calculated Head, gms Au/MT**	**Au Extracted, %**	**Leach Time Hours**	Consumption NaCN, kg/MT	**Addition $Ca(OH)^2$,kg/MT**
69504	69906 A	EM-13, MET-4	FeOx-clay Breccia	0.075	0.273	0.166	76%	96	**4.19**	3.5
KCA Sample Number	**KCA Test Number**	**Client ID**	**Sample Description**	**Target p80 Size, mm**	**Head Average, gms Ag/MT**	**Calculated Head, gms Ag/MT**	**Ag Extracted, %**	**Leach Time Hours**	Consumption NaCN, kg/MT	**Addition $Ca(OH)^2$,kg/MT**
69504	69906 A	EM-13, MET-4	FeOx-clay Breccia	0.075	22.59	21.2	37%	96	**4.19**	3.5

13.4 Mineral Technology Test Program 2017

In 2017, Konnex Resources Inc. commissioned Minerals Technology LLC ("MT") of Tucson, Arizona to conduct preliminary metallurgical test work on samples of oxide mineral material for this study. MT investigated leaching of copper using conventional bottle roll and column test technology.

Konnex drilled four PQ drill holes to obtain sufficient material of each major ore type in the deposit with consideration of making composite test samples representing spatial distribution in the deposit and average metal gradation. It has been previously estimated that the Empire mine copper oxide deposit consists of four major ore types: exoskarn (61% of the deposit), endoskarn (18% of the deposit), magnetite skarn (12% of the deposit,) and FeOx-clay breccia (9% of the deposit). The average grade of the deposit is about 0.49% Cu. The drilling program supplied enough sample material for each of the four ore types, with the exception of magnetite skarn, which was augmented with sample material from previous core drilling.

Composite samples of each rock type in the deposit were characterized by visual examination and then advanced for sample preparation, head analysis, and leach test work. A "grand composite" sample made up of each rock type in proportion to its percentage of the deposit was also advanced for sample preparation, head analysis, and leach test work.

The metallurgical program includes assaying and elemental analysis of each sample, particle size analysis, and assays of the individual size fractions, standard sulfuric acid solution bottle roll leaching tests, and standard sulfuric acid solution column leaching tests. Five bottle roll tests were performed, one for each of the individual rock type samples and one for the Grand Composite sample. Eight column leach tests were performed, one for each of the individual rock type samples (designated CL-1 through CL-4), two for the Grand Composite sample (designated CL-5 and CL-6), one for a Grand Composite sample prepared with an acid agglomeration procedure prior to column leaching (designated CL-7), and one for a Grand Composite sample prepared with a spray acid cure procedure prior to column charging and leaching (designated CL-8).

13.4.1 Bottle Roll Test Results

The bottle roll tests determined the copper extraction and acid consumption values for sample materials that were pulverized to a 100% passing 120 mesh size distribution. Test results are presented in Table 13-7.

Table 13-7 Bottle Roll Test Results MT Project No. 075-01

Sample No.	Sample Description	Head Assay % Cu	Calculated Head, Assay % Cu	Leach Residue % Cu	% Cu Extraction	Leach Time, hours	H2SO4 Consumption lbs/ton (1)
BR-01	Exoskarn	0.585	0.616	0.117	81	24	128
BR-02	Endoskarn	0.537	0.58	0.12	79	24	58
BR-03	Magnetite Skarn	0.551	0.573	0.184	68	24	64
BR-04	FeOx-clay Breccia	0.416	0.441	0.297	33	24	46
BR-05	Grand Composite	N/A	0.592	0.142	76	24	115

(1) Acid consumption is the recorded test result minus an allowance for regeneration of acid from the electrowinning reaction.

13.4.2 Column Test Results

The column tests determined the copper extraction and acid consumption values for sample material that was crushing to a 100% passing 1-inch size distribution. Test results are presented in Table 13-8.

Table 13-8 Column Test Results MT Project No. 075-01

Sample No.	Sample Description	Head Average, % Cu	Calculated Head % Cu (2)	% Cu Extraction (3)	Pre-treatment lbs H2SO4/ton	Leach Time Days	H2SO4 Consumption lbs/ton (1) (4)
CL-1*	Exoskarn	0.585	TBD	66	-	72	90
CL-2*	Endoskarn	0.537	TBD	84	-	72	67
CL-3*	Magnetite Skarn	0.551	TBD	66	-	72	55
CL-4*	FeOx-clay Breccia	0.416	TBD	42	-	68	43
CL-5**	Grand Composite	N/A	TBD	62	-	34	53
CL-6**	Grand Composite	N/A	TBD	60	-	34	56
CL-7**	Grand Composite	N/A	TBD	76	Agglomeration, 30.4	34	77
CL-8**	Grand Composite	N/A	TBD	62	Cure/spray acid solution, 15.2	34	63

** Column Test in final stage of test work (washing) at the time at this writing*
*** Column in Leaching operation at the time at this writing.*

(1) Acid consumption is the recorded test result minus an allowance for regeneration of acid from the electrowinning reaction.
(2) TBD-To be determined at end of test work.
(3) Indicated copper extraction at indicated “Leach Time-Days”.
(4) Indicated acid consumption at indicated “Leach Time-Days”.

Leach time versus copper extraction data and leach time versus acid consumption for the rock type column tests are shown graphically in Figures 13-1 and 13-2, respectively.

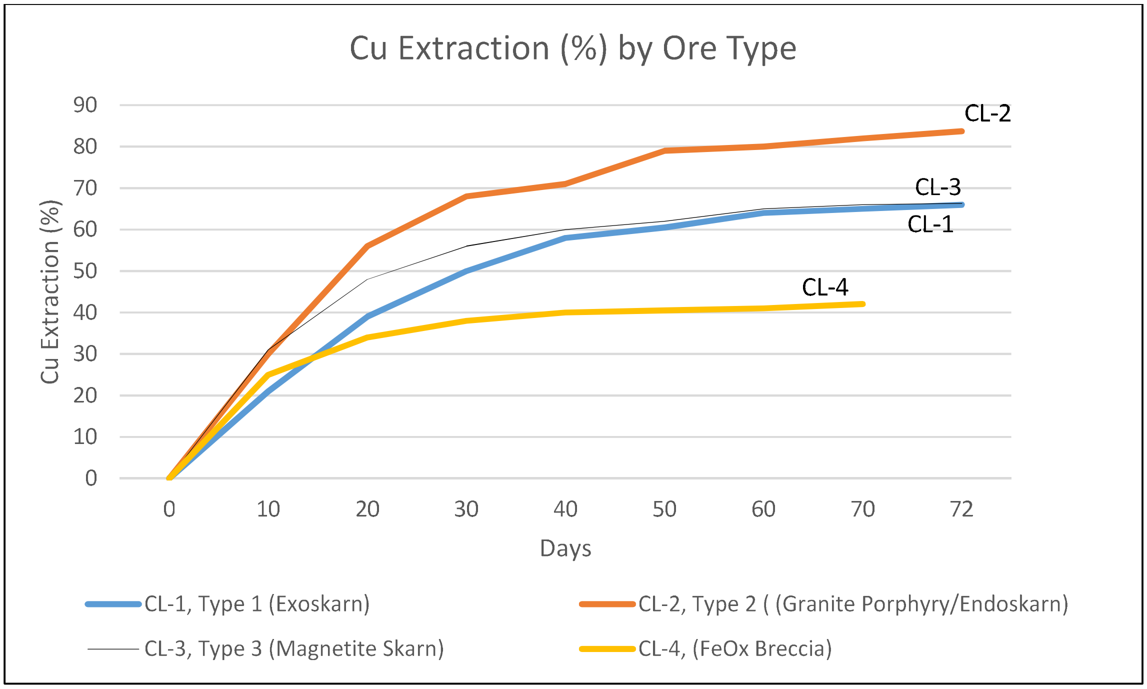

Figure 13-1 Copper Extraction – Ore Type Column Tests

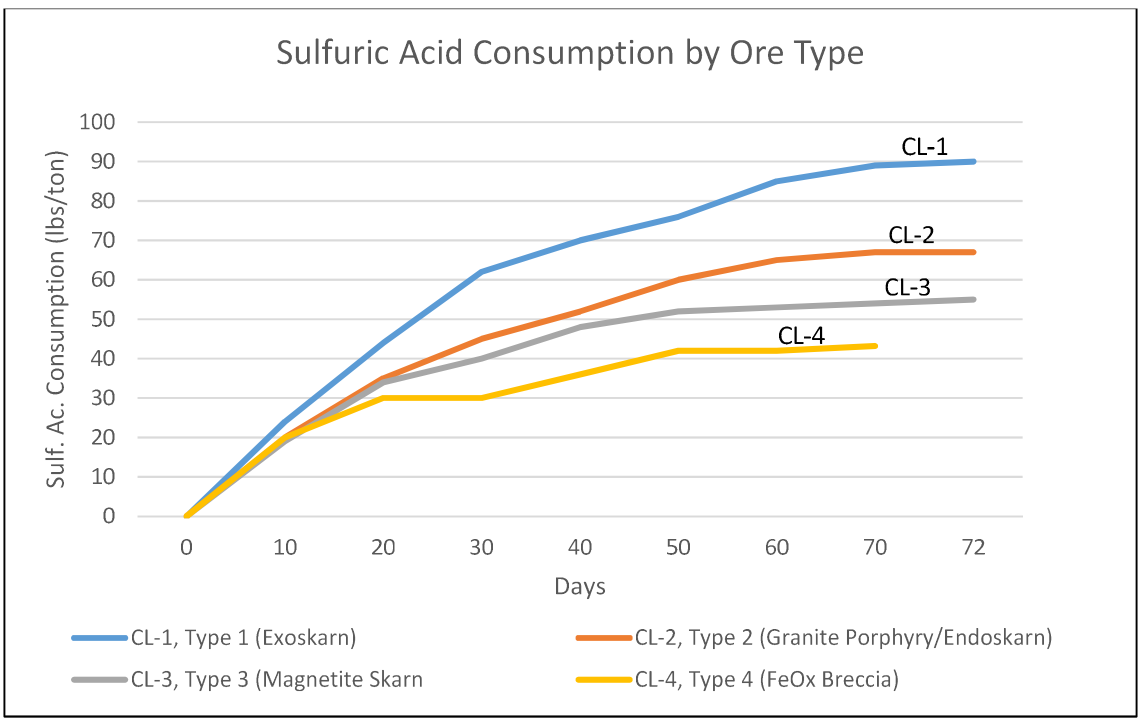

Figure 13-2 Acid Consumption – Ore Type Column Test

Leach time versus copper extraction and leach time versus acid consumption data for the grand composite sample tests are shown graphically in Figures 13-3 and 13-4, respectively.

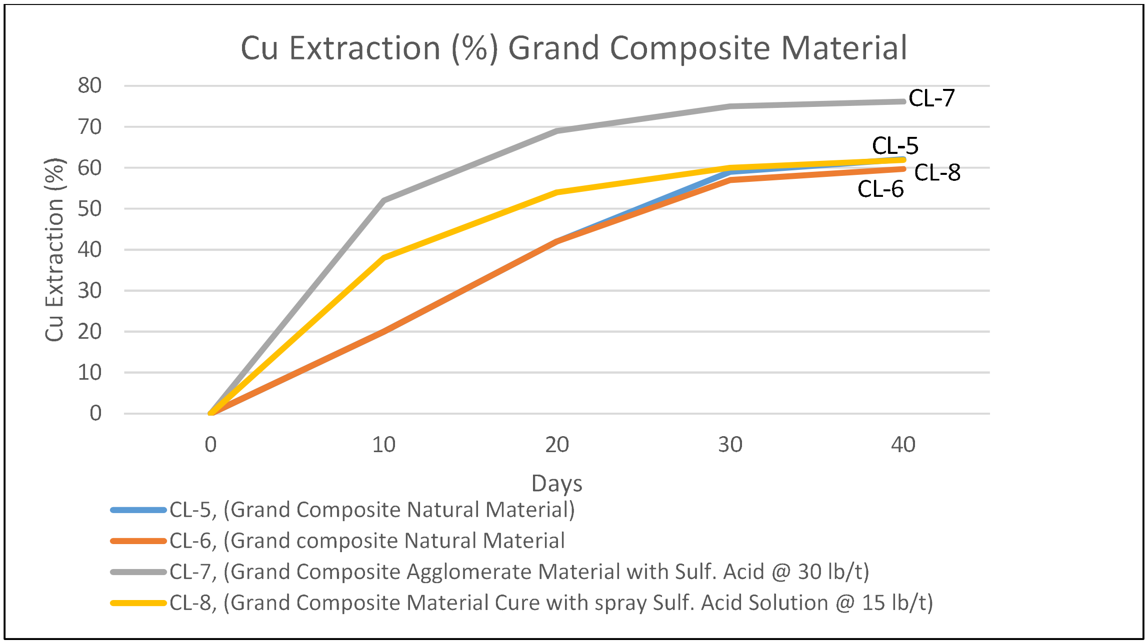

Figure 13-3 Copper Extraction - Grand Composite Column Tests

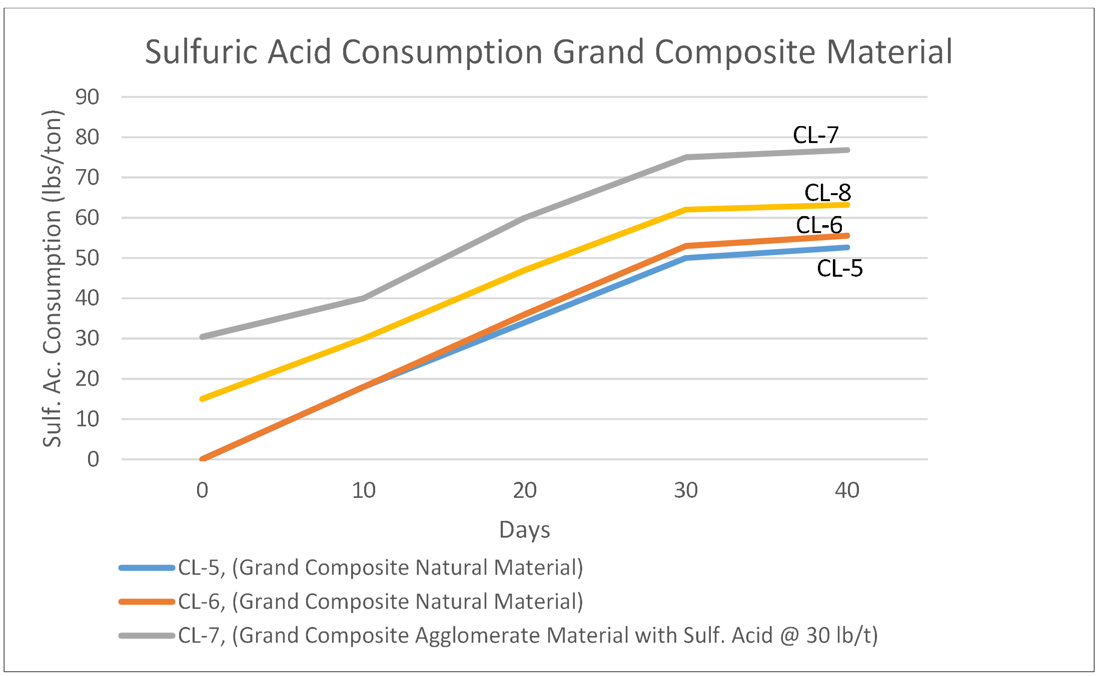

Figure 13-4 Acid Consumption – Grand Composite Column Tests

13.5 2020 Metallurgical Testwork

Konnex contracted Auric Metallurgical Laboratories to conduct fire and chemical assays as well as cyanide amenability tests on two bucket samples from the Empire Project in January of 2020. Auric reported very good gold recovery based on initial analytical results, noting a measurable difference in gold values between samples ground by Auric and a single sample which was ground to -10M prior to submission to lab.

Visual examination of ground magnetite samples under the microscope did not identify any large gold particles, possibly indicating that the gold is free and micron or submicron in size but sandwiched in between the magnetite grains. The speed with which the samples, milled only to -80M, responded to sodium cyanide leach also supports this theory. This theory can be confirmed by electron microscopy work with microprobe, which can probably be carried out at the University of Idaho in Moscow or Boise State University in Boise.

Based on the samples submitted, Auric considers that the magnetite ore is ideally suited for hydrometallurgical processing either by sodium cyanide leaching or ammonium/sodium thiosulfate leaching. Either type of leaching operation can be performed in a closed-circuit agitated vat leaching mode with minimal to no environmental impact. Table 13-9 summarizes the results of fire and NaCN amenability tests completed on various samples provided by Konnex. There is quite a spread in the gold/silver values, as can be expected at this stage of exploratory sampling. The response of the samples to a 3-hour sodium cyanide amenability test yielding 82.2% to 93.5% is remarkable and indicates that the material is a very good candidate for further sodium cyanide leach recovery testing at bench and pilot scale levels.

Table 13-9 Fire Assay and NaCN Amenability Test Results

Sample	Au (opt)	Ag (opt)
-10 Crushed (Jan)	0.135	0.565
NaCN Amenability Test	(82.2%) 0.111	(56%) 0.316
Rocks (Jan)	0.157	0.677
NaCN Amenability Test	(86%) 0.135	(68%) 0.460
Rexcon Master (ALS reject)	1.192	0.592
NaCN Amenability Test	(93.5%) 1.114	(100%) 0.592
Konnex Buckets (390.9 lbs)	0.384	0.154
NaCN Amenability Test	(84.4%) 0.324	(59%) 0.091

13.6 Interpretations

The metallurgical work that was performed in 1997, 2004 and 2013 were adequate for obtaining exploratory indications, and the 2018 program augmented those programs with data required for design criteria and future development of the Empire mine.

The test work for the 2018 program was rigorous in obtaining and using representative samples which compared well to the assay of the total deposit reported to be 0.490 percent copper. Each known ore type was tested separately, and a grand composite sample was also tested. In addition to standard tests, optimization tests with agglomeration methods were performed.

Table 13-10 Summary of Test Results

			Pretreatment							
DATA Source	Test Type	Material	Materia Size	Head % Cu	Extracted % Cu	Acid Consum. lbs/ton	Pre-treatment Acid lbs/ton	Total Acid lbs/ton	Leach Time (Days)	% of Deposit
MT (2018)	BRT	Exoskarn	(Pulverized)	0.62	81	148	-	180.6	1	61
MT (2018)	BRT	Endoskarn	(Pulverized)	0.58	79	74	-	26.6	1	18
MT (2018)	BRT	Magnetite skarn	(Pulverized)	0.573	68	78	-	18.7	1	12
MT (2018)	BRT	FeOx-clay Breccia	(Pulverized)	0.441	33	46	-	8.3	1	9
MT (2018)	BRT	Grand Composite	(Pulverized)	0.592	76	116	-	116	1	100
MT (2018)**	CT	Exoskarn	-1.0 inch	0.616	66	90	-	TBD	72	N/A
MT (2018)**	CT	Endoskarn	-1.0 inch	0.58	83.7	67	-	TBD	72	N/A
MT (2018)**	CT	Magnetite skarn	-1.0 inch	0.57	66.3	55	-	TBD	72	N/A
MT (2018)**	CT	FeOx-clay Breccia	-1.0 inch	0.44	42.06	43.2	-	TBD	68	N/A

13.6.1 Column Test results

Final test results for the column test on agglomerated (or pre-treated) material are pending the completion of leaching, column break down, particle size analysis, and assaying of the size fractions of the leached residue. Preliminary information indicates that the copper extraction reached the same mark at 25 days as the un-agglomerated material did at 50 days of leaching. This represents a 50% reduction in the leach duration time. It also appears that the long –term copper extraction rate and acid consumption rate will both be near to the un-agglomerated material column test results. In Figure 13-3, the extraction rate for data for the column with agglomerated grand composite material (CL-7) is shown to be approaching 76% after 34 days of leaching. Column CL-7 is still being leached at the time of this writing the extraction line indicates that there will be little additional copper extracted after 34 days.

Based on the data obtained from column testing, it appears that the copper extraction rate and acid consumption rate is dependent on the ore type treated. The highest extraction rate and the highest acid consumption rate will be experienced when treating the exoskarn ore type. It also appears that leaching the material as separate ore types or as mixed material has no effect on the copper extraction rate or acid consumption rate of the leach system. With the tested leach conditions, there will be a copper extraction rate of 70% after 50 days leaching and a maximum (long term) copper extraction rate, as predicted by the bottle roll tests, of 76%. Test results indicate that the acid consumption will be 80 to 140 lbs/ton rock, or a weighted average of 110 lbs/ton. Experience has shown that for many materials the amount of acid which will be consumed in an industrial-scale leach operation will typically be 20 to 50% of the amount consumed in a "pulverized material" bottle roll test. Applying a similar factor to the column test results, acid consumption should be the range of 23 to 58 lbs/ton, or a weighted average of 40 lbs/ton.

13.6.2 Plant Design Considerations

Based on observations made during test work, it is estimated that the commercial leach operation should be designed based on the following criteria:

- Leach application rate should be 0.003 gallon per minute per square foot
- The Lift height for the ore pile on the leach pad should be 20 to 30 feet in height.
- The copper concentration in the pregnant leach solution (PLS) should be 2.67 grams per liter (without recirculation.
- The mined material should be crushed to a size of 80% passing ¾ inch.
- The crushed material should be agglomerated with 30.5 lbs of sulfuric acid per ton of material.
- Leach scheduling should consider a 60-day leach cycle.
- The copper extraction rate of 76% should be scheduled when processed material with characteristics of the Grand Composite sample and with assay head of 0.600% copper.
- The total Acid consumption rate of 40 lbs of sulfuric acid per ton of material should be scheduled when processing material with characteristics of the Grand Composite sample and with head assay of 0.600% copper.

13.6.3 Recommendations for Additional Test Work

Metallurgical testing should continue with material composite samples that would approximate the head grade and material type corresponding to the annual mining plan. This information would be used in the economic model to predict annual production rates. Additional test work could be conducted to evaluate the extraction rate and acid consumption rate when processing coarser sized material. It may be possible to reduce acid consumption while maintaining the extraction rate and leach time schedule.

Testing should also continue with material composited sample by copper grade, distributed by low grade, medium low, medium high and high grade and should be tested in bottle roll and column test to determine if the grade%/recovery relationship exists. Additional metallurgical testwork should be designed to evaluate the ability to economically recover silver and gold, as well to evaluate the recovery zinc along with copper through the SX/EW process.

14. MINERAL RESOURCE ESTIMATE

Richard A. Schwering, SME-RM, a Resource Geologist with HRC is responsible for the mineral resource estimate presented herein. Mr. Schwering is a Qualified Person as defined by NI 43-101 and is independent of Konnex, the vendor, and the property. HRC estimated the mineral resources for the Project based on drillhole data constrained by geologic boundaries with an Ordinary Krige ("OK") algorithm. Leapfrog Geo V5.1.2 ("Leapfrog") software was used to complete the resource estimate. The metals of interest at the Project are copper, zinc, gold and silver. All units are imperial, and all costs are reported in US Dollars unless otherwise specified.

The mineral resources estimate reported here was prepared in a manner consistent with the Committee of Mineral Reserves International Reporting Standards ("CRIRSCO"), of which both the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") and Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code") are members. The mineral resources are classified as Measured, Indicated and Inferred in accordance with "CIM Definition Standards for Mineral Resources and Mineral Reserves", prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council on November 29, 2019. Classification of the resources reflects the relative confidence of the grade estimates.

14.1 Methodology

14.1.1 Empire Mine Resource Area

HRC modeled nine distinct lithologic units (Table 14-1) based on the geologic drillhole logs provided by Konnex. Due to the complex geologic setting of the Project, HRC modeled the deposit in two phases. The first phase involved creating five broad geologic domains from grouped drillhole lithologies. The grouped lithologies could be changed to increase continuity of the geologic domains based on the surrounding data.

Table 14-1 Model Lithology Codes

Age	Model Lithology Code	Lithology
Oldest	51	Limestone (LS)
	60	Mackay Granite (GR)
	12	Granite Porphyry (GP)
	30	Garnet Skarn (ENDO)
	32	Pyroxene Skarn (EXO)
	34	Magnetite Skarn (MT)
	20	FeOx Breccia (FEOX)
	61	Late Barren Dikes (DIKE)
Youngest	10	Alluvium/Overburden (OVB)

The Mackay Granite was modeled based on geologic logs using polylines to create the contact between it and the limestone. The Granite Porphyry, and combined Skarns were modeled from drillhole logs using an RBF interpolation in conjunction with a structural trend. The overburden was modeled using a combination of drillhole logs and using an offset surface from the topography. The remaining volume constrained to within 500 ft of the drilling was modeled as Limestone.

Phase two involved estimating the lithologies presented in Table 14-1, excluding Overburden, into the Granite Porphyry and Combine Skarn domains using the originally logged codes in the database using the following steps.

- Each lithology was assigned either a one (1) or a zero (0) based on the logs.
- Variograms were modeled for each lithology in the two domains.
- The lithologies were estimated in each domain using orientations appropriate for the geologic unit using Inverse Distance to the 2.5 Power (ID) using a minimum of 2 samples, and maximum of 8 samples, with no more than two samples coming from a single drillhole. Details of the estimation methodology and variograms are presented in Appendix C.
- A block was assigned a lithology based on the highest estimated value (e.g. the probability) of the block. Blocks without an estimate were assigned the lithology of the broad geologic domains.
- The block model was transferred to Datamine Studio RM version 1.1.20.0 ("Datamine") in order to generate wireframes from the blocks using Datamines isosurface function. Datamine was also used to flag the assay and lithology tables with the block model codes for validation. The composite table was also flagged with the block model codes for the purpose of estimation.
- The geologic model was validated by comparing the logged lithologies to the modeled lithologies as well as by comparing the assay statistics by lithology to the modeled lithologies for the metals of interest. Details of the validation are also provided in Appendix C.

Figure 14-1 is an oblique view of the final Project geologic model based on the methodology described above.

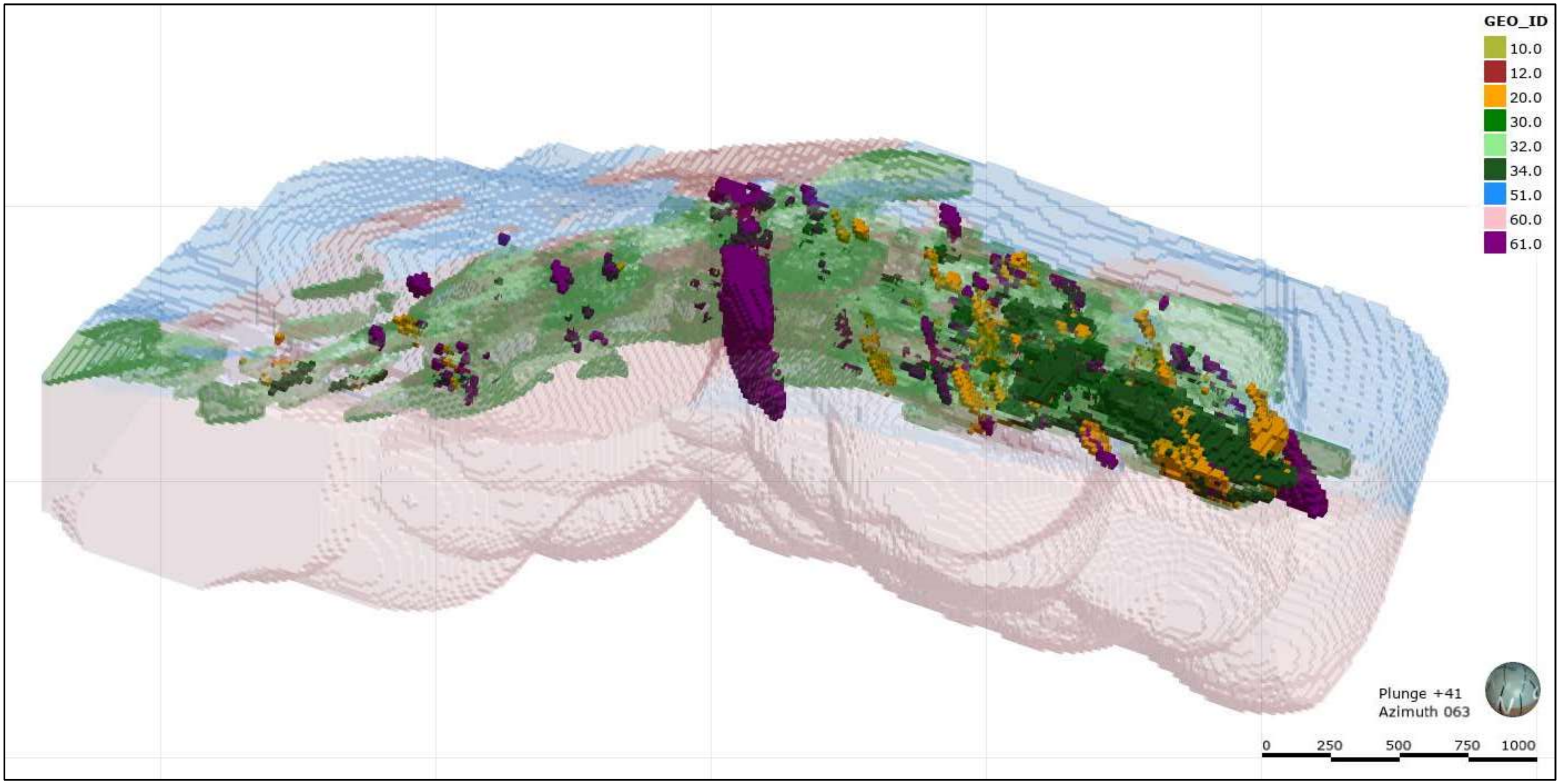

Figure 14-1 Oblique View of the Geologic Model

14.1.2 Red Star (Sulfide) Resource Area

Red Star was modeled by selecting mineralized intervals based on the geology and metal content. A solid was created using the hanging wall and footwall contacts to create a structural shape representing the zone of interest. The solid was then clipped to a maximum 200-foot distance from the nearby samples. A long section of the Red Star area is shown in Figure 14-2.

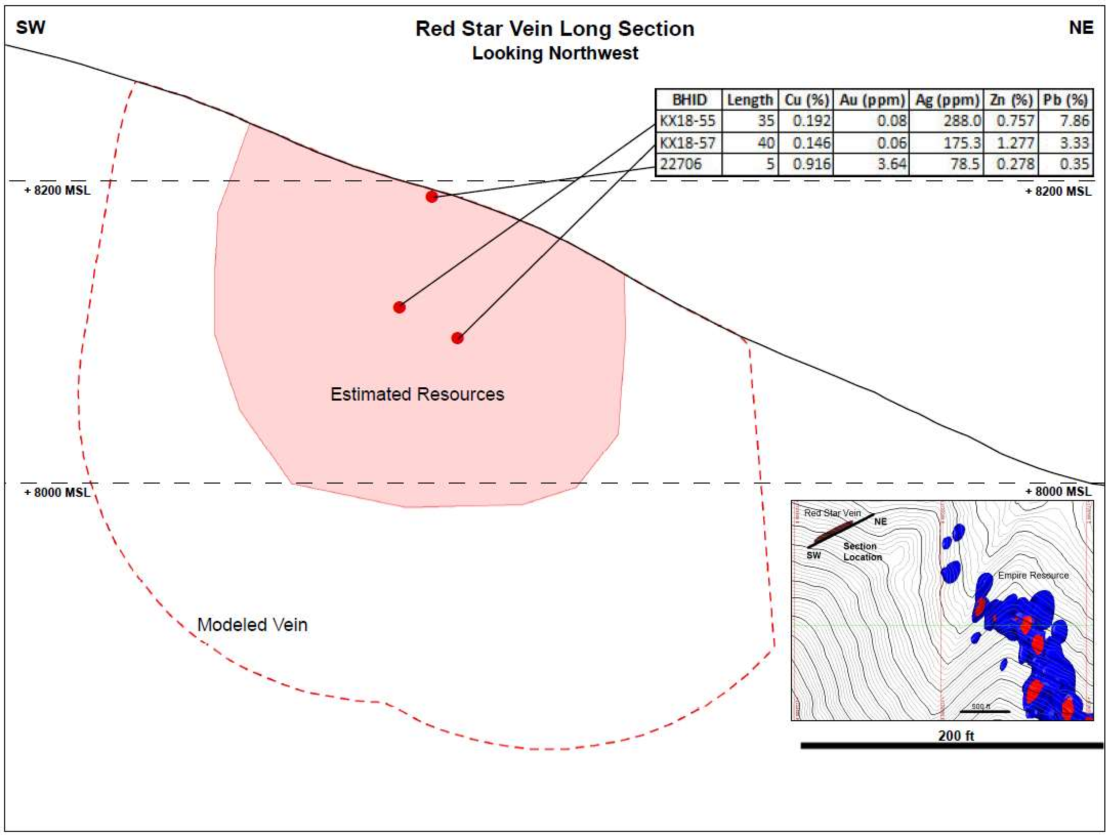

Figure 14-2 Red Star Resource Area

14.2 Estimation Domains

Visual evaluation of the assay data in the cross-sections revealed that while the majority of the mineralization is constrained within the general grouping of skarns (magnetite, iron oxide breccia, pyroxene and garnet), zones of higher-grade mineralization are found along other sub-parallel structures within the prevailing skarn and neighboring lithologic units. HRC used the geologic domains for the purposes of mineral resource estimation. The composites for the mineralized lithologies were grouped and soft boundaries were utilized to replicate the gradational changes identified in the drillhole assay data. Unmineralized domains were designated as hard boundaries to keep lower grades from smearing into mineralized domains. Boundary types and distances are presented in Table 14-2.

Table 14-2 Boundary Type and Distance used for Estimation Domains

Domain		Ag (g/t)	Au (g/t)	Total Cu (%)	Total Zn (%)
10	Boundary Type	Hard	Hard	Hard	Hard
	Distance (ft)	0	0	0	0
12	Boundary Type	Hard	Hard	Hard	Hard
	Distance (ft)	0	0	0	0
20	Boundary Type	Soft	Soft	Soft	Soft
	Distance (ft)	5	5	5	5
30	Boundary Type	Soft	Soft	Soft	Soft
	Distance (ft)	5	15	15	10
32	Boundary Type	Soft	Soft	Soft	Soft
	Distance (ft)	10	10	5	5
34	Boundary Type	Soft	Soft	Soft	Soft
	Distance (ft)	5	5	5	10
51	Boundary Type	Hard	Hard	Hard	Hard
	Distance (ft)	0	0	0	0
60	Boundary Type	Hard	Hard	Hard	Hard
	Distance (ft)	0	0	0	0
61	Boundary Type	Hard	Hard	Hard	Hard
	Distance (ft)	0	0	0	0

14.2.1 Depletion

A polygon outlining the mapped stopes on each accessible level was used create a 3D solid representing the mined-out material between levels. Additionally, shapes were constructed around intervals logged as voids in areas without mapped stopes. The solid was combined with the provided level plan solids to code the block model with the mined-out material.

14.3 Compositing

Twenty-foot downhole composites were created from the drillhole database. The composites were then used for grade capping analysis and variography for each domain solid. Table 14-3 presents the composite data for each domain.

Table 14-3 Domain Composite Data

Metal	Domain	Count	Minimum	Maximum	Mean	Std. Dev.	CV
Ag (g/t)	Global	5,601	0.001	414.000	4.913	14.951	3.04
	10	411	0.001	414.000	12.518	31.168	2.49
	12	872	0.001	394.100	2.177	13.805	6.34
	20	169	0.001	73.578	8.223	11.657	1.42
	30	1,284	0.001	79.199	4.070	7.670	1.88
	32	1,064	0.001	274.000	9.509	20.310	2.14
	34	314	0.001	174.800	5.376	10.929	2.03
	51	550	0.001	141.150	2.078	7.935	3.82
	60	700	0.001	29.892	0.919	1.990	2.17
	61	182	0.001	24.375	1.458	2.718	1.86
Au (g/t)	Global	5,601	0.001	54.096	0.149	1.058	7.12
	10	411	0.001	36.000	0.259	1.852	7.15
	12	872	0.001	2.238	0.043	0.143	3.29
	20	169	0.001	2.468	0.146	0.275	1.88
	30	1,284	0.001	12.050	0.149	0.543	3.64
	32	1,064	0.001	54.096	0.271	1.722	6.34
	34	314	0.001	7.573	0.260	0.574	2.21
	51	550	0.001	26.011	0.119	1.436	12.08
	60	700	0.001	1.093	0.034	0.100	2.89
	61	182	0.001	2.778	0.065	0.234	3.61
Total Cu (%)	Global	6,407	0.0001	9.4500	0.1721	0.4407	2.56
	10	464	0.0010	8.9700	0.3965	0.8862	2.23
	12	953	0.0007	1.8505	0.0486	0.1401	2.88
	20	180	0.0010	1.8078	0.2555	0.3436	1.34
	30	1,429	0.0008	9.4500	0.1643	0.3872	2.36
	32	1,348	0.0007	4.6802	0.3384	0.5652	1.67
	34	380	0.0010	6.2200	0.2404	0.4245	1.77
	51	648	0.0002	1.8837	0.0399	0.1364	3.42
	60	729	0.0001	0.6130	0.0154	0.0420	2.72
	61	186	0.0006	0.8002	0.0350	0.0874	2.50
Total Zn (%)	Global	5,396	0.001	3.623	0.095	0.207	2.19
	10	408	0.001	1.665	0.085	0.142	1.67
	12	822	0.001	2.820	0.048	0.137	2.84
	20	168	0.001	1.985	0.182	0.263	1.45
	30	1,254	0.001	2.483	0.096	0.193	2.02
	32	985	0.001	3.623	0.170	0.331	1.95
	34	304	0.001	1.787	0.149	0.220	1.48
	51	518	0.001	0.936	0.072	0.125	1.75
	60	700	0.001	1.124	0.037	0.069	1.86
	61	182	0.001	1.123	0.052	0.107	2.06

The Red Star assays intervals used to define the hanging wall and footwall intercepts within the structural zone were composited into a single intercept and the true thickness was calculated using the vein dip and dip direction.

14.4 Capping

Grade capping is the practice of replacing any statistical outliers with a maximum value from the assumed sampled distribution. This is done statistically to better understand the true mean of the sample population. The estimation of highly skewed grade distribution can be sensitive to the presence of even a few extreme values. HRC utilized a log scale Cumulative Frequency Plot ("CFP") in conjunction with histograms, and total metal contributions of the composited assay data for each metal for every domain to identify the presence of statistical outliers. Capping for each element within the estimation domains was determined from these plots.

A high-grade search distance constraint was also implemented in interpolation. This methodology limits the samples that will be considered to those within a specified distance percentage of the search ellipsoid size, and only those outside that distance if they are within the threshold value. If a sample point is beyond the distance threshold and the point's value exceeds the threshold, it is set to the threshold value. Table 14-4 summarizes the capping strategy used in the estimation process. Distance percentages are based on the total search volume for the domain as defined in Table 14-5.

Table 14-4 Capping Strategy

Domain		Ag (g/t)	Au (g/t)	Total Cu (%)	Total Zn (%)
10	Cap	-	7	-	-
	Threshold	100	2	3.6	0.9
	Distance (%)	25	25	25	25
12	Cap	70	1.5	-	-
	Threshold	60	0.95	1.85	1
	Distance (%)	25	25	25	25
20	Cap	-	-	-	-
	Threshold	-	1.8	1.4	1.15
	Distance (%)	-	50	50	50
30	Cap	-	-	-	-
	Threshold	60	2	2.4	1.5
	Distance (%)	50	50	50	50
32	Cap	-	25	-	-
	Threshold	165	4.25	-	-
	Distance (%)	50	50	-	-
34	Cap	45	2.5	5	-
	Threshold	45	1.5	2.1	1.25
	Distance (%)	50	50	50	50
51	Cap	85	2.5	-	-
	Threshold	20	0.5	0.8	0.74
	Distance (%)	25	25	25	25
60	Cap	-	-	-	-
	Threshold	15	0.5	0.2	0.5
	Distance (%)	25	25	25	25
61	Cap	-	-	-	-
	Threshold	12	1.5	0.8	-
	Distance (%)	25	25	25	-

No capping was applied at Red Star due to the limited data available.

14.5 Variography

A variography analysis was completed to establish spatial variability of the estimated metals for the Project. Variography establishes the appropriate contribution that any specific composite should have when estimating a block volume value within a model. This is performed by comparing the orientation and distance used in the estimation to the variability of other samples of similar relative direction and distance.

Variography was analyzed using Leapfrog EDGE®. The continuity is established by analyzing variogram contour fans in the horizontal, across-strike, and dip planes to determine the direction of maximum continuity within each plane. The subsequent variograms defining the maximum continuity were modeled with spherical variograms. The resulting variogram models were used as part of the ordinary kriging estimation methodology and are presented in Appendix D.

14.6 Estimation Methodology

The copper, zinc, gold, and silver grades were estimated from 20-foot down-hole composites using Ordinary Kriging (OK) in all domains except overburden. Composites were coded according to the estimation domain. The search volumes were established based on the variograms and the practitioner's experience with similar style deposits and are summarized in Table 14-5.

The estimation was completed in a single pass with the maximum search volume set to 400 feet and using an approximate anisotropic ratio of 3:2:1 for the Granite Porphyry (12), Garnet Skarn (30) Pyroxene Skarn (32) and Magnetite Skarn (34) domains. Additionally, the orientation of the search ellipse was allowed to follow the mineralization curvature using a variable orientation ("VO"). A minimum of three (3) composites, a maximum of nine (9) composites, with no more two composites coming from a single drillhole in order to estimate a block.

Limestone (51) and Mackay Granite (60) domains utilized the same search distances and composite selection as the domains above, but did not incorporate the VO. Instead, the search ellipse was oriented along strike and down dip of the lithologies with the pitch being determined by the metal variograms. Of note, the maximum number of samples to estimate Zn in domain 60 was lowered to six (6) to minimize the number of negative blocks being estimated.

The search ellipse was oriented in the direction of the structures, with the pitch being defined by the metal variograms for Iron Oxide Breccia (20) and Latite Dike (61) domains. A single estimation pass was deployed with a shorter maximum range of 300 ft and a tighter minimum direction of 100 ft. In order to better estimate the volume of these tightly constrained domains, the minimum number of composites was lowered to two (2) allowing for single drillhole estimation.

In the Overburden (10) domain an Inverse Distance (ID) to the power of 2.5 was used to estimate grade for all metals using a search ellipse of 200 x 200 x 50 ft. The orientation of the search ellipse was allowed to follow the curvature of the topographic and overburden surface using VO. The maximum number of composites was increased to fifteen (15).

Table 14-5 Estimation Parameters

Domain	Metals	Search Ellipse						Number of Composites		
		Dip	Dip Az.	Pitch	Search Distance (ft)			Max/Drillhole	Minimum	Maximum
10 (ID)	All	VO Overburden			200	200	50	2	3	15
12 (OK)	All	VO Mineralization			400	250	130	2	3	9
20 (OK)	Ag	65	140	55	300	250	100	2	2	9
	Au			75						
	Cu			75						
	Zn			75						
30 (OK)	All	VO Mineralization			400	250	130	2	3	9
32 (OK)	All	VO Mineralization			400	250	130	2	3	9
34 (OK)	All	VO Mineralization			400	250	130	2	3	9
51 (OK)	Ag	45	70	135	400	250	130	2	3	9
	Au			110						
	Cu			45						
	Zn			15						
60 (OK)	Ag	45	70	80	400	250	130	2	3	9
	Au			10						
	Cu			110						
	Zn			20						6
61 (OK)	Ag	90	140	45	300	250	100	2	2	9
	Au			45						
	Cu			45						
	Zn			45						

A true thickness composite length weighted ID to the power of 2.5 was used to estimate grade for the Red Star Sulfide Area.

14.7 Density

The following discussion of the density specific to the Project is largely modified from, and in some cases, is excerpted directly from the 2017 SRK report.

Density measurements of unaltered material were applied from literature research (Berkman, 1989). Oxidized densities were derived from a combination of data from metallurgical reports of in-pit bulk samples completed by Kappes, Cassidy & Associates ("KCA") in 2013 and from a 2017 campaign of density determinations directed by SRK and carried out by Konnex (n = 83). Konnex used ASTM C914 – Standard Test Method for Rock Density and Volume of Solid Refractories by Wax Immersion. This method was adopted by Konnex from KCA for consistency.

The resultant density database consists of 99 measurements, with an average SG of 2.95. A total of 18-20 samples were averaged for each of the mineralized rock types (Table 14-6). There was a strong correlation between 2017 density determination by Konnex and densities from KCA.

Table 14-6 Modeled Density Factors

	Rock Code	ton/ft³	ft³/ton
Qal	10	0.062	16.18
QFP	12	0.081	12.32
FeOxBx	20	0.076	13.13
Garnet Skarn	30	0.111	9.00
Pyroxene Skarn	32	0.102	9.80
Mt Skarn	34	0.144	6.96
Limestone	51	0.084	11.91
Granite	60	0.085	11.76
Dike	61	0.086	11.63

As stated in the 2017 SRK report, the oxidation state is a critical component to modeling because it affects both the acid-leach recovery and the density of the material. The density has been shown to vary with the degree of oxidation, but the oxidation state is not uniformly addressed in the geologic data collected for the Project. HRC utilized an average density of the oxidized material for the updated resource estimate. This is a conservative approach to be used until such time as the degree of the oxidation can be quantified.

The structural zone used to model the Red Star was given a density of 0.144 ton/ft^3 as the core in this area was most similar to the magnetite skarn.

14.8 Validation

HRC utilized several methods to validate the results of the estimation method. The combined evidence from these validation methods verifies the results estimation models presented in Table 14-5. The difference in global statistics between the OK model and combined model, which includes the ID method for the overburden domain, is negligible due to the comparatively small volume. For the purpose of this discussion, the OK model represents the model to be validated. Appendix E provides detailed validation plots and statistics for each metal by domain.

Comparison with Nearest Neighbor and Inverse Distance Models

Nearest Neighbor (NN), and ID models were run to serve as comparisons with the estimated results from the OK method. Descriptive statistics for the OK method along with those for the NN, ID and drill hole composites for the domains are shown in Table 14-7.

Table 14-7 Model Comparison Descriptive Statistics

Metal	Estimate	Count	Minimum	Maximum	Mean	Std. Dev.	CV	Neg Blocks	% Neg
Ag (g/t)	CP	5,601	0.001	414.00	4.91	14.95	3.04		
	NN	388,025	0.001	274.00	2.24	7.59	3.38		
	ID	388,237	0.001	261.83	2.29	5.11	2.23		
	OK	388,237	-0.163	166.84	2.36	4.41	1.87	2	0.00052%
Au (g/t)	CP	5,601	0.001	54.096	0.149	1.058	7.12		
	NN	383,696	0.001	25.000	0.069	0.380	5.52		
	ID	383,912	0.001	23.095	0.069	0.215	3.13		
	OK	383,912	-0.033	8.552	0.072	0.165	2.28	5	0.00130%
Cu (%)	CP	6,407	0.000	9.450	0.172	0.441	2.56		
	NN	386,290	0.000	9.450	0.068	0.274	4.06		
	ID	386,588	0.000	4.642	0.073	0.181	2.49		
	OK	386,588	-0.046	4.427	0.076	0.167	2.20	5	0.00129%
Zn (%)	CP	5,396	0.001	3.623	0.095	0.207	2.19		
	NN	367,056	0.001	3.623	0.063	0.153	2.45		
	ID	367,273	0.001	3.416	0.063	0.110	1.75		
	OK	367,273	-0.060	2.860	0.065	0.101	1.57	77	0.02097%

The overall reduction of the maximum and standard deviation within the OK model represent an appropriate amount of smoothing to account for the point to block volume variance relationship while maintaining similar means. The reduction in mean from the composite to the estimates is the result of large volumes of low-grade material being estimated in low-grade domains with relatively fewer composites. The occurrence of blocks with negative grades is the result a composite with significantly higher grade than surrounding samples. The small number of negative blocks is not a significant impact on the mineral resource estimate.

14.8.1 Swath Plots

Swath plots were generated to compare average estimated copper grade from the OK method to the NN and ID validation models. The results from the OK model are compared using the swath plot to the distribution derived from the NN model.

Three swath plots were generated for each element. Swath plots for copper are presented as an example of the results: Figure 14-3 shows average copper grade from west to east; Figure 14-4 shows average copper grade from south to north, and Figure 14-5 shows average copper grade from bottom to top..

On a local scale, the nearest neighbor model does not provide a reliable estimate of grade, but on a much larger scale, it represents an unbiased estimation of the grade distribution based on the total data set. Therefore, if the OK model is unbiased, the grade trends may show local fluctuations on a swath plot, but the overall trend should be similar to the distribution of grade from the nearest neighbor.

Correlation between the grade models is generally good, though deviations occur. Areas where the ID and OK models differ from the NN model are apparent in the swath plots. This is the result of drillholes on the western margin of the deposit at depth intersect significant grade. The blocks are categorized as Inferred and suggest the full extent of the deposit has not been tested with drilling.

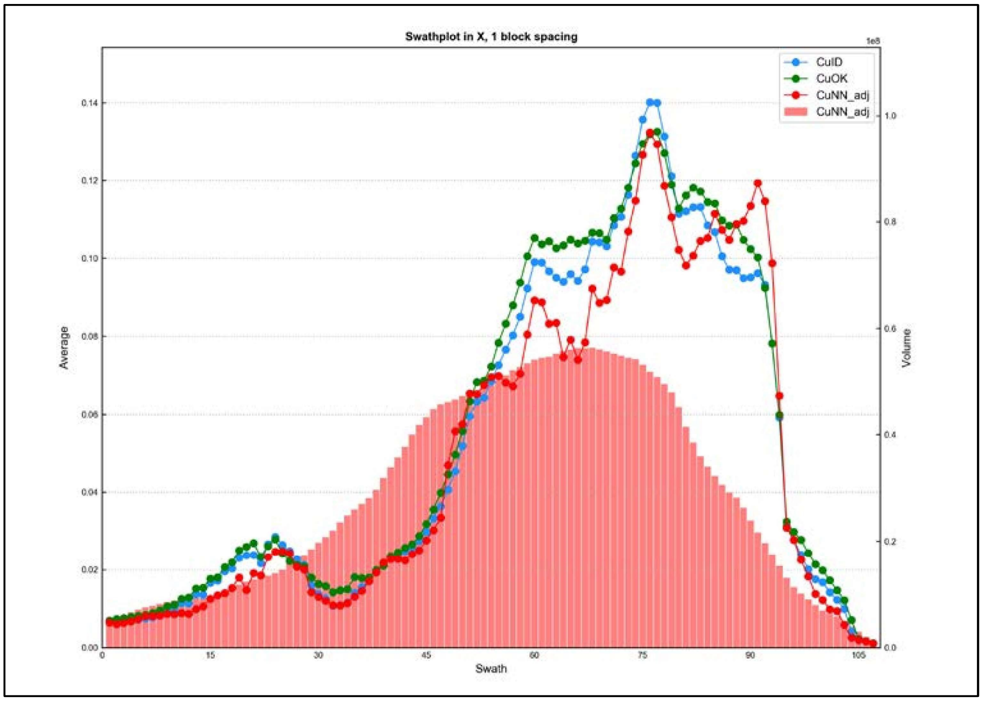

Figure 14-3 East-West Copper Swath Plot

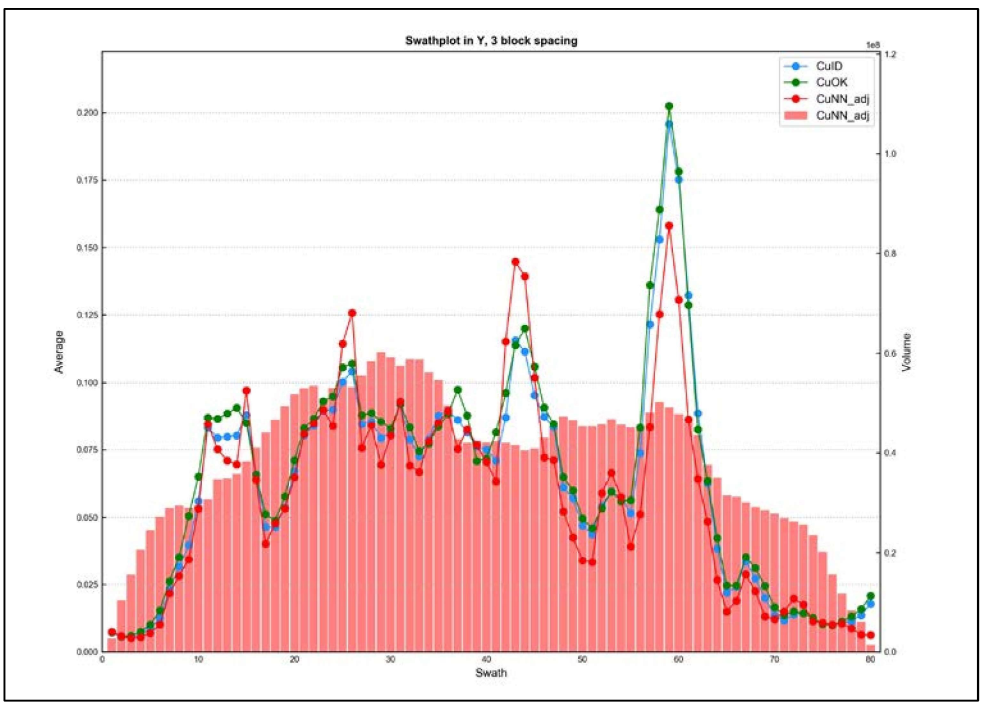

Figure 14-4 North-South Copper Swath Plot

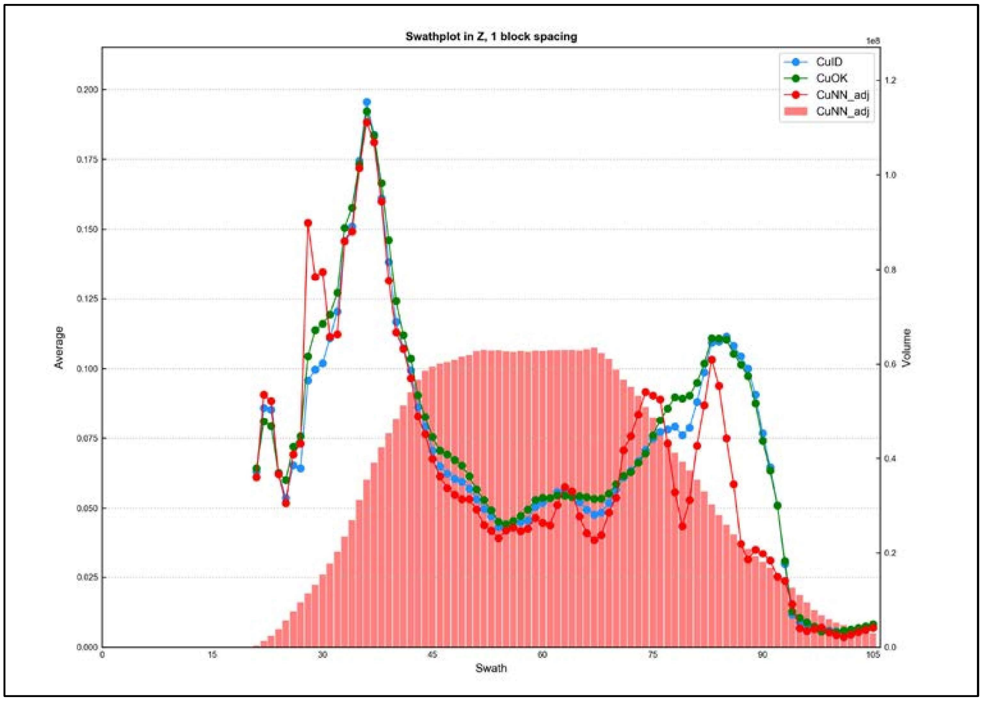

Figure 14-5 Elevation Copper Swath Plot

14.8.2 Section Inspection

Bench plans, cross-sections, and long sections comparing modeled grades to the 20-foot composites were evaluated. The example sections displaying estimated copper grades are shown in Figures 14-7 through 14-9. The figures show good agreement between modeled grades and the composite grades. In addition, the modeled blocks display continuity of grades along strike and down dip.

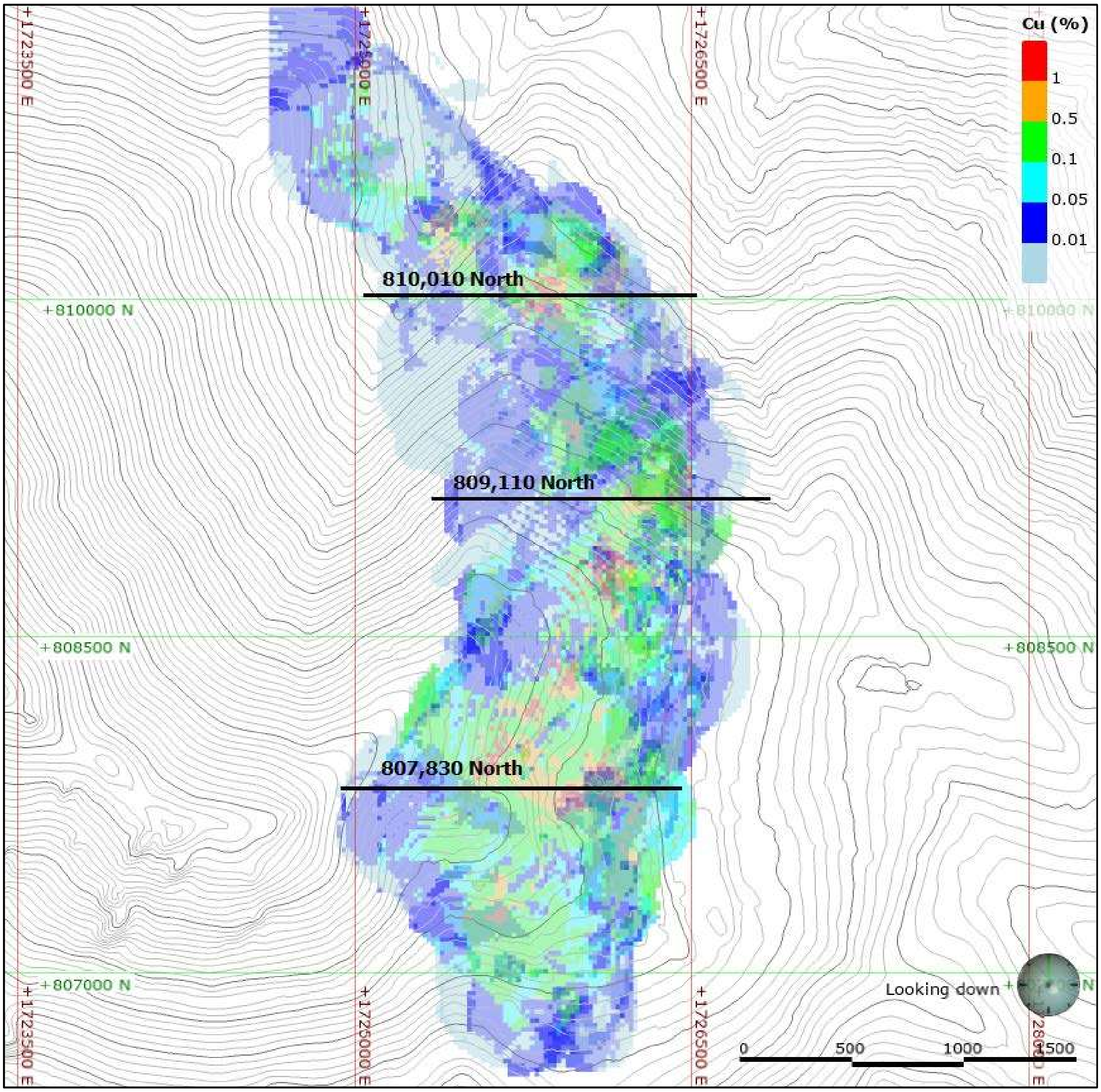

Figure 14-6 Section Location Map

Figure 14-7 N807,830 Cross Section of Estimated Copper Grades with Composites

Figure 14-8 N809,110 Cross Section of Estimated Copper Grades with Composites

Figure 14-9 N810,010 Cross Section of Estimated Copper Grades with Composites

14.9 Mineral Resource Classification

HRC classified the resources as Measured, Indicated or Inferred using the minimum distance to the nearest composite and the average distance of the composites used to estimate a block. The classification scheme coded blocks following the steps below.

1) Blocks with a minimum distance to the closest composite of <40 feet and have an average distance to composites of <100 feet are classified as measured resources.
2) Blocks with a minimum distance to the closest composite of <80 feet and have an average distance to composites of <175 feet are classified as indicated resources.
3) The remaining estimated blocks are classified as inferred.

All blocks within the Red Star Sulfide Area are classified as Inferred.

14.9.1 Mineral Resource Tabulation

The “reasonable prospects for economic extraction” requirement prescribed by NI 43-101 was tested by designing a series of conceptual open pit shells using Lersch Grossman pit optimizations. After review of several scenarios considering different metal prices (Figure 14-10), HRC utilized a pit optimization with a long-term copper equivalent (CuEq) price of US$3.30/lb to determine the limit of reasonable prospects for economic extraction.

The economic parameters used for this analysis are based upon estimated project operating costs scaled to reflect production rates and expected processing costs, and upon estimated copper recoveries from metallurgical tests completed to date. The CuEq is calculated based on the following assumptions: a long-term copper price of US$3.30/lb; gold price of US$1,650/oz; silver price of US$19.25/oz; zinc price of $1.21/lb; metallurgical recoveries of 85% for copper, 85% for gold; 65% for silver and 60% for zinc. The assumed processing method is a grinding mill followed by an acid tank leach with separate SX/EW circuits for recovery of copper and zinc followed by a tank leach operation for recovery of gold and silver with a Merrill Crowe plant. Table 14-8 summarizes the cost and recovery parameters used in the analysis. Blocks classified as Measured, Indicated, and Inferred were used to define the resource pit shell.

Table 14-8 Parameters used for Resource Pit Shell Generation

Pit Optimization Parameters		
Item	**Cost/Rate**	**Units**
Base Case Cu Price	$3.30	US$ per lb Cu
Average Mining Cost	$1.80	US$ per Total ton
Production Taxes	$0.25	US$ per Ore ton
Processing Cost	$14.25	US$ per Ore ton
G&A	$1.00	US$ per Ore ton
Process CuEq Recovery	85	%
Royalty	2.5	%

14.9.2 Sensitivity

The block model tons and grades are shown in Figure 14-10 at variable copper prices within corresponding pits and at the economic cutoff (Table 14-9), as a sensitivity analysis.

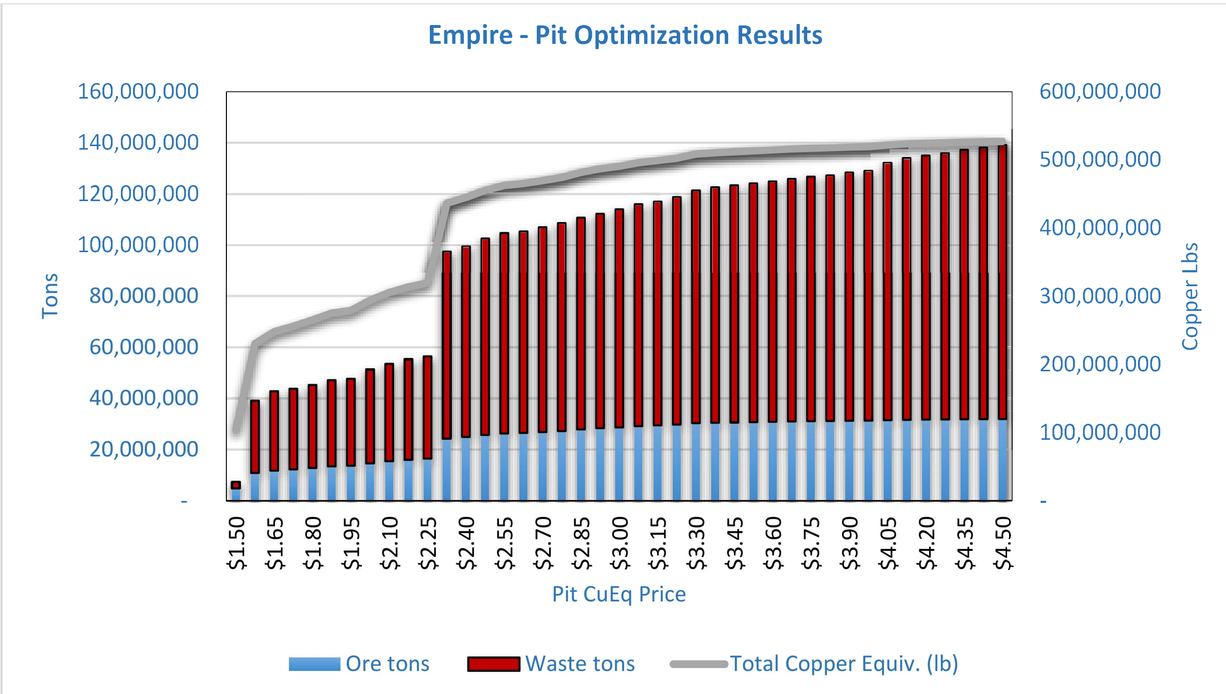

Figure 14-10 Pit Optimization Copper Sensitivity Chart

14.10 Mineral Resource Statement

Resources are reported within an optimized pit shell and meet the test of reasonable prospect for economic extraction. The cutoff used to report resources inside the optimized pit shell is based on a $3.30/lb CuEq price. The cutoff is calculated to be 0.292% total copper equivalent based on the operating costs, royalties, recoveries and metal prices as presented Table 14-9. Note that the mining costs are not included in the cutoff calculation as an internal cutoff is used and the mining costs are considered a sunk cost. The mineral resource estimate for the Empire Project is summarized in Table 14-10.

Table 14-9 Resource Cutoff Parameters

Economic Cutoff @	CuEq $/lb	$ 3.30
Processing	$/ore ton	$ 14.25
Production Taxes	$/ore ton	$ 0.25
G&A	$/ore ton	$ 1.00
CuEq Recoveries	%	85%
Royalties	gross	2.5%
Total Ore Cost	$/ore ton	$ 15.50
Copper Selling Price	lb	$ 3.30
CuEq Cutoff Grade		**0.292%**

The mineral resource estimate is based on all data obtained as of October 30, 2020 and has been independently verified by HRC. Mineral resources are not mineral reserves and do not have demonstrated economic viability such as diluting materials and allowances for losses that may occur when material is mined or extracted; or modifying factors including but not restricted to mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors. HRC knows of no existing environmental, permitting, legal, title, taxation, socio-economic, or other relevant factors that might materially affect the mineral resource estimate. Inferred mineral resources are that part of the mineral resource for which quantity and grade or quality are estimated on the basis of limited geologic evidence and sampling, which is sufficient to imply but not verify grade or quality continuity. Inferred mineral resources may not be converted to mineral reserves. It is reasonably expected, though not guaranteed, that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with continued exploration.

Table 14-10 Mineral Resource Statement for the Empire Mine, October 30, 2020

Classification	Tons	Copper		Zinc		Gold		Silver		Copper Equiv.	
	(x1000)	%	lb (x1000)	%	lb (x1000)	g/tonne	oz (x1000)	g/tonne	oz (x1000)	%	lb (x1000)
Measured	9,138	0.418	76,407	0.219	40,039	0.327	87.0	11.4	3,031.8	0.81	147,749
Indicated	16,115	0.362	116,608	0.176	56,689	0.322	151.4	9.7	4,563.4	0.72	233,487
Measured + Indicated	**25,253**	**0.382**	**193,015**	**0.192**	**96,727**	**0.324**	**238.4**	**10.3**	**7,595.2**	**0.755**	**381,237**
Inferred	11,698	0.397	92,818	0.137	32,123	0.343	117.1	7.4	2,538.6	0.75	174,832

1) Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources are that part of the mineral resource for which quantity and grade or quality are estimated on the basis of limited geologic evidence and sampling, which is sufficient to imply but not verify grade or quality continuity. Inferred mineral resources may not be converted to mineral reserves. It is reasonably expected, though not guaranteed, that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with continued exploration.

2) Mineral resources are reported at a 0.292% CuEq cutoff. The CuEq is calculated based on the following assumptions: a long-term copper price of US$3.30/lb; gold price of US$1,650/oz; silver price of US$19.25/oz; zinc price of $1.21/lb; assumed combined operating ore costs of US$15.50/t (process, general and administrative and mining taxes); refining costs of $0.10/lb of CuEq; metallurgical recoveries of 85% for copper, 85% for gold; 65% for silver and 60% for zinc and a 2.5% royalty.

3) These Mineral Resource are considered to be amenable to open-pit mining and are constrained by a conceptual Lersch Grossman pit shell generated on the same costs, metal prices and recoveries used in the above CuEq calculation and an average mining cost of $1.80/t and variable pit slope angles that ranged from 45–52°

4) Rounding may result in apparent differences between when summing tons, grade and contained metal content. Tonnage and copper and zinc grade measurements are in Imperial units. Gold and silver grades are reported in metric g/tonne units to remain consistent with past reporting formats.

A mineral resource estimate for the Red Star sulfide resource area was completed in 2019. No changes have been made to estimate, so the associated effective date for the Red Star mineral resource statement remains April 10, 2019. The mineral resource estimate for the Red Star resource area is based on the assumptions presented in Table 14-11. HRC considers that reporting resources at a silver 100 g/t cutoff constitutes reasonable prospects for economic extraction based on a bulk underground mining method and assumed recoveries from a flotation processing system.

Table 14-11 Red Star Cutoff Parameters

Economic Cutoff @	Ag	$ 17.00
Processing and Mining	$/ore ton	$ 45.00
G&A	$/ore ton	$ 2.50
Recoveries	%	95%
Total Ore Cost	$/ore ton	$ 50.00
Silver Selling Price	oz	$ 17.00
Silver Cutoff Grade	**g/tonne**	**100**

Table 14-12 - Mineral Resource Statement for the Red Star Resource Area, April 10, 2019

Class	Tons	Ag	Ag	Au	Au	Pb	Pb	Zn	Zn	Cu	Cu
	tons (x1000)	g/t	oz (x1000)	g/t	oz (x1000)	%	lb (x1000)	%	lb (x1000)	%	lb (x1000)
Inferred	114.13	173.4	577.3	0.851	2.8	3.85	8,791.2	0.92	2,108.8	0.33	745.0

(1) Inferred resource cut-off grades were 100 g/tonne silver.
(1) Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources estimated will be converted into mineral reserves.
(1) Metallurgical recovery is assumed at 95%.
(1) Price assumptions are $17.00 per ounce for silver for resource cutoff tabulations.

15. ADJACENT PROPERTIES

The Empire Project is located within the historic Alder mining district, which hosts a number of historically productive mines, and in which mining has been carried out for nearly 150 years. While a majority of the past producers in the district are located on veins similar or related to those in the Empire Project area, there are no immediately adjacent properties which might materially affect the interpretation or evaluation of the mineralization or exploration targets of the Empire Project.

16. OTHER RELEVANT DATA AND INFORMATION

This report summarizes all data and information material to the Empire Project as of October 30, 2020. HRC knows of no other relevant technical or other data or information that might materially impact the interpretations and conclusions presented herein, nor of any additional information necessary to make the report more understandable or not misleading.

17. INTERPRETATION AND CONCLUSIONS

17.1 Geology and Deposit Type

The structural controls on the mineralization are well understood. Detailed descriptions are provided in historical reports, but the geologic interpretations compared to the mineralization should be reviewed periodically. The dynamic anisotropy used by HRC to guide the interpolation indicates that the mineralization in the resource area is hosted in gently dipping skarn material with local variations to the strike and dip related to higher angle trans-Challis structures. These zones may represent favorable limestone horizons that have been folded and displaced by faulting within the region. This is consistent with the descriptions provided in the historical reports, and efforts to confirm the structural orientations of the mineralization should be made in the field, where available.

Potential exists for each resource area to be expanded through targeted drilling programs. Infill drilling along the northern extent will likely result in the expansion of the mineral resources. Additionally, downdip targets should be considered as the extents of the historic mine extended nearly 1600 feet.

17.2 Exploration, Drilling, and Analytical

Exploration drilling to date has consisted of both diamond core (DDH) and Reverse Circulation (RC) holes. The orientation of the drillholes is typically perpendicular to the targeted mineralization, however due to the changes in both strike and dip of the mineralized bodies, drillholes often intersected mineralization at oblique angles. A more thorough understanding of the structural controls will increase the probability of expanding the resource within the current optimized pit limits. Specifically, the structural trends that extend mineralization in a northeasterly direction.

17.3 Data Verification

As a result of the work completed by Konnex on digitizing the historical data, HRC has been able to complete validation work on the analytical database. HRC concludes that the historical and current QA/QC protocols in effect for the drilling, logging, sample generation, sample preparation and analytical procedures at the Empire Mine Project have been completed in a professional manner, and meet or exceed what HRC considers industry standard. Konnex is continuing to identify and digitize the historical geologic information; however, review of the geologic logs indicates that the data currently stored in the database is adequate to develop geologic models.

17.4 Resource Estimation

HRC finds that the density of data within the resource base is adequate for the use in more advanced studies of the project. The mineral resource estimation is appropriate for the geology. Additional modeling and drilling should be conducted to refine the geologic interpretations to better reflect the mineralization and to define the alteration/oxidation state of the host rocks to support further metallurgical characterization.

17.5 Risks and Uncertainties

The oxidation state has not been systematically collected in the database from operator to operator and will need to be addressed. Konnex geologists are delineating the oxidation state in an effort to refine the model for use in more advanced studies.

18. RECOMMENDATIONS

18.1 General Recommendations

During the course of this study, HRC made a number of observations regarding data handling, document management, and general drilling and sampling procedures and protocols for which modifications and/or improvements could positively affect the level of confidence in the drillhole data and subsequent mineral resource estimations. Based on these observations, HRC recommends that Konnex carry out the following:

- An in-house effort to compile, organize, prioritize, digitize, and validate hard-copy historic data and documents.
- Production and implementation of formal and specific written protocols with regard to both wet and dry reverse circulation drilling, diamond core drilling, sampling methods and sample handling procedures, and geologic logging.
- Inclusion of photographing drill core as a standard step in the core logging procedure; existing core stored on site should also be photographed as time and budget allows, with the intent of compiling a digital visual record of all core recovered prior to purging the core inventory of unnecessary core storage.
- Production and implementation of formal data management and document handling procedures with regard to exploration; specifically, written guidelines and prepared templates for the collection and organization of exploration data in order to ensure that all pertinent information is captured and catalogued in a practical and efficient manner for ease of future use.
- Standardization of quality assurance-quality control procedures including collection of field duplicate, blank, and standard samples, comparison checks between different drill contractors and types of drilling, comparison checks between lithology logs recorded by different exploration staff, review of core recoveries versus grade, review of RC data for potential downhole contamination, and selection and review of downhole survey methods and measurements, etc.

18.2 Geology and Deposit Type

Detailed structural maps should be completed and checked in the field. HRC recommends working with a structural geologist with experience in mapping similar mineralized systems. The geologic model should be updated as this information becomes available. Additionally, drill targets designed to expand the resource base should be based on this interpretation.

18.3 Exploration, Drilling, and Analytical

Due to the complex nature of the mineralization, HRC recommends that Konnex employ oriented coring methods in exploration. Utilizing the structural data collected from the core will reduce risk associated with geometries of the ore zones and assist in creating a geologic model consistent with the mineralization. HRC recommends Konnex carefully evaluate whether the results of the 2017 and 2018 drilling within the optimized pit limit are sufficient to warrant upgrading the classification of the inferred mineral resources to measured and indicated mineral resources in order to support a feasibility level study.

18.4 Metallurgical Testwork

Metallurgical testing should continue with material composite samples that would approximate the head grade and material type corresponding to the annual mining plan. This information would be used in the economic model to predict annual production rates. Additional test work could be conducted to evaluate the extraction rate and acid consumption rate when processing coarser sized material. It may be possible to reduce acid consumption while maintaining the extraction rate and leach time schedule.

Testing should also continue with material composited sample by copper grade, distributed by low grade, medium low, medium high and high grade and should be tested in bottle roll and column test to determine if the grade%/recovery relationship exists. Additional metallurgical testwork should be designed to evaluate the ability to economically recover siver and gold, as well to evaluate the recovery zinc along with copper through the SX/EW process.

18.5 Resource Estimation

As the geologic understanding improves, the resource models should be updated to reflect the increase in confidence in the estimates. Estimates for the other constituents within the system should be added to the estimates to assist in metallurgical delineation of the ores.

18.6 Recommended Work Plan and Budget

HRC understands that Konnex plans to advance the Project to the feasibility study level based on the results of internal studies, preliminary mine design and engineering in conjunction with the results of the 2020 drilling program. As part of that effort, HRC recommends that Konnex complete detailed trade-off studies as appropriate and necessary to establish the specific operating parameters and production rates on which the economic analysis required of the feasibility study will be based. HRC recommends these studies as part of a single-phase work plan, which also includes the detailed engineering and permitting and environmental tasks that must be completed in order to bring the Project to development. The trade off- studies should also include alternatives for processing of ores from the project as the processing costs and recoveries are refined by metallurgical testwork. The anticipated costs for the recommended scope of work are presented in Table 18-1.

Table 18-1 Recommended Scope of Work for the Empire Project

Recommended Scope of Work	Expected Cost (US$)
Operating Trade-Off Studies	$150,000
Environmental Permitting	$150,000
Metallurgical Testwork	$200,000
Infrastructure Geotechnical Studies	$150,000
Feasibility Study and Detailed Engineering	$2,000,000
Subtotal	**$2,650,000**
15% Contingency	$397,500
Total Budget	**$3,047,500**

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Appendix A

Empire Mine Project Mining Claims

Claim Name	Serial/Patent No.	Type	Claimant/Owner	Survey No.	Tenure
Antelope	IMC196738	Lode	Honolulu Copper Corp.		Lease
Artic	IMC174901	Lode	Mackay LLC		Lease
Atlantic	30112	Patented	Mackay LLC	1272A	Lease
Atlantic Millsite	--	--	Honolulu Copper Corp.		Excluded
Blue Jay	729417	Patented	Honolulu Copper Corp.	2855	Lease
Blue Jay No. 1	809603	Patented	HCC and JC Patterson, 50/50	2842	Lack of Control
Blue Jay No. 2	809603	Patented	HCC and JC Patterson, 50/50	2842	Lack of Control
Buena Vista	443615	Patented	Honolulu Copper Corp.	1887	Lease
Catherine	IMC174819	Lode	Mackay LLC		Lease
Continental	443615	Patented	Honolulu Copper Corp.	1887	Lease
Copper Bullion	30112	Patented	Honolulu Copper Corp.	1272A	Lease
Cushing	IMC196739	Lode	Honolulu Copper Corp.		Lease
Decatur	IMC196748	Lode	Honolulu Copper Corp.		Lease
Eastern	30112	Patented	Honolulu Copper Corp.	1272A	Lease
Eastern MS	IMC198241	Millsite	Honolulu Copper Corp.		Lease
Empire	IMC196743	Lode	Honolulu Copper Corp.		Lease
Evans	IMC196742	Lode	Honolulu Copper Corp.		Lease
Farragut	IMC196741	Lode	Honolulu Copper Corp.		Lease
Gem	IMC196737	Lode	Honolulu Copper Corp.		Lease
General Lawton	IMC198237	Lode	Honolulu Copper Corp.		Lease
Hamilcar	IMC196740	Lode	Honolulu Copper Corp.		Lease
Hannibal	443615	Patented	Honolulu Copper Corp.	1887	Lease
Khedive	443615	Patented	Honolulu Copper Corp.	1887	Lease
Leslie W	443615	Patented	Honolulu Copper Corp.	1887	Lease
Mars	IMC196747	Lode	Honolulu Copper Corp.		Lease
Midwinter	30112	Patented	Honolulu Copper Corp.	1272A	Lease
ML1	IMC200218	Lode	Mackay LLC		Lease
ML11	IMC200223	Lode	Mackay LLC		Lease
ML3	IMC200219	Lode	Mackay LLC		Lease
ML5	IMC200220	Lode	Mackay LLC		Lease
ML7	IMC200221	Lode	Mackay LLC		Lease
ML9	IMC200222	Lode	Mackay LLC		Lease
Occidental	443615	Patented	Honolulu Copper Corp.	1887	Lease
Oriental	IMC174818	Lode	Mackay LLC		Lease
Oriental MS	IMC198242	Millsite	Honolulu Copper Corp.		Lease
Pacific	30113	Patented	Mackay LLC	1272A	Lease
Pacific Millsite	--	--	Honolulu Copper Corp.		Excluded
Pasha	443615	Patented	Honolulu Copper Corp.	1887	Lease
Pasha MS	IMC198240	Millsite	Honolulu Copper Corp.		Lease
Porter	IMC196746	Lode	Honolulu Copper Corp.		Lease
Remonization	443615	Patented	Honolulu Copper Corp.	1887	Lease
Remus	IMC174820	Lode	Mackay LLC		Lease
Rio Vista	443615	Patented	Honolulu Copper Corp.	1887	Lease
Romulus	IMC174821	Lode	Mackay LLC		Lease
Stephen	IMC174822	Lode	Mackay LLC		Lease

Claim Name	Serial/Patent No.	Type	Claimant/Owner	Survey No.	Tenure
Sultan	443615	Patented	Honolulu Copper Corp.	1887	Lease
Sultan MS	IMC198238	Millsite	Honolulu Copper Corp.		Lease
Sultana	443615	Patented	Honolulu Copper Corp.	1887	Lease
Sultana MS	IMC198239	Millsite	Honolulu Copper Corp.		Lease
Telephone	IMC174817	Lode	Mackay LLC		Lease
Wainwright	IMC196744	Lode	Honolulu Copper Corp.		Lease
Washington	IMC196745	Lode	Honolulu Copper Corp.		Lease
Wellington	443615	Patented	Honolulu Copper Corp.	1887	Lease
Western	30114	Patented	Mackay LLC	1272A	Lease
White Knob	IMC174816	Lode	Mackay LLC		Lease
Granite #1	IMC19899	Lode	Ausich Mines LLC		Lease
Grantite #2	IMC19900	Lode	Ausich Mines LLC		Lease
Grantite #3	IMC19901	Lode	Ausich Mines LLC		Lease
Grande Lode		Patented	Ausich Mines LLC	1052	Lease
HS-1	IMC219135	Lode	Konnex Resources Inc.		Owned
HS-2	IMC219136	Lode	Konnex Resources Inc.		Owned
HS-3	IMC219137	Lode	Konnex Resources Inc.		Owned
HS-4	IMC219138	Lode	Konnex Resources Inc.		Owned
HS-5	IMC219139	Lode	Konnex Resources Inc.		Owned
HS-6	IMC219140	Lode	Konnex Resources Inc.		Owned
HS-7	IMC219141	Lode	Konnex Resources Inc.		Owned
HS-8	IMC219142	Lode	Konnex Resources Inc.		Owned
HS-9	IMC219143	Lode	Konnex Resources Inc.		Owned
HS-10	IMC219144	Lode	Konnex Resources Inc.		Owned
HS-11	IMC219145	Lode	Konnex Resources Inc.		Owned
HS-12	IMC219146	Lode	Konnex Resources Inc.		Owned
HS-13	IMC219147	Lode	Konnex Resources Inc.		Owned
HS-14	IMC219148	Lode	Konnex Resources Inc.		Owned
HS-15	IMC219149	Lode	Konnex Resources Inc.		Owned
HS-16	IMC219150	Lode	Konnex Resources Inc.		Owned
HS-17	IMC219151	Lode	Konnex Resources Inc.		Owned
HS-18	IMC219152	Lode	Konnex Resources Inc.		Owned
HS-19	IMC219153	Lode	Konnex Resources Inc.		Owned
HS-20	IMC219154	Lode	Konnex Resources Inc.		Owned
HS-21	IMC219155	Lode	Konnex Resources Inc.		Owned
HS-22	IMC219156	Lode	Konnex Resources Inc.		Owned
HS-23	IMC219157	Lode	Konnex Resources Inc.		Owned
HS-24	IMC219158	Lode	Konnex Resources Inc.		Owned
HS-25	IMC219159	Lode	Konnex Resources Inc.		Owned
HS-26	IMC219160	Lode	Konnex Resources Inc.		Owned
HS-27	IMC219161	Lode	Konnex Resources Inc.		Owned
HS-28	IMC219162	Lode	Konnex Resources Inc.		Owned
HS-29	IMC219163	Lode	Konnex Resources Inc.		Owned
HS-30	IMC219164	Lode	Konnex Resources Inc.		Owned
HS-31	IMC219165	Lode	Konnex Resources Inc.		Owned

Claim Name	Serial/Patent No.	Type	Claimant/Owner	Survey No.	Tenure
HS-32	IMC219166	Lode	Konnex Resources Inc.		Owned
HS-33	IMC219167	Lode	Konnex Resources Inc.		Owned
HS-34	IMC223006	Lode	Konnex Resources Inc.		Owned
HS-35	IMC223007	Lode	Konnex Resources Inc.		Owned
HS-36	IMC223008	Lode	Konnex Resources Inc.		Owned
HS-37	IMC223009	Lode	Konnex Resources Inc.		Owned
HS-38	IMC223010	Lode	Konnex Resources Inc.		Owned
HS-39	IMC223011	Lode	Konnex Resources Inc.		Owned
HS-40	IMC223012	Lode	Konnex Resources Inc.		Owned
HS-41	IMC223013	Lode	Konnex Resources Inc.		Owned
HS-42	IMC223014	Lode	Konnex Resources Inc.		Owned
HS-43	IMC223015	Lode	Konnex Resources Inc.		Owned
HS-44	IMC223016	Lode	Konnex Resources Inc.		Owned
HS-45	IMC223017	Lode	Konnex Resources Inc.		Owned
HS-46	IMC223018	Lode	Konnex Resources Inc.		Owned
HS-47	IMC223019	Lode	Konnex Resources Inc.		Owned
HS-48	IMC223020	Lode	Konnex Resources Inc.		Owned
HS-49	IMC223021	Lode	Konnex Resources Inc.		Owned
HS-50	IMC223022	Lode	Konnex Resources Inc.		Owned
HS-51	IMC223023	Lode	Konnex Resources Inc.		Owned
HS-52	IMC223024	Lode	Konnex Resources Inc.		Owned
HS-53	IMC223025	Lode	Konnex Resources Inc.		Owned
HS-54	IMC223026	Lode	Konnex Resources Inc.		Owned
NCC-1 to NCC-121	IMC228326 - IMC228446	Lode	Konnex Resources Inc.		Owned
WDC-1 to WDC-73	IMC228447 - IMC228519	Lode	Konnex Resources Inc.		Owned

APPENDIX B

Drillhole Summary Tables

BHID	Easting	Northing	Elevation	Total Depth	Inclination	Azimuth	Drill Type	Year	Company
KX20-01	1725451.9	807724.8	8781.7	135.00	44.5	175.0	RC	2020	Konnex Resources
KX20-02	1725722.9	807590.4	8683.7	125.00	44.8	270.0	RC	2020	Konnex Resources
KX20-03	1725801.4	808106.5	8671.2	85.00	44.9	255.0	RC	2020	Konnex Resources
KX20-04	1726223.9	808777.0	8551.6	75.00	45.6	270.0	RC	2020	Konnex Resources
KX20-05	1725600.4	807684.6	8736.3	140.00	70.1	270.0	RC	2020	Konnex Resources
KX20-06	1725523.9	807691.1	8754.1	200.00	50.1	270.0	RC	2020	Konnex Resources
KX20-07	1725744.9	807456.7	8659.3	215.00	45.5	290.0	RC	2020	Konnex Resources
KX20-08	1725645.5	807273.0	8625.7	165.00	45.0	295.0	RC	2020	Konnex Resources
KX20-09	1725563.2	807412.8	8662.3	115.00	45.7	295.0	RC	2020	Konnex Resources
KX20-10	1725467.9	807601.0	8736.5	235.00	45.7	290.0	RC	2020	Konnex Resources
KX20-11	1725541.4	807306.5	8634.8	65.00	45.6	290.0	RC	2020	Konnex Resources
KX20-12	1725837.0	807180.7	8581.5	170.00	44.4	275.0	RC	2020	Konnex Resources
KX20-13	1725815.0	807870.5	8640.8	245.00	74.7	290.0	RC	2020	Konnex Resources
KX20-14	1725842.3	807671.1	8636.0	145.00	43.9	290.0	RC	2020	Konnex Resources
KX20-15	1725812.4	808590.2	8716.3	145.00	44.8	290.0	RC	2020	Konnex Resources
KX20-16	1725888.6	807980.6	8617.7	225.00	54.1	290.0	RC	2020	Konnex Resources
KX20-17	1726043.6	807844.1	8579.2	285.00	70.1	290.0	RC	2020	Konnex Resources
KX20-18	1726128.5	808659.9	8594.4	120.00	59.1	290.0	RC	2020	Konnex Resources
KX20-19	1725796.0	808033.3	8663.7	245.00	44.5	270.0	RC	2020	Konnex Resources
KX20-20	1725872.0	808214.1	8660.2	135.00	45.3	270.0	RC	2020	Konnex Resources
KX20-21	1726023.4	808388.1	8619.6	45.00	43.7	270.0	RC	2020	Konnex Resources
KX20-22	1726101.1	808500.0	8607.5	145.00	44.9	270.0	RC	2020	Konnex Resources
KX20-23	1726220.1	808397.4	8567.6	195.00	69.0	270.0	RC	2020	Konnex Resources
KX20-24	1726229.6	808688.8	8556.8	175.00	44.4	270.0	RC	2020	Konnex Resources
KX20-25	1725680.1	807772.6	8704.3	155.00	68.9	255.0	RC	2020	Konnex Resources
KX20-26	1725604.7	807745.9	8737.6	205.00	74.8	290.0	RC	2020	Konnex Resources
KX20-27	1725464.7	807871.3	8793.7	205.00	59.6	130.0	RC	2020	Konnex Resources
KX20-28	1725483.7	807959.3	8794.6	260.00	70.3	105.0	RC	2020	Konnex Resources
KX20-29	1725605.3	807706.2	8735.7	165.00	44.4	205.0	RC	2020	Konnex Resources
KX20-30	1725740.8	807527.7	8678.9	265.00	44.8	285.0	RC	2020	Konnex Resources
KX20-BH1	1725430.9	807592.5	8734.6	20.00	45.0	290.0	RC	2020	Konnex Resources
KX20-BH2	1725769.7	807446.0	8657.9	70.00	45.0	290.0	RC	2020	Konnex Resources
KX20-BH3	1725639.3	807239.3	8623.5	40.00	45.0	290.0	RC	2020	Konnex Resources
KXD20-01	1725393.8	807706.9	8790.0	193.00	48.0	117.0	Core	2020	Konnex Resources
KXD20-02	1725545.0	807727.6	8753.4	163.40	69.9	45.0	Core	2020	Konnex Resources
KX18-1	1725949.9	808857.0	8589.2	535.00	59.0	317.0	RC	2018	Konnex Resources
KX18-10	1725741.3	808817.0	8652.4	85.00	60.0	310.0	RC	2018	Konnex Resources
KX18-11	1725643.7	809085.2	8565.5	125.00	63.0	315.0	RC	2018	Konnex Resources
KX18-12	1725916.1	809123.5	8491.1	400.00	59.0	315.0	RC	2018	Konnex Resources
KX18-13	1725845.8	808748.6	8651.6	300.00	60.0	315.0	RC	2018	Konnex Resources
KX18-14	1726273.9	809140.0	8395.1	230.00	60.0	315.0	RC	2018	Konnex Resources
KX18-15	1725782.8	809200.4	8483.7	300.00	59.0	315.0	RC	2018	Konnex Resources
KX18-16	1726134.0	809225.0	8404.2	395.00	58.0	315.0	RC	2018	Konnex Resources
KX18-17	1725582.2	809243.6	8491.2	125.00	64.0	315.0	RC	2018	Konnex Resources
KX18-18	1725994.4	809128.8	8473.2	300.00	60.0	315.0	RC	2018	Konnex Resources
KX18-19	1725850.2	809352.5	8402.8	185.00	60.0	305.0	RC	2018	Konnex Resources
KX18-2	1725821.9	808947.5	8582.4	425.00	58.0	315.0	RC	2018	Konnex Resources
KX18-20	1725544.0	809809.2	8193.0	300.00	69.0	270.0	RC	2018	Konnex Resources
KX18-21	1725677.9	809393.6	8411.1	120.00	60.0	300.0	RC	2018	Konnex Resources
KX18-22	1725365.6	809472.3	8288.1	115.00	65.0	270.0	RC	2018	Konnex Resources
KX18-22A	1725356.1	809463.2	8287.8	75.00	65.0	270.0	RC	2018	Konnex Resources
KX18-23	1725460.6	809745.1	8192.0	300.00	70.0	270.0	RC	2018	Konnex Resources
KX18-24	1725464.0	809555.1	8283.5	400.00	75.0	250.0	RC	2018	Konnex Resources
KX18-25	1725294.2	809627.4	8180.5	25.00	75.0	270.0	RC	2018	Konnex Resources
KX18-26	1725689.5	809584.6	8328.1	325.00	74.0	315.0	RC	2018	Konnex Resources
KX18-27	1725787.9	809538.7	8333.5	365.00	59.0	315.0	RC	2018	Konnex Resources
KX18-28	1725977.2	809435.7	8342.1	300.00	58.0	315.0	RC	2018	Konnex Resources
KX18-29	1725555.9	809624.2	8282.4	400.00	59.0	270.0	RC	2018	Konnex Resources
KX18-3	1726056.5	808871.1	8564.0	345.00	59.0	315.0	RC	2018	Konnex Resources
KX18-30	1725855.0	809708.0	8249.0	300.00	58.0	315.0	RC	2018	Konnex Resources

BHID	Easting	Northing	Elevation	Total Depth	Inclination	Azimuth	Drill Type	Year	Company
KX18-31	1726016.7	809607.9	8254.0	300.00	59.0	315.0	RC	2018	Konnex Resources
KX18-32	1726356.2	809533.8	8208.8	280.00	58.0	315.0	RC	2018	Konnex Resources
KX18-33	1726192.0	809324.0	8345.0	500.00	59.0	315.0	RC	2018	Konnex Resources
KX18-34	1726325.9	809253.9	8340.0	595.00	60.0	315.0	RC	2018	Konnex Resources
KX18-35	1725140.4	810787.1	7915.4	360.00	49.0	310.0	RC	2018	Konnex Resources
KX18-36	1725140.4	810787.1	7915.4	380.00	67.0	310.0	RC	2018	Konnex Resources
KX18-37	1724916.4	810824.4	8034.2	405.00	51.0	270.0	RC	2018	Konnex Resources
KX18-38	1724932.9	810835.6	8034.1	460.00	49.0	180.0	RC	2018	Konnex Resources
KX18-39	1724932.9	810835.6	8034.1	435.00	65.0	180.0	RC	2018	Konnex Resources
KX18-4	1725918.9	808945.3	8564.6	300.00	59.0	315.0	RC	2018	Konnex Resources
KX18-40	1724804.0	811122.0	8032.0	300.00	49.0	325.0	RC	2018	Konnex Resources
KX18-41	1724804.0	811122.0	8032.0	390.00	54.0	235.0	RC	2018	Konnex Resources
KX18-42	1725783.0	807285.0	8630.0	690.00	51.0	200.0	RC	2018	Konnex Resources
KX18-43	1726004.0	807408.0	8602.0	705.00	49.0	180.0	RC	2018	Konnex Resources
KX18-44	1726488.0	808587.0	8481.0	650.00	44.0	270.0	RC	2018	Konnex Resources
KX18-45	1724747.0	810796.0	8127.0	80.00	75.0	0.0	RC	2018	Konnex Resources
KX18-46	1725328.0	810245.0	7905.0	200.00	68.0	110.0	RC	2018	Konnex Resources
KX18-47	1724997.0	810536.0	8012.0	350.00	68.5	90.0	RC	2018	Konnex Resources
KX18-48	1724995.5	810525.3	8012.0	250.00	68.7	125.0	RC	2018	Konnex Resources
KX18-49	1724990.2	810558.9	8012.0	300.00	71.1	75.0	RC	2018	Konnex Resources
KX18-5	1725784.4	809009.8	8566.4	350.00	60.0	315.0	RC	2018	Konnex Resources
KX18-50	1724776.5	810590.8	8116.0	270.00	66.5	90.0	RC	2018	Konnex Resources
KX18-51	1725402.5	810266.8	7905.0	420.00	55.9	150.0	RC	2018	Konnex Resources
KX18-52	1726101.9	809368.8	8343.4	500.00	72.1	90.0	RC	2018	Konnex Resources
KX18-53	1725430.0	808049.0	8815.0	150.00	50.0	30.0	RC	2018	Konnex Resources
KX18-54	1725569.0	807735.0	8751.0	420.00	70.0	50.0	RC	2018	Konnex Resources
KX18-55	1723907.0	810932.0	8190.0	140.00	79.6	220.0	RC	2018	Konnex Resources
KX18-56	1723921.0	810943.0	8187.0	180.00	64.5	40.0	RC	2018	Konnex Resources
KX18-57	1723877.0	810991.0	8185.0	160.00	52.7	130.0	RC	2018	Konnex Resources
KX18-58	1725537.0	809939.8	8120.7	270.00	51.4	70.0	RC	2018	Konnex Resources
KX18-59	1725537.0	809939.8	8120.7	260.00	52.4	90.0	RC	2018	Konnex Resources
KX18-6	1725737.5	808426.3	8740.1	300.00	59.0	315.0	RC	2018	Konnex Resources
KX18-60	1725537.0	809939.8	8120.7	120.00	55.0	310.0	RC	2018	Konnex Resources
KX18-61	1725971.0	809830.0	8166.0	380.00	74.6	90.0	RC	2018	Konnex Resources
KX18-62	1725887.7	809676.6	8259.8	460.00	69.4	90.0	RC	2018	Konnex Resources
KX18-63	1726114.0	809224.5	8406.3	140.00	75.1	90.0	RC	2018	Konnex Resources
KX18-64	1725979.0	809441.0	8340.0	190.00	60.0	12.0	RC	2018	Konnex Resources
KX18-7	1725759.5	808607.7	8715.0	325.00	59.0	315.0	RC	2018	Konnex Resources
KX18-8	1725858.5	808587.4	8694.4	435.00	69.0	315.0	RC	2018	Konnex Resources
KX18-9	1725575.8	808895.3	8659.8	175.00	75.0	315.0	RC	2018	Konnex Resources
KXD18-1	1725421.0	807793.1	8795.7	376.00	69.0	86.0	Core	2018	Konnex Resources
KXD18-10	1725794.4	810047.1	8110.3	139.00	61.0	300.0	Core	2018	Konnex Resources
KXD18-11	1725165.4	810597.3	7911.1	263.50	49.0	270.0	Core	2018	Konnex Resources
KXD18-12	1726062.0	808738.2	8598.7	302.00	67.0	315.0	Core	2018	Konnex Resources
KXD18-13	1725162.4	810608.2	7911.1	131.00	44.0	225.0	Core	2018	Konnex Resources
KXD18-14	1726038.7	808972.1	8525.0	10.00	60.0	315.0	Core	2018	Konnex Resources
KXD18-14A	1726033.3	808977.3	8525.0	439.70	61.0	315.0	Core	2018	Konnex Resources
KXD18-15	1726070.8	809899.1	8122.1	207.00	60.0	340.0	Core	2018	Konnex Resources
KXD18-16	1725785.3	810049.3	8110.3	512.00	70.0	60.0	Core	2018	Konnex Resources
KXD18-17	1725976.6	809302.6	8405.2	512.70	59.0	315.0	Core	2018	Konnex Resources
KXD18-18	1725828.0	808074.0	8662.0	232.00	55.0	315.0	Core	2018	Konnex Resources
KXD18-19	1726304.0	808976.0	8465.0	323.00	58.0	316.0	Core	2018	Konnex Resources
KXD18-2	1725678.9	807891.4	8677.6	256.00	78.0	270.0	Core	2018	Konnex Resources
KXD18-20	1725829.0	808073.0	8662.0	497.50	58.0	125.0	Core	2018	Konnex Resources
KXD18-21	1726224.0	808430.0	8560.0	397.50	45.0	315.0	Core	2018	Konnex Resources
KXD18-22	1726123.0	808074.0	8584.0	485.50	44.0	345.0	Core	2018	Konnex Resources
KXD18-23	1726222.0	807836.0	8532.0	198.00	45.0	315.0	Core	2018	Konnex Resources
KXD18-24	1726266.0	809135.0	8395.0	101.00	59.0	315.0	Core	2018	Konnex Resources
KXD18-25	1725915.0	807530.0	8635.0	301.00	45.0	315.0	Core	2018	Konnex Resources
KXD18-26	1726367.0	808142.0	8504.0	44.00	45.0	315.0	Core	2018	Konnex Resources

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KXD18-3	1725989.1	807640.0	8598.8	157.00	70.0	90.0	Core	2018	Konnex Resources
KXD18-4	1725985.4	808230.4	8630.2	332.00	54.0	90.0	Core	2018	Konnex Resources
KXD18-5	1726290.4	809106.3	8395.0	91.00	90.0	0.0	Core	2018	Konnex Resources
KXD18-6	1725982.2	809431.9	8347.1	182.50	90.0	0.0	Core	2018	Konnex Resources
KXD18-7	1726499.0	808470.0	8476.0	498.50	45.0	270.0	Core	2018	Konnex Resources
KXD18-8	1726337.6	809228.9	8340.0	210.00	84.0	315.0	Core	2018	Konnex Resources
KXD18-9	1725787.9	810053.8	8110.3	119.50	79.0	300.0	Core	2018	Konnex Resources
KX17-1	1725965.0	808471.0	8663.1	200.00	90.0	90.0	RC	2017	Konnex Resources
KX17-10	1725995.0	807648.0	8598.2	200.00	51.8	274.5	RC	2017	Konnex Resources
KX17-11	1726076.0	808019.0	8587.5	365.00	50.6	279.6	RC	2017	Konnex Resources
KX17-12	1725947.0	808408.0	8658.5	300.00	53.8	276.3	RC	2017	Konnex Resources
KX17-13	1725334.0	807597.0	8736.4	322.00	55.8	116.4	RC	2017	Konnex Resources
KX17-14	1725251.0	807700.0	8802.0	200.00	89.0	17.5	RC	2017	Konnex Resources
KX17-15	1725380.0	807852.0	8815.0	300.00	88.1	11.1	RC	2017	Konnex Resources
KX17-16	1726041.0	808358.0	8612.9	180.00	88.1	6.7	RC	2017	Konnex Resources
KX17-17	1726456.0	808888.0	8458.7	200.00	89.8	218.7	RC	2017	Konnex Resources
KX17-18	1726184.0	808954.0	8504.3	250.00	88.9	195.7	RC	2017	Konnex Resources
KX17-19	1726321.0	808959.0	8467.6	250.00	88.1	125.3	RC	2017	Konnex Resources
KX17-2	1725698.0	807956.0	8677.9	95.00	65.0	270.0	RC	2017	Konnex Resources
KX17-20	1726403.0	808975.0	8442.5	200.00	89.7	6.6	RC	2017	Konnex Resources
KX17-21	1725138.0	810638.0	7913.0	200.00	70.9	287.6	RC	2017	Konnex Resources
KX17-3	1726109.0	808394.0	8601.3	250.00	90.0	90.0	RC	2017	Konnex Resources
KX17-4	1725555.0	807721.0	8751.0	300.00	80.0	270.0	RC	2017	Konnex Resources
KX17-5	1725966.0	808622.0	8656.4	200.00	90.0	90.0	RC	2017	Konnex Resources
KX17-6	1725826.0	807314.0	8630.1	65.00	80.0	270.0	RC	2017	Konnex Resources
KX17-6A	1725810.0	807303.0	8633.0	300.00	80.0	270.0	RC	2017	Konnex Resources
KX17-7	1726232.0	808077.0	8557.8	300.00	70.0	270.0	RC	2017	Konnex Resources
KX17-8	1726071.0	808708.0	8608.9	330.00	90.0	90.0	RC	2017	Konnex Resources
KX17-9	1725828.0	807895.0	8634.6	250.00	65.0	270.0	RC	2017	Konnex Resources
KXD17-1	1726187.0	807969.0	8560.0	300.00	70.0	270.0	Core	2017	Konnex Resources
KXD17-10	1726602.0	808272.0	8452.0	875.00	55.0	290.0	Core	2017	Konnex Resources
KXD17-2	1725694.0	807958.0	8680.5	250.00	80.0	270.0	Core	2017	Konnex Resources
KXD17-3	1726043.0	808313.0	8615.1	322.00	55.0	270.0	Core	2017	Konnex Resources
KXD17-4	1725638.0	807884.0	8696.0	292.00	75.0	270.0	Core	2017	Konnex Resources
KXD17-5	1725925.0	808239.0	8637.9	135.00	68.9	274.8	Core	2017	Konnex Resources
KXD17-5A	1725915.0	808298.0	8658.0	105.00	81.2	271.5	Core	2017	Konnex Resources
KXD17-6	1725721.0	807411.0	8655.1	243.00	89.7	271.3	Core	2017	Konnex Resources
KXD17-7	1726080.0	808559.0	8617.9	163.00	70.0	270.0	Core	2017	Konnex Resources
KXD17-8	1726776.0	809886.0	7952.0	1030.50	55.0	290.0	Core	2017	Konnex Resources
KXD17-9	1726114.0	810630.0	7863.0	220.00	80.0	290.0	Core	2017	Konnex Resources
EM11-01	1725940.4	810162.1	8037.7	915.00	45.4	266.0	RC	2011	Musgrove Minerals
EM11-02	1725786.4	810148.4	8087.0	845.10	44.4	265.3	RC	2011	Musgrove Minerals
EM11-03	1726106.9	809891.1	8128.0	350.10	45.0	270.0	RC	2011	Musgrove Minerals
EM11-04	1725767.5	809854.5	8203.2	550.00	45.0	270.0	RC	2011	Musgrove Minerals
EM11-05	1725676.0	809868.3	8205.6	575.10	45.0	270.0	RC	2011	Musgrove Minerals
EM11-06	1726166.4	809702.9	8190.8	575.10	45.0	270.0	RC	2011	Musgrove Minerals
EM11-07	1725916.1	809840.3	8174.0	595.10	45.0	270.0	RC	2011	Musgrove Minerals
EM11-08	1725942.4	809673.9	8245.4	535.10	45.0	270.0	RC	2011	Musgrove Minerals
EM11-09	1726104.4	809543.1	8266.3	465.00	45.0	270.0	RC	2011	Musgrove Minerals
EM11-10	1726266.0	809560.6	8227.2	485.00	45.0	270.0	RC	2011	Musgrove Minerals
EM11-11	1725655.1	809719.3	8266.4	100.10	50.0	270.0	RC	2011	Musgrove Minerals
EM11-12	1725888.9	809541.8	8319.0	700.02	47.8	273.2	RC	2011	Musgrove Minerals
EM11-13	1726076.4	809399.1	8336.9	525.00	45.0	270.0	RC	2011	Musgrove Minerals
EM11-14	1726392.0	809255.7	8340.9	455.10	45.0	270.0	RC	2011	Musgrove Minerals
EM11-15	1726465.2	809129.9	8356.3	600.10	45.0	270.0	RC	2011	Musgrove Minerals
EM11-16	1726034.7	810124.9	8033.9	415.00	45.0	270.0	RC	2011	Musgrove Minerals
EM11-17	1726010.1	810017.8	8082.7	405.00	45.0	270.0	RC	2011	Musgrove Minerals
EM11-18	1726450.7	808312.9	8487.9	870.10	48.0	267.3	RC	2011	Musgrove Minerals
EM11-19	1726364.4	808140.9	8505.3	875.00	47.7	270.1	RC	2011	Musgrove Minerals
EM11-20	1726297.8	807981.6	8516.6	675.00	46.7	265.1	RC	2011	Musgrove Minerals

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EM11-21	1726495.6	809015.0	8401.9	765.10	48.4	268.7	RC	2011	Musgrove Minerals
EM11-22	1726313.6	808766.5	8538.2	899.79	48.1	268.6	RC	2011	Musgrove Minerals
EM11-23	1726352.4	808470.2	8524.2	800.00	49.2	268.4	RC	2011	Musgrove Minerals
EM11-24	1726269.0	808608.0	8558.7	815.00	49.6	269.7	RC	2011	Musgrove Minerals
EMD11-01	1725767.5	809854.5	8203.2	303.00	90.0	0.0	Core	2011	Musgrove Minerals
JDD01	1726087.1	807815.5	8578.2	425.00	47.0	270.0	Core	2006	Journey Resources
JDD02	1726387.5	808761.9	8521.4	540.00	47.0	270.0	Core	2006	Journey Resources
JDD03	1726160.1	808786.5	8563.8	287.10	47.0	270.0	Core	2006	Journey Resources
JDD04	1726119.5	808460.1	8603.8	300.00	47.0	270.0	Core	2006	Journey Resources
JDD05a	1726241.0	808457.9	8558.9	352.00	47.0	270.0	Core	2006	Journey Resources
JRC01	1725567.0	807402.7	8661.2	440.00	45.0	275.0	RC	2006	Journey Resources
JRC02a	1725778.2	807371.0	8651.1	440.00	45.0	270.0	RC	2006	Journey Resources
JRC03a	1725704.3	807417.6	8658.0	109.90	60.0	275.0	RC	2006	Journey Resources
JRC04	1725740.6	807231.8	8621.5	400.00	60.0	300.0	RC	2006	Journey Resources
JRC05	1725482.9	807550.7	8725.0	380.00	45.0	280.0	RC	2006	Journey Resources
JRC06	1725472.9	807645.5	8761.3	440.00	45.0	270.0	RC	2006	Journey Resources
JRC07	1725440.2	807821.6	8796.3	450.10	60.0	270.0	RC	2006	Journey Resources
JRC08	1725492.1	807928.5	8786.8	350.10	60.0	260.0	RC	2006	Journey Resources
JRC09	1725607.4	807647.1	8733.9	400.00	45.0	275.0	RC	2006	Journey Resources
JRC10a	1725742.7	807717.7	8689.6	480.00	45.0	265.0	RC	2006	Journey Resources
JRC11	1725900.9	807428.0	8633.4	470.10	45.0	270.0	RC	2006	Journey Resources
JRC12	1725602.4	807512.3	8701.4	370.10	45.0	270.0	RC	2006	Journey Resources
JRC13	1725914.1	807517.1	8635.9	430.10	45.0	270.0	RC	2006	Journey Resources
JRC14	1725892.5	807660.7	8623.4	530.00	45.0	270.0	RC	2006	Journey Resources
JRC15	1726037.1	807383.7	8598.7	500.00	45.0	270.0	RC	2006	Journey Resources
JRC16a	1725892.4	807211.0	8586.0	500.00	45.0	270.0	RC	2006	Journey Resources
JRC18	1726194.3	807392.7	8567.6	600.10	45.0	270.0	RC	2006	Journey Resources
JRC19	1726147.1	807519.0	8566.3	525.00	45.0	270.0	RC	2006	Journey Resources
JRC20	1726076.0	807667.4	8575.7	550.00	45.0	270.0	RC	2006	Journey Resources
JRC21	1726190.9	807668.3	8556.8	149.90	50.0	270.0	RC	2006	Journey Resources
JRC22	1726028.9	807971.0	8591.7	460.00	45.0	270.0	RC	2006	Journey Resources
JRC23	1725887.7	807972.4	8614.9	400.00	45.0	270.0	RC	2006	Journey Resources
JRC24	1726092.0	808130.8	8589.0	265.00	45.0	270.0	RC	2006	Journey Resources
JRC25	1726046.0	808313.0	8615.9	135.00	45.0	270.0	RC	2006	Journey Resources
JRC26	1725762.8	807977.7	8667.2	430.10	45.0	270.0	RC	2006	Journey Resources
JRC27	1725858.5	808145.3	8653.4	460.00	45.0	270.0	RC	2006	Journey Resources
JRC28	1725878.5	808316.7	8672.3	195.00	45.0	270.0	RC	2006	Journey Resources
TDD04-01	1726110.1	808538.5	8604.9	97.10	90.0	0.0	Core	2004	Trio Gold Corp.
TRC04-01	1726063.6	807919.7	8583.9	250.00	90.0	0.0	RC	2004	Trio Gold Corp.
TRC04-02	1726074.1	808172.8	8598.7	325.00	90.0	0.0	RC	2004	Trio Gold Corp.
TRC04-03	1725700.6	807883.5	8674.0	380.00	90.0	0.0	RC	2004	Trio Gold Corp.
TRC04-04	1725864.8	808152.1	8653.0	65.50	90.0	0.0	RC	2004	Trio Gold Corp.
TRC04-05	1725906.5	808088.0	8642.9	305.00	90.0	0.0	RC	2004	Trio Gold Corp.
TRC04-06	1725804.3	808189.3	8685.5	200.00	90.0	0.0	RC	2004	Trio Gold Corp.
TRC04-07	1725722.5	808002.5	8680.4	75.50	90.0	0.0	RC	2004	Trio Gold Corp.
TRC04-08	1726165.0	807929.9	8563.2	300.00	90.0	0.0	RC	2004	Trio Gold Corp.
TRC04-09	1726103.3	807999.9	8583.3	340.00	90.0	0.0	RC	2004	Trio Gold Corp.
S040	1725597.8	810373.1	7971.8	434.10	50.0	270.0	Core	1997	Cambior Inc
S041	1725410.5	810599.4	7840.6	400.00	50.0	264.0	Core	1997	Cambior Inc
S042	1725874.5	806907.6	8500.0	400.00	50.0	270.0	Core	1997	Cambior Inc
S043	1725655.4	810618.2	7892.1	537.10	55.0	270.0	Core	1997	Cambior Inc
S044	1726263.9	806918.6	8481.2	730.00	50.0	270.0	Core	1997	Cambior Inc
S045	1726066.3	806815.7	8465.6	627.00	50.0	270.0	Core	1997	Cambior Inc
S046	1725869.9	806717.6	8427.5	360.00	50.0	270.0	Core	1997	Cambior Inc
S047	1724943.4	810810.8	8035.0	250.00	50.0	270.0	Core	1997	Cambior Inc
S001	1726201.5	807807.7	8536.7	644.50	45.0	270.0	Core	1996	Cambior Inc
S002	1726058.9	807904.8	8582.9	638.50	50.0	270.0	Core	1996	Cambior Inc
S003	1725965.4	807819.2	8581.6	593.00	45.0	270.0	Core	1996	Cambior Inc
S004	1726315.4	808303.5	8529.8	414.00	45.0	270.0	Core	1996	Cambior Inc
S005	1726151.3	808321.5	8585.5	687.00	45.0	265.0	Core	1996	Cambior Inc

BHID	Easting	Northing	Elevation	Total Depth	Inclination	Azimuth	Drill Type	Year	Company
S006B	1725933.4	810035.2	8090.1	579.10	45.0	272.0	Core	1996	Cambior Inc
S007	1725808.4	810035.4	8112.7	562.00	45.0	274.0	Core	1996	Cambior Inc
S008	1725661.4	810029.4	8120.7	422.00	45.0	270.0	Core	1996	Cambior Inc
S009	1725961.4	808307.2	8632.3	420.00	45.0	270.0	Core	1996	Cambior Inc
S010	1726058.5	809706.0	8208.5	605.00	50.0	270.0	Core	1996	Cambior Inc
S011	1725744.5	807808.8	8677.8	432.10	45.0	270.0	Core	1996	Cambior Inc
S012	1726365.5	808608.9	8532.6	625.00	50.0	270.0	Core	1996	Cambior Inc
S013	1725592.2	807817.5	8715.2	365.20	45.0	270.0	Core	1996	Cambior Inc
S014	1726172.0	808613.1	8581.7	456.00	50.0	270.0	Core	1996	Cambior Inc
S015	1725837.5	809707.9	8257.3	526.00	50.0	270.0	Core	1996	Cambior Inc
S016B	1726318.7	809687.7	8150.7	601.00	50.0	270.0	Core	1996	Cambior Inc
S017	1726248.6	810010.2	8029.0	533.10	45.0	270.0	Core	1996	Cambior Inc
S018	1726114.0	810008.5	8062.7	699.50	50.0	270.0	Core	1996	Cambior Inc
S019	1725754.7	808315.1	8726.3	444.00	45.0	270.0	Core	1996	Cambior Inc
S020	1725359.5	807818.2	8810.2	220.10	45.0	270.0	Core	1996	Cambior Inc
S021	1726384.9	807810.8	8477.2	700.10	45.0	270.0	Core	1996	Cambior Inc
S022	1725982.9	807220.8	8579.6	512.10	50.0	270.0	Core	1996	Cambior Inc
S023	1726191.4	807217.1	8556.0	577.50	50.0	270.0	Core	1996	Cambior Inc
S024	1726040.5	807524.5	8599.6	482.60	50.0	270.0	Core	1996	Cambior Inc
S025	1726259.4	807515.5	8563.8	527.60	50.0	270.0	Core	1996	Cambior Inc
S026	1725134.1	810785.4	7932.6	414.00	50.0	270.0	Core	1996	Cambior Inc
S027	1725222.1	810895.3	7885.7	490.20	50.0	270.0	Core	1996	Cambior Inc
S028	1725171.4	810577.3	7921.7	278.00	50.0	270.0	Core	1996	Cambior Inc
S029	1726225.4	808135.3	8558.2	613.00	50.0	270.0	Core	1996	Cambior Inc
S030	1725966.1	808137.9	8632.8	604.00	50.0	270.0	Core	1996	Cambior Inc
S031	1725744.6	807514.4	8677.5	407.20	48.0	280.0	Core	1996	Cambior Inc
S032	1725742.8	807205.0	8615.0	269.50	48.0	270.0	Core	1996	Cambior Inc
S033	1726267.5	808885.0	8508.5	695.00	50.0	270.0	Core	1996	Cambior Inc
S034	1726441.5	808900.7	8457.8	590.00	50.0	270.0	Core	1996	Cambior Inc
S035	1726354.2	809119.8	8391.8	200.10	50.0	270.0	Core	1996	Cambior Inc
S036	1726573.5	809126.7	8326.1	777.00	50.0	270.0	Core	1996	Cambior Inc
S037	1726362.4	809385.3	8275.7	355.00	50.0	270.0	Core	1996	Cambior Inc
S038	1726568.8	809394.9	8194.3	697.00	50.0	270.0	Core	1996	Cambior Inc
S039	1725752.0	810311.7	8033.4	787.10	50.0	270.0	Core	1996	Cambior Inc
K-1	1725951.8	807749.3	8575.7	608.00	90.0	0.0	Core	1975	Exxon
K-10	1726587.5	808453.3	8461.7	2000.00	90.0	0.0	Core	1975	Exxon
K-2B	1725518.7	811235.4	7771.9	1605.00	90.0	0.0	Core	1975	Exxon
K-4	1726029.2	808179.6	8617.3	464.00	90.0	0.0	Core	1975	Exxon
K-6	1725954.4	807349.1	8609.0	800.00	90.0	0.0	Core	1975	Exxon
K-7	1726268.1	808351.2	8550.3	920.00	90.0	0.0	Core	1975	Exxon
K-8	1726273.2	807551.2	8561.4	550.00	90.0	0.0	Core	1975	Exxon
K-9	1726265.6	808751.3	8552.9	907.10	90.0	0.0	Core	1975	Exxon
BDH-01	1726104.4	808637.7	8602.4	50.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-02	1726109.1	808574.8	8602.9	105.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-03	1726070.9	808594.7	8619.4	80.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-04	1726075.1	808525.8	8616.3	76.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-05	1726081.4	807815.8	8578.0	220.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-06	1726075.8	807961.5	8583.9	121.50	90.0	0.0	RC	1972	Behre Dolbear
BDH-07	1726117.6	808096.2	8585.1	95.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-08	1726108.5	808015.4	8584.4	110.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-09	1726121.1	807964.6	8581.1	210.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-10	1726163.6	808603.9	8585.7	65.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-11	1726185.3	808549.5	8581.5	41.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-12	1726229.6	808500.8	8564.4	65.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-13	1726240.4	808425.3	8558.4	100.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-14	1726149.7	807893.3	8563.4	168.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-15	1726078.3	808070.9	8589.3	145.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-16	1725939.5	807761.0	8576.5	140.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-17	1726003.9	807808.2	8579.4	150.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-18	1725686.8	807920.9	8672.7	270.00	90.0	0.0	RC	1972	Behre Dolbear

BHID	Easting	Northing	Elevation	Total Depth	Inclination	Azimuth	Drill Type	Year	Company
BDH-19	1725755.9	807928.8	8664.4	205.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-20	1726149.2	808048.1	8582.1	275.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-21	1725836.7	808072.4	8659.4	214.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-22	1726130.5	807834.8	8579.8	145.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-23	1725922.9	807887.3	8595.9	235.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-24	1725876.6	808186.8	8651.3	74.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-25	1725957.0	807935.4	8597.5	205.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-26	1725701.3	807500.9	8673.4	140.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-27	1725709.0	807808.2	8693.7	150.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-28	1725829.9	808315.0	8697.6	110.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-29	1725795.8	808267.2	8705.8	70.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-30	1725717.8	807740.6	8694.1	150.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-31	1725722.8	807683.0	8693.9	200.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-32	1725763.8	808214.4	8709.2	135.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-33	1725721.2	808100.0	8710.6	68.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-34	1725730.2	807866.8	8673.9	125.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-35	1725740.7	808041.1	8684.2	100.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-36	1726021.8	808388.7	8619.5	80.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-37	1725918.5	808104.2	8641.4	84.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-38	1726016.7	808159.2	8618.1	150.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-39	1726034.4	808306.7	8617.6	100.10	90.0	0.0	RC	1972	Behre Dolbear
BDH-40	1725949.5	808052.2	8626.9	88.00	90.0	0.0	RC	1972	Behre Dolbear
BDH-41	1725860.8	807983.4	8630.7	105.00	90.0	0.0	RC	1972	Behre Dolbear
CW-01	1725484.3	807919.6	8788.9	100.10	90.0	0.0	RC	1969	Capital Wire&Cable
CW-02	1725484.7	807868.6	8788.0	150.00	90.0	0.0	RC	1969	Capital Wire&Cable
CW-03	1725428.7	808059.7	8815.7	70.00	90.0	0.0	RC	1969	Capital Wire&Cable
CW-04	1725843.0	808235.9	8679.0	114.00	90.0	0.0	RC	1969	Capital Wire&Cable
CW-05	1725924.2	808361.0	8661.7	75.10	90.0	0.0	RC	1969	Capital Wire&Cable
CW-06	1726079.2	807494.4	8595.8	15.10	90.0	0.0	RC	1969	Capital Wire&Cable
CW-08	1725961.0	807277.5	8596.5	105.00	90.0	0.0	RC	1969	Capital Wire&Cable
CW-09	1726043.7	807493.8	8599.3	100.10	90.0	0.0	RC	1969	Capital Wire&Cable
CW-10	1726073.0	807402.4	8596.4	157.20	90.0	0.0	RC	1969	Capital Wire&Cable
CW-11	1726032.3	807599.4	8598.8	140.10	90.0	0.0	RC	1969	Capital Wire&Cable
CW-12	1725966.2	807873.8	8591.6	145.00	90.0	0.0	RC	1969	Capital Wire&Cable
CW-13	1726091.6	807899.2	8579.0	185.00	90.0	0.0	RC	1969	Capital Wire&Cable
CW-14	1726071.6	808124.5	8596.0	60.00	90.0	0.0	RC	1969	Capital Wire&Cable
Hole-05	1725826.9	807887.3	8635.4	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-06	1725847.6	807796.0	8628.7	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-07	1725969.4	807518.9	8610.6	60.00	90.0	0.0	RC	1969	Hile Explorations
Hole-08	1725981.6	807497.1	8607.1	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-09	1725995.5	807475.0	8604.5	80.10	90.0	0.0	RC	1969	Hile Explorations
Hole-10	1725864.3	807689.2	8622.1	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-11	1725839.8	807838.1	8634.6	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-12	1725820.2	807941.9	8639.3	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-13	1725859.3	807743.2	8614.6	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-14	1725867.3	807637.1	8627.6	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-16	1725671.1	807265.2	8625.1	60.00	90.0	0.0	RC	1969	Hile Explorations
Hole-17	1725551.8	807366.2	8659.9	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-18	1725477.6	807428.9	8666.2	340.00	90.0	0.0	RC	1969	Hile Explorations
Hole-19	1725687.5	807440.7	8663.3	110.00	90.0	0.0	RC	1969	Hile Explorations
Hole-20	1726077.4	807772.8	8578.1	140.10	90.0	0.0	RC	1969	Hile Explorations
Hole-21	1726076.5	807720.7	8575.5	170.00	90.0	0.0	RC	1969	Hile Explorations
Hole-22	1725956.5	807781.2	8578.3	195.00	90.0	0.0	RC	1969	Hile Explorations
Hole-23	1725963.1	807731.7	8576.5	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-24	1725711.1	807289.8	8633.3	50.00	90.0	0.0	RC	1969	Hile Explorations
Hole-25	1725757.6	807278.7	8632.0	55.10	90.0	0.0	RC	1969	Hile Explorations
Hole-26	1725646.0	807406.6	8660.1	80.10	90.0	0.0	RC	1969	Hile Explorations
Hole-27	1725757.3	807775.6	8683.2	55.10	90.0	0.0	RC	1969	Hile Explorations
Hole-28	1725756.5	807722.6	8686.2	120.10	90.0	0.0	RC	1969	Hile Explorations
Hole-29	1725753.9	807666.9	8690.3	200.10	90.0	0.0	RC	1969	Hile Explorations

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Hole-30	1725751.8	807613.9	8683.2	45.00	90.0	0.0	RC	1969	Hile Explorations
Hole-31	1725754.4	807557.7	8678.1	200.10	90.0	0.0	RC	1969	Hile Explorations
Hole-32	1725752.2	807604.1	8681.5	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-33	1725819.3	808198.7	8681.9	35.10	90.0	0.0	RC	1969	Hile Explorations
Hole-34	1725813.5	808188.5	8682.0	30.00	90.0	0.0	RC	1969	Hile Explorations
Hole-35	1725791.1	808151.1	8684.9	147.00	90.0	0.0	RC	1969	Hile Explorations
Hole-36	1725931.2	807268.2	8596.1	72.50	90.0	0.0	RC	1969	Hile Explorations
Hole-37	1725984.5	807191.5	8571.3	60.00	90.0	0.0	RC	1969	Hile Explorations
Hole-38	1725951.6	807263.8	8595.0	329.10	90.0	0.0	RC	1969	Hile Explorations
Hole-39	1725886.5	807173.8	8579.6	190.00	90.0	0.0	RC	1969	Hile Explorations
Hole-40	1725940.1	807112.1	8552.3	140.10	90.0	0.0	RC	1969	Hile Explorations
Hole-43	1725717.7	807020.3	8530.6	62.70	90.0	0.0	RC	1969	Hile Explorations
Hole-44	1725830.4	807013.3	8529.7	93.00	90.0	0.0	RC	1969	Hile Explorations
Hole-45	1725800.6	807115.5	8568.8	100.10	90.0	0.0	RC	1969	Hile Explorations
Hole-46	1725659.9	807118.1	8570.4	58.10	90.0	0.0	RC	1969	Hile Explorations
Hole-50	1726012.0	807753.9	8576.8	200.10	90.0	0.0	RC	1969	Hile Explorations
Hole-52	1725925.5	808197.0	8642.1	36.50	90.0	0.0	RC	1969	Hile Explorations
NI-01	1725569.0	807798.2	8738.4	200.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-02	1725760.1	807824.7	8672.1	110.00	90.0	0.0	RC	1968	New Idria/US Copper
NI-03	1725953.6	807843.1	8592.0	200.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-04	1725737.0	807991.2	8674.8	75.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-05	1725831.6	808221.4	8684.5	65.00	90.0	0.0	RC	1968	New Idria/US Copper
NI-06	1725776.3	808110.0	8688.3	135.00	90.0	0.0	RC	1968	New Idria/US Copper
NI-07	1725927.8	808420.9	8667.8	50.00	90.0	0.0	RC	1968	New Idria/US Copper
NI-08	1725885.7	808333.5	8672.3	20.00	90.0	0.0	RC	1968	New Idria/US Copper
NI-09	1725875.8	808317.3	8674.0	91.00	90.0	0.0	RC	1968	New Idria/US Copper
NI-10	1725925.3	808237.7	8639.7	200.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-11	1726083.2	807816.9	8578.1	200.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-12	1726045.9	808019.1	8592.5	200.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-13	1725908.6	808024.8	8631.5	200.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-14	1726085.8	808418.4	8607.5	90.00	90.0	0.0	RC	1968	New Idria/US Copper
NI-15	1726130.1	808523.9	8604.7	200.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-16	1726100.3	808250.9	8600.7	200.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-17	1725788.9	808360.8	8719.8	200.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-18	1725860.0	807907.5	8624.8	140.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-19	1725965.4	808106.1	8630.7	225.10	90.0	0.0	RC	1968	New Idria/US Copper
NI-20	1726008.7	807916.2	8590.6	200.10	90.0	0.0	RC	1968	New Idria/US Copper
CCDH-2	1725758.6	806850.8	8455.7	58.10	90.0	0.0	Core	1962	Cleveland Cliffs
CCDH-3	1725838.5	806864.3	8478.1	295.90	50.0	268.0	Core	1962	Cleveland Cliffs
CCDH-4	1725756.0	807255.8	8627.9	321.00	50.0	268.0	Core	1962	Cleveland Cliffs
CCDH-5	1725856.0	807261.4	8620.4	320.90	50.0	268.0	Core	1962	Cleveland Cliffs
CCDH-6	1725683.5	807655.3	8705.3	253.00	50.0	268.0	Core	1962	Cleveland Cliffs
CCDH-7	1725863.4	807664.5	8629.4	455.10	50.0	268.0	Core	1962	Cleveland Cliffs
CCDH-8	1725814.7	807456.2	8658.2	526.90	50.0	268.0	Core	1962	Cleveland Cliffs
CCDH-9	1725877.2	807061.6	8538.1	138.10	50.0	268.0	Core	1962	Cleveland Cliffs
B-01	1726200.3	809739.9	7641.1	525.90	45.0	325.0	Core	1943	U.S.B.M.
B-02	1726255.1	809774.2	7641.1	495.10	45.0	330.0	Core	1943	U.S.B.M.
B-10	1725781.4	810036.2	7641.1	60.00	0.0	255.0	Core	1943	U.S.B.M.
B-11	1725789.4	810038.2	7641.1	39.50	0.0	90.0	Core	1943	U.S.B.M.
B-12	1725778.6	810004.2	7641.1	84.00	0.0	245.0	Core	1943	U.S.B.M.
B-13	1725783.6	810003.2	7641.1	35.10	0.0	195.0	Core	1943	U.S.B.M.
B-16	1726009.9	810125.7	7641.1	67.90	60.0	112.0	Core	1943	U.S.B.M.
B-17	1726030.0	810097.8	7641.1	56.80	45.0	0.0	Core	1943	U.S.B.M.
B-23	1726263.3	809109.3	7854.3	71.90	0.0	220.0	Core	1943	U.S.B.M.
B-25	1726212.0	809150.9	7854.3	146.00	35.0	130.0	Core	1943	U.S.B.M.
B-28	1725789.5	810023.2	7641.1	82.70	65.0	90.0	Core	1943	U.S.B.M.

APPENDIX C

INDICATOR LITHOLOGY ESTIMATE VARIOGRAPHY, ESTIMATION PARAMETERS & VALIDATION

HRC utilized an indicator methodology to estimate the lithology into two (2) broad geologic domains (Figure C-1) at the Project. The Granite Porphyry and the Skarns. The following appendix shows the variography, estimation parameters and validation of the lithology indicator estimate.

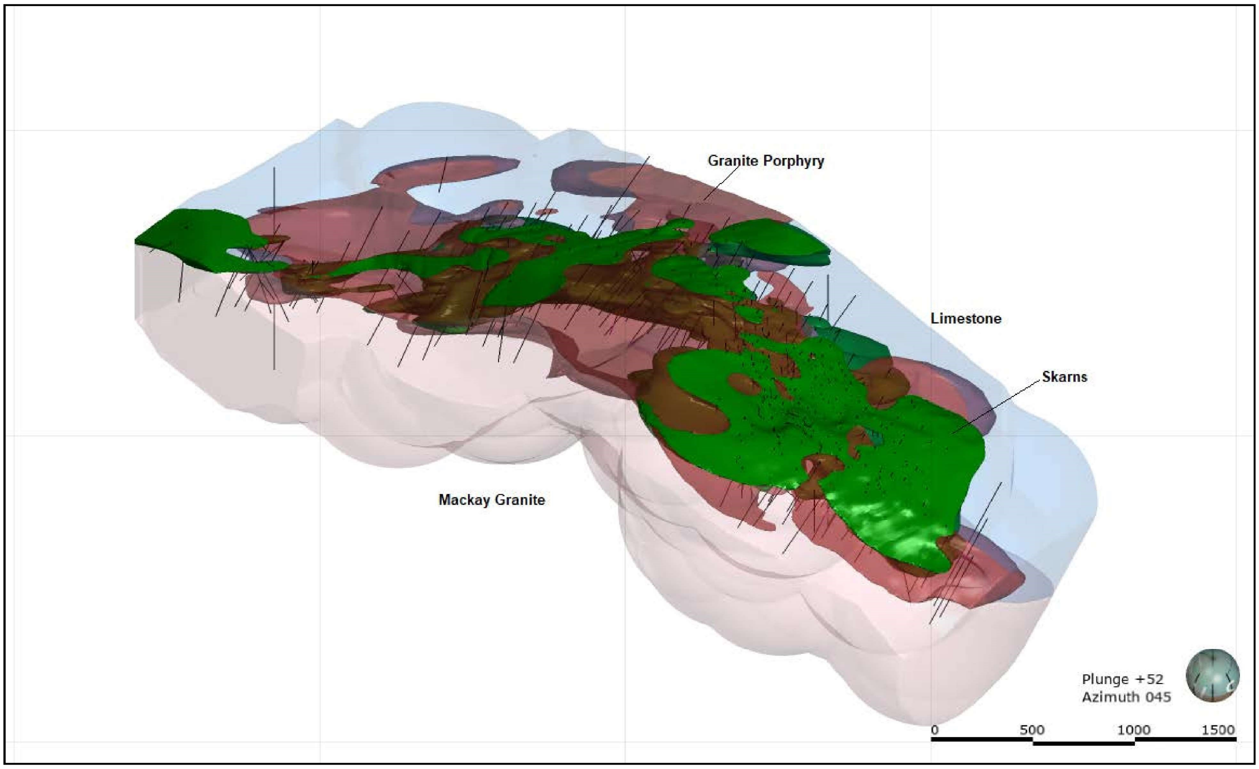

Figure C - 1 Oblique View of the Broad Geologic Model.

Table C-1 summarizes the variogram parameters used for the lithologic indicator estimate. A variogram was modeled in the dominant domain for a lithology and applied to the other domain. For example, the variogram was modeled for the Exo skarn (32) in the Skarn domain and applied to the GP domain. Figures C-2 through C-46 show the modeled variograms.

Table C - 1 Modeled Variogram Parameters used for Lithology Estimate

12 (GP) in GP & Skarn			
Structure (Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.050	0.230	0.720	1.000
Range (ft)			**Anisotropy**
Major	40	555	2.09
Semi-Major	30	265	1.00
Minor	13	80	
Orientation			
Dip	35		
Dip Azi.	60		
Pitch	75		

20 (FEBX) in SKARN & GP			
Structure (Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.050	0.735	0.215	1.000
Range (ft)			**Anisotropy**
Major	15	420	3.50
Semi-Major	25	120	1.00
Minor	70	90	
Orientation			
Dip	65		
Dip Azi.	115		
Pitch	75		

30 (ENDO) in SKARN & GP			
Structure (Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.050	0.400	0.550	1.000
Range (ft)			**Anisotropy**
Major	30	565	2.40
Semi-Major	80	235	1.00
Minor	35	470	
Orientation			
Dip	35		
Dip Azi.	60		
Pitch	80		

32 (EXO) in SKARN & GP			
Structure (Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.025	0.670	0.305	1.000
Range (ft)			**Anisotropy**
Major	65	150	1.88
Semi-Major	50	80	1.00
Minor	29	265	
Orientation			
Dip	35		
Dip Azi.	60		
Pitch	80		

34 (MT) in SKARN & GP			
Structure (Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.050	0.600	0.350	1.000
Range (ft)			**Anisotropy**
Major	60	210	3.23
Semi-Major	42	65	1.00
Minor	15	30	
Orientation			
Dip	35		
Dip Azi.	60		
Pitch	80		

51 (LS) in SKARN & GP			
Structure (Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.050	0.330	0.620	1.000
Range (ft)			**Anisotropy**
Major	25	245	1.75
Semi-Major	25	140	1.00
Minor	60	200	
Orientation			
Dip	45		
Dip Azi.	70		
Pitch	105		

60 (GR) in SKARN & GP			
Structure (Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.050	0.270	0.680	1.000
Range (ft)			**Anisotropy**
Major	265	520	4.73
Semi-Major	55	110	1.00
Minor	25	100	
Orientation			
Dip	45		
Dip Azi.	70		
Pitch	75		

61 (DIKE) in SKARN			
Structure (Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.050	0.950	0.000	1.000
Range (ft)			**Anisotropy**
Major	100		0.83
Semi-Major	120		1.00
Minor	125		
Orientation			
Dip	90		
Dip Azi.	140		
Pitch	105		

61 (DIKE) in GP			
Structure (Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.050	0.123	0.827	1.000
Range (ft)			**Anisotropy**
Major	23	255	1.38
Semi-Major	105	185	1.00
Minor	50	140	
Orientation			
Dip	90		
Dip Azi.	140		
Pitch	75		

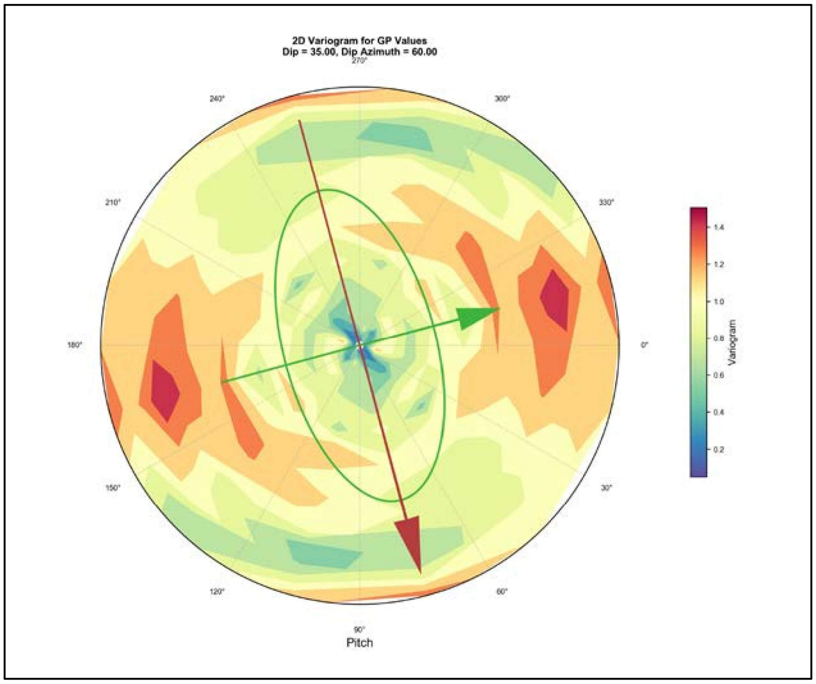

Figure C - 2 Radial Plot for Lithology 12 (GP) within the Granite Porphyry Domain and Applied to the Skarn Domain

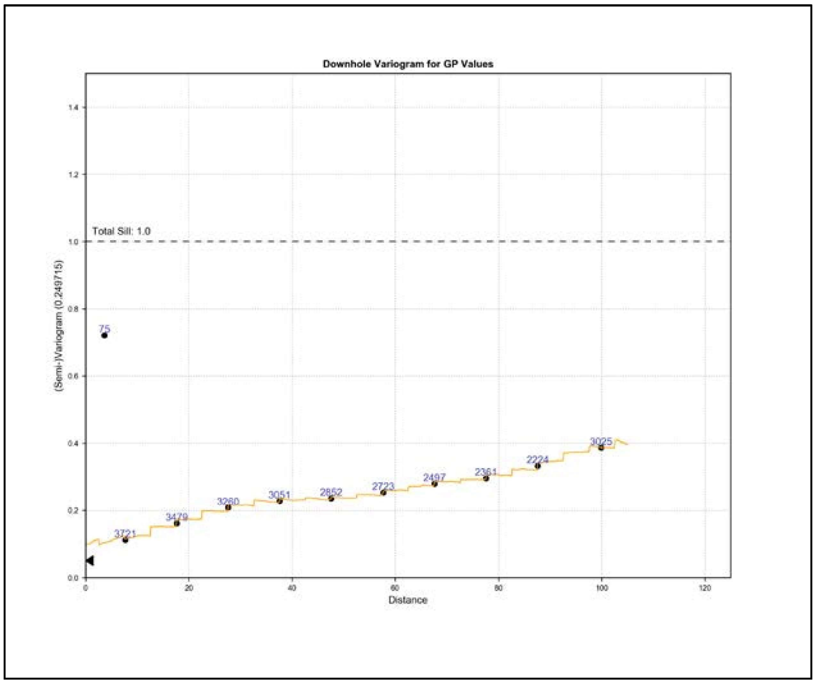

Figure C - 3 Downhole Variogram for Lithology 12 (GP) within the Granite Porphyry Domain and Applied to the Skarn Domain

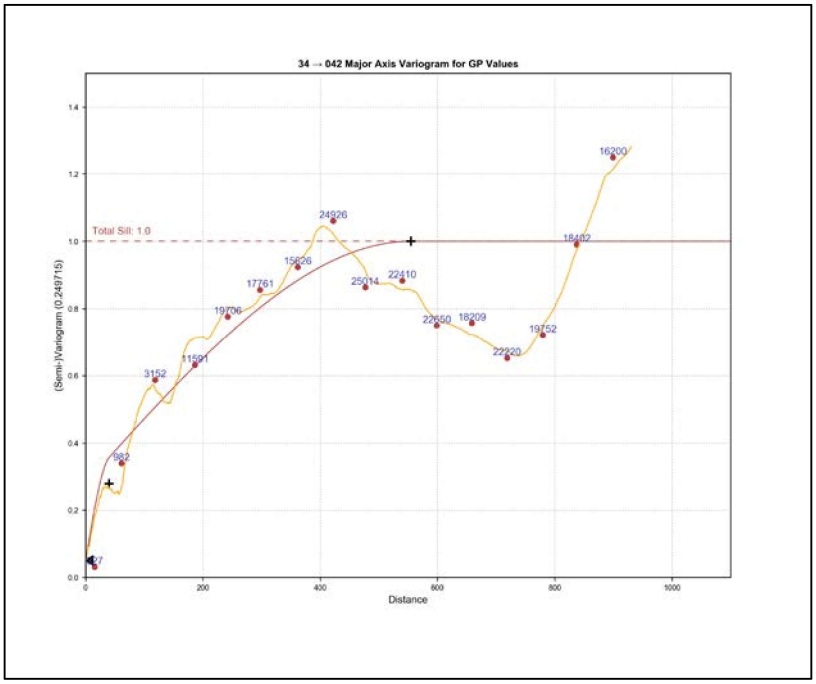

Figure C - 4 Major Axis Variogram for Lithology 12 (GP) within the Granite Porphyry Domain and Applied to the Skarn Domain

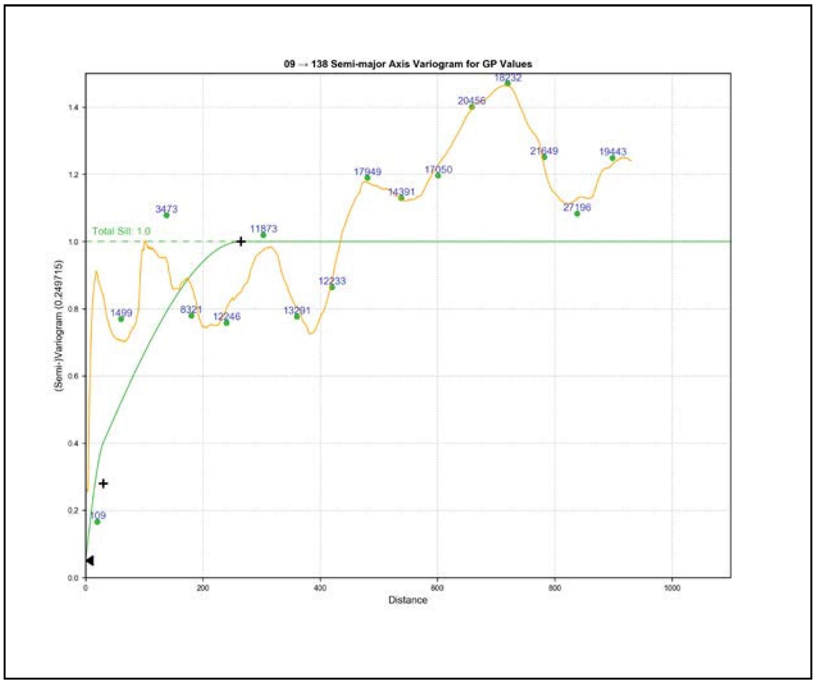

Figure C - 5 Semi-Major Axis Variogram for Lithology 12 (GP) within the Granite Porphyry Domain and Applied to the Skarn Domain

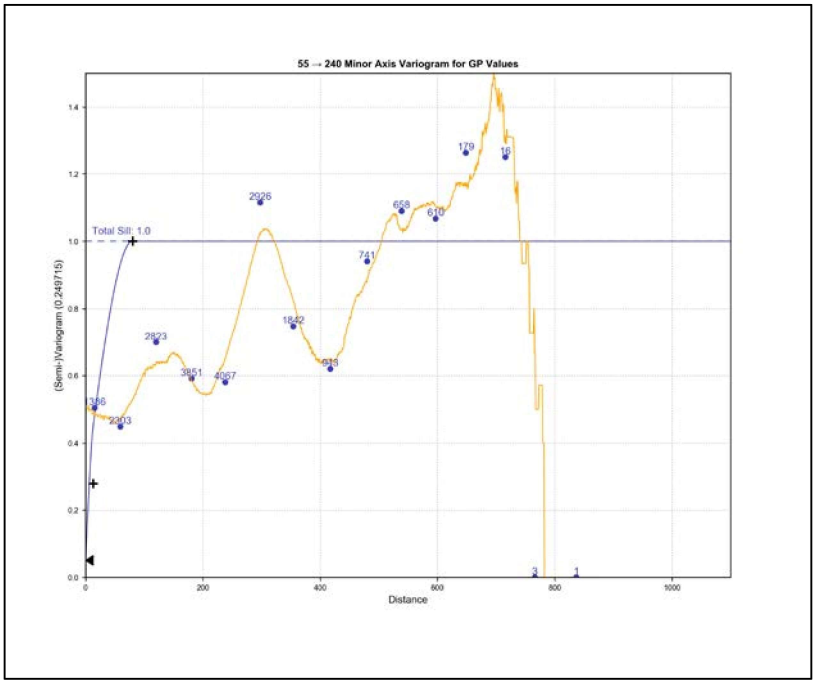

Figure C - 6 Minor Variogram for Lithology 12 (GP) within the Granite Porphyry Domain and Applied to the Skarn Domain

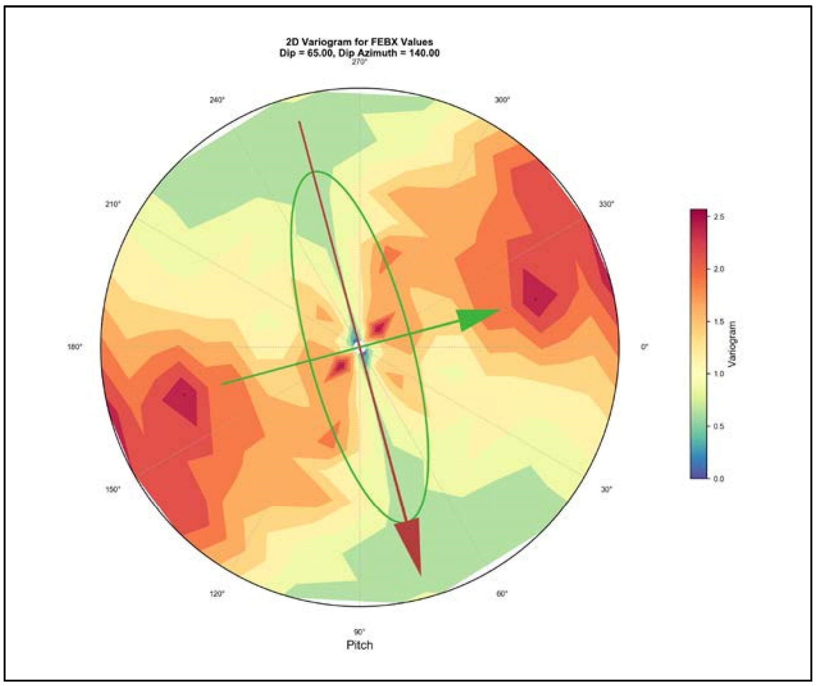

Figure C - 7 Radial Plot for Lithology 20 (FEBX) within the Skarn Domain and Applied to the Granite Porphyry Domain

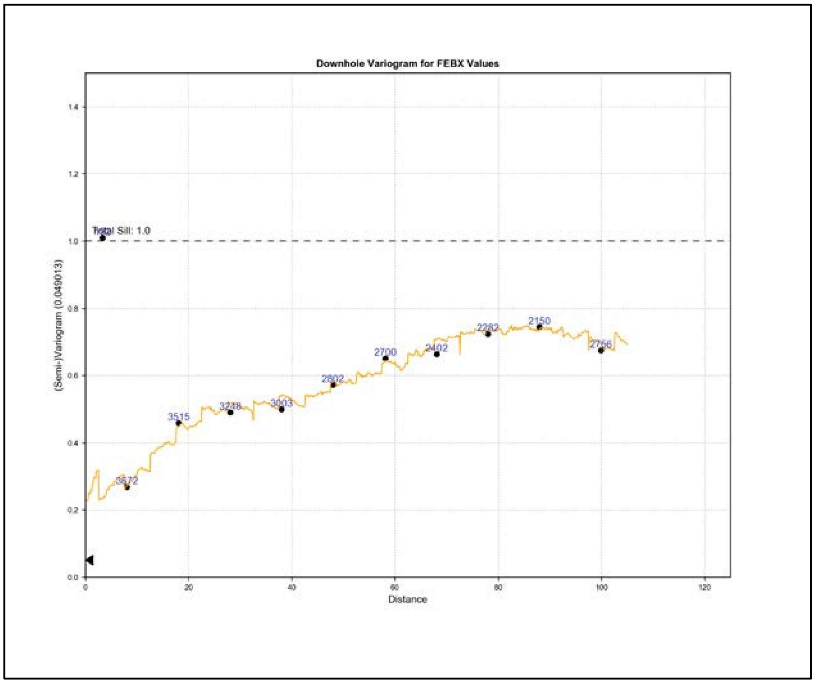

Figure C - 8 Downhole Variogram for Lithology 20 (FEBX) within the Skarn Domain and Applied to the Granite Porphyry Domain

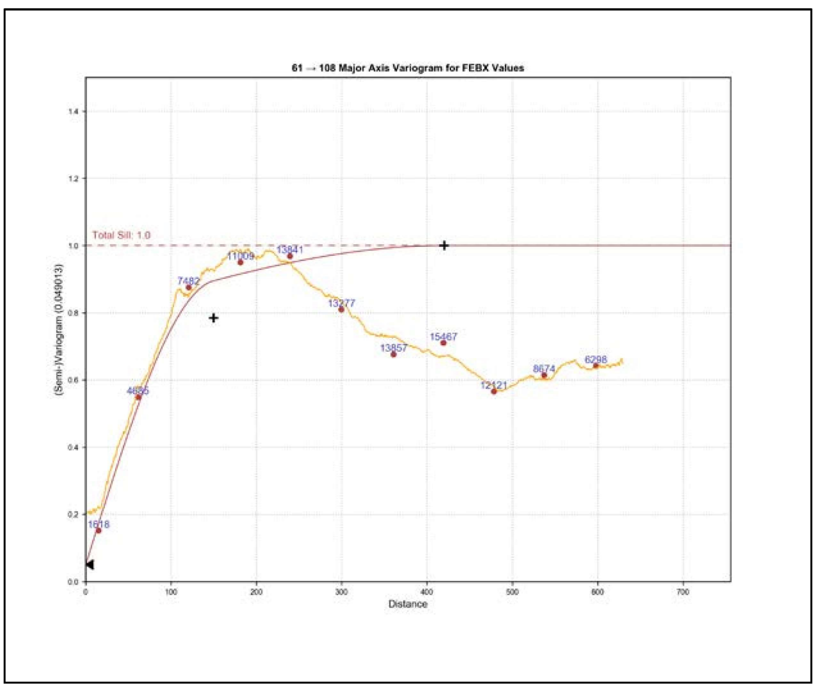

Figure C - 9 Major Axis Variogram for Lithology 20 (FEBX) within the Skarn Domain and Applied to the Granite Porphyry Domain

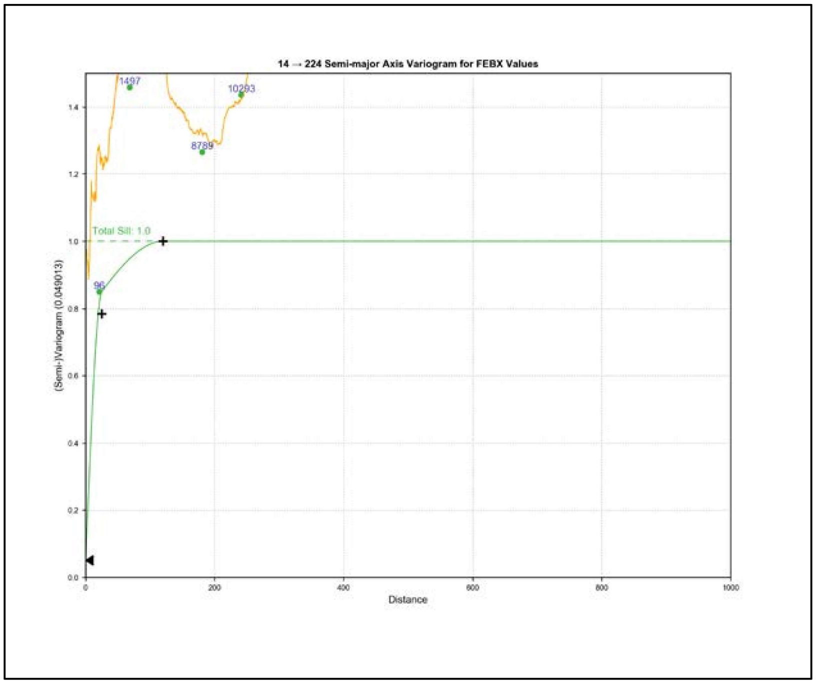

Figure C - 10 Semi-Major Axis Variogram for Lithology 20 (FEBX) within the Skarn Domain and Applied to the Granite Porphyry Domain

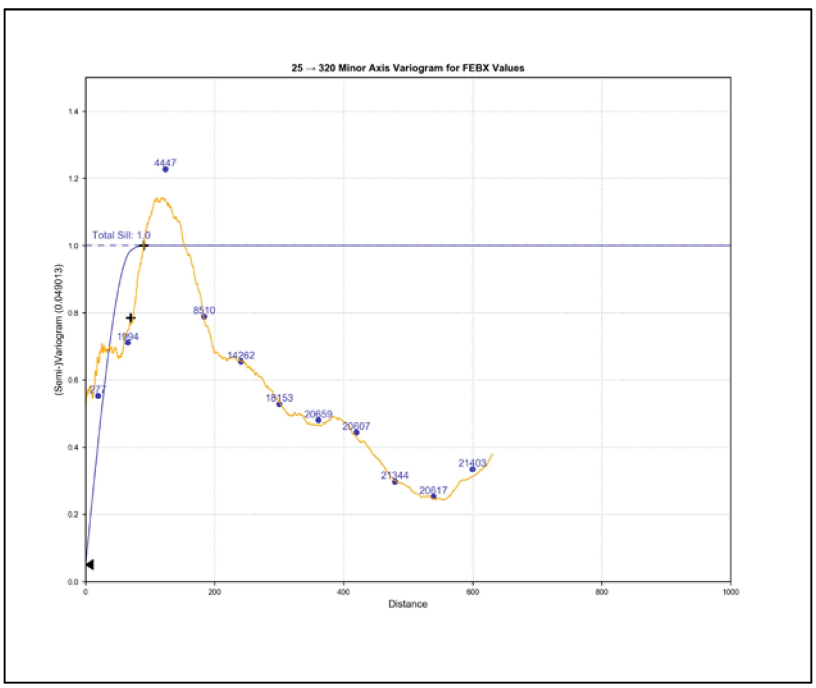

Figure C - 11 Minor Axis Variogram for Lithology 20 (FEBX) within the Skarn Domain and Applied to the Granite Porphyry Domain

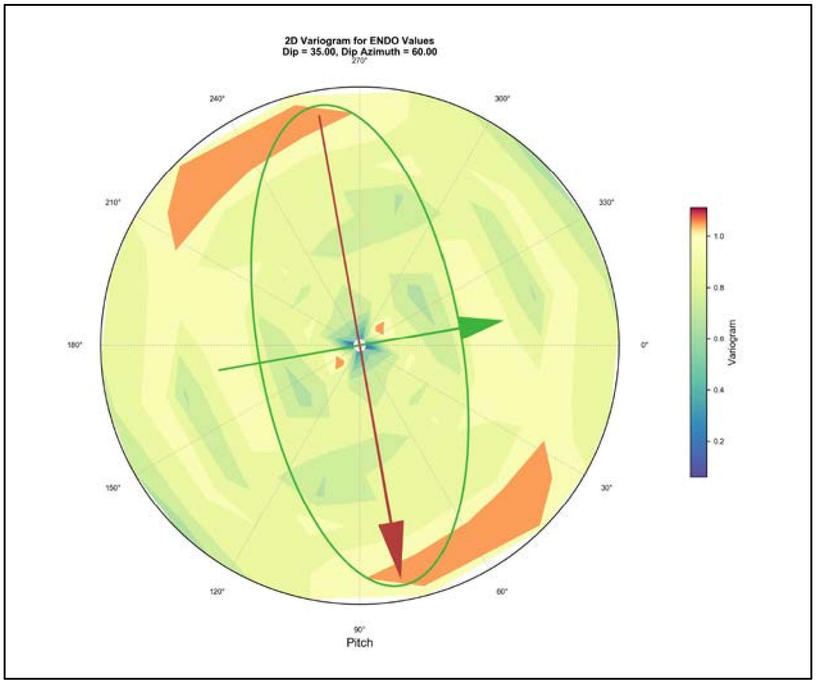

Figure C - 12 Radial Plot for Lithology 30 (ENDO) within the Skarn Domain and Applied to the Granite Porphyry Domain

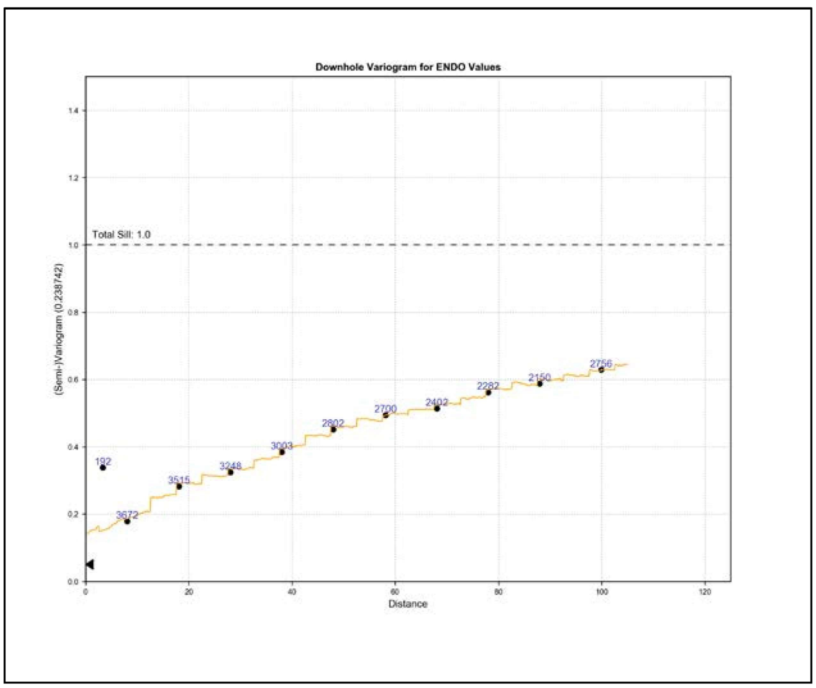

Figure C - 13 Downhole Variogram for Lithology 30 (ENDO) within the Skarn Domain and Applied to the Granite Porphyry Domain

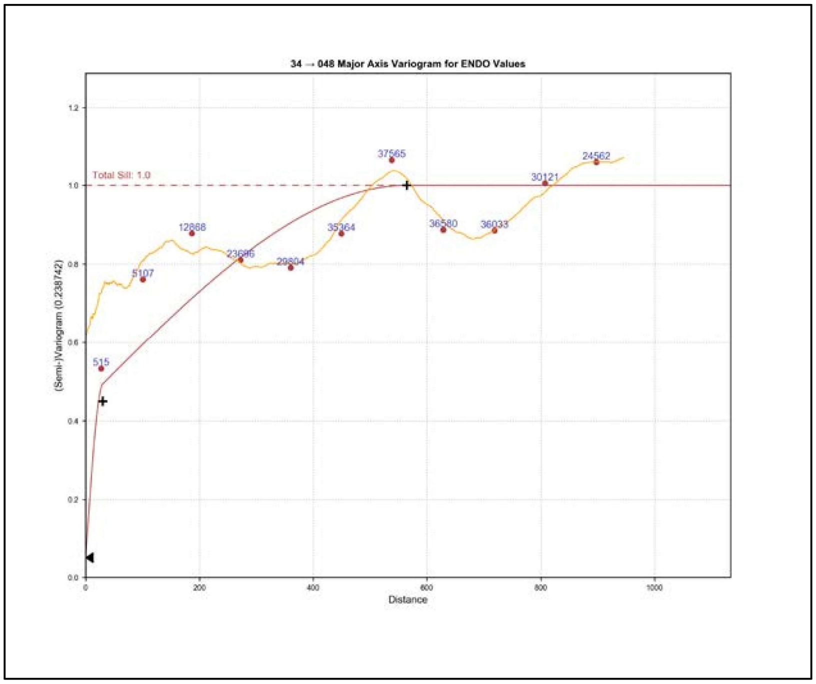

Figure C - 14 Major Axis Variogram for Lithology 30 (ENDO) within the Skarn Domain and Applied to the Granite Porphyry Domain

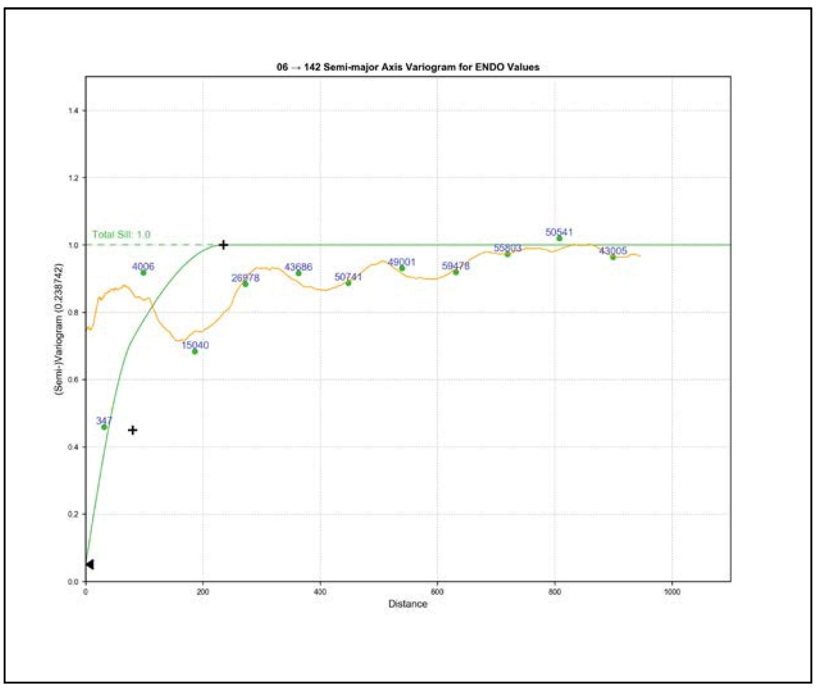

Figure C - 15 Semi-Major Axis Variogram for Lithology 30 (ENDO) within the Skarn Domain and Applied to the Granite Porphyry Domain

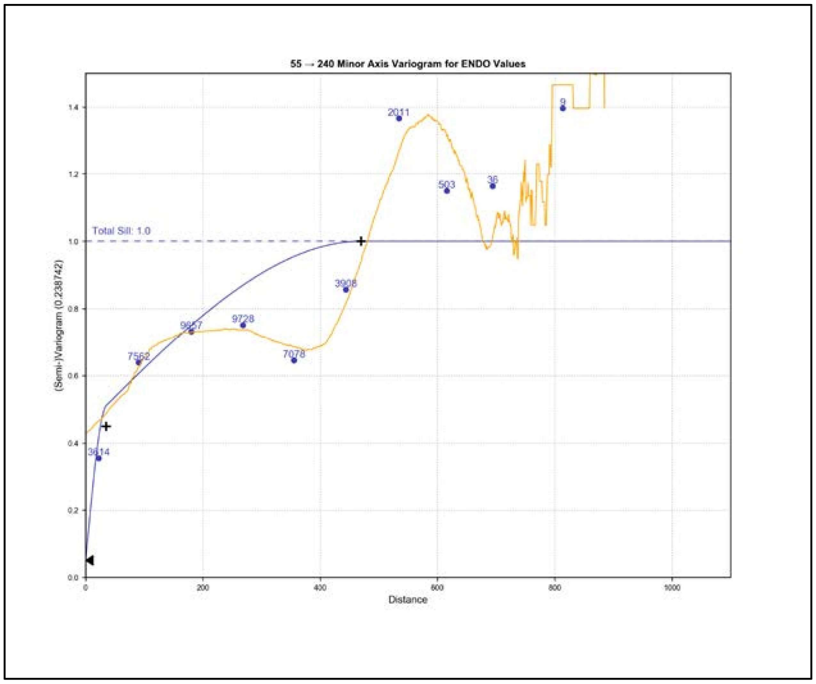

Figure C - 16 Minor Axis Variogram for Lithology 30 (ENDO) within the Skarn Domain and Applied to the Granite Porphyry Domain

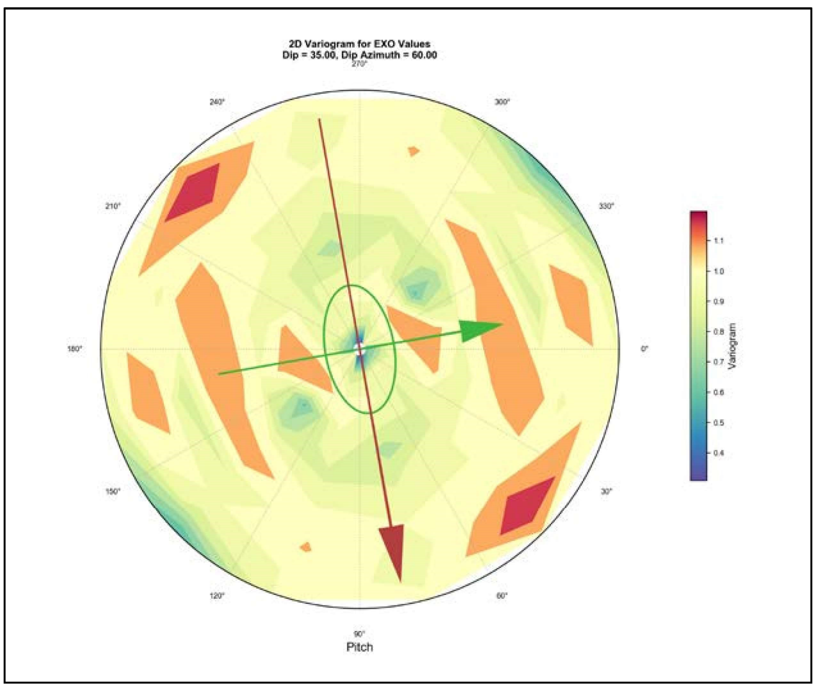

Figure C - 17 Radial Plot for Lithology 32 (EXO) within the Skarn Domain and Applied to the Granite Porphyry Domain

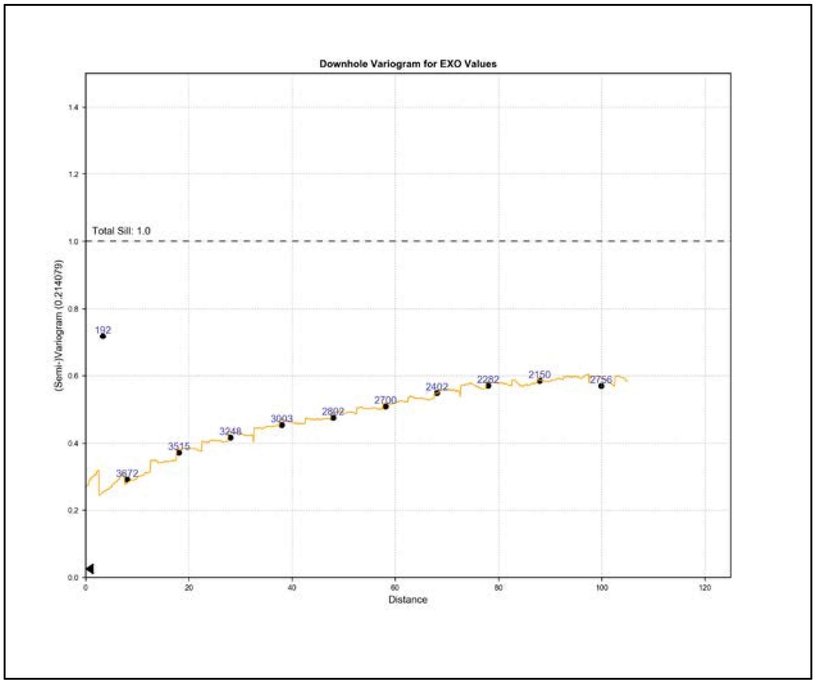

Figure C - 18 Downhole Variogram for Lithology 32 (EXO) within the Skarn Domain and Applied to the Granite Porphyry Domain

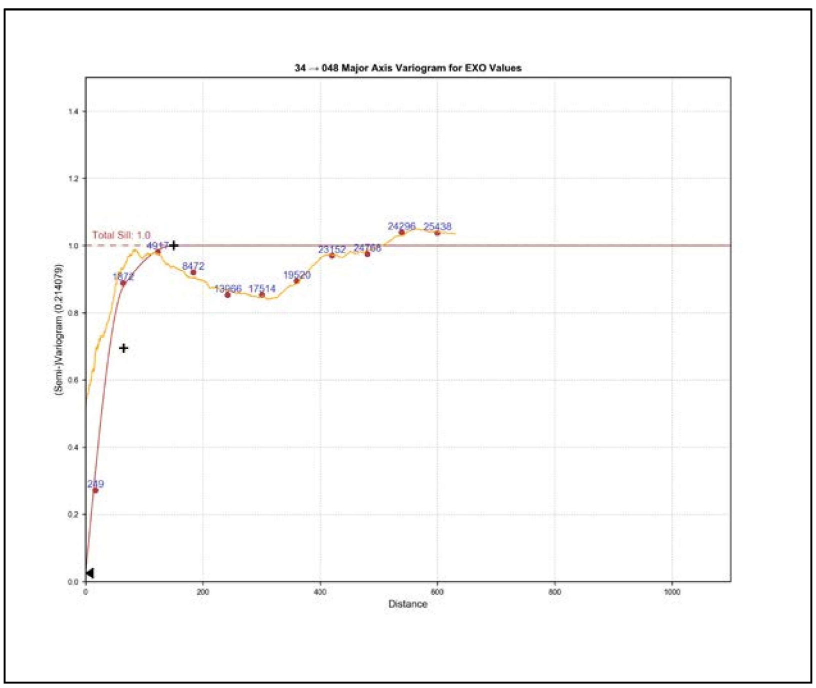

Figure C - 19 Major Axis Variogram for Lithology 32 (EXO) within the Skarn Domain and Applied to the Granite Porphyry Domain

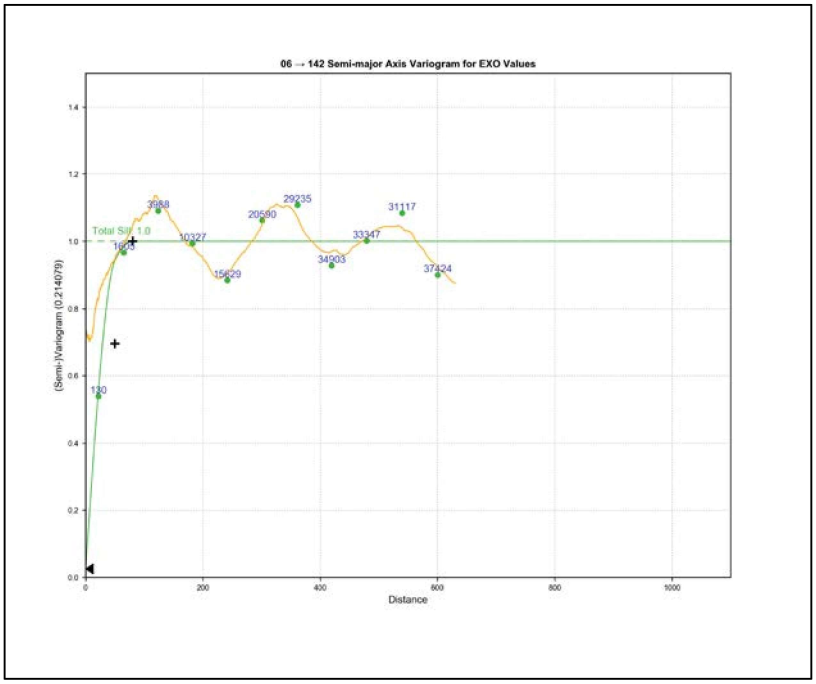

Figure C - 20 Semi-Major Axis Variogram for Lithology 32 (EXO) within the Skarn Domain and Applied to the Granite Porphyry Domain

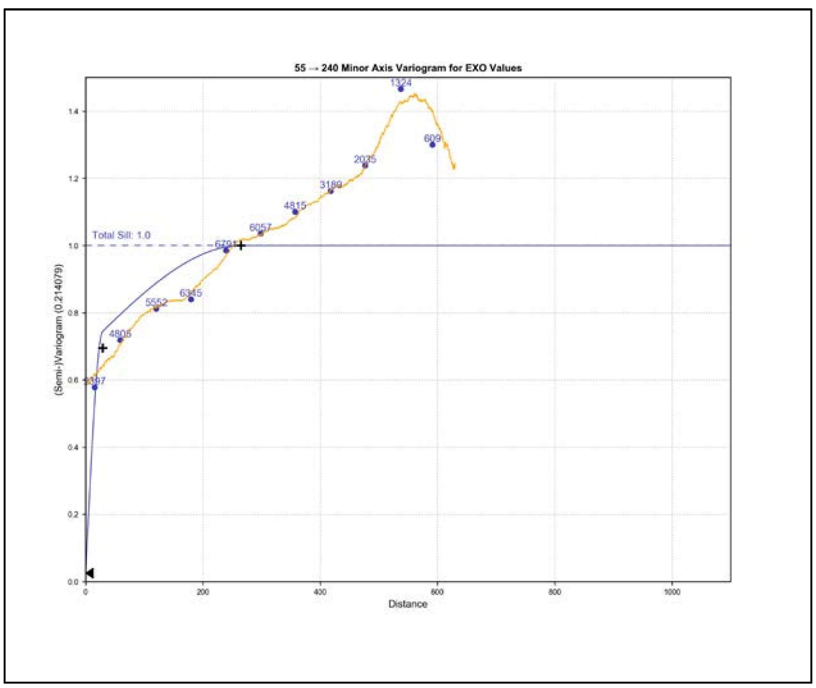

Figure C - 21 Minor Axis Variogram for Lithology 32 (EXO) within the Skarn Domain and Applied to the Granite Porphyry Domain

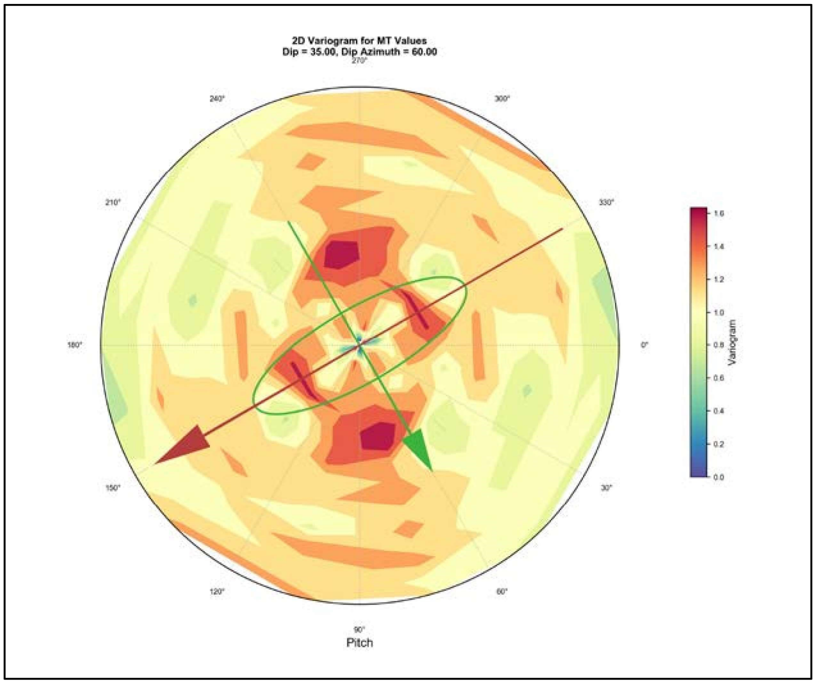

Figure C - 22 Radial Plot for Lithology 34 (MT) within the Skarn Domain and Applied to the Granite Porphyry Domain

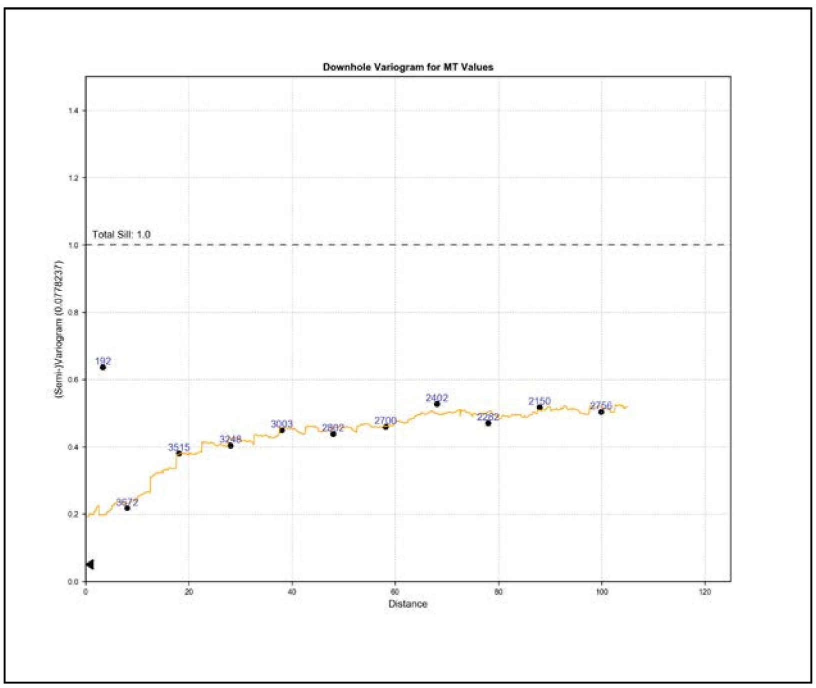

Figure C - 23 Downhole Variogram for Lithology 34 (MT) within the Skarn Domain and Applied to the Granite Porphyry Domain

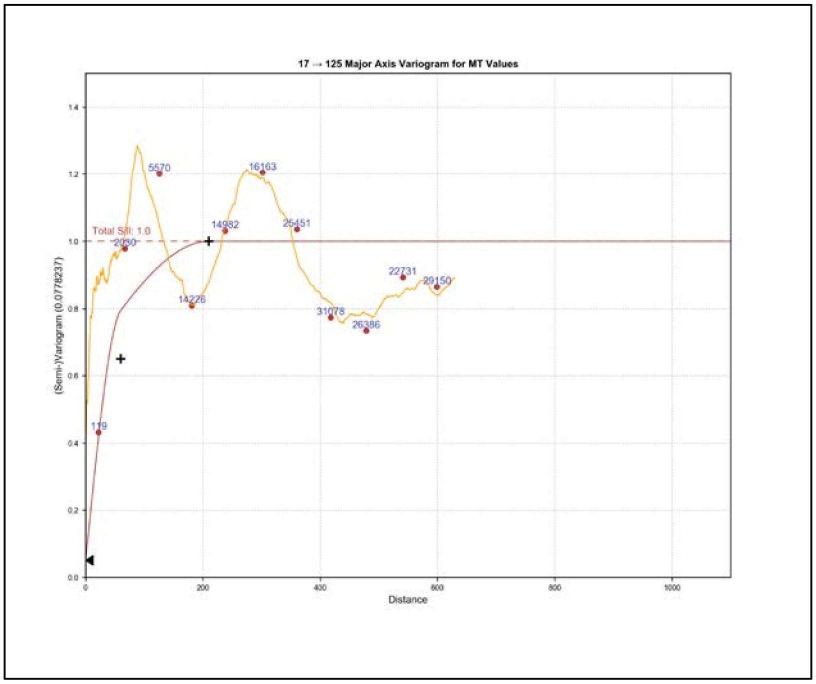

Figure C - 24 Major Axis Variogram for Lithology 34 (MT) within the Skarn Domain and Applied to the Granite Porphyry Domain

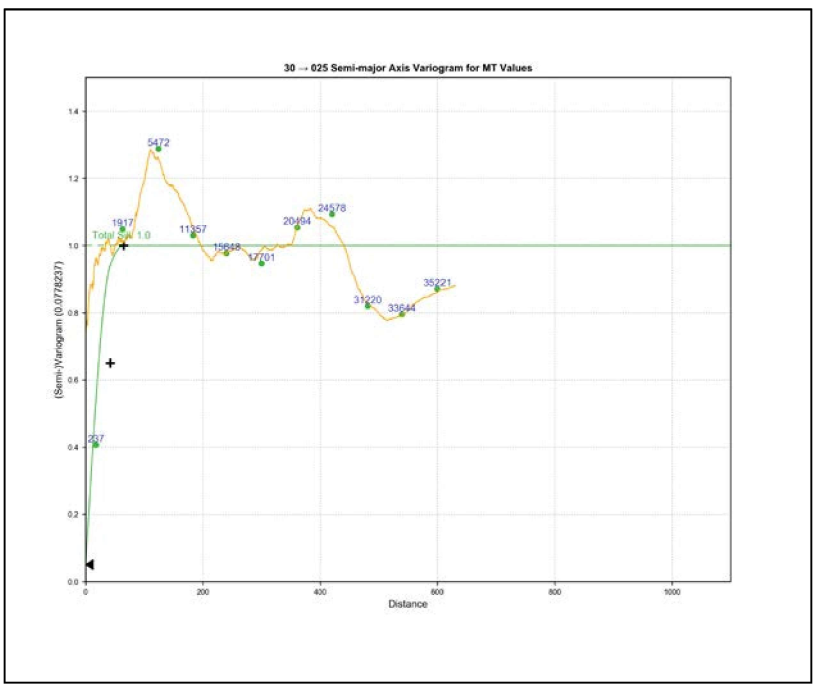

Figure C - 25 Semi-Major Axis Variogram for Lithology 34 (MT) within the Skarn Domain and Applied to the Granite Porphyry Domain

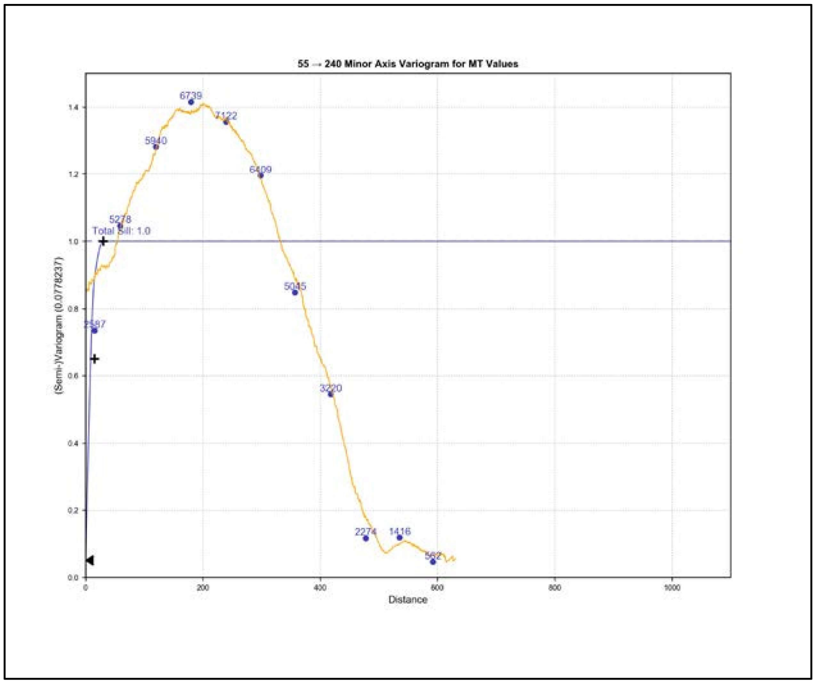

Figure C - 26 Minor Axis Variogram for Lithology 34 (MT) within the Skarn Domain and Applied to the Granite Porphyry Domain

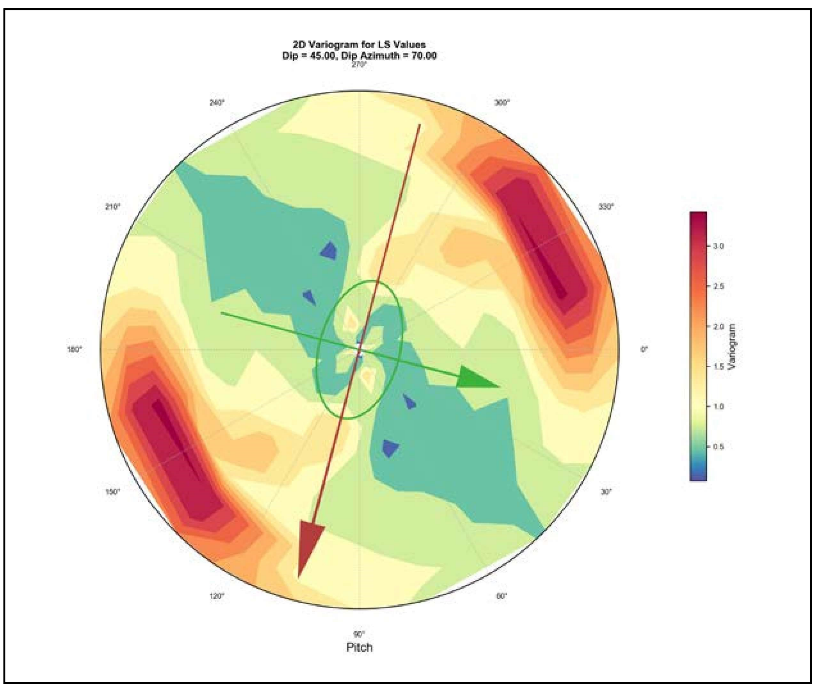

Figure C - 27 Radial Plot for Lithology 51 (LS) within the Skarn Domain and Applied to the Granite Porphyry Domain

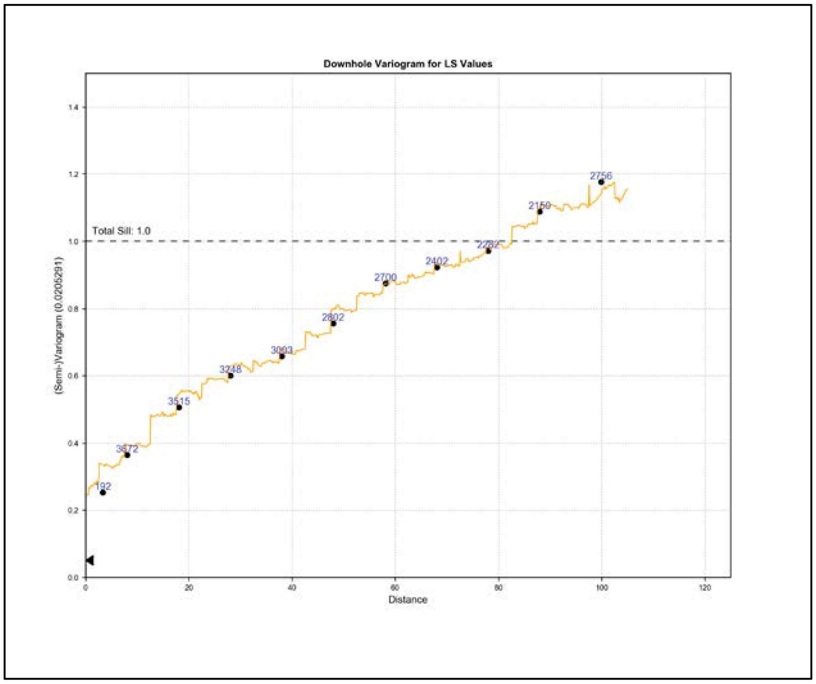

Figure C - 28 Downhole Variogram for Lithology 51 (LS) within the Skarn Domain and Applied to the Granite Porphyry Domain

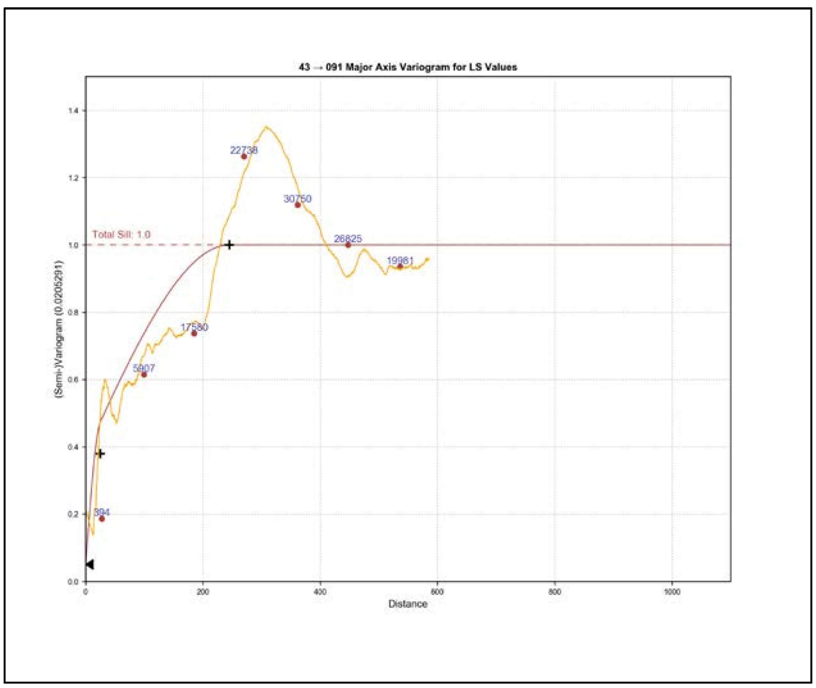

Figure C - 29 Major Axis Variogram for Lithology 51 (LS) within the Skarn Domain and Applied to the Granite Porphyry Domain

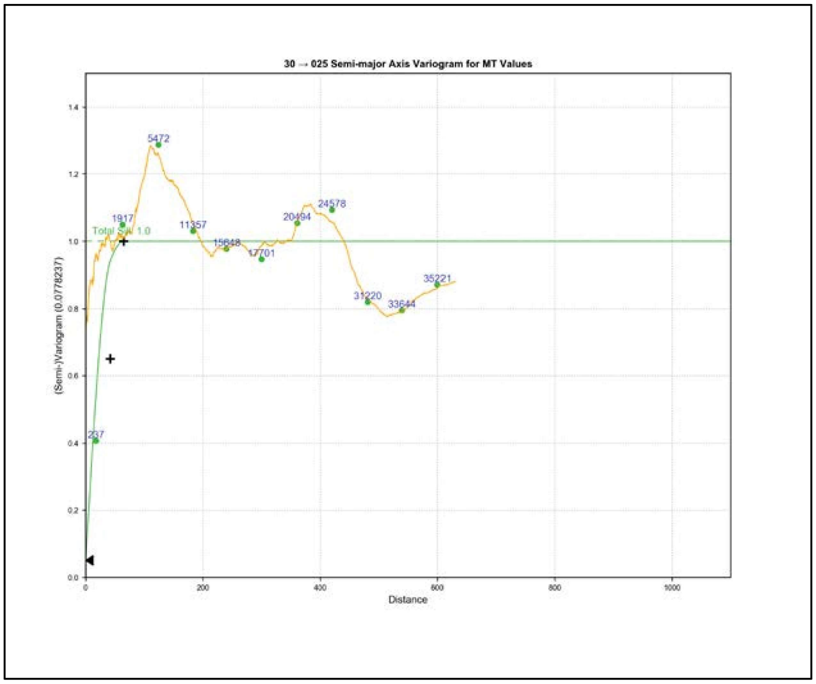

Figure C - 30 Semi-Major Axis Variogram for Lithology 51 (LS) within the Skarn Domain and Applied to the Granite Porphyry Domain

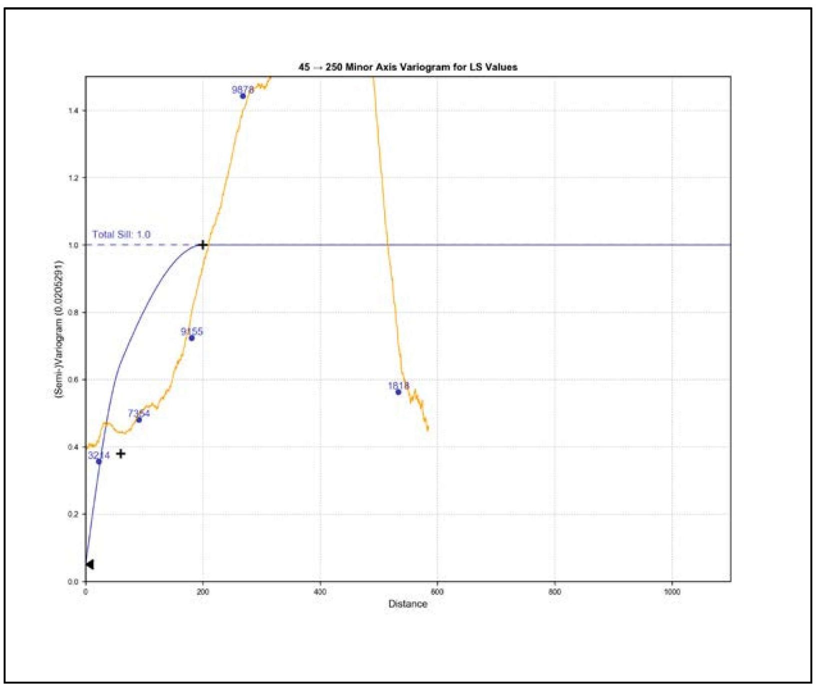

Figure C - 31 Minor Axis Variogram for Lithology 51 (LS) within the Skarn Domain and Applied to the Granite Porphyry Domain

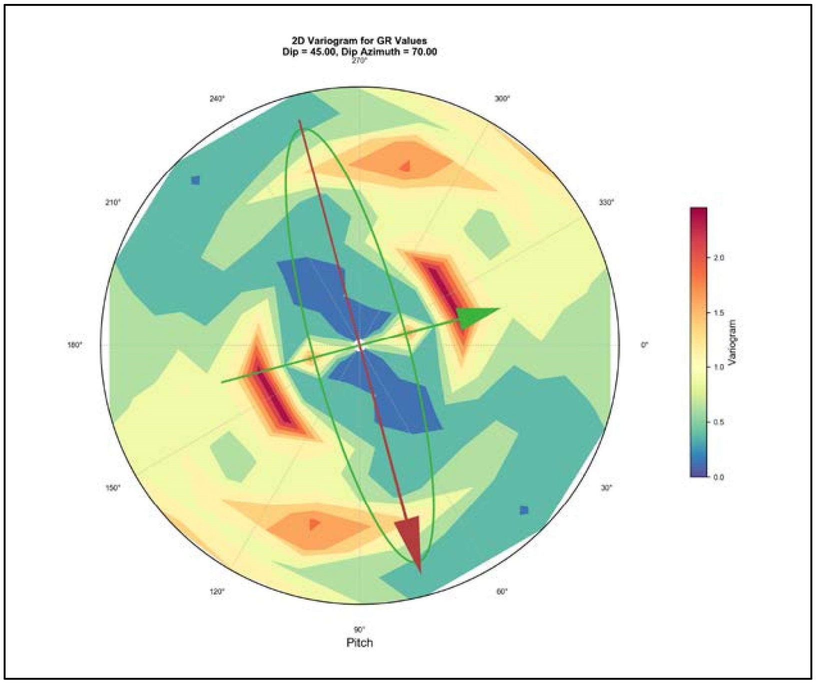

Figure C - 32 Radial Plot for Lithology 60 (GR) within the Skarn Domain and Applied to the Granite Porphyry Domain

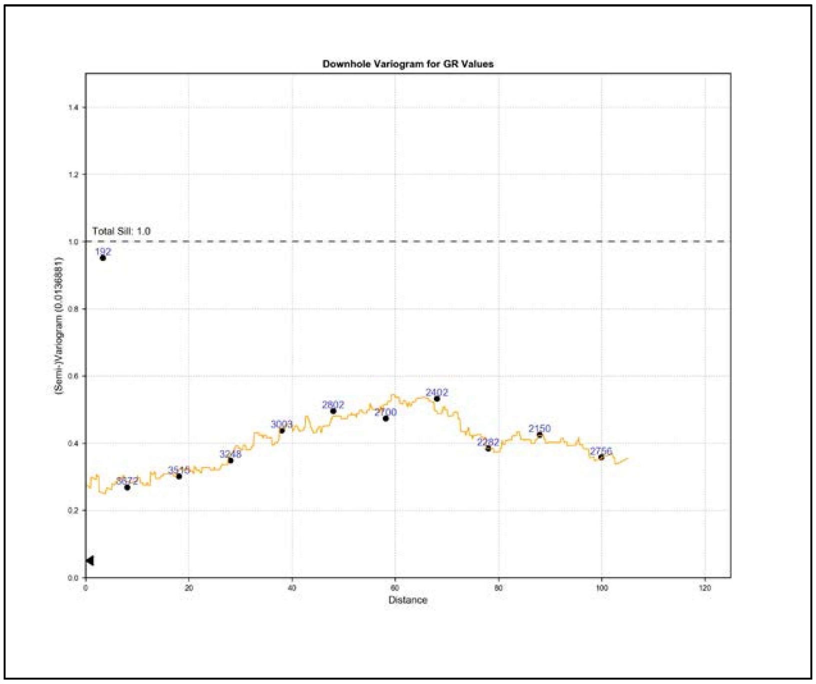

Figure C - 33 Downhole Variogram for Lithology 60 (GR) within the Skarn Domain and Applied to the Granite Porphyry Domain

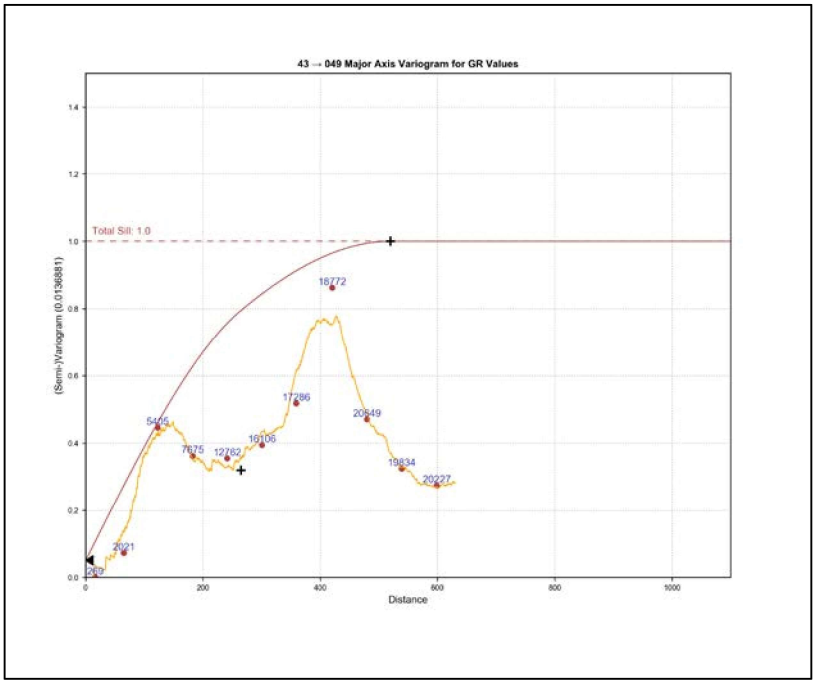

Figure C - 34 Major Axis Variogram for Lithology 60 (GR) within the Skarn Domain and Applied to the Granite Porphyry Domain

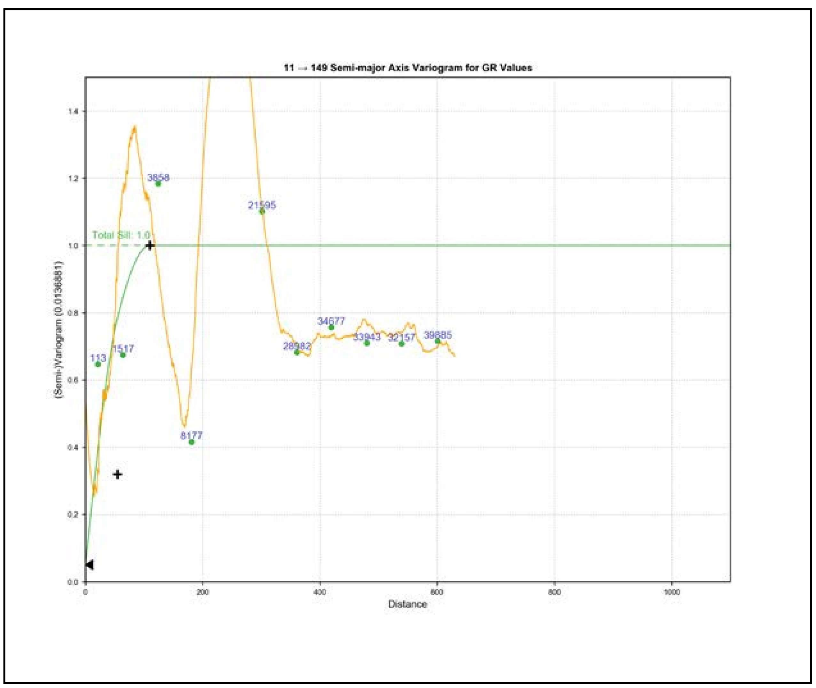

Figure C - 35 Semi-Major Axis Variogram for Lithology 60 (GR) within the Skarn Domain and Applied to the Granite Porphyry Domain

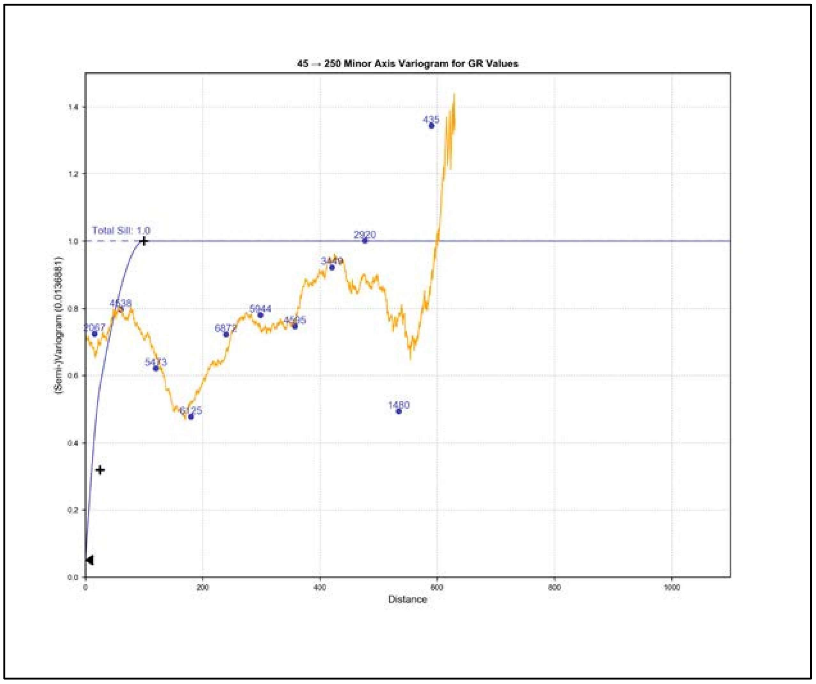

Figure C - 36 Minor Axis Variogram for Lithology 60 (GR) within the Skarn Domain and Applied to the Granite Porphyry Domain

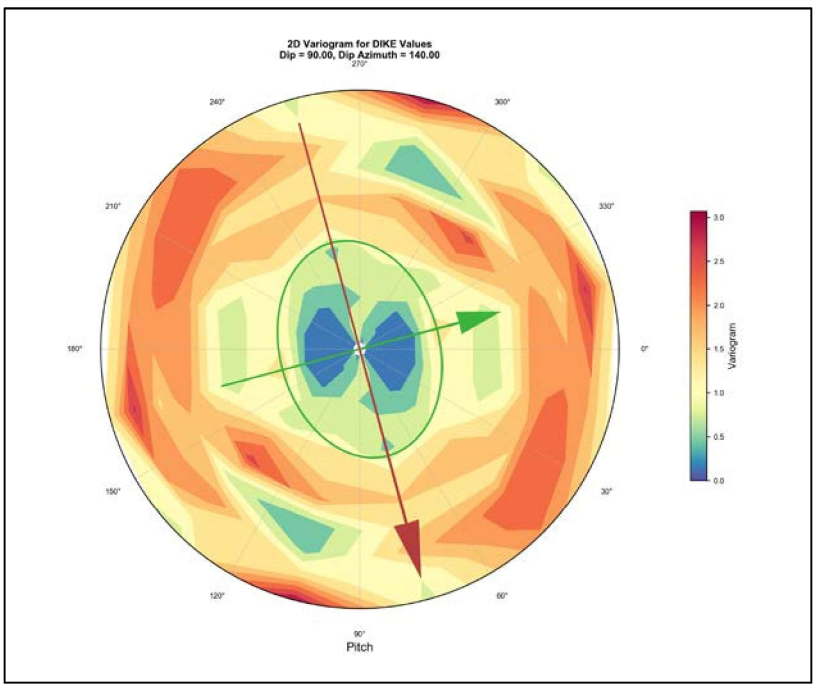

Figure C - 37 Radial Plot for Lithology 61 (DIKE) within the Granite Porphyry Domain

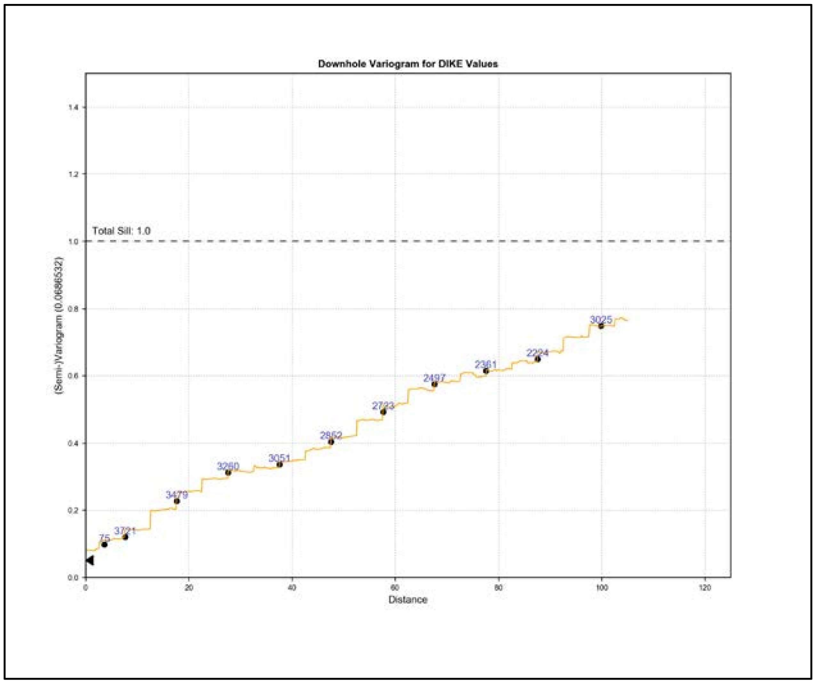

Figure C - 38 Downhole Variogram for Lithology 61 (DIKE) within the Granite Porphyry Domain

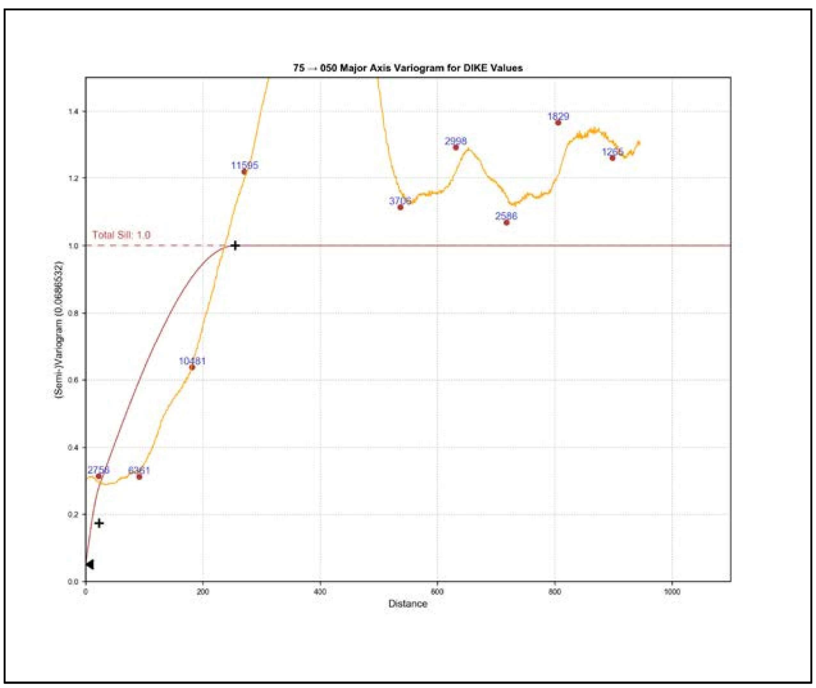

Figure C - 39 Major Axis Variogram for Lithology 61 (DIKE) within the Granite Porphyry Domain

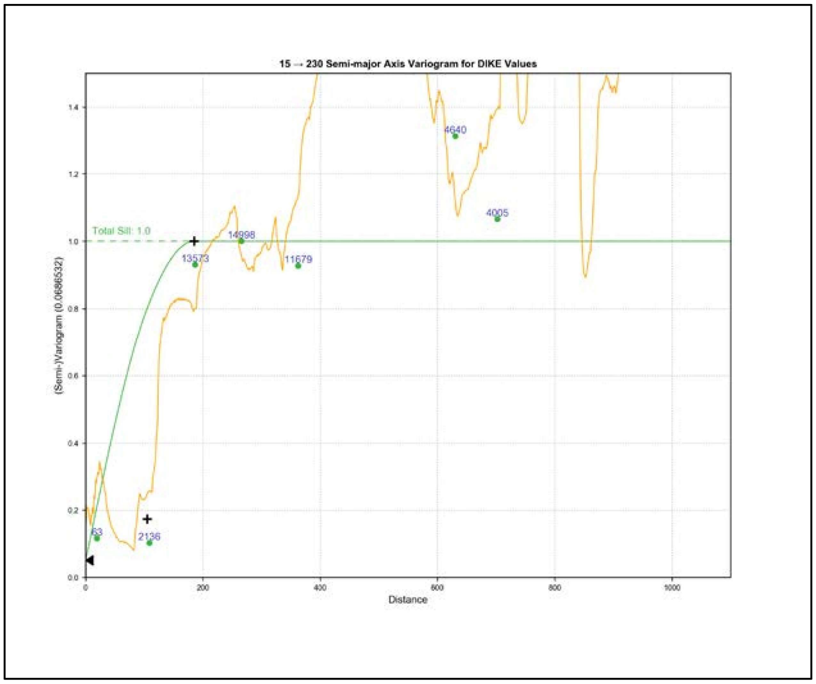

Figure C - 40 Semi-Major Axis Variogram for Lithology 61 (DIKE) within the Granite Porphyry Domain

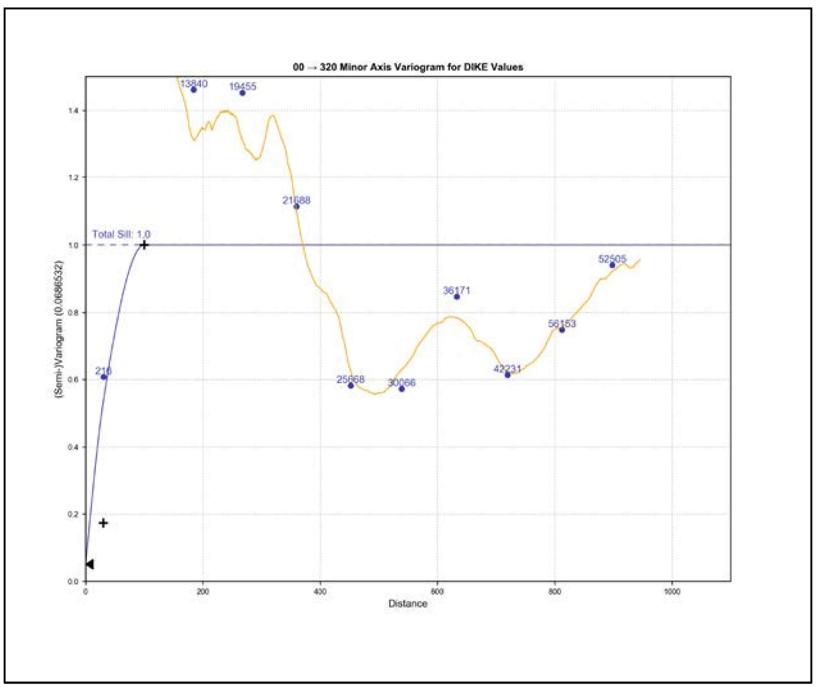

Figure C - 41 Minor Axis Variogram for Lithology 61 (DIKE) within the Granite Porphyry Domain

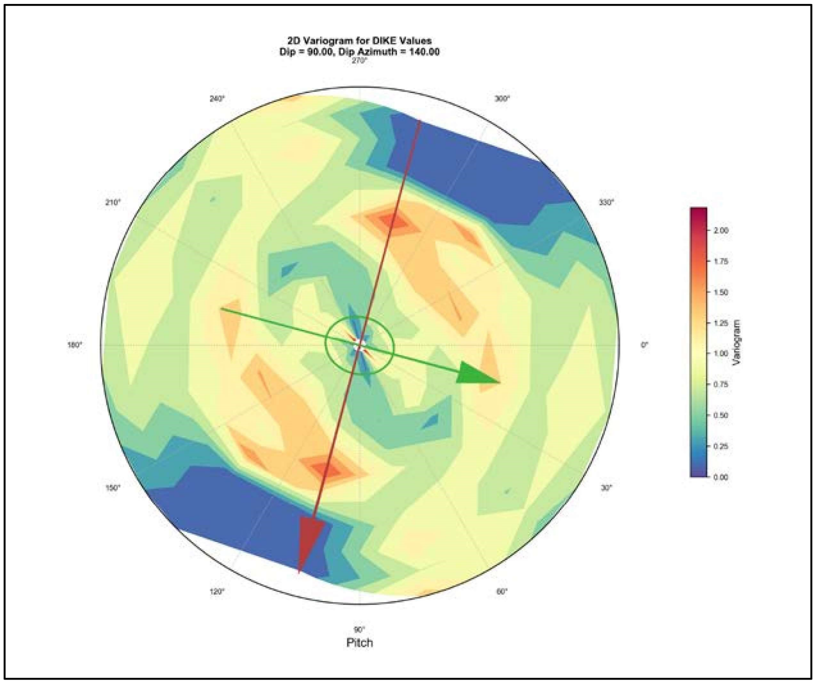

Figure C - 42 Radial Plot for Lithology 61 (DIKE) within the Skarn Domain

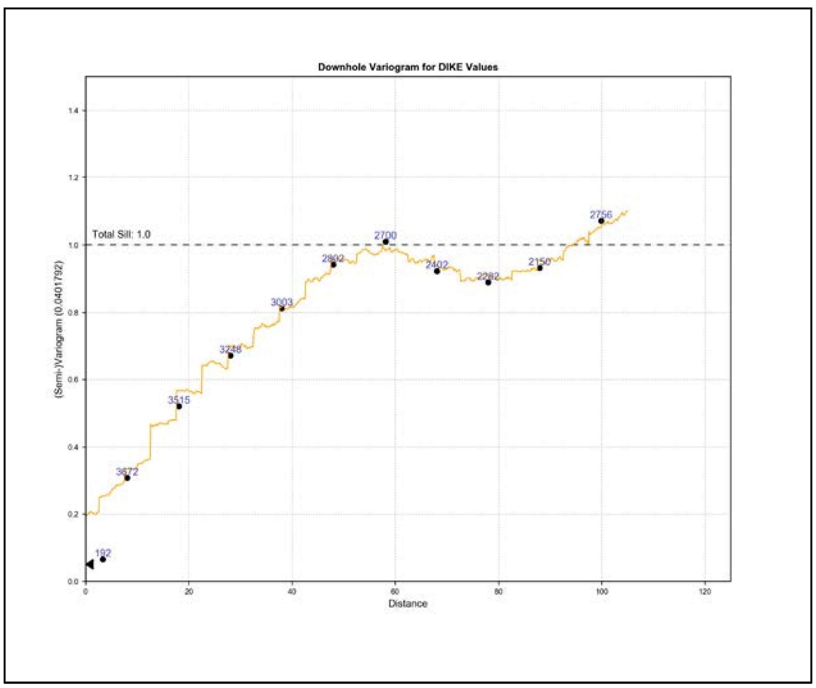

Figure C - 43 Downhole Variogram for Lithology 61 (DIKE) within the Skarn Domain

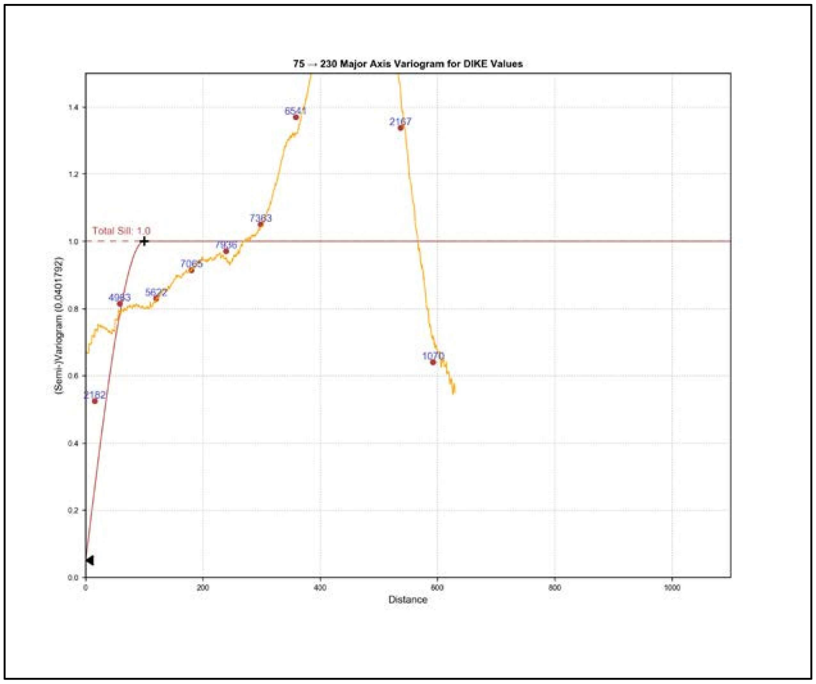

Figure C - 44 Major Axis Variogram for Lithology 61 (DIKE) within the Skarn Domain

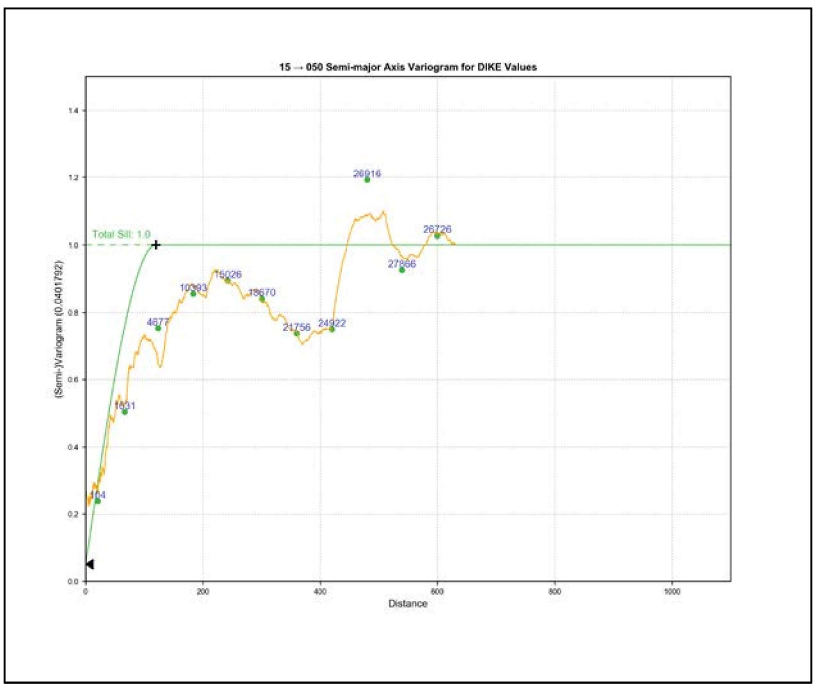

Figure C - 45 Semi-Major Axis Variogram for Lithology 61 (DIKE) within the Skarn Domain

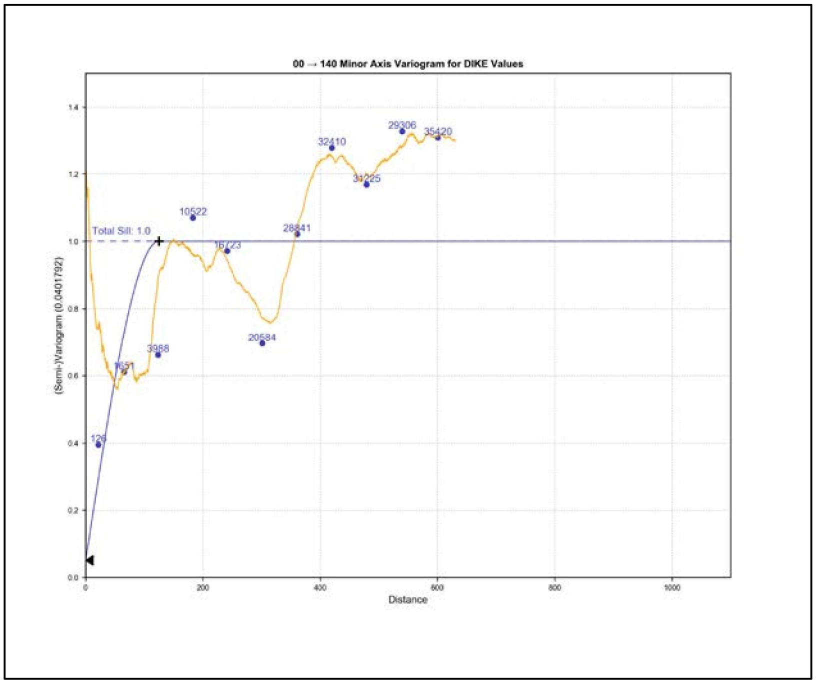

Figure C - 46 Minor Axis Variogram for Lithology 61 (DIKE) within the Skarn Domain

Estimation parameters for the lithology indicator estimate are summarized for each lithology type it Table C-2. An inverse distance to the power of 2.5 was used to interpolate the lithology indicators. The search ellipse was oriented in the direction of the geologic features. Ranges were based on the variogram parameters. The implementation of single drillhole estimation with no more than two (2) samples from a single drillhole allows for a more realistic representation of the volume. A variable orientation (Figure C-47) defined by the observed trend in copper grades was used for estimating the skarn and GP rock types. A final geologic model (Figures C-48 through C-50) was created by assigning a block with the highest estimated probability to that estimates lithology. Blocks without an estimate were assigned the code from the broad geologic domain model.

Table C - 2 Indicator Lithology Estimation Parameters for the Skarn and Granite Porphyry Domains

Rock Types 12, 30, 32, 34			**Rock Type 20**		
Search Ellipse Range (ft)			**Search Ellipse Range (ft)**		
Major	*Semi-Major*	*Minor*	*Major*	*Semi-Major*	*Minor*
300	175	100	170	300	50
Search Ellipse Orientation			**Search Ellipse Orientation**		
Dip	*Dip Azi.*	*Pitch*	*Dip*	*Dip Azi.*	*Pitch*
Variable Orientation			65	140	75
Sample Selection			**Sample Selection**		
Minimum	*Maximum*	*Max/DH*	*Minimum*	*Maximum*	*Max/DH*
2	8	2	2	8	2
Rock Types 51, 60			**Rock Type 61**		
Search Ellipse Range (ft)			**Search Ellipse Range (ft)**		
Major	*Semi-Major*	*Minor*	*Major*	*Semi-Major*	*Minor*
300	230	100	170	300	50
Search Ellipse Orientation			**Search Ellipse Orientation**		
Dip	*Dip Azi.*	*Pitch*	*Dip*	*Dip Azi.*	*Pitch*
45	70	105	90	140	90
Sample Selection			**Sample Selection**		
Minimum	*Maximum*	*Max/DH*	*Minimum*	*Maximum*	*Max/DH*
2	8	2	2	8	2

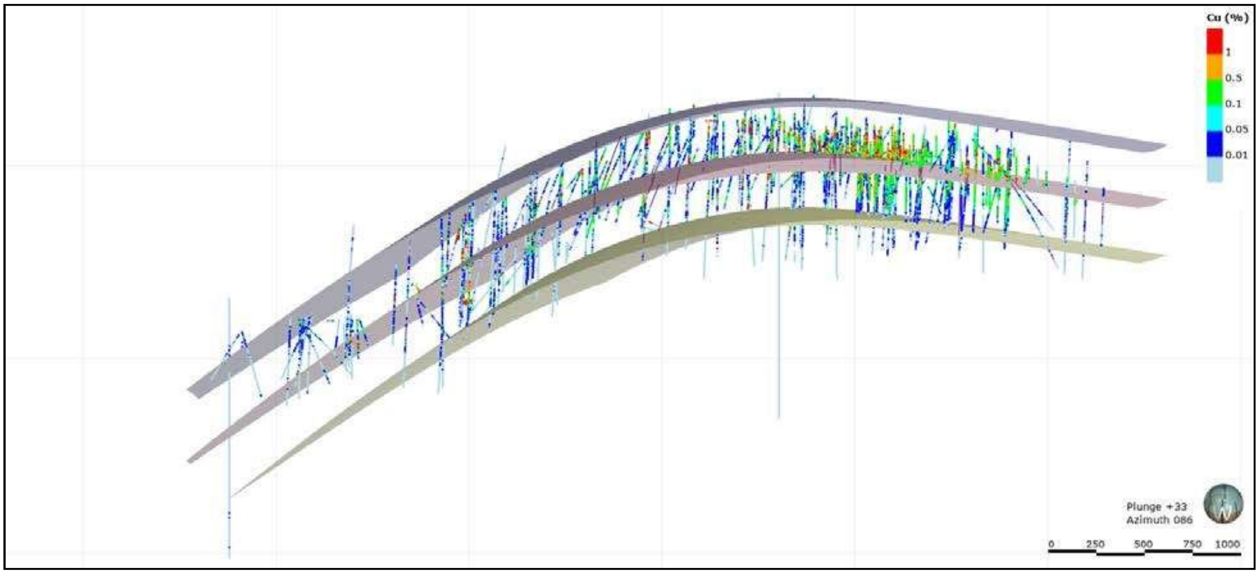

Figure C - 47 Oblique view of Surfaces used to define the Variable Orientation

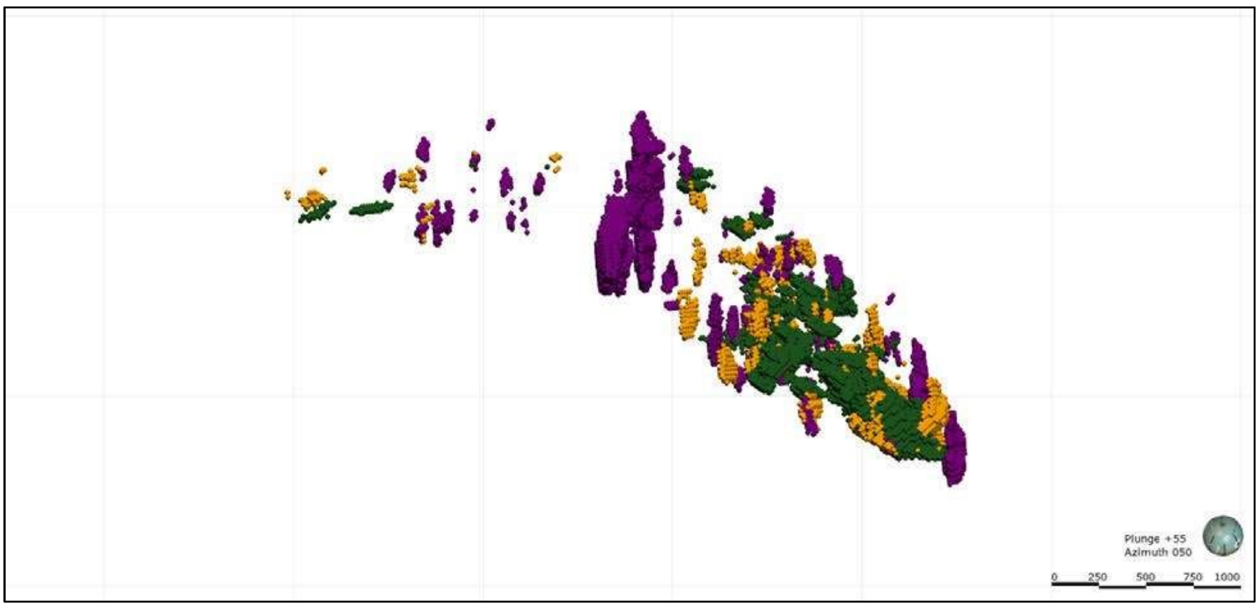

Figure C - 48 Oblique View of Final Geologic Model Showing Dikes (61) MT Skarns (34), and FEBX (20)

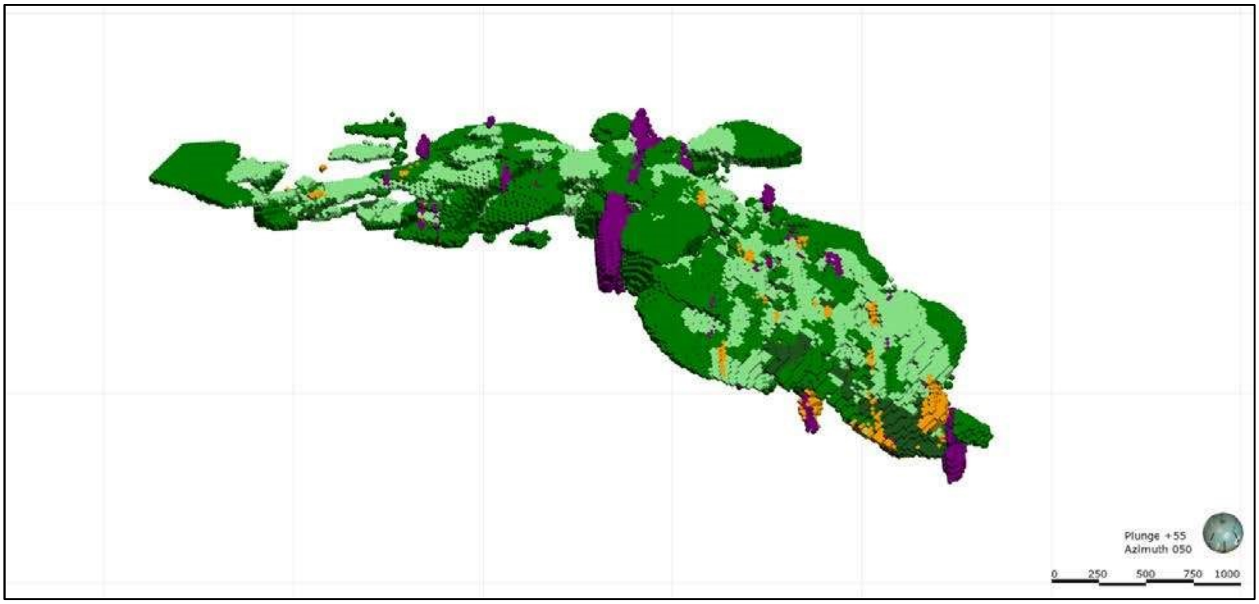

Figure C - 49 Oblique View of Final Geologic Model with Exo (32) and Endo (30) Skarns Added.

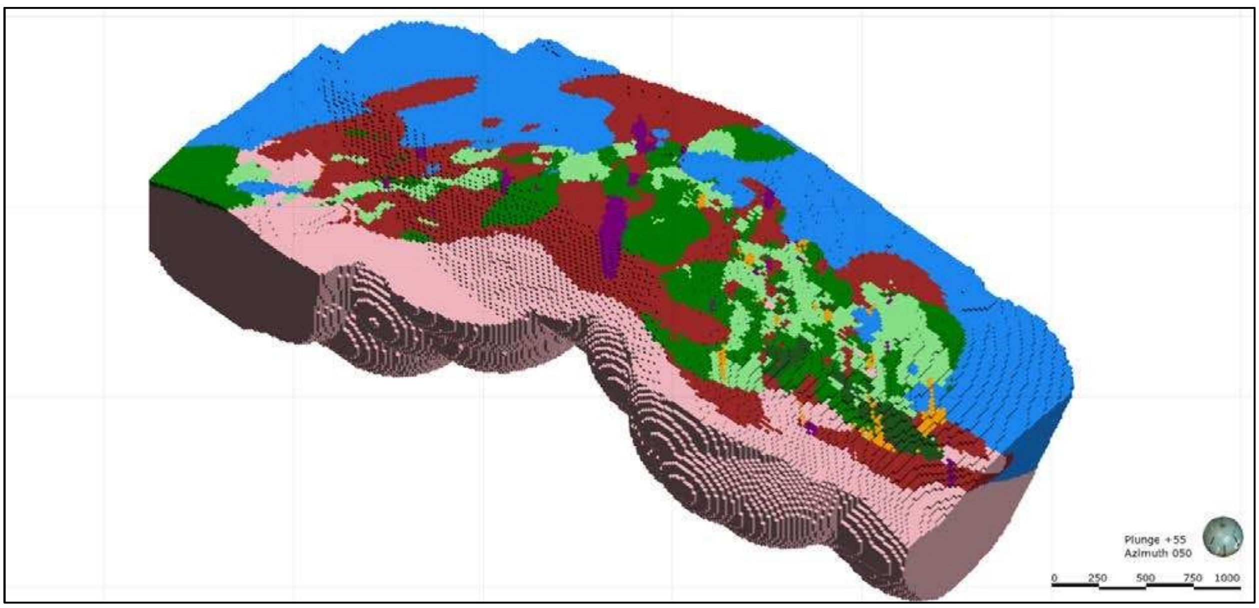

Figure C - 50 Oblique View of Final Geologic Model with GP (12) GR (60) and LS (51) Added.

An ordinary kriging interpolant was used as a validation for the inverse distance model. The geologic model was validated by comparing the back marked lithology (Tables C-3 through C-13) and assay information to the original assay and lithology table. For Table C-3, matching percent was defined by those intervals that that matched the original lithology and intervals without a lithology from the original logs. Non-matching percent are all other lithology types. Both models show matching percent above 80% for most lithologies.

Table C - 3 Comparison of Back Marked Lithology to Original Lithology Logs.

Domain	Inverse Distance Model			Ordinary Kriging Model		
	Modeled Interval Count	Matching %	Non-matched %	Modeled Interval Count	Matching %	Non-matched %
10 OVB	199	73.37	26.63	199	73.37	26.63
12 GP	1,338	89.61	10.39	1,338	89.24	10.76
20 FEBX	181	82.00	18.00	175	78.01	21.99
30 ENDO	2,154	91.09	8.91	2,154	90.30	9.70
32 EXO	1,245	80.24	19.76	1,245	80.64	19.36
34 MT	309	77.99	22.01	249	79.61	20.39
51 LS	521	90.02	9.98	521	90.98	9.02
60 GR	768	92.71	7.29	768	92.58	7.42
61 DIKE	371	74.66	25.34	371	74.12	25.88

Table C - 4 Comparison of Global Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	20,133	4.913	21.543	4.39	0.001	0.300	1.000	3.400	1500.000
	Mod ID	5,601	4.913	14.951	3.04	0.001	0.388	1.150	3.775	414.000
	Mod OK	5,601	4.913	14.951	3.04	0.001	0.388	1.150	3.775	414.000
Au (g/t)	Log	20,134	0.157	1.537	9.82	0.001	0.005	0.010	0.060	100.000
	Mod ID	5,601	0.149	1.058	7.12	0.001	0.005	0.015	0.075	54.096
	Mod OK	5,601	0.149	1.058	7.12	0.001	0.005	0.015	0.075	54.096
Cu (%)	Log	22,963	0.1797	0.5244	2.92	0.0001	0.0050	0.0228	0.1280	14.9700
	Mod ID	6,407	0.1721	0.4407	2.56	0.0001	0.0052	0.0268	0.1448	9.4500
	Mod OK	6,407	0.1721	0.4407	2.56	0.0001	0.0052	0.0268	0.1448	9.4500
Zn (%)	Log	19,565	0.1031	0.2630	2.55	0.0003	0.0114	0.0300	0.0865	8.8200
	Mod ID	5,396	0.0946	0.2068	2.19	0.0010	0.0135	0.0322	0.0884	3.6225
	Mod OK	5,396	0.0946	0.2068	2.19	0.0010	0.0135	0.0322	0.0884	3.6225

Table C - 5 Comparison of 10 OVB Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	252	6.409	7.895	1.23	0.001	1.300	3.700	8.300	57.700
	Mod ID	411	12.518	31.168	2.49	0.001	0.725	3.200	9.800	414.000
	Mod OK	411	12.518	31.168	2.49	0.001	0.725	3.200	9.800	414.000
Au (g/t)	Log	252	0.105	0.206	1.95	0.001	0.005	0.020	0.110	2.080
	Mod ID	411	0.259	1.852	7.15	0.001	0.006	0.030	0.133	36.000
	Mod OK	411	0.259	1.852	7.15	0.001	0.006	0.030	0.133	36.000
Cu (%)	Log	392	0.2982	0.4038	1.35	0.0010	0.0334	0.1400	0.4400	3.9000
	Mod ID	464	0.3965	0.8862	2.23	0.0010	0.0147	0.0975	0.4230	8.9700
	Mod OK	464	0.3965	0.8862	2.23	0.0010	0.0147	0.0975	0.4230	8.9700
Zn (%)	Log	242	0.1068	0.1445	1.35	0.0010	0.0294	0.0571	0.1200	1.0850
	Mod ID	408	0.0853	0.1422	1.67	0.0010	0.0211	0.0533	0.0979	1.6650
	Mod OK	408	0.0853	0.1422	1.67	0.0010	0.0211	0.0533	0.0979	1.6650

Table C - 6 Comparison of 12 GP Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	3,214	2.065	27.082	13.12	0.001	0.250	0.700	1.400	1500.000
	Mod ID	872	2.177	13.805	6.34	0.001	0.301	0.700	1.556	394.100
	Mod OK	876	1.694	3.744	2.21	0.001	0.300	0.693	1.498	50.635
Au (g/t)	Log	3,214	0.034	0.216	6.37	0.001	0.004	0.006	0.015	7.620
	Mod ID	872	0.043	0.143	3.29	0.001	0.004	0.008	0.020	2.238
	Mod OK	876	0.040	0.120	3.01	0.001	0.004	0.008	0.019	1.182
Cu (%)	Log	3,552	0.0394	0.1585	4.02	0.0003	0.0040	0.0100	0.0250	3.4000
	Mod ID	953	0.0486	0.1401	2.88	0.0007	0.0037	0.0103	0.0315	1.8505
	Mod OK	953	0.0453	0.1375	3.03	0.0007	0.0036	0.0100	0.0300	1.8505
Zn (%)	Log	3,102	0.0481	0.1282	2.66	0.0010	0.0100	0.0166	0.0301	2.3200
	Mod ID	822	0.0483	0.1372	2.84	0.0010	0.0100	0.0163	0.0381	2.8195
	Mod OK	828	0.0481	0.1360	2.83	0.0010	0.0100	0.0164	0.0384	2.8195

Table C - 7 Comparison of 20 FEXB Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	715	10.995	57.687	5.25	0.001	1.800	4.100	10.200	1500.000
	Mod ID	169	8.223	11.657	1.42	0.001	1.903	3.575	9.775	73.578
	Mod OK	163	8.400	11.566	1.38	0.001	1.930	3.850	10.075	73.578
Au (g/t)	Log	715	0.176	0.398	2.26	0.001	0.020	0.063	0.170	6.670
	Mod ID	169	0.146	0.275	1.88	0.001	0.026	0.066	0.155	2.468
	Mod OK	163	0.171	0.307	1.79	0.001	0.022	0.068	0.169	2.468
Cu (%)	Log	758	0.2904	0.4434	1.53	0.0010	0.0520	0.1200	0.3360	4.8000
	Mod ID	180	0.2555	0.3436	1.34	0.0010	0.0551	0.1170	0.3100	1.8078
	Mod OK	179	0.2644	0.3490	1.32	0.0010	0.0570	0.1283	0.3485	2.0530
Zn (%)	Log	707	0.2215	0.4778	2.16	0.0010	0.0500	0.0800	0.1830	5.5200
	Mod ID	168	0.1817	0.2626	1.45	0.0010	0.0442	0.0799	0.2145	1.9848
	Mod OK	162	0.2039	0.3808	1.87	0.0010	0.0461	0.0799	0.2145	3.6225

Table C - 8 Comparison of 30 ENDO Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	5,516	4.113	11.015	2.68	0.001	0.500	1.200	3.600	236.300
	Mod ID	1,284	4.070	7.670	1.88	0.001	0.663	1.523	4.181	79.199
	Mod OK	1,290	4.134	7.955	1.92	0.001	0.650	1.525	4.105	79.199
Au (g/t)	Log	5,516	0.143	0.726	5.06	0.001	0.005	0.010	0.067	23.900
	Mod ID	1,284	0.149	0.543	3.64	0.001	0.008	0.020	0.079	12.050
	Mod OK	1,290	0.146	0.535	3.66	0.001	0.008	0.020	0.083	12.050
Cu (%)	Log	6,020	0.1414	0.3552	2.51	0.0001	0.0083	0.0290	0.1200	7.1400
	Mod ID	1,429	0.1643	0.3872	2.36	0.0008	0.0114	0.0440	0.1675	9.4500
	Mod OK	1,422	0.1583	0.3045	1.92	0.0008	0.0112	0.0434	0.1650	3.3418
Zn (%)	Log	5,443	0.0985	0.2314	2.35	0.0003	0.0157	0.0300	0.0800	3.0200
	Mod ID	1,254	0.0957	0.1932	2.02	0.0010	0.0175	0.0346	0.0837	2.4825
	Mod OK	1,252	0.0970	0.2064	2.13	0.0010	0.0175	0.0345	0.0823	2.4825

Table C - 9 Comparison of 32 EXO Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	4,064	10.199	26.343	2.58	0.001	0.700	2.400	8.200	510.300
	Mod ID	1,064	9.509	20.310	2.14	0.001	0.857	2.700	8.736	274.000
	Mod OK	1,064	9.422	20.192	2.14	0.001	0.868	2.725	8.725	274.000
Au (g/t)	Log	4,065	0.343	2.821	8.22	0.001	0.005	0.038	0.160	100.000
	Mod ID	1,064	0.271	1.722	6.34	0.001	0.010	0.049	0.171	54.096
	Mod OK	1,064	0.276	1.724	6.25	0.001	0.010	0.048	0.176	54.096
Cu (%)	Log	5,352	0.3941	0.8452	2.14	0.0005	0.0200	0.1060	0.3900	14.9700
	Mod ID	1,348	0.3384	0.5652	1.67	0.0007	0.0250	0.1118	0.3789	4.6802
	Mod OK	1,363	0.3459	0.6142	1.78	0.0007	0.0263	0.1196	0.3838	9.4500
Zn (%)	Log	3,815	0.1731	0.3931	2.27	0.0007	0.0200	0.0520	0.1600	8.8200
	Mod ID	985	0.1697	0.3307	1.95	0.0010	0.0227	0.0600	0.1699	3.6225
	Mod OK	988	0.1639	0.3015	1.84	0.0010	0.0225	0.0600	0.1731	3.5087

Table C - 10 Comparison of 34 MT Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	1,158	5.503	14.684	2.67	0.001	1.000	2.500	5.800	264.000
	Mod ID	314	5.376	10.929	2.03	0.001	1.275	3.325	6.325	174.800
	Mod OK	311	6.617	24.659	3.73	0.001	1.275	3.250	6.275	394.100
Au (g/t)	Log	1,158	0.279	0.834	2.99	0.001	0.010	0.080	0.260	19.863
	Mod ID	314	0.260	0.574	2.21	0.001	0.031	0.096	0.283	7.573
	Mod OK	311	0.257	0.582	2.26	0.001	0.031	0.090	0.265	7.573
Cu (%)	Log	1,422	0.2397	0.5227	2.18	0.0010	0.0306	0.1100	0.2720	9.8700
	Mod ID	380	0.2404	0.4245	1.77	0.0010	0.0427	0.1260	0.2825	6.2200
	Mod OK	374	0.2246	0.4029	1.79	0.0010	0.0400	0.1268	0.2806	6.2200
Zn (%)	Log	1,112	0.1709	0.2742	1.60	0.0010	0.0600	0.1000	0.1700	3.8600
	Mod ID	304	0.1492	0.2203	1.48	0.0010	0.0503	0.0900	0.1475	1.7871
	Mod OK	301	0.1494	0.2139	1.43	0.0010	0.0533	0.0938	0.1500	1.7871

Table C - 11 Comparison of 51 LS Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	1,609	1.926	9.118	4.73	0.001	0.050	0.500	1.500	282.000
	Mod ID	550	2.078	7.935	3.82	0.001	0.126	0.600	1.605	141.150
	Mod OK	551	2.062	7.922	3.84	0.001	0.126	0.600	1.581	141.150
Au (g/t)	Log	1,609	0.104	2.423	23.38	0.001	0.001	0.005	0.010	86.700
	Mod ID	550	0.119	1.436	12.08	0.001	0.002	0.006	0.015	26.011
	Mod OK	551	0.119	1.434	12.10	0.001	0.003	0.006	0.015	26.011
Cu (%)	Log	1,802	0.0418	0.1508	3.61	0.0001	0.0016	0.0060	0.0233	2.7400
	Mod ID	648	0.0399	0.1364	3.42	0.0002	0.0010	0.0058	0.0236	1.8837
	Mod OK	652	0.0402	0.1363	3.39	0.0002	0.0010	0.0058	0.0233	1.8837
Zn (%)	Log	1,546	0.0756	0.1926	2.55	0.0010	0.0100	0.0226	0.0615	3.7800
	Mod ID	518	0.0717	0.1252	1.75	0.0010	0.0100	0.0268	0.0781	0.9361
	Mod OK	522	0.0717	0.1251	1.75	0.0010	0.0100	0.0275	0.0775	0.9361

Table C - 12 Comparison of 60 GR Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	2,111	0.911	3.347	3.67	0.001	0.250	0.400	0.700	78.800
	Mod ID	700	0.919	1.990	2.17	0.001	0.250	0.449	0.800	29.892
	Mod OK	700	0.969	2.124	2.19	0.001	0.250	0.450	0.800	29.892
Au (g/t)	Log	2,111	0.026	0.167	6.30	0.001	0.001	0.005	0.010	6.370
	Mod ID	700	0.034	0.100	2.89	0.001	0.001	0.006	0.018	1.093
	Mod OK	700	0.035	0.099	2.86	0.001	0.001	0.006	0.019	1.093
Cu (%)	Log	2,118	0.0132	0.0698	5.30	0.0001	0.0010	0.0050	0.0100	2.8800
	Mod ID	729	0.0154	0.0420	2.72	0.0001	0.0015	0.0050	0.0125	0.6130
	Mod OK	728	0.0198	0.0803	4.04	0.0001	0.0015	0.0050	0.0125	1.1002
Zn (%)	Log	2,111	0.0341	0.0932	2.73	0.0010	0.0100	0.0186	0.0300	3.1300
	Mod ID	700	0.0373	0.0694	1.86	0.0010	0.0100	0.0194	0.0385	1.1242
	Mod OK	700	0.0371	0.0694	1.87	0.0010	0.0100	0.0195	0.0375	1.1242

Table C - 13 Comparison of 61 DIKE Assay Statistics by Logged Interval to Back Marked Assay Statistics from Model

Metal	Type	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum
Ag (g/t)	Log	842	1.234	3.013	2.44	0.001	0.250	0.500	1.300	63.900
	Mod ID	182	1.458	2.718	1.86	0.001	0.250	0.525	1.449	24.375
	Mod OK	180	1.593	2.998	1.88	0.001	0.250	0.550	1.449	24.375
Au (g/t)	Log	842	0.032	0.121	3.76	0.001	0.003	0.005	0.011	2.089
	Mod ID	182	0.065	0.234	3.61	0.001	0.005	0.008	0.030	2.778
	Mod OK	180	0.062	0.227	3.68	0.001	0.005	0.009	0.033	2.778
Cu (%)	Log	843	0.0247	0.1162	4.71	0.0005	0.0016	0.0053	0.0200	2.9300
	Mod ID	186	0.0350	0.0874	2.50	0.0006	0.0016	0.0071	0.0275	0.8002
	Mod OK	182	0.0366	0.0880	2.40	0.0006	0.0016	0.0075	0.0304	0.8002
Zn (%)	Log	841	0.0532	0.1019	1.92	0.0010	0.0085	0.0200	0.0500	1.0300
	Mod ID	182	0.0519	0.1069	2.06	0.0010	0.0073	0.0174	0.0508	1.1225
	Mod OK	180	0.0591	0.1263	2.14	0.0010	0.0075	0.0175	0.0508	1.1225

APPENDIX D

MINERAL RESOURCE ESTIMATE VARIOGRAPHY

Pairwise or relative variograms were oriented along strike and down dip for the selected domain for each estimated metal. The radial plot was used to determine the direction of continuity. The was established using a combination of down-hole variograms in conjunction with the major, semi-major, and minor axis variograms. The modeled variograms (Figures D – 1 through D –180) and the variogram parameters (Tables D – 1 through D – 36) are presented in this appendix. The orange line in variograms represents 1.5x the moving average of the gamma.

Table D - 1 Pairwise Variogram Parameters for Silver in Overburden

Ag 10 (OVB)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.180	0.200	0.620	1.000
Range (ft)			**Anisotropy**
Major	45	160	5.33
Semi-Major	13	110	3.67
Minor	5	30	1.00
Orientation			
Dip		0	
Dip Azi		90	
Pitch		45	

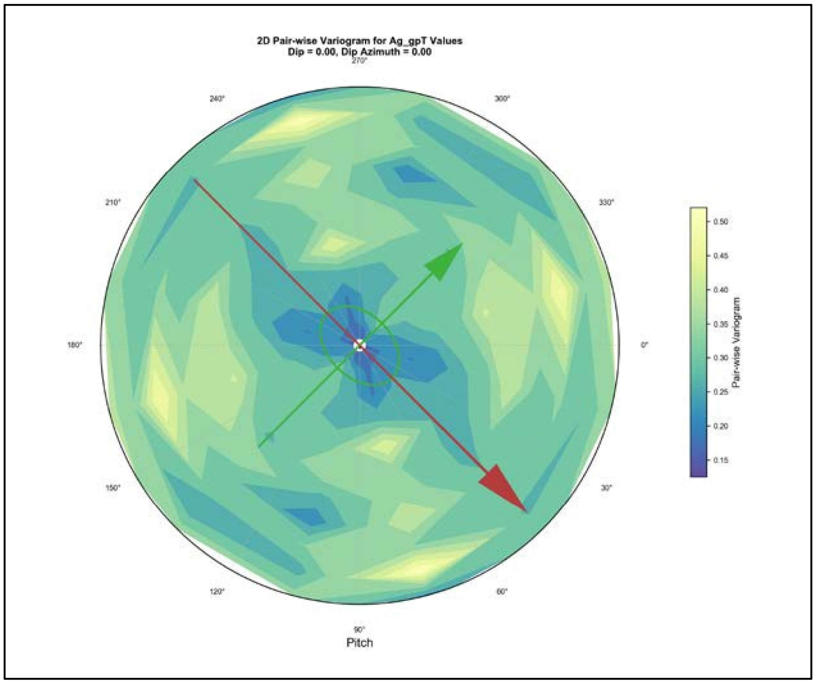

Figure D - 1 Radial Plot for Silver in Overburden

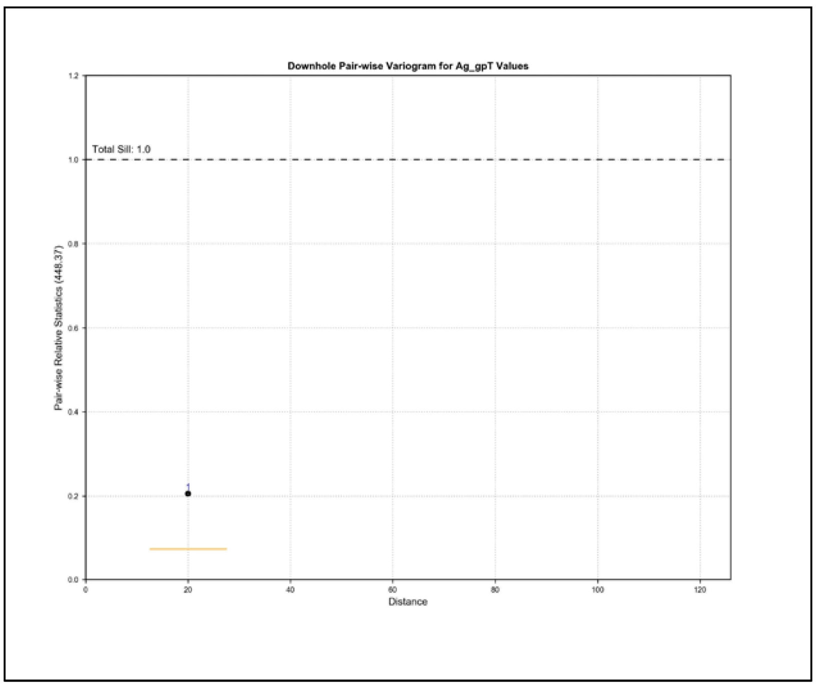

Figure D - 2 Downhole Variogram for Silver in Overburden

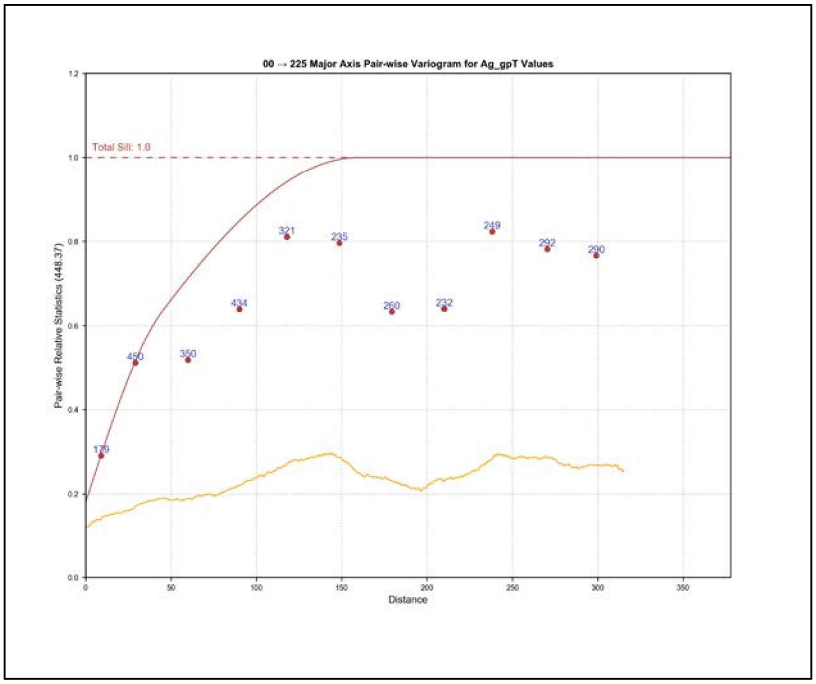

Figure D - 3 Major Axis Variogram for Silver in Overburden

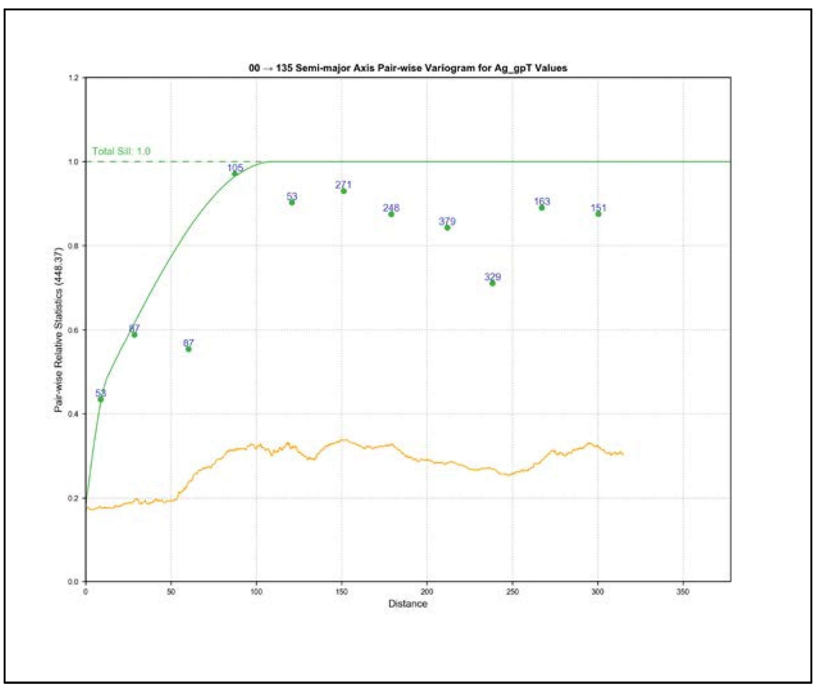

Figure D - 4 Semi-Major Axis Variogram for Silver in Overburden

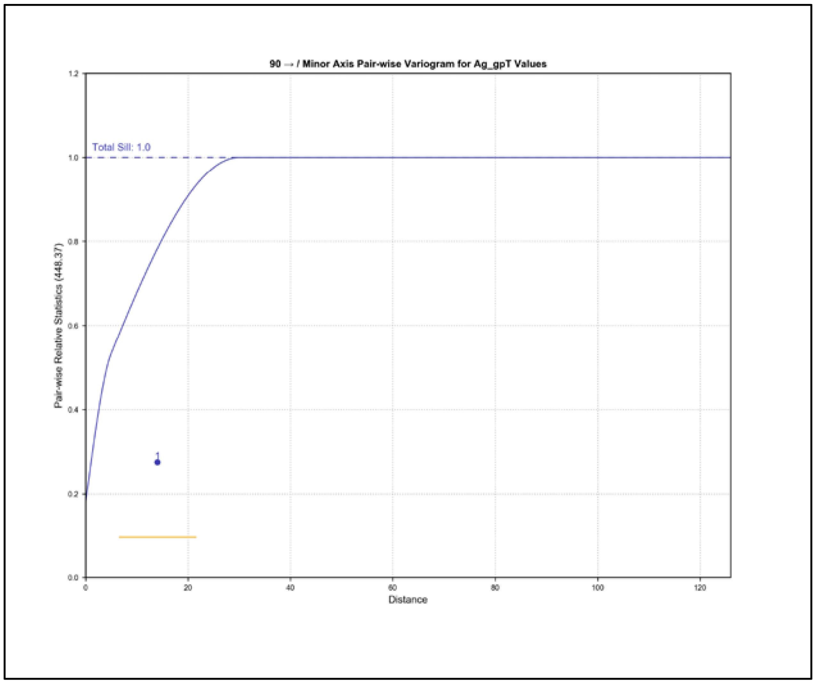

Figure D - 5 Minor Axis Variogram for Silver in Overburden

Table D - 2 Pairwise Variogram Parameters for Silver in Granite Porphyry

Ag 12 (GP)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.200	0.130	0.670	1.000
Range (ft)			**Anisotropy**
Major	30	370	1.32
Semi-Major	100	275	0.98
Minor	5	280	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		135	

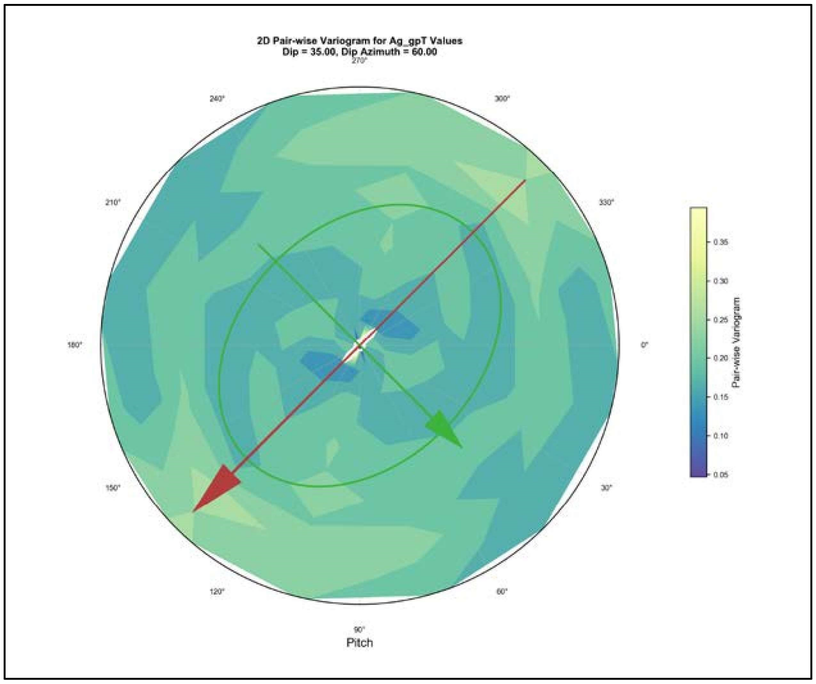

Figure D - 6 Radial Plot for Silver in Granite Porphyry

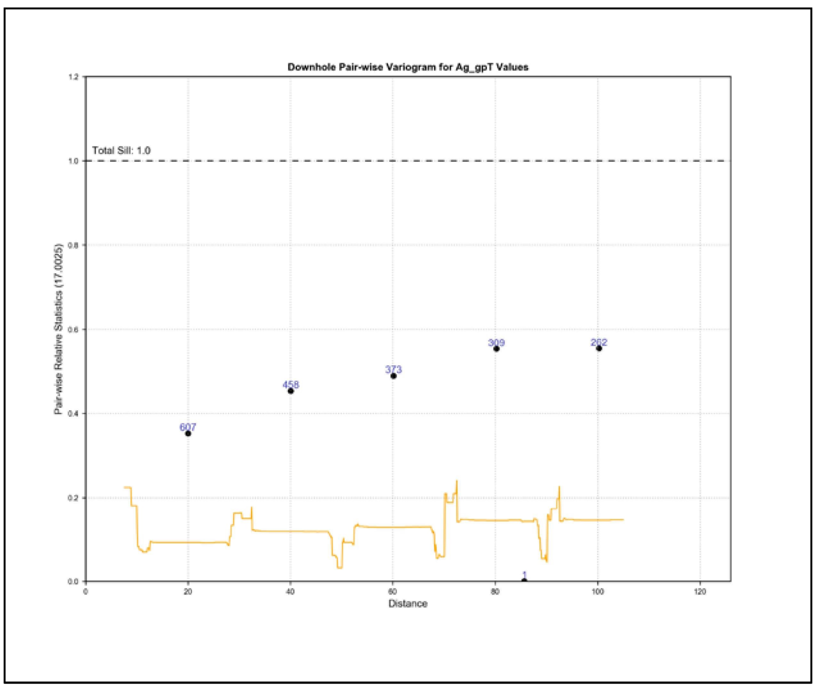

Figure D - 7 Downhole Variogram for Silver in Granite Porphyry

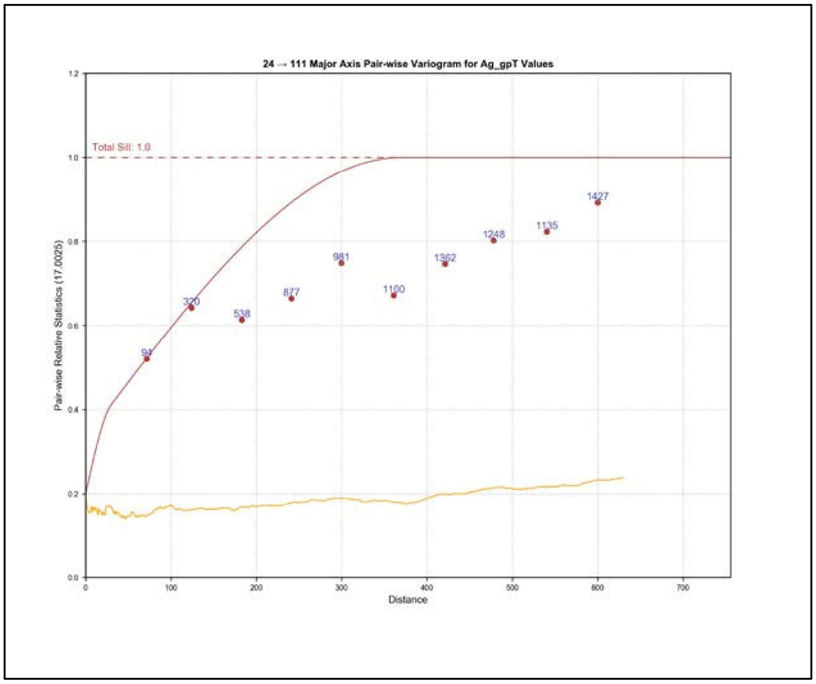

Figure D - 8 Major Axis Variogram for Silver in Granite Porphyry

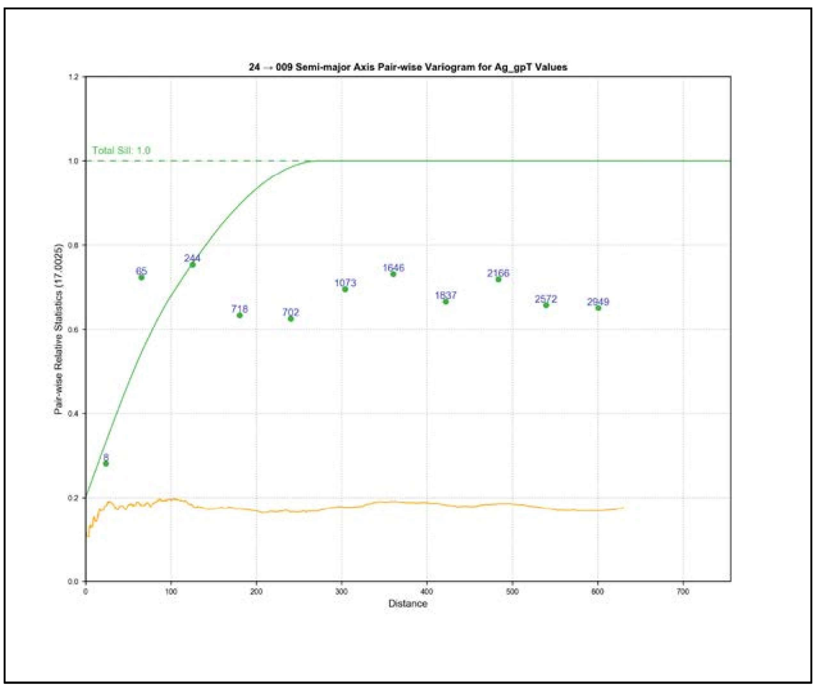

Figure D - 9 Semi-Major Axis Variogram for Silver in Granite Porphyry

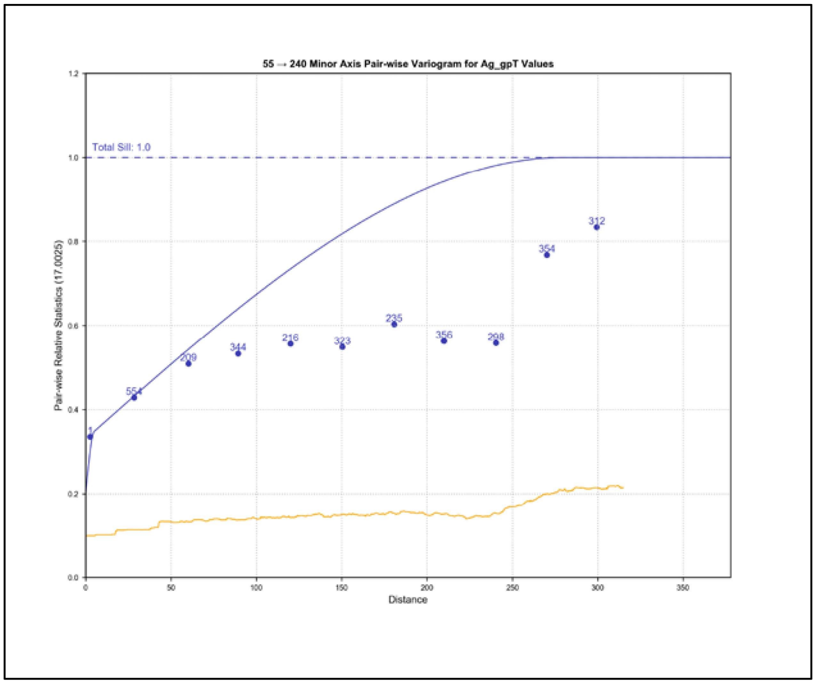

Figure D - 10 Minor Axis Variogram for Silver in Granite Porphyry

Table D - 3 Pairwise Variogram Parameters for Silver in Iron Oxide Breccia

Ag 20 (FEBX)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.200	0.250	0.550	1.000
Range (ft)			**Anisotropy**
Major	55	145	0.52
Semi-Major	55	100	0.36
Minor	125	280	1.00
Orientation			
Dip		65	
Dip Azi		140	
Pitch		55	

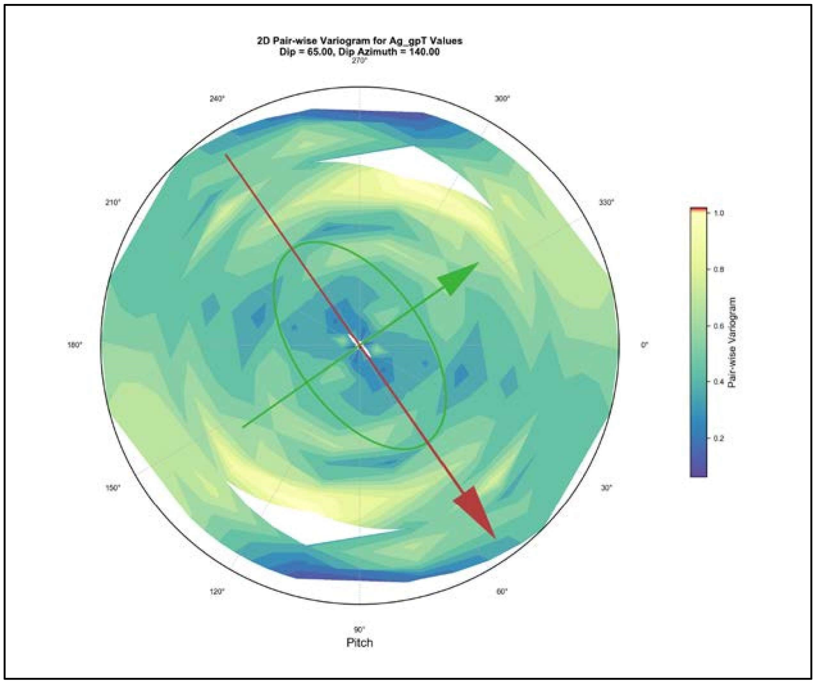

Figure D - 11 Radial Plot for Silver in Iron Oxide Breccia

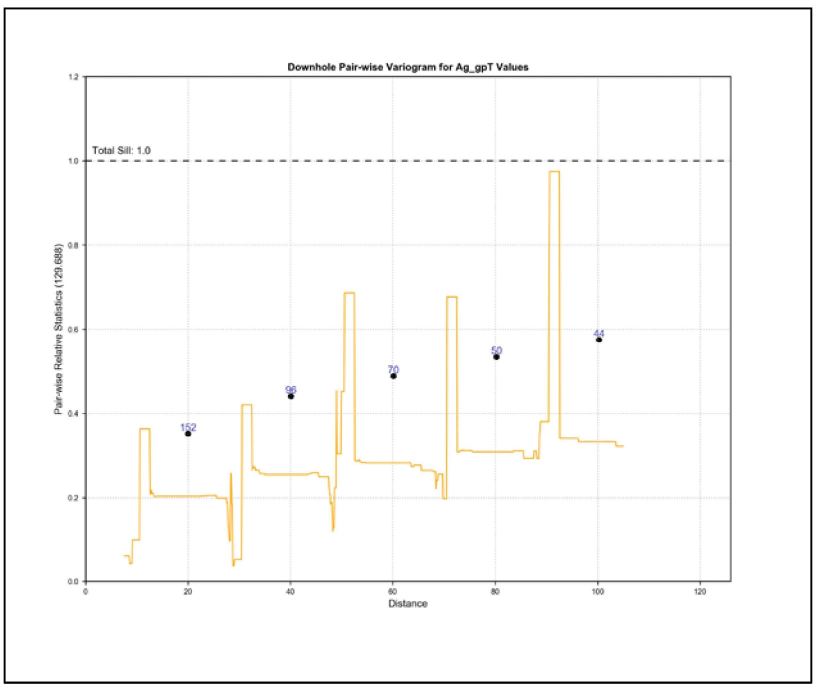

Figure D - 12 Downhole Variogram for Silver in Iron Oxide Breccia

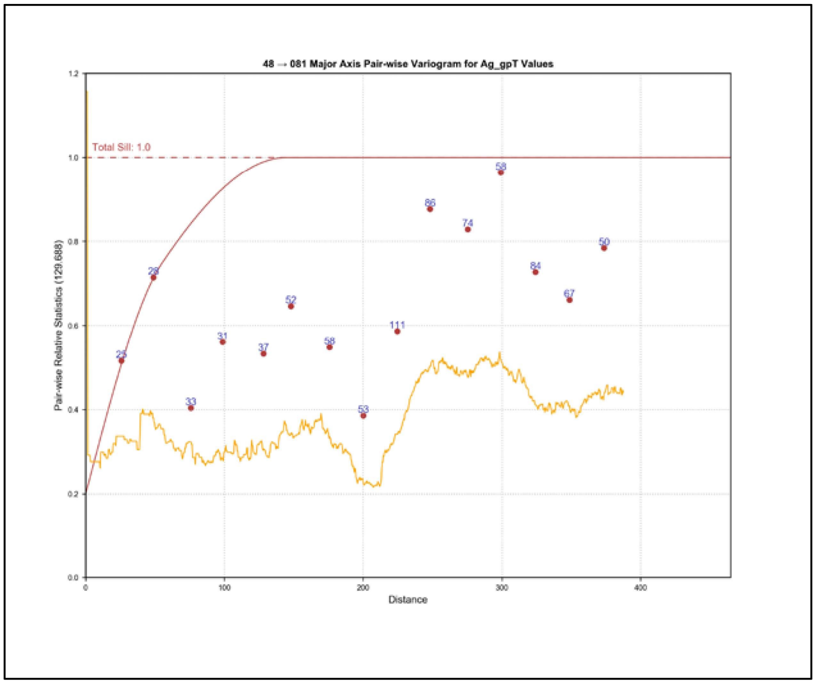

Figure D - 13 Major Axis Variogram for Silver in Iron Oxide Breccia

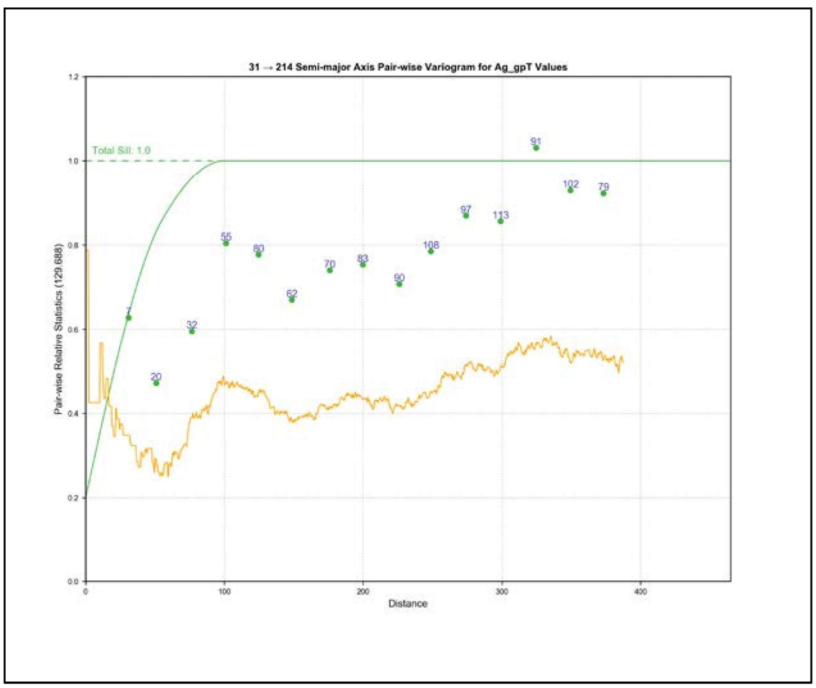

Figure D - 14 Semi-Major Axis Variogram for Silver in Iron Oxide Breccia

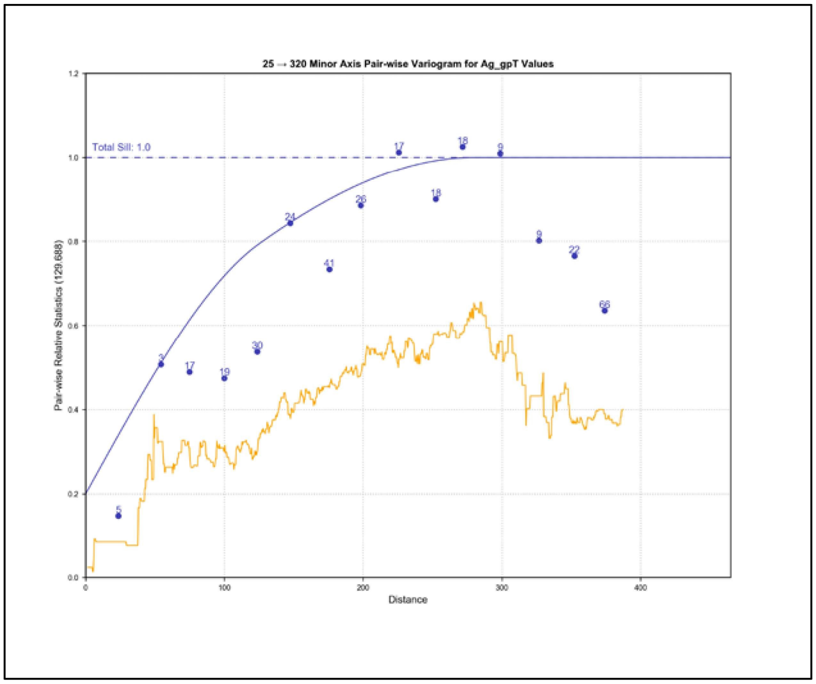

Figure D - 15 Minor Axis Variogram for Silver in Iron Oxide Breccia

Table D - 4 Pairwise Variogram Parameters for Silver in Garnet Skarn

Ag 30 (ENDO)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.200	0.250	0.550	1.000
Range (ft)			**Anisotropy**
Major	20	230	0.82
Semi-Major	55	240	0.86
Minor	60	280	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		105	

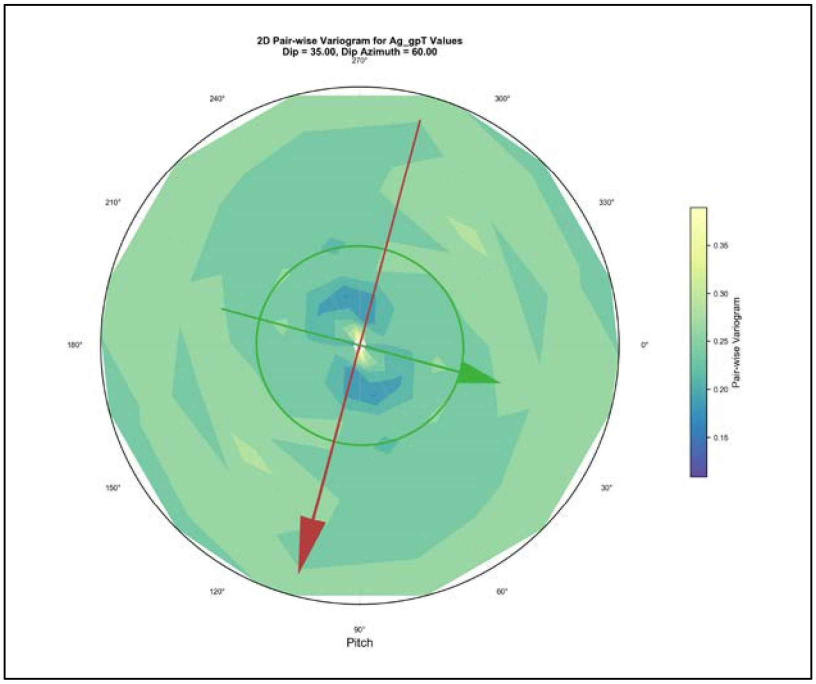

Figure D - 16 Radial Plot for Silver in Garnet Skarn

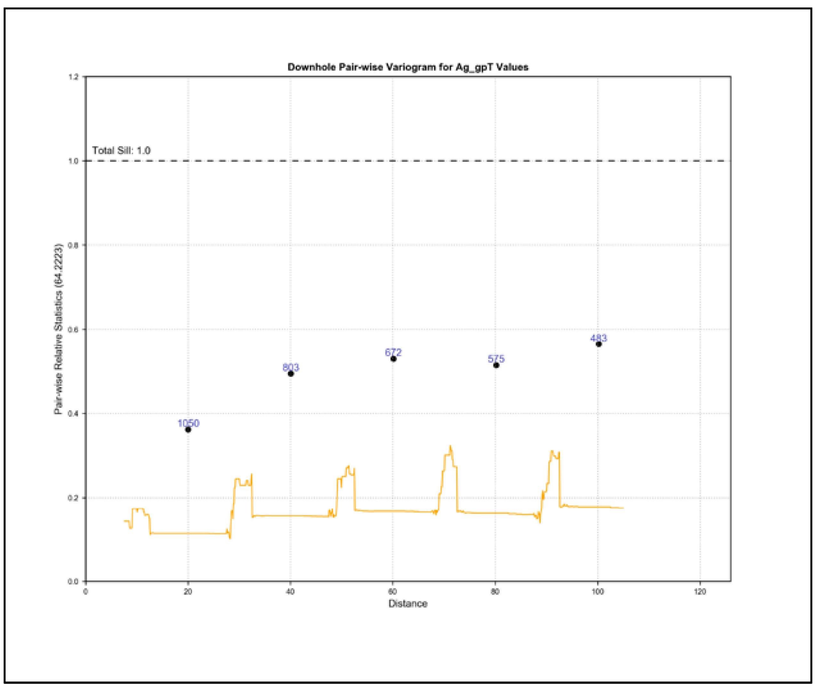

Figure D - 17 Downhole Variogram for Silver in Garnet Skarn

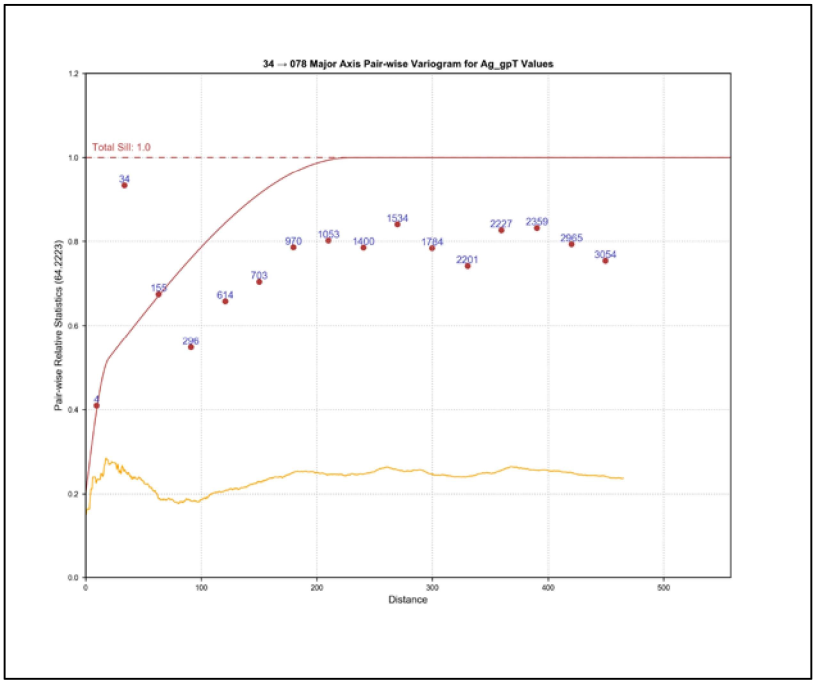

Figure D - 18 Major Axis Variogram for Silver in Garnet Skarn

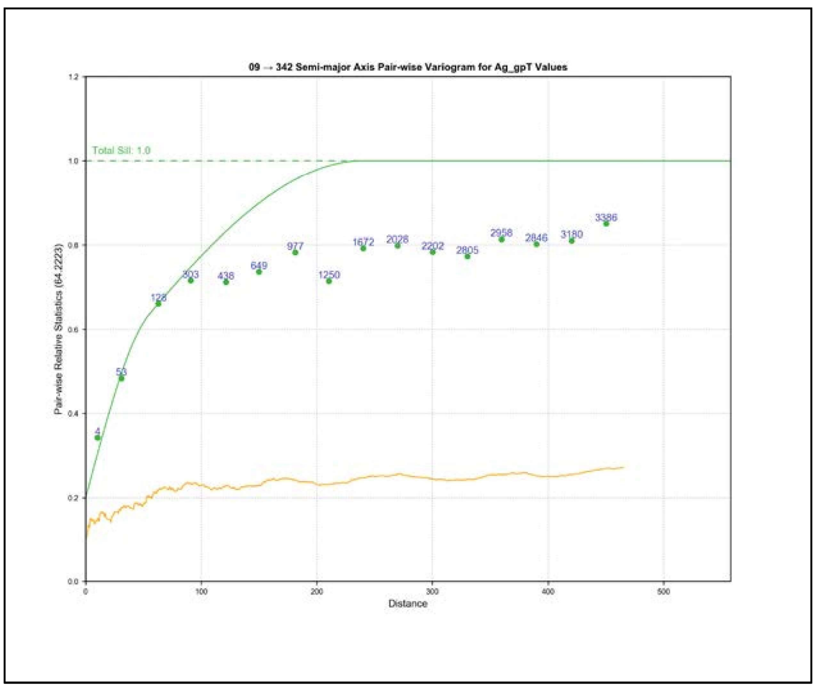

Figure D - 19 Semi-Major Axis Variogram for Silver in Garnet Skarn

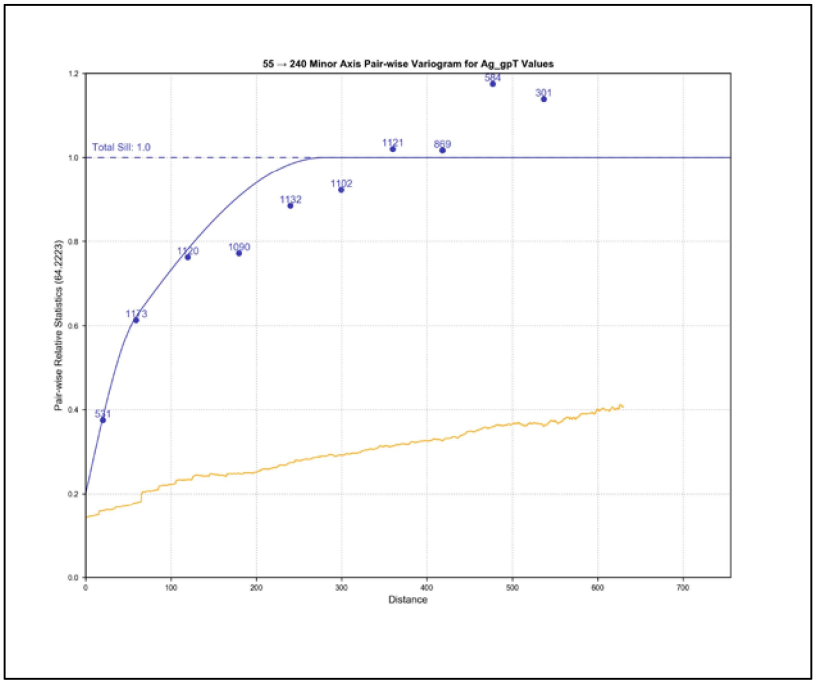

Figure D - 20 Minor Axis Variogram for Silver in Garnet Skarn

Table D - 5 Pairwise Variogram Parameters for Silver in Pyroxene Skarn

Ag 32 (EXO)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.250	0.330	0.420	1.000
Range (ft)			**Anisotropy**
Major	115	270	1.13
Semi-Major	25	120	0.50
Minor	108	240	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		100	

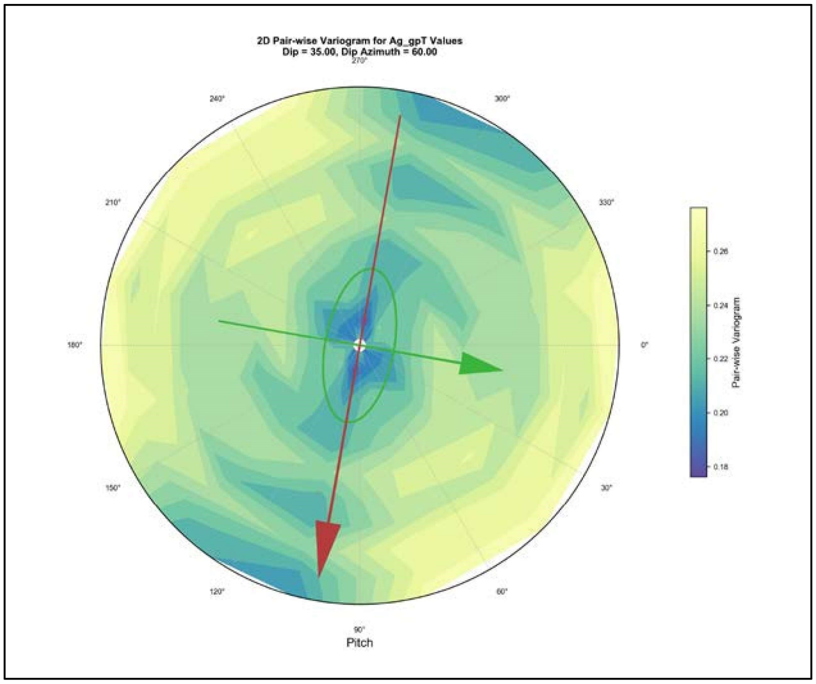

Figure D - 21 Radial Plot for Silver in Pyroxene Skarn

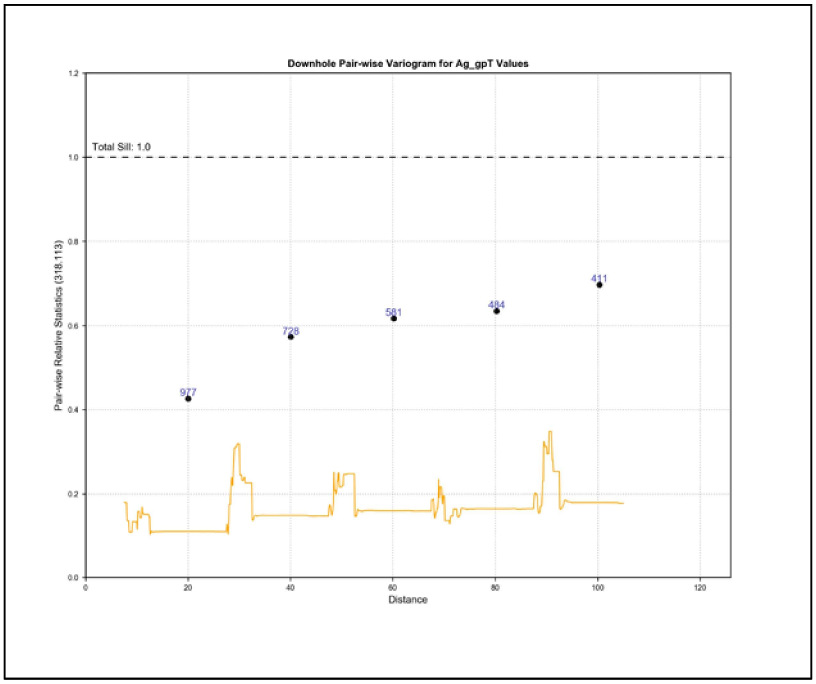

Figure D - 22 Downhole Variogram for Silver in Pyroxene Skarn

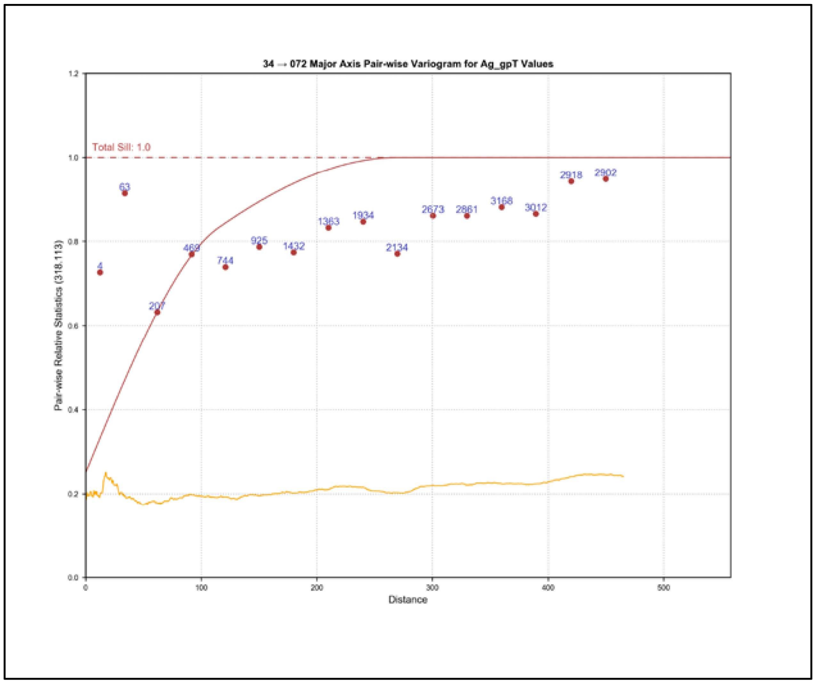

Figure D - 23 Major Axis Variogram for Silver in Pyroxene Skarn

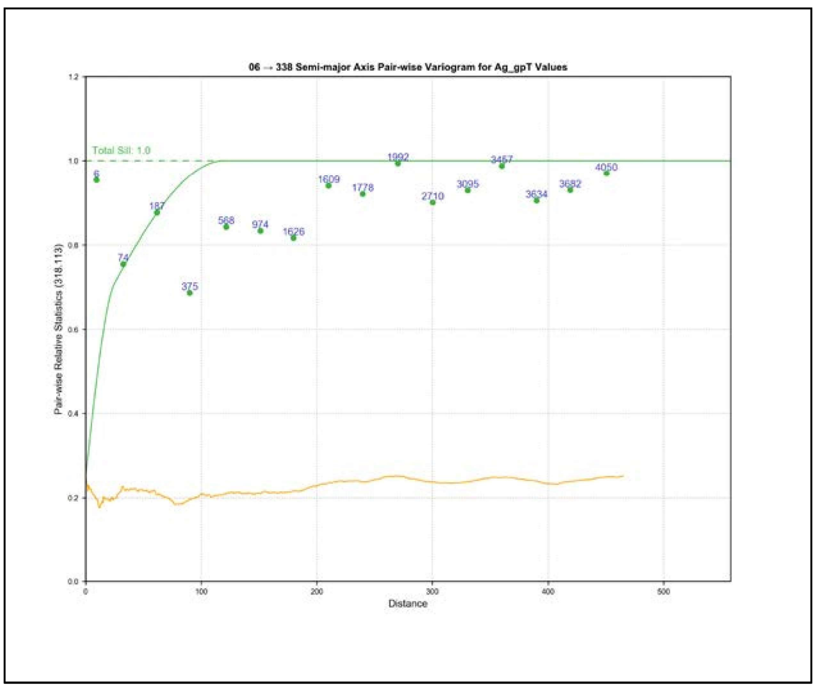

Figure D - 24 Semi-Major Axis Variogram for Silver in Pyroxene Skarn

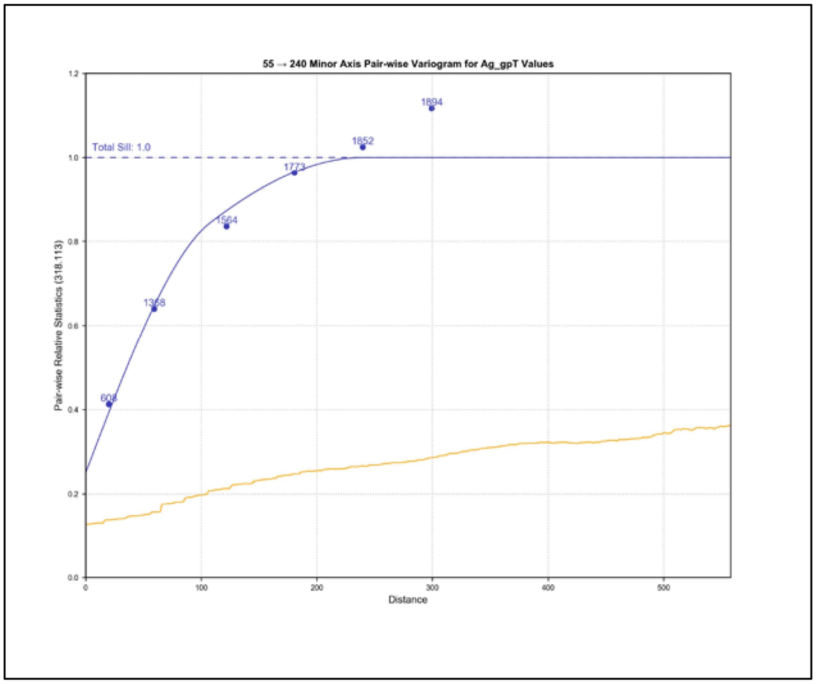

Figure D - 25 Minor Axis Variogram for Silver in Pyroxene Skarn

Table D - 6 Pairwise Variogram Parameters for Silver in Magnetite Skarn

Ag 34 (MT)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.150	0.290	0.560	1.000
Range (ft)			**Anisotropy**
Major	50	135	0.50
Semi-Major	30	115	0.43
Minor	110	270	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		105	

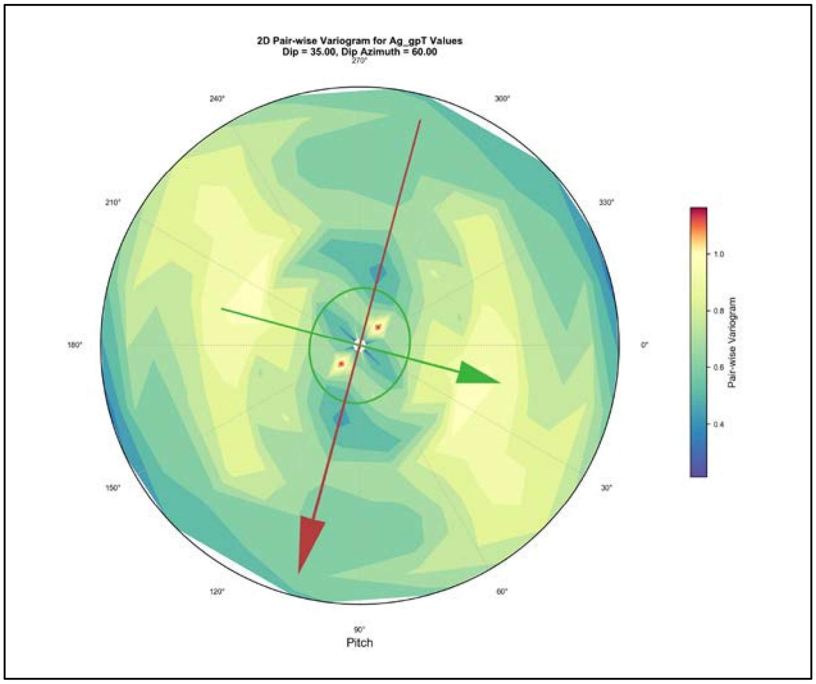

Figure D - 26 Radial Plot for Silver in Magnetite Skarn

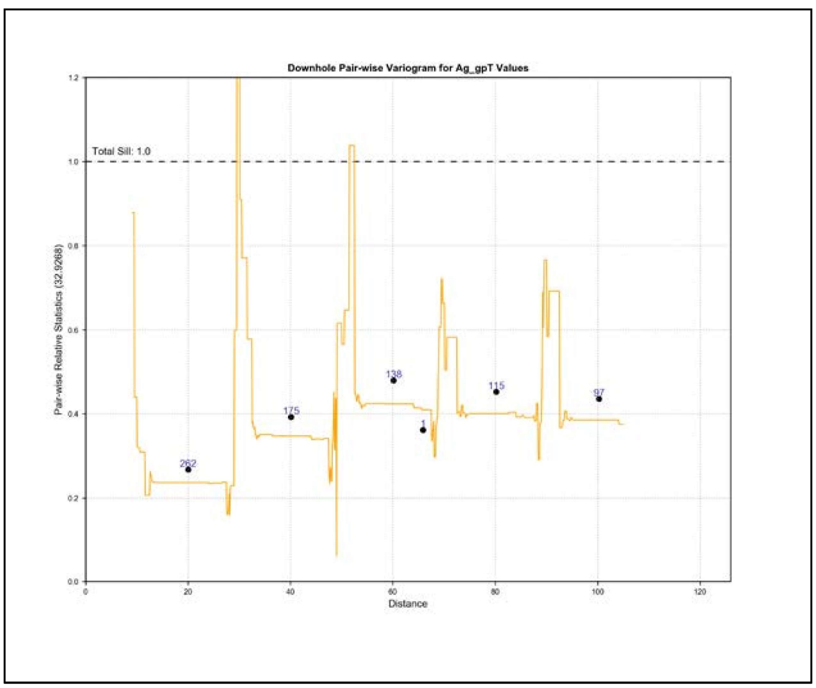

Figure D - 27 Downhole Variogram for Silver in Magnetite Skarn

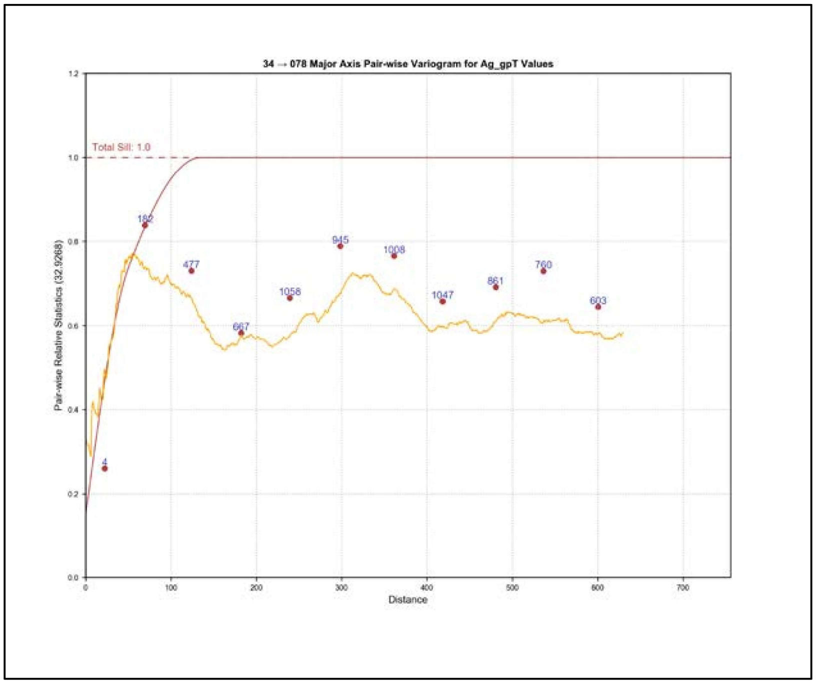

Figure D - 28 Major Axis Variogram for Silver in Magnetite Skarn

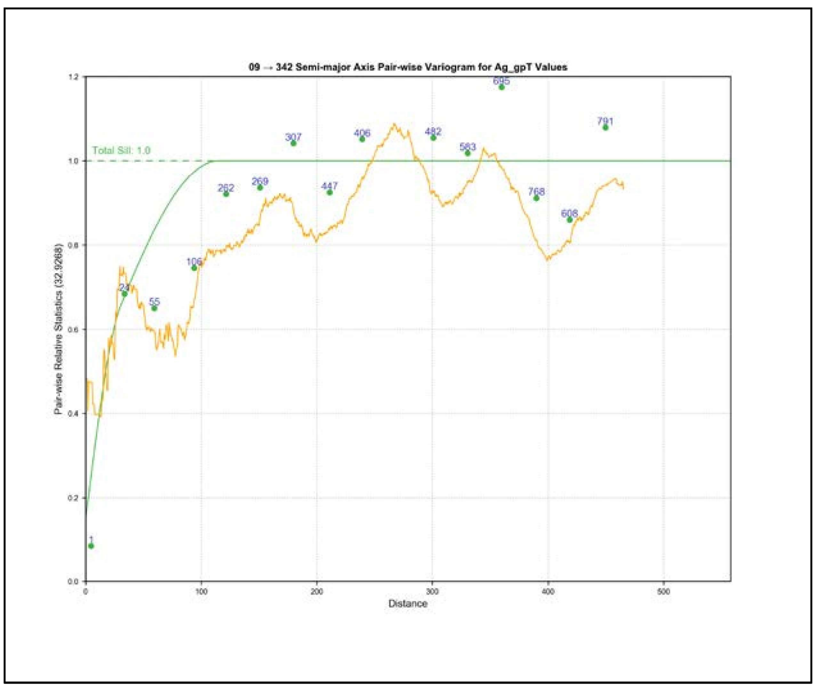

Figure D - 29 Semi-Major Axis Variogram for Silver in Magnetite Skarn

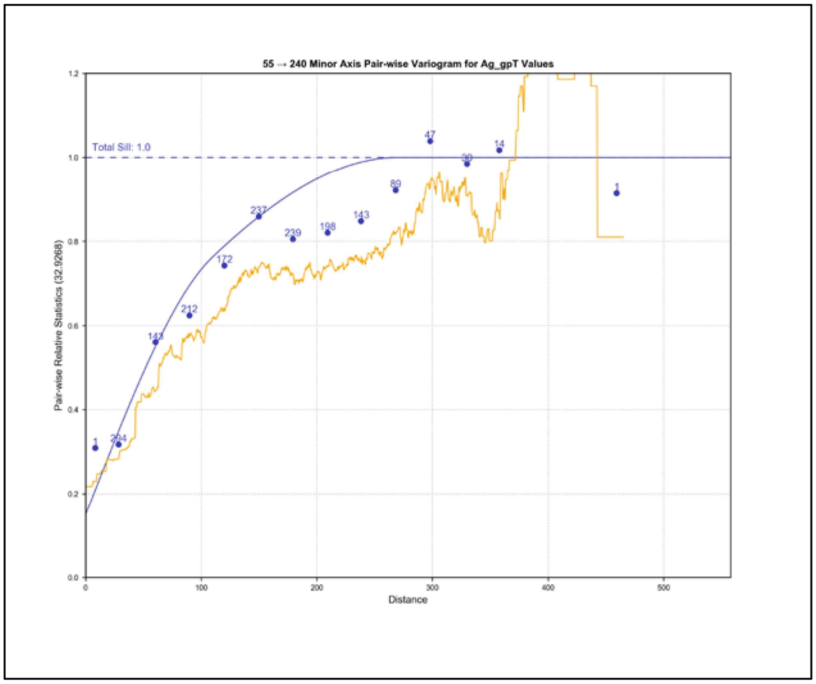

Figure D - 30 minor Axis Variogram for Silver in Magnetite Skarn

Table D - 7 Pairwise Variogram Parameters for Silver in Limestone

Ag 51 (LS)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.380	0.350	0.270	1.000
Range (ft)			**Anisotropy**
Major	25	135	0.61
Semi-Major	85	140	0.64
Minor	85	220	1.00
Orientation			
Dip		45	
Dip Azi		70	
Pitch		135	

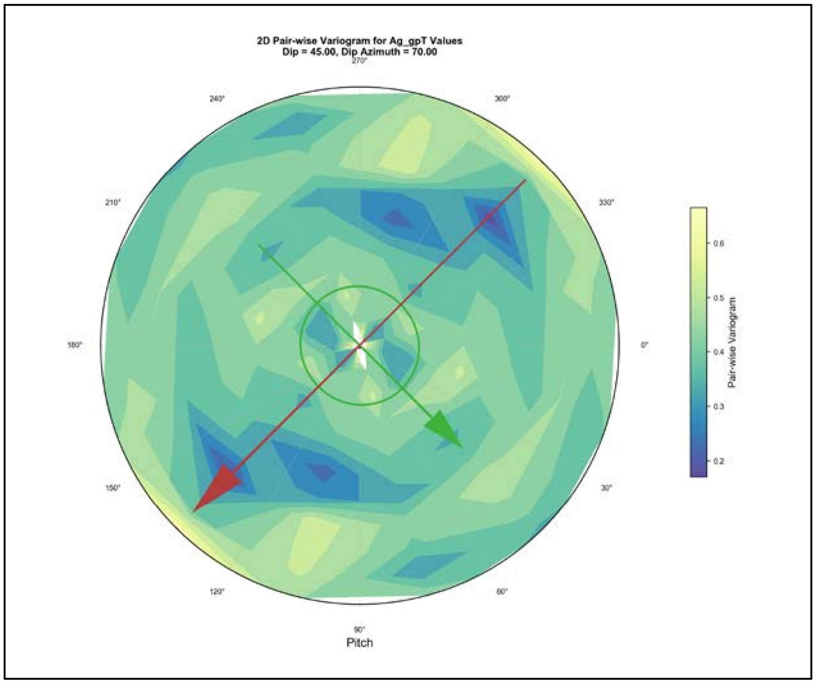

Figure D - 31 Radial Plot for Silver in Limestone

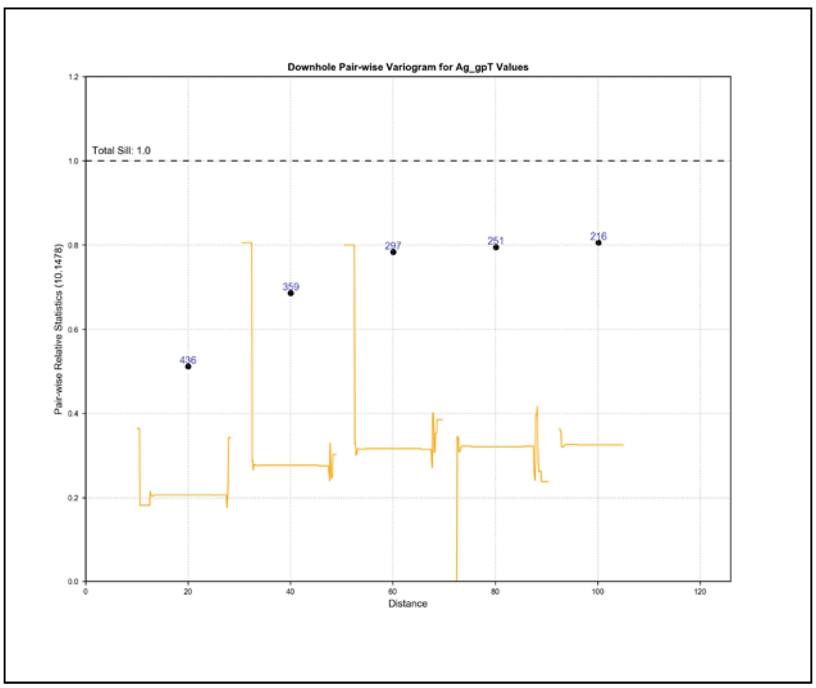

Figure D - 32 Downhole Variogram for Silver in Limestone

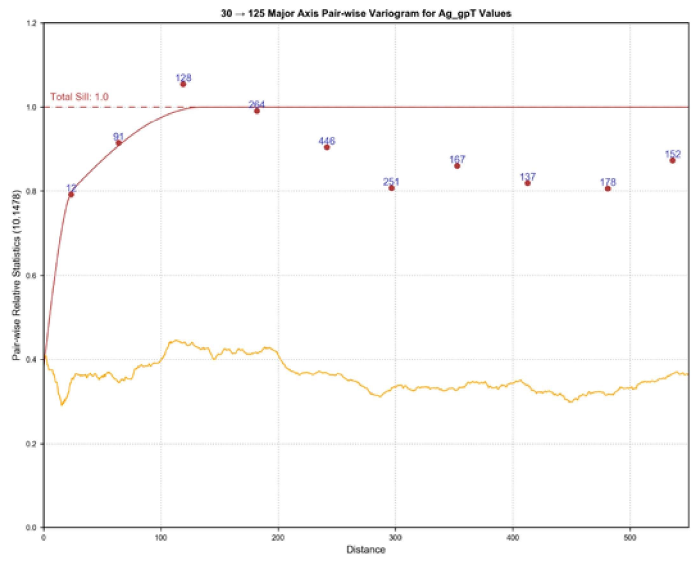

Figure D - 33 Major Axis Variogram for Silver in Limestone

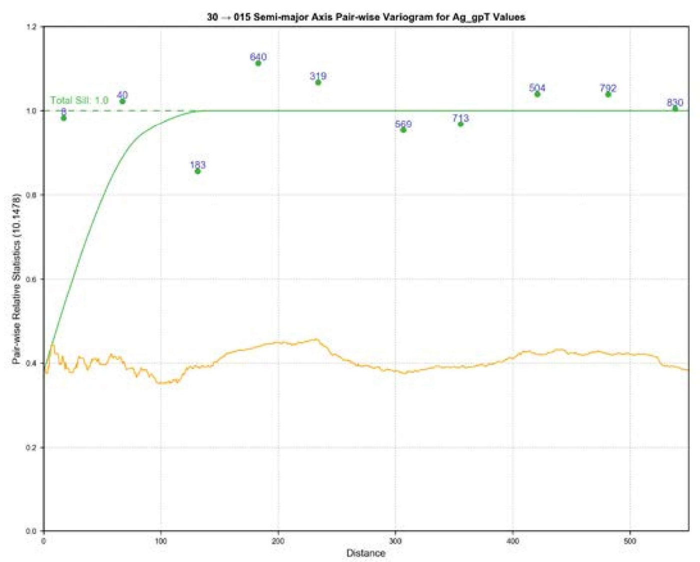

Figure D - 34 Semi-Major Axis Variogram for Silver in Limestone

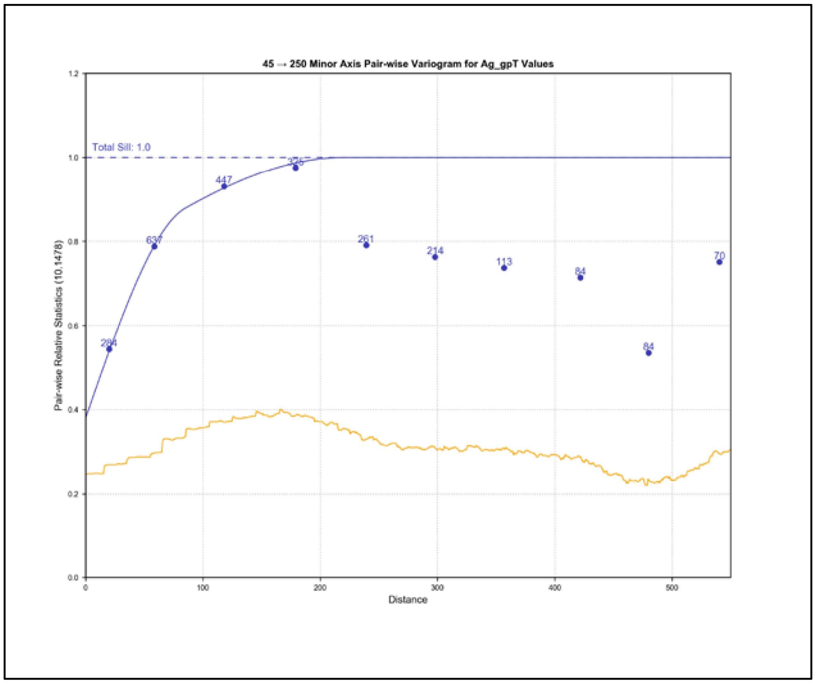

Figure D - 35 Minor Axis Variogram for Silver in Limestone

Table D - 8 Pairwise Variogram Parameters for Silver in Granite

Ag 60 (GR)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.110	0.210	0.680	1.000
Range (ft)			**Anisotropy**
Major	15	110	0.31
Semi-Major	25	90	0.25
Minor	30	360	1.00
Orientation			
Dip		45	
Dip Azi		70	
Pitch		80	

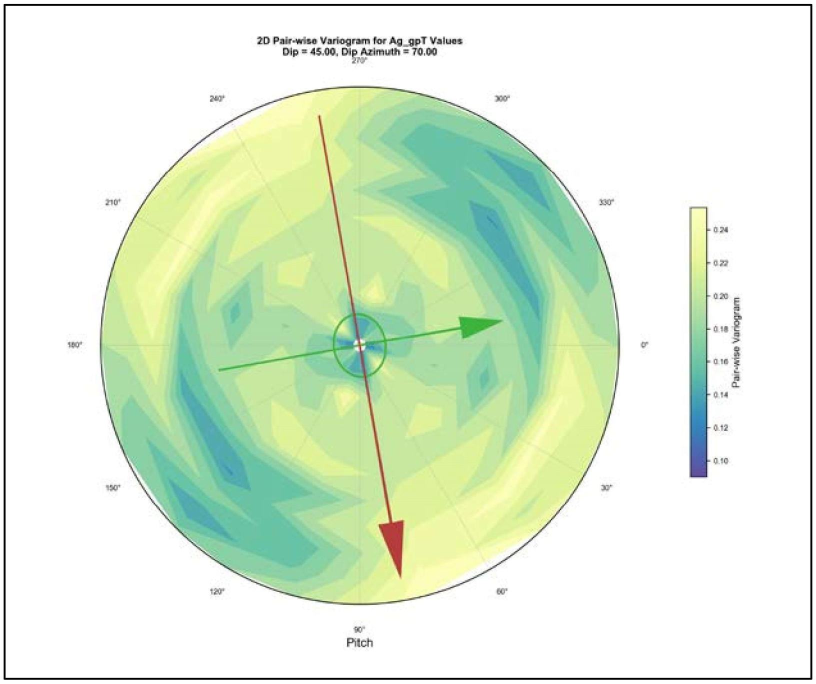

Figure D - 36 Radial Plot for Silver in Granite

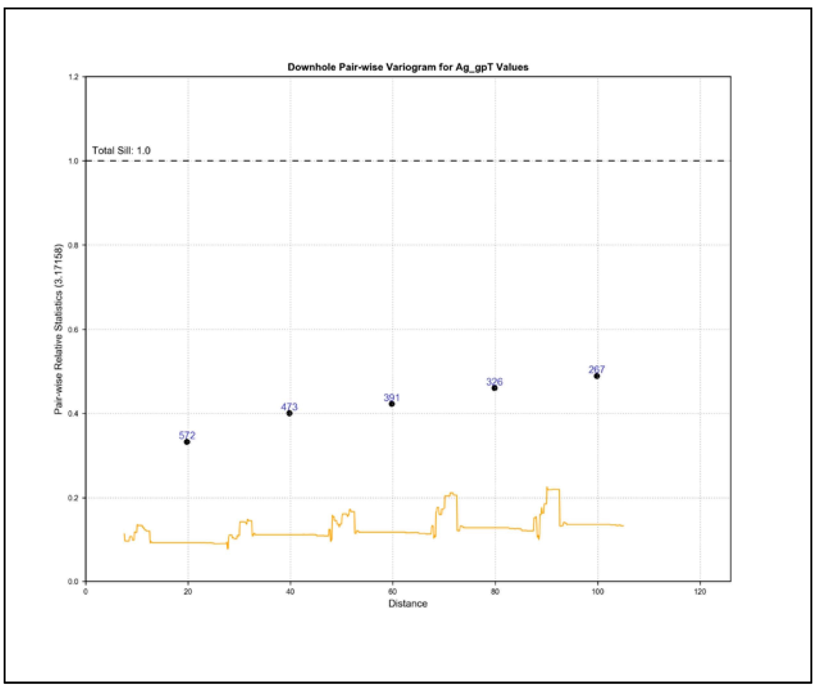

Figure D - 37 Downhole Variogram for Silver in Granite

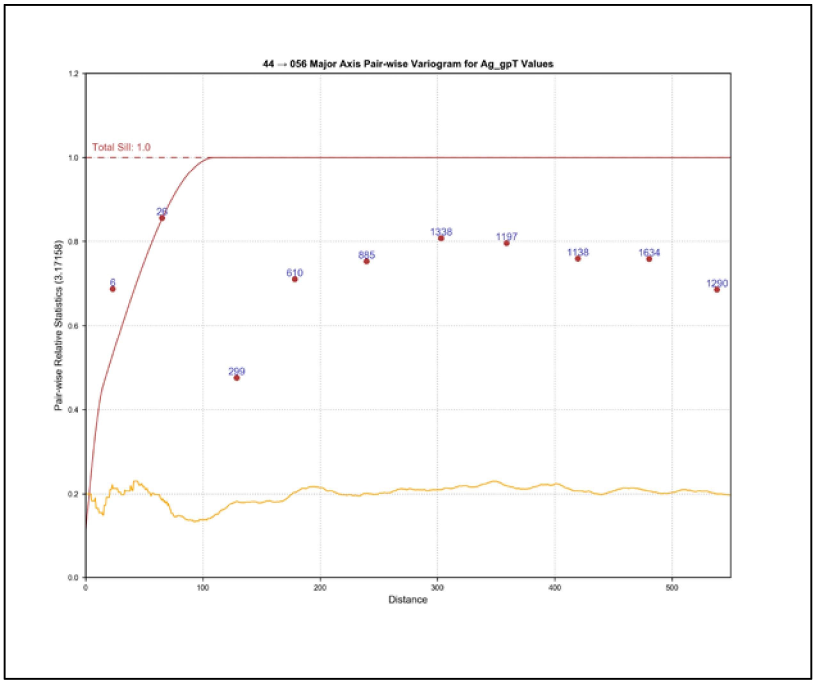

Figure D - 38 Major Axis Variogram for Silver in Granite

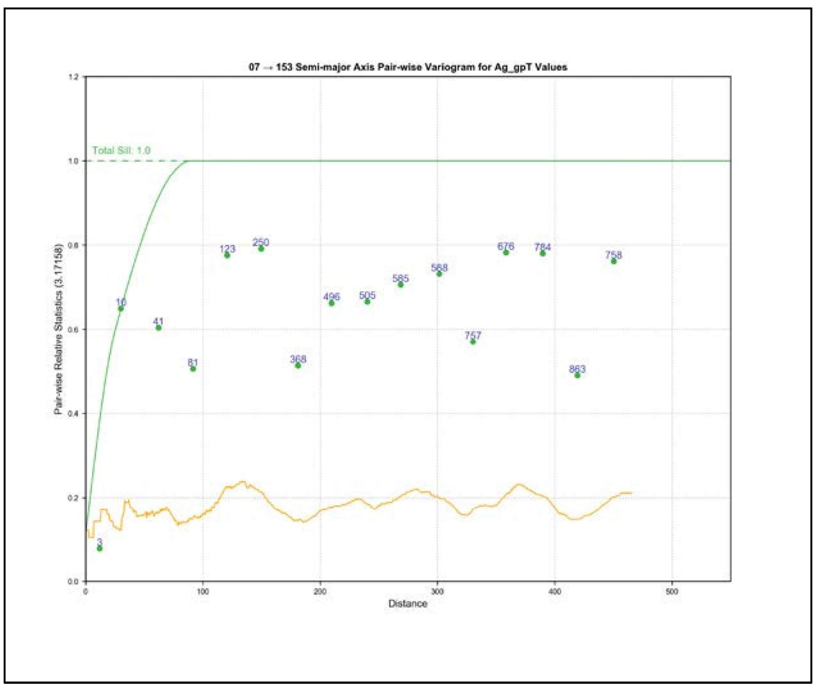

Figure D - 39 Semi-Major Axis Variogram for Silver in Granite

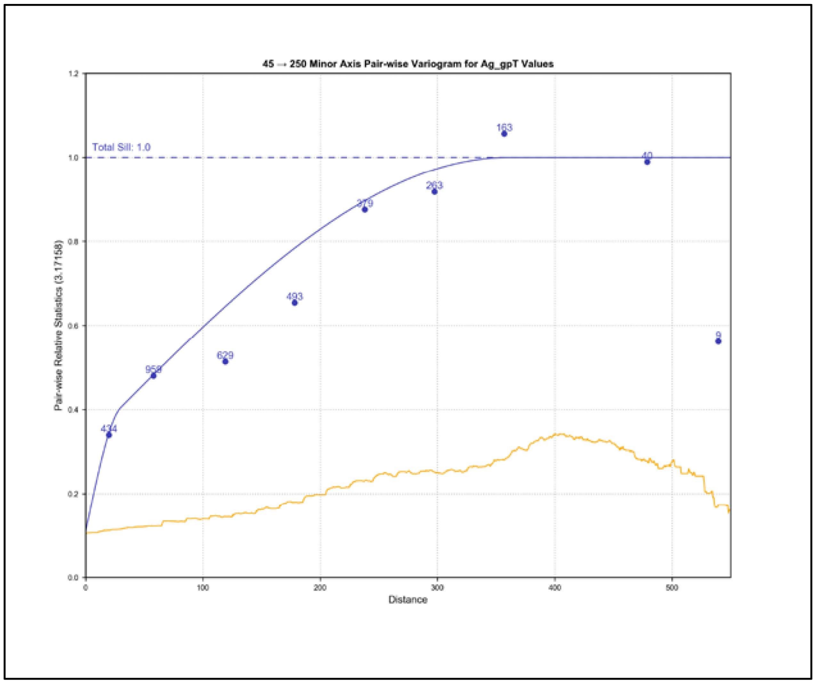

Figure D - 40 Minor Axis Variogram for Silver in Granite

Table D - 9 Pairwise Variogram Parameters for Silver in Dikes

Ag 61 (DIKE)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.130	0.310	0.560	1.000
Range (ft)			**Anisotropy**
Major	25	205	2.05
Semi-Major	20	95	0.95
Minor	50	100	1.00
Orientation			
Dip		90	
Dip Azi		140	
Pitch		45	

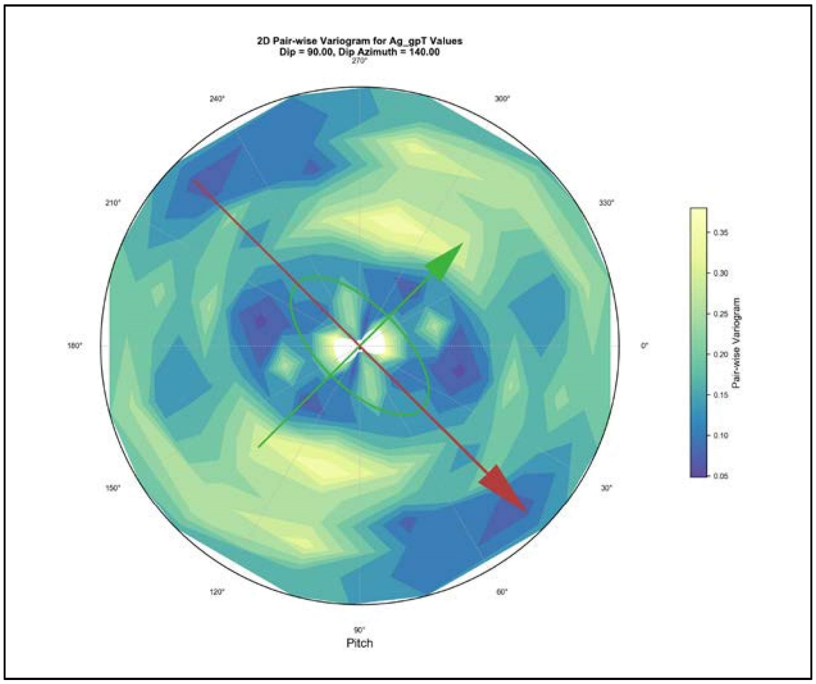

Figure D - 41 Radial Plot for Silver in Dikes

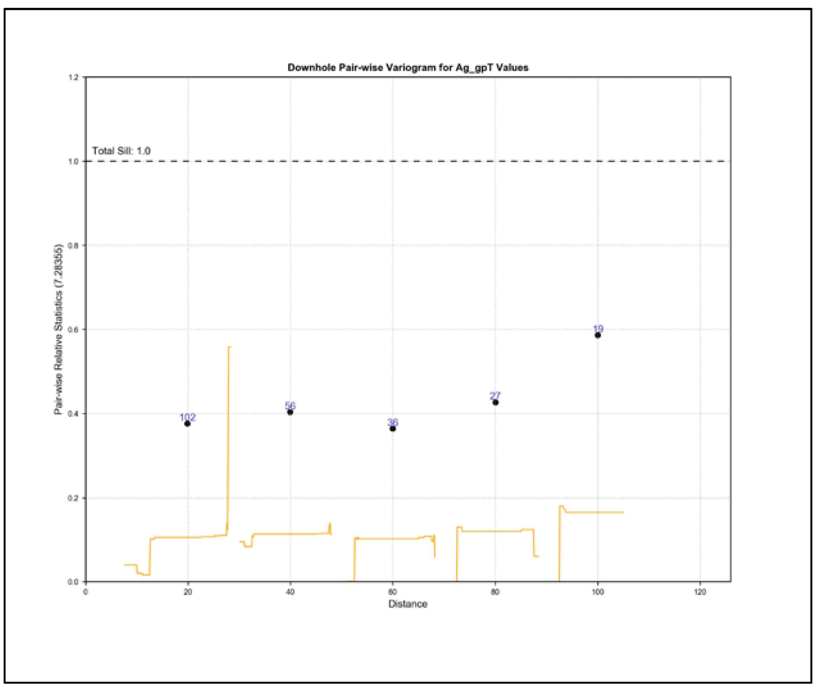

Figure D - 42 Downhole Variogram for Silver in Dikes

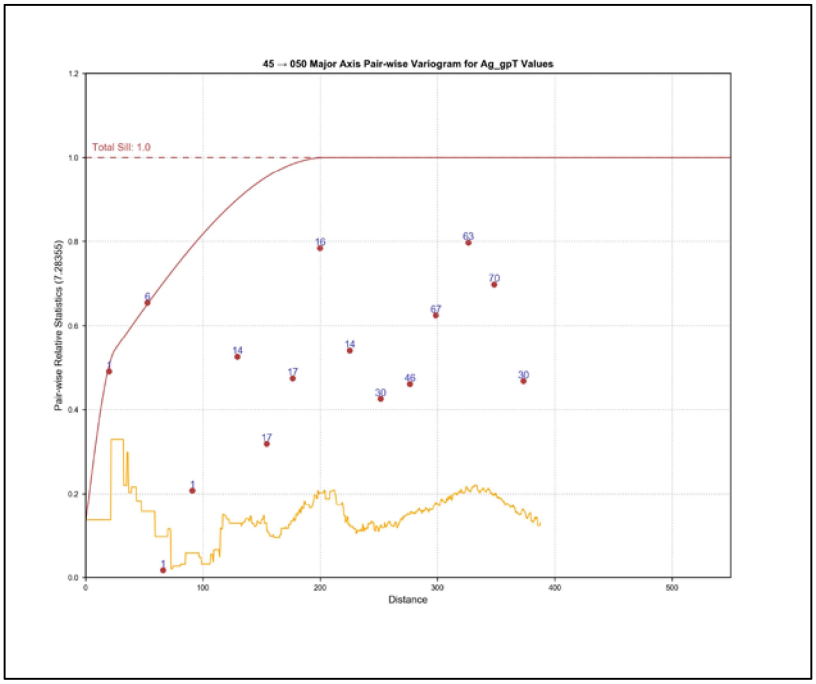

Figure D - 43 Major Axis Variogram for Silver in Dikes

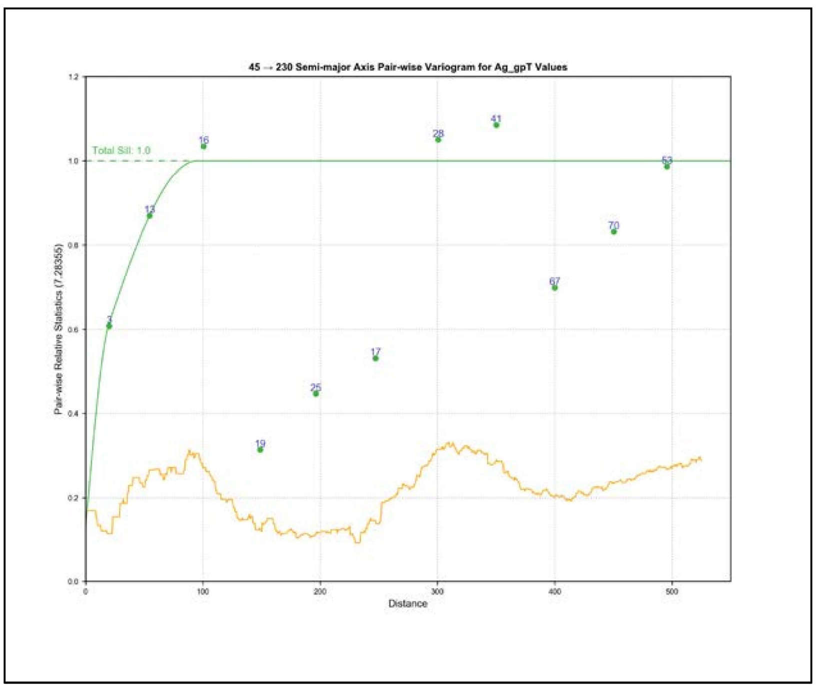

Figure D - 44 Semi-Major Axis Variogram for Silver in Dikes

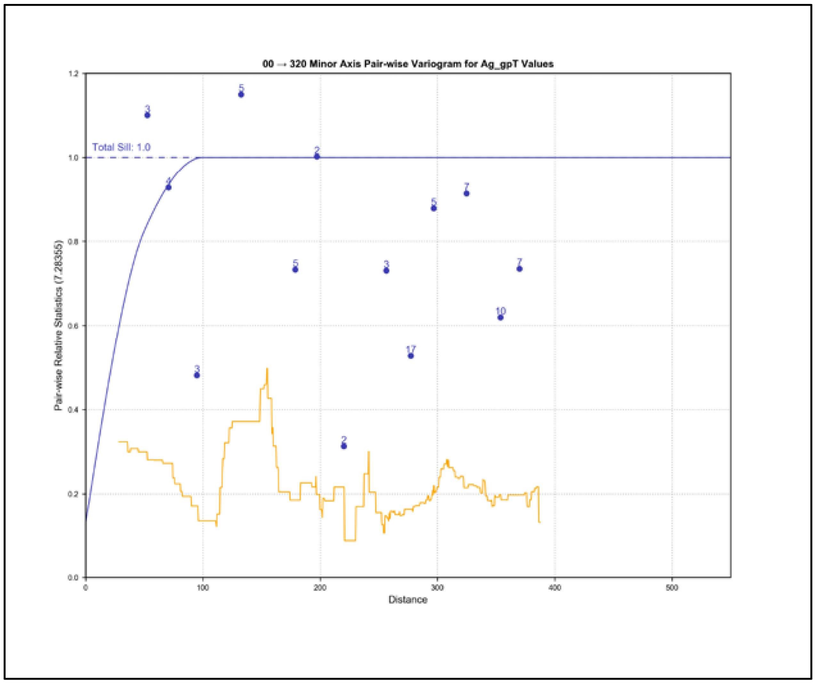

Figure D - 45 Minor Axis Variogram for Silver in Dikes

Table D - 10 Pairwise Variogram Parameters for Gold in Overburden

Au 10 (OVB)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.220	0.250	0.530	1.000
Range (ft)			**Anisotropy**
Major	20	155	5.17
Semi-Major	25	110	3.67
Minor	5	30	1.00
Orientation			
Dip		0	
Dip Azi		90	
Pitch		105	

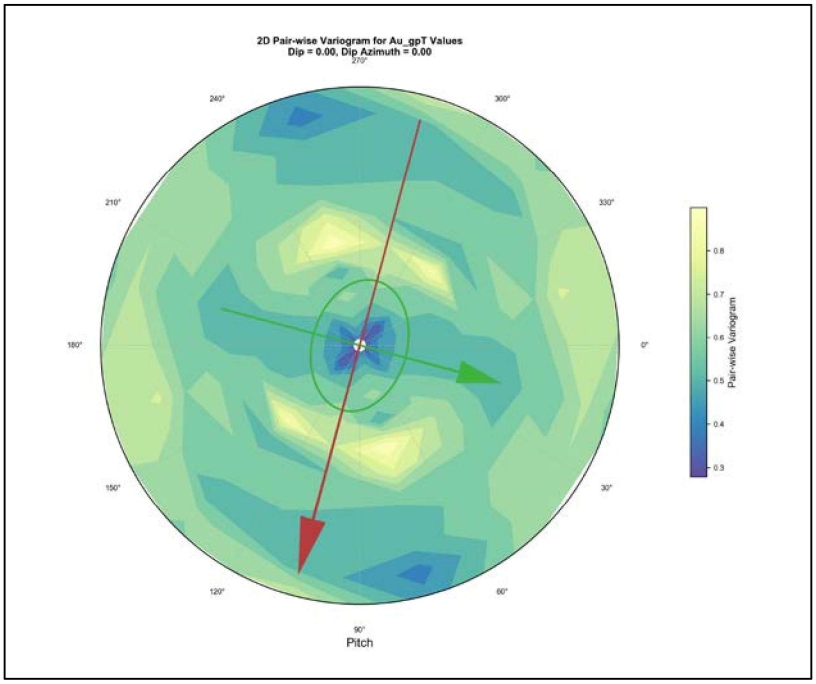

Figure D - 46 Radial Plot for Gold in Overburden

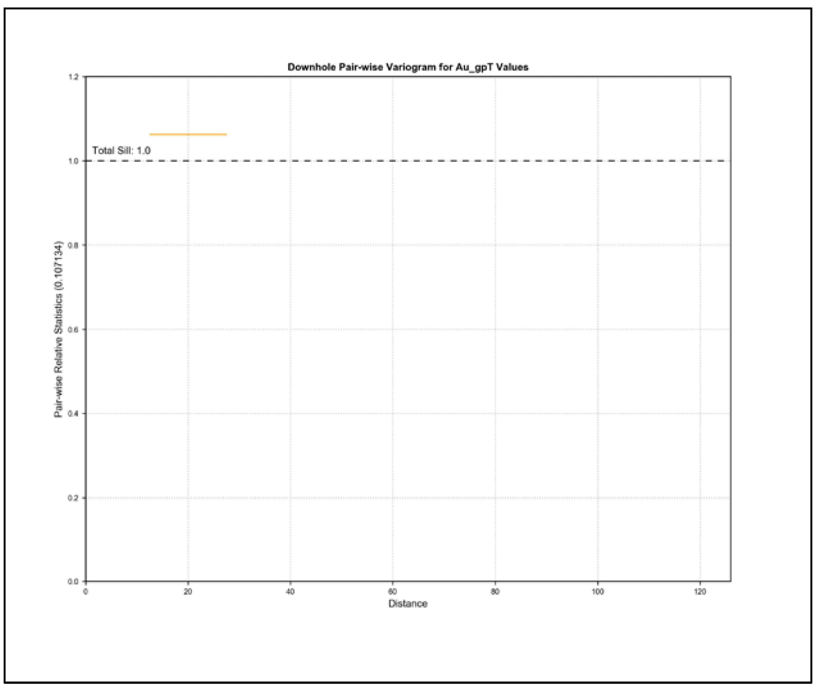

Figure D - 47 Downhole Variogram for Gold in Overburden

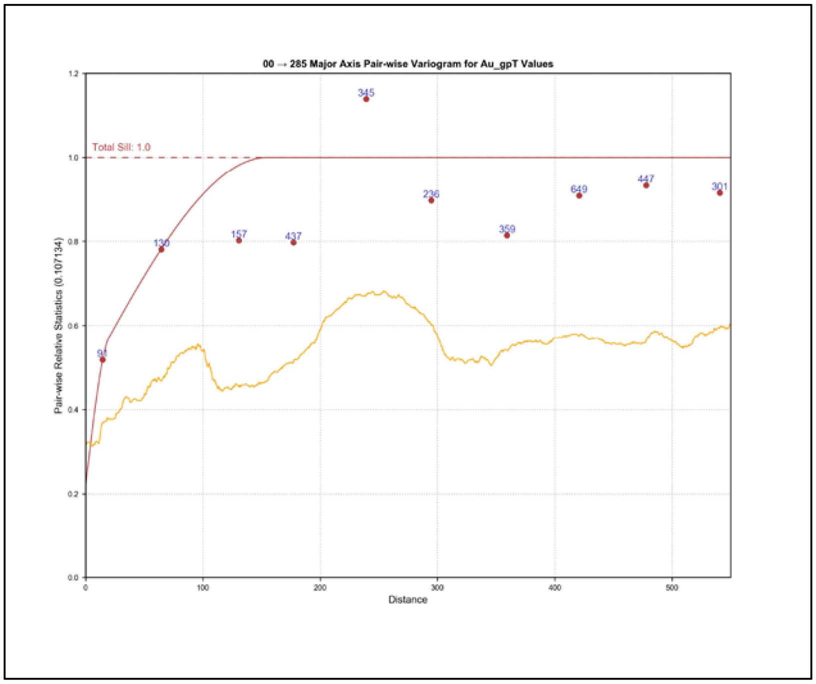

Figure D - 48 Major Axis Variogram for Gold in Overburden

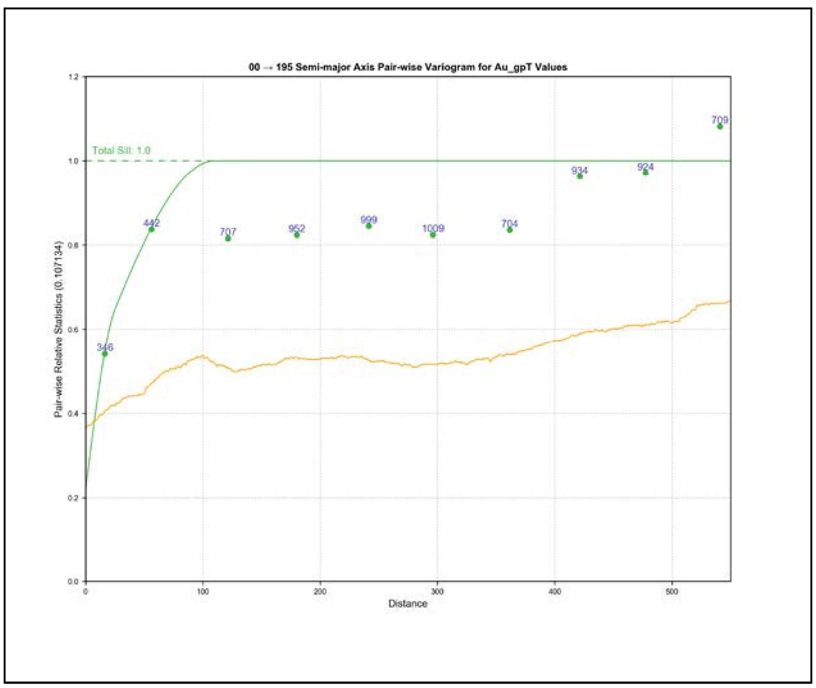

Figure D - 49 Semi-Major Axis Variogram for Gold in Overburden

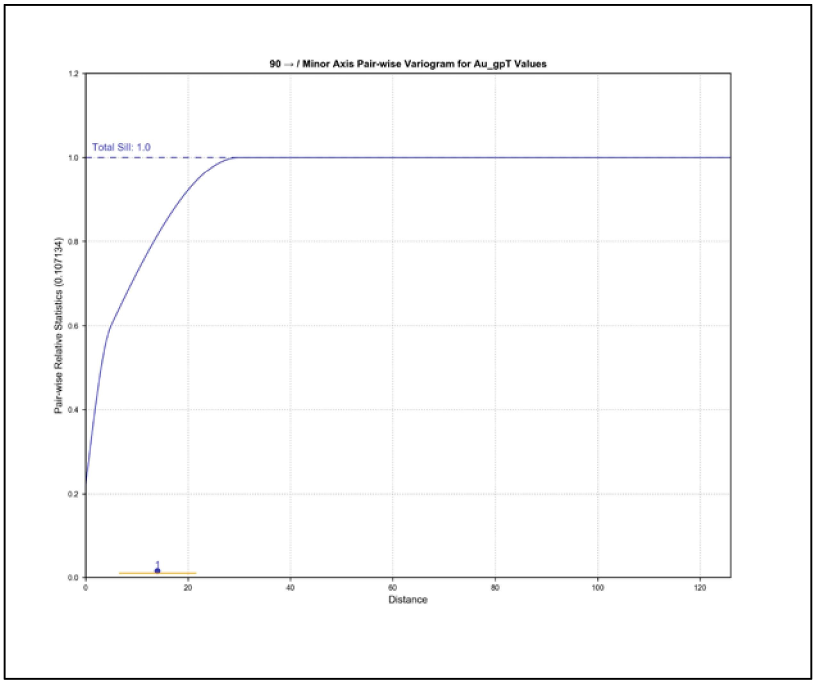

Figure D - 50 Minor Axis Variogram for Gold in Overburden

Table D - 11 Pairwise Variogram Parameters for Gold in Granite Porphyry

Au 12 (GP)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.260	0.300	0.440	1.000
Range (ft)			**Anisotropy**
Major	65	225	1.61
Semi-Major	55	95	0.68
Minor	85	140	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		140	

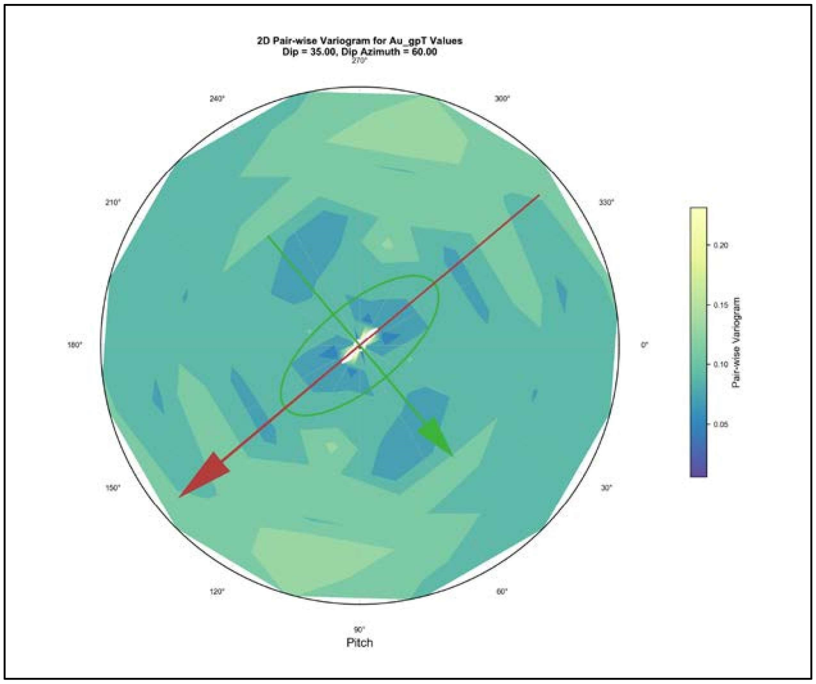

Figure D - 51 Radial Plot for Gold in Granite Porphyry

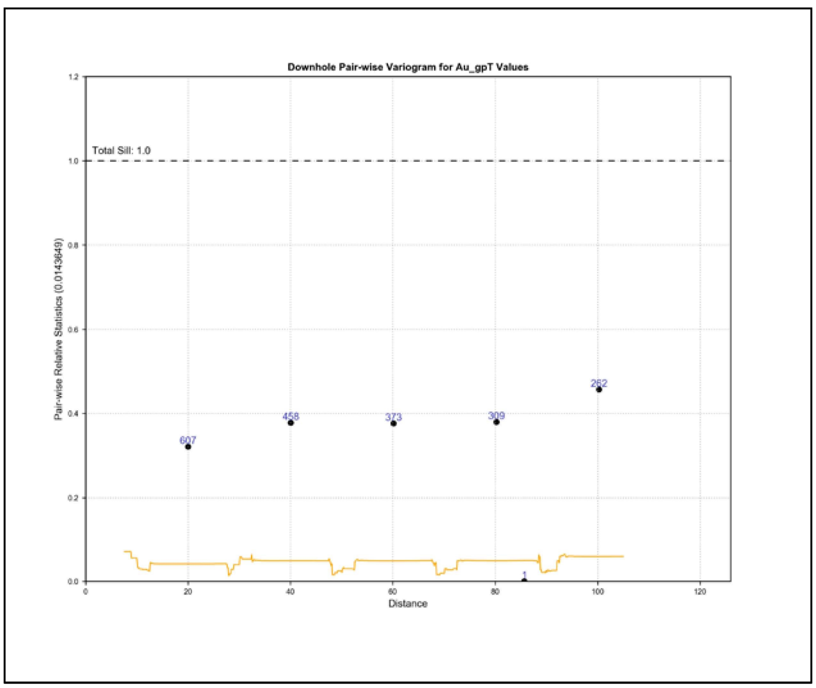

Figure D - 52 Downhole Variogram for Gold in Granite Porphyry

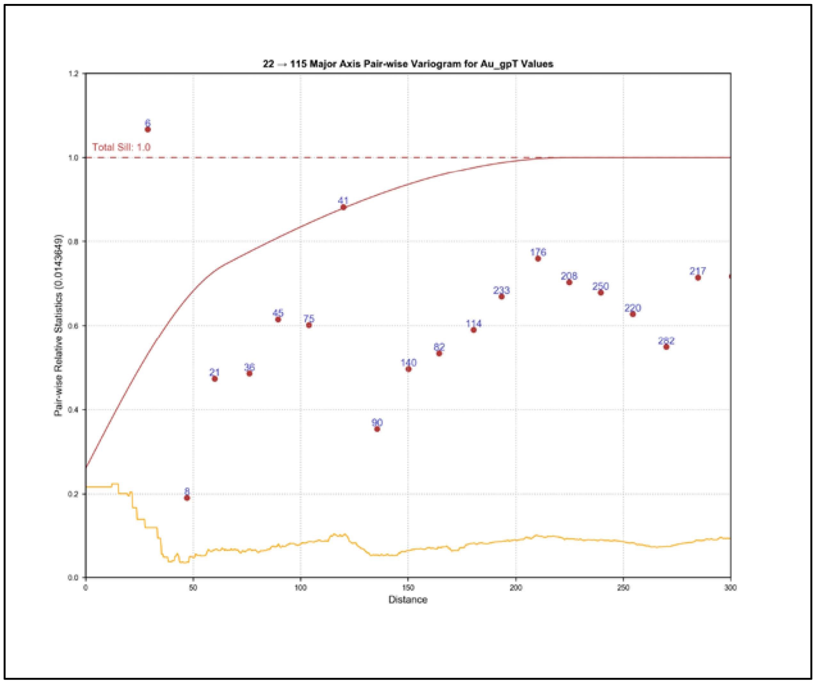

Figure D - 53 Major Axis Variogram for Gold in Granite Porphyry

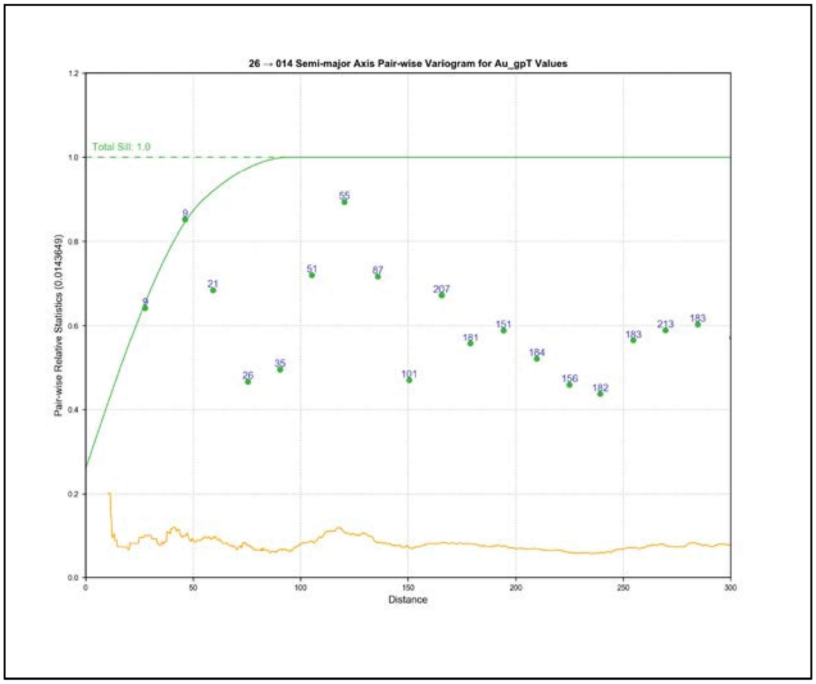

Figure D - 54 Semi-Major Axis Variogram for Gold in Granite Porphyry

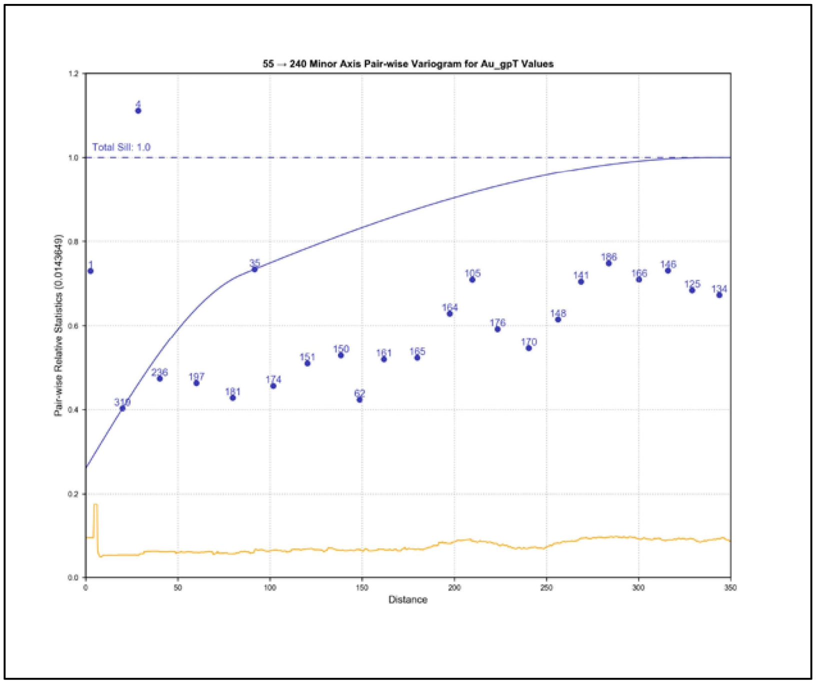

Figure D - 55 Minor Axis Variogram for Gold in Granite Porphyry

Table D - 12 Pairwise Variogram Parameters for Gold in Iron Oxide Breccia

Au 20 (FEBX)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.200	0.160	0.640	1.000
Range (ft)			**Anisotropy**
Major	45	105	2.33
Semi-Major	65	155	3.44
Minor	15	45	1.00
Orientation			
Dip		65	
Dip Azi		140	
Pitch		75	

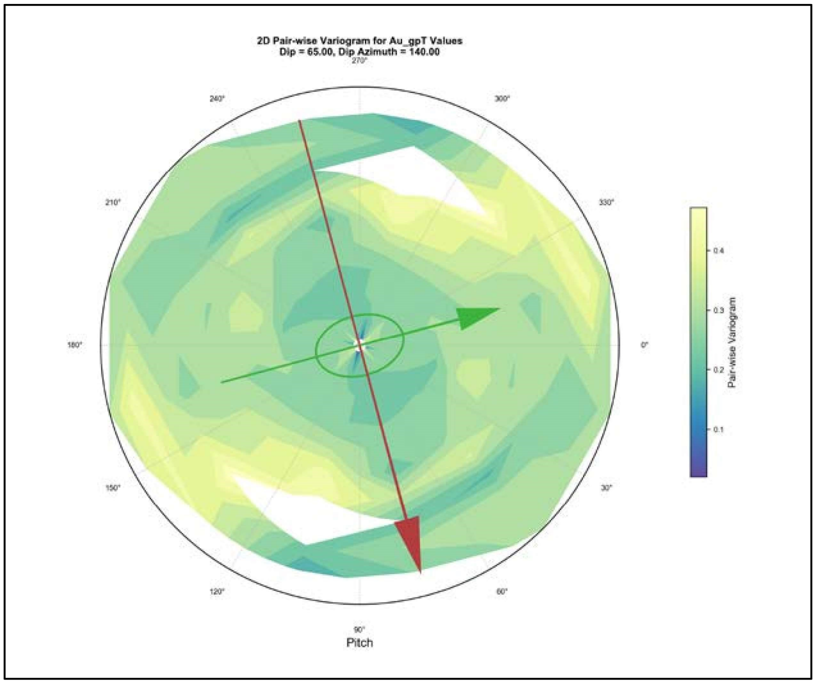

Figure D - 56 Radial Plot for Gold in Iron Oxide Breccia

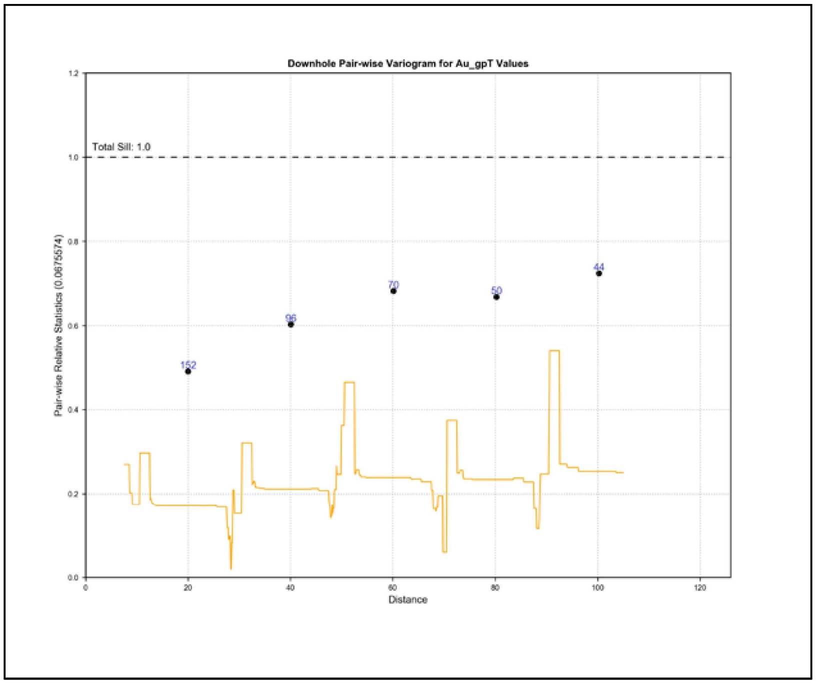

Figure D - 57 Downhole Variogram for Gold in Iron Oxide Breccia

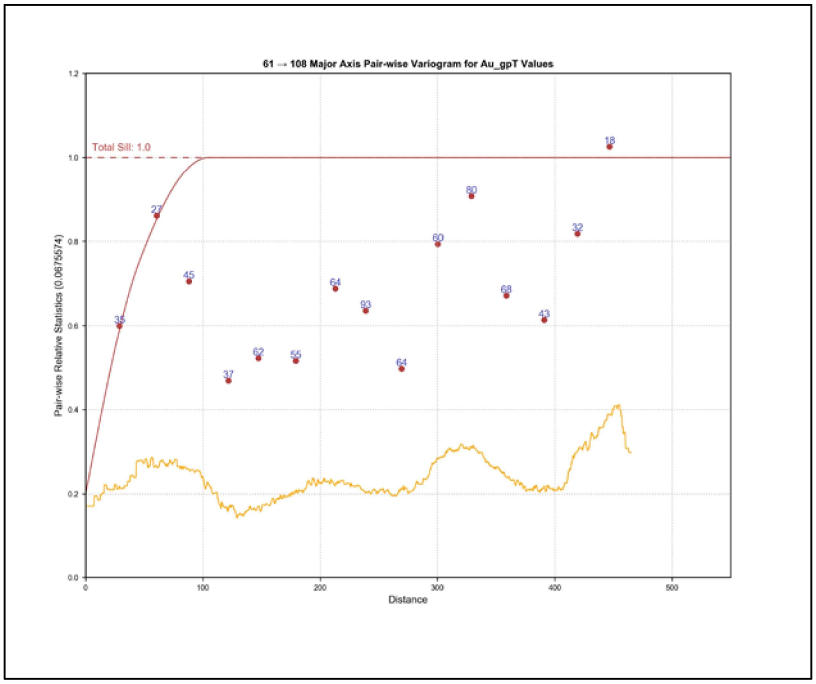

Figure D - 58 Major Axis Variogram for Gold in Iron Oxide Breccia

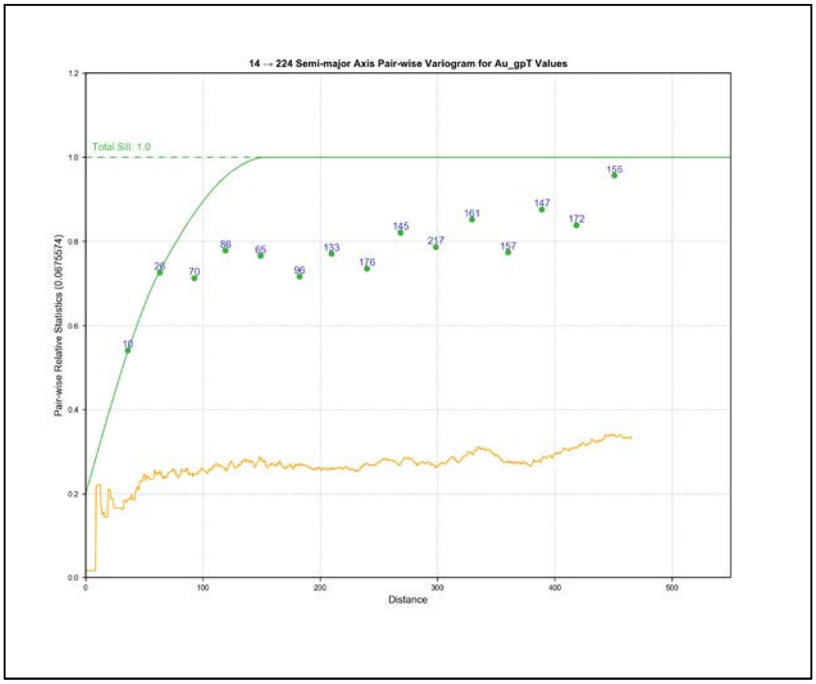

Figure D - 59 Semi-Major Axis Variogram for Gold in Iron Oxide Breccia

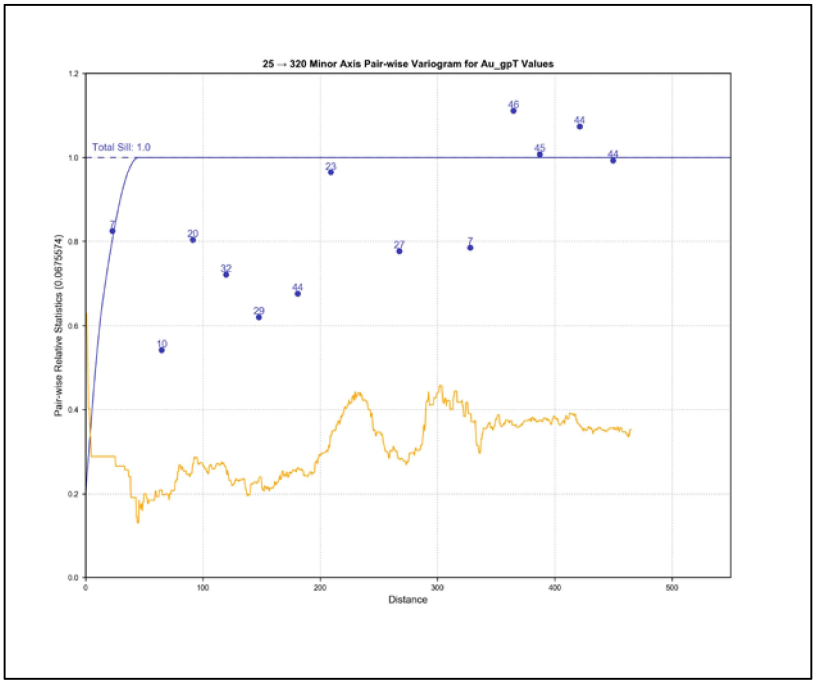

Figure D - 60 Minor Axis Variogram for Gold in Iron Oxide Breccia

Table D - 13 Pairwise Variogram Parameters for Gold in Garnet Skarn

Au 30 (ENDO)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.300	0.390	0.310	1.000
Range (ft)			**Anisotropy**
Major	40	225	0.90
Semi-Major	55	145	0.58
Minor	80	250	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		60	

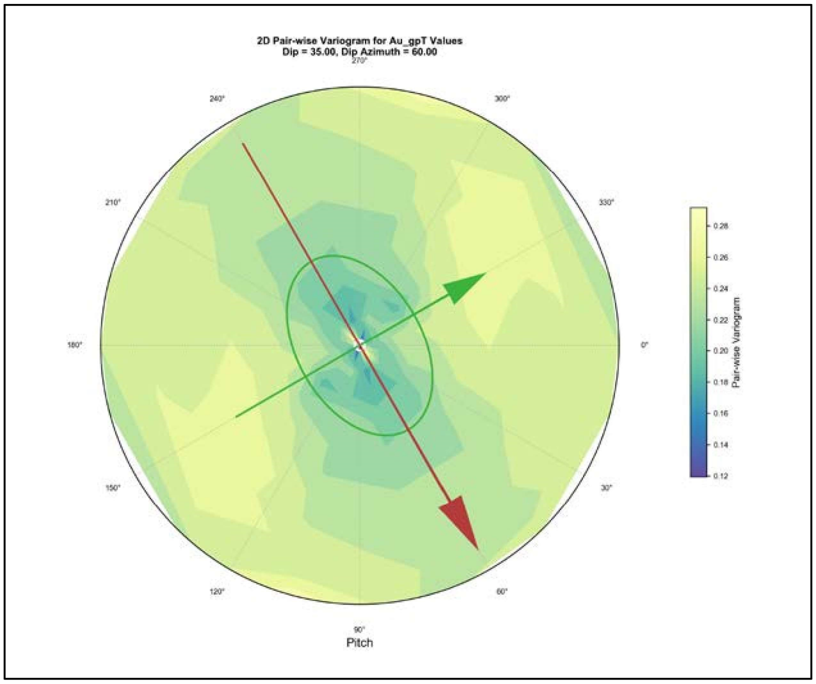

Figure D - 61 Radial Plot for Gold in Garnet Skarn

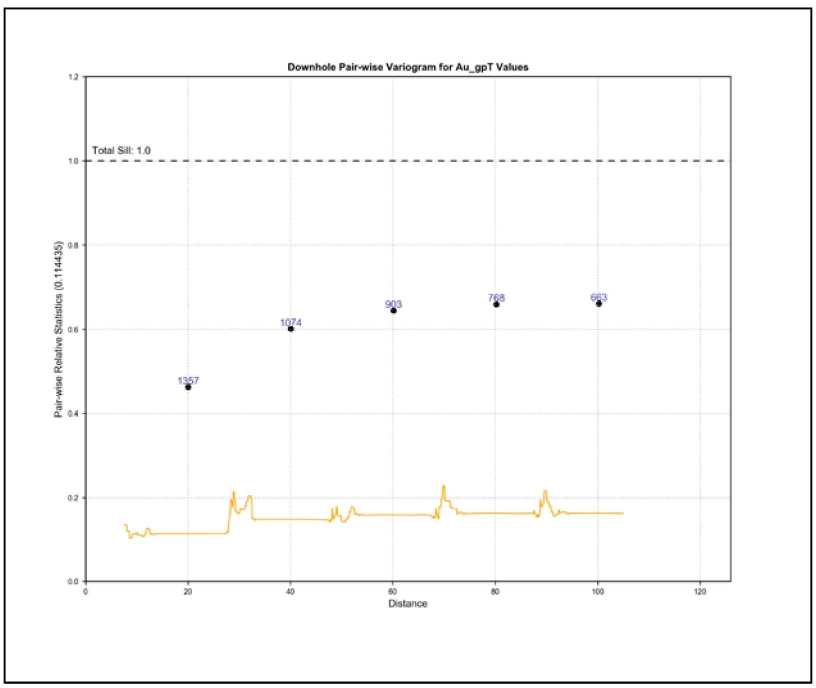

Figure D - 62 Downhole Variogram for Gold in Garnet Skarn

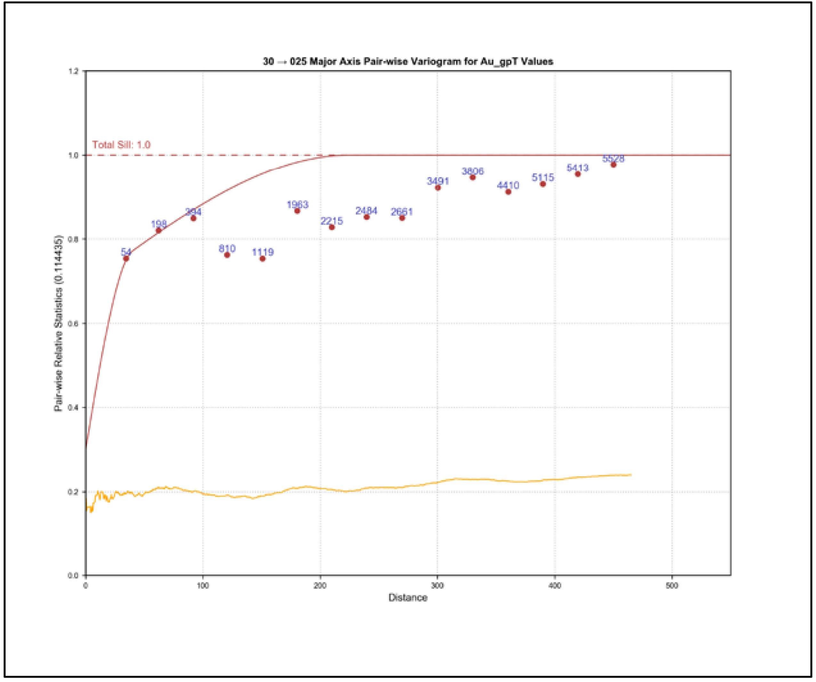

Figure D - 63 Major Axis Variogram for Gold in Garnet Skarn

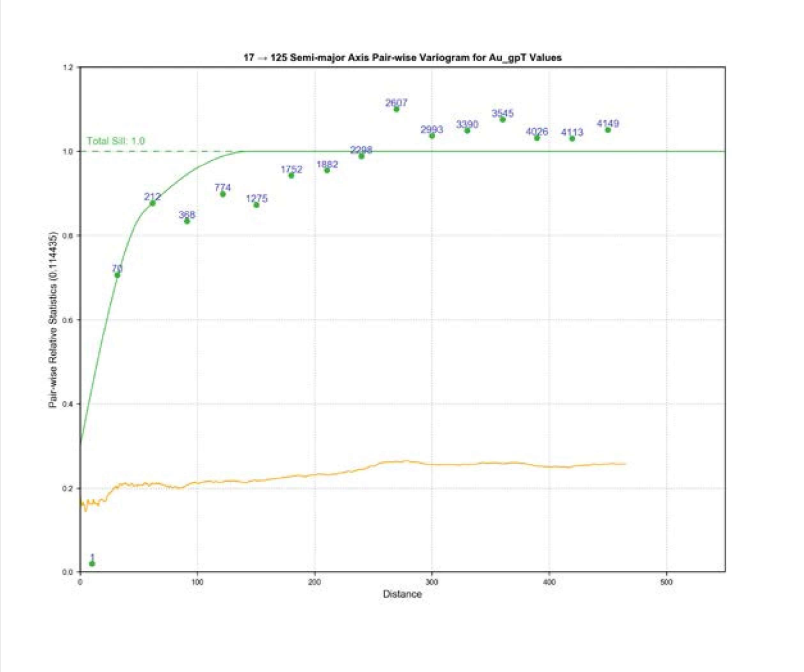

Figure D - 64 Semi-Major Axis Variogram for Gold in Garnet Skarn

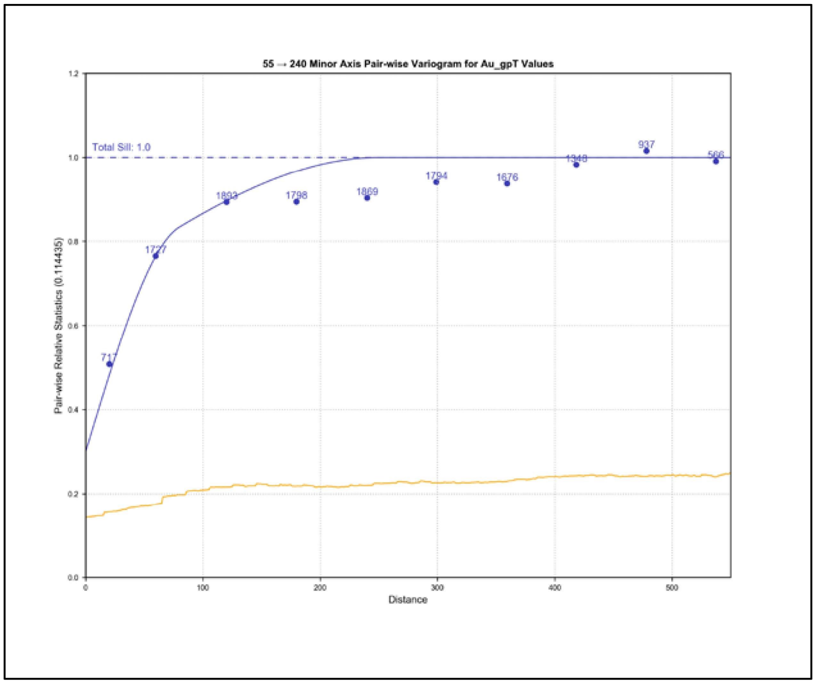

Figure D - 65 Minor Axis Variogram for Gold in Garnet Skarn

Table D - 14 Pairwise Variogram Parameters for Gold in Pyroxene Skarn

Au 32 (EXO)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.330	0.440	0.230	1.000
Range (ft)			**Anisotropy**
Major	25	300	1.43
Semi-Major	70	225	1.07
Minor	135	210	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		105	

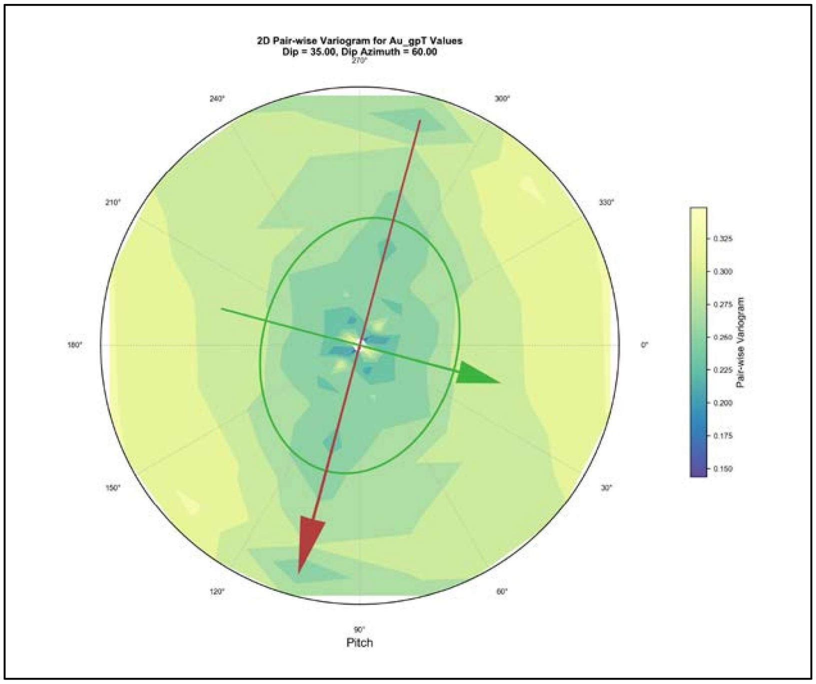

Figure D - 66 Radial Plot for Gold in Pyroxene Skarn

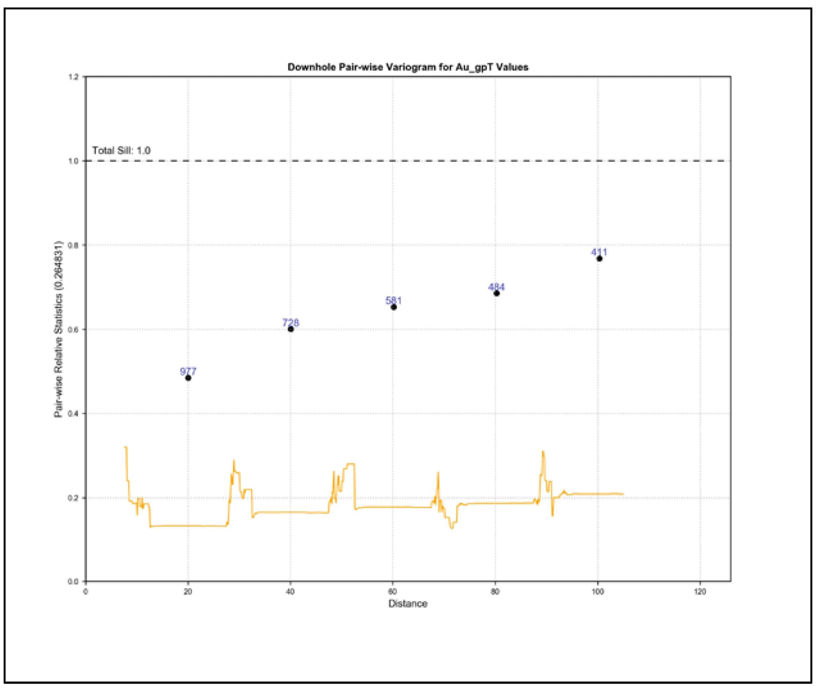

Figure D - 67 Downhole Variogram for Gold in Pyroxene Skarn

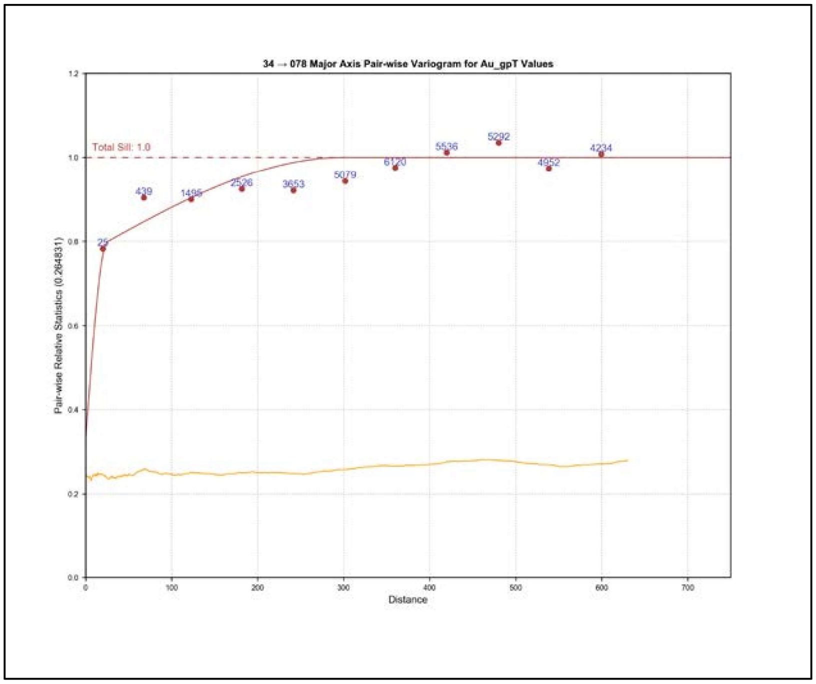

Figure D - 68 Major Axis Variogram for Gold in Pyroxene Skarn

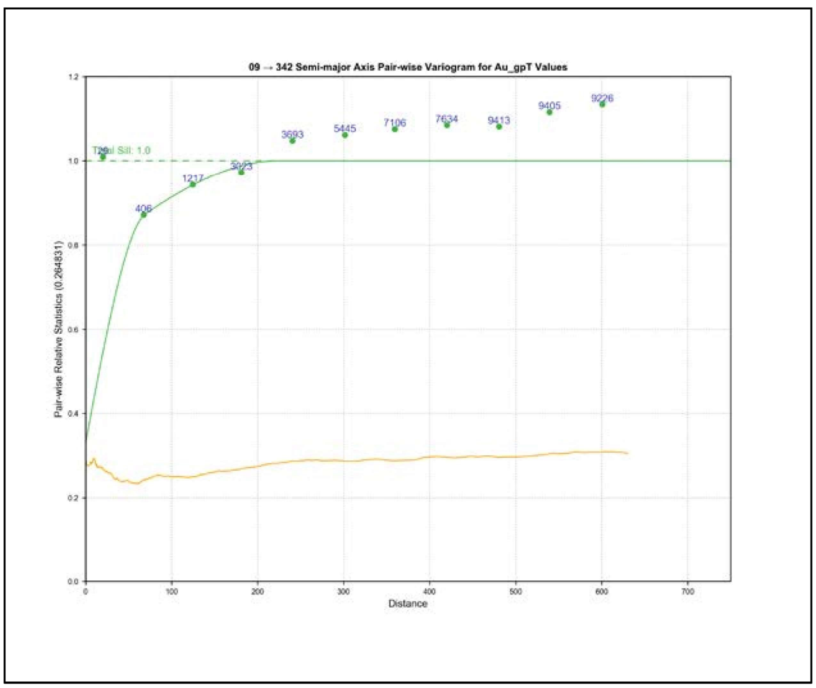

Figure D - 69 Semi-Major Axis Variogram for Gold in Pyroxene Skarn

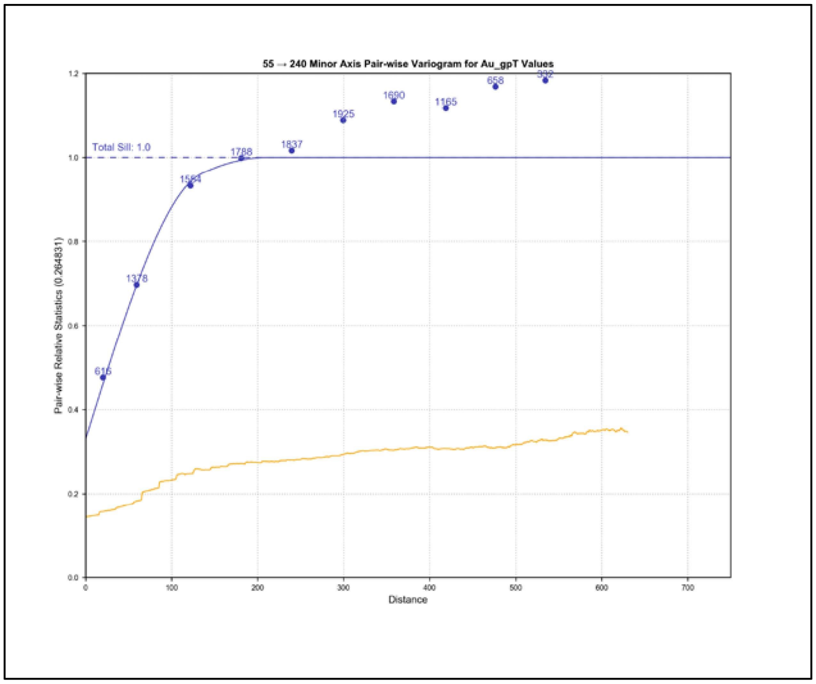

Figure D - 70 Minor Axis Variogram for Gold in Pyroxene Skarn

Table D - 15 Pairwise Variogram Parameters for Gold in Magnetite Skarn

Au 34 (MT)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.200	0.800		1.000
Range (ft)			**Anisotropy**
Major	135		0.90
Semi-Major	55		0.37
Minor	150		1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		105	

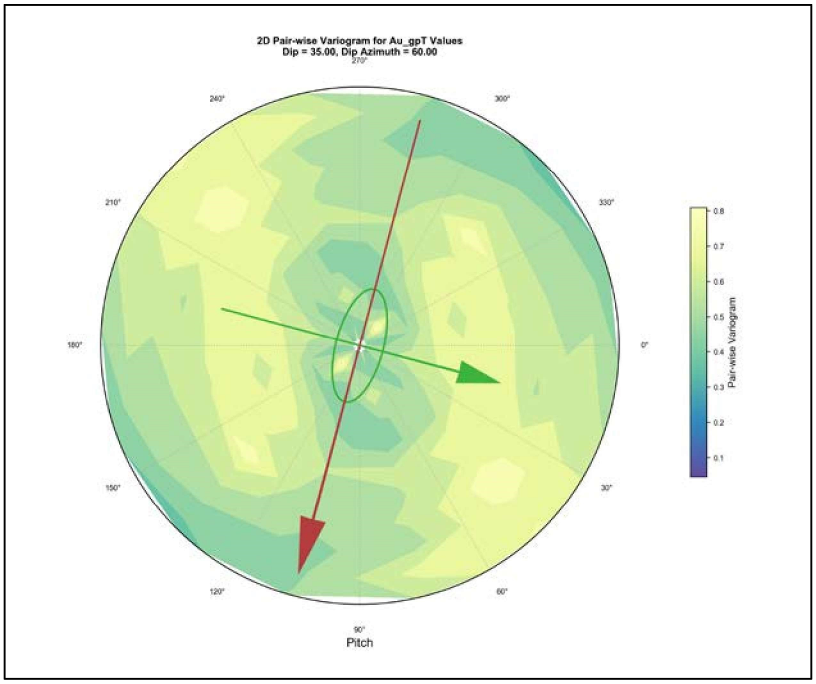

Figure D - 71 Radial Plot for Gold in Magnetite Skarn

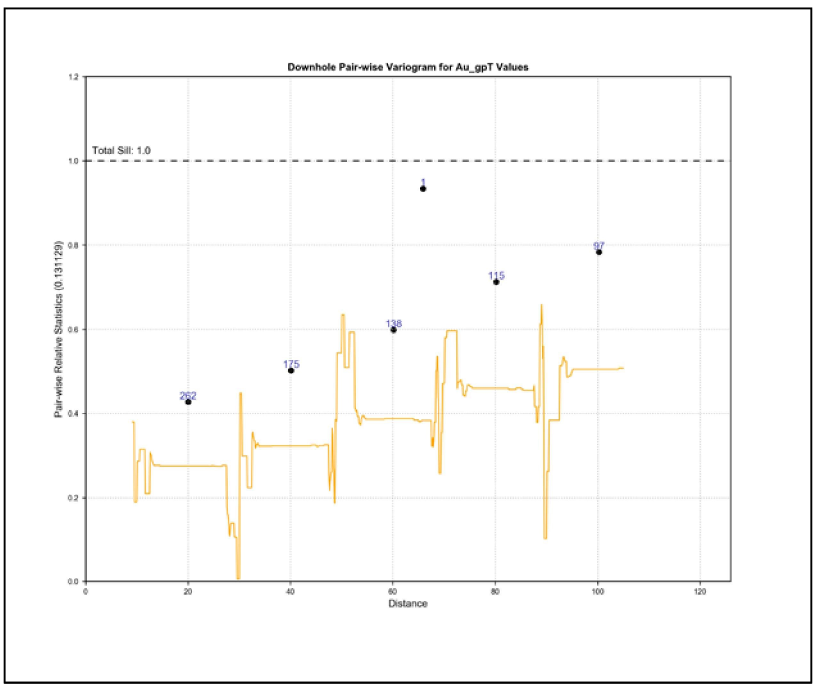

Figure D - 72 Downhole Variogram for Gold in Magnetite Skarn

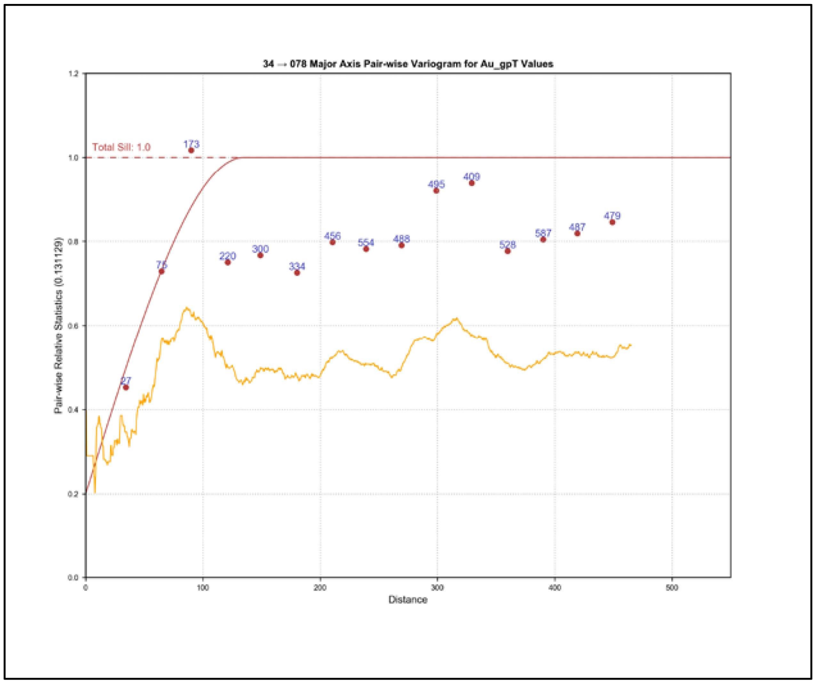

Figure D - 73 Major Axis Variogram for Gold in Magnetite Skarn

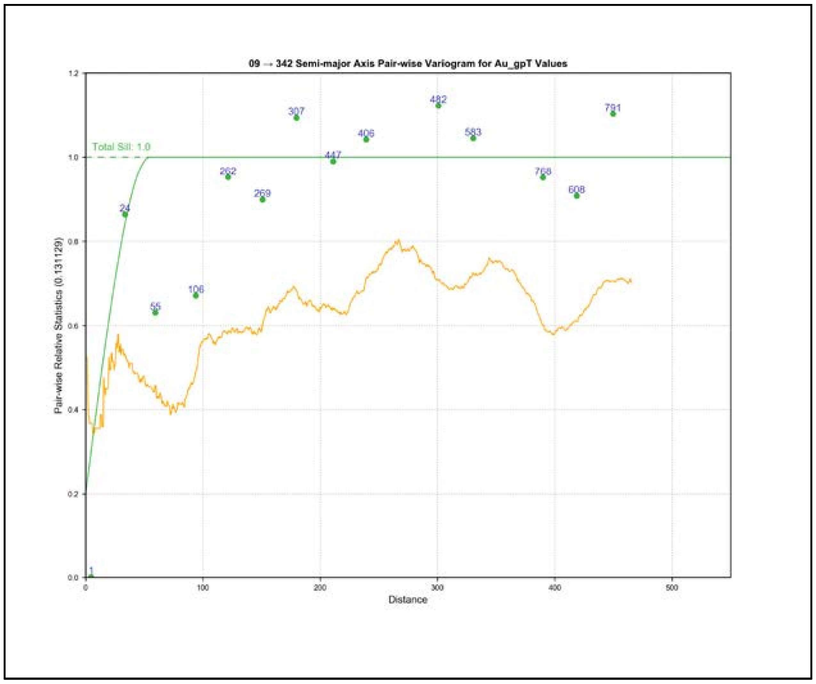

Figure D - 74 Semi-Major Axis Variogram for Gold in Magnetite Skarn

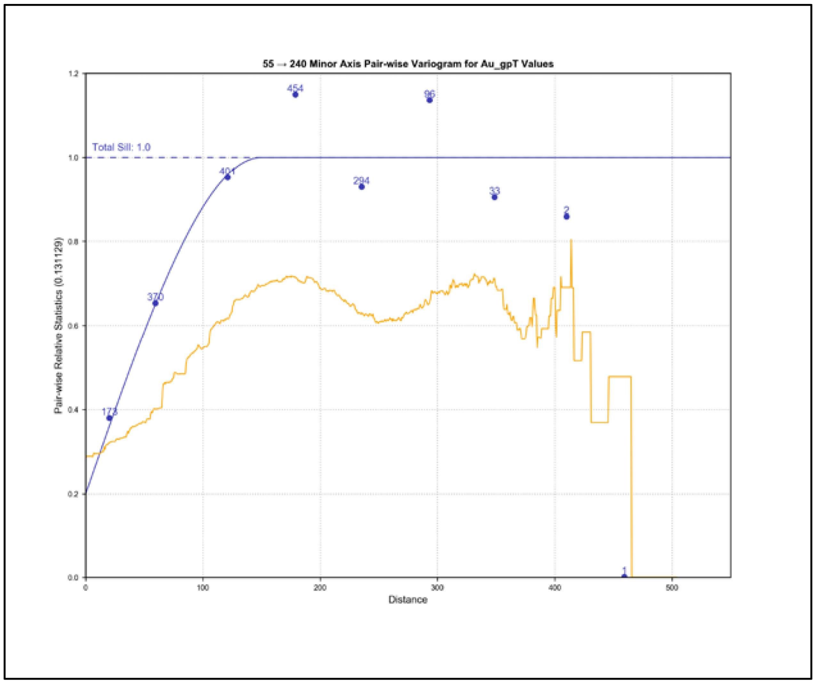

Figure D - 75 Minor Axis Variogram for Gold in Magnetite Skarn

Table D - 16 Pairwise Variogram Parameters for Gold in Limestone

Au 51 (LS)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.100	0.250	0.650	1.000
Range (ft)			**Anisotropy**
Major	70	310	5.96
Semi-Major	70	275	5.29
Minor	30	520	1.00
Orientation			
Dip		45	
Dip Azi		70	
Pitch		110	

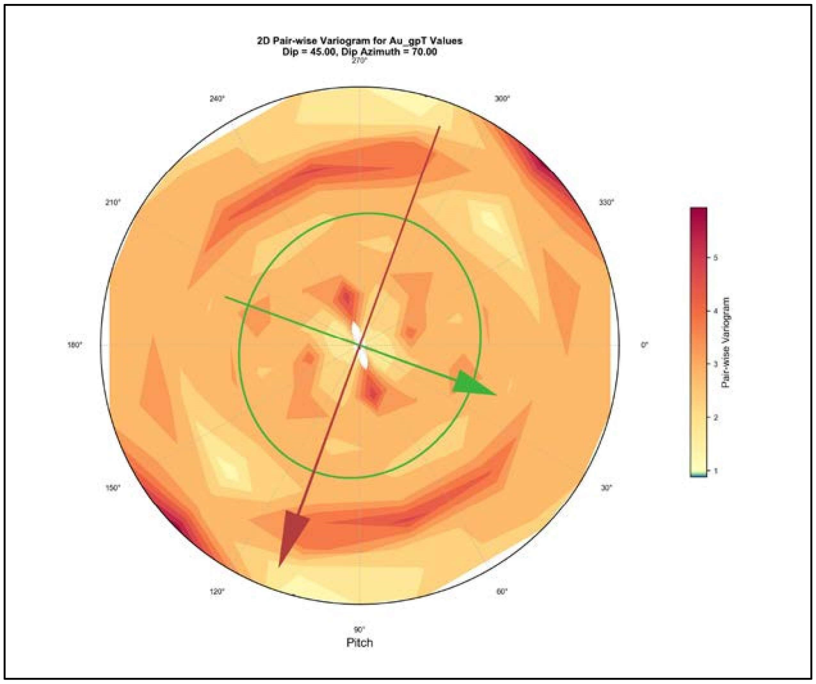

Figure D - 76 Radial Plot for Gold in Limestone

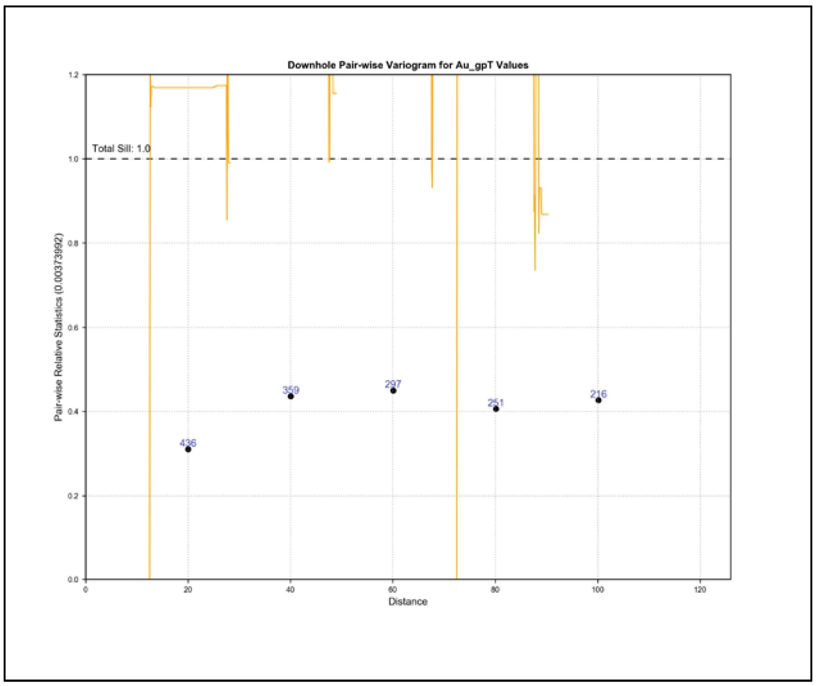

Figure D - 77 Downhole Variogram for Gold in Limestone

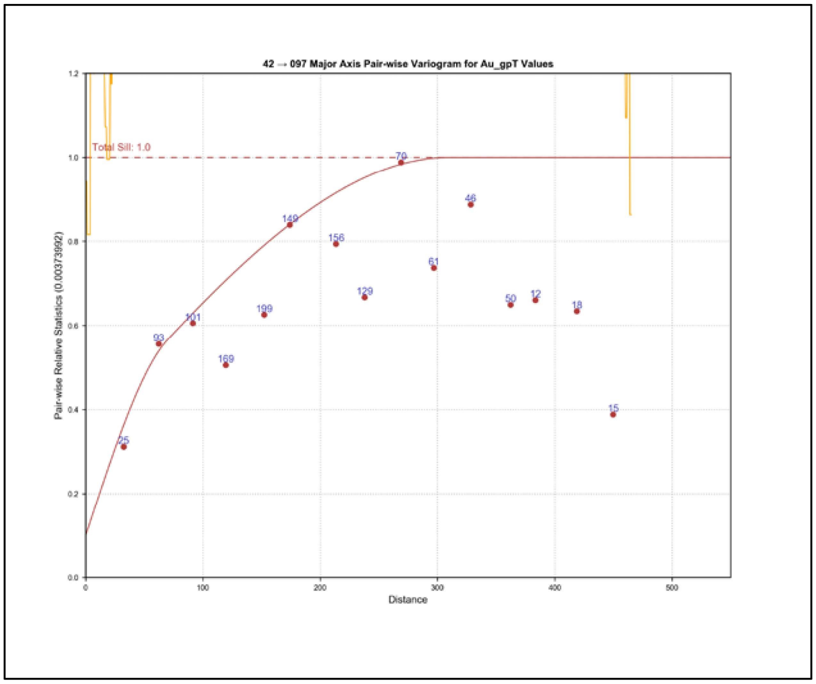

Figure D - 78 Major Axis Variogram for Gold in Limestone

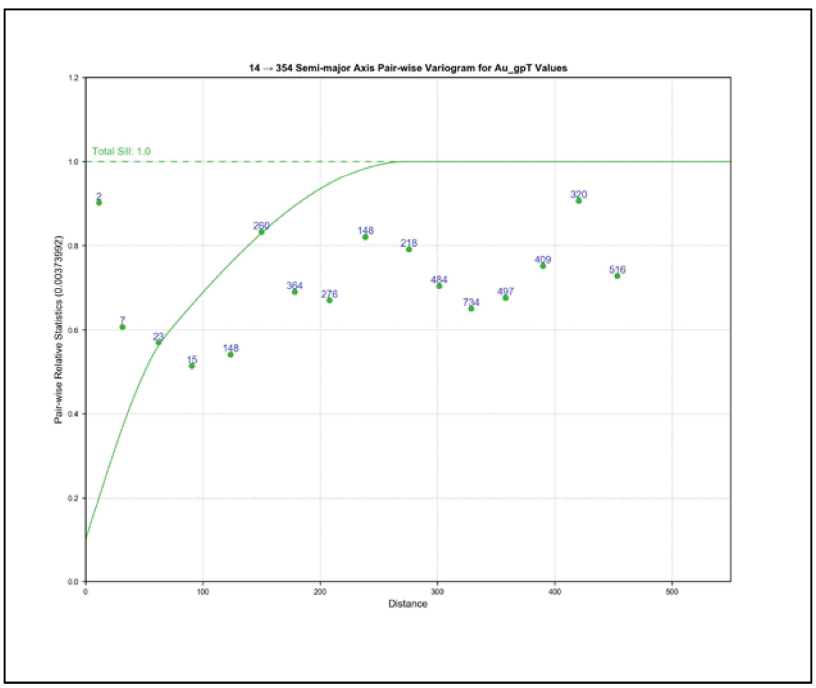

Figure D - 79 Semi-Major Axis Variogram for Gold in Limestone

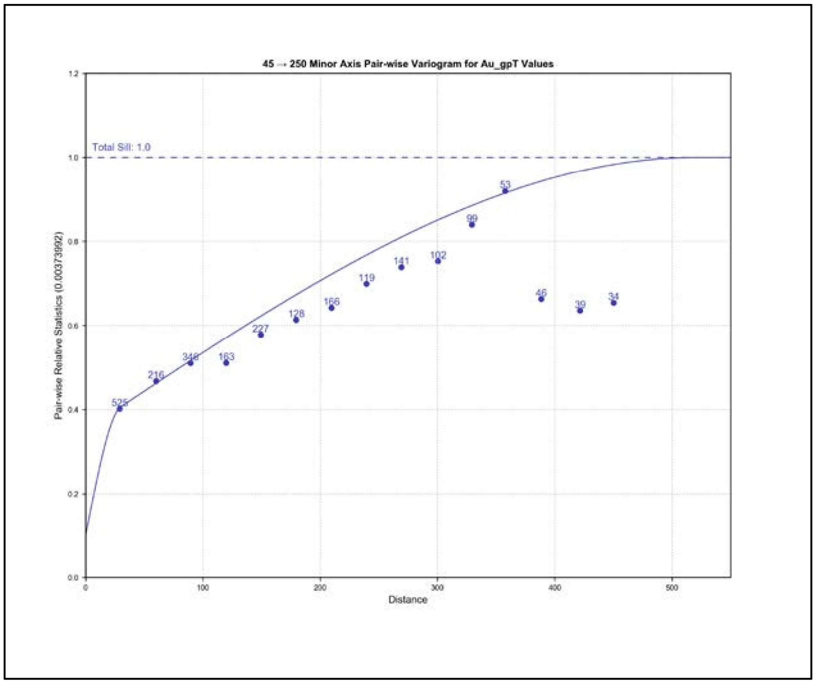

Figure D - 80 Minor Axis Variogram for Gold in Limestone

Table D - 17 Pairwise Variogram Parameters for Gold in Granite

Au 60 (GR)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.150	0.300	0.550	1.000
Range (ft)			**Anisotropy**
Major	30	140	0.65
Semi-Major	65	90	0.42
Minor	60	215	1.00
Orientation			
Dip		45	
Dip Azi		70	
Pitch		10	

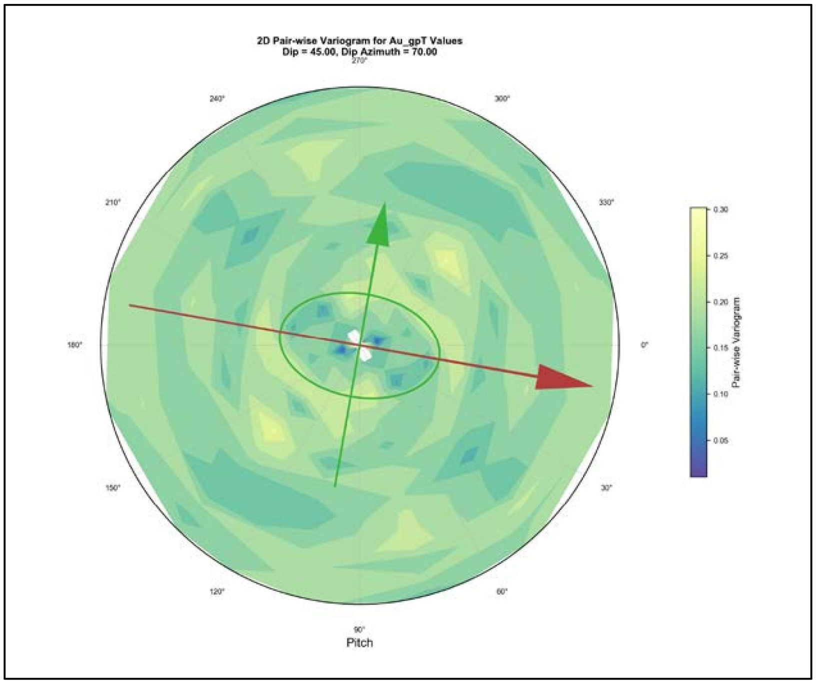

Figure D - 81 Radial Plot for Gold in Granite

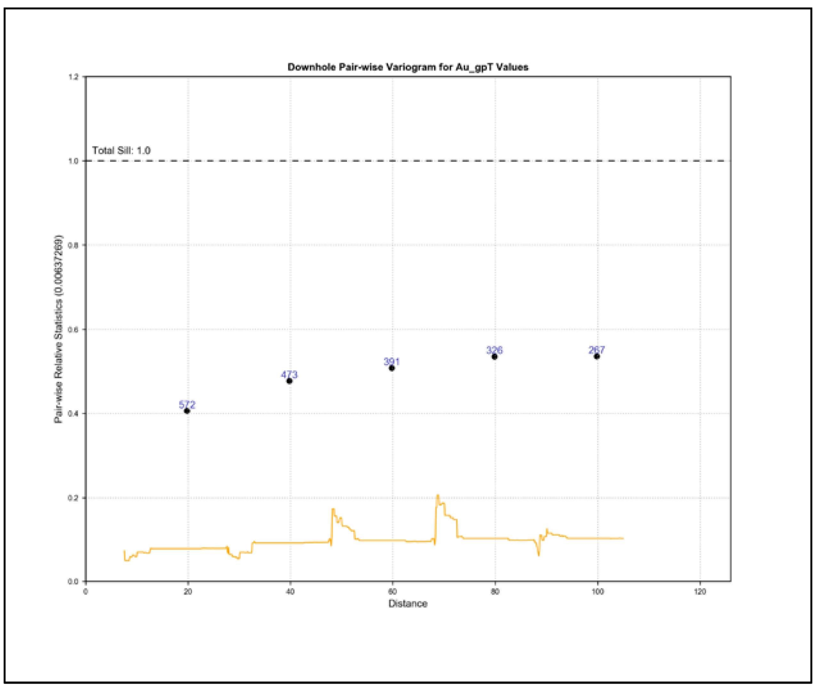

Figure D - 82 Downhole Variogram for Gold in Granite

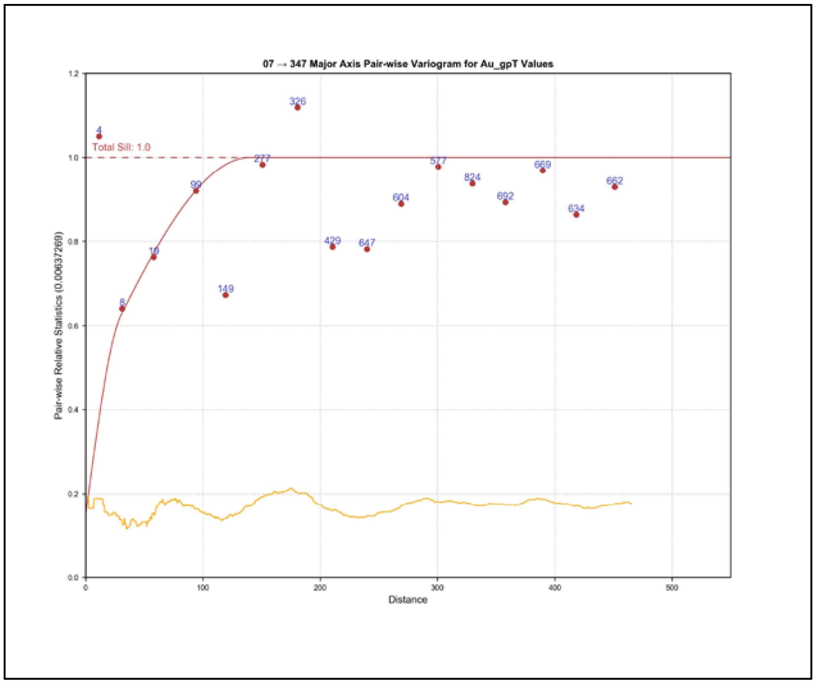

Figure D - 83 Major Axis Variogram for Gold in Granite

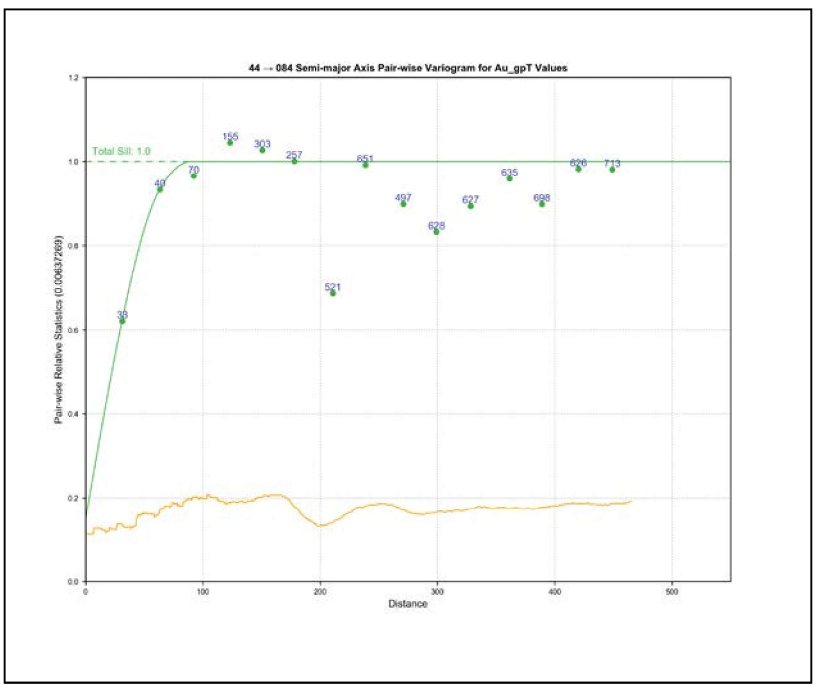

Figure D - 84 Semi-Major Axis Variogram for Gold in Granite

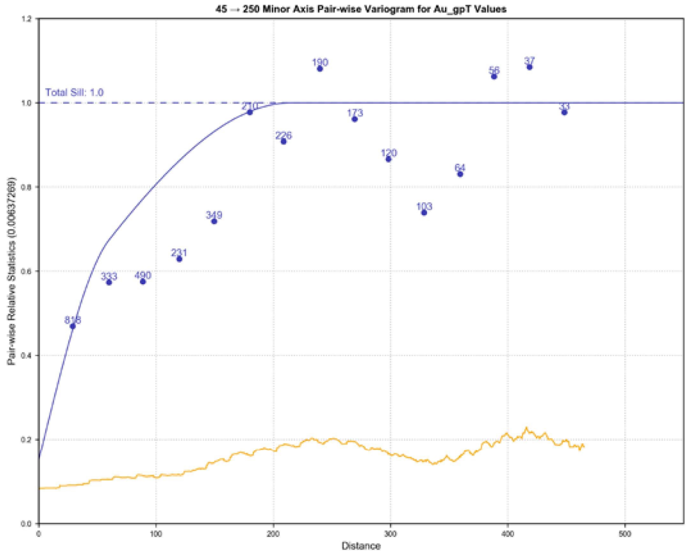

Figure D - 85 Minor Axis Variogram for Gold in Granite

Table D - 18 Pairwise Variogram Parameters for Gold in Dikes

Au 61 (DIKE)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.180	0.510	0.310	1.000
Range (ft)			**Anisotropy**
Major	85	200	2.11
Semi-Major	120	145	1.53
Minor	75	95	1.00
Orientation			
Dip		90	
Dip Azi		140	
Pitch		45	

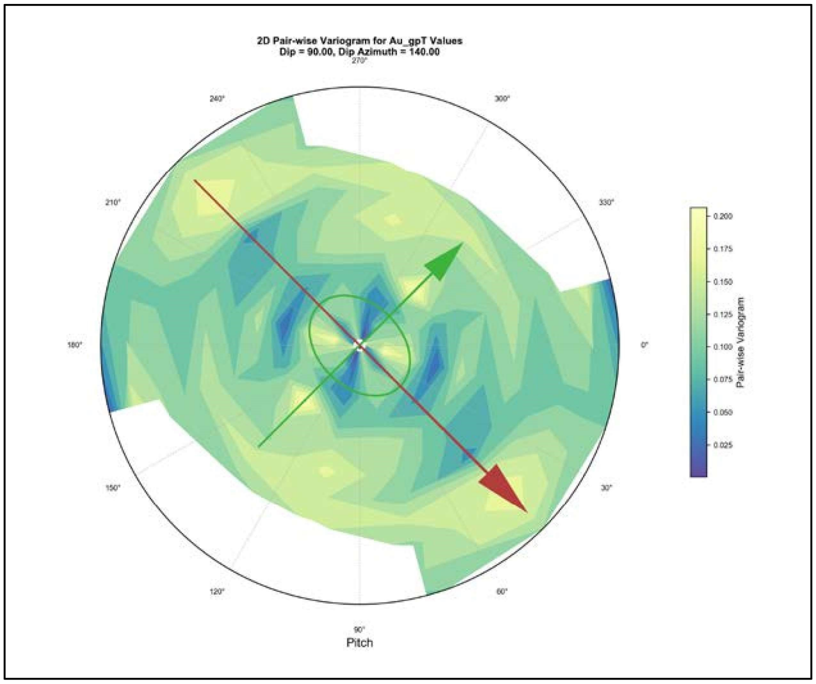

Figure D - 86 Radial Plot for Gold in Dikes

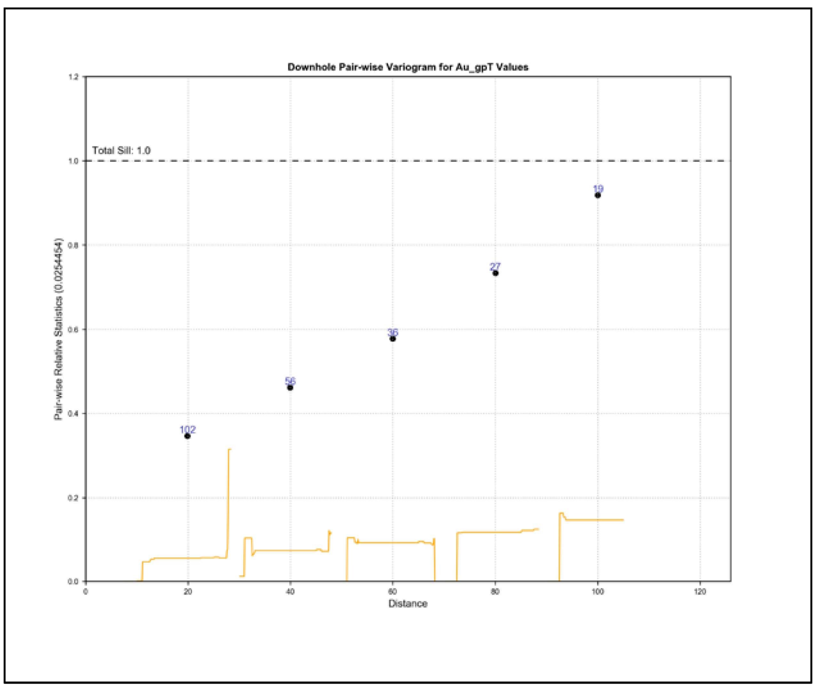

Figure D - 87 Downhole Variogram for Gold in Dikes

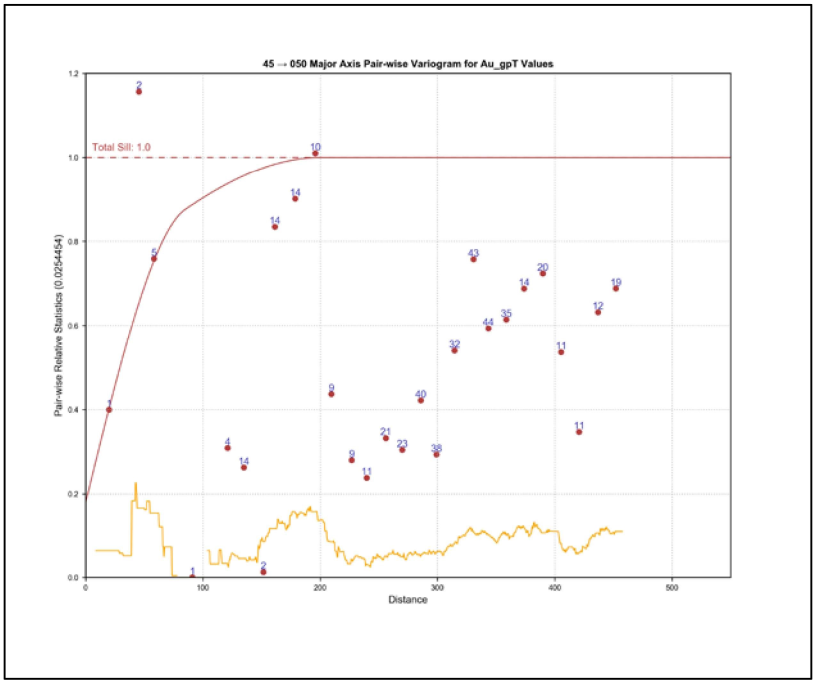

Figure D - 88 Major Axis Variogram for Gold in Dikes

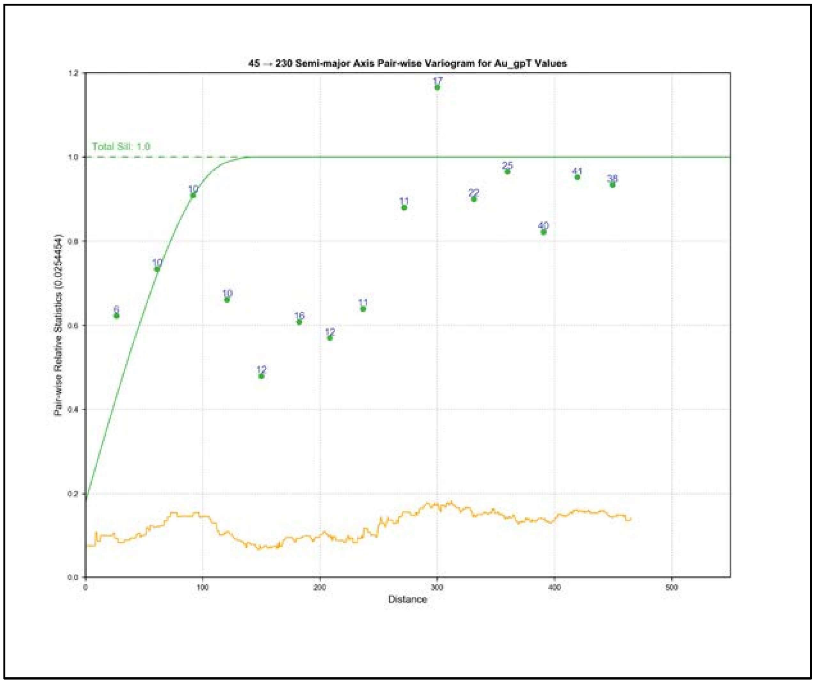

Figure D - 89 Semi-Major Axis Variogram for Gold in Dikes

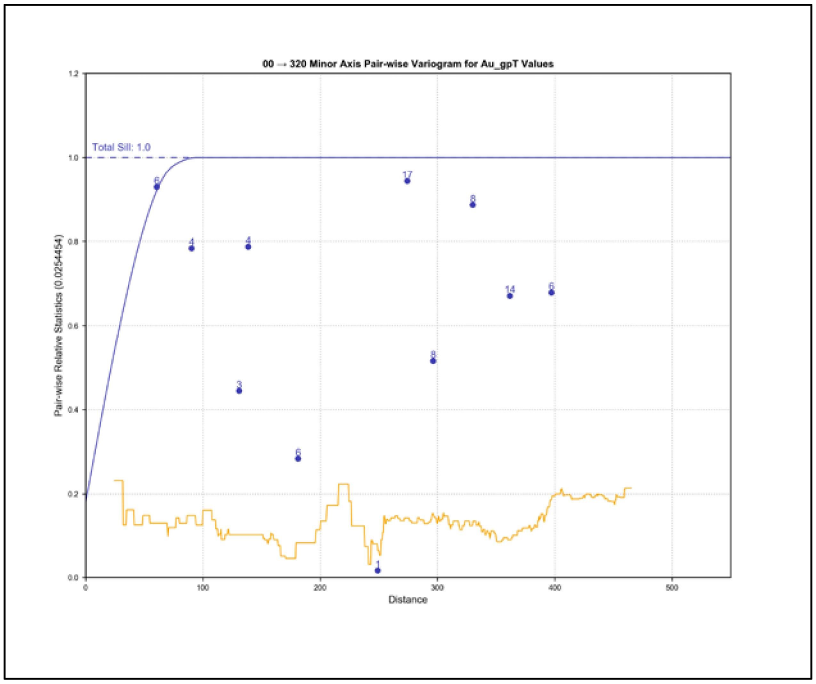

Figure D - 90 Minor Axis Variogram for Gold in Dikes

Table D - 19 Pairwise Variogram Parameters for Total Copper in Overburden

Cu 10 (OVB)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.250	0.260	0.490	1.000
Range (ft)			**Anisotropy**
Major	70	245	8.17
Semi-Major	15	140	4.67
Minor	5	30	1.00
Orientation			
Dip		0	
Dip Azi		90	
Pitch		75	

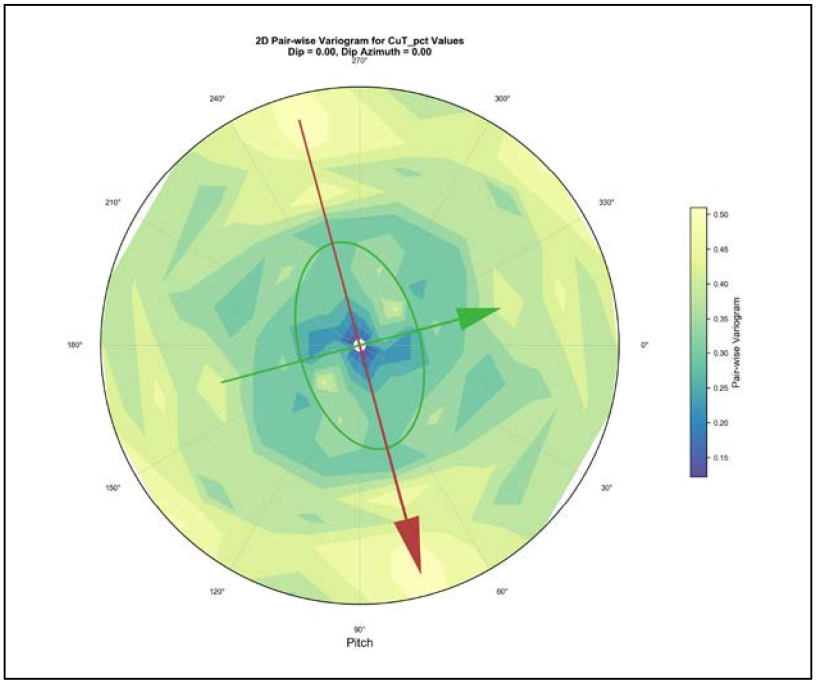

Figure D - 91 Radial Plot for Total Copper in Overburden

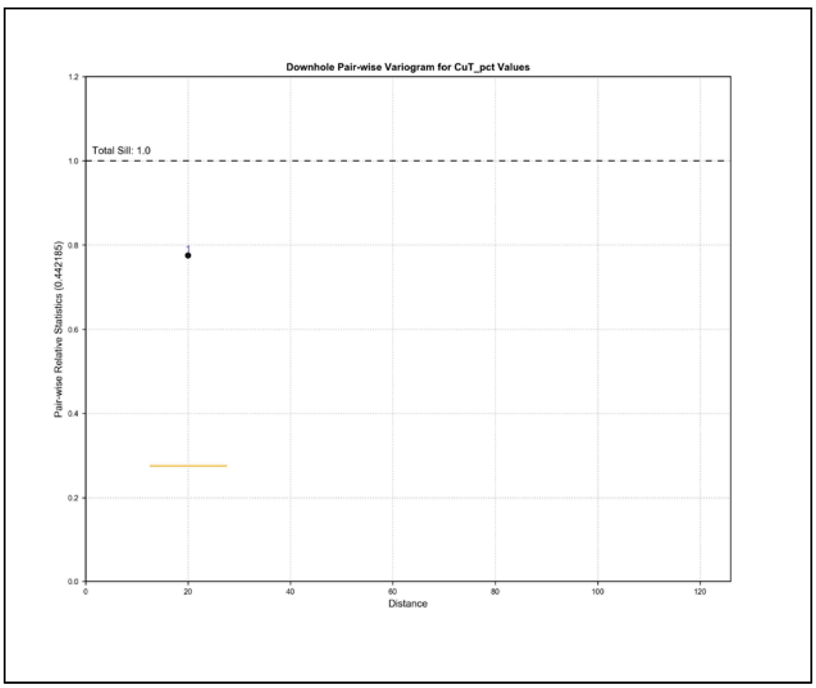

Figure D - 92 Downhole Variogram for Total Copper in Overburden

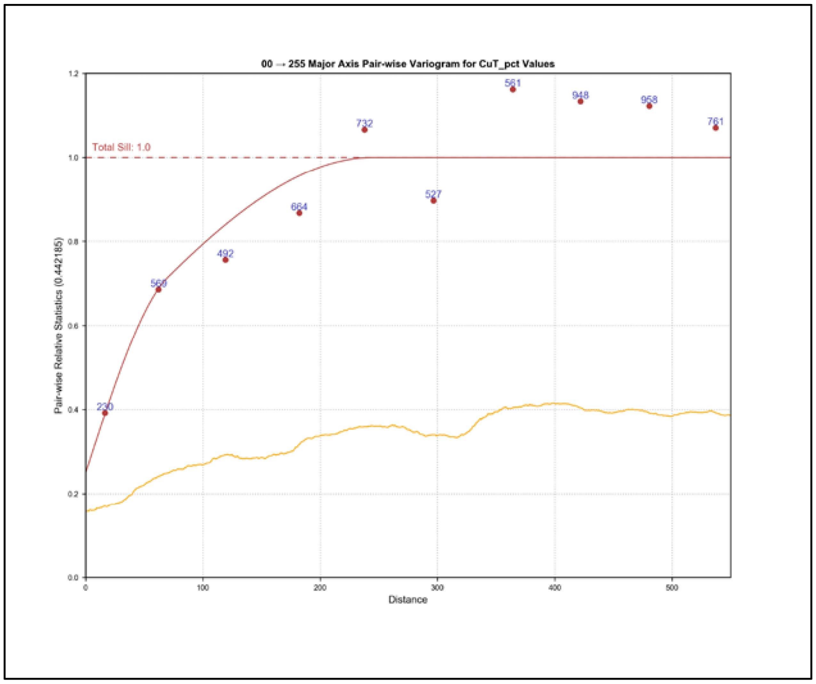

Figure D - 93 Major Axis Variogram for Total Copper in Overburden

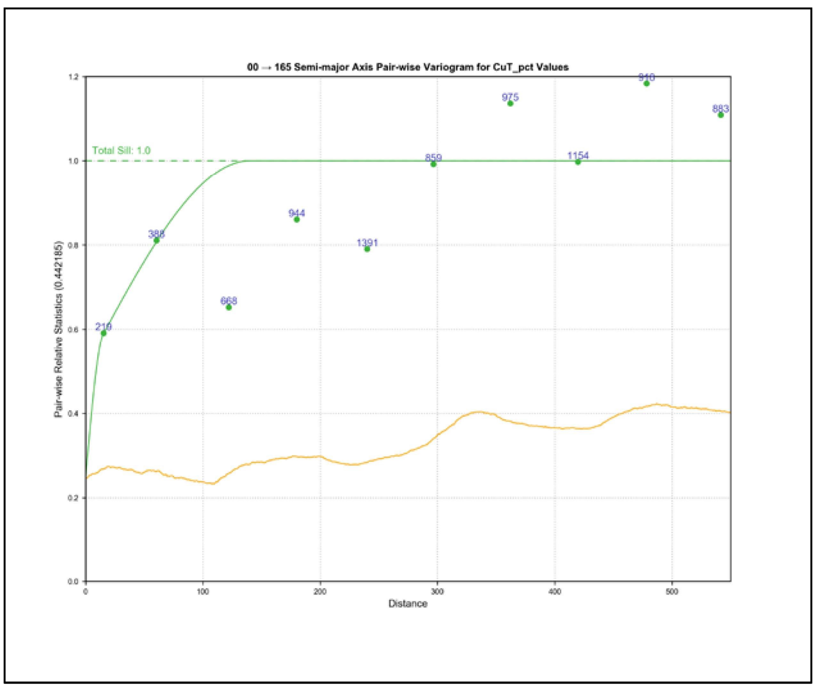

Figure D - 94 Semi-Major Axis Variogram for Total Copper in Overburden

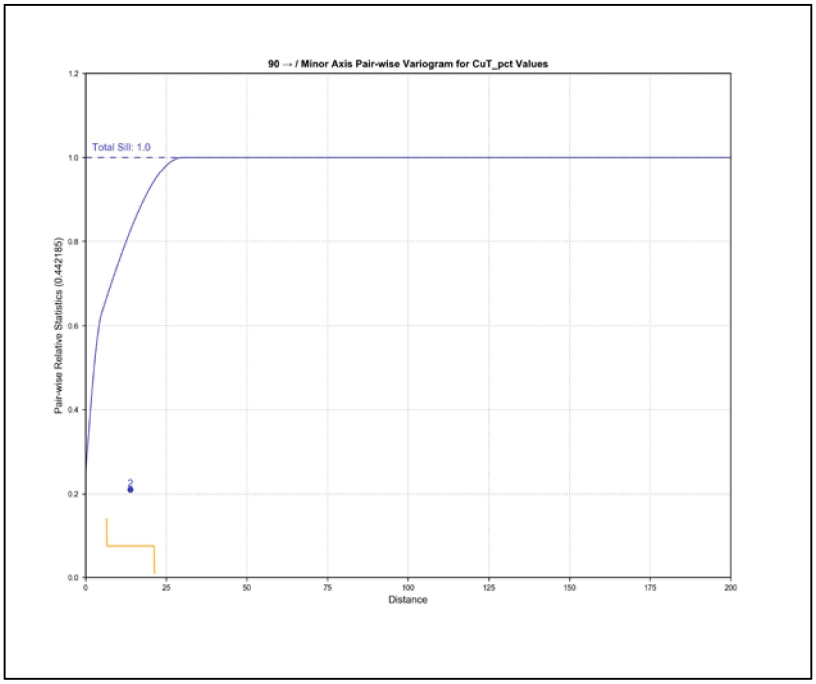

Figure D - 95 Minor Axis Variogram for Total Copper in Overburden

Table D - 20 Pairwise Variogram Parameters for Total Copper in Granite Porphyry

Cu 12 (GP)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.195	0.245	0.560	1.000
Range (ft)			**Anisotropy**
Major	40	240	0.46
Semi-Major	130	210	0.40
Minor	75	525	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		45	

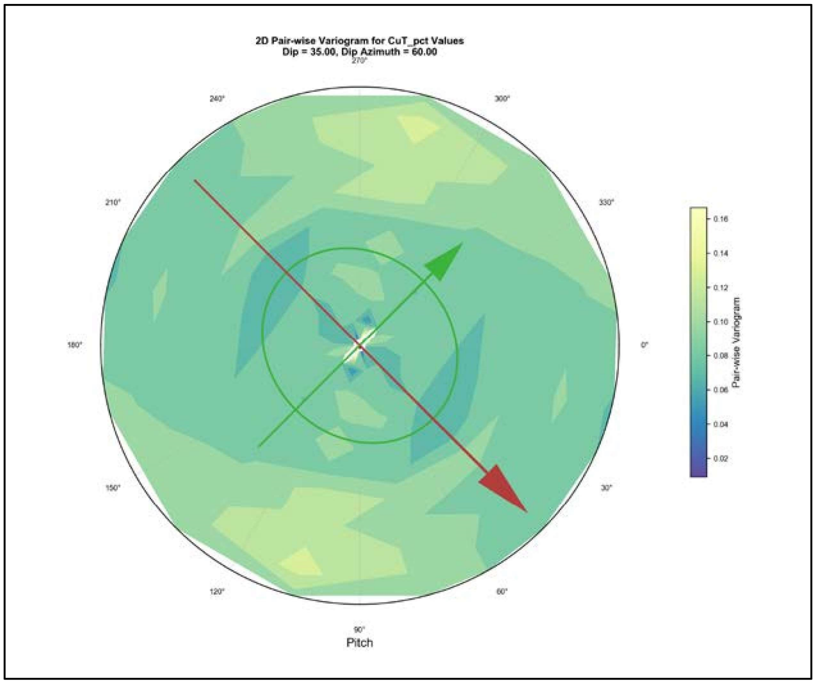

Figure D - 96 Radial Plot for Total Copper in Granite Porphyry

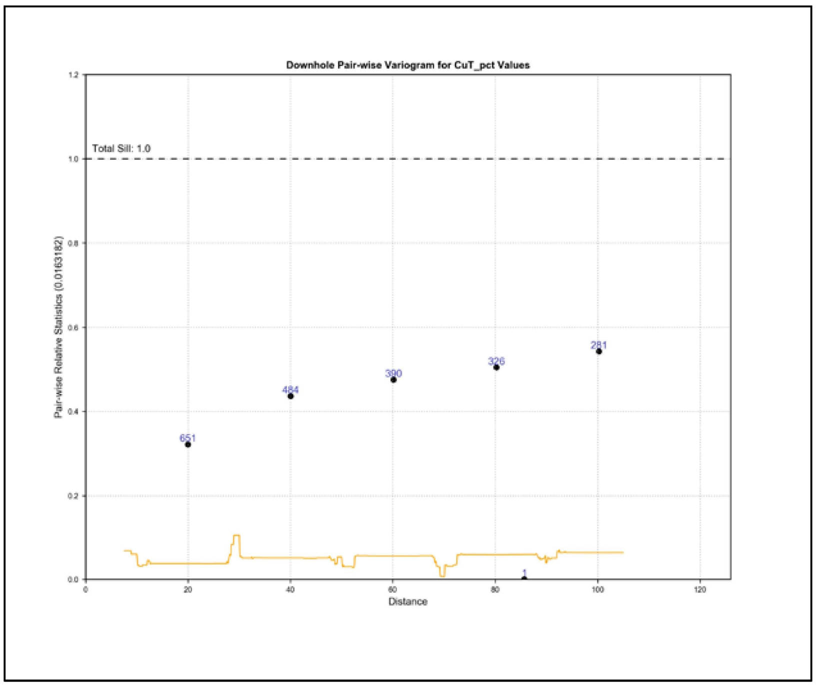

Figure D - 97 Downhole Variogram for Total Copper in Granite Porphyry

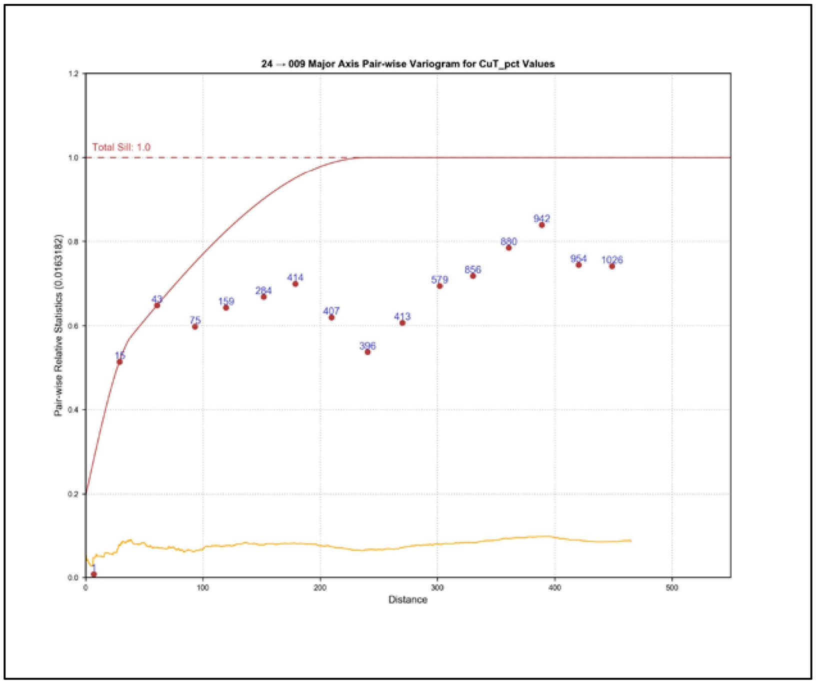

Figure D - 98 Major Axis Variogram for Total Copper in Granite Porphyry

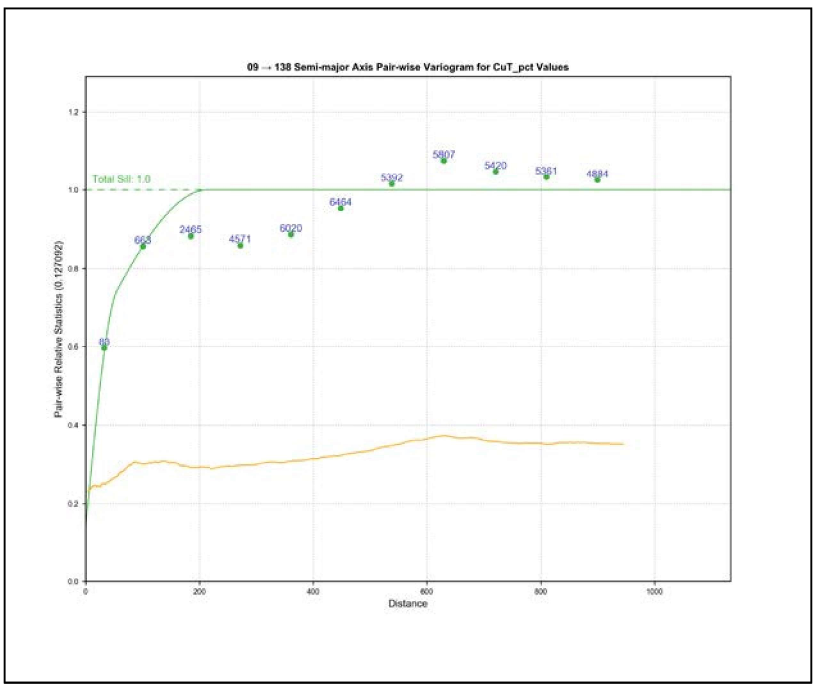

Figure D - 99 Semi-Major Axis Variogram for Total Copper in Granite Porphyry

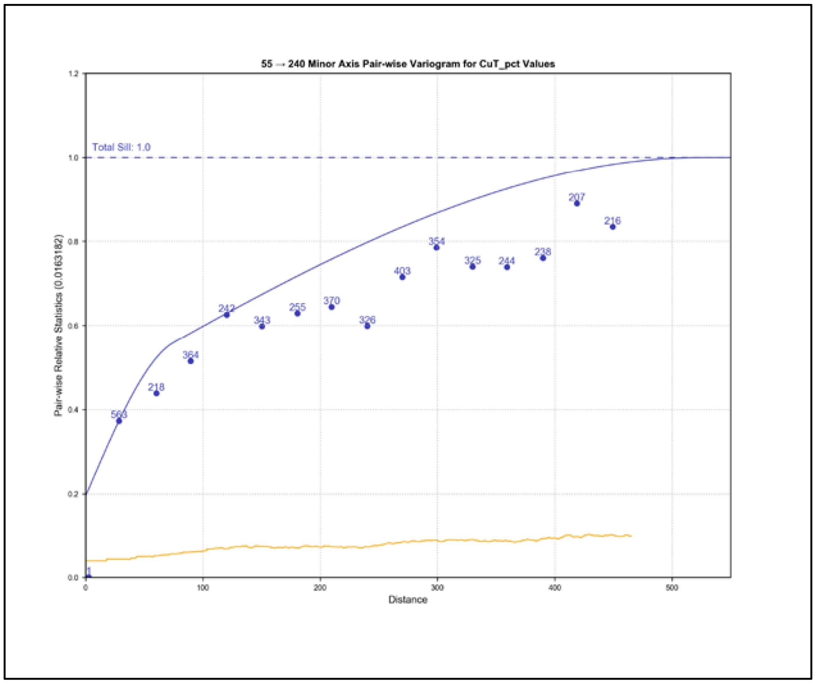

Figure D - 100 Minor Axis Variogram for Total Copper in Granite Porphyry

Table D - 21 Pairwise Variogram Parameters for Total Copper in Iron Oxide Breccia

Cu 20 (FEBX)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.200	0.350	0.450	1.000
Range (ft)			**Anisotropy**
Major	30	260	0.84
Semi-Major	60	150	0.48
Minor	75	310	1.00
Orientation			
Dip		65	
Dip Azi		140	
Pitch		75	

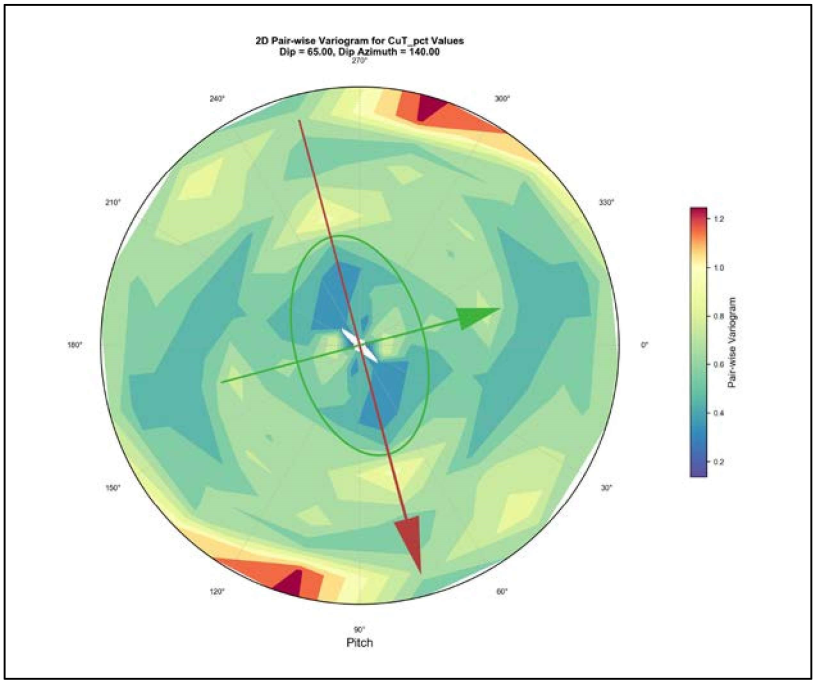

Figure D - 101 Radial Plot for Total Copper in Iron Oxide Breccia

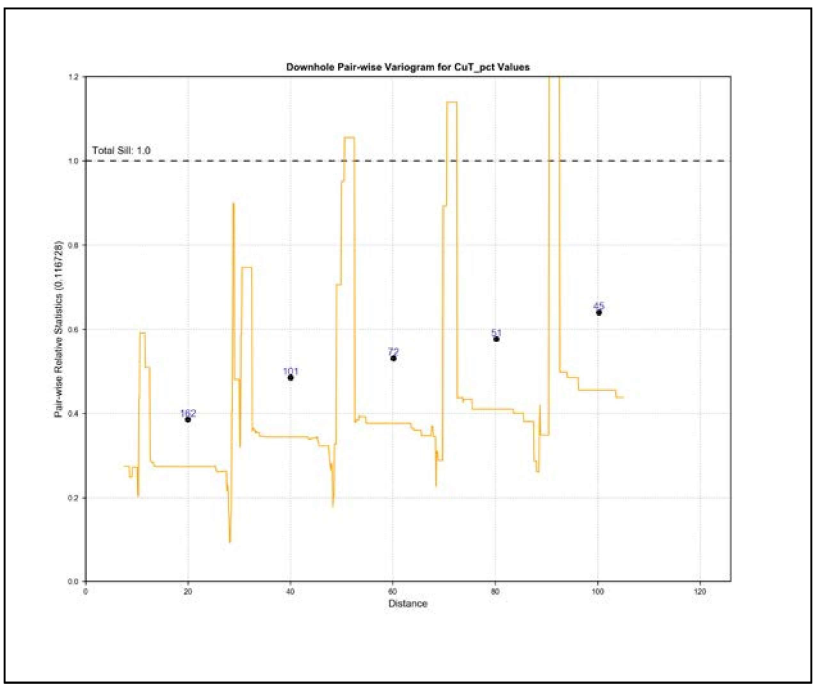

Figure D - 102 Downhole Variogram for Total Copper in Iron Oxide Breccia

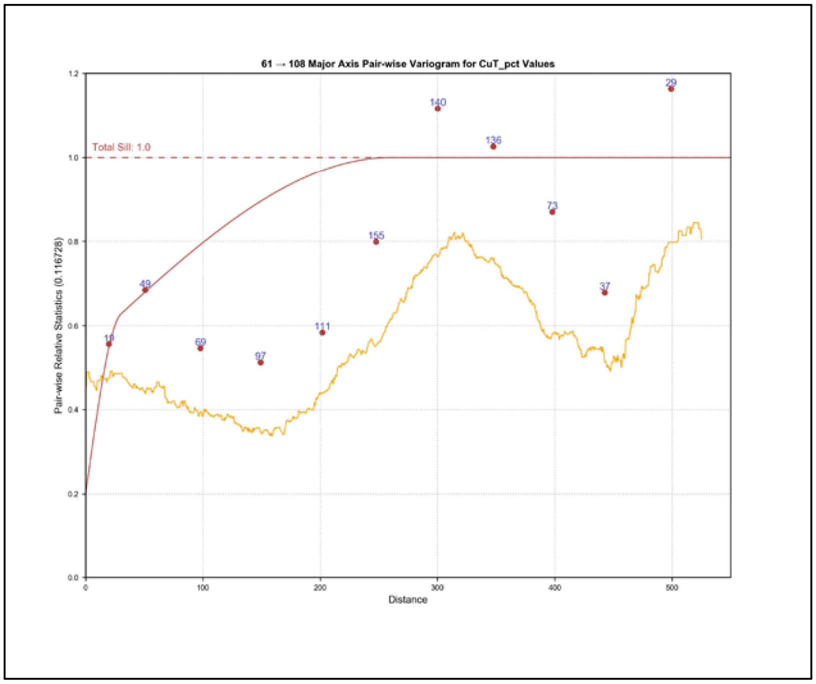

Figure D - 103 Major Axis Variogram for Total Copper in Iron Oxide Breccia

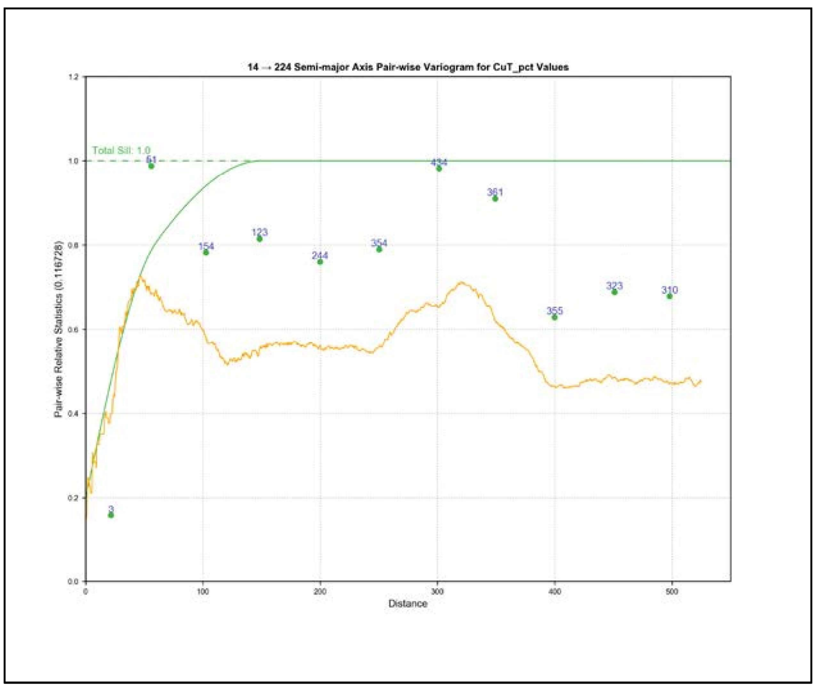

Figure D - 104 Semi-Major Axis Variogram for Total Copper in Iron Oxide Breccia

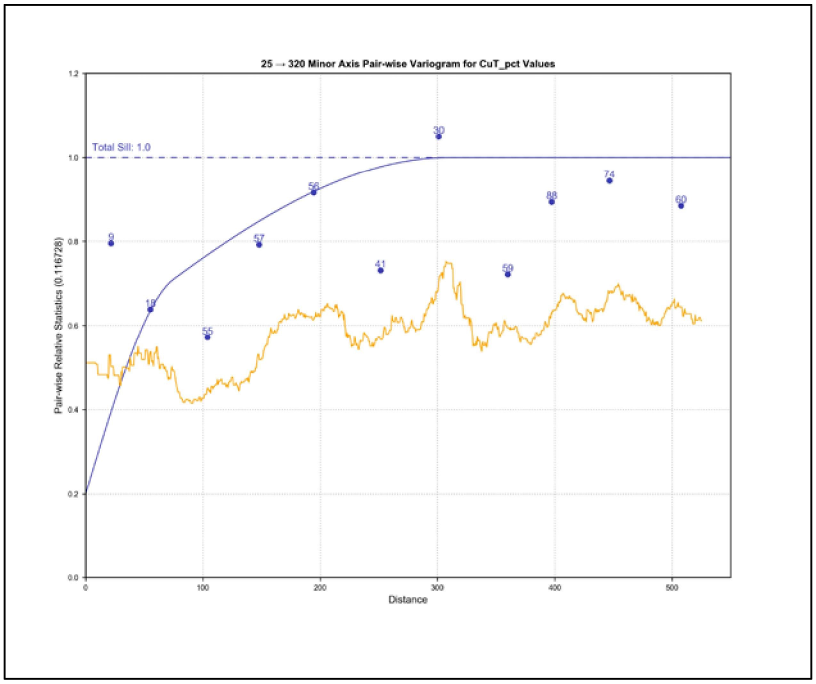

Figure D - 105 Minor Axis Variogram for Total Copper in Iron Oxide Breccia

Table D - 22 Pairwise Variogram Parameters for Total Copper in Garnet Skarn

Cu 30 (ENDO)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.140	0.420	0.440	1.000
Range (ft)			**Anisotropy**
Major	130	495	1.80
Semi-Major	40	245	0.89
Minor	50	275	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		75	

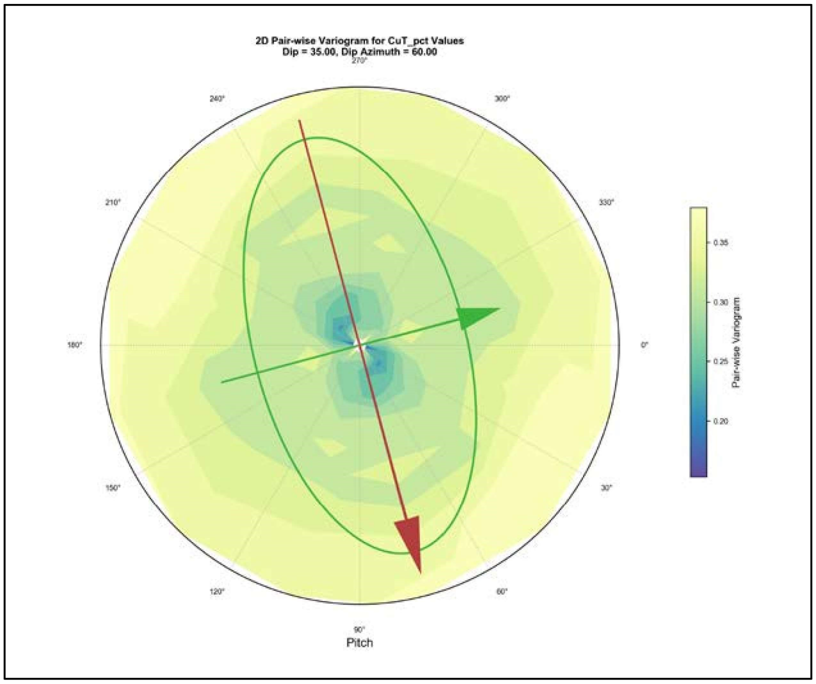

Figure D - 106 Radial Plot for Total Copper in Garnet Skarn

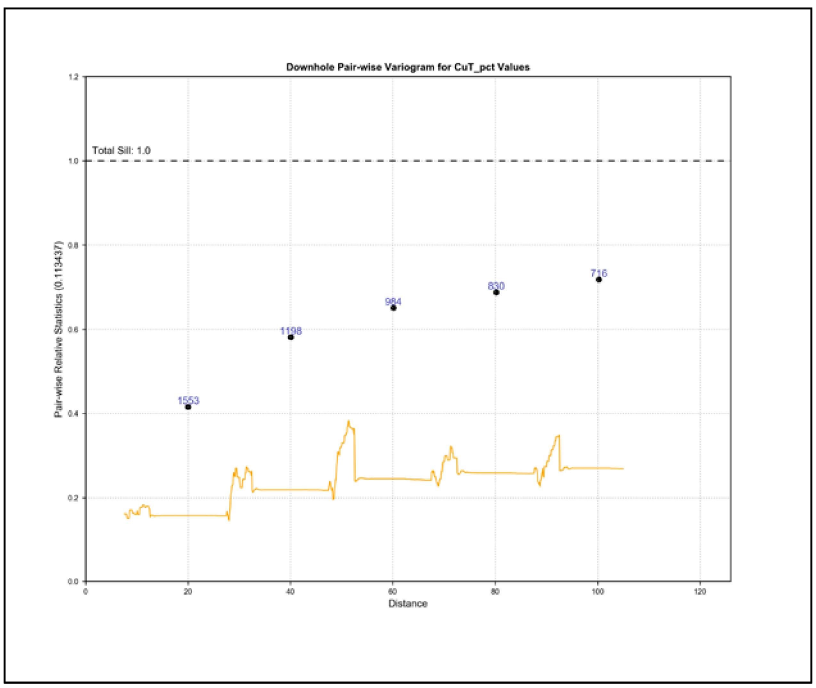

Figure D - 107 Downhole Variogram for Total Copper in Garnet Skarn

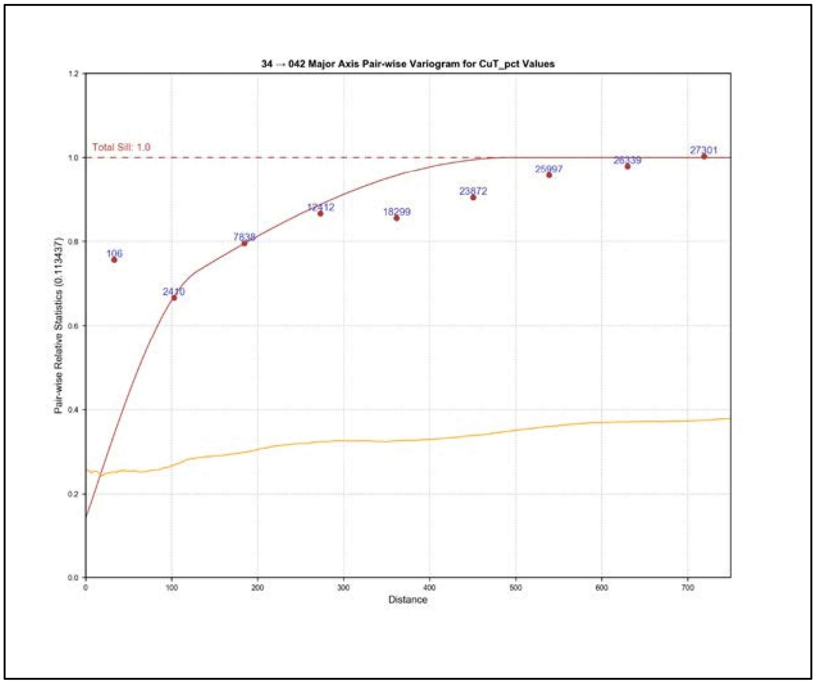

Figure D - 108 Major Axis Variogram for Total Copper in Garnet Skarn

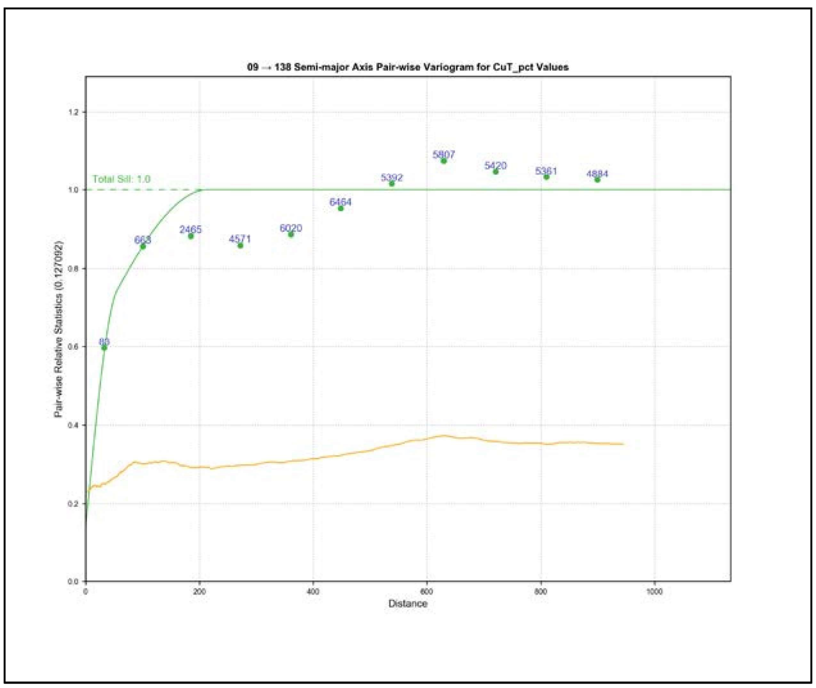

Figure D - 109 Semi-Major Axis Variogram for Total Copper in Garnet Skarn

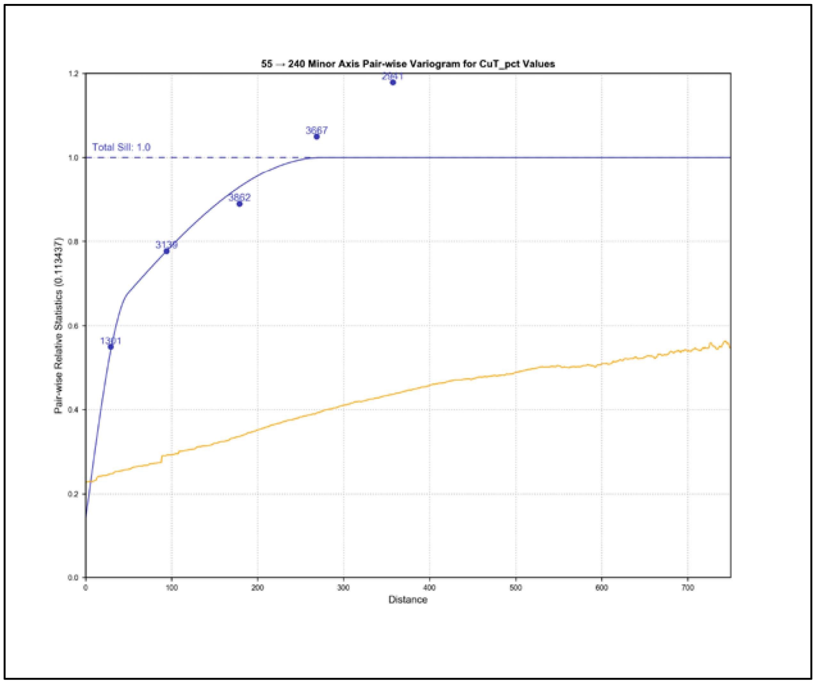

Figure D - 110 Minor Axis Variogram for Total Copper in Garnet Skarn

Table D - 23 Pairwise Variogram Parameters for Total Copper in Pyroxene skarn

Cu 32 (EXO)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.180	0.420	0.400	1.000
Range (ft)			**Anisotropy**
Major	80	550	2.34
Semi-Major	35	375	1.60
Minor	50	235	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		50	

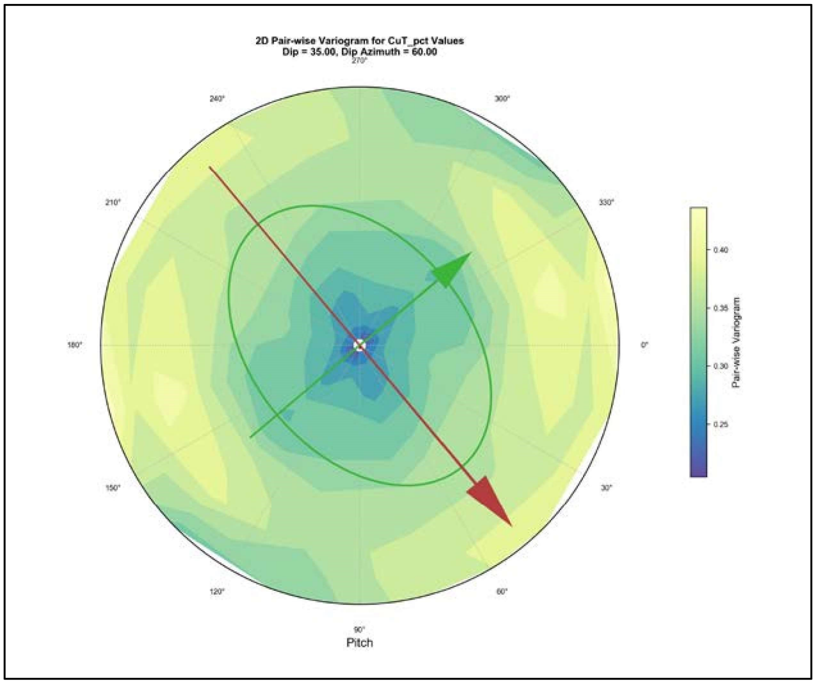

Figure D - 111 Radial Plot for Total Copper in Pyroxene Skarn

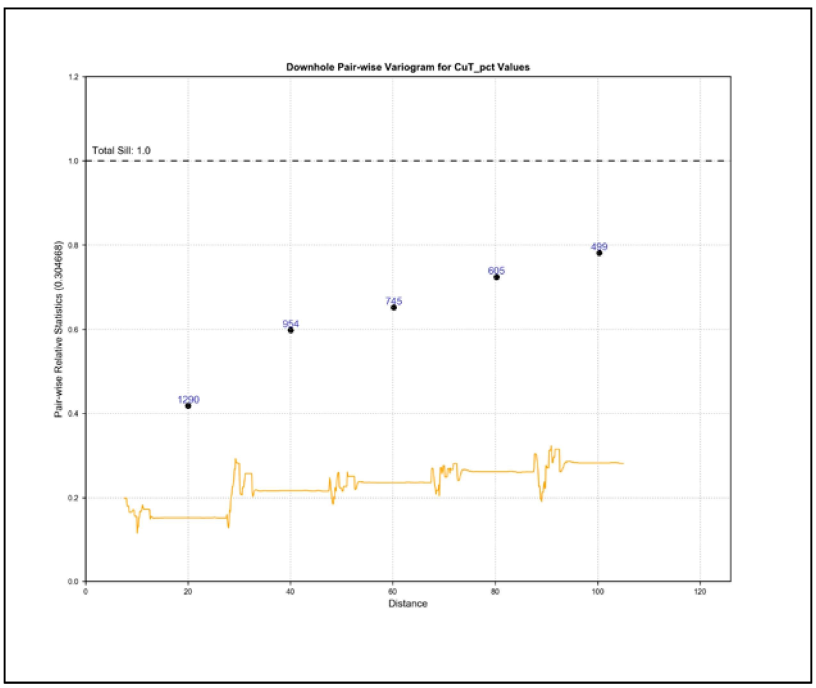

Figure D - 112 Downhole Variogram for Total Copper in Pyroxene Skarn

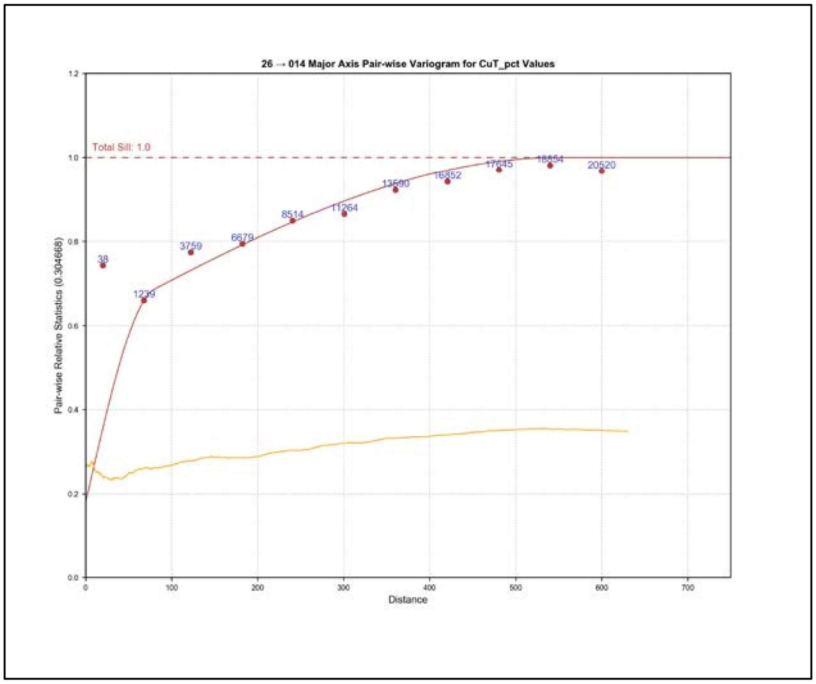

Figure D - 113 Major Axis Variogram for Total Copper in Pyroxene Skarn

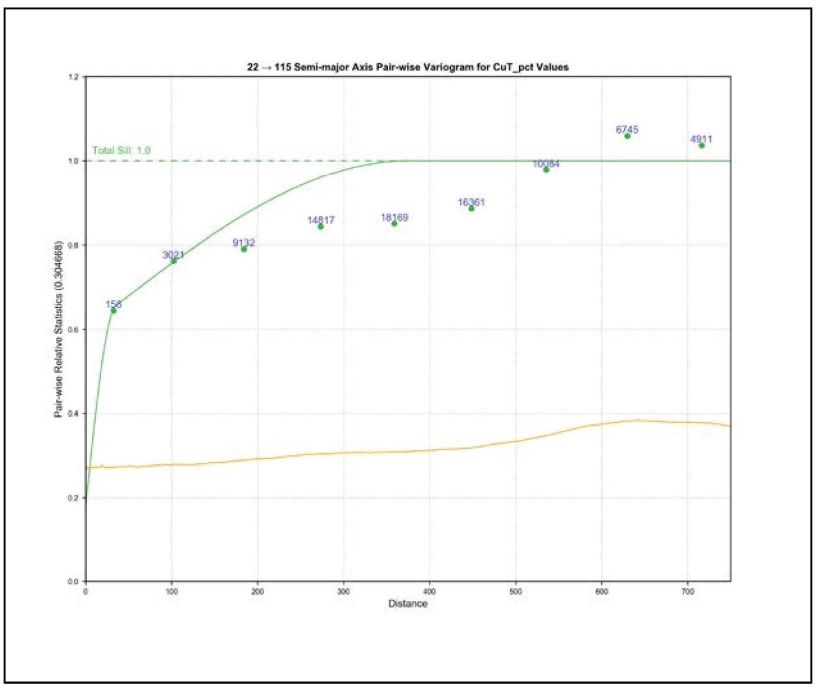

Figure D - 114 Semi-Major Axis Variogram for Total Copper in Pyroxene Skarn

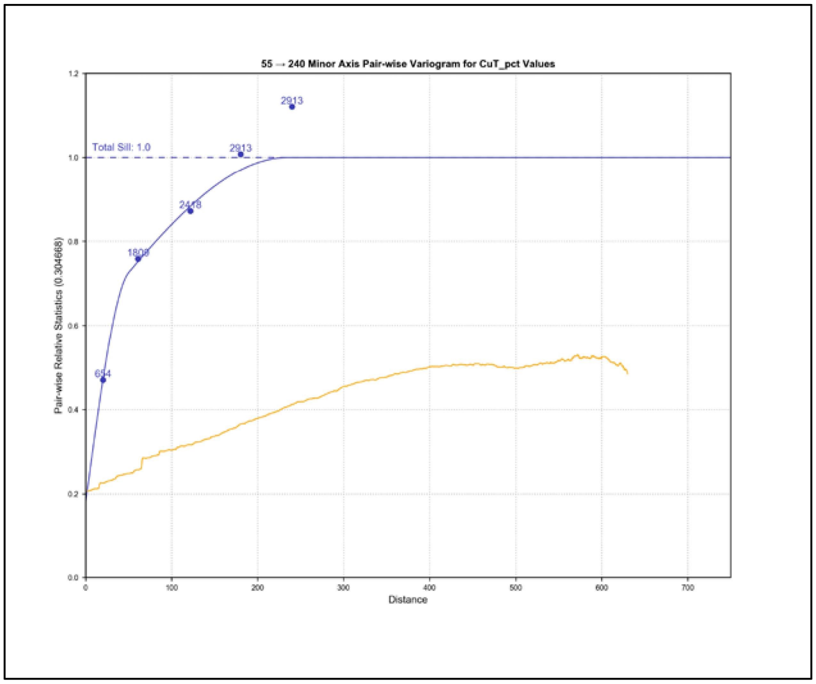

Figure D - 115 Minor Axis Variogram for Total Copper in Pyroxene Skarn

Table D - 24 Pairwise Variogram Parameters for Total Copper in Magnetite Skarn

Cu 34 (MT)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.170	0.450	0.380	1.000
Range (ft)			**Anisotropy**
Major	90	450	1.38
Semi-Major	30	110	0.34
Minor	110	325	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		50	

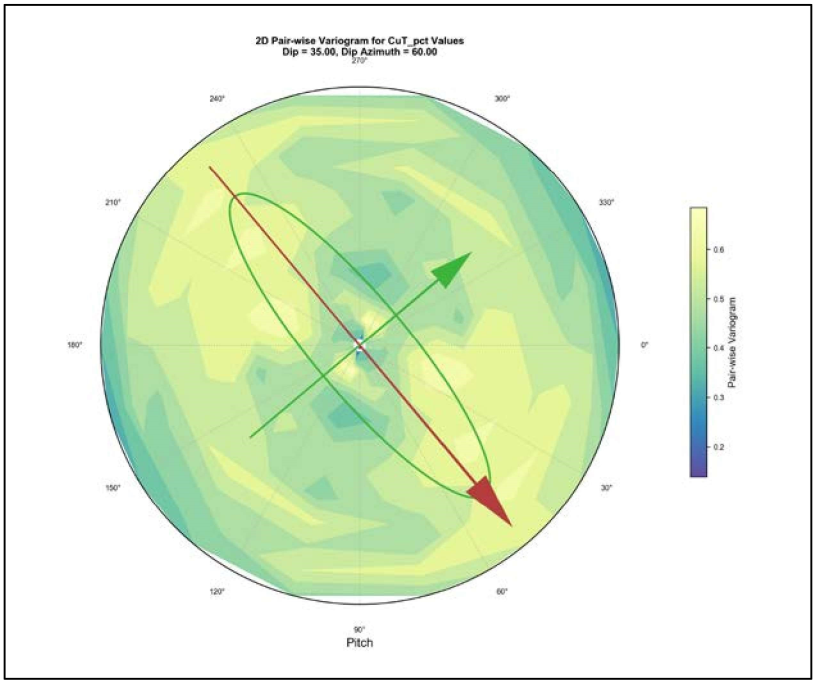

Figure D - 116 Radial Plot for Total Copper in Magnetite Skarn

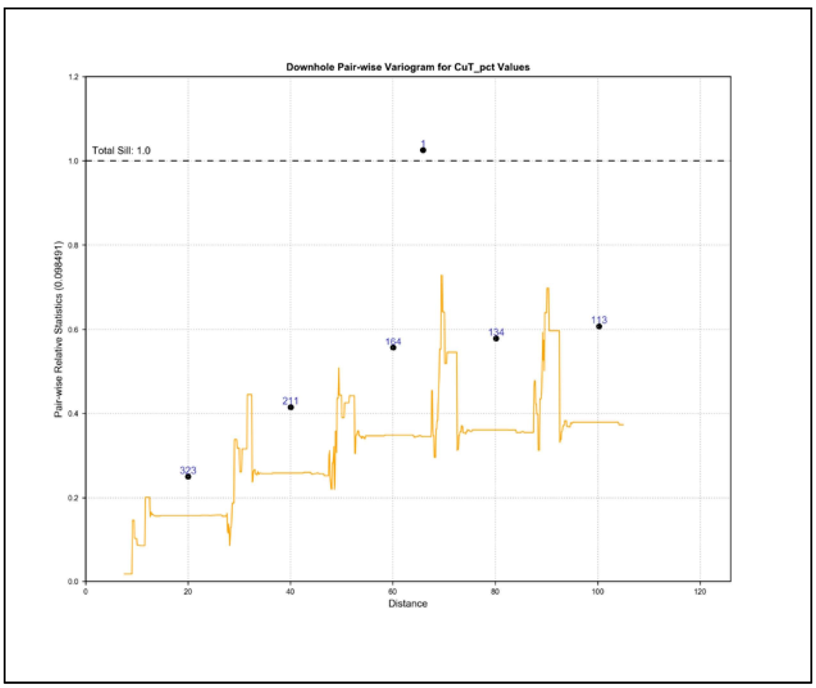

Figure D - 117 Downhole Variogram for Total Copper in Magnetite Skarn

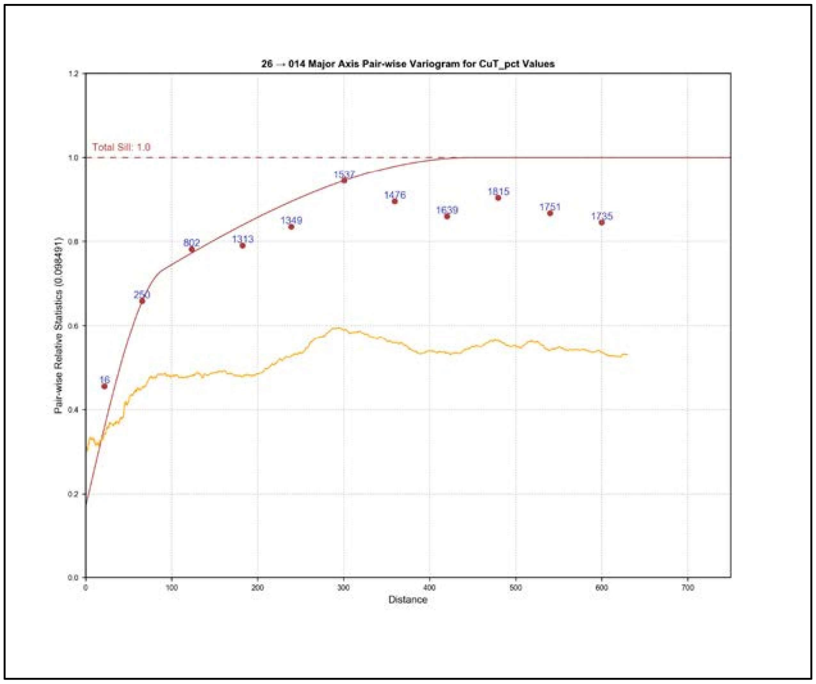

Figure D - 118 Major Axis Variogram for Total Copper in Magnetite Skarn

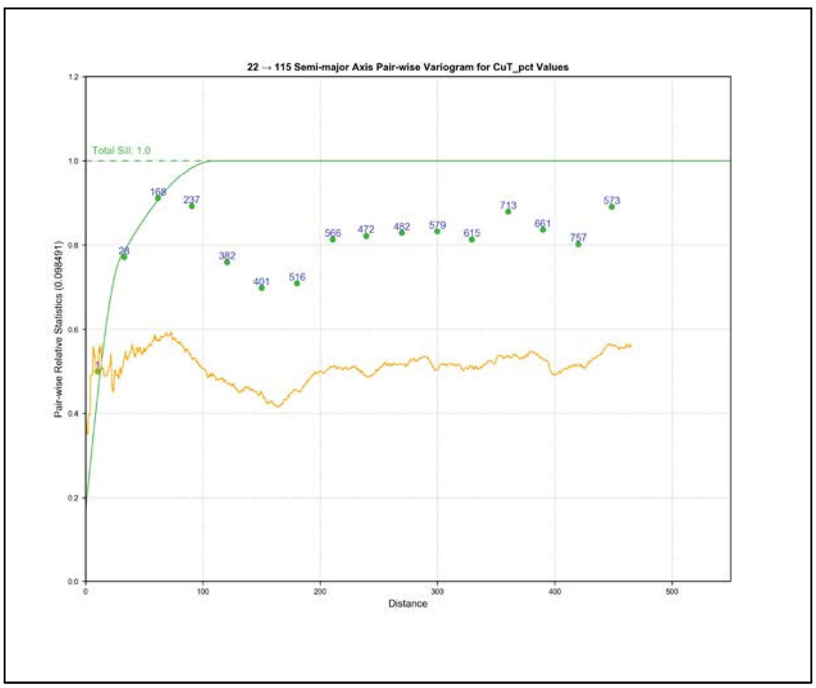

Figure D - 119 Semi-Major Axis Variogram for Total Copper in Magnetite Skarn

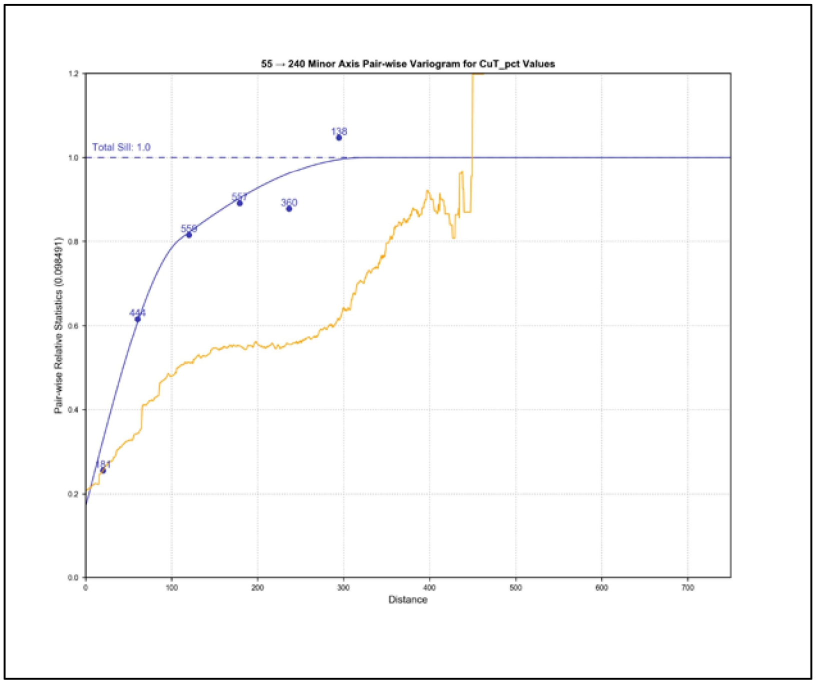

Figure D - 120 Minor Axis Variogram for Total Copper in Magnetite Skarn

Table D - 25 Pairwise Variogram Parameters for Total Copper in Limestone

Cu 51 (LS)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.125	0.435	0.440	1.000
Range (ft)			**Anisotropy**
Major	130	250	0.67
Semi-Major	25	125	0.33
Minor	40	375	1.00
Orientation			
Dip		45	
Dip Azi		70	
Pitch		45	

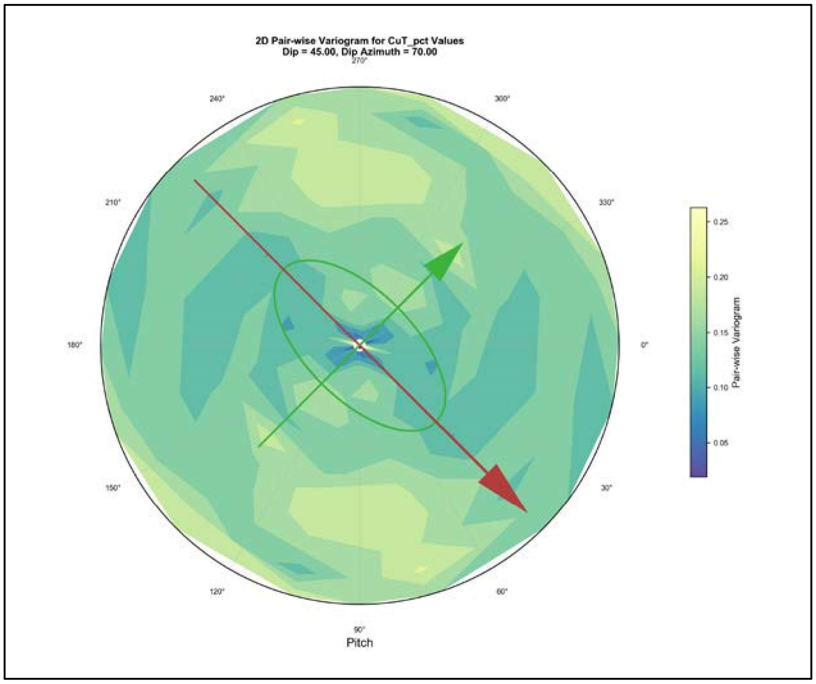

Figure D - 121 Radial Plot for Total Copper in Limestone

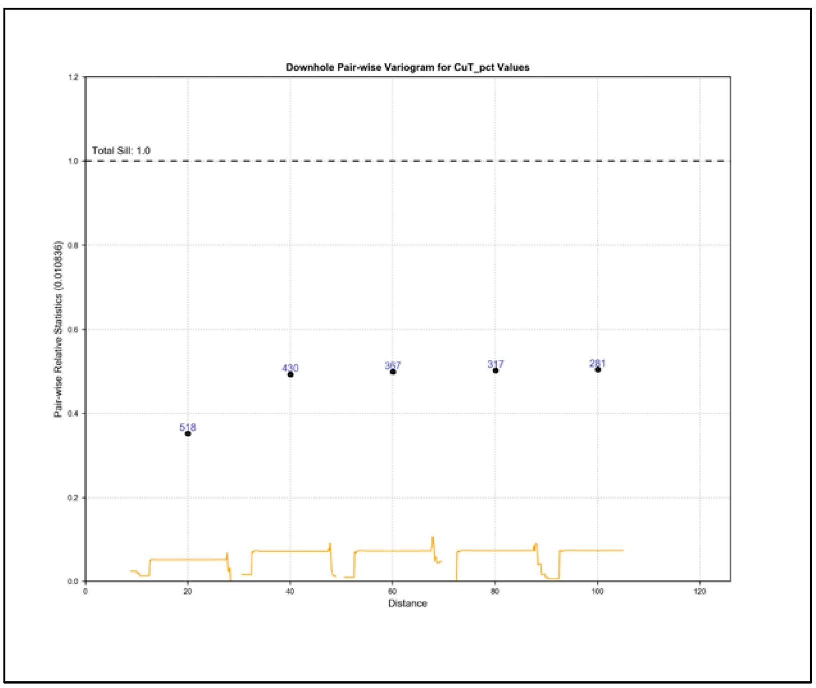

Figure D - 122 Downhole Variogram for Total Copper in Limestone

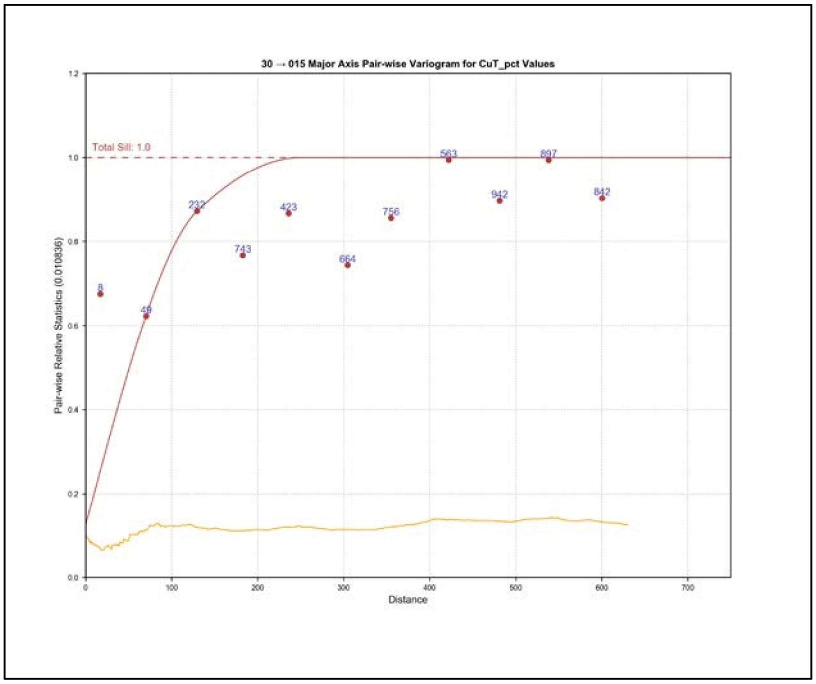

Figure D - 123 Major Axis Variogram for Total Copper in Limestone

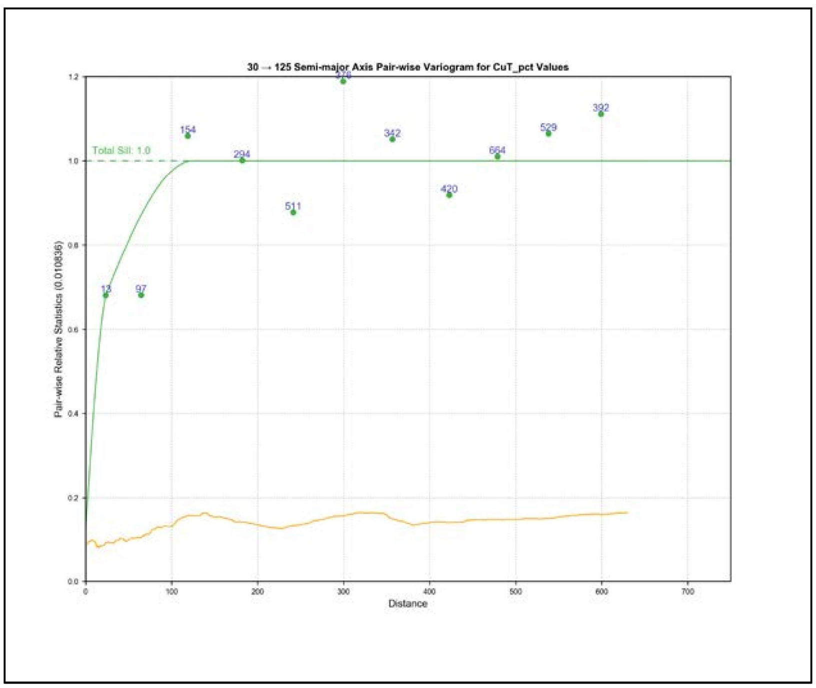

Figure D - 124 Semi-Major Axis Variogram for Total Copper in Limestone

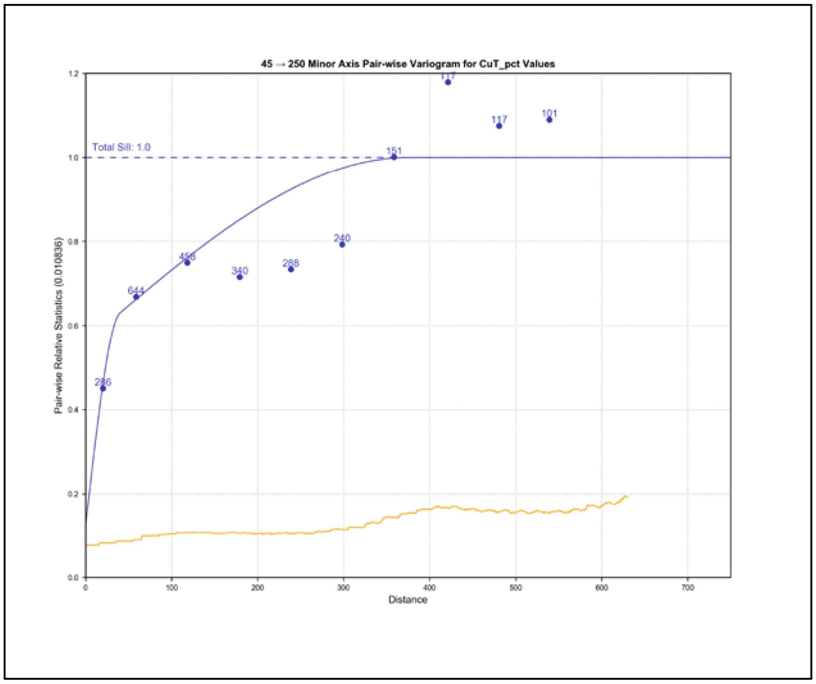

Figure D - 125 Minor Axis Variogram for Total Copper in Limestone

Table D - 26 Pairwise Variogram Parameters for Total Copper in Granite

Cu 60 (GR)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.100	0.420	0.480	1.000
Range (ft)			**Anisotropy**
Major	60	430	1.21
Semi-Major	40	255	0.72
Minor	240	355	1.00
Orientation			
Dip		45	
Dip Azi		70	
Pitch		110	

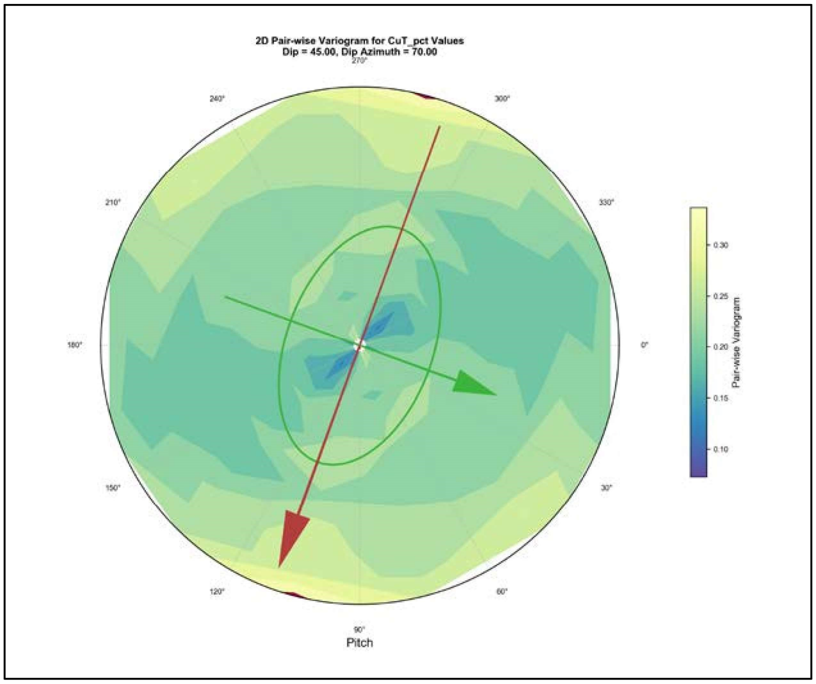

Figure D - 126 Radial Plot for Total Copper in Granite

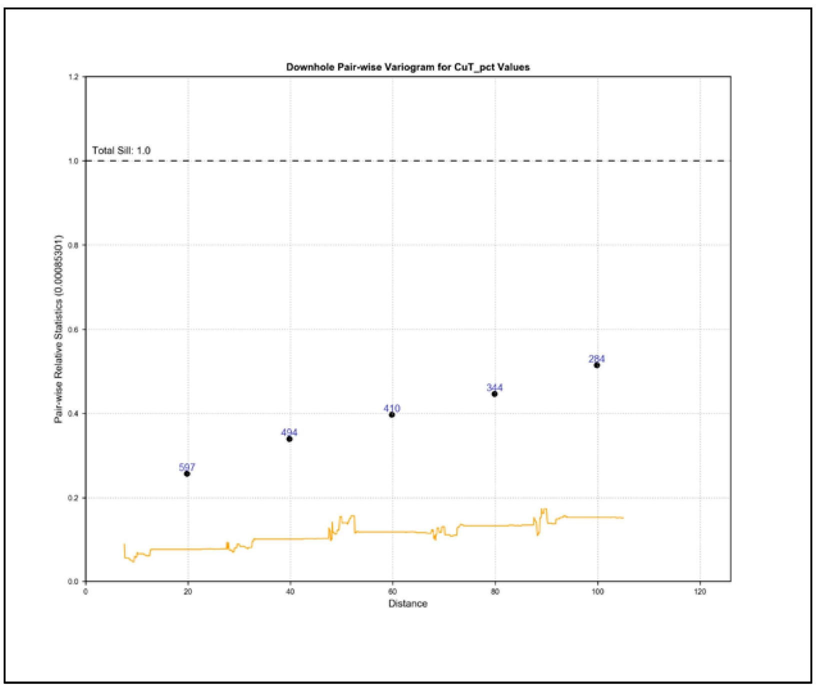

Figure D - 127 Downhole Variogram for Total Copper in Granite

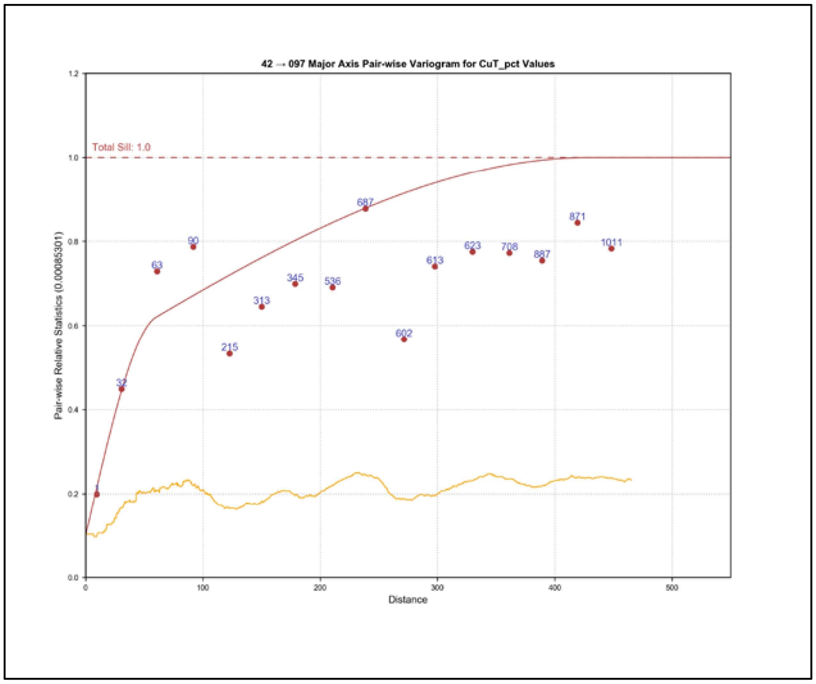

Figure D - 128 Major Axis Variogram for Total Copper in Granite

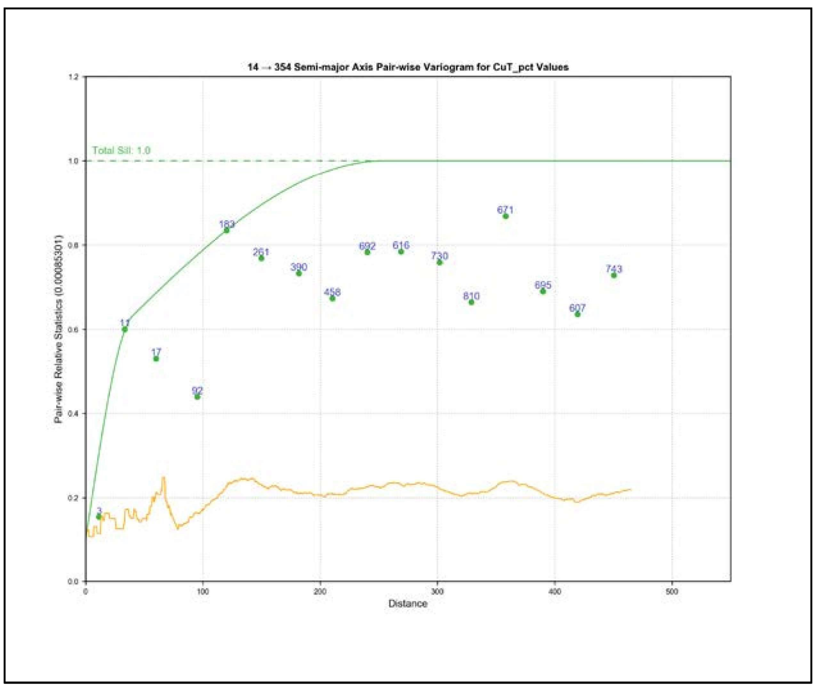

Figure D - 129 Semi-Major Axis Variogram for Total Copper in Granite

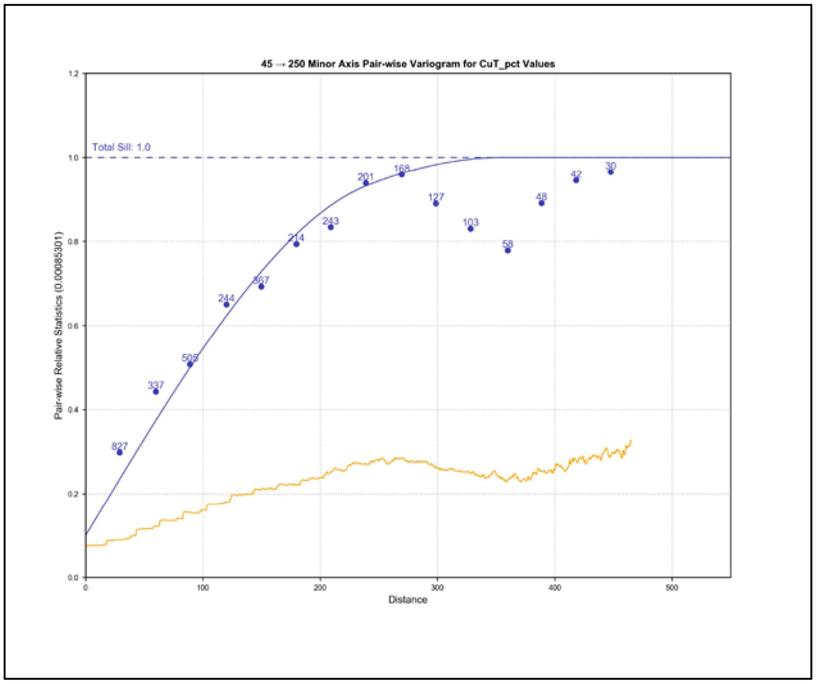

Figure D - 130 Minor Axis Variogram for Total Copper in Granite

Table D - 27 Pairwise Variogram Parameters for Total Copper in Dikes

Cu 61 (DIKE)			
Structure (Pair-wise Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.110	0.600	0.290	1.000
Range (ft)			**Anisotropy**
Major	110	375	2.59
Semi-Major	150	275	1.90
Minor	50	145	1.00
Orientation			
Dip	90		
Dip Azi	140		
Pitch	45		

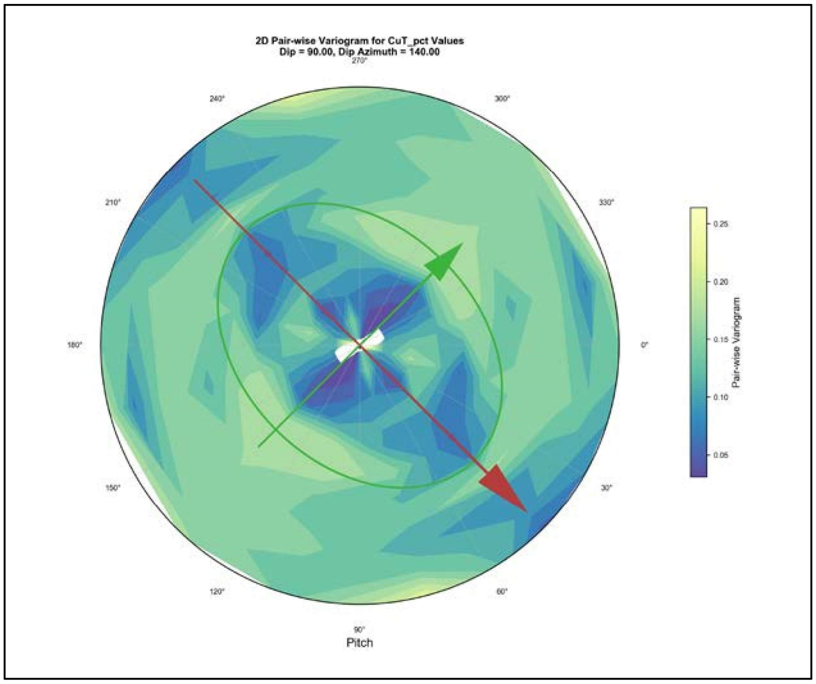

Figure D - 131 Radial Plot for Total Copper in Dikes

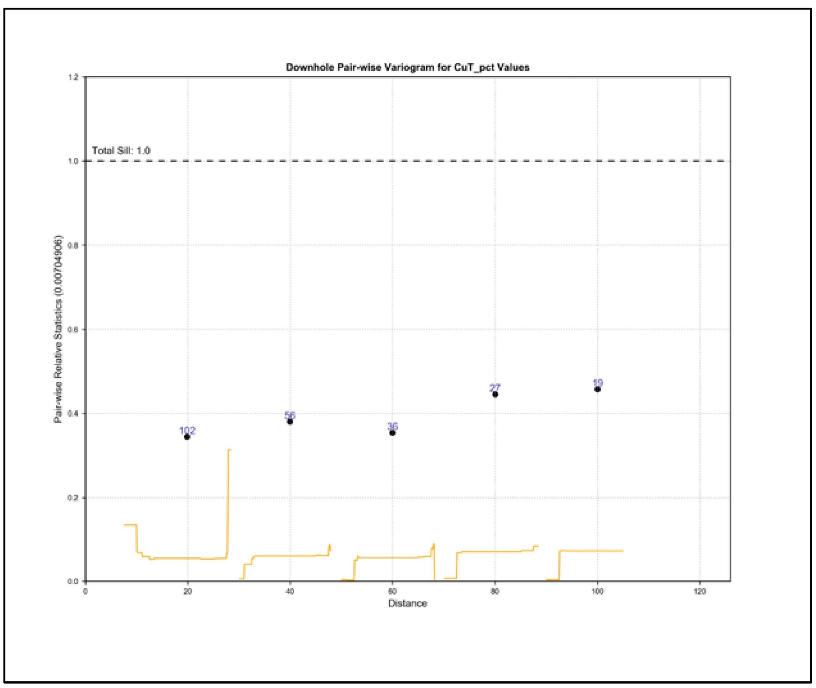

Figure D - 132 Downhole Variograms for Total Copper in Dikes

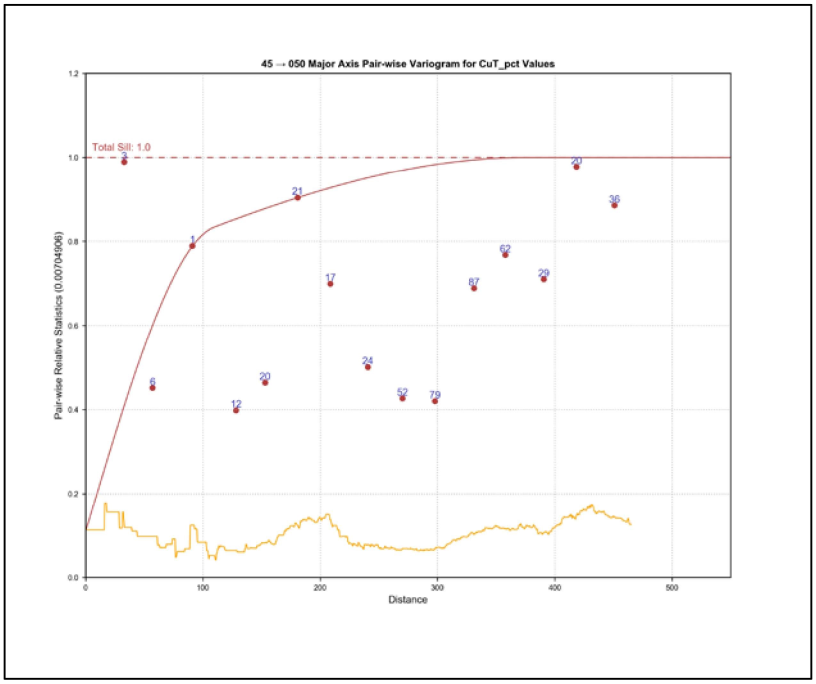

Figure D - 133 Major Axis Variograms for Total Copper in Dikes

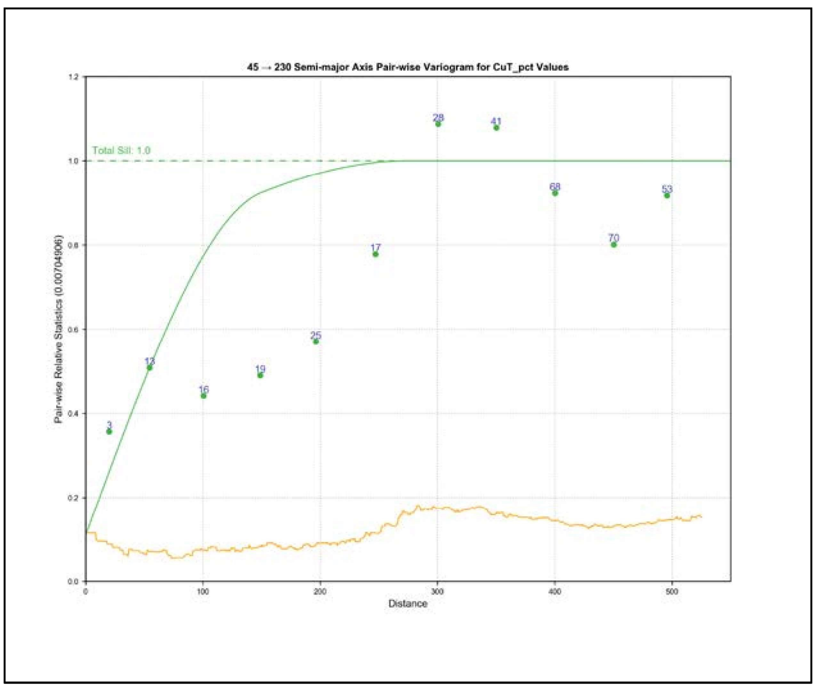

Figure D - 134 Semi-Major Axis Variograms for Total Copper in Dikes

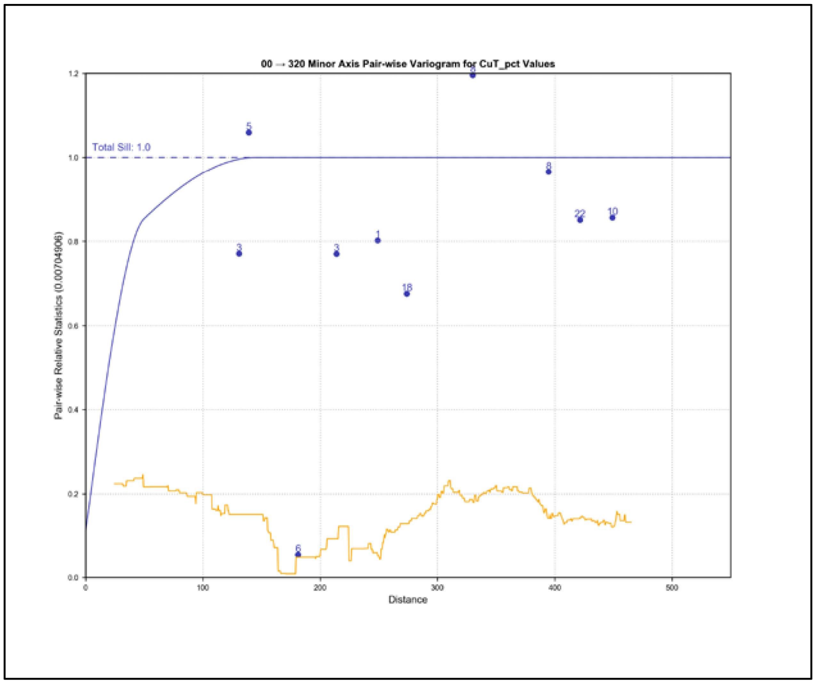

Figure D - 135 Minor Axis Variograms for Total Copper in Dikes

Table D - 28 Relative Variogram Parameters for Total Zinc in Overburden

Zn 10 (OVB)			
Structure (Relative Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.220	0.140	0.640	1.000
Range (ft)			**Anisotropy**
Major	30	180	6.00
Semi-Major	25	60	2.00
Minor	5	30	1.00
Orientation			
Dip		0	
Dip Azi		90	
Pitch		160	

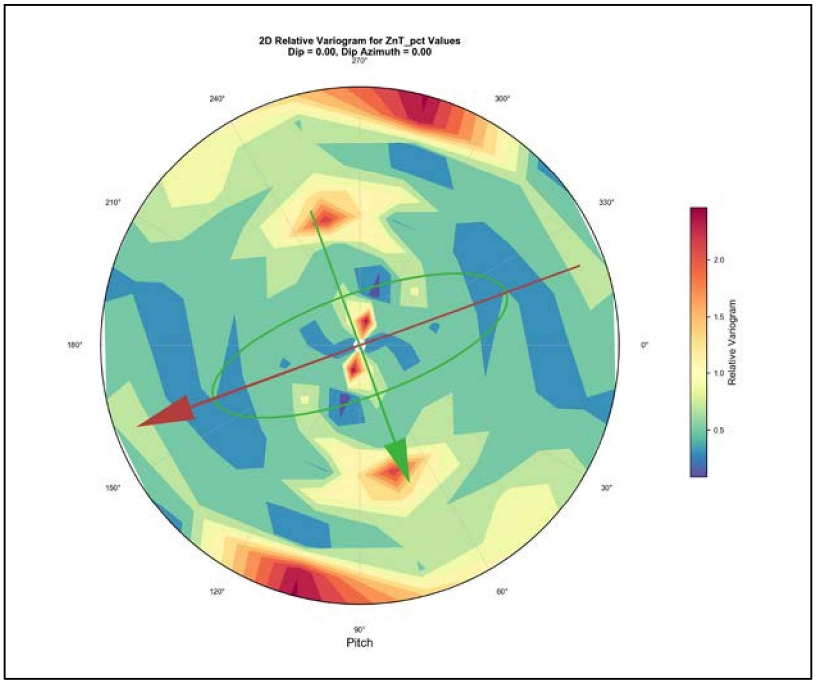

Figure D - 136 Radial Plot for Total Zinc in Overburden

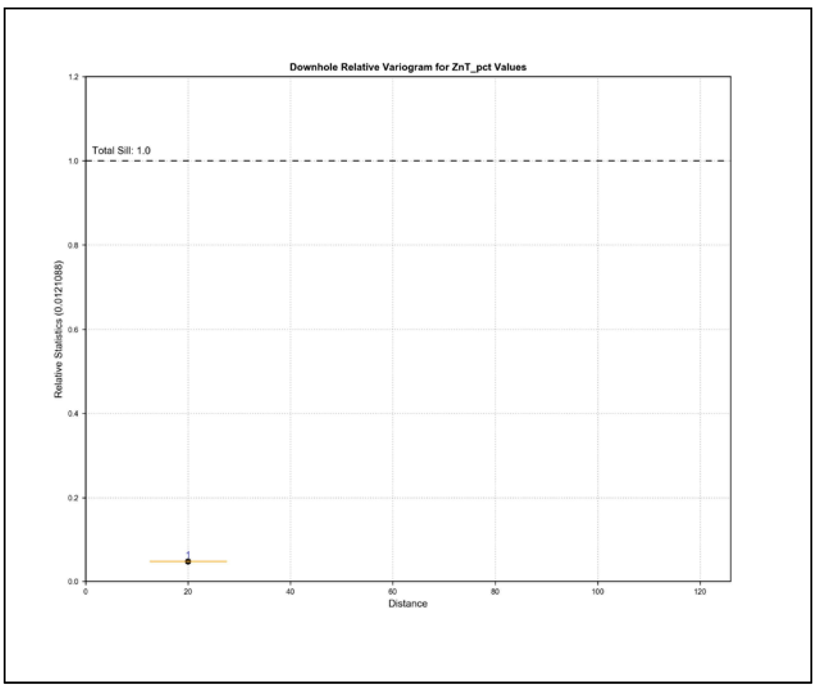

Figure D - 137 Downhole Variogram for Total Zinc in Overburden

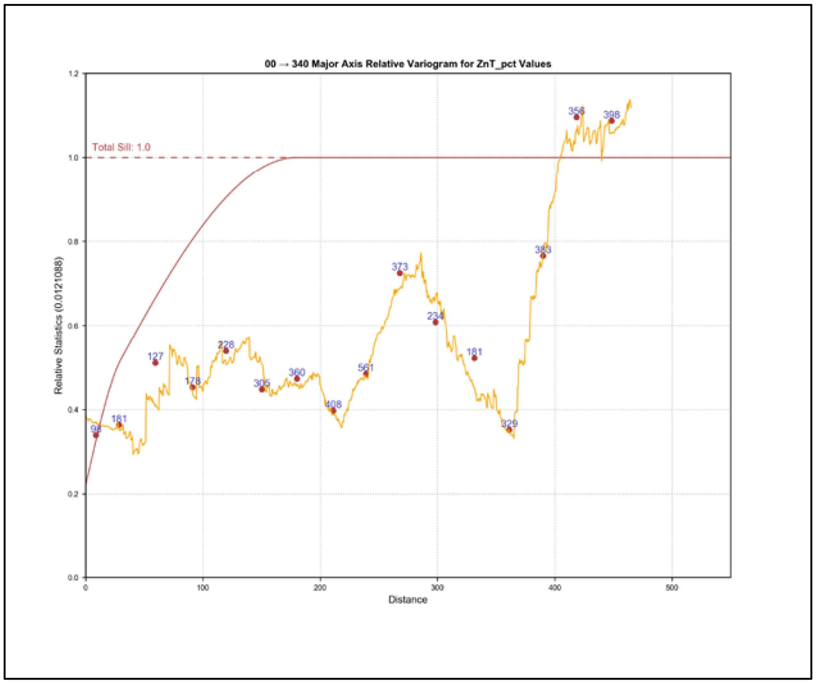

Figure D - 138 Major Axis Variogram for Total Zinc in Overburden

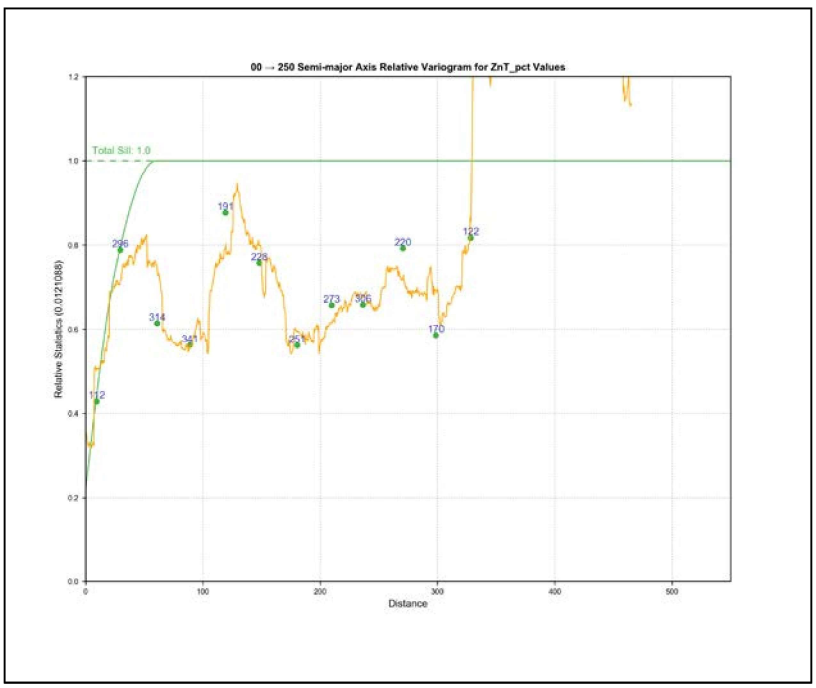

Figure D - 139 Semi-Major Axis Variogram for Total Zinc in Overburden

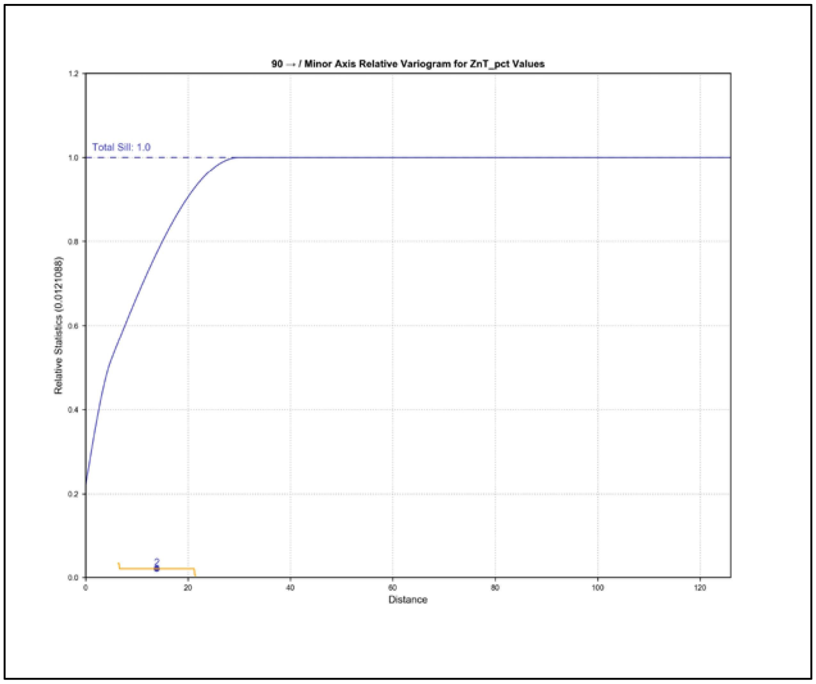

Figure D - 140 Minor Axis Variogram for Total Zinc in Overburden

Table D - 29 Relative Variogram Parameters for Total Zinc in Granite Porphyry

Zn 12 (GP)			
Structure (Relative Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.200	0.340	0.460	1.000
Range (ft)			**Anisotropy**
Major	30	175	1.75
Semi-Major	25	75	0.75
Minor	30	100	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		110	

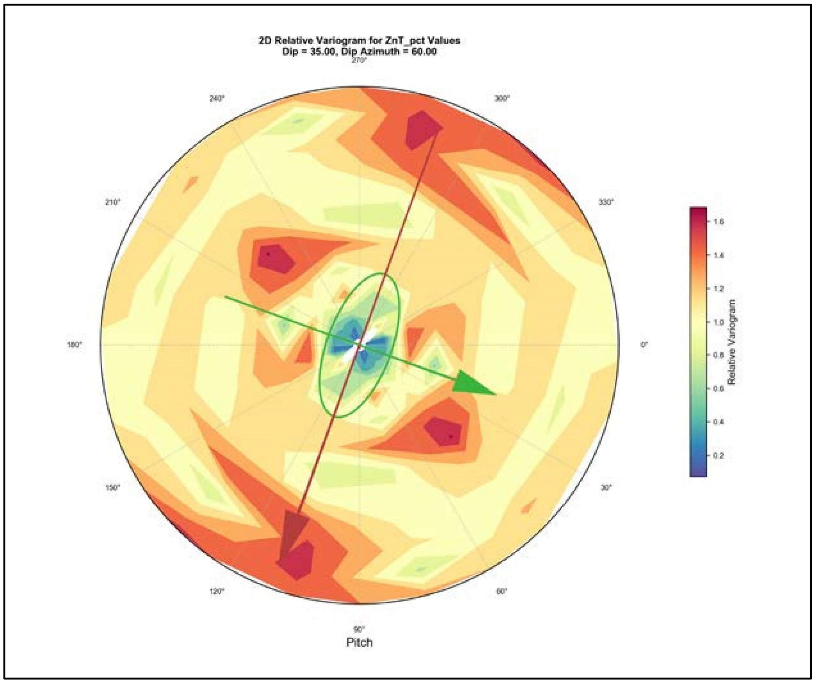

Figure D - 141 Radial Plot for Total Zinc in Granite Porphyry

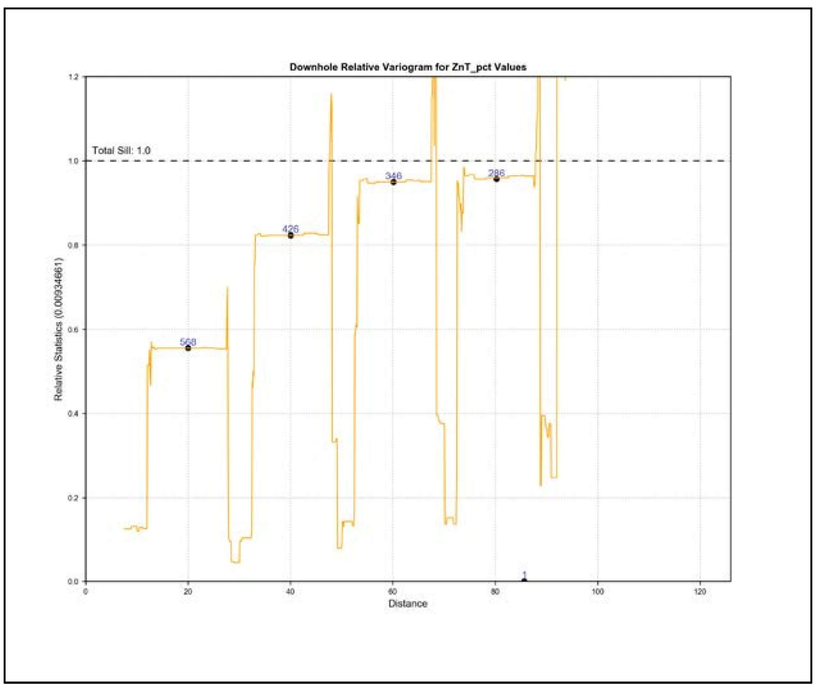

Figure D - 142 Downhole Variogram for Total Zinc in Granite Porphyry

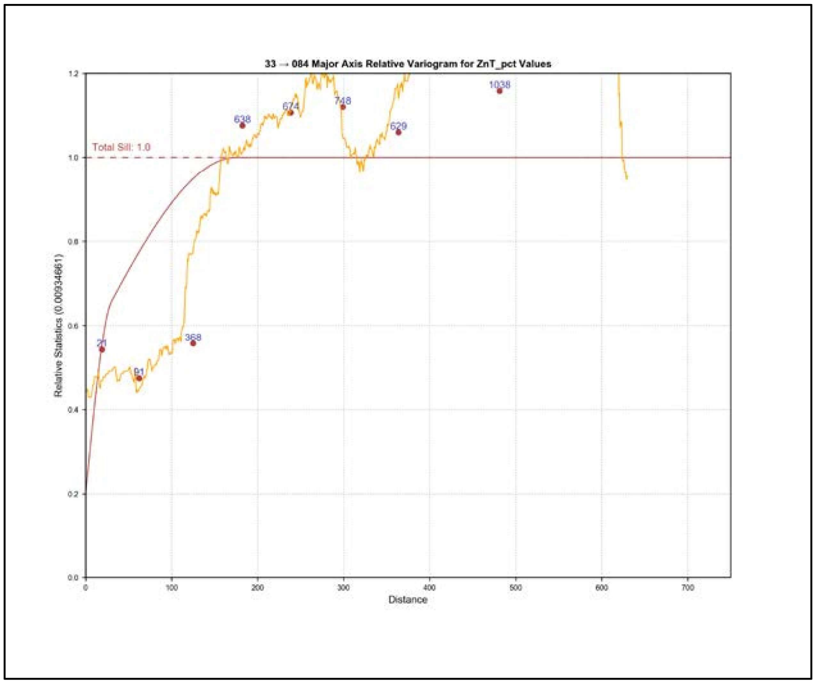

Figure D - 143 Major Axis Variogram for Total Zinc in Granite Porphyry

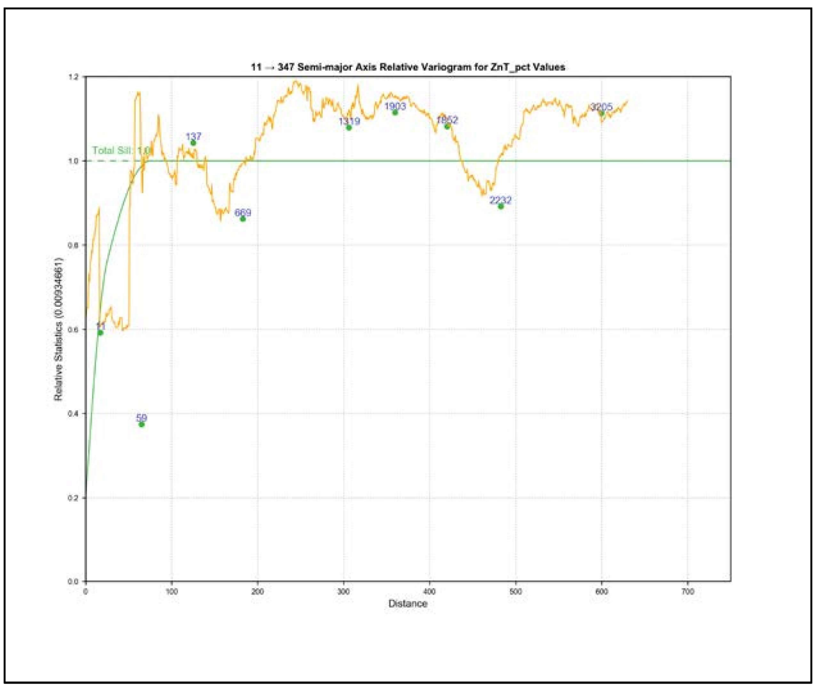

Figure D - 144 Semi-Major Axis Variogram for Total Zinc in Granite Porphyry

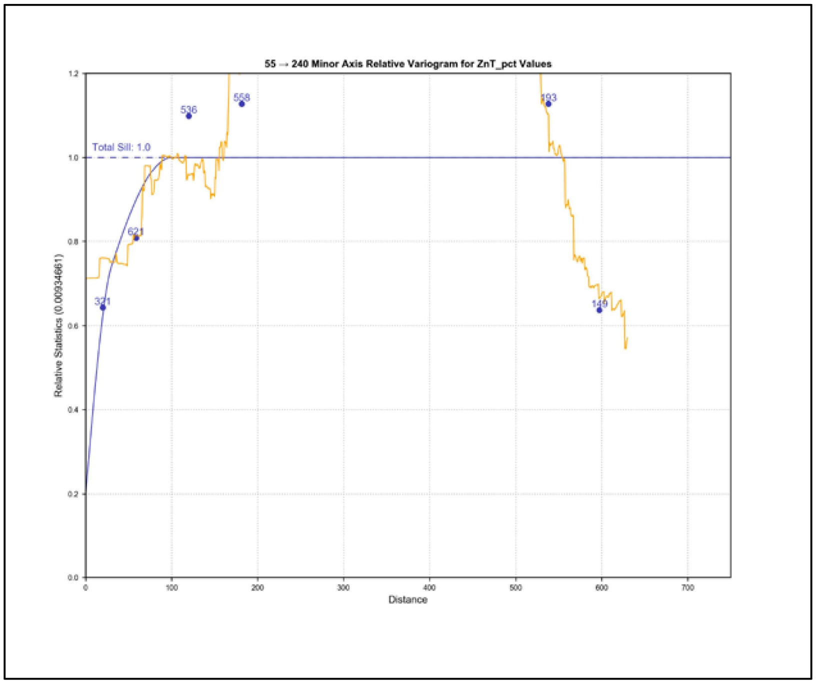

Figure D - 145 Minor Axis Variogram for Total Zinc in Granite Porphyry

Table D - 30 Relative Variogram Parameters for Total Zinc in Iron Oxide Breccia

Zn 20 (FEBX)			
Structure (Relative Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.070	0.480	0.450	1.000
Range (ft)			**Anisotropy**
Major	110	175	2.33
Semi-Major	40	75	1.00
Minor	30	75	1.00
Orientation			
Dip		65	
Dip Azi		140	
Pitch		105	

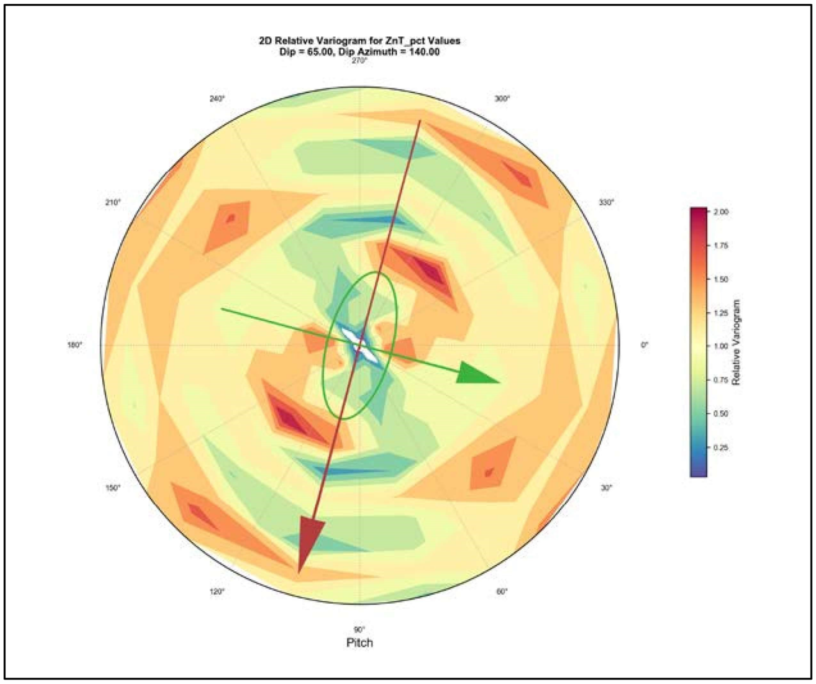

Figure D - 146 Radial Plot for Total Zinc in Iron Oxide Breccia

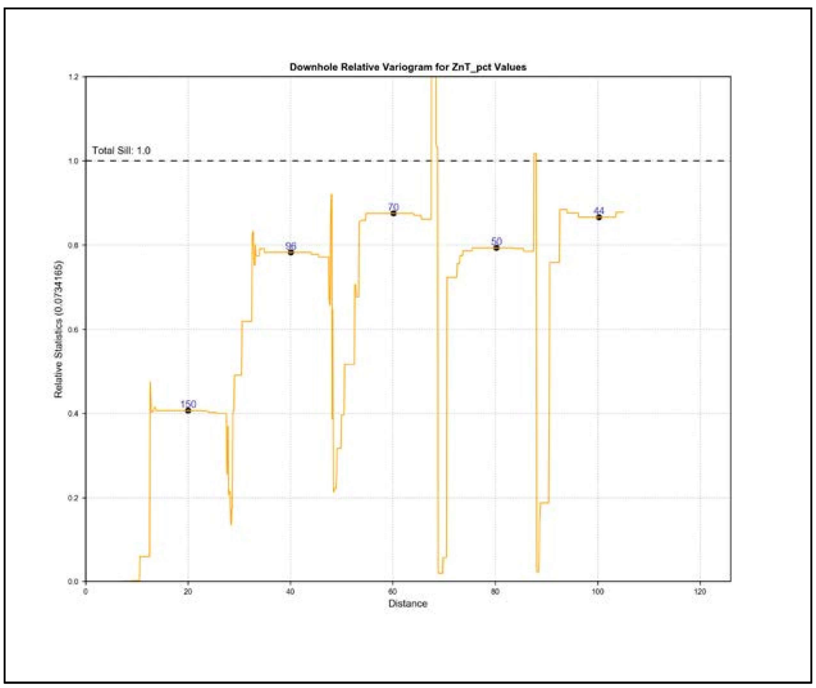

Figure D - 147 Downhole Variogram for Total Zinc in Iron Oxide Breccia

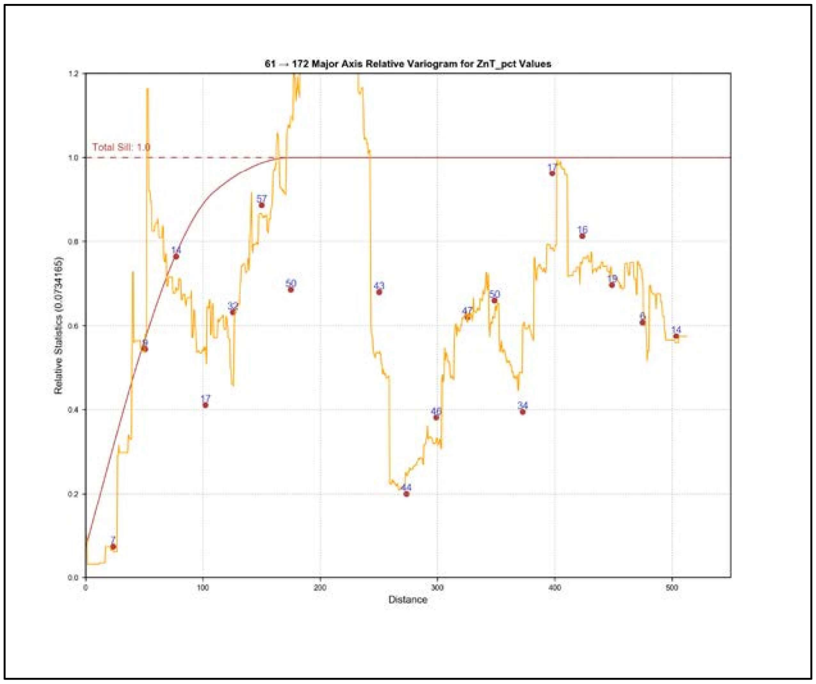

Figure D - 148 Major Axis Variogram for Total Zinc in Iron Oxide Breccia

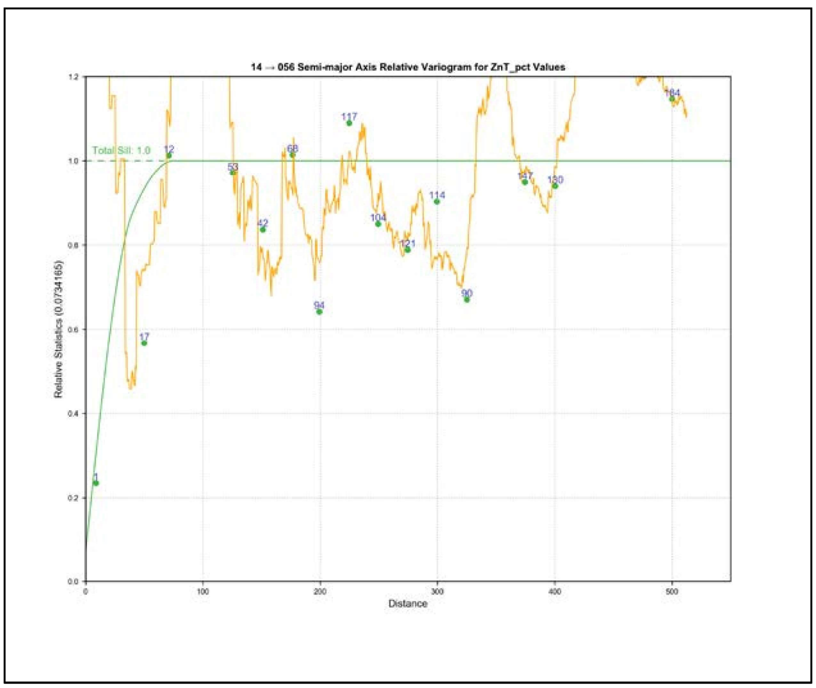

Figure D - 149 Semi-Major Axis Variogram for Total Zinc in Iron Oxide Breccia

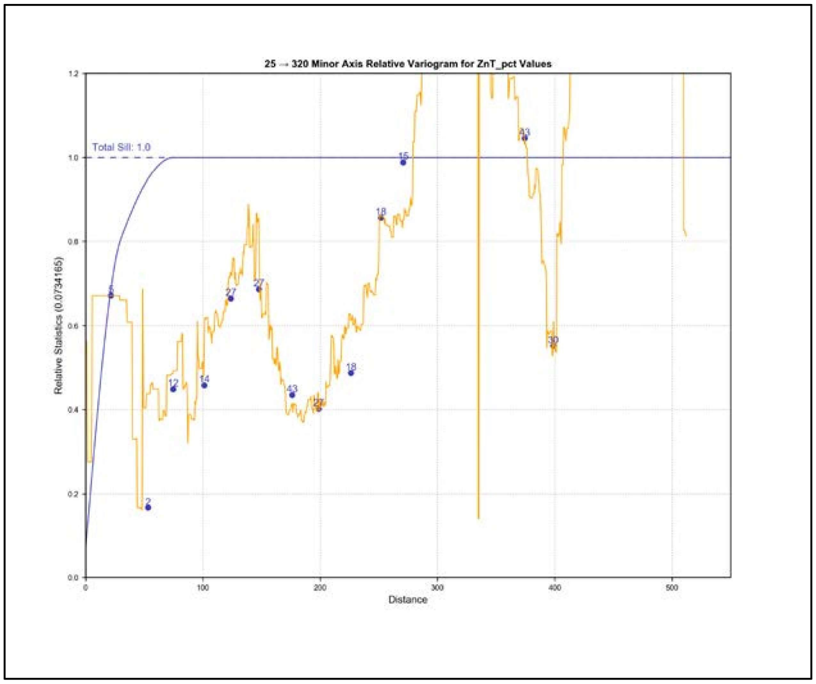

Figure D - 150 Minor Axis Variogram for Total Zinc in Iron Oxide Breccia

Table D - 31 Relative Variogram Parameters for Total Zinc in Garnet Skarn

Zn 30 (ENDO)			
Structure (Relative Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.200	0.260	0.540	1.000
Range (ft)			**Anisotropy**
Major	155	350	1.08
Semi-Major	120	210	0.65
Minor	45	325	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		45	

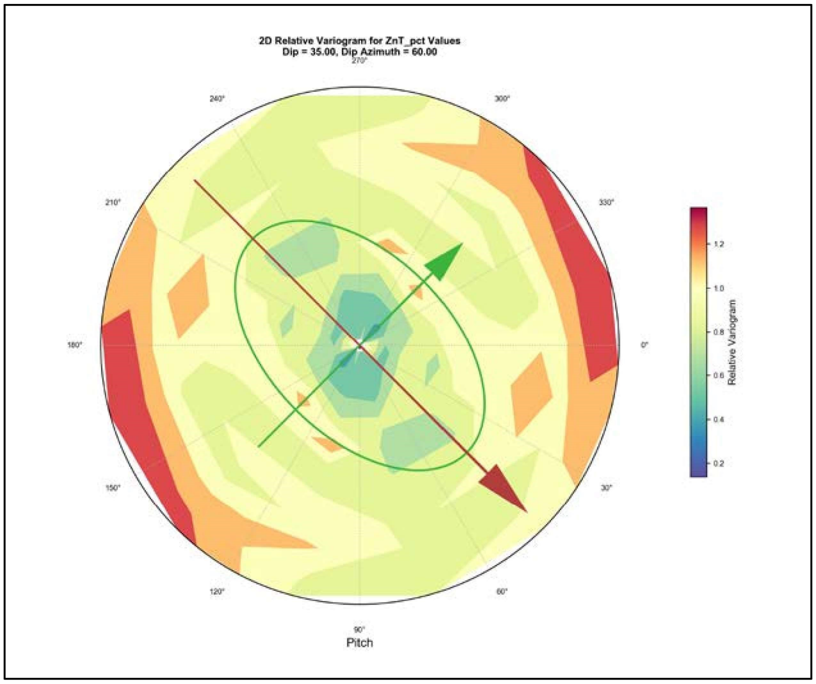

Figure D - 151 Radial Plot for Total Zinc in Garnet Skarn

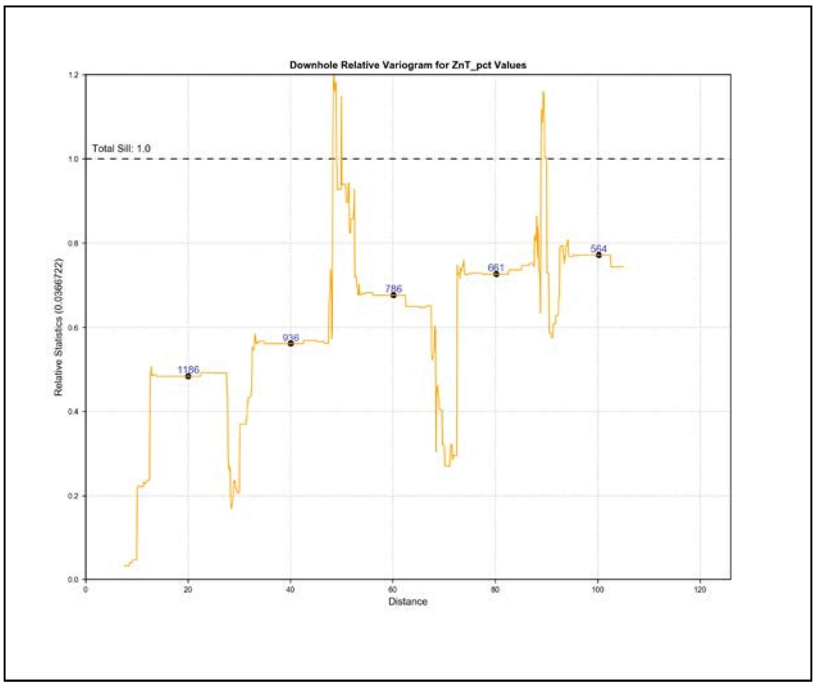

Figure D - 152 Downhole Variogram for Total Zinc in Garnet Skarn

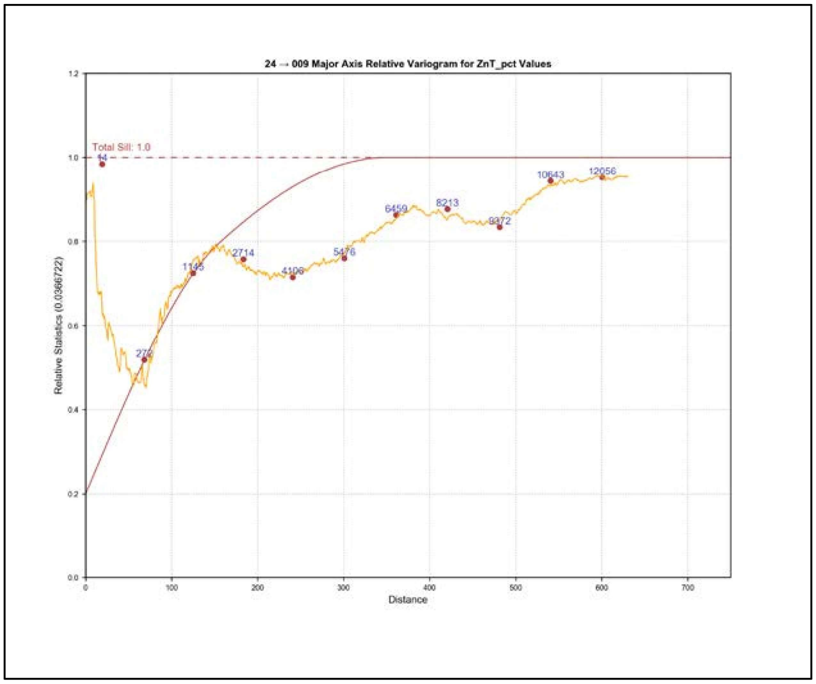

Figure D - 153 Major Axis Variogram for Total Zinc in Garnet Skarn

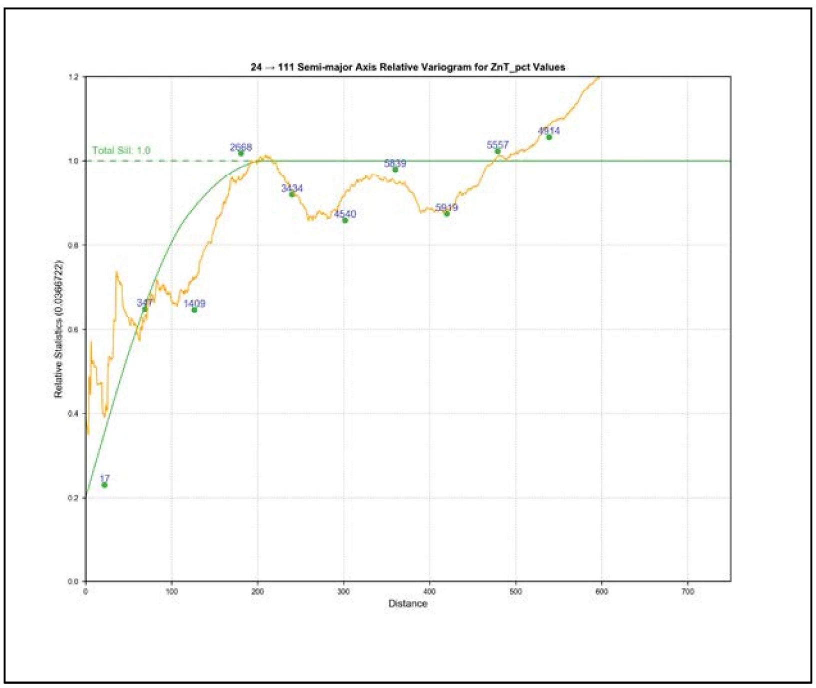

Figure D - 154 Semi-Major Axis Variogram for Total Zinc in Garnet Skarn

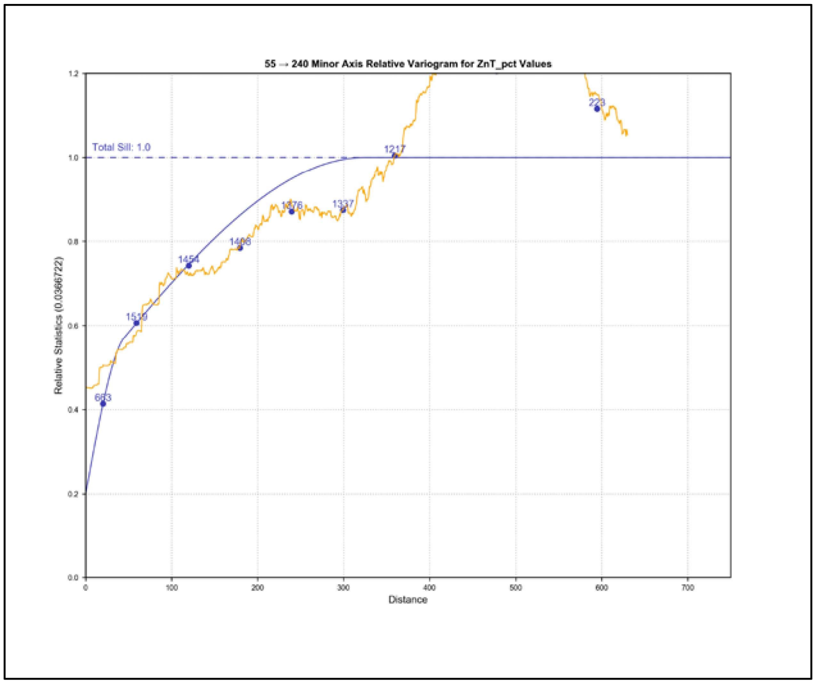

Figure D - 155 Minor Axis Variogram for Total Zinc in Garnet Skarn

Table D - 32 Relative Variogram Parameters for Total Zinc in Pyroxene Skarn

Zn 32 (EXO)			
Structure (Relative Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.050	0.420	0.530	1.000
Range (ft)			**Anisotropy**
Major	45	265	1.15
Semi-Major	135	295	1.28
Minor	40	230	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		45	

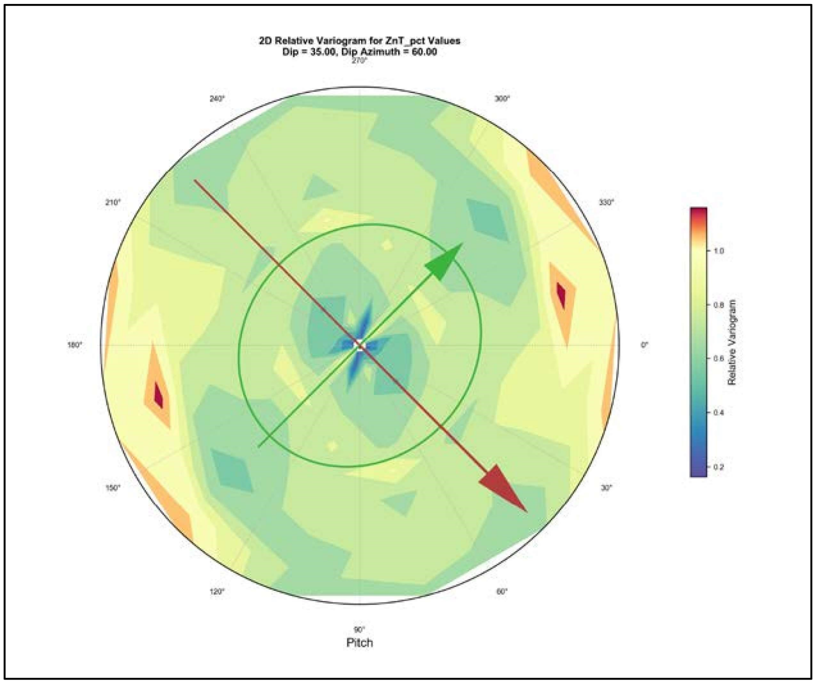

Figure D - 156 Radial Plot for Total Zinc in Pyroxene Skarn

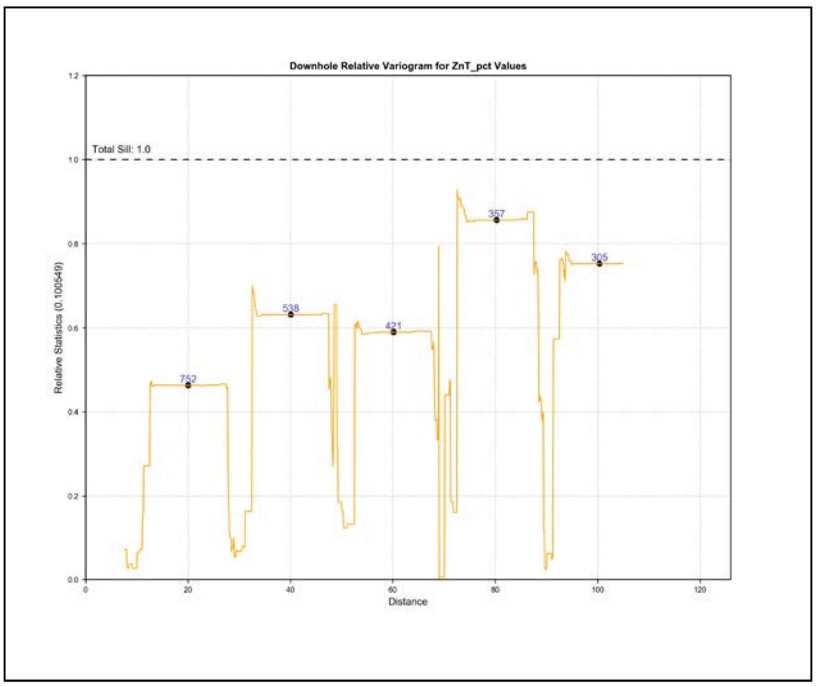

Figure D - 157 Downhole Variogram for Total Zinc in Pyroxene Skarn

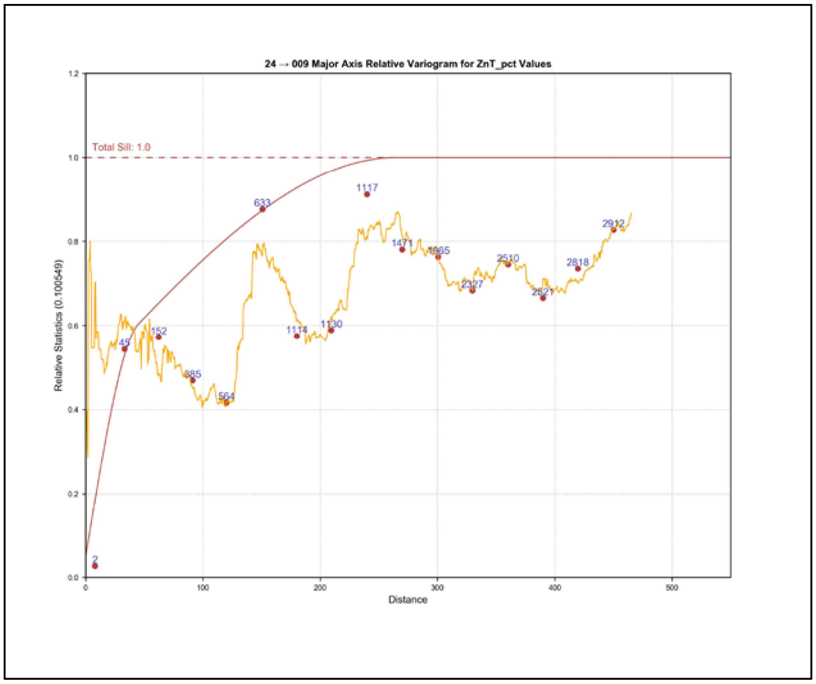

Figure D - 158 Major Axis Variogram for Total Zinc in Pyroxene Skarn

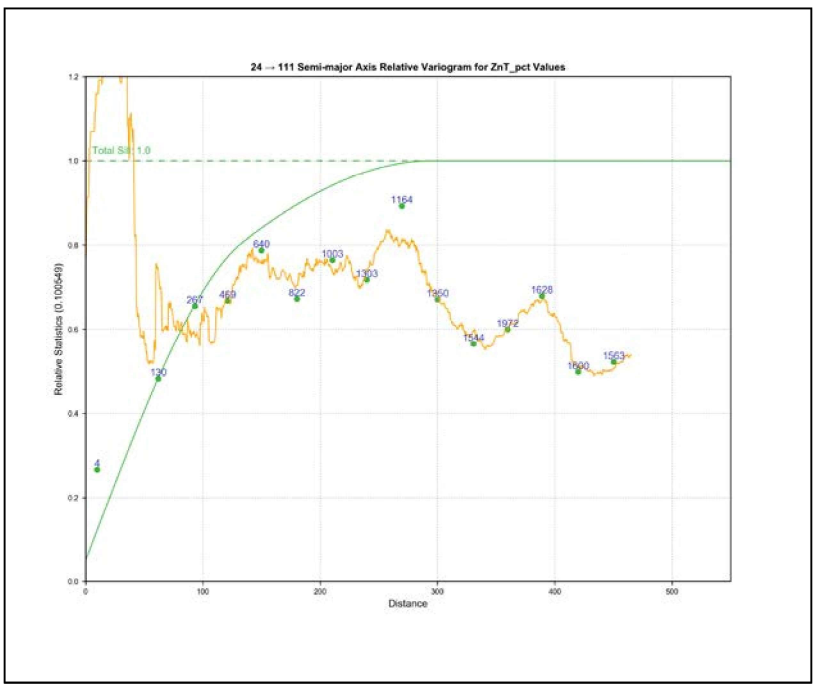

Figure D - 159 Semi-Major Axis Variogram for Total Zinc in Pyroxene Skarn

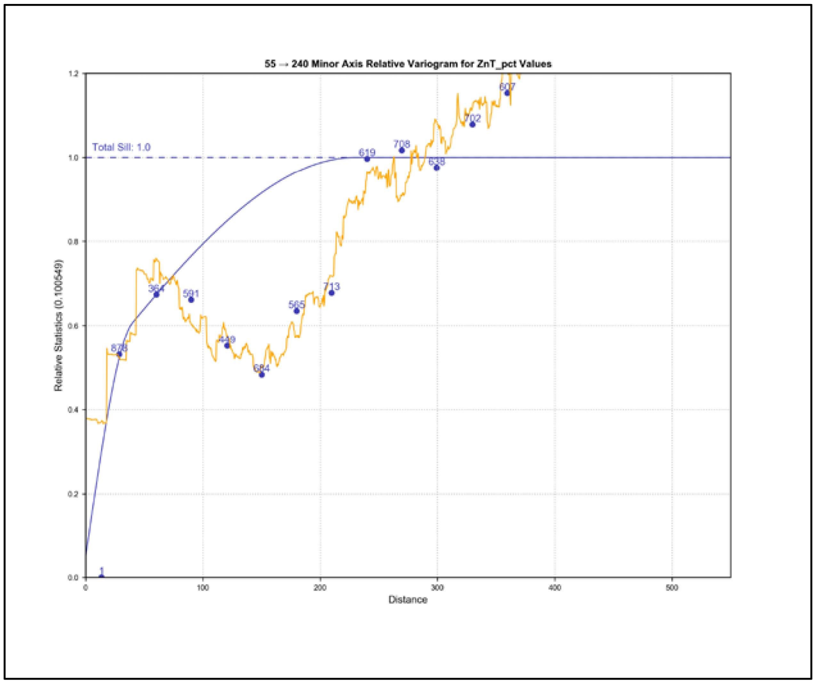

Figure D - 160 Minor Axis Variogram for Total Zinc in Pyroxene Skarn

Table D - 33 Relative Variogram Parameters for Total Zinc in Magnetite Skarn

Zn 34 (EXO)			
Structure (Relative Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.070	0.570	0.360	1.000
Range (ft)			**Anisotropy**
Major	75	350	1.03
Semi-Major	220	250	0.74
Minor	175	340	1.00
Orientation			
Dip		35	
Dip Azi		60	
Pitch		75	

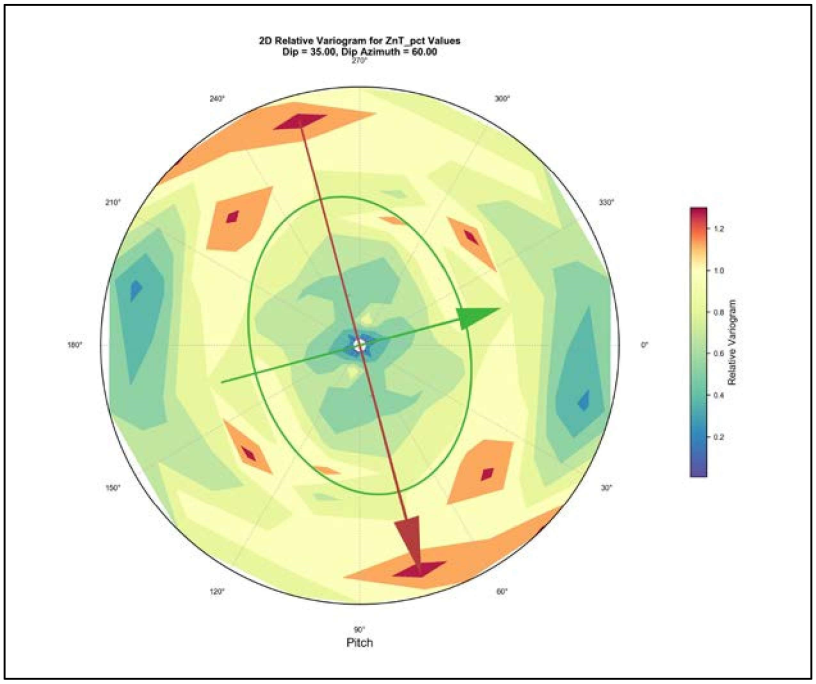

Figure D - 161 Radial Plot for Total Zinc in Magnetite Skarn

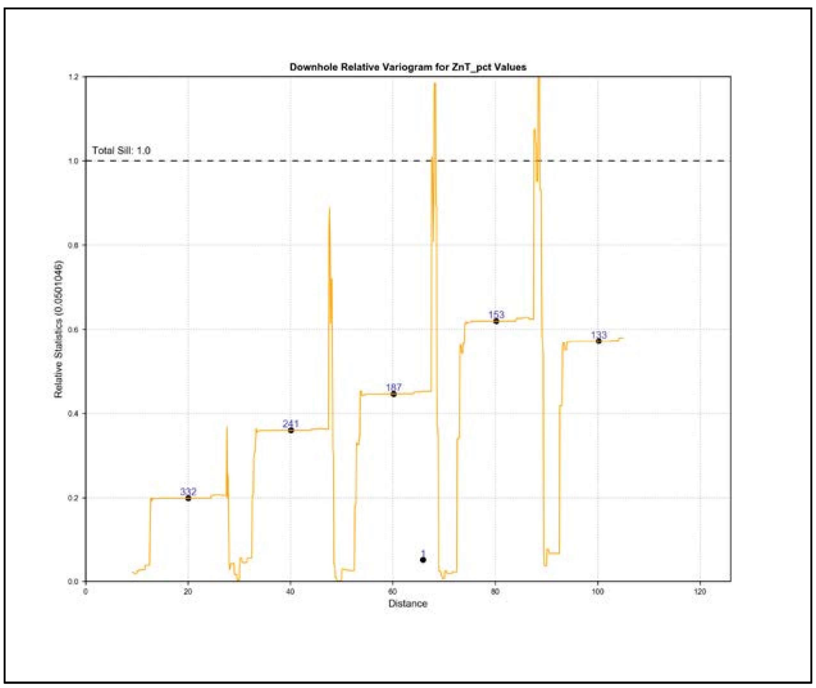

Figure D - 162 Downhole Variogram for Total Zinc in Magnetite Skarn

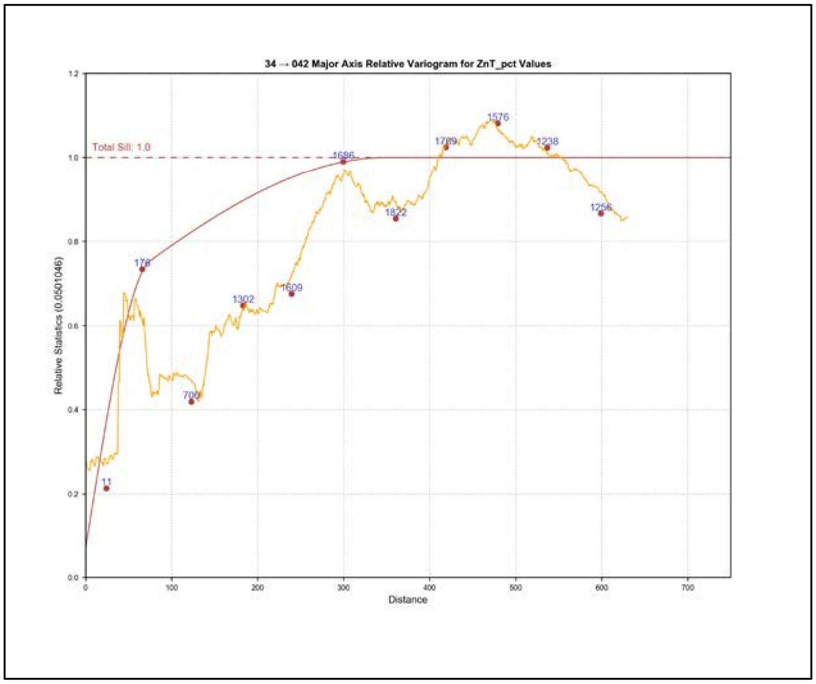

Figure D - 163 Major Axis Variogram for Total Zinc in Magnetite Skarn

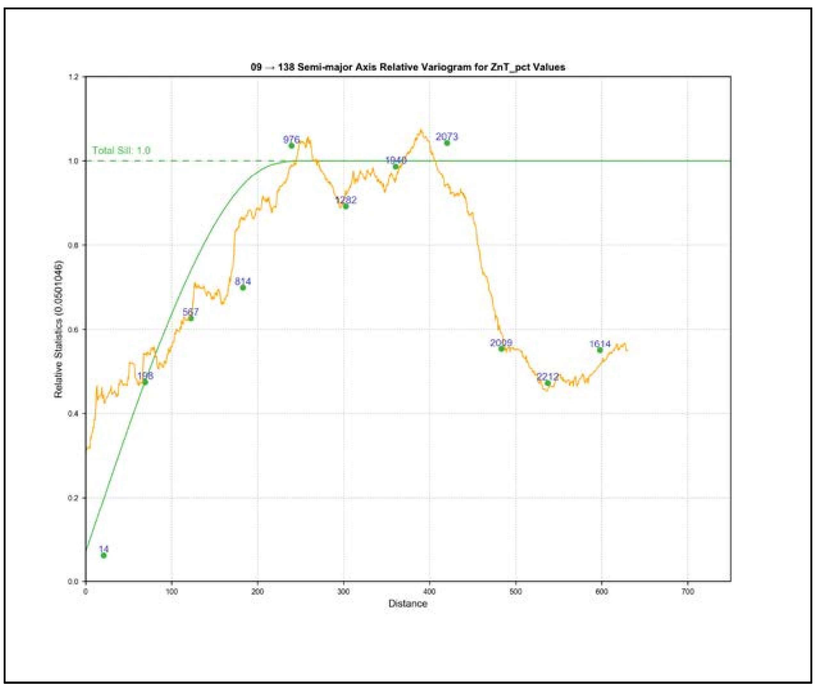

Figure D - 164 Semi-Major Axis Variogram for Total Zinc in Magnetite Skarn

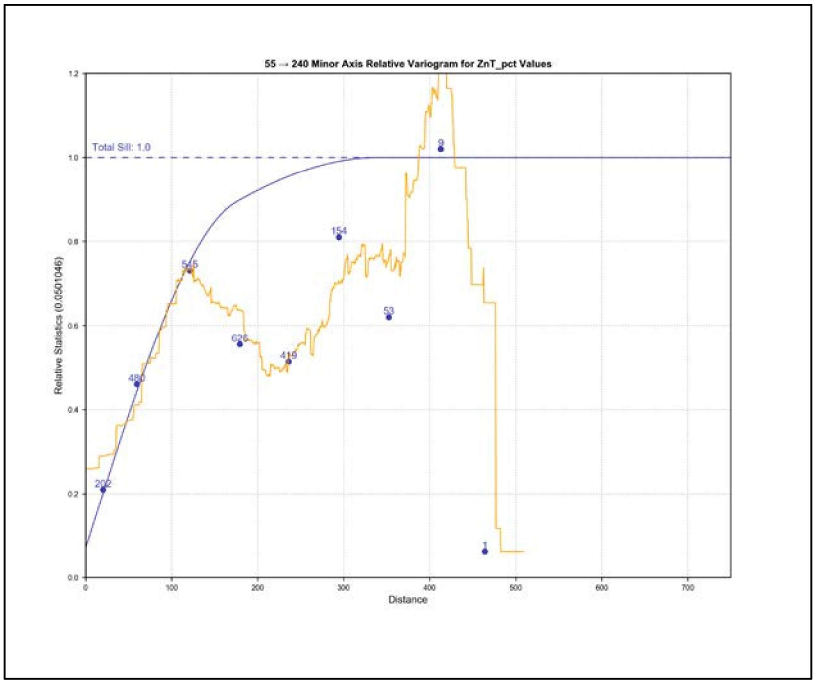

Figure D - 165 Minor Axis Variogram for Total Zinc in Magnetite Skarn

Table D - 34 Relative Variogram Parameters for Total Zinc in Limestone

Zn 51 (LS)			
Structure (Relative Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.155	0.555	0.290	1.000
Range (ft)			**Anisotropy**
Major	145	250	1.22
Semi-Major	30	65	0.32
Minor	60	205	1.00
Orientation			
Dip		45	
Dip Azi		70	
Pitch		15	

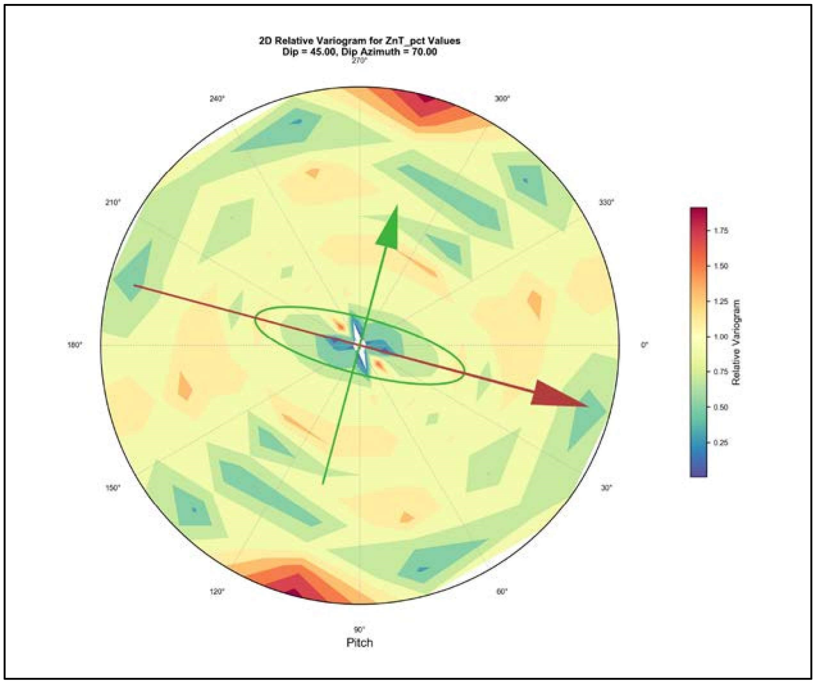

Figure D - 166 Radial Plot for Total Zinc in Limestone

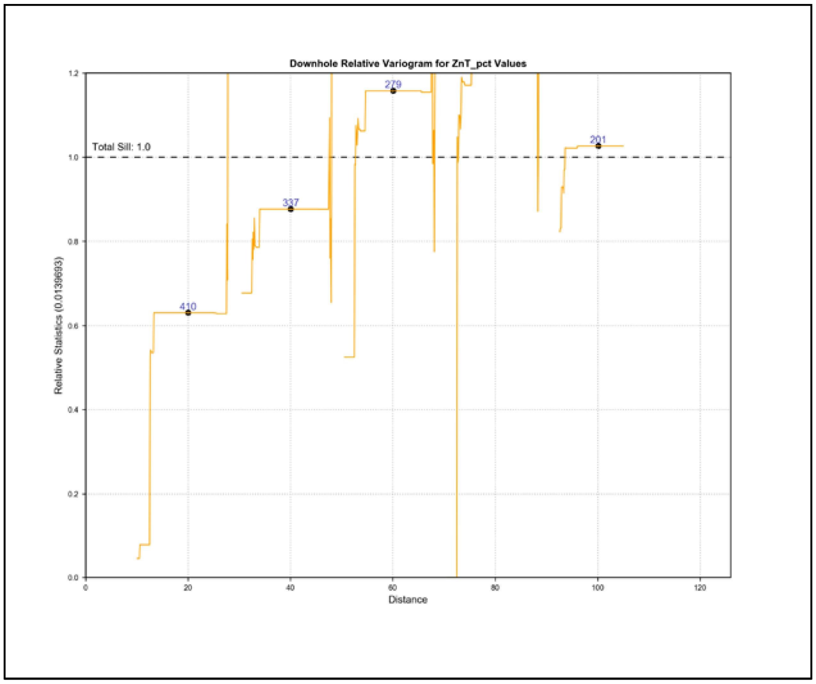

Figure D - 167 Downhole Variogram for Total Zinc in Limestone

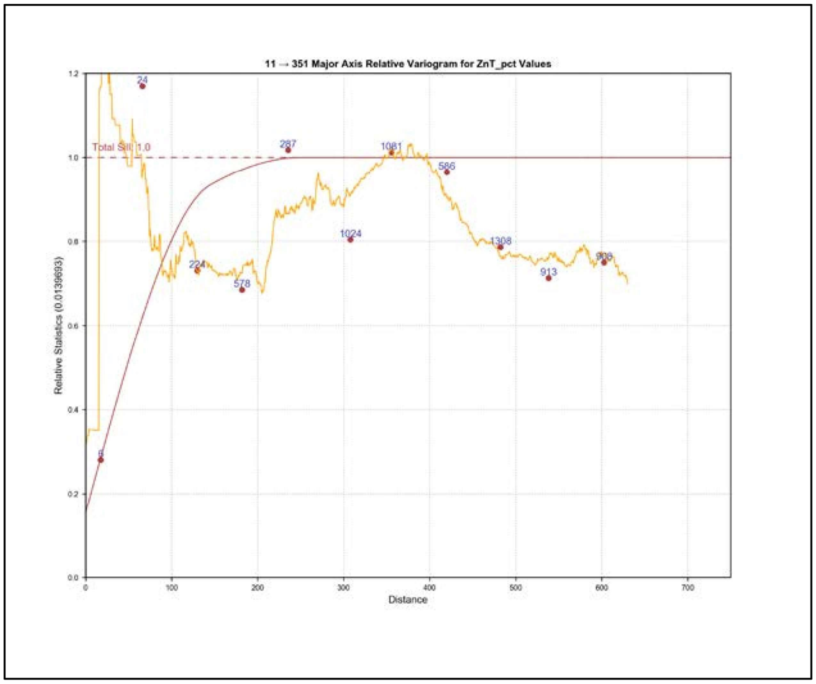

Figure D - 168 Major Axis Variogram for Total Zinc in Limestone

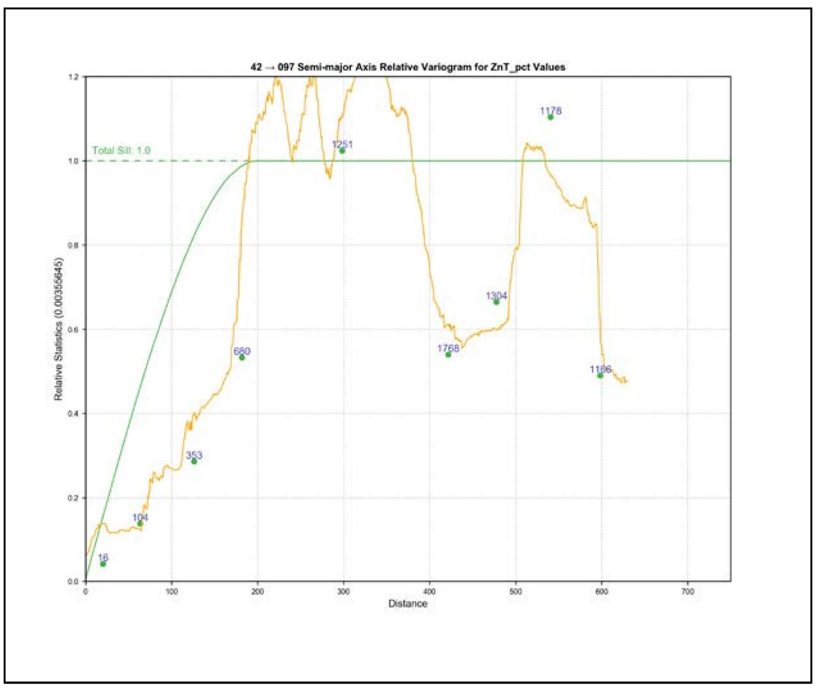

Figure D - 169 Semi-Major Axis Variogram for Total Zinc in Limestone

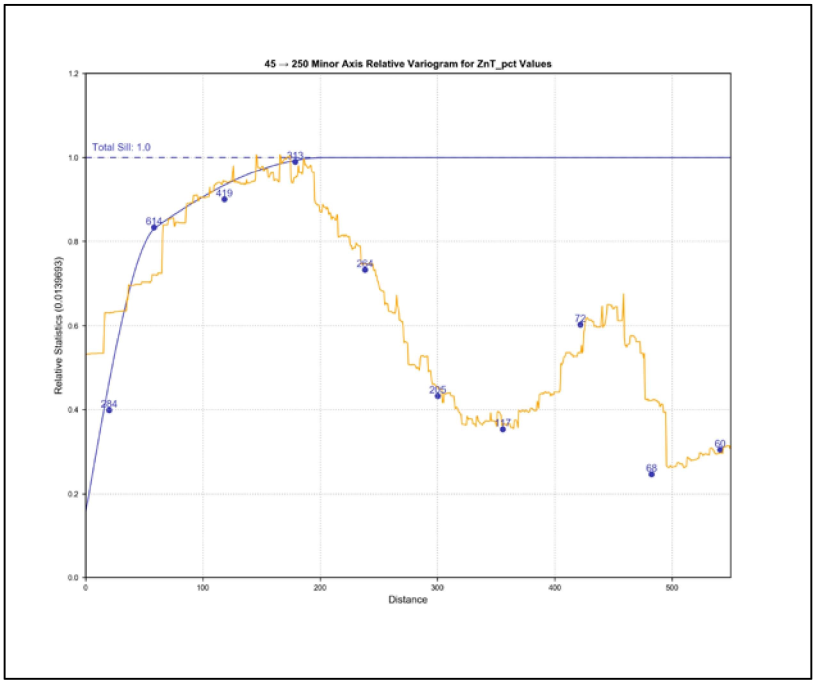

Figure D - 170 Minor Axis Variogram for Total Zinc in Limestone

Table D - 35 Relative Variogram Parameters for Total Zinc in Granite

Zn 60 (GR)			
Structure (Relative Variogram)			
Nugget (C_0)	*C_1*	*C_2*	*Total*
0.005	0.995		1.000
Range (ft)			**Anisotropy**
Major	265		3.53
Semi-Major	200		2.67
Minor	75		1.00
Orientation			
Dip		45	
Dip Azi		70	
Pitch		20	

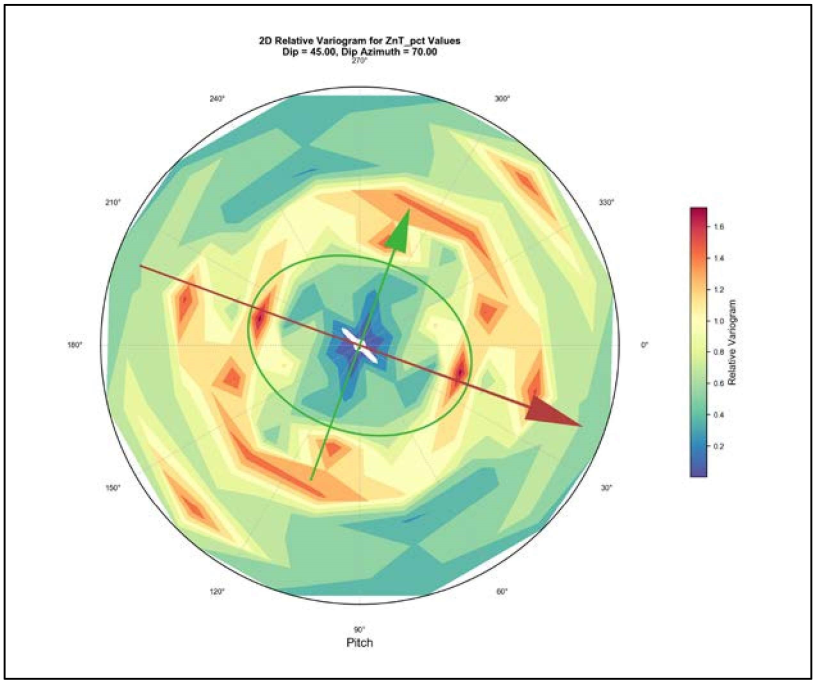

Figure D - 171 Radial Plot for Total Zinc in Granite

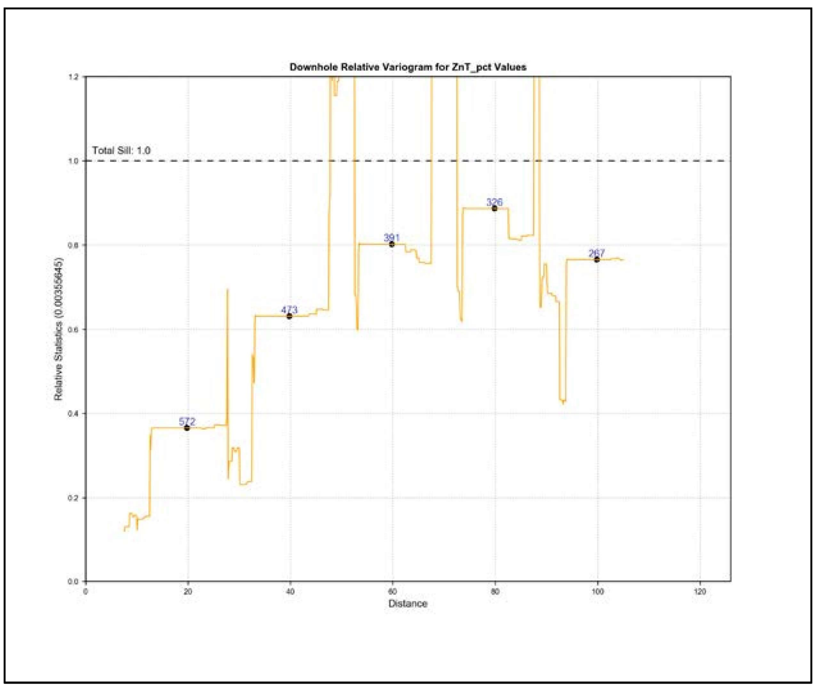

Figure D - 172 Downhole Variogram for Total Zinc in Granite

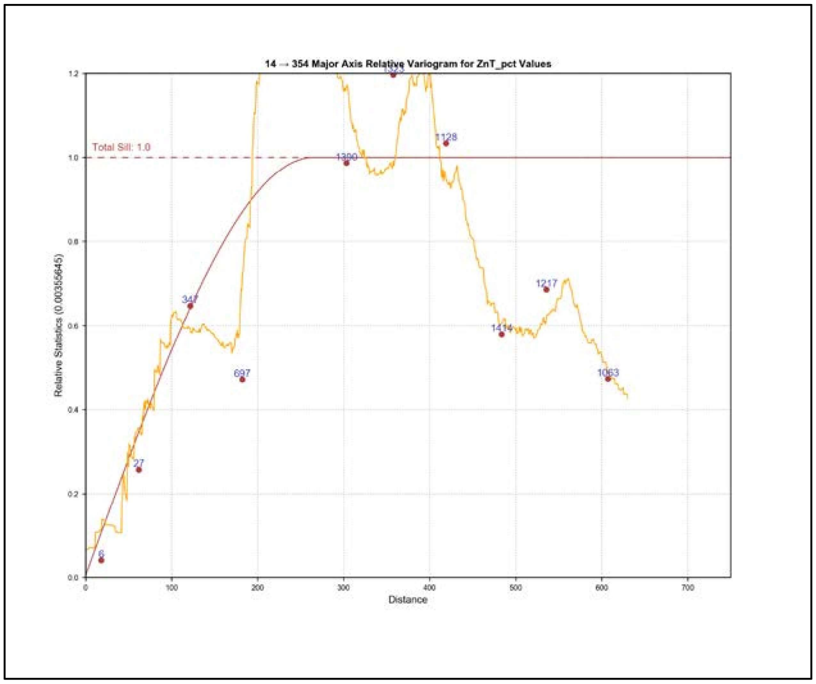

Figure D - 173 Major Axis Variogram for Total Zinc in Granite

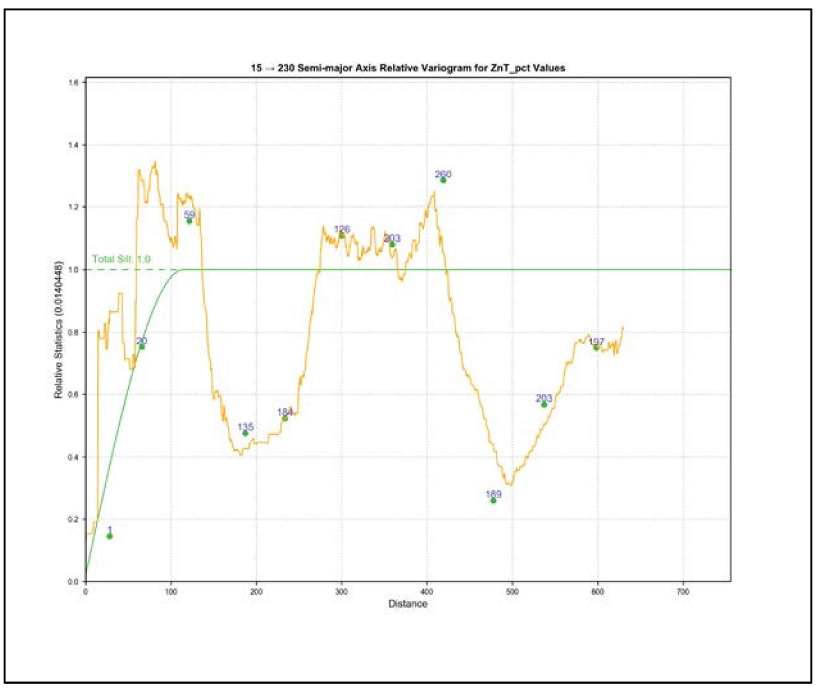

Figure D - 174 Semi-Major Axis Variogram for Total Zinc in Granite

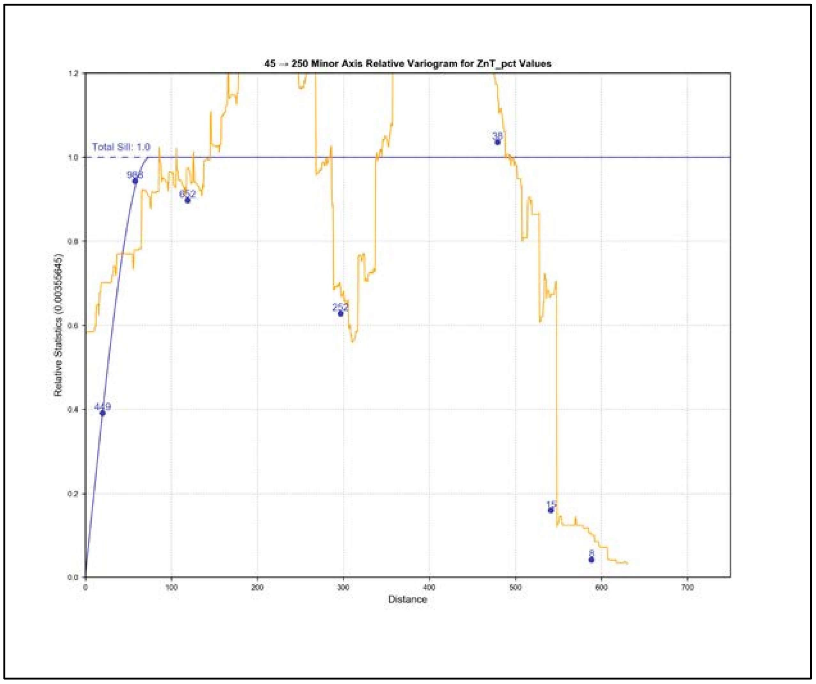

Figure D - 175 Minor Axis Variogram for Total Zinc in Granite

Table D - 36 Relative Variogram Parameters for Total Zinc in Dikes

<table>
<tr><th colspan="4">Zn 61 (GR)</th></tr>
<tr><th colspan="4">Structure (Relative Variogram)</th></tr>
<tr><td>Nugget (C_0)</td><td>C_1</td><td>C_2</td><td>Total</td></tr>
<tr><td>0.020</td><td>0.980</td><td></td><td>1.000</td></tr>
<tr><th colspan="3">Range (ft)</th><th>Anisotropy</th></tr>
<tr><td>Major</td><td colspan="2">200</td><td>1.48</td></tr>
<tr><td>Semi-Major</td><td colspan="2">70</td><td>0.52</td></tr>
<tr><td>Minor</td><td colspan="2">135</td><td>1.00</td></tr>
<tr><th colspan="4">Orientation</th></tr>
<tr><td colspan="2">Dip</td><td colspan="2">90</td></tr>
<tr><td colspan="2">Dip Azi</td><td colspan="2">140</td></tr>
<tr><td colspan="2">Pitch</td><td colspan="2">45</td></tr>
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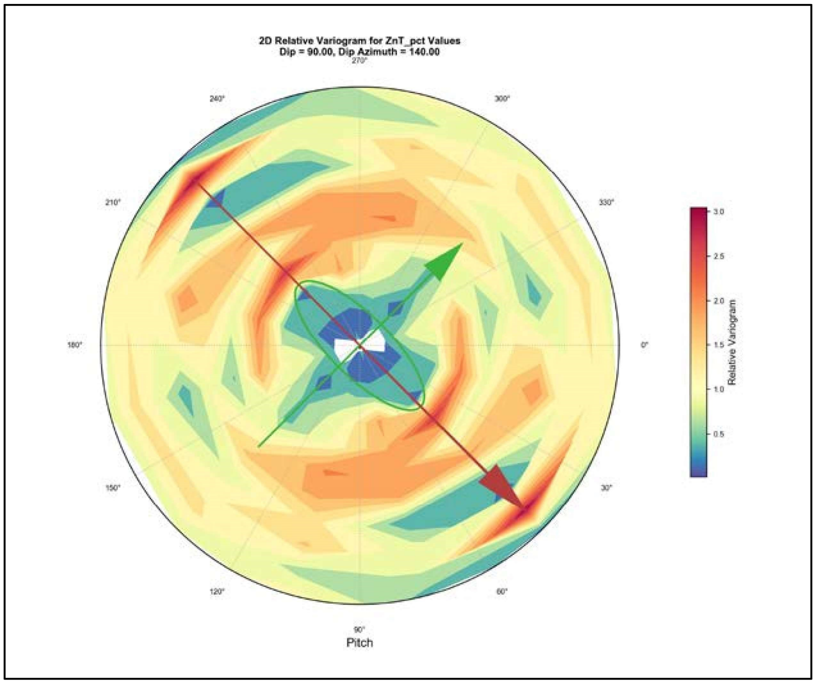

Figure D - 176 Radial Plot for Total Zinc in Dikes

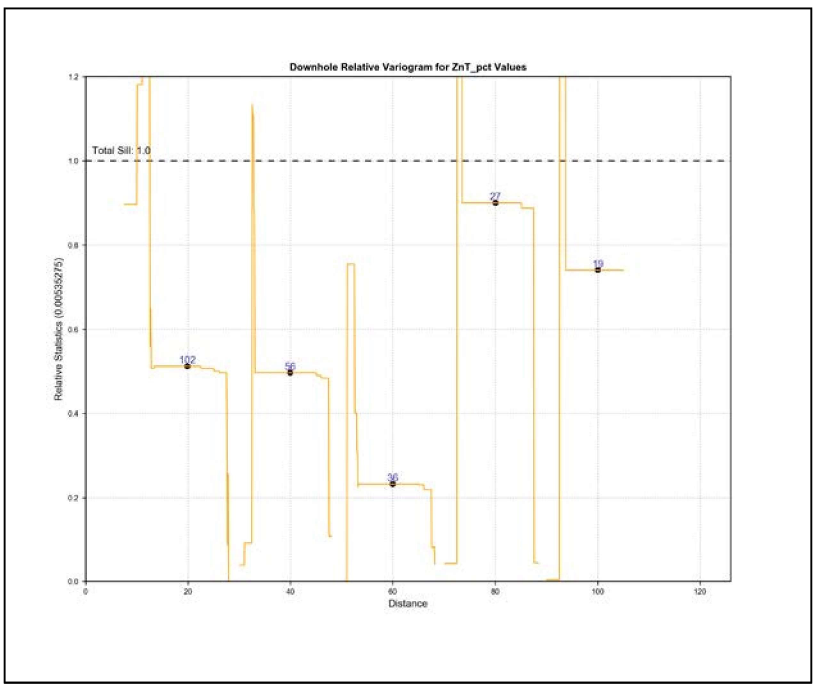

Figure D - 177 Downhole Variogram for Total Zinc in Dikes

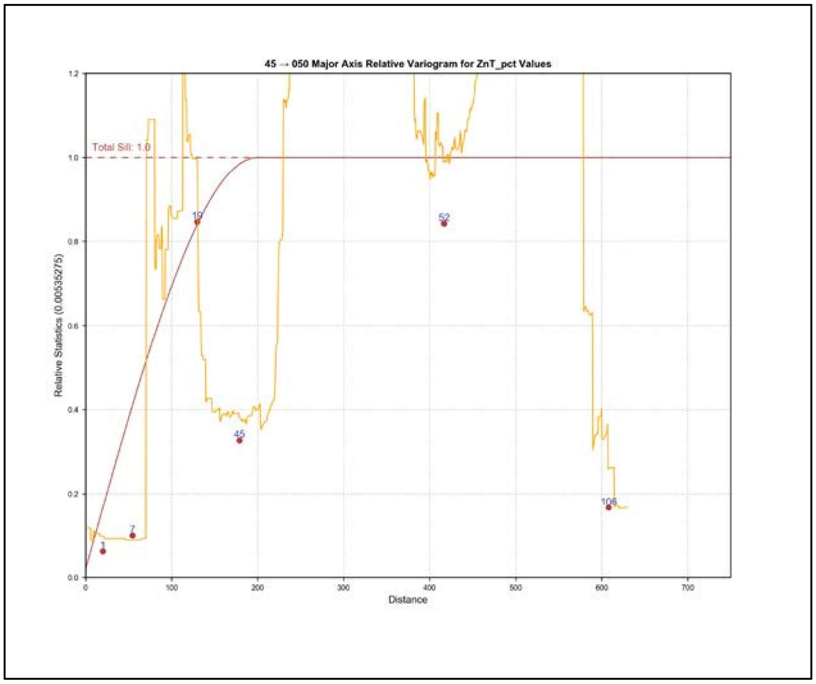

Figure D - 178 Major Axis Variogram for Total Zinc in Dikes

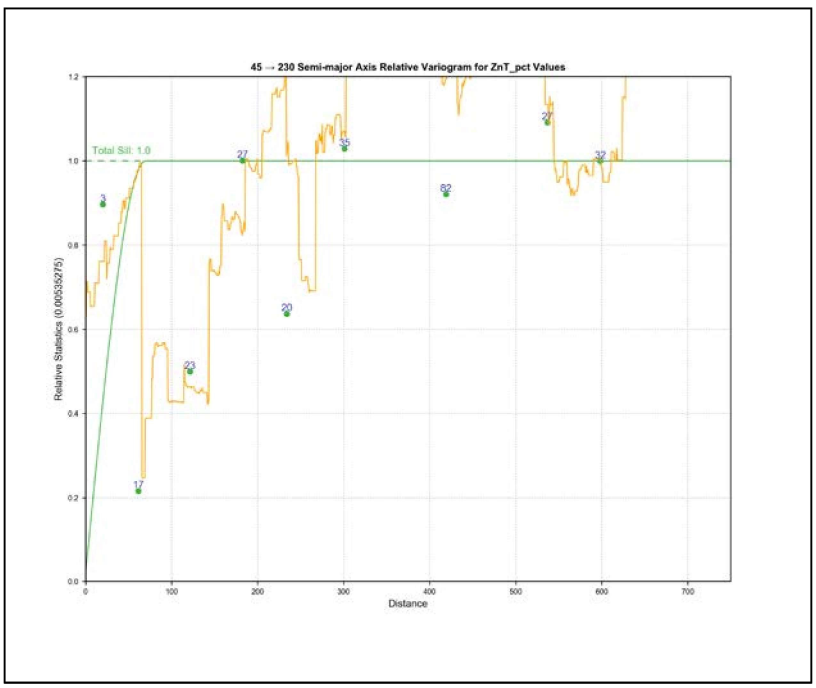

Figure D - 179 Semi-Major Axis Variogram for Total Zinc in Dikes

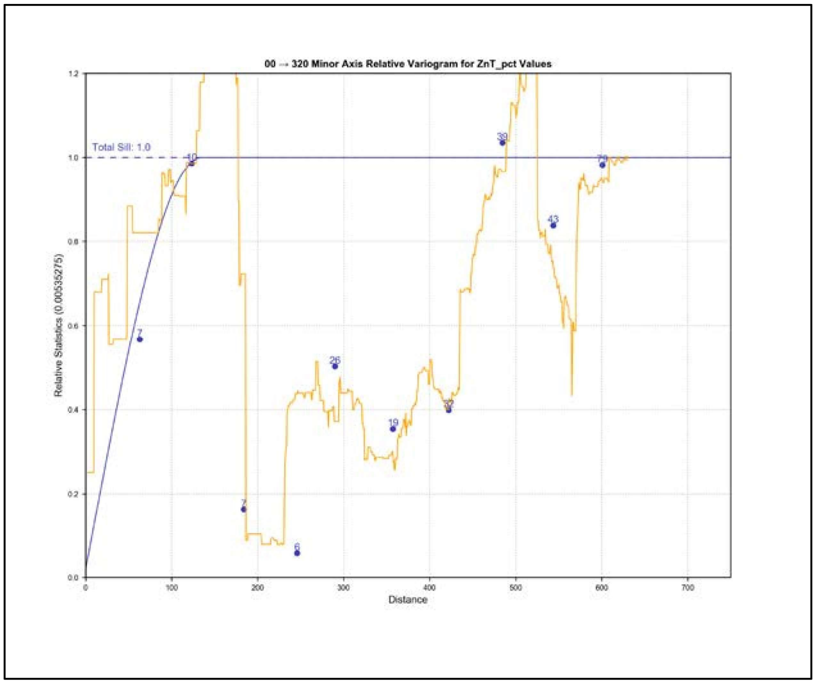

Figure D - 180 Minor Axis Variogram for Total Zinc in Dikes

APPENDIX E

MINERAL RESOURCE ESTIMATE VALIDATION

The estimation of mineral resources at the Project used and ordinary kriging (OK) interpolation for all but the overburden domain. which used an inverse distance to the power of 2.5 (ID) interpolation. The combined method was compared against OK, ID, and nearest neighbor NN estimates globally, and by domain. In some cased the estimates were also compared against the composites as well. The appendix shows the descriptive statistical comparisons and swath plots in the X, Y, and Z directions.

Descriptive Statistical Comparisons.

Tables E – 1 through E – 10 compare the estimated grades for the OK, ID, and NN estimates with the composites (CP) or capped composites (CP Capped). Table E – 1 also shows two additional estimates the combined final estimate (FINAL) and an adjusted nearest neighbor estimate (NN_adj). Leapfrog uses a true NN estimation methodology which allows single composites and does not allow for outlier restrictions and variable orientations to be applied resulting in many more blocks being estimated than the ID and OK methods, skewing the statistics. NN_adj was created to correct for this by only including NN blocks with an OK grade estimate. Fields in bold indicate the estimate used to tabulate mineral resources.

Table E - 1 Comparative Descriptive Statistics by Metal for the Global Resource

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	5,601	4.91	14.95	3.04	0.001	0.388	1.15	3.78	414.00		
	NN	535,149	1.86	6.66	3.57	0.001	0.177	0.50	1.25	274.00		
	NN_Adj	388,025	2.24	7.59	3.38	0.001	0.250	0.60	1.46	274.00		
	ID	388,237	2.29	5.11	2.23	0.001	0.429	0.89	2.02	261.83		
	OK	388,237	2.36	4.41	1.87	-0.163	0.478	0.98	2.35	166.84	2	0.00052%
	FINAL	**388,237**	**2.36**	**4.45**	**1.89**	**-0.163**	**0.478**	**0.98**	**2.34**	**166.84**	**2**	**0.00052%**
Au (g/t)	CP	5,601	0.149	1.058	7.12	0.001	0.005	0.015	0.075	54.096		
	NN	532,698	0.057	0.336	5.89	0.001	0.001	0.006	0.018	25.000		
	NN_Adj	383,696	0.069	0.380	5.52	0.001	0.002	0.008	0.024	25.000		
	ID	383,912	0.069	0.215	3.13	0.001	0.006	0.014	0.051	23.095		
	OK	383,912	0.072	0.165	2.28	-0.033	0.007	0.017	0.066	8.552	5	0.00130%
	FINAL	**383,912**	**0.072**	**0.165**	**2.29**	**-0.033**	**0.007**	**0.017**	**0.066**	**8.552**	**5**	**0.00130%**
Cu (%)	CP	6,407	0.172	0.441	2.56	0.000	0.005	0.027	0.145	9.450		
	NN	556,564	0.051	0.235	4.64	0.000	0.001	0.005	0.020	9.450		
	NN_Adj	386,290	0.068	0.274	4.06	0.000	0.002	0.007	0.030	9.450		
	ID	386,588	0.073	0.181	2.49	0.000	0.004	0.013	0.049	4.642		
	OK	386,588	0.076	0.167	2.20	-0.046	0.005	0.015	0.061	4.427	5	0.00129%
	FINAL	**386,588**	**0.076**	**0.168**	**2.22**	**-0.046**	**0.005**	**0.015**	**0.060**	**4.427**	**5**	**0.00129%**
Zn (%)	CP	5,396	0.095	0.207	2.19	0.001	0.013	0.032	0.088	3.623		
	NN	512,860	0.054	0.136	2.53	0.001	0.010	0.017	0.041	3.623		
	NN_Adj	367,056	0.063	0.153	2.45	0.001	0.010	0.020	0.050	3.623		
	ID	367,273	0.063	0.110	1.75	0.001	0.015	0.029	0.063	3.416		
	OK	367,273	0.065	0.101	1.57	-0.060	0.017	0.032	0.071	2.860	77	0.02097%
	FINAL	**367,273**	**0.065**	**0.102**	**1.57**	**-0.060**	**0.017**	**0.032**	**0.071**	**2.860**	**77**	**0.02097%**

Table E - 2 Comparative Descriptive Statistics by Metal for the Overburden (10 OVB)

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	411	12.52	31.17	2.49	0.001	0.725	3.20	9.80	414.00		
	NN	3,970	6.61	17.38	2.63	0.001	0.588	2.15	7.48	169.00		
	NN_Adj	2,726	8.35	20.62	2.47	0.001	0.725	2.37	7.63	169.00		
	ID	**2,876**	**8.75**	**12.73**	**1.46**	**0.038**	**1.725**	**4.65**	**9.70**	**137.28**		
	OK	2,876	8.63	10.42	1.21	0.188	2.335	4.71	10.41	74.42		
Au (g/t)	CP	411	0.259	1.852	7.15	0.001	0.006	0.030	0.133	36.000		
	NN	3,970	0.091	0.299	3.28	0.001	0.005	0.016	0.050	6.590		
	NN_Adj	2,726	0.111	0.350	3.16	0.001	0.005	0.020	0.075	6.590		
	ID	**2,876**	**0.114**	**0.181**	**1.59**	**0.001**	**0.016**	**0.048**	**0.149**	**2.689**		
	OK	2,876	0.122	0.164	1.35	0.001	0.019	0.066	0.159	2.106		
Cu (%)	CP	464	0.397	0.886	2.23	0.001	0.015	0.098	0.423	8.970		
	NN	4,019	0.198	0.521	2.63	0.001	0.007	0.042	0.205	8.130		
	NN_Adj	2,820	0.251	0.606	2.41	0.001	0.011	0.053	0.257	8.130		
	ID	**2,964**	**0.277**	**0.352**	**1.27**	**0.001**	**0.042**	**0.159**	**0.399**	**3.734**		
	OK	2,964	0.270	0.266	0.98	0.002	0.066	0.190	0.405	2.389		
Zn (%)	CP	408	0.085	0.142	1.67	0.001	0.021	0.053	0.098	1.665		
	NN	3,935	0.075	0.144	1.92	0.001	0.012	0.030	0.084	1.665		
	NN_Adj	2,695	0.088	0.167	1.89	0.001	0.017	0.044	0.100	1.665		
	ID	**2,845**	**0.084**	**0.089**	**1.06**	**0.001**	**0.028**	**0.066**	**0.110**	**1.503**		
	OK	2,845	0.085	0.069	0.81	0.007	0.040	0.071	0.109	0.861		

Table E - 3 Comparative Descriptive Statistics by Metal for the Granite Porphyry (12 GP)

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	872	2.18	13.80	6.34	0.001	0.301	0.70	1.56	394.10		
	NN	102,320	1.10	2.38	2.17	0.001	0.150	0.52	1.08	70.00		
	NN_Adj	71,137	1.23	2.70	2.19	0.001	0.199	0.53	1.15	70.00		
	ID	71,175	1.24	1.67	1.34	0.001	0.434	0.77	1.35	68.78		
	OK	**71,175**	**1.29**	**1.51**	**1.17**	**-0.163**	**0.483**	**0.82**	**1.46**	**34.33**	**2**	**0.00281%**
Au (g/t)	CP	872	0.043	0.143	3.29	0.001	0.004	0.008	0.020	2.238		
	NN	102,331	0.034	0.099	2.95	0.001	0.001	0.005	0.014	1.500		
	NN_Adj	71,102	0.030	0.098	3.24	0.001	0.001	0.006	0.015	1.500		
	ID	71,131	0.031	0.063	2.06	0.001	0.005	0.010	0.024	1.149		
	OK	**71,131**	**0.032**	**0.054**	**1.66**	**0.001**	**0.005**	**0.012**	**0.029**	**0.817**		
Cu (%)	CP	953	0.049	0.140	2.88	0.001	0.004	0.010	0.031	1.851		
	NN	101,052	0.022	0.088	3.99	0.001	0.001	0.005	0.017	1.851		
	NN_Adj	68,295	0.028	0.105	3.81	0.001	0.003	0.007	0.020	1.851		
	ID	68,414	0.026	0.057	2.22	0.001	0.005	0.012	0.024	1.358		
	OK	**68,414**	**0.027**	**0.050**	**1.86**	**0.001**	**0.006**	**0.013**	**0.027**	**1.178**		
Zn (%)	CP	822	0.048	0.137	2.84	0.001	0.010	0.016	0.038	2.820		
	NN	96,837	0.033	0.094	2.87	0.001	0.006	0.012	0.027	2.820		
	NN_Adj	67,455	0.036	0.101	2.82	0.001	0.006	0.013	0.030	2.820		
	ID	67,511	0.037	0.057	1.57	0.001	0.011	0.019	0.038	1.352		
	OK	**67,511**	**0.038**	**0.045**	**1.17**	**0.001**	**0.012**	**0.022**	**0.044**	**0.792**		

Table E - 4 Comparative Descriptive Statistics by Metal for the Iron Oxide Breccia (20 FEBX)

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	169	8.22	11.66	1.42	0.001	1.903	3.58	9.78	73.58		
	NN	4,352	5.56	7.83	1.41	0.001	1.367	3.03	5.24	73.58		
	NN_Adj	4,305	5.56	7.86	1.41	0.001	1.340	3.02	5.24	73.58		
	ID	4,308	5.59	5.86	1.05	0.121	2.085	3.64	7.28	67.62		
	OK	**4,308**	**5.83**	**5.11**	**0.88**	**0.516**	**2.491**	**4.28**	**7.54**	**53.31**		
Au (g/t)	CP	169	0.146	0.275	1.88	0.001	0.026	0.066	0.155	2.468		
	NN	4,346	0.111	0.233	2.10	0.001	0.019	0.047	0.103	2.468		
	NN_Adj	4,301	0.112	0.234	2.09	0.001	0.019	0.048	0.107	2.468		
	ID	4,304	0.107	0.156	1.47	0.001	0.030	0.066	0.114	2.147		
	OK	**4,304**	**0.107**	**0.116**	**1.08**	**0.005**	**0.034**	**0.078**	**0.134**	**1.307**		
Cu (%)	CP	180	0.255	0.344	1.34	0.001	0.055	0.117	0.310	1.808		
	NN	4,349	0.168	0.236	1.40	0.001	0.051	0.081	0.188	2.053		
	NN_Adj	4,305	0.169	0.236	1.40	0.001	0.051	0.081	0.191	2.053		
	ID	4,305	0.172	0.184	1.07	0.002	0.065	0.118	0.212	1.884		
	OK	**4,305**	**0.177**	**0.162**	**0.91**	**0.004**	**0.073**	**0.132**	**0.231**	**1.555**		
Zn (%)	CP	168	0.182	0.263	1.45	0.001	0.044	0.080	0.215	1.985		
	NN	4,351	0.182	0.305	1.68	0.001	0.042	0.089	0.215	3.623		
	NN_Adj	4,303	0.182	0.306	1.68	0.001	0.044	0.089	0.215	3.623		
	ID	4,303	0.183	0.240	1.31	0.002	0.061	0.097	0.215	3.320		
	OK	**4,303**	**0.177**	**0.208**	**1.18**	**-0.060**	**0.070**	**0.101**	**0.220**	**2.860**	**3**	**0.06972%**

Table E - 5 Comparative Descriptive Statistics by Metal for the Garnet Skarn (30 ENDO)

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	1,284	4.07	7.67	1.88	0.001	0.663	1.52	4.18	79.20		
	NN	79,974	3.11	7.21	2.31	0.001	0.520	1.10	2.38	154.00		
	NN_Adj	73,461	3.11	7.11	2.29	0.001	0.529	1.13	2.40	154.00		
	ID	73,482	3.09	4.22	1.37	0.001	0.967	1.71	3.57	138.38		
	OK	**73,482**	**3.20**	**3.72**	**1.16**	**0.033**	**1.112**	**1.99**	**3.82**	**66.36**		
Au (g/t)	CP	1,284	0.149	0.543	3.64	0.001	0.008	0.020	0.079	12.050		
	NN	77,426	0.123	0.497	4.05	0.001	0.007	0.015	0.050	12.050		
	NN_Adj	70,792	0.117	0.475	4.06	0.001	0.007	0.016	0.051	12.050		
	ID	70,826	0.109	0.205	1.88	0.001	0.015	0.037	0.117	6.797		
	OK	**70,826**	**0.114**	**0.161**	**1.41**	**0.001**	**0.018**	**0.054**	**0.148**	**4.835**		
Cu (%)	CP	1,429	0.164	0.387	2.36	0.001	0.011	0.044	0.168	9.450		
	NN	78,496	0.120	0.386	3.22	0.001	0.009	0.028	0.107	9.450		
	NN_Adj	71,981	0.119	0.384	3.23	0.001	0.009	0.027	0.105	9.450		
	ID	72,014	0.122	0.181	1.49	0.001	0.025	0.059	0.144	4.642		
	OK	**72,014**	**0.124**	**0.160**	**1.29**	**-0.046**	**0.032**	**0.068**	**0.160**	**4.427**	**1**	**0.00139%**
Zn (%)	CP	1,254	0.096	0.193	2.02	0.001	0.018	0.035	0.084	2.483		
	NN	75,808	0.083	0.188	2.25	0.001	0.015	0.027	0.065	2.716		
	NN_Adj	68,699	0.085	0.194	2.28	0.001	0.015	0.027	0.065	2.716		
	ID	68,707	0.085	0.131	1.54	0.001	0.022	0.040	0.092	2.115		
	OK	**68,707**	**0.085**	**0.115**	**1.35**	**0.002**	**0.023**	**0.044**	**0.097**	**1.718**		

Table E - 6 Comparative Descriptive Statistics by Metal for the Pyroxene Skarn (32 EXO)

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	1,064	9.51	20.31	2.14	0.001	0.857	2.70	8.74	274.00		
	NN	49,554	6.60	16.66	2.52	0.001	0.466	1.35	5.04	274.00		
	NN_Adj	47,408	6.73	16.97	2.52	0.001	0.475	1.41	5.10	274.00		
	ID	47,408	7.05	11.11	1.58	0.001	1.129	3.29	8.85	261.83		
	OK	**47,408**	**7.16**	**9.04**	**1.26**	**0.001**	**1.561**	**4.02**	**9.39**	**166.84**		
Au (g/t)	CP	1,064	0.271	1.722	6.34	0.001	0.010	0.049	0.171	54.096		
	NN	49,554	0.206	0.834	4.05	0.001	0.008	0.028	0.140	25.000		
	NN_Adj	47,437	0.208	0.848	4.08	0.001	0.008	0.027	0.140	25.000		
	ID	47,437	0.222	0.490	2.21	0.001	0.025	0.087	0.247	23.095		
	OK	**47,437**	**0.232**	**0.340**	**1.46**	**0.001**	**0.035**	**0.113**	**0.290**	**8.552**		
Cu (%)	CP	1,348	0.338	0.565	1.67	0.001	0.025	0.112	0.379	4.680		
	NN	49,545	0.218	0.510	2.34	0.001	0.010	0.034	0.162	6.220		
	NN_Adj	47,345	0.226	0.520	2.30	0.001	0.010	0.034	0.180	6.220		
	ID	47,345	0.261	0.358	1.37	0.001	0.028	0.104	0.361	4.504		
	OK	**47,345**	**0.275**	**0.321**	**1.17**	**0.001**	**0.040**	**0.149**	**0.412**	**2.715**		
Zn (%)	CP	985	0.170	0.331	1.95	0.001	0.023	0.060	0.170	3.623		
	NN	48,589	0.127	0.247	1.95	0.001	0.015	0.040	0.130	3.623		
	NN_Adj	46,101	0.129	0.252	1.95	0.001	0.015	0.041	0.130	3.623		
	ID	46,104	0.130	0.187	1.44	0.001	0.026	0.063	0.155	3.416		
	OK	**46,104**	**0.131**	**0.173**	**1.32**	**0.001**	**0.030**	**0.067**	**0.162**	**2.367**		

Table E - 7 Comparative Descriptive Statistics by Metal for the Magnetite Skarn (34 MT)

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	314	5.38	10.93	2.03	0.001	1.275	3.33	6.33	174.80		
	NN	7,627	4.07	5.54	1.36	0.001	0.713	2.17	5.26	45.00		
	NN_Adj	7,267	4.16	5.66	1.36	0.001	0.608	2.17	5.58	45.00		
	ID	7,267	4.03	3.94	0.98	0.001	1.281	2.83	5.62	42.73		
	OK	**7,267**	**4.08**	**3.42**	**0.84**	**0.001**	**1.660**	**3.10**	**5.49**	**29.39**		
Au (g/t)	CP	314	0.260	0.574	2.21	0.001	0.031	0.096	0.283	7.573		
	NN	7,627	0.190	0.340	1.79	0.001	0.016	0.078	0.189	2.500		
	NN_Adj	7,267	0.189	0.333	1.77	0.001	0.016	0.078	0.191	2.500		
	ID	7,267	0.199	0.231	1.16	0.001	0.053	0.110	0.276	2.445		
	OK	**7,267**	**0.214**	**0.216**	**1.01**	**0.001**	**0.063**	**0.138**	**0.294**	**1.794**		
Cu (%)	CP	380	0.240	0.424	1.77	0.001	0.043	0.126	0.283	6.220		
	NN	7,551	0.181	0.343	1.90	0.001	0.035	0.080	0.207	5.000		
	NN_Adj	7,160	0.187	0.351	1.87	0.001	0.034	0.090	0.215	5.000		
	ID	7,162	0.184	0.233	1.27	0.002	0.063	0.123	0.226	4.473		
	OK	**7,162**	**0.186**	**0.192**	**1.03**	**0.003**	**0.075**	**0.124**	**0.232**	**2.465**		
Zn (%)	CP	304	0.149	0.220	1.48	0.001	0.050	0.090	0.148	1.787		
	NN	7,620	0.187	0.289	1.54	0.001	0.050	0.098	0.163	2.335		
	NN_Adj	7,242	0.174	0.278	1.59	0.001	0.048	0.093	0.149	1.834		
	ID	7,242	0.158	0.199	1.26	0.001	0.063	0.096	0.145	1.778		
	OK	**7,242**	**0.164**	**0.199**	**1.21**	**0.001**	**0.065**	**0.095**	**0.155**	**1.396**		

Table E - 8 Comparative Descriptive Statistics by Metal for the Limestone (51 LS)

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	550	2.08	7.93	3.82	0.001	0.126	0.60	1.61	141.15		
	NN	102,812	1.00	3.38	3.36	0.001	0.001	0.32	0.96	85.00		
	NN_Adj	47,553	1.49	4.37	2.92	0.001	0.224	0.62	1.37	85.00		
	ID	47,553	1.46	1.99	1.36	0.001	0.534	1.02	1.75	84.51		
	OK	**47,553**	**1.61**	**1.46**	**0.91**	**0.001**	**0.650**	**1.14**	**2.17**	**37.94**		
Au (g/t)	CP	550	0.119	1.436	12.08	0.001	0.002	0.006	0.015	26.011		
	NN	104,259	0.017	0.093	5.57	0.001	0.001	0.005	0.008	2.500		
	NN_Adj	49,231	0.023	0.130	5.62	0.001	0.003	0.006	0.013	2.500		
	ID	49,231	0.020	0.081	3.95	0.001	0.005	0.008	0.017	2.492		
	OK	**49,231**	**0.021**	**0.065**	**3.08**	**-0.033**	**0.006**	**0.009**	**0.017**	**2.197**	**5**	**0.01016%**
Cu (%)	CP	648	0.040	0.136	3.42	0.000	0.001	0.006	0.024	1.884		
	NN	121,667	0.012	0.051	4.10	0.000	0.001	0.001	0.009	1.884		
	NN_Adj	49,739	0.022	0.076	3.49	0.000	0.001	0.005	0.019	1.884		
	ID	49,739	0.023	0.049	2.11	0.000	0.004	0.011	0.025	1.866		
	OK	**49,739**	**0.028**	**0.043**	**1.54**	**0.001**	**0.007**	**0.016**	**0.030**	**1.122**		
Zn (%)	CP	518	0.072	0.125	1.75	0.001	0.010	0.027	0.078	0.936		
	NN	92,115	0.045	0.085	1.91	0.001	0.001	0.013	0.040	0.936		
	NN_Adj	38,921	0.068	0.105	1.55	0.001	0.012	0.028	0.075	0.936		
	ID	38,921	0.069	0.068	0.99	0.001	0.026	0.047	0.087	0.837		
	OK	**38,921**	**0.077**	**0.059**	**0.77**	**0.003**	**0.035**	**0.062**	**0.103**	**0.559**		

Table E - 9 Comparative Descriptive Statistics by Metal for the Granite (60 GR)

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	700	0.92	1.99	2.17	0.001	0.250	0.45	0.80	29.89		
	NN	175,460	0.67	1.75	2.60	0.001	0.151	0.30	0.65	29.89		
	NN_Adj	125,361	0.65	1.46	2.25	0.001	0.177	0.35	0.65	29.89		
	ID	125,361	0.69	0.84	1.23	0.001	0.280	0.46	0.80	25.20		
	OK	**125,361**	**0.69**	**0.69**	**1.00**	**0.001**	**0.306**	**0.48**	**0.83**	**16.57**		
Au (g/t)	CP	700	0.034	0.100	2.89	0.001	0.001	0.006	0.018	1.093		
	NN	174,105	0.017	0.067	4.02	0.001	0.001	0.004	0.009	1.093		
	NN_Adj	122,033	0.021	0.078	3.69	0.001	0.001	0.005	0.010	1.093		
	ID	122,033	0.020	0.039	1.95	0.001	0.004	0.008	0.017	1.071		
	OK	**122,033**	**0.022**	**0.033**	**1.53**	**0.001**	**0.005**	**0.008**	**0.022**	**0.620**		
Cu (%)	CP	729	0.015	0.042	2.72	0.000	0.002	0.005	0.012	0.613		
	NN	180,746	0.006	0.021	3.37	0.000	0.001	0.002	0.006	0.613		
	NN_Adj	125,834	0.007	0.025	3.38	0.000	0.001	0.003	0.007	0.613		
	ID	125,834	0.008	0.012	1.57	0.000	0.002	0.004	0.009	0.463		
	OK	**125,834**	**0.008**	**0.011**	**1.35**	**0.000**	**0.002**	**0.005**	**0.009**	**0.330**		
Zn (%)	CP	700	0.037	0.069	1.86	0.001	0.010	0.019	0.038	1.124		
	NN	174,525	0.029	0.052	1.80	0.001	0.010	0.015	0.029	1.124		
	NN_Adj	122,833	0.030	0.054	1.82	0.001	0.010	0.015	0.030	1.124		
	ID	122,833	0.030	0.035	1.15	0.001	0.013	0.021	0.035	0.975		
	OK	**122,833**	**0.031**	**0.034**	**1.10**	**-0.014**	**0.013**	**0.021**	**0.036**	**0.914**	**64**	**0.05210%**

Table E - 10 Comparative Descriptive Statistics by Metal for the Dikes (61 DIKE)

Metal	Estimate	Count	Mean	Std. Dev.	CV	Minimum	Lower Qrt	Median	Upper Qrt	Maximum	Neg Blocks	% Neg
Ag (g/t)	CP	182	1.46	2.72	1.86	0.001	0.250	0.52	1.45	24.38		
	NN	9,080	0.77	1.65	2.15	0.001	0.250	0.30	0.79	24.38		
	NN_Adj	8,807	0.71	1.50	2.12	0.001	0.250	0.25	0.76	24.38		
	ID	8,807	0.73	1.07	1.46	0.012	0.264	0.46	0.73	23.60		
	OK	**8,807**	**0.79**	**1.02**	**1.30**	**0.055**	**0.277**	**0.47**	**0.95**	**17.82**		
Au (g/t)	CP	182	0.065	0.234	3.61	0.001	0.005	0.008	0.030	2.778		
	NN	9,080	0.032	0.126	3.95	0.001	0.005	0.005	0.015	2.778		
	NN_Adj	8,807	0.033	0.128	3.94	0.001	0.005	0.005	0.015	2.778		
	ID	8,807	0.036	0.099	2.76	0.001	0.005	0.009	0.027	2.754		
	OK	**8,807**	**0.037**	**0.081**	**2.22**	**0.001**	**0.005**	**0.010**	**0.031**	**1.820**		
Cu (%)	CP	186	0.035	0.087	2.50	0.001	0.002	0.007	0.028	0.800		
	NN	9,139	0.019	0.075	3.88	0.001	0.001	0.002	0.008	0.800		
	NN_Adj	8,811	0.018	0.074	4.08	0.001	0.001	0.002	0.007	0.800		
	ID	8,811	0.023	0.053	2.33	0.001	0.001	0.006	0.018	0.789		
	OK	**8,811**	**0.027**	**0.055**	**2.05**	**-0.005**	**0.001**	**0.008**	**0.023**	**0.604**	**4**	**0.04540%**
Zn (%)	CP	182	0.052	0.107	2.06	0.001	0.007	0.017	0.051	1.123		
	NN	9,080	0.027	0.051	1.86	0.001	0.006	0.008	0.020	0.483		
	NN_Adj	8,807	0.027	0.051	1.89	0.001	0.006	0.008	0.020	0.483		
	ID	8,807	0.030	0.047	1.60	0.001	0.006	0.008	0.031	0.472		
	OK	**8,807**	**0.031**	**0.047**	**1.51**	**-0.003**	**0.006**	**0.009**	**0.040**	**0.460**	**10**	**0.11355%**

Swath Plots

Swath Plots (Figure E – 1 through E – 120) were generated in the X, Y, and Z directions for each metal in each domain, as well as globally.

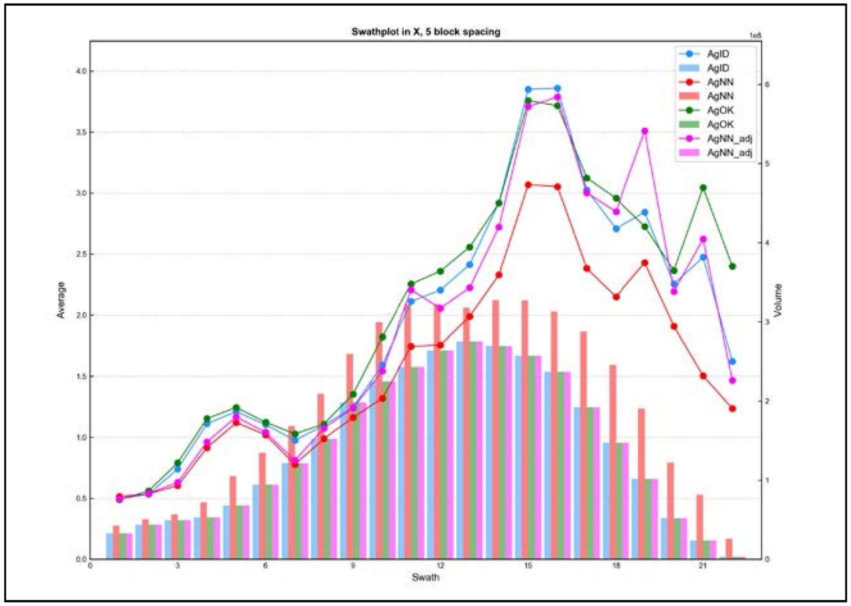

Figure E - 1 Swath Plot in the X Direction of Silver for the Global Resource

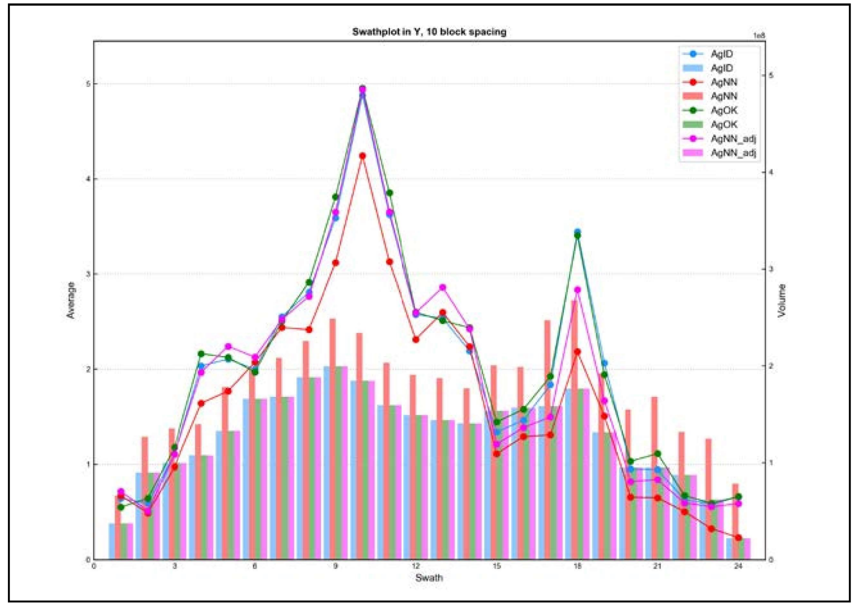

Figure E - 2 Swath Plot in the Y Direction of Silver for the Global Resource

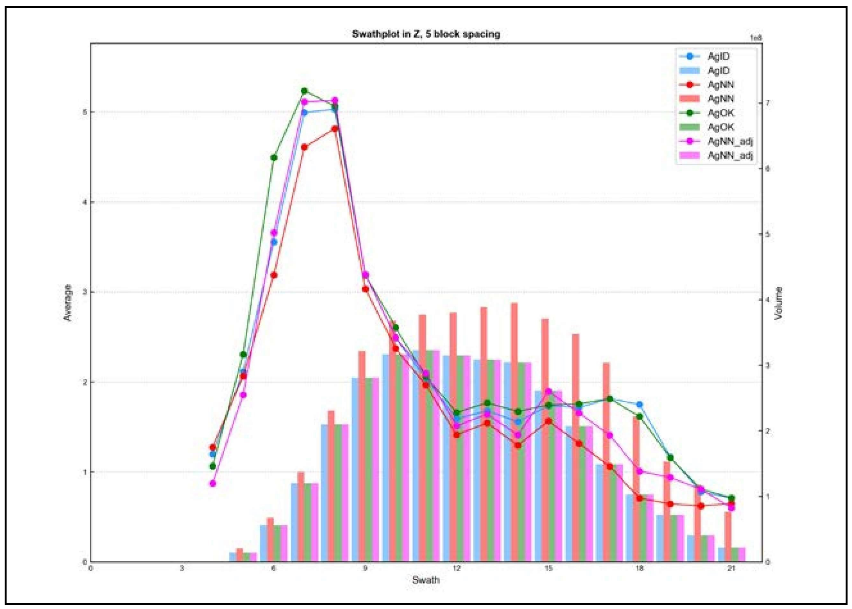

Figure E - 3 Swath Plot in the Z Direction of Silver for the Global Resource

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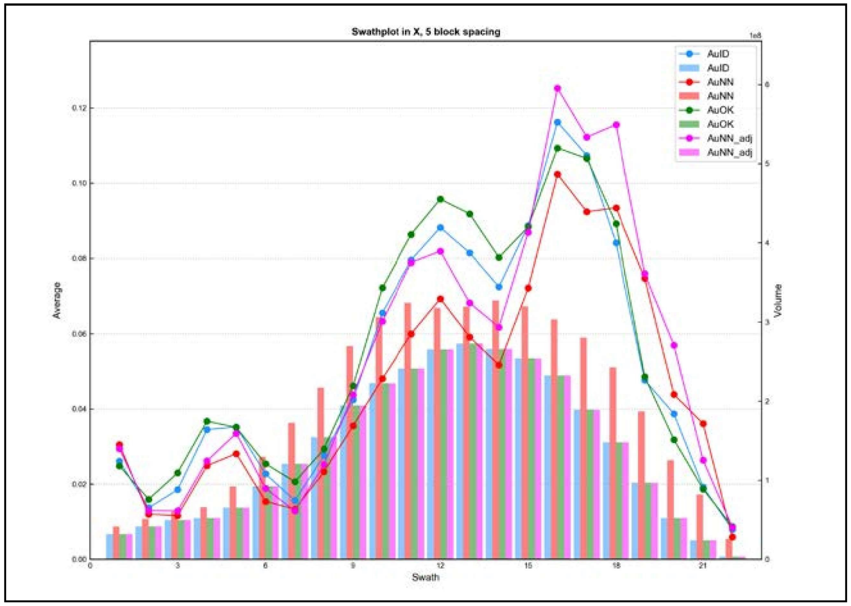

Figure E - 4 Swath Plot in the X Direction of Gold for the Global Resource

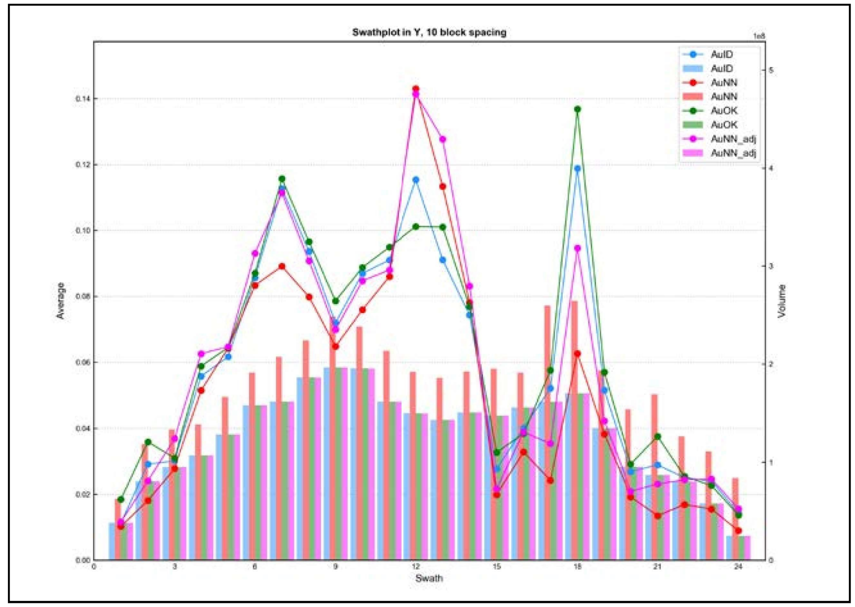

Figure E - 5 Swath Plot in the Y Direction of Gold for the Global Resource

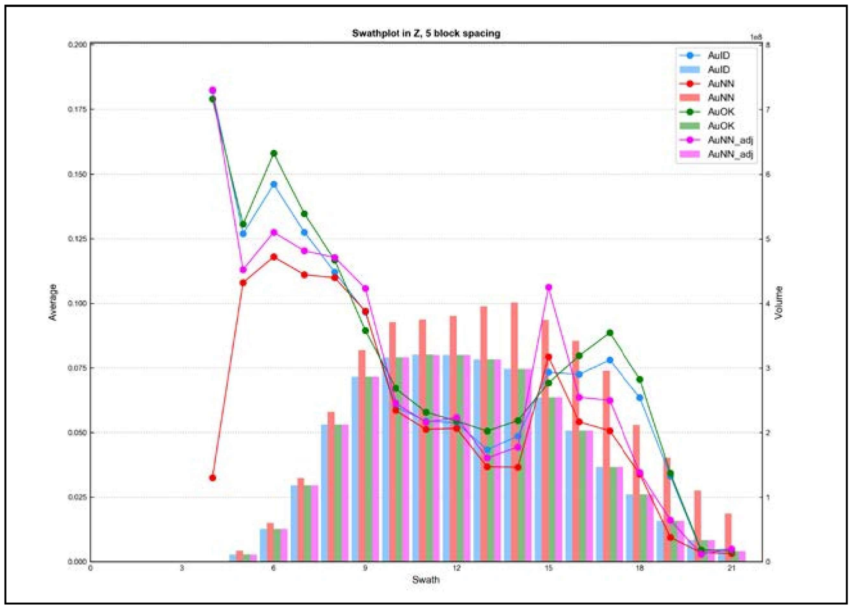

Figure E - 6 Swath Plot in the Z Direction of Gold for the Global Resource

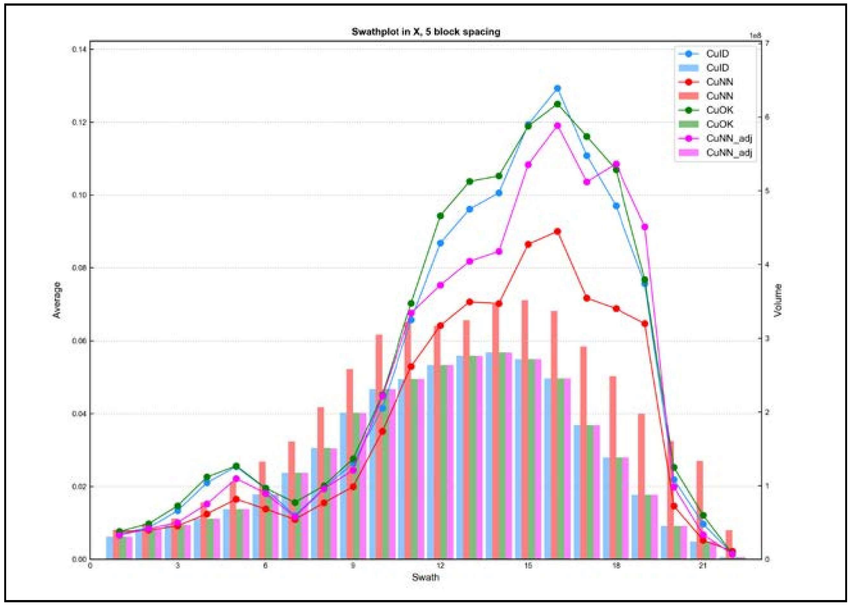

Figure E - 7 Swath Plot in the X Direction of Total Copper for the Global Resource

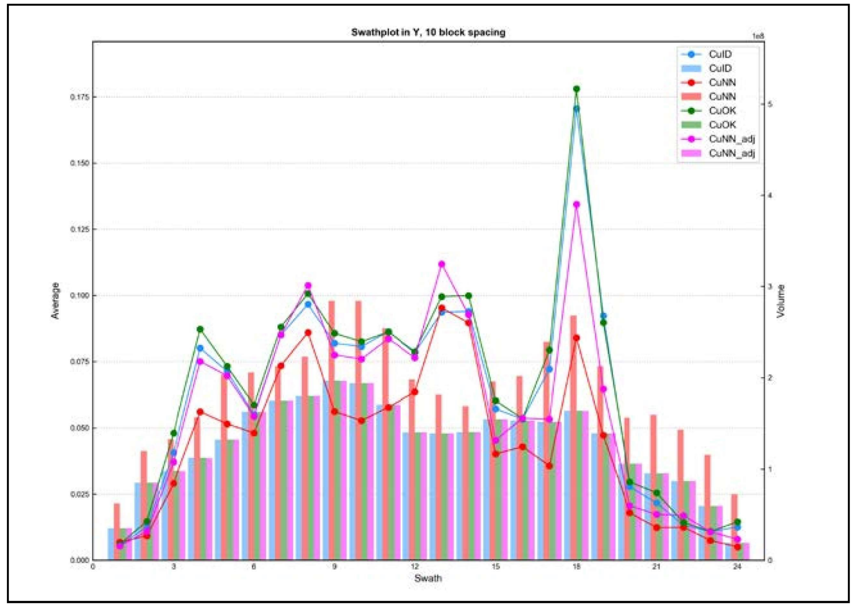

Figure E - 8 Swath Plot in the Y Direction of Total Copper for the Global Resource

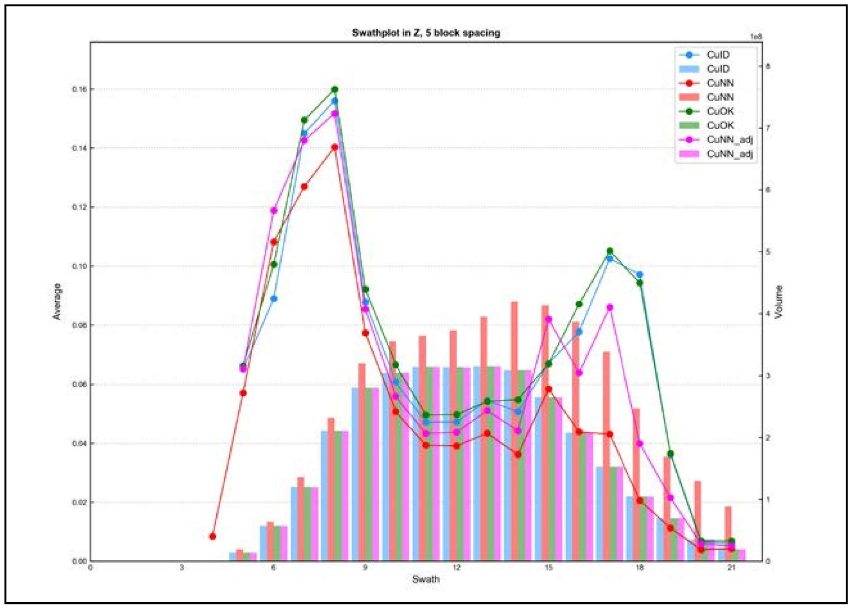

Figure E - 9 Swath Plot in the Z Direction of Total Copper for the Global Resource

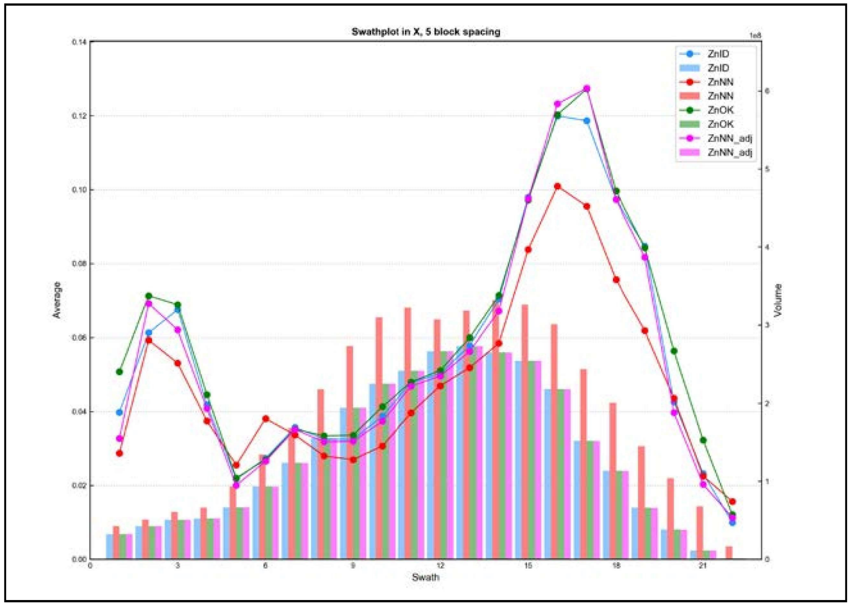

Figure E - 10 Swath Plot in the X Direction of Total Zinc for the Global Resource

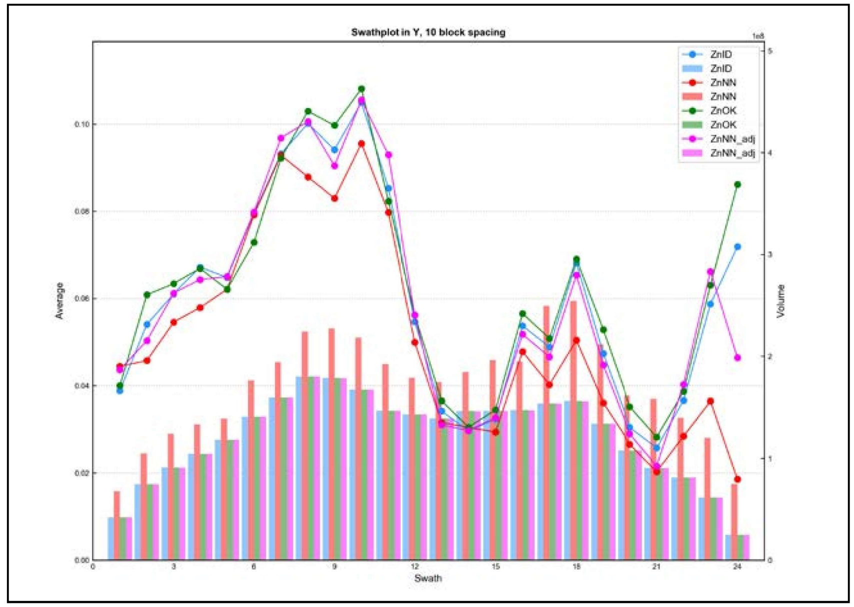

Figure E - 11 Swath Plot in the Y Direction of Total Zinc for the Global Resource

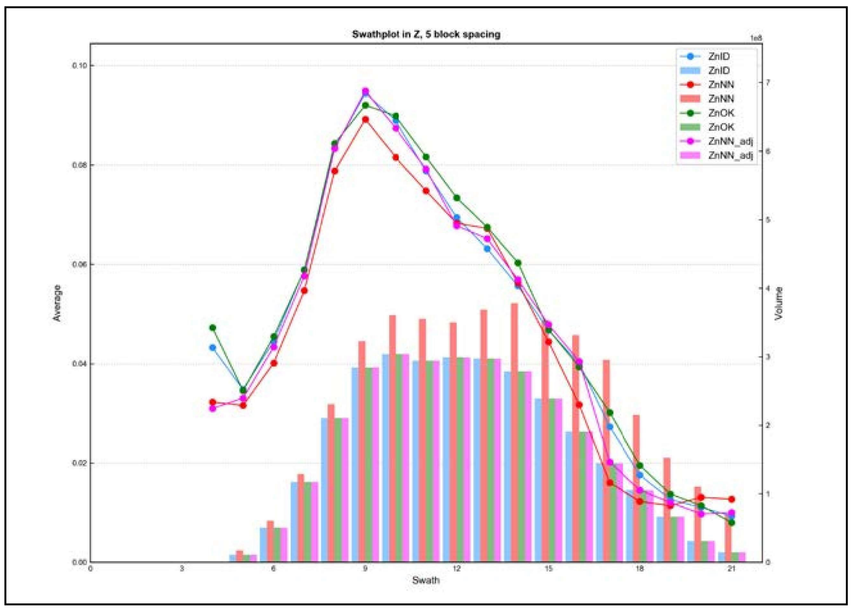

Figure E - 12 Swath Plot in the X Direction of Total Zinc for the Global Resource

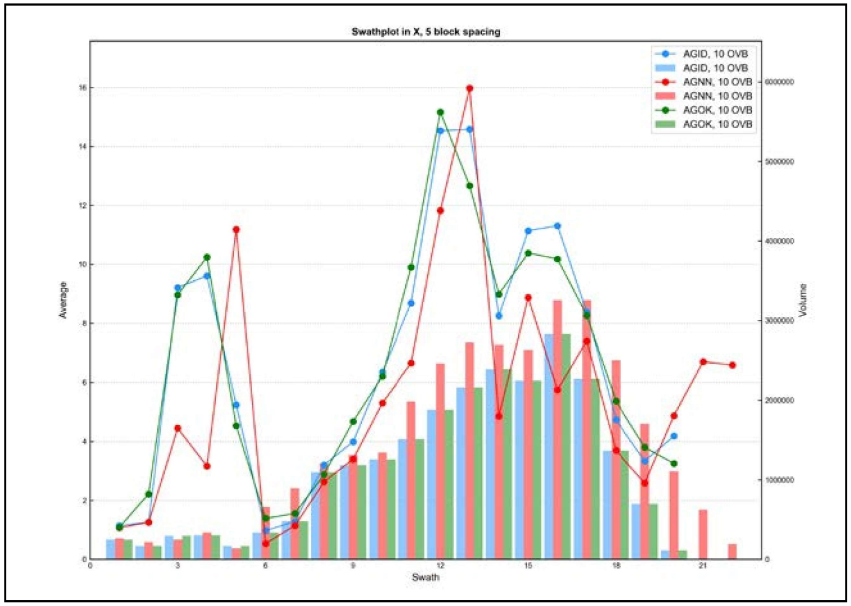

Figure E - 13 Swath Plot in the X Direction of Silver for the Overburden

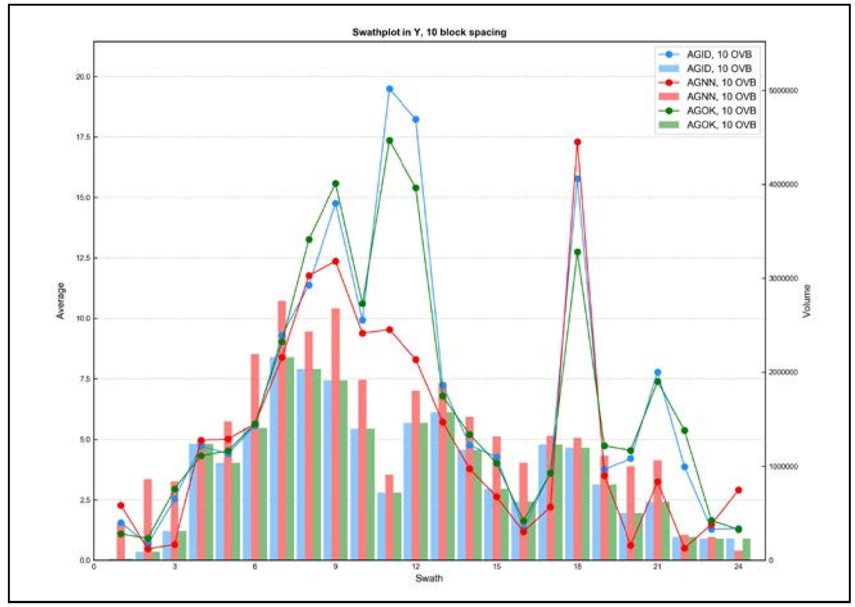

Figure E - 14 Swath Plot in the Y Direction of Silver for the Overburden

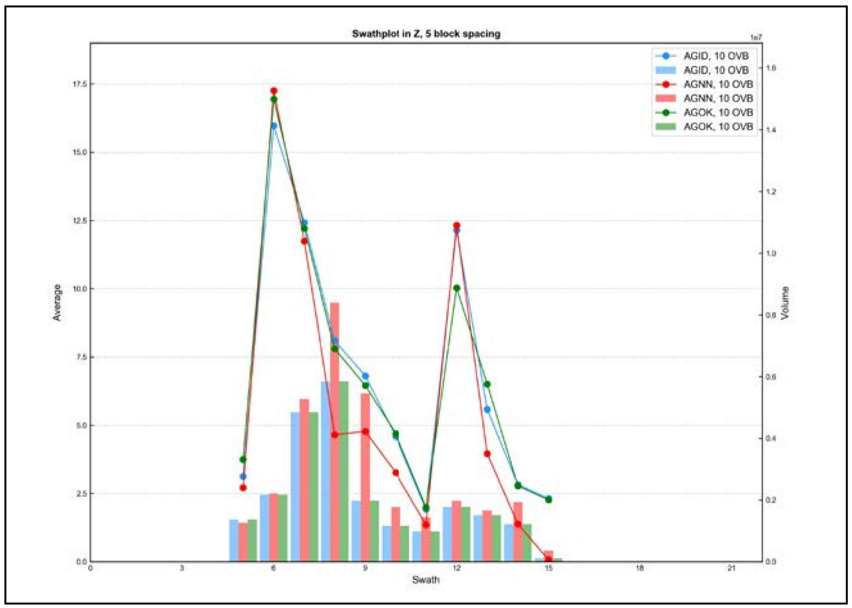

Figure E - 15 Swath Plot in the Z Direction of Silver for the Overburden

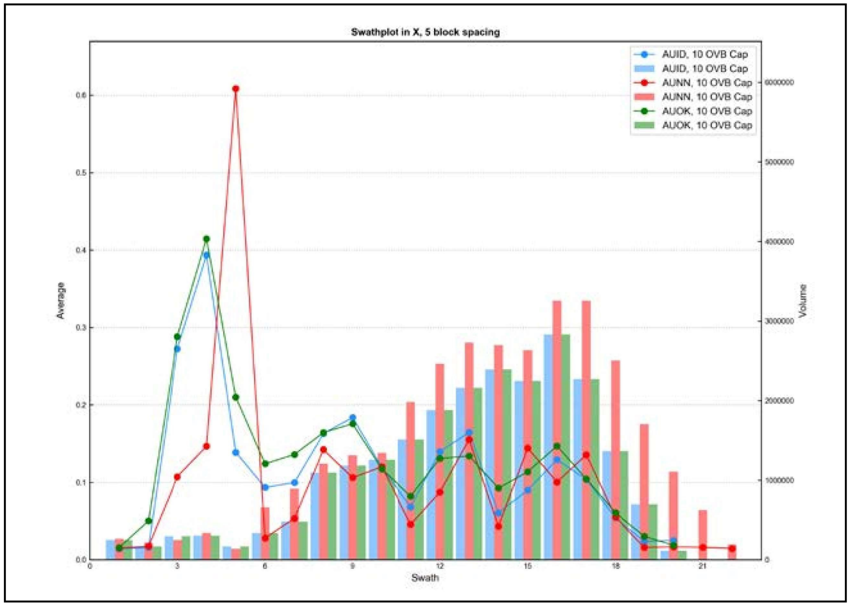

Figure E - 16 Swath Plot in the X Direction of Gold for the Overburden

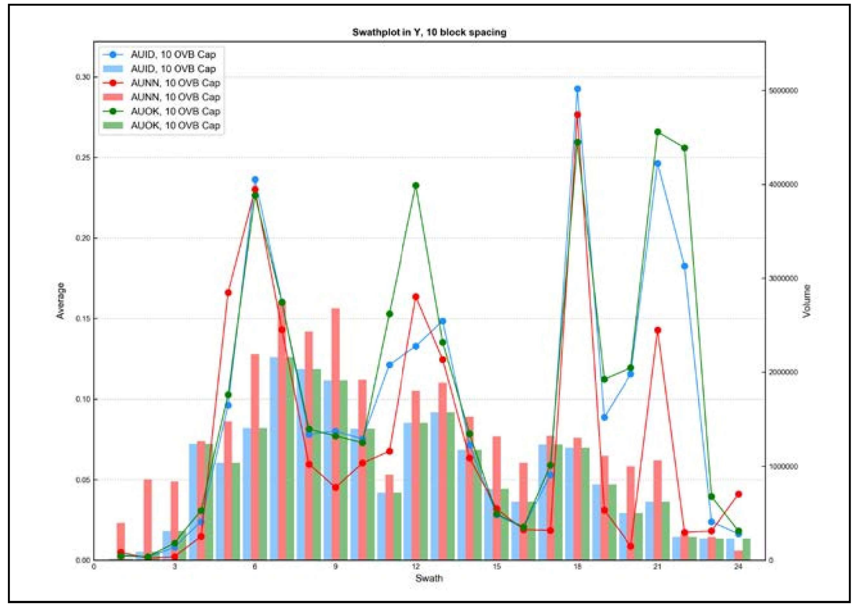

Figure E - 17 Swath Plot in the Y Direction of Gold for the Overburden

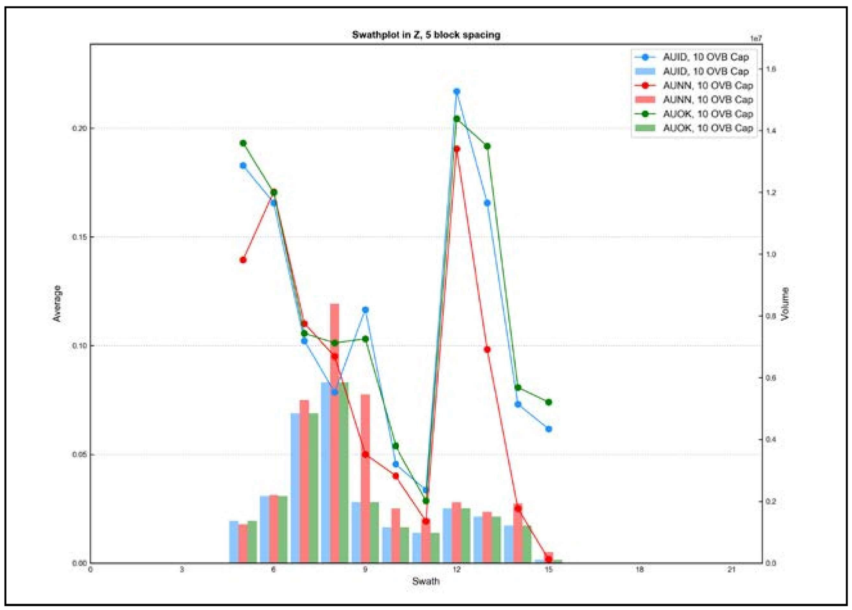

Figure E - 18 Swath Plot in the Z Direction of Gold for the Overburden

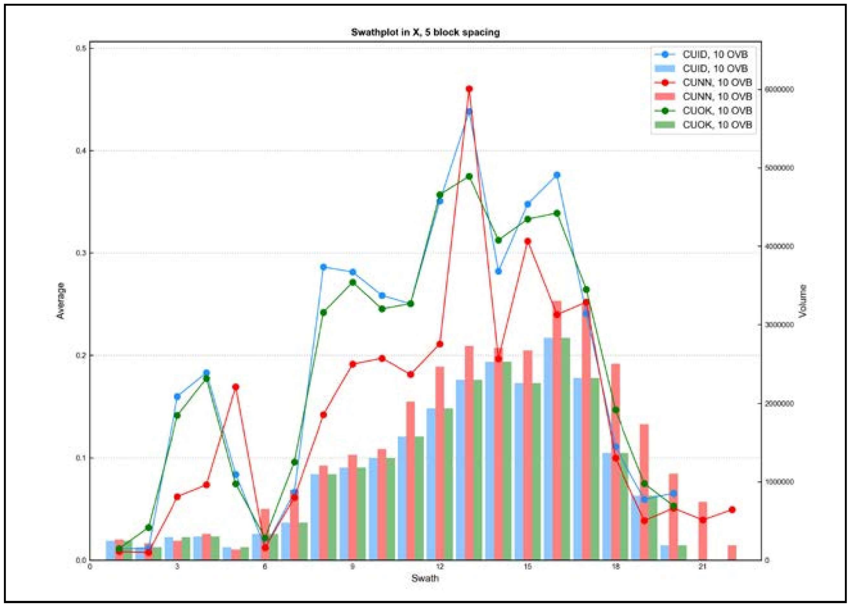

Figure E - 19 Swath Plot in the X Direction of Total Copper for the Overburden

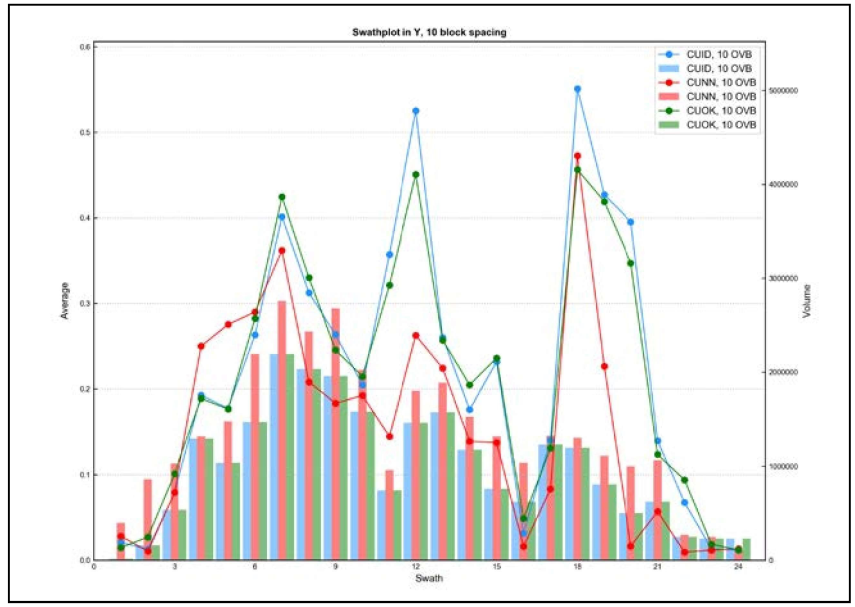

Figure E - 20 Swath Plot in the Y Direction of Total Copper for the Overburden

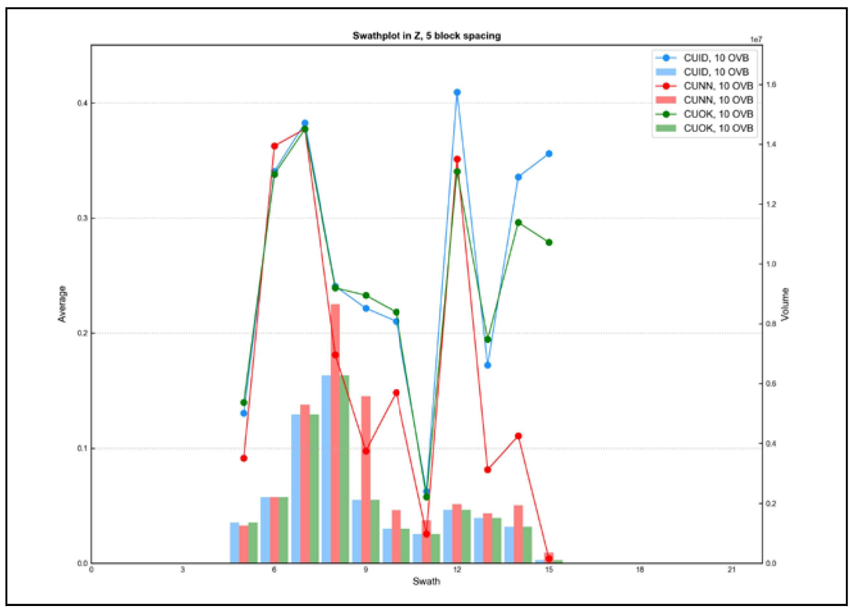

Figure E - 21 Swath Plot in the Z Direction of Total Copper for the Overburden

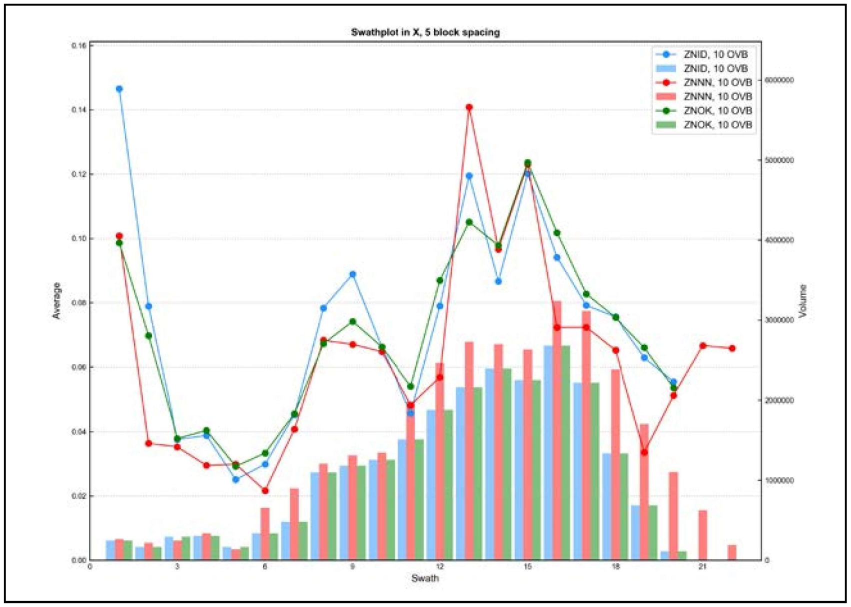

Figure E - 22 Swath Plot in the X Direction of Total Zinc for the Overburden

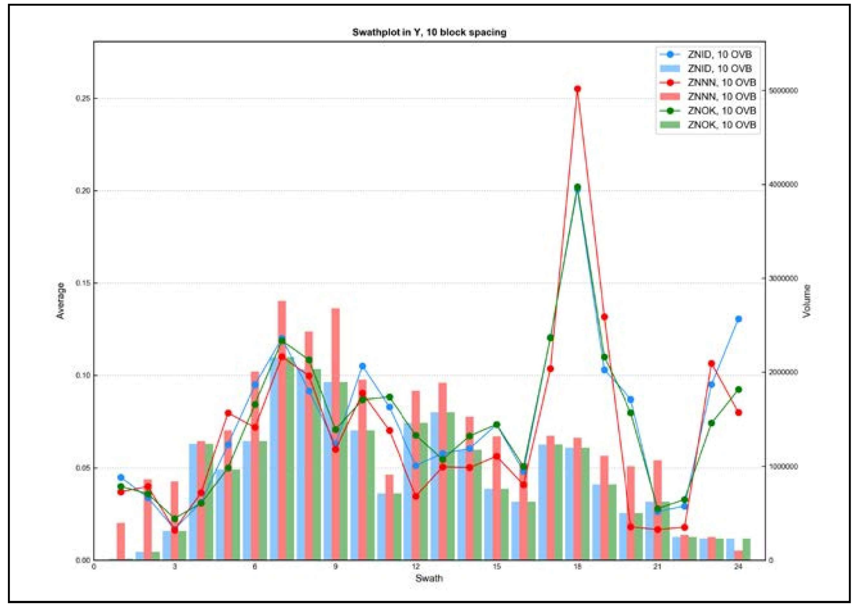

Figure E - 23 Swath Plot in the Y Direction of Total Zinc for the Overburden

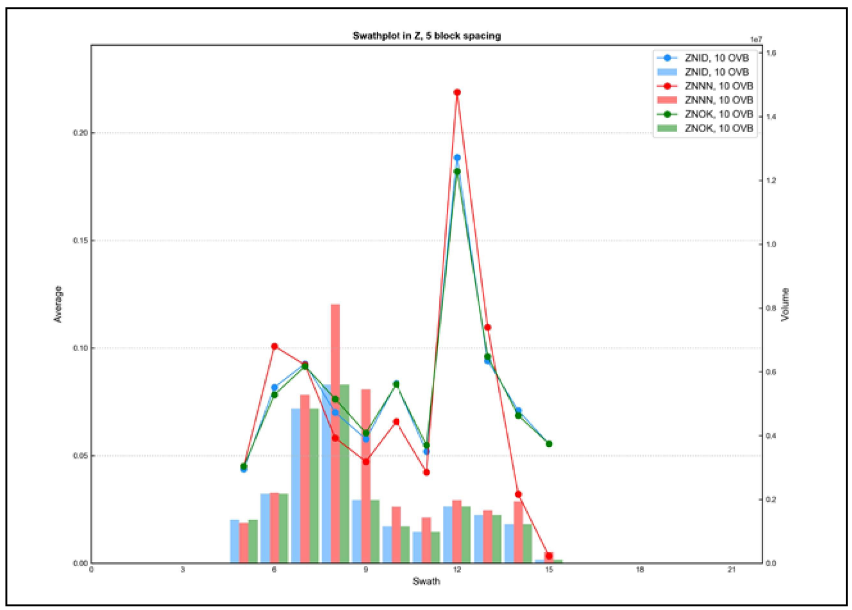

Figure E - 24 Swath Plot in the Z Direction of Total Zinc for the Overburden

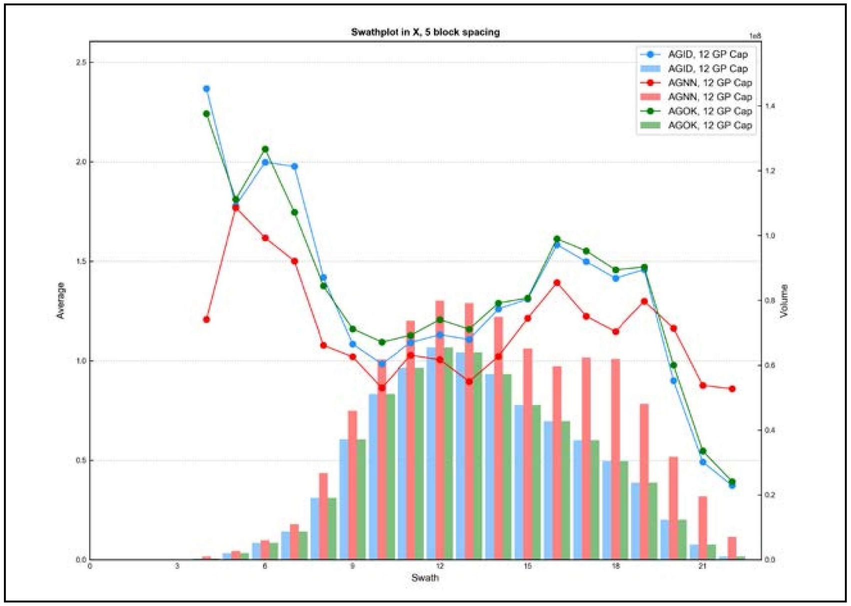

Figure E - 25 Swath Plot in the X Direction of Silver for the Granite Porphyry

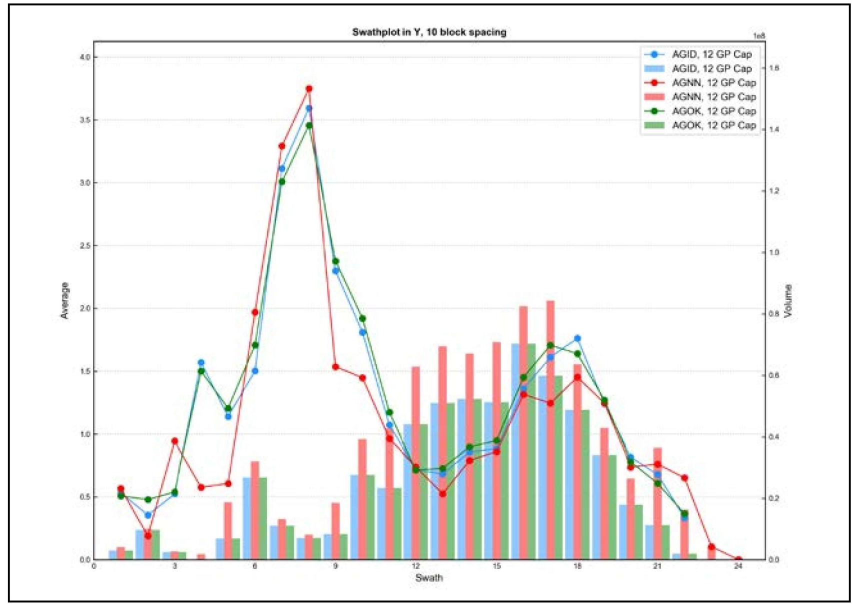

Figure E - 26 Swath Plot in the Y Direction of Silver for the Granite Porphyry

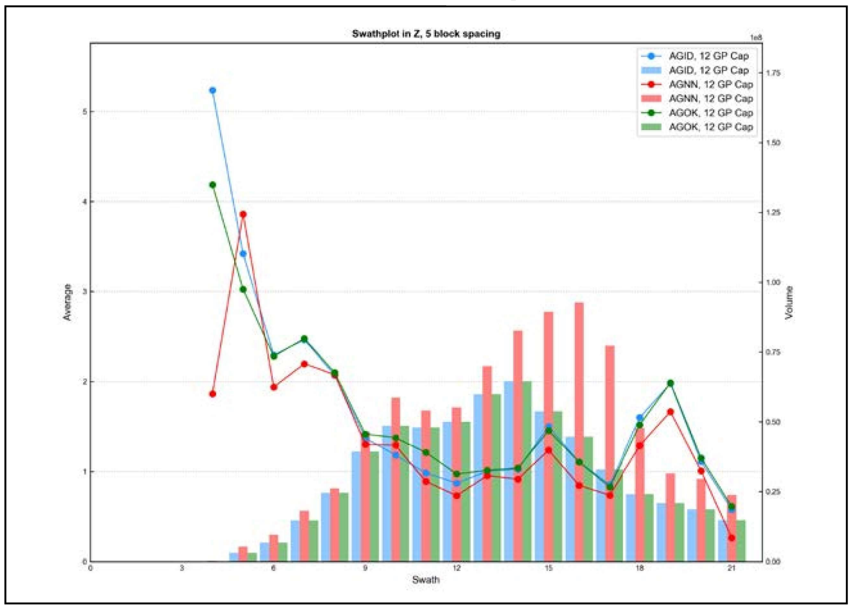

Figure E - 27 Swath Plot in the Z Direction of Silver for the Granite Porphyry

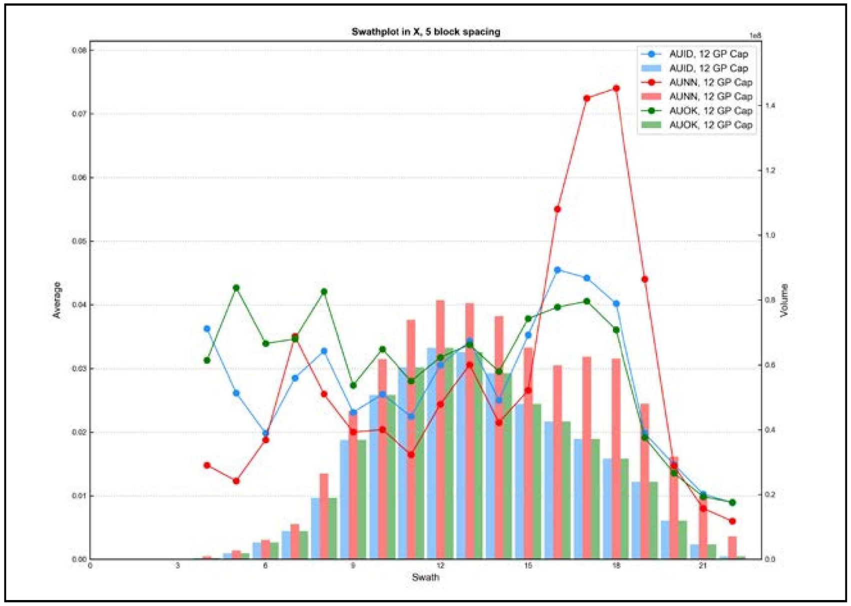

Figure E - 28 Swath Plot in the X Direction of Gold for the Granite Porphyry

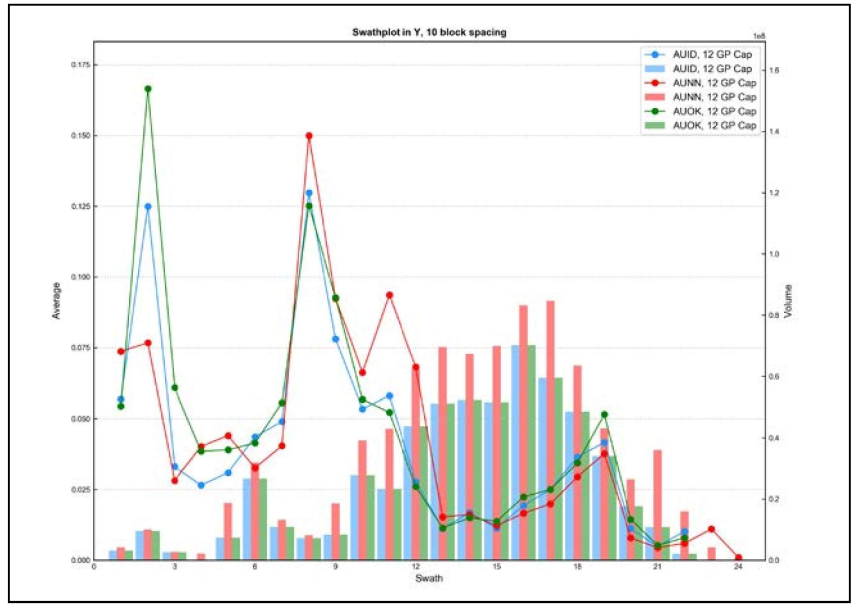

Figure E - 29 Swath Plot in the Y Direction of Gold for the Granite Porphyry

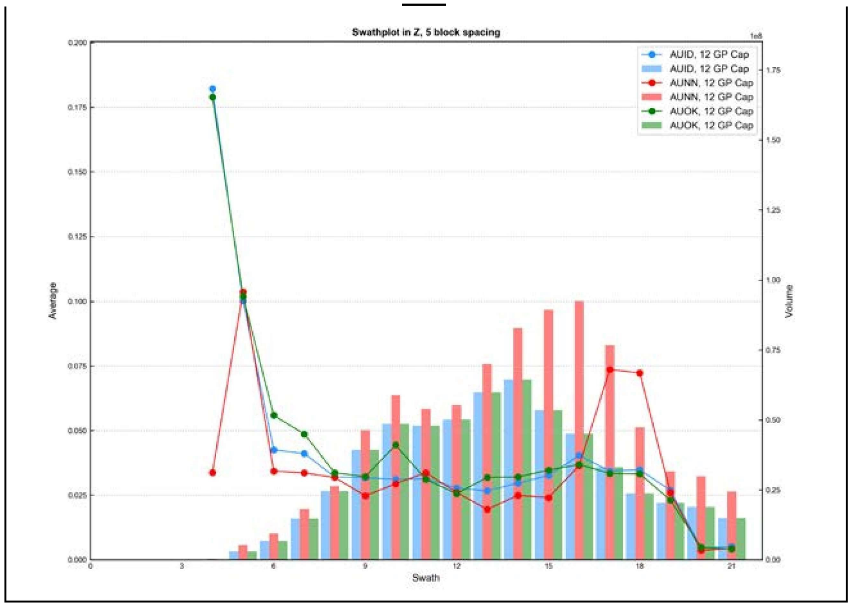

Figure E - 30 Swath Plot in the Z Direction of Gold for the Granite Porphyry

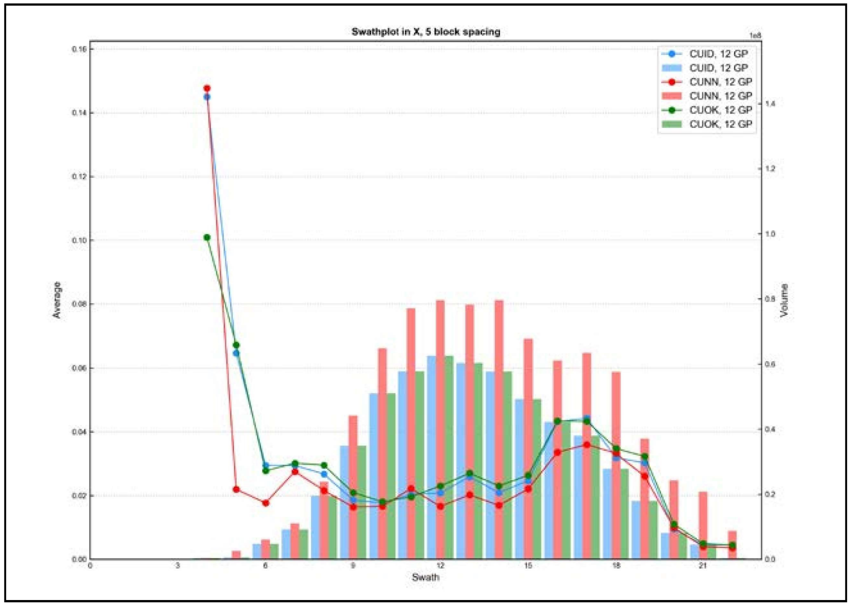

Figure E - 31 Swath Plot in the X Direction of Total Copper for the Granite Porphyry

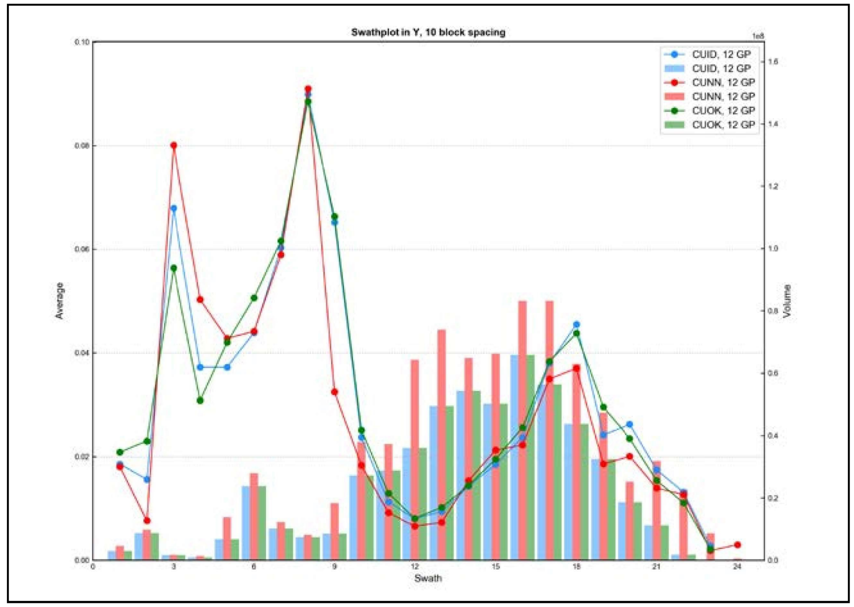

Figure E - 32 Swath Plot in the Y Direction of Total Copper for the Granite Porphyry

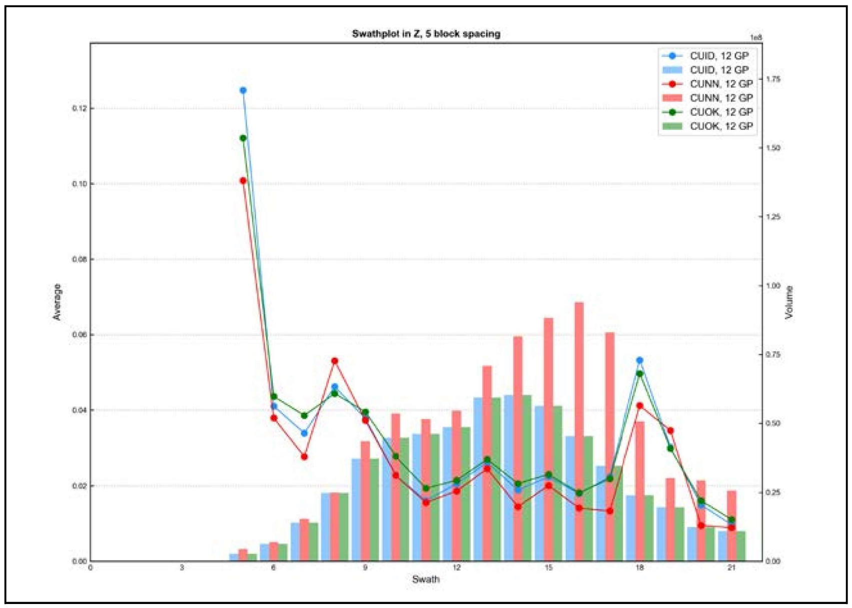

Figure E - 33 Swath Plot in the Z Direction of Total Copper for the Granite Porphyry

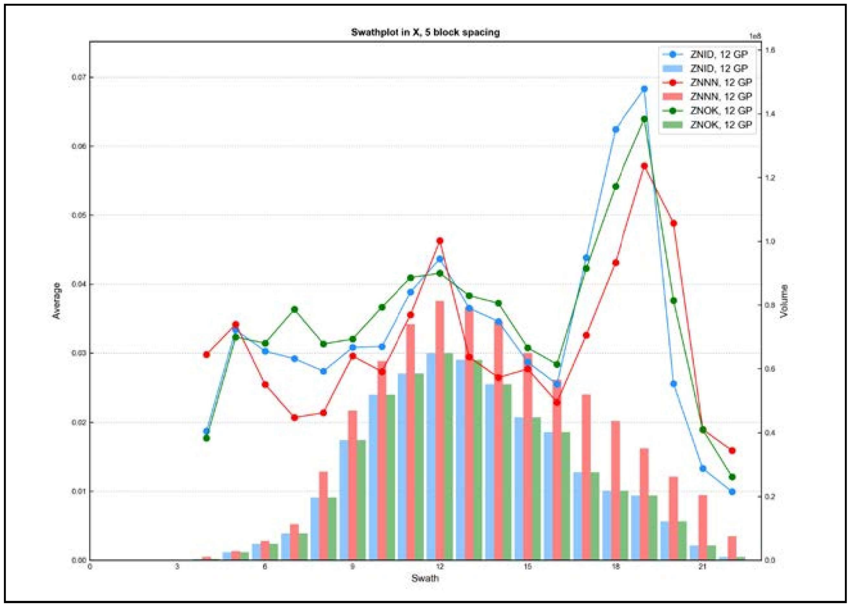

Figure E - 34 Swath Plot in the X Direction of Total Zinc for the Granite Porphyry

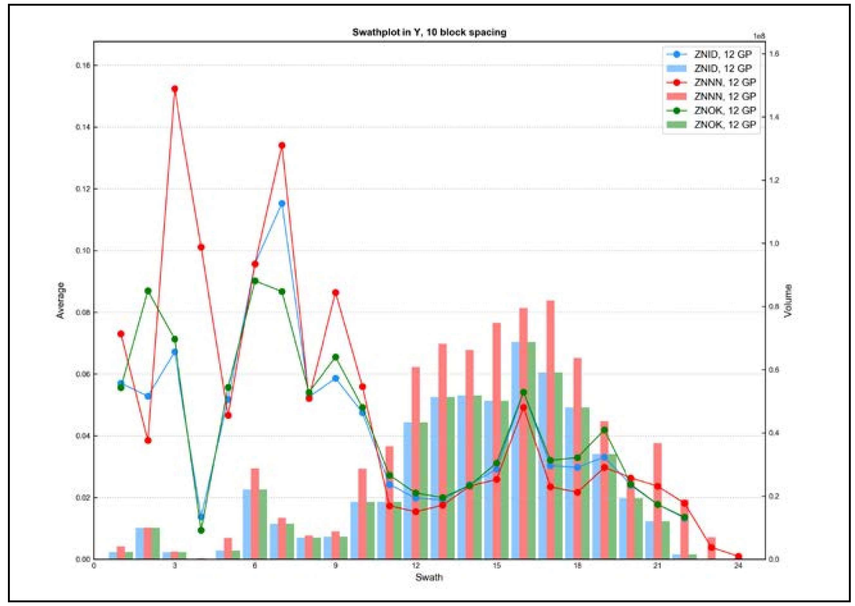

Figure E - 35 Swath Plot in the Y Direction of Total Zinc for the Granite Porphyry

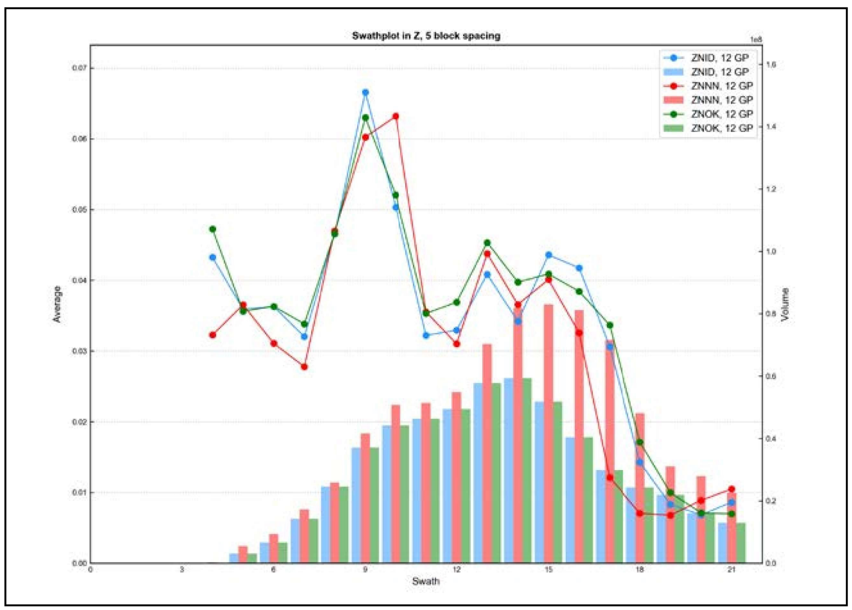

Figure E - 36 Swath Plot in the Z Direction of Total Zinc for the Granite Porphyry

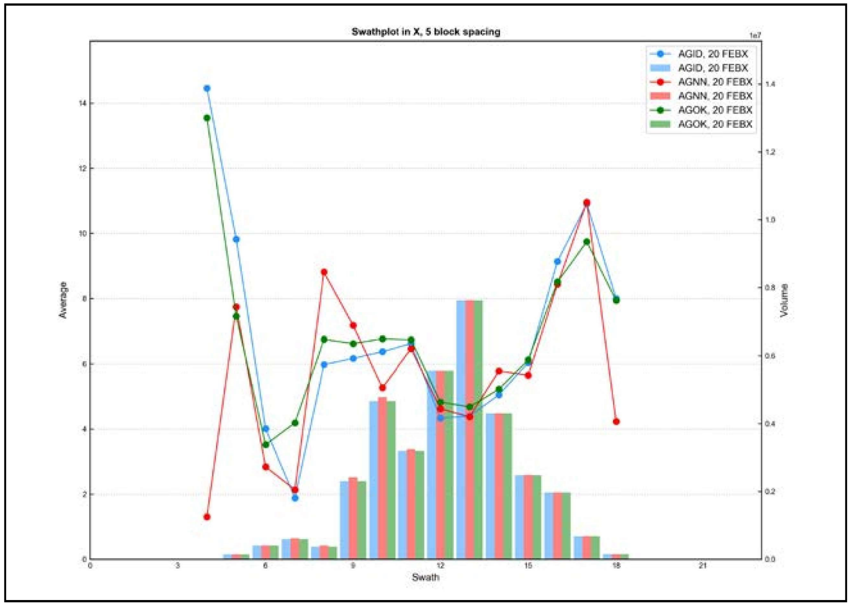

Figure E - 37 Swath Plot in the X Direction of Silver for the Iron Oxide Breccia

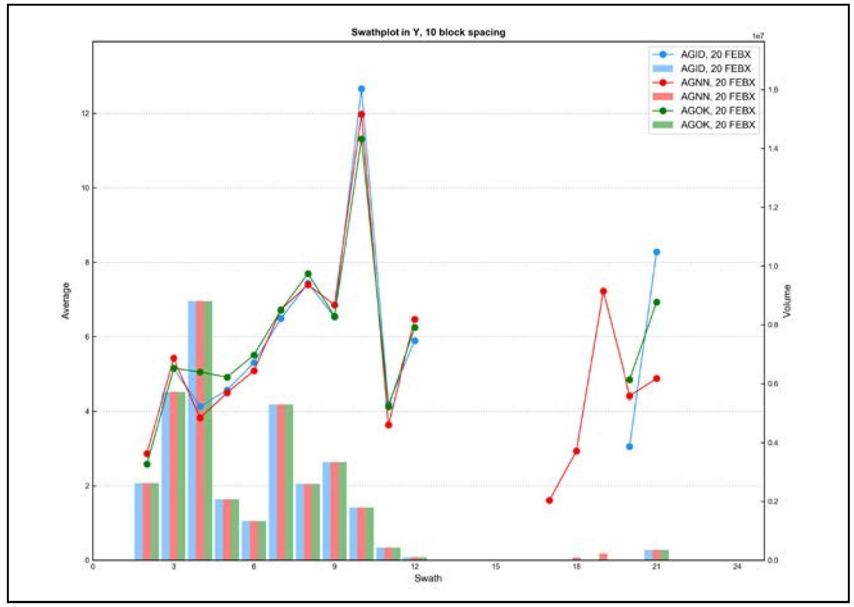

Figure E - 38 Swath Plot in the Y Direction of Silver for the Iron Oxide Breccia

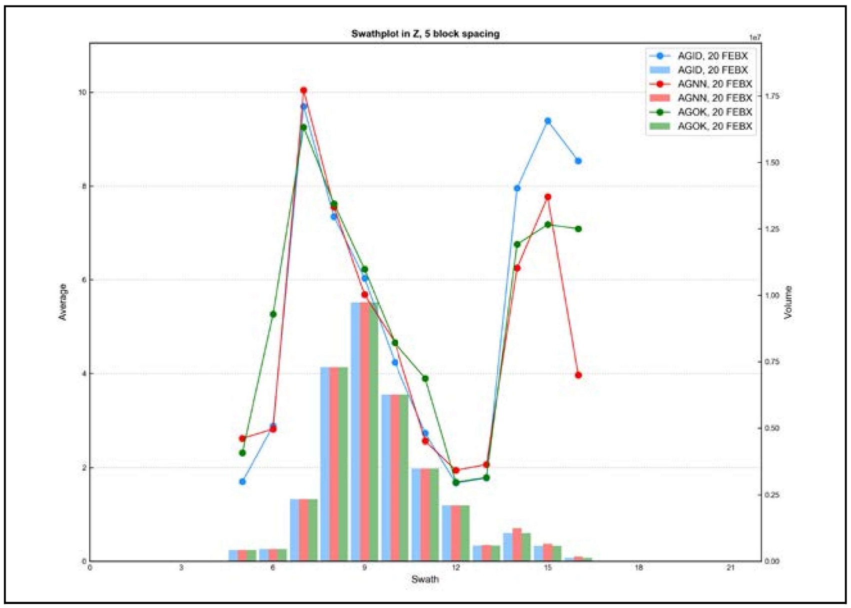

Figure E - 39 Swath Plot in the Z Direction of Silver for the Iron Oxide Breccia

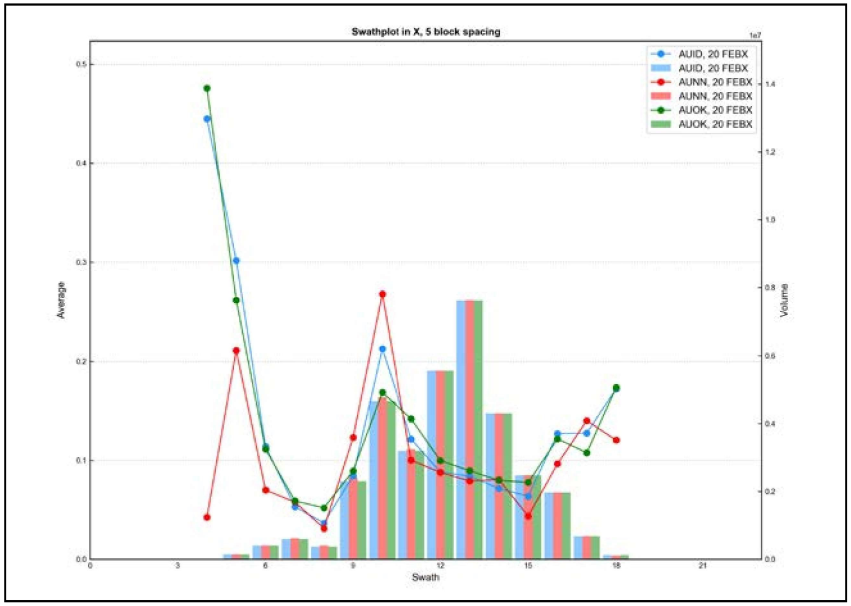

Figure E - 40 Swath Plot in the X Direction of Gold for the Iron Oxide Breccia

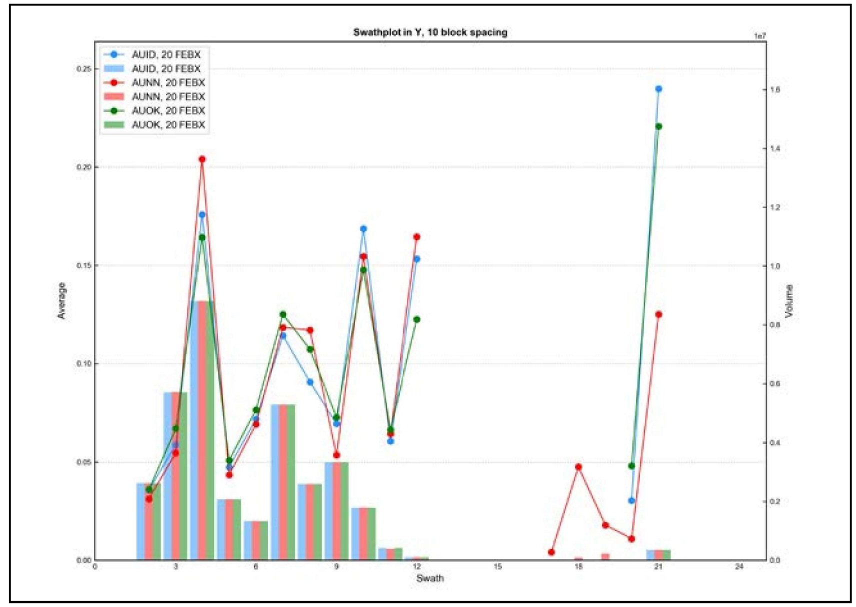

Figure E - 41 Swath Plot in the Y Direction of Gold for the Iron Oxide Breccia

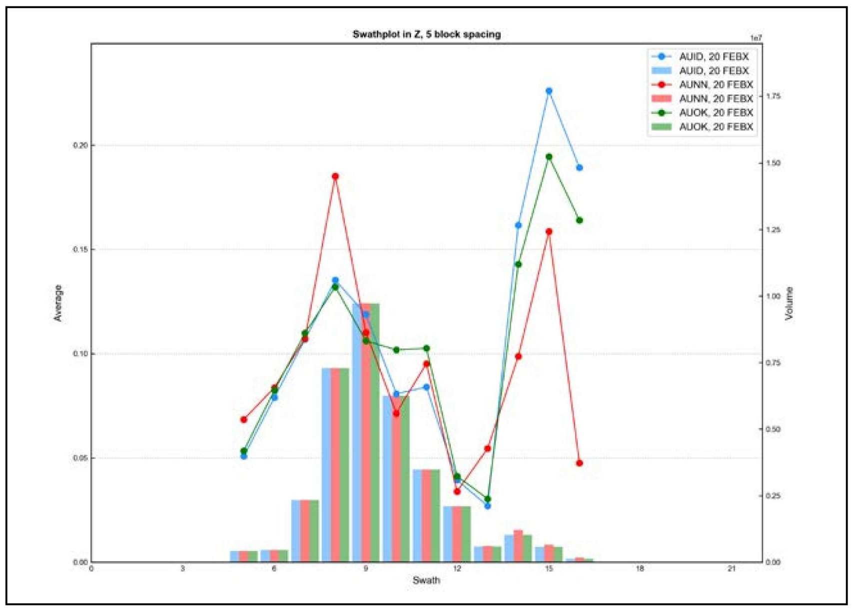

Figure E - 42 Swath Plot in the Z Direction of Gold for the Iron Oxide Breccia

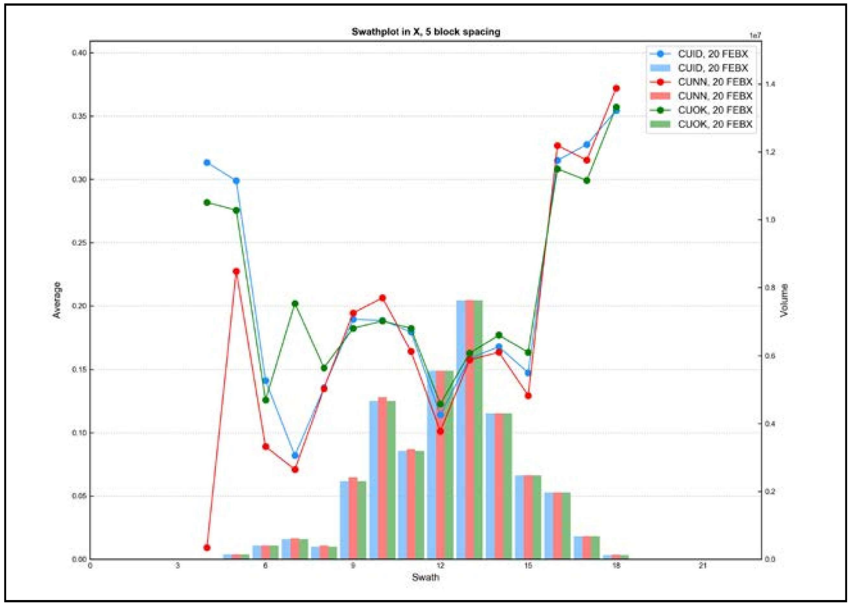

Figure E - 45 Swath Plot in the X Direction of Total Copper for the Iron Oxide Breccia

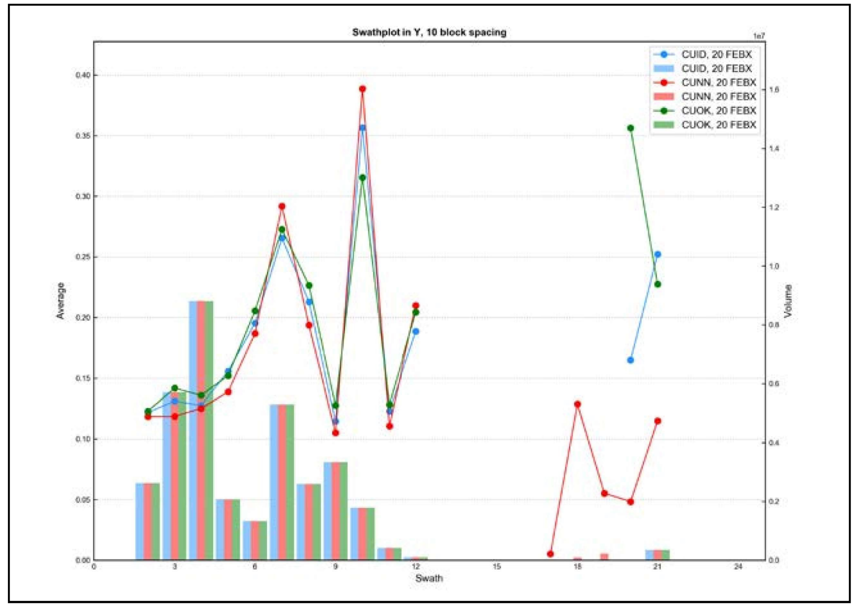

Figure E - 44 Swath Plot in the Y Direction of Total Copper for the Iron Oxide Breccia

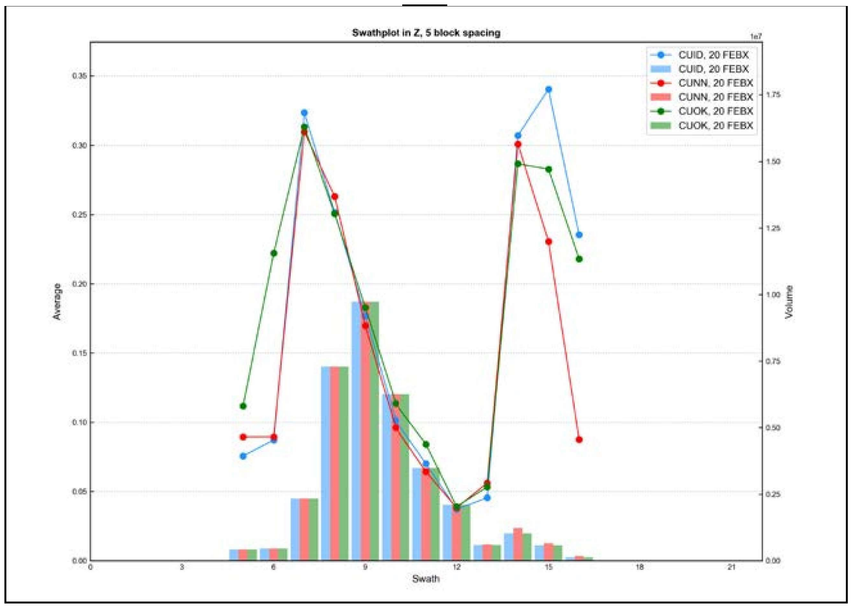

Figure E - 43 Swath Plot in the Z Direction of Total Copper for the Iron Oxide Breccia

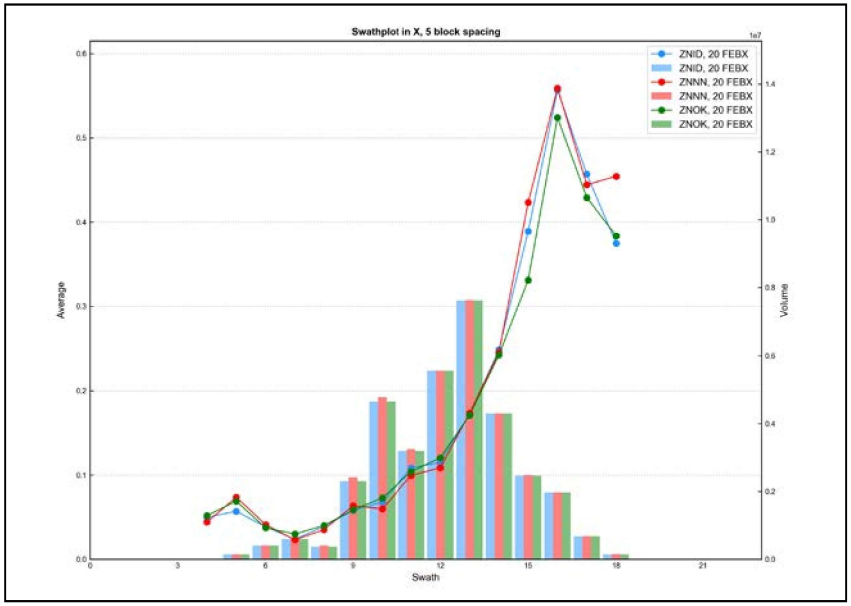

Figure E - 46 Swath Plot in the X Direction of Total Zinc for the Iron Oxide Breccia

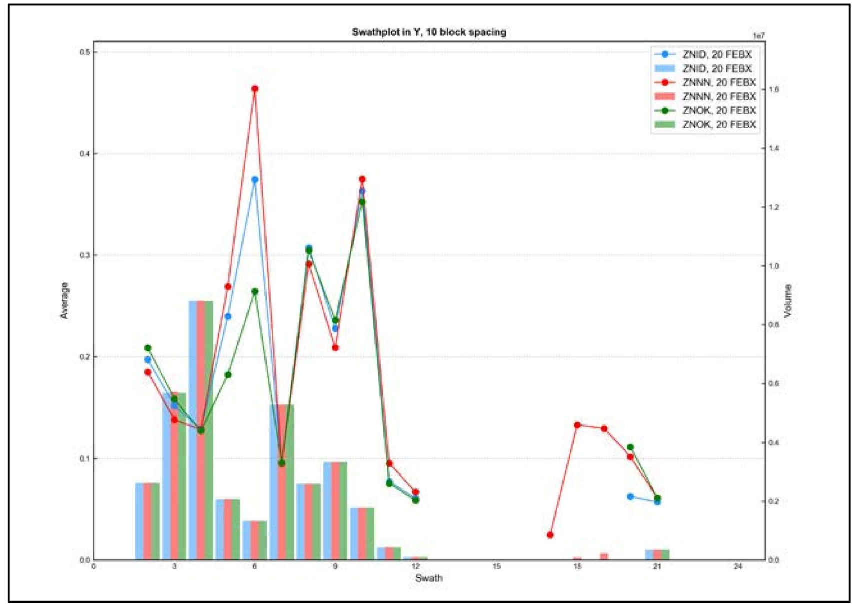

Figure E - 47 Swath Plot in the Y Direction of Total Zinc for the Iron Oxide Breccia

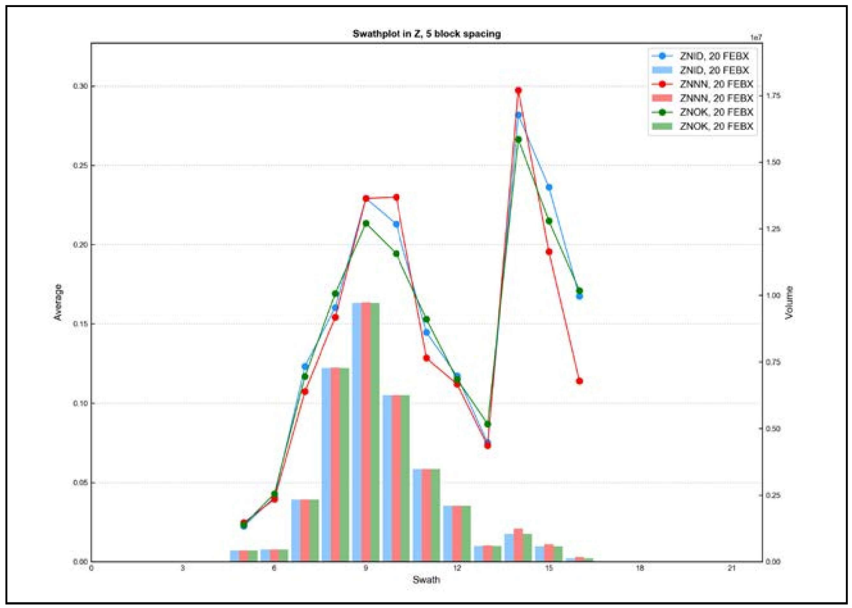

Figure E - 48 Swath Plot in the Z Direction of Total Zinc for the Iron Oxide Breccia

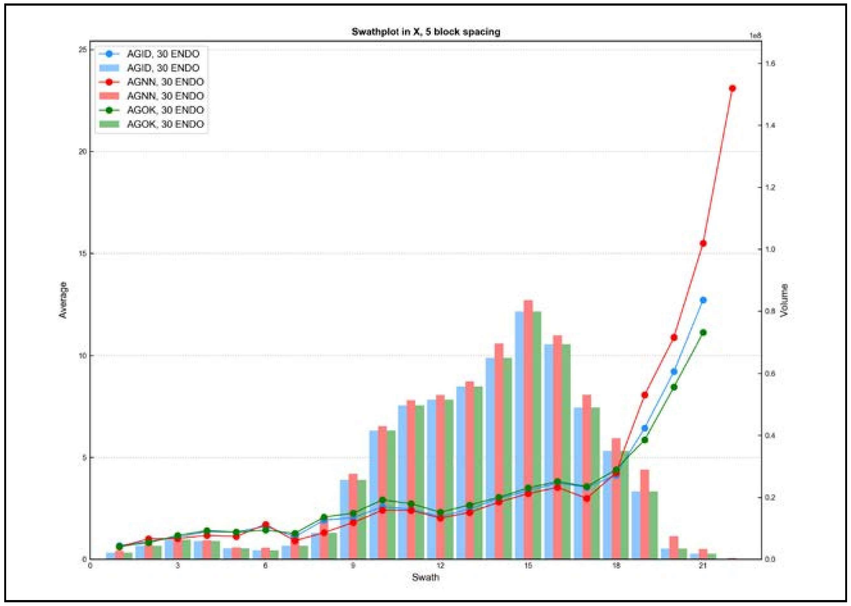

Figure E - 49 Swath Plot in the X Direction of Silver for the Garnet Skarn

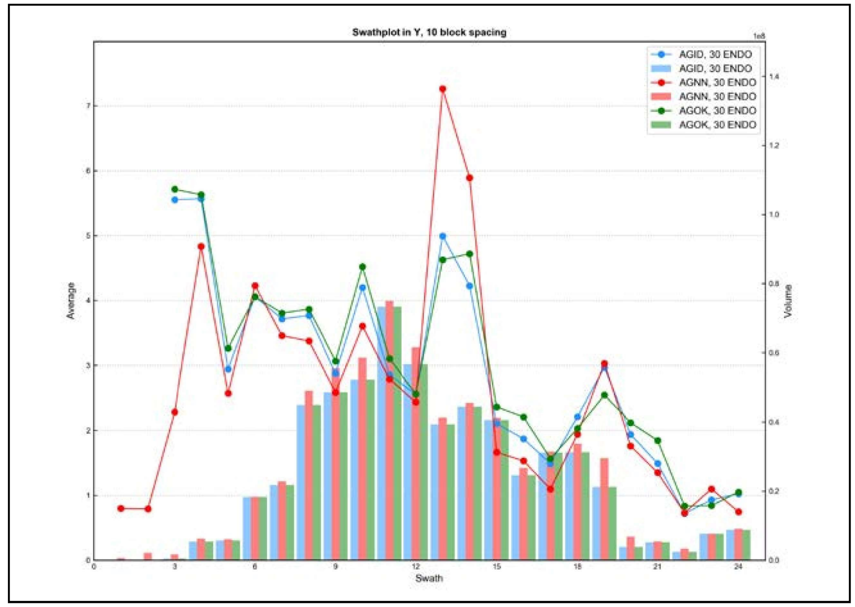

Figure E - 50 Swath Plot in the Y Direction of Silver for the Garnet Skarn

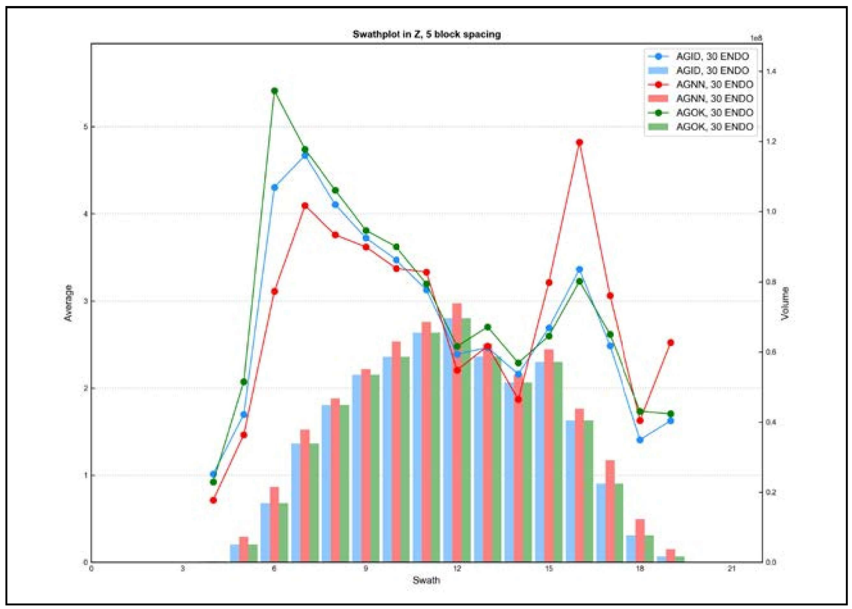

Figure E - 51 Swath Plot in the Z Direction of Silver for the Garnet Skarn

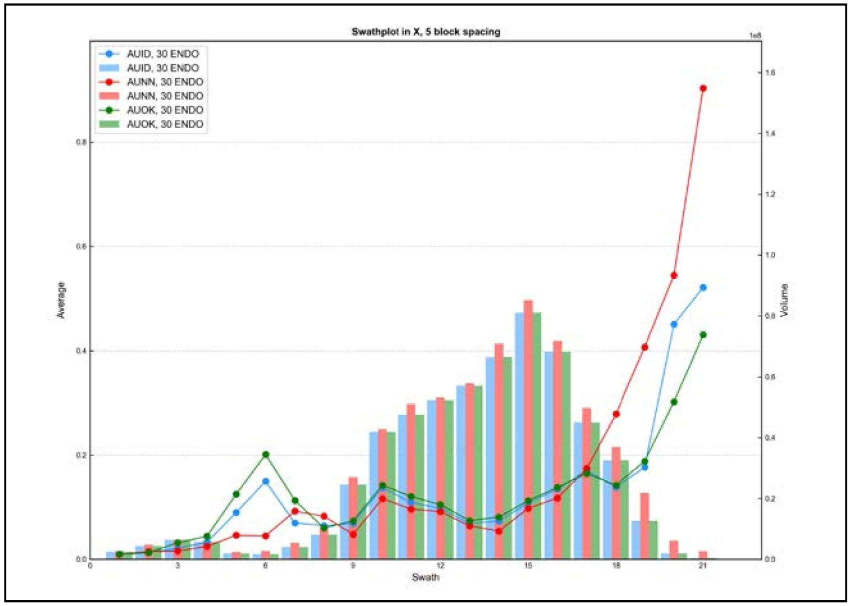

Figure E - 52 Swath Plot in the X Direction of Gold for the Garnet Skarn

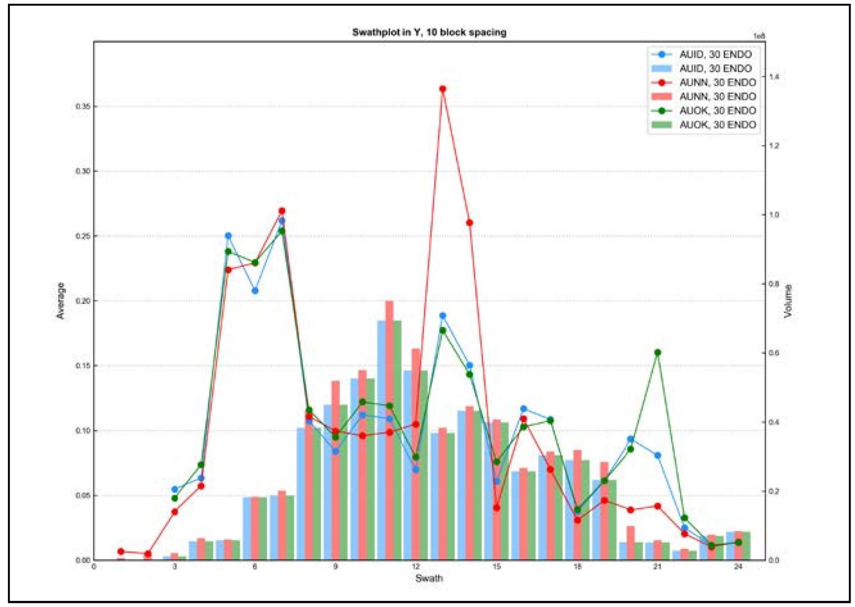

Figure E - 53 Swath Plot in the Y Direction of Gold for the Garnet Skarn

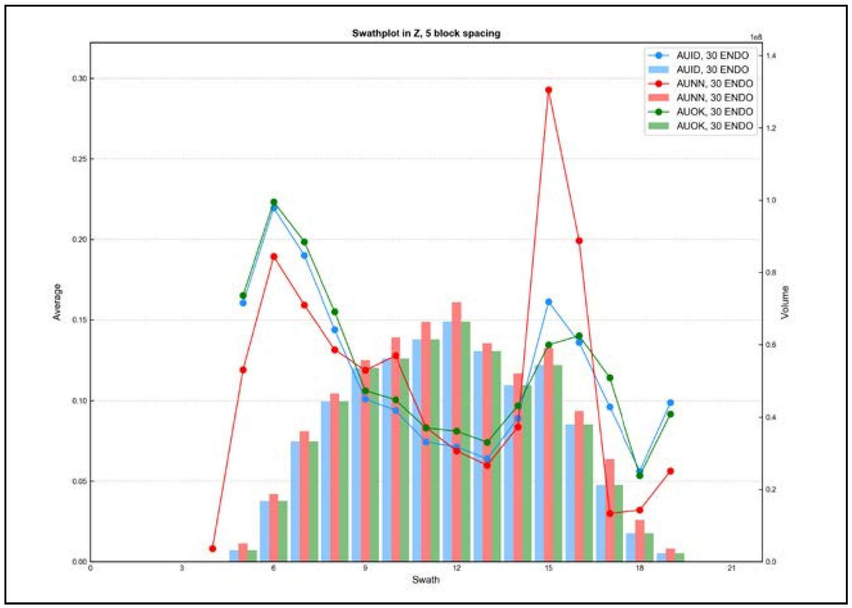

Figure E - 54 Swath Plot in the Z Direction of Gold for the Garnet Skarn

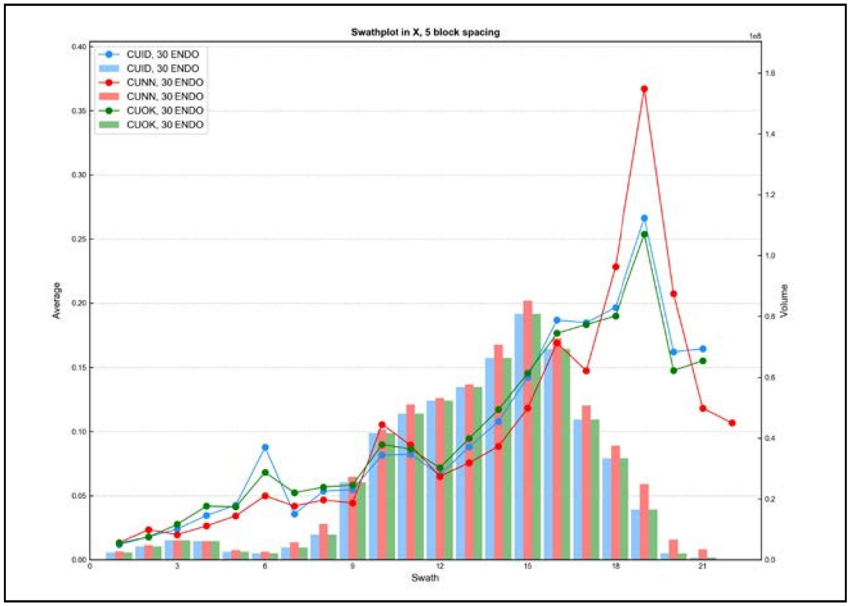

Figure E - 55 Swath Plot in the X Direction of Total Copper for the Garnet Skarn

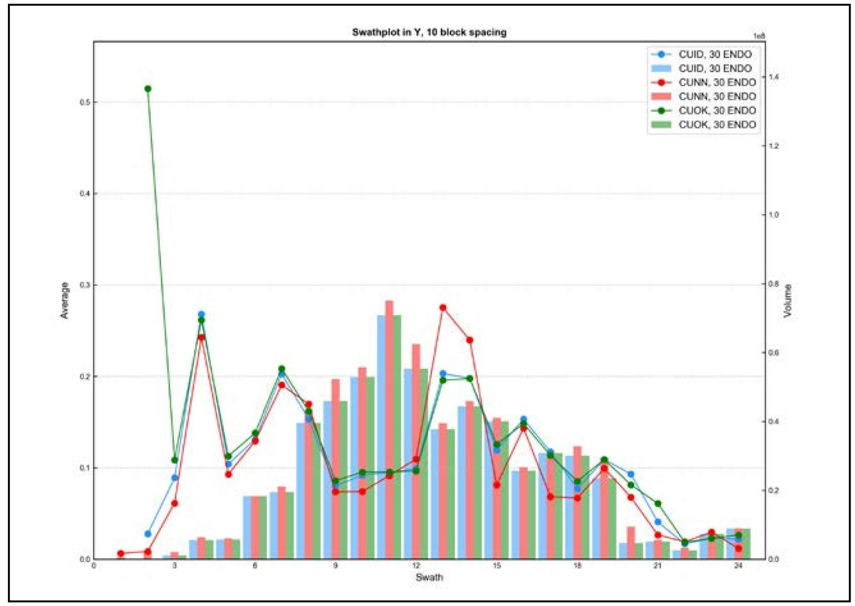

Figure E - 56 Swath Plot in the Y Direction of Total Copper for the Garnet Skarn

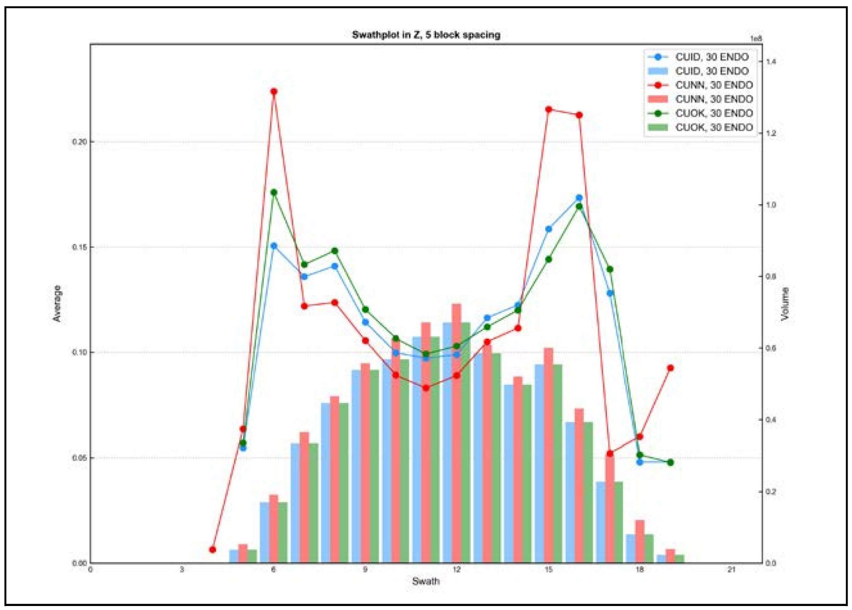

Figure E - 57 Swath Plot in the Z Direction of Total Copper for the Garnet Skarn

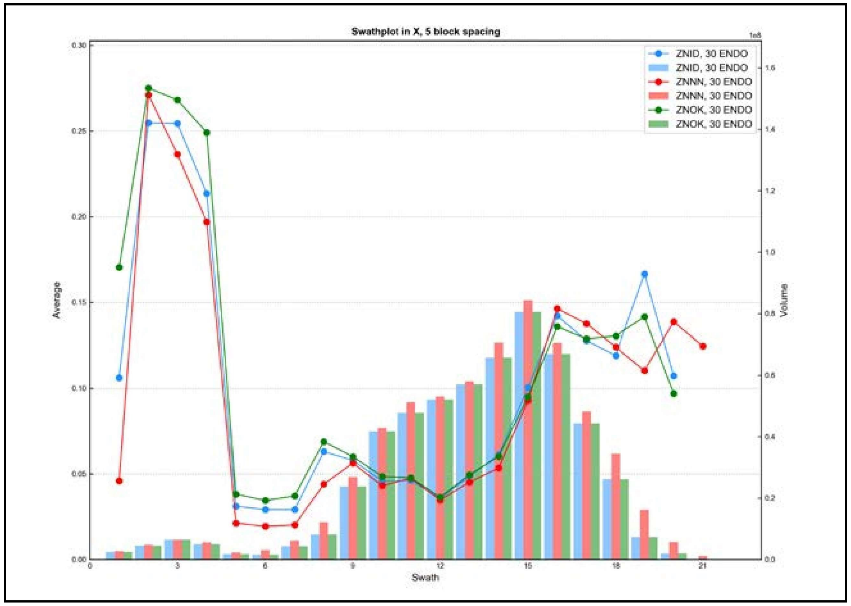

Figure E - 58 Swath Plot in the X Direction of Total Zinc for the Garnet Skarn

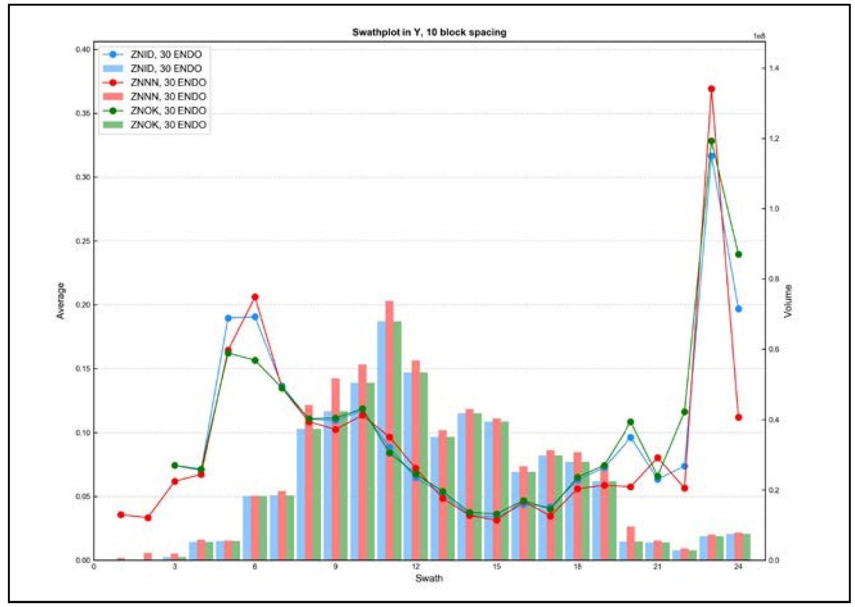

Figure E - 59 Swath Plot in the Y Direction of Total Zinc for the Garnet Skarn

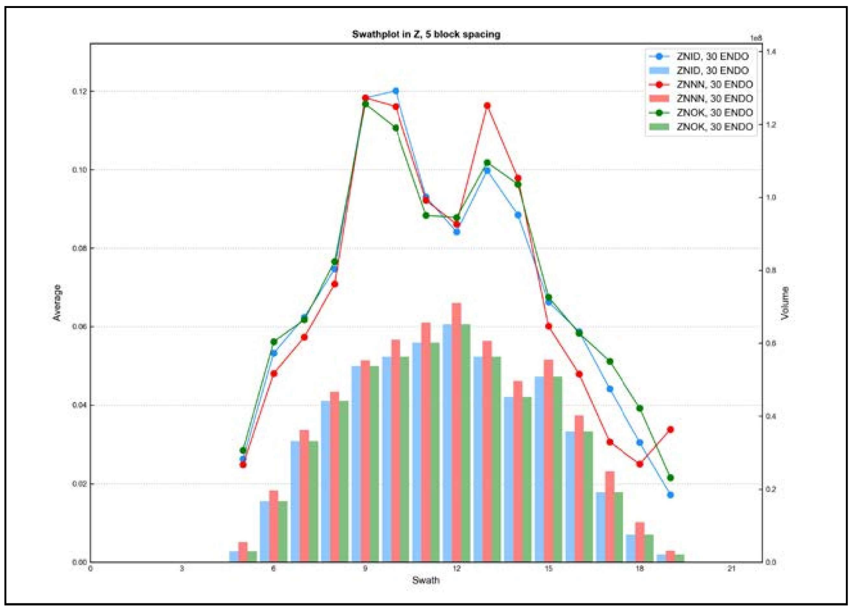

Figure E - 60 Swath Plot in the Z Direction of Total Zinc for the Garnet Skarn

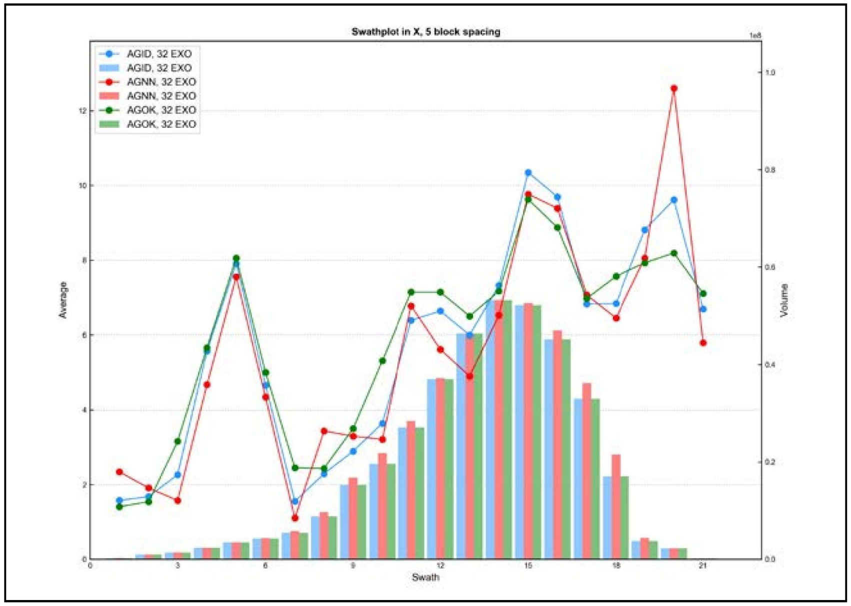

Figure E - 61 Swath Plot in the X Direction of Silver for the Pyroxene Skarn

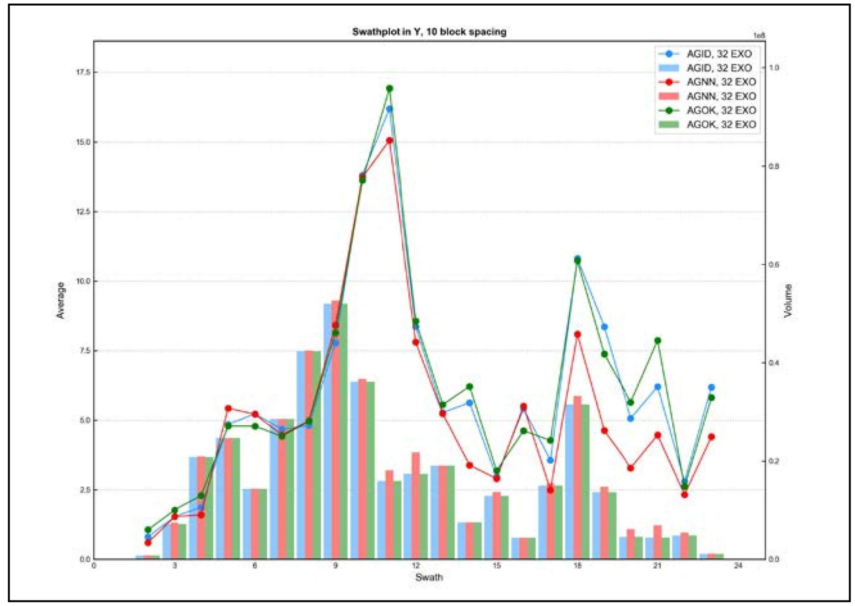

Figure E - 62 Swath Plot in the Y Direction of Silver for the Pyroxene Skarn

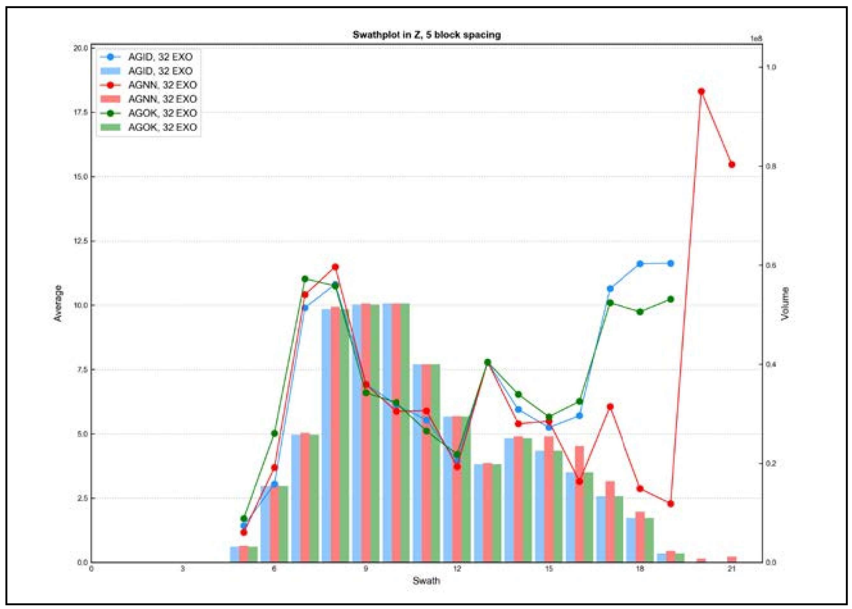

Figure E - 63 Swath Plot in the Z Direction of Silver for the Pyroxene Skarn

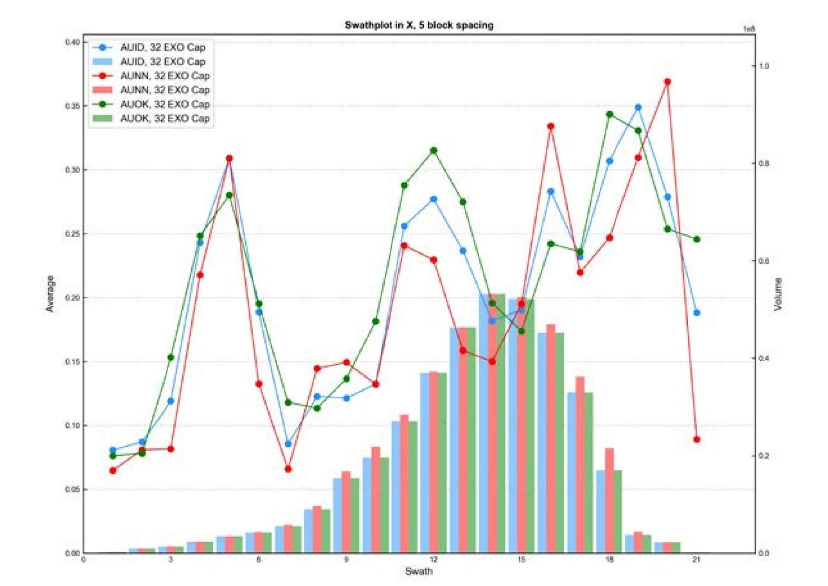

Figure E - 66 Swath Plot in the X Direction of Gold for the Pyroxene Skarn

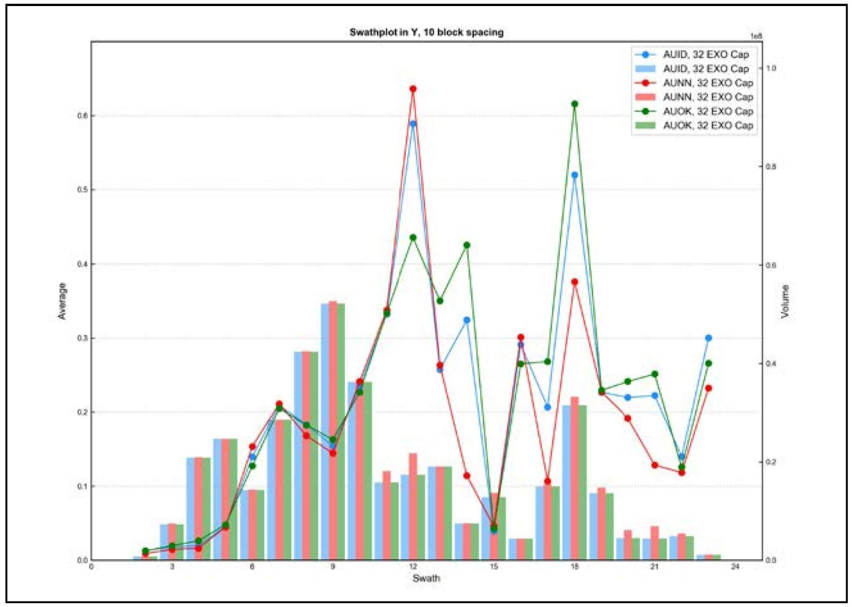

Figure E - 64 Swath Plot in the Y Direction of Gold for the Pyroxene Skarn

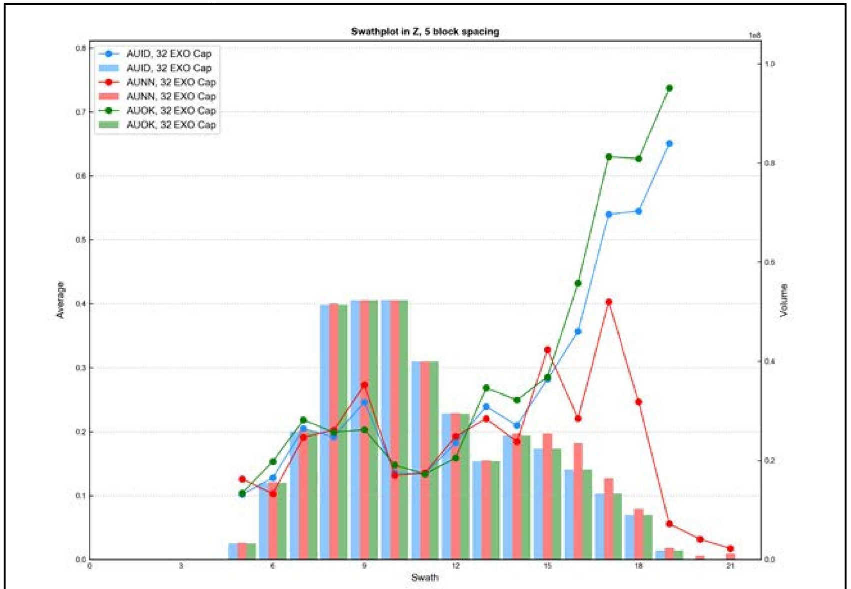

Figure E - 65 Swath Plot in the Z Direction of Gold for the Pyroxene Skarn

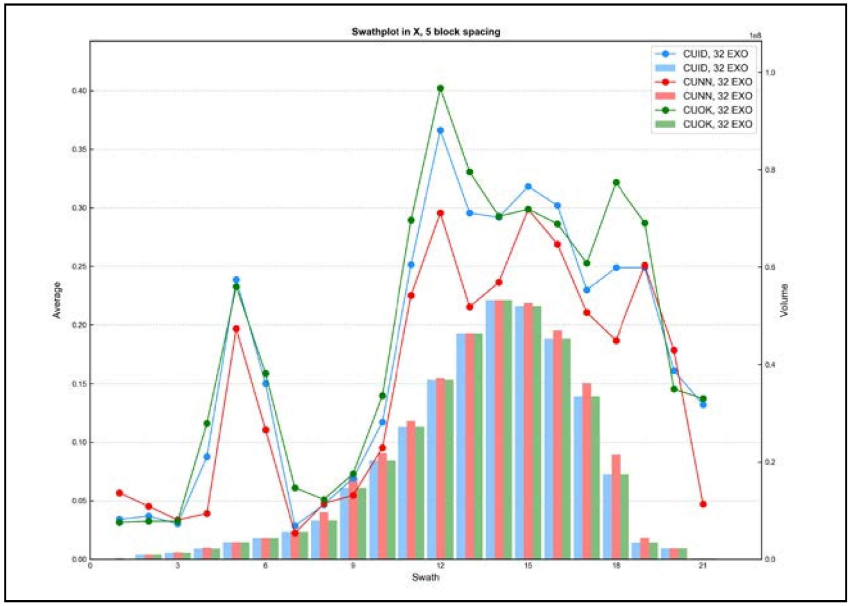

Figure E - 67 Swath Plot in the X Direction of Total Copper for the Pyroxene Skarn

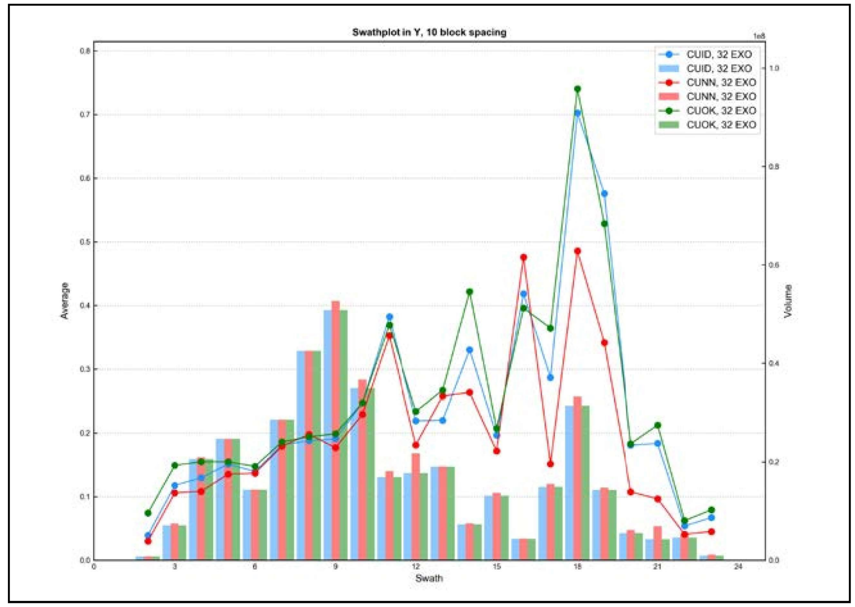

Figure E - 68 Swath Plot in the Y Direction of Total Copper for the Pyroxene Skarn

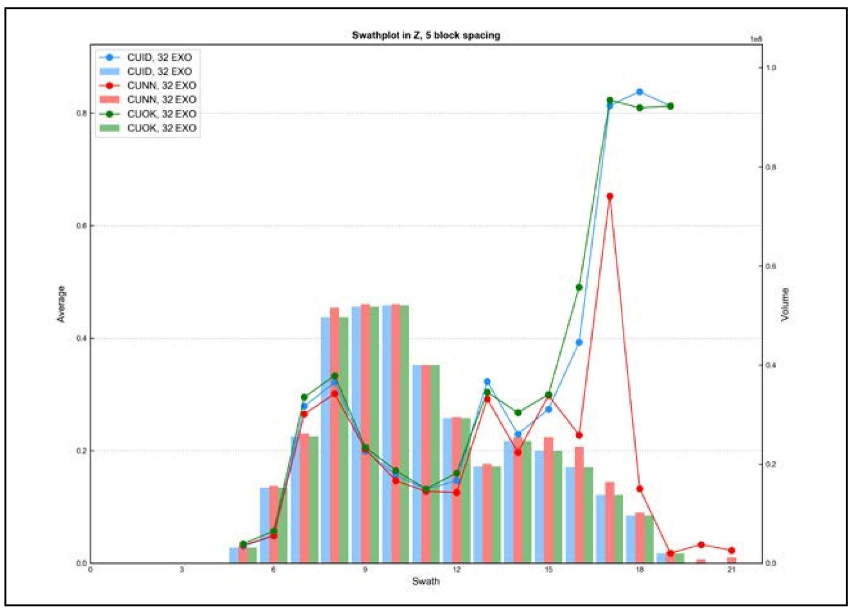

Figure E - 69 Swath Plot in the Z Direction of Total Copper for the Pyroxene Skarn

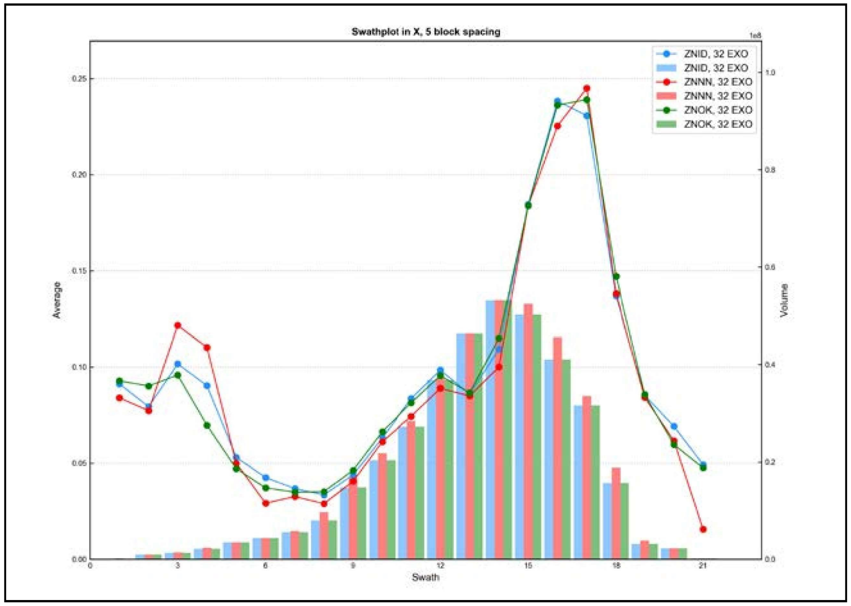

Figure E - 70 Swath Plot in the X Direction of Total Zinc for the Pyroxene Skarn

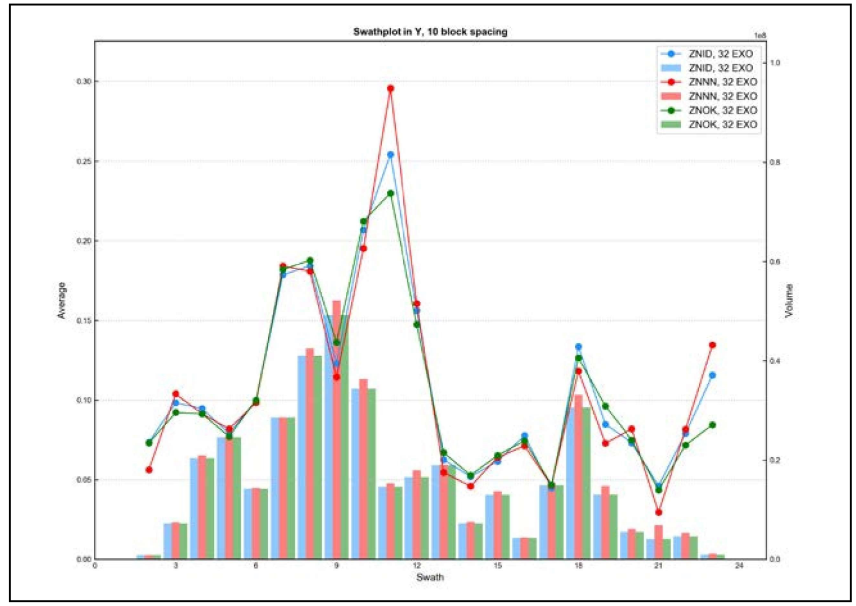

Figure E - 71 Swath Plot in the Y Direction of Total Zinc for the Pyroxene Skarn

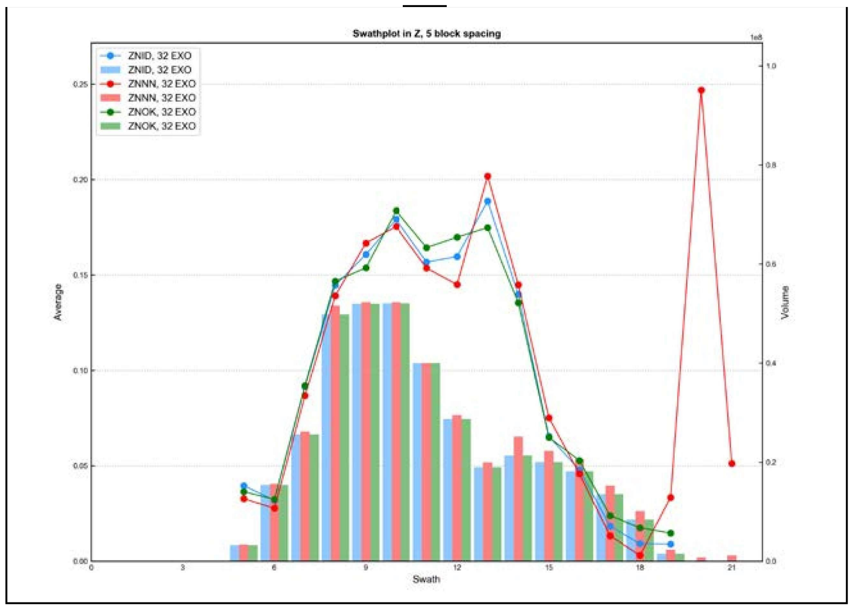

Figure E - 72 Swath Plot in the Z Direction of Total Zinc for the Pyroxene Skarn

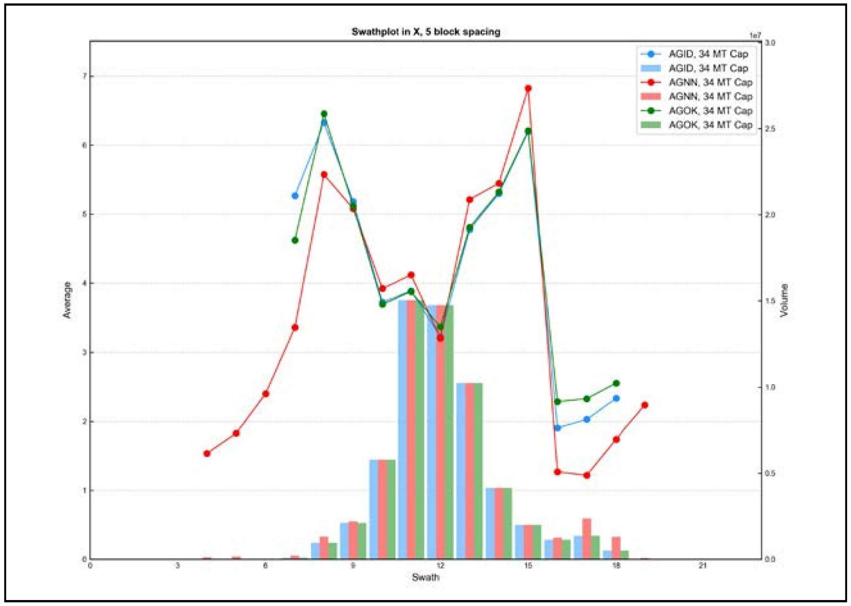

Figure E - 73 Swath Plot in the X Direction of Silver for the Magnetite Skarn

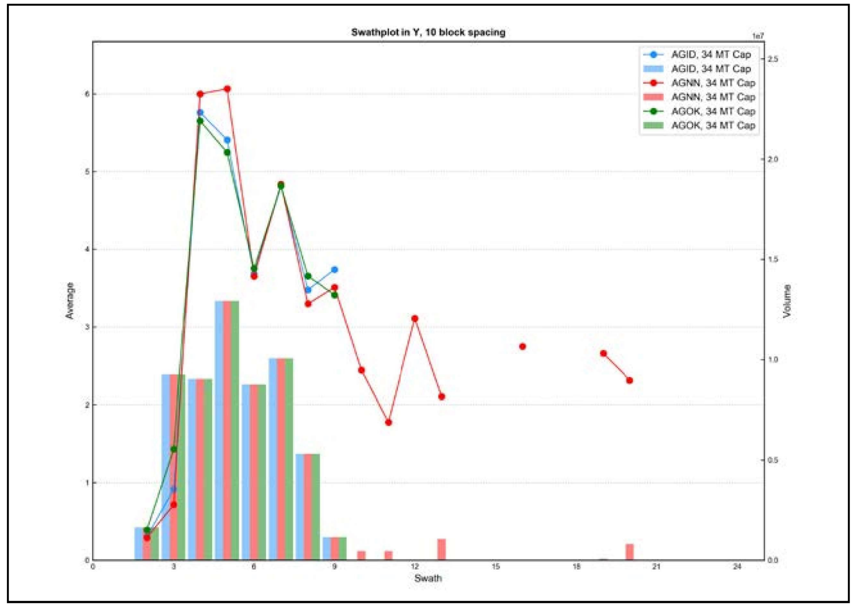

Figure E - 74 Swath Plot in the Y Direction of Silver for the Magnetite Skarn

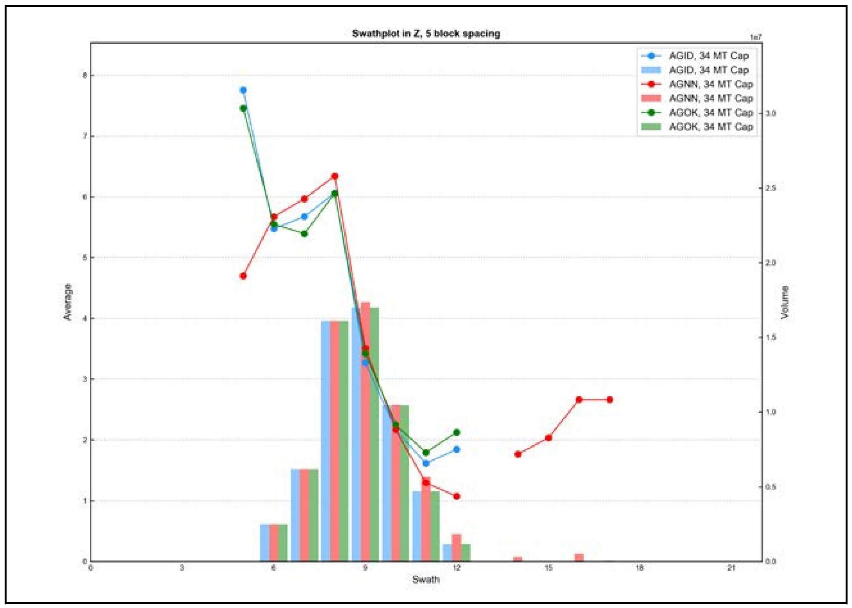

Figure E - 75 Swath Plot in the Z Direction of Silver for the Magnetite Skarn

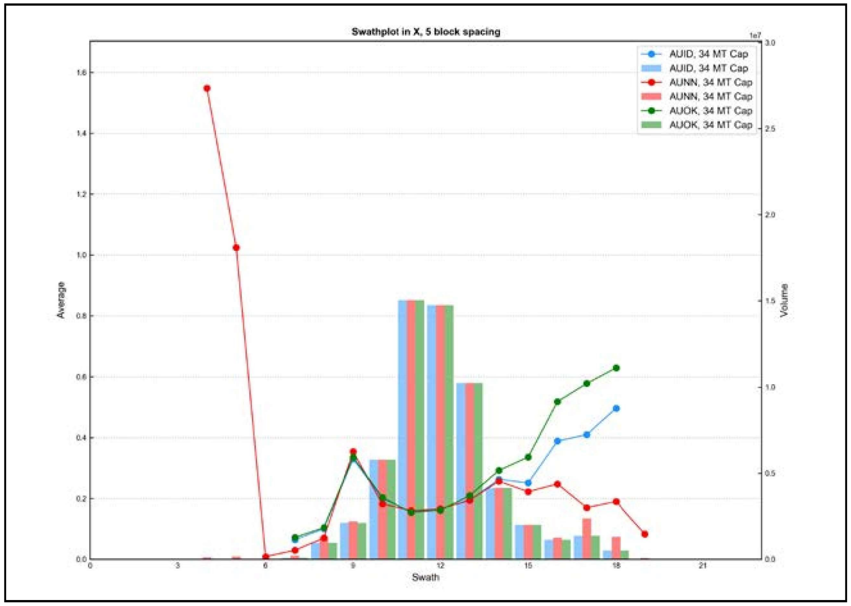

Figure E - 76 Swath Plot in the X Direction of Gold for the Magnetite Skarn

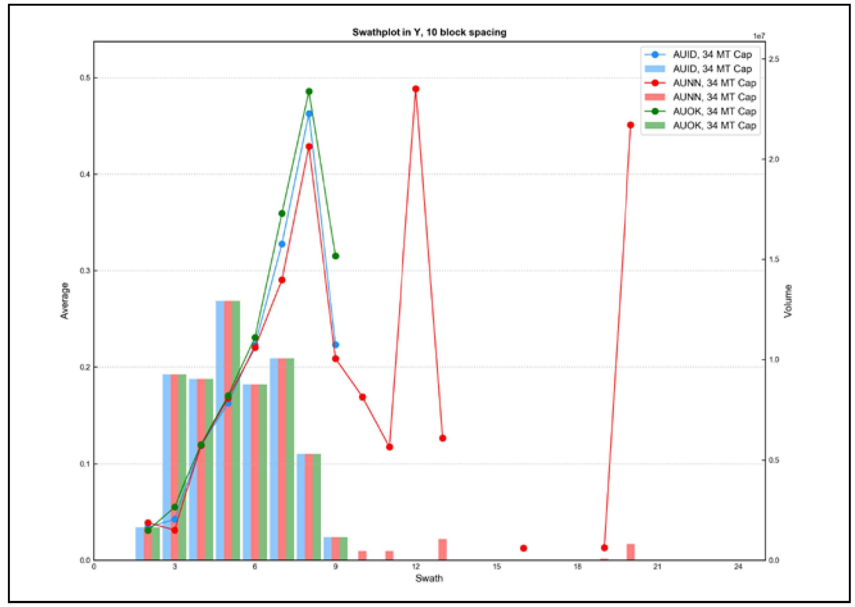

Figure E - 77 Swath Plot in the Y Direction of Gold for the Magnetite Skarn

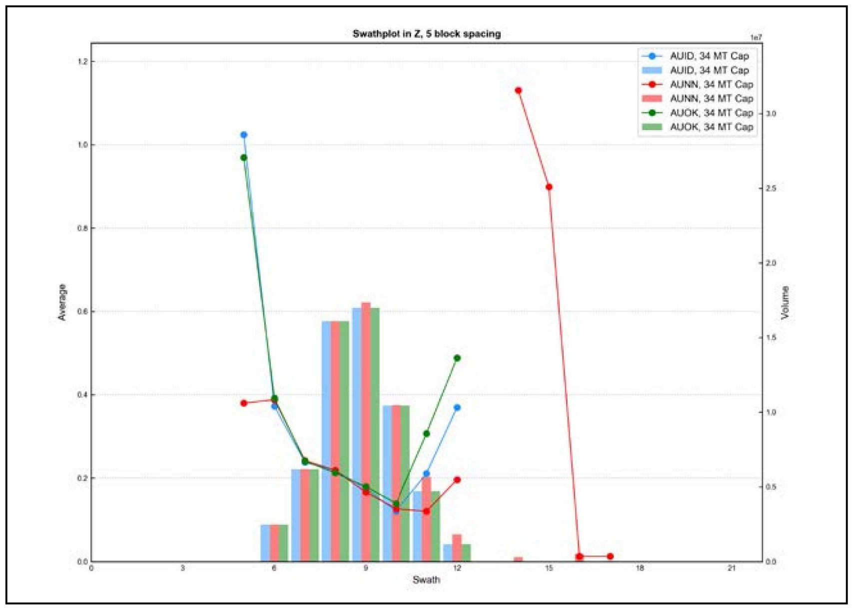

Figure E - 78 Swath Plot in the Z Direction of Gold for the Magnetite Skarn

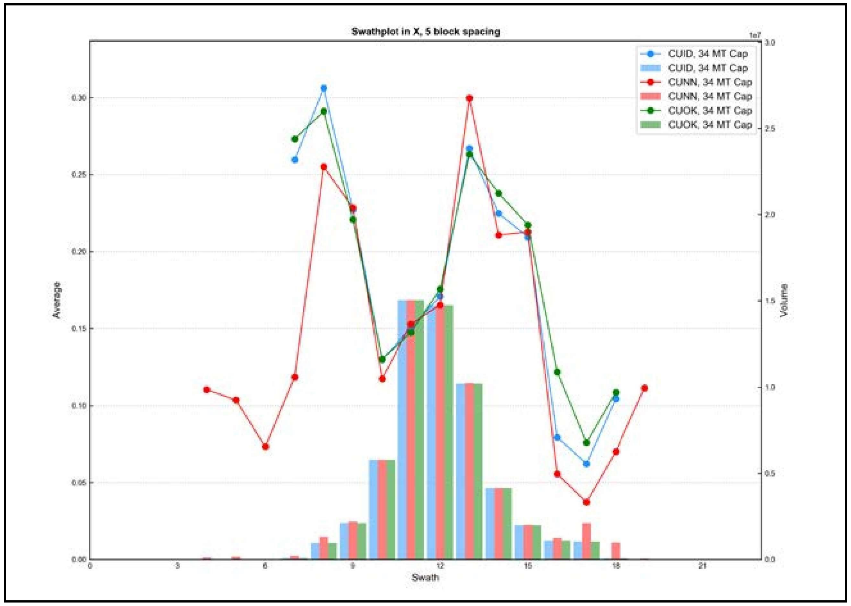

Figure E - 79 Swath Plot in the X Direction of Total Copper for the Magnetite Skarn

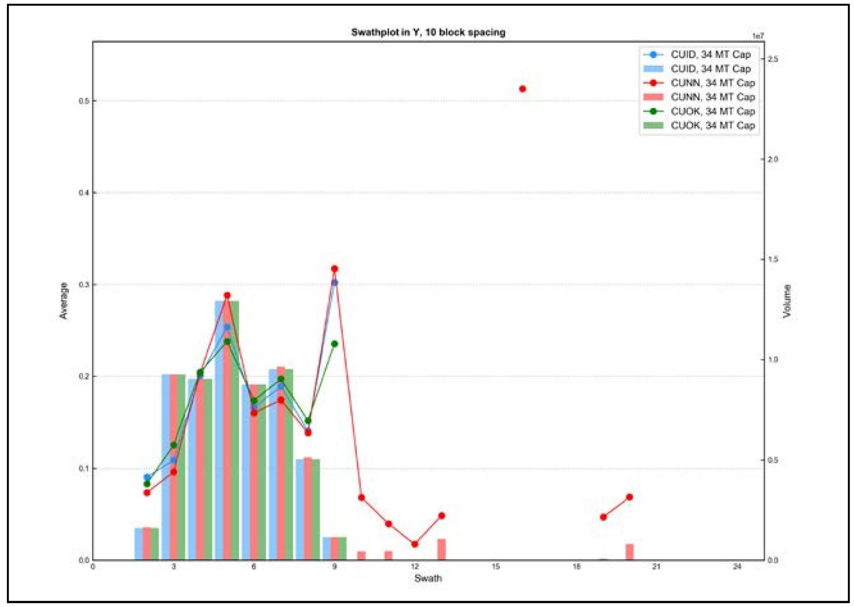

Figure E - 81 Swath Plot in the Y Direction of Total Copper for the Magnetite Skarn

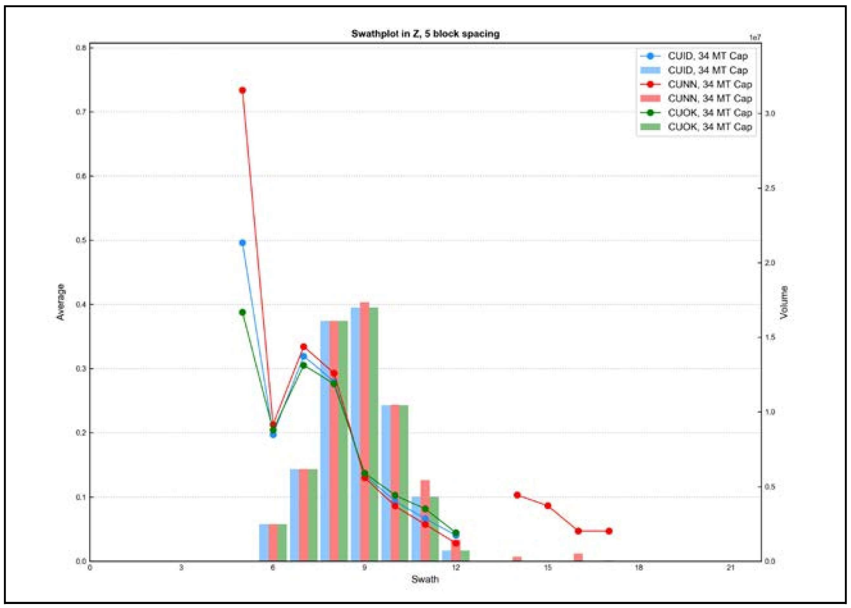

Figure E - 80 Swath Plot in the Z Direction of Total Copper for the Magnetite Skarn

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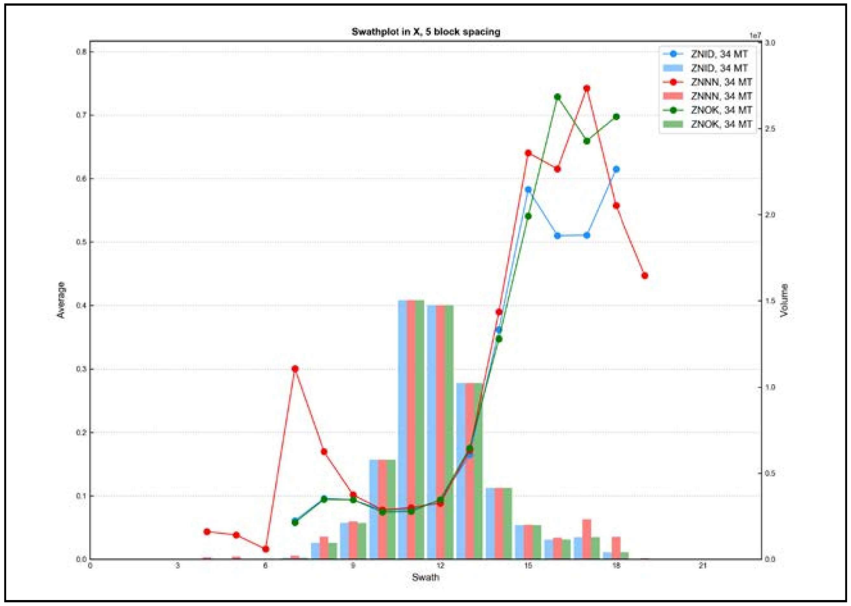

Figure E - 82 Swath Plot in the X Direction of Total Zinc for the Magnetite Skarn

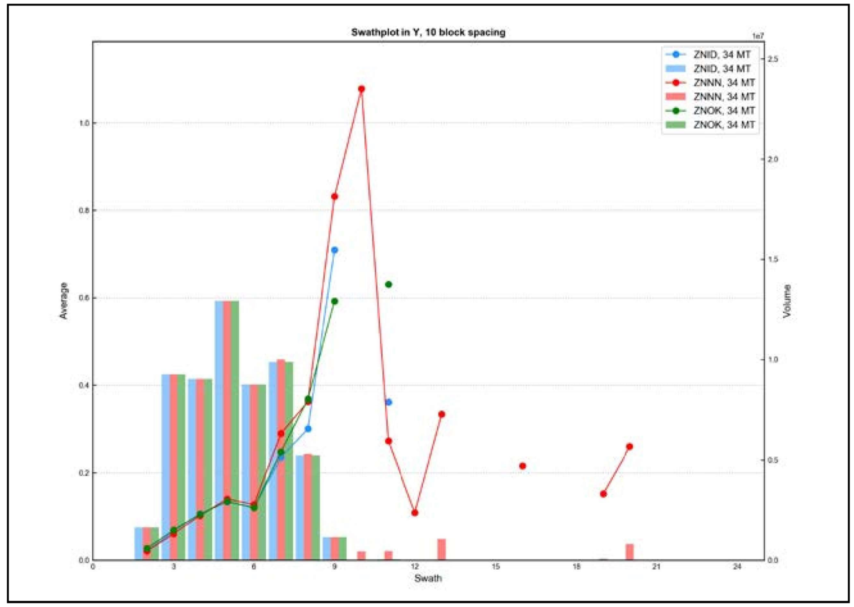

Figure E - 83 Swath Plot in the Y Direction of Total Zinc for the Magnetite Skarn

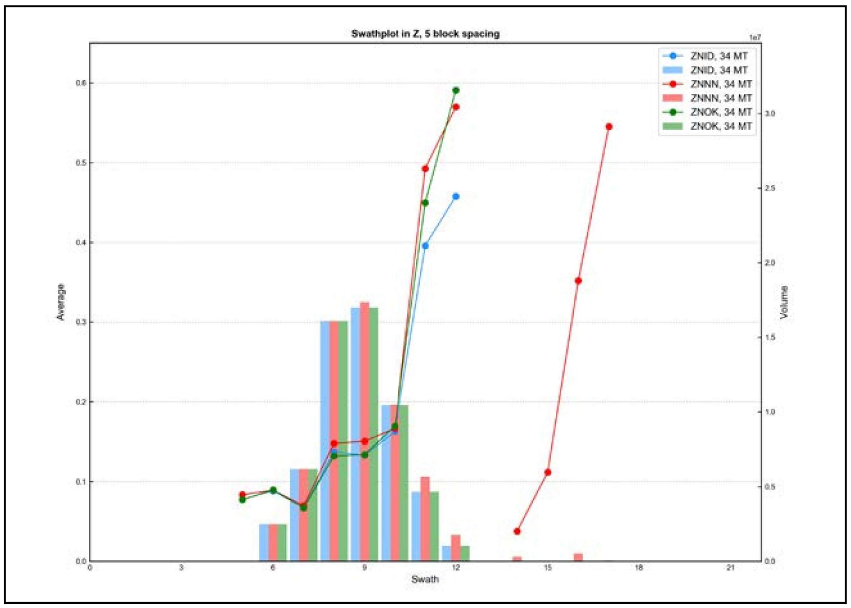

Figure E - 84 Swath Plot in the Z Direction of Total Zinc for the Magnetite Skarn

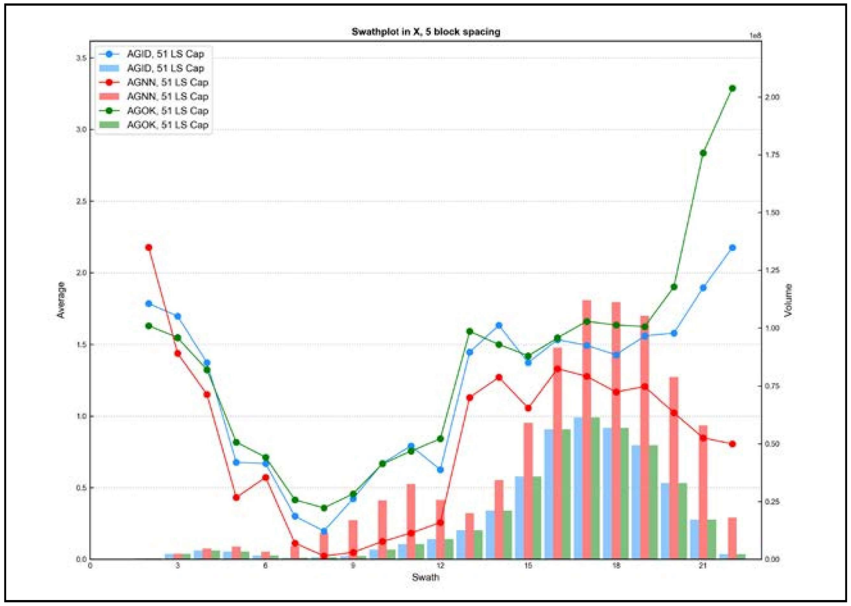

Figure E - 85 Swath Plot in the X Direction of Silver for the Limestone

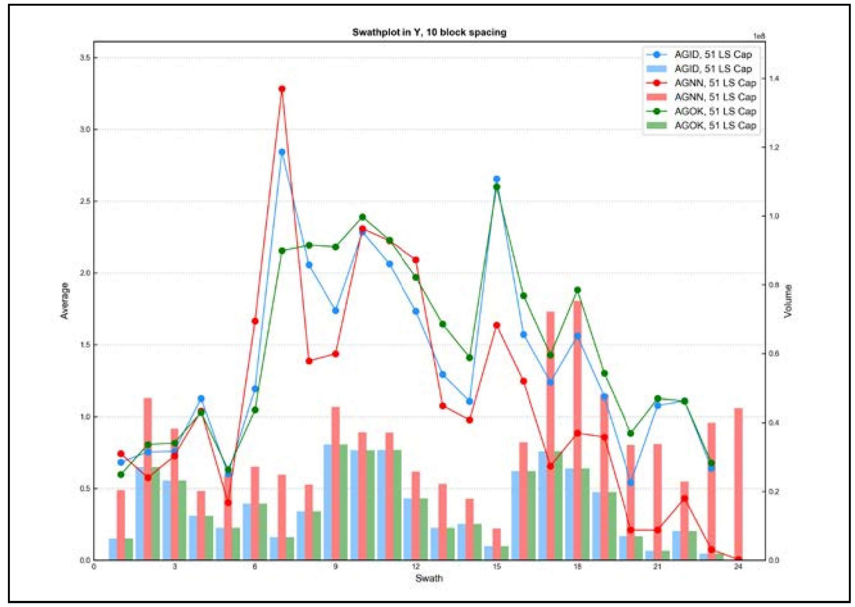

Figure E - 86 Swath Plot in the Y Direction of Silver for the Limestone

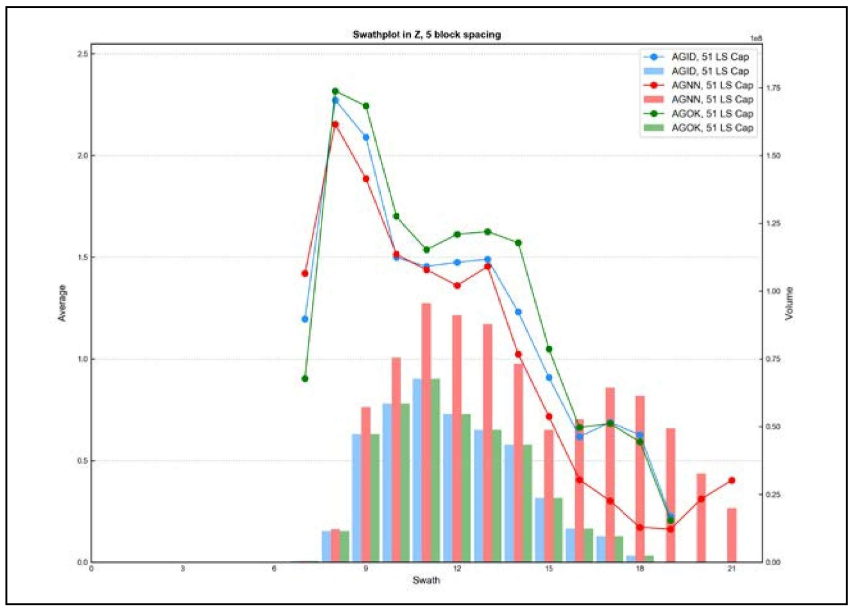

Figure E - 87 Swath Plot in the Z Direction of Silver for the Limestone

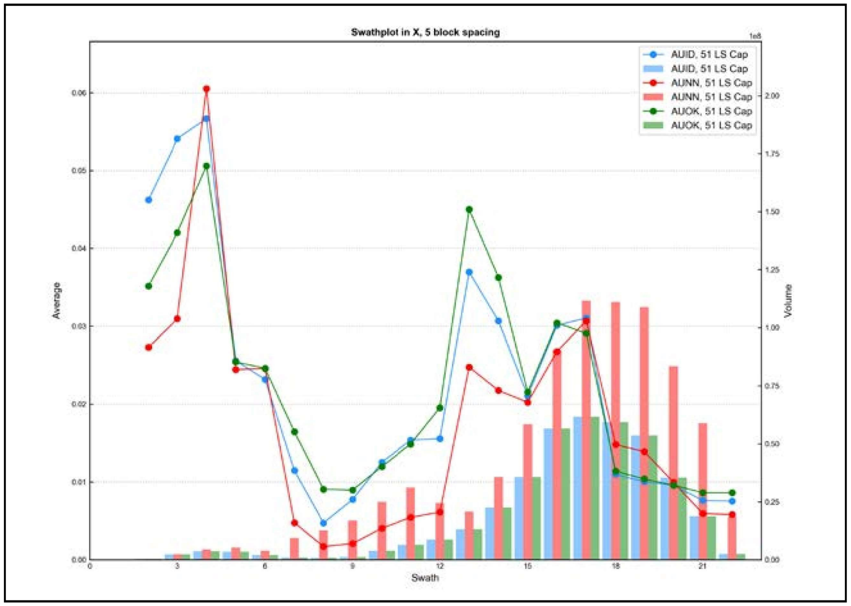

Figure E - 88 Swath Plot in the X Direction of Gold for the Limestone

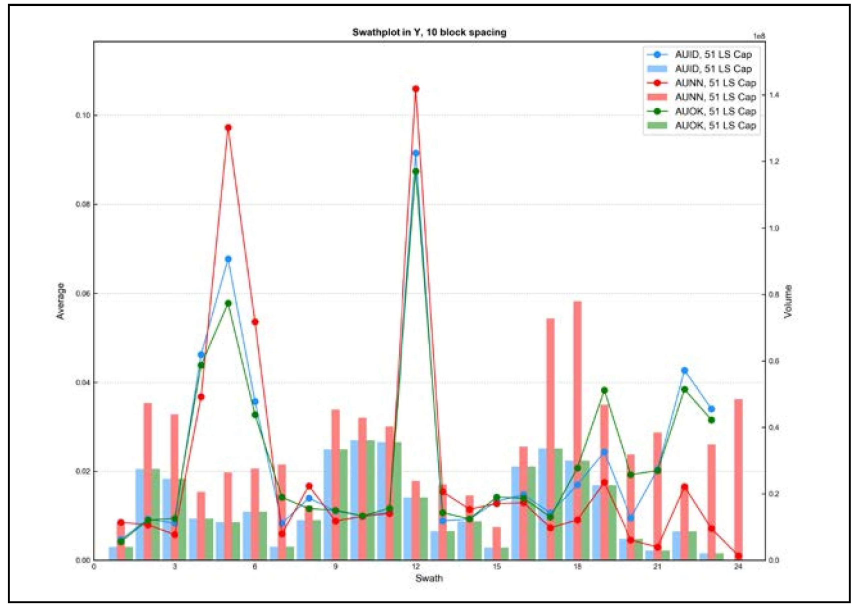

Figure E - 89 Swath Plot in the Y Direction of Gold for the Limestone

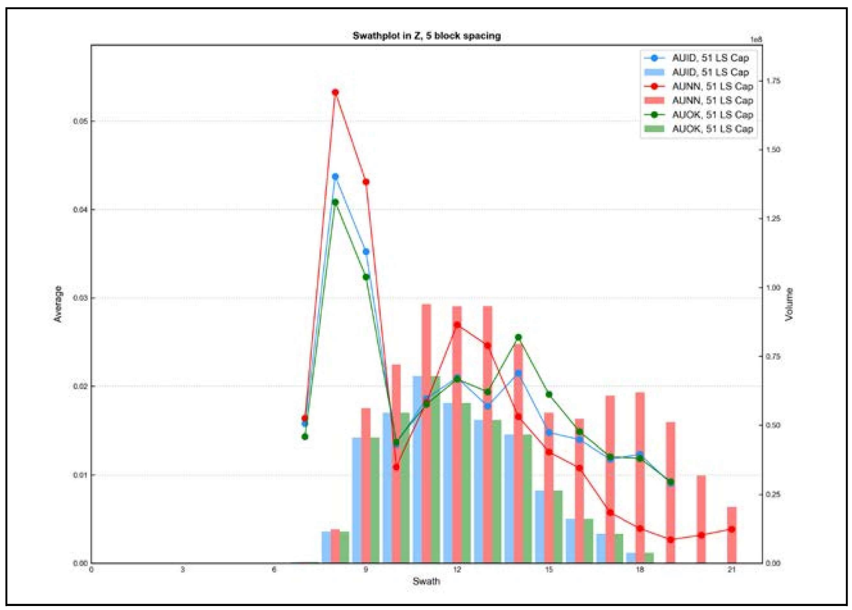

Figure E - 90 Swath Plot in the Z Direction of Gold for the Limestone

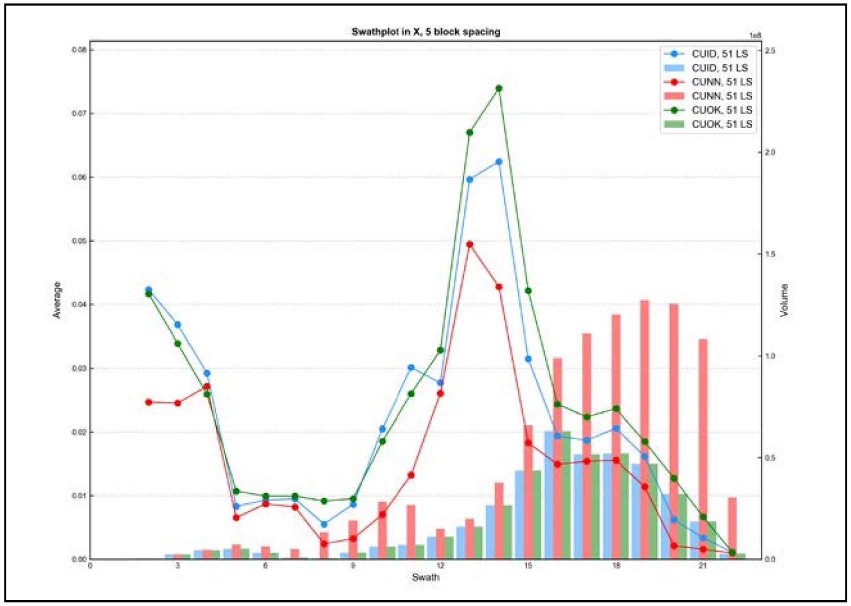

Figure E - 91 Swath Plot in the X Direction of Total Copper for the Limestone

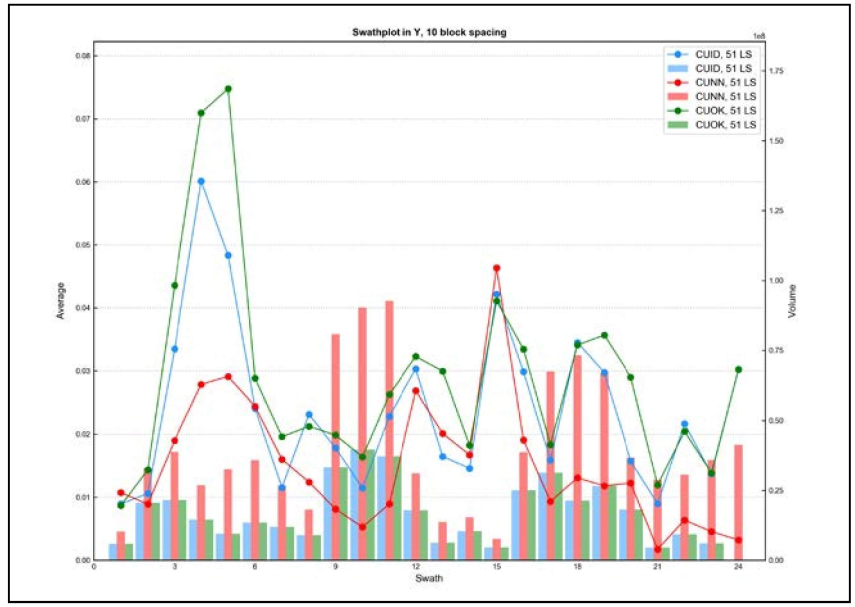

Figure E - 92 Swath Plot in the Y Direction of Total Copper for the Limestone

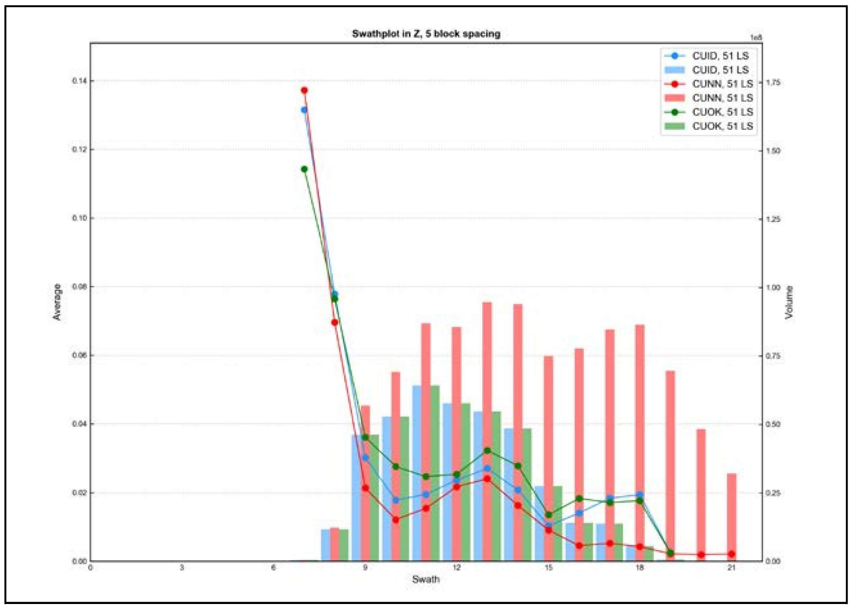

Figure E - 93 Swath Plot in the Z Direction of Total Copper for the Limestone

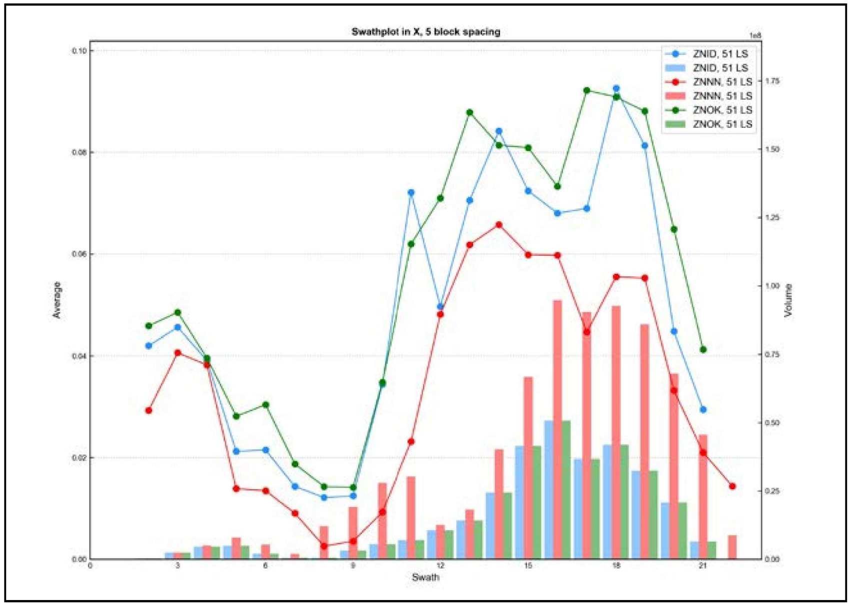

Figure E - 94 Swath Plot in the X Direction of Total Zinc for the Limestone

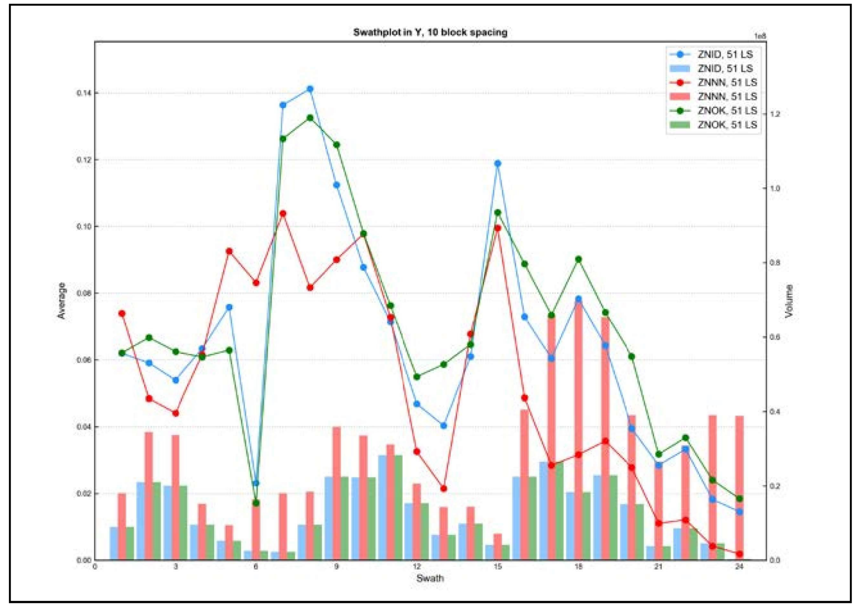

Figure E - 95 Swath Plot in the Y Direction of Total Zinc for the Limestone

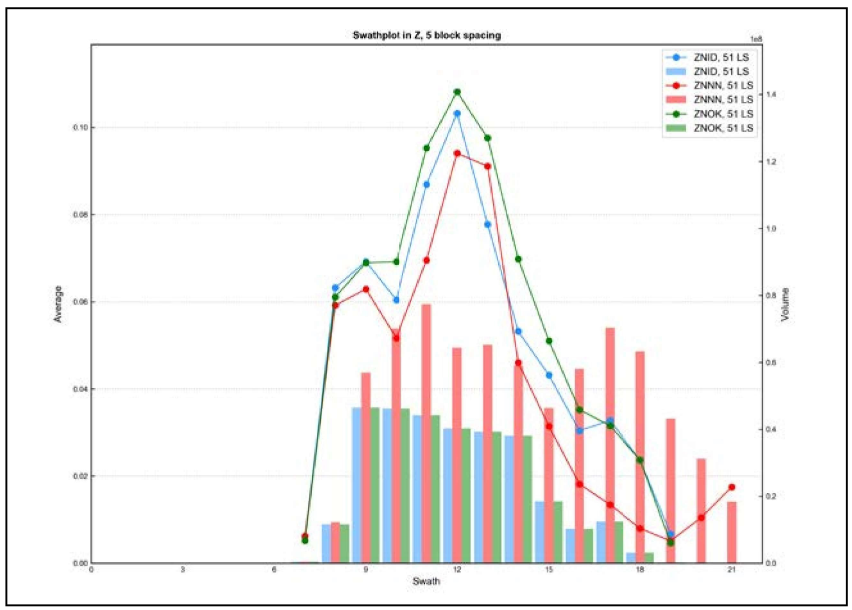

Figure E - 96 Swath Plot in the Z Direction of Total Zinc for the Limestone

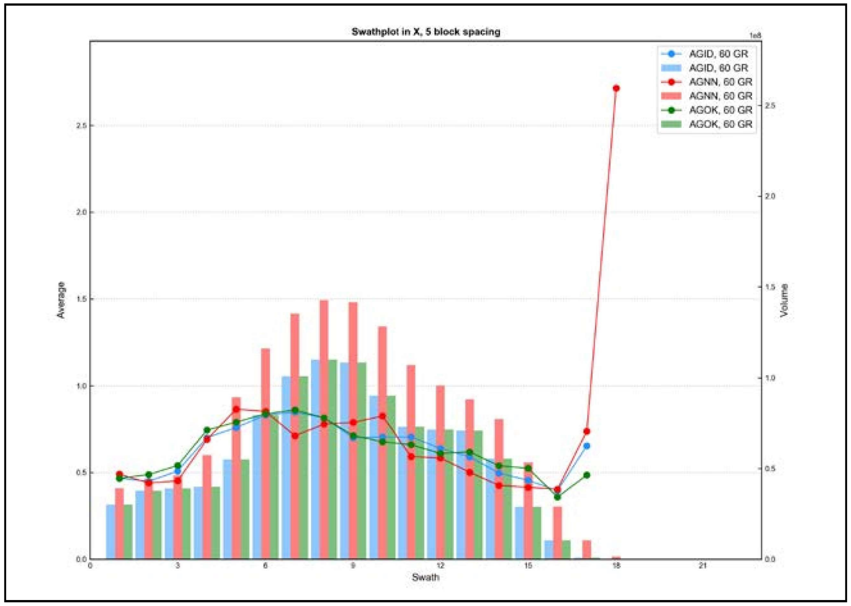

Figure E - 97 Swath Plot in the X Direction of Silver for the Granite

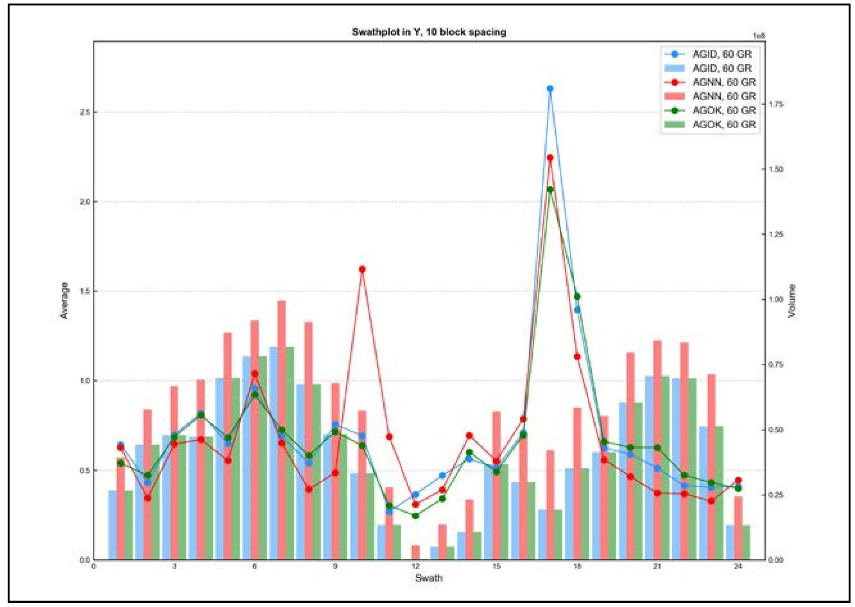

Figure E - 98 Swath Plot in the Y Direction of Silver for the Granite

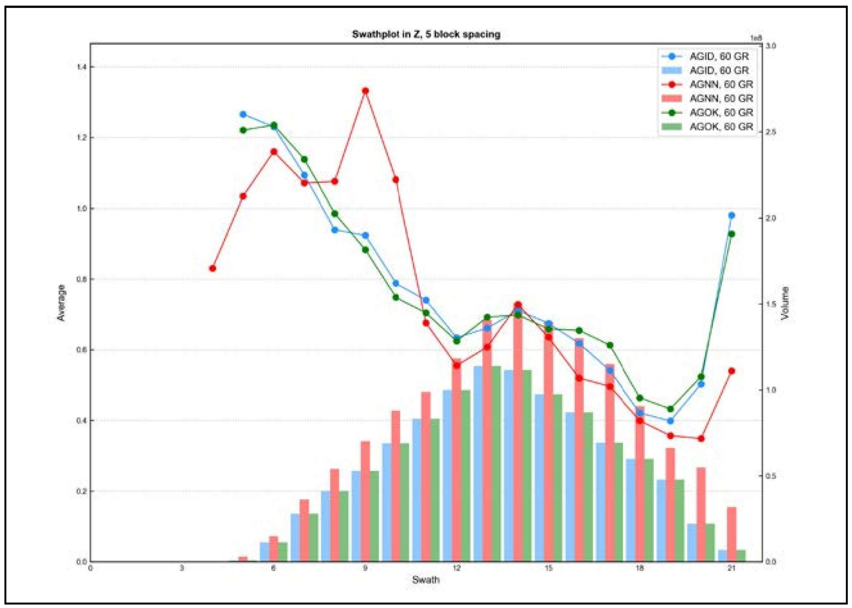

Figure E - 99 Swath Plot in the Z Direction of Silver for the Granite

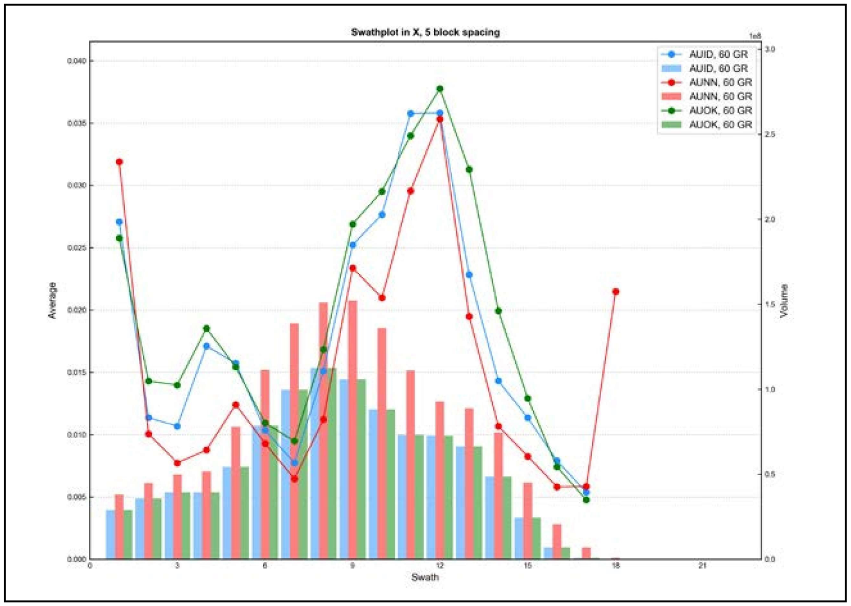

Figure E - 100 Swath Plot in the X Direction of Gold for the Granite

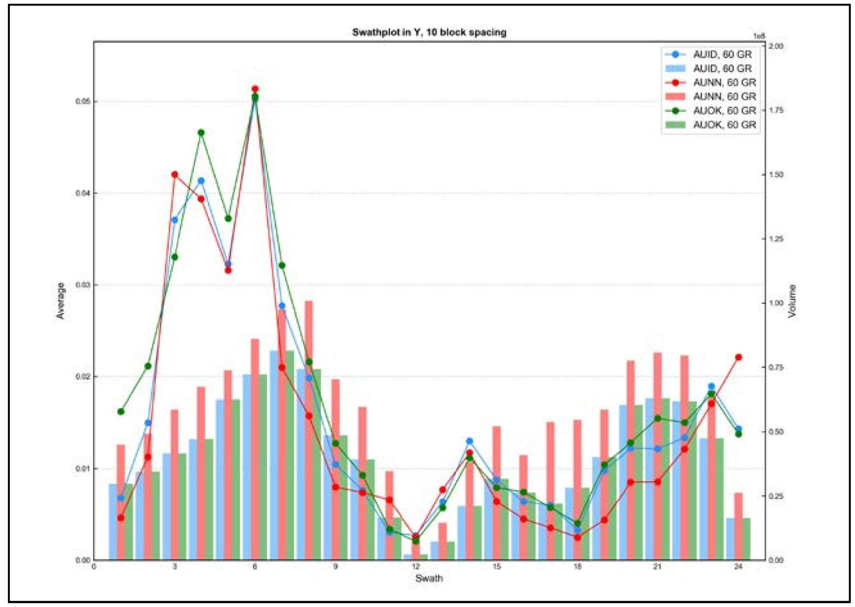

Figure E - 101 Swath Plot in the Y Direction of Gold for the Granite

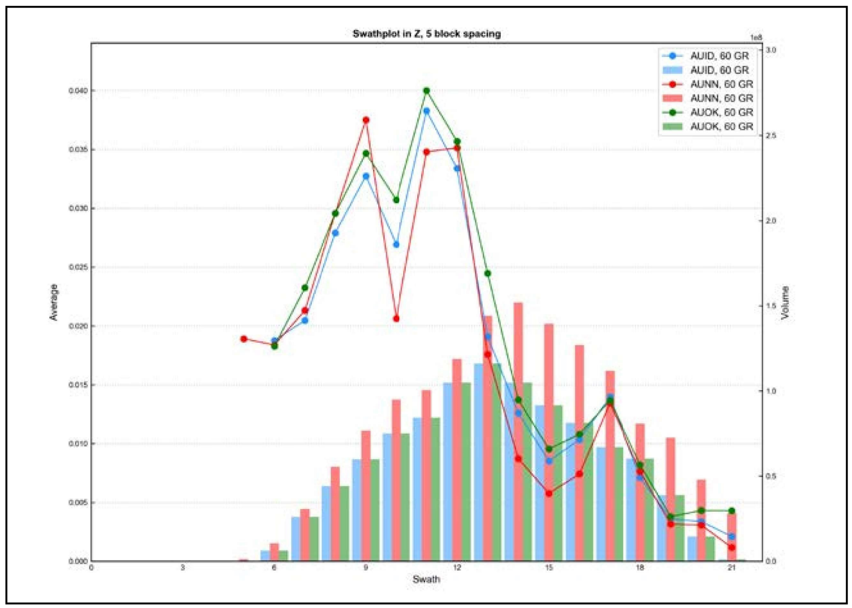

Figure E - 102 Swath Plot in the Z Direction of Gold for the Granite

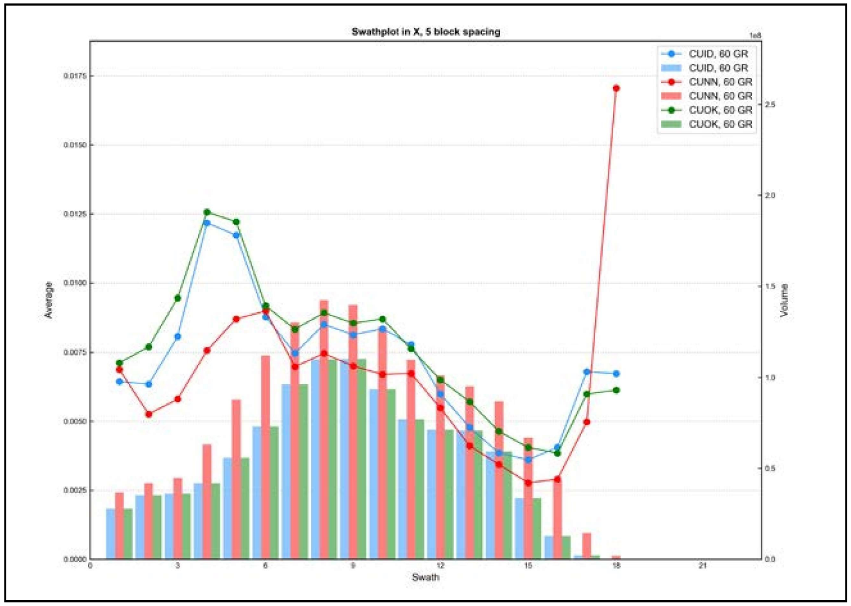

Figure E - 103 Swath Plot in the X Direction of Total Copper for the Granite

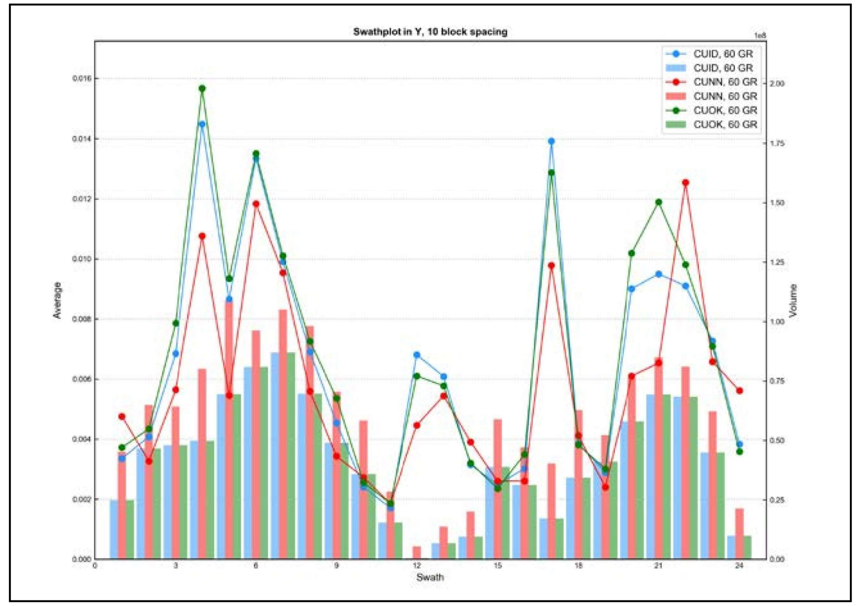

Figure E - 104 Swath Plot in the Y Direction of Total Copper for the Granite

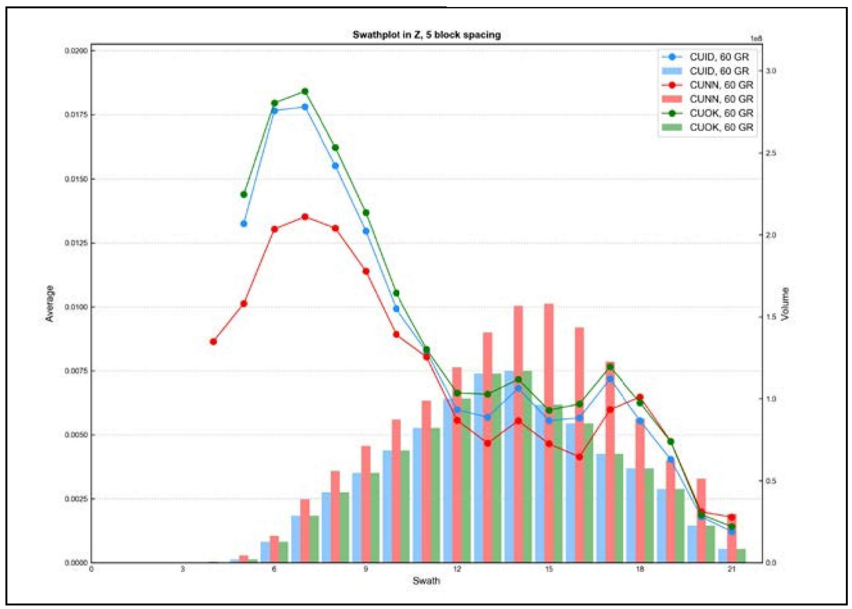

Figure E - 105 Swath Plot in the Z Direction of Total Copper for the Granite

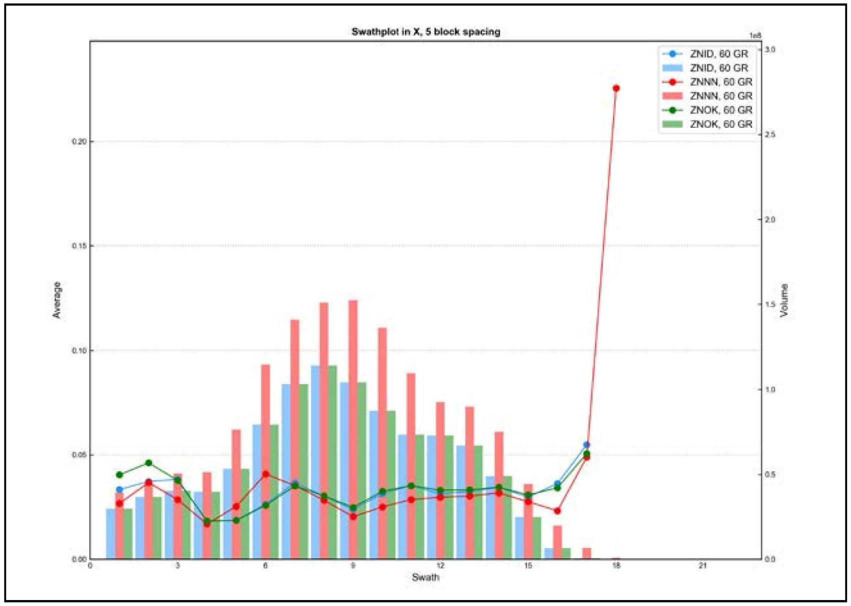

Figure E - 106 Swath Plot in the X Direction of Total Zinc for the Granite

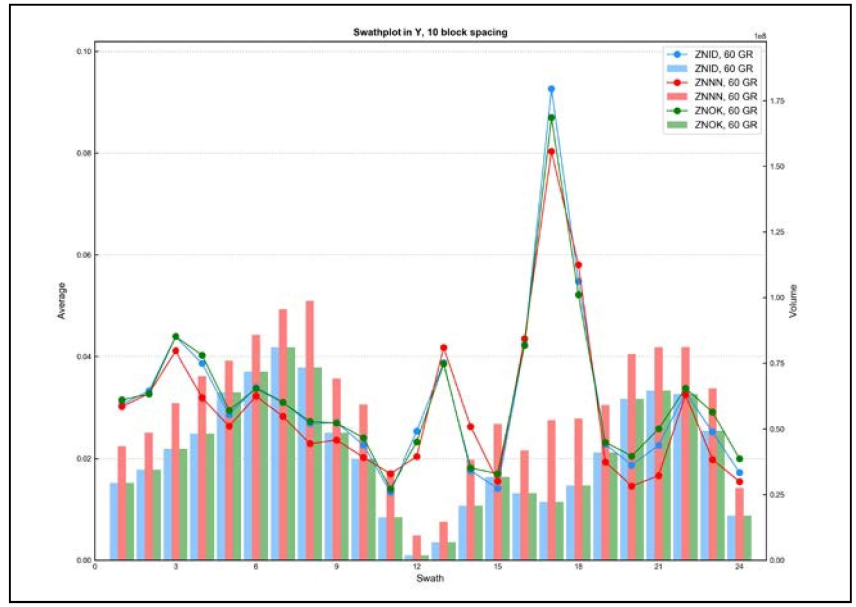

Figure E - 107 Swath Plot in the Y Direction of Total Zinc for the Granite

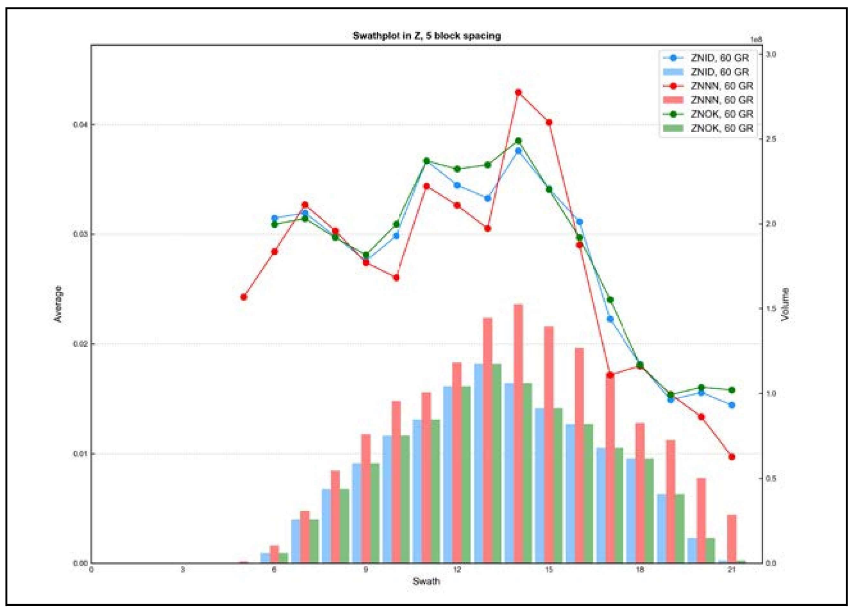

Figure E - 108 Swath Plot in the Z Direction of Total Zinc for the Granite

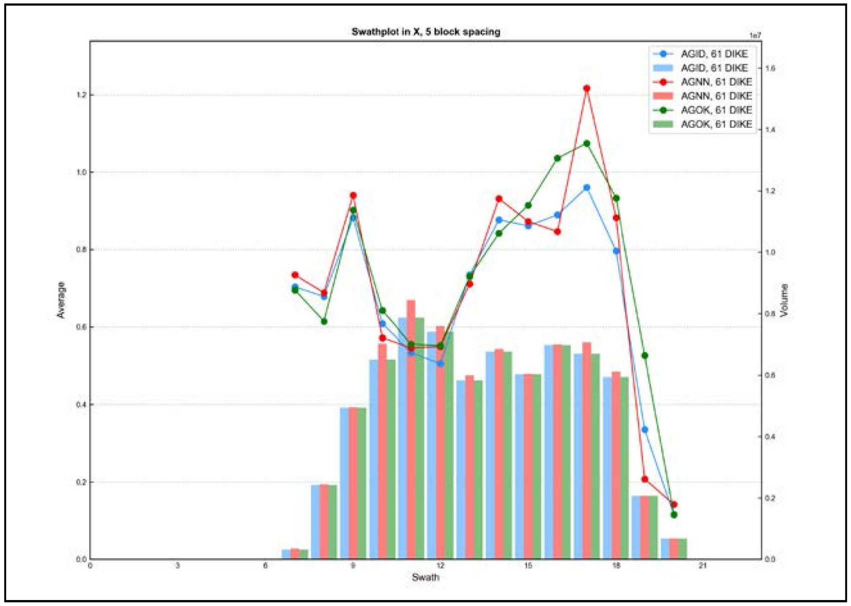

Figure E - 109 Swath Plot in the X Direction of Silver for the Dikes

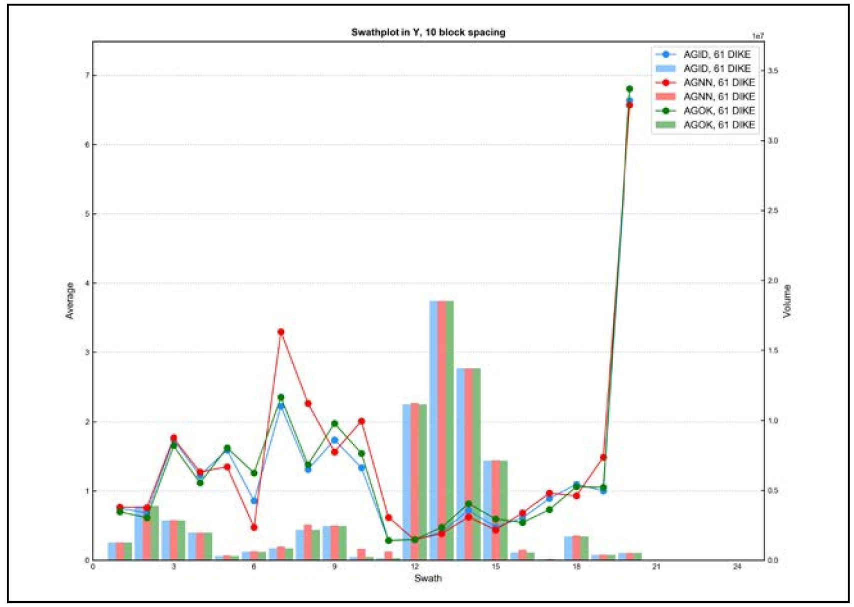

Figure E - 110 Swath Plot in the Y Direction of Silver for the Dikes

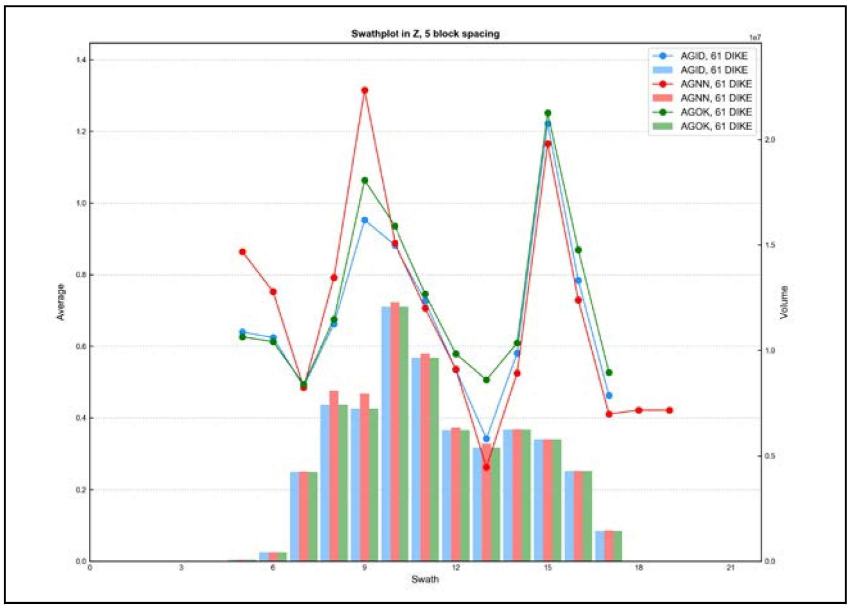

Figure E - 111 Swath Plot in the Z Direction of Silver for the Dikes

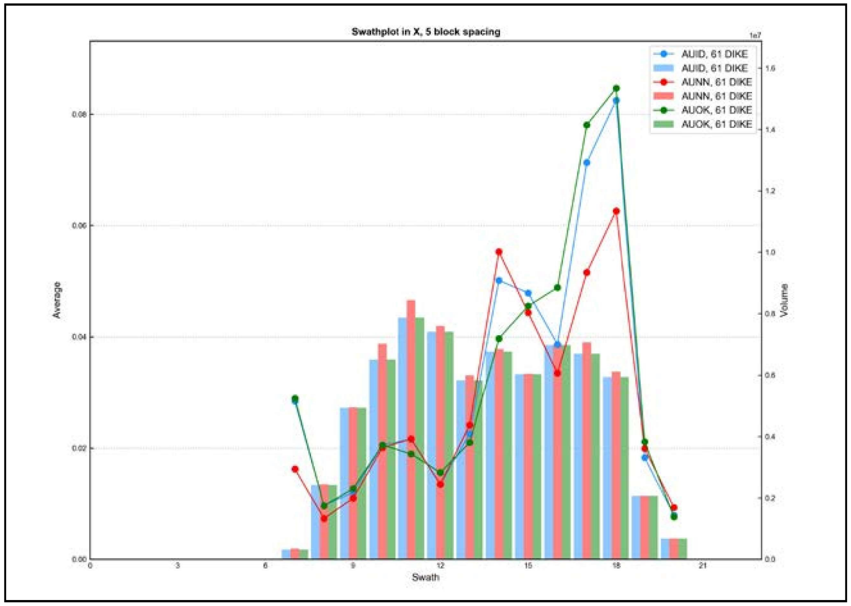

Figure E - 112 Swath Plot in the X Direction of Gold for the Dikes

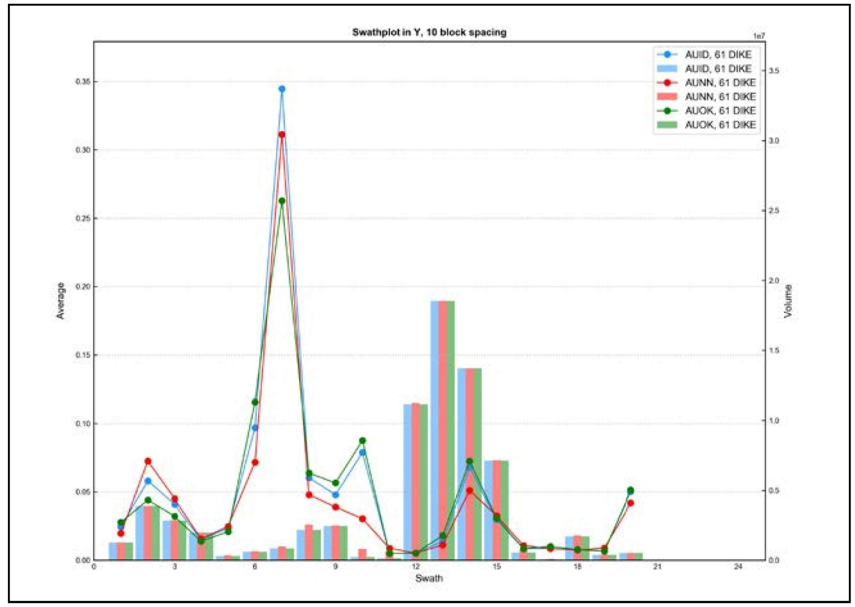

Figure E - 113 Swath Plot in the Y Direction of Gold for the Dikes

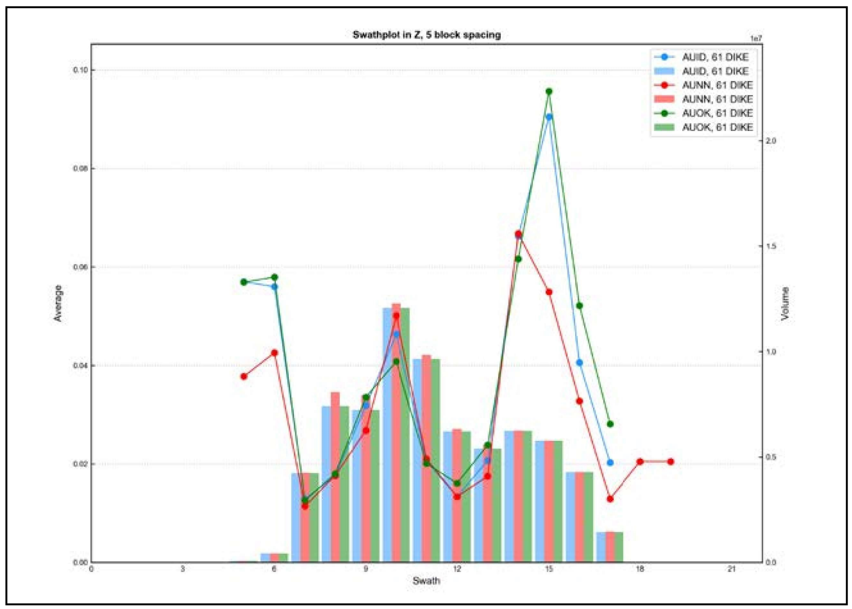

Figure E - 114 Swath Plot in the Z Direction of Gold for the Dikes

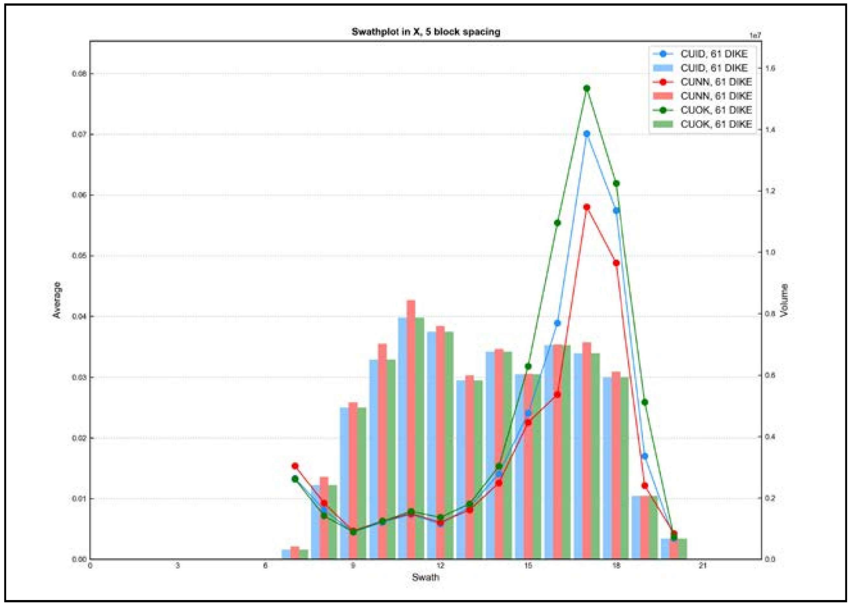

Figure E - 115 Swath Plot in the X Direction of Total Copper for the Dikes

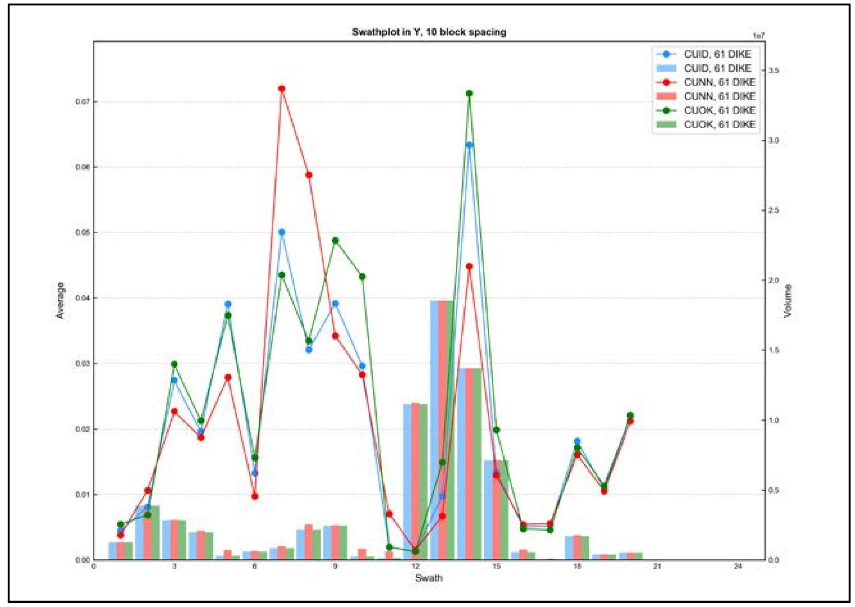

Figure E - 116 Swath Plot in the Y Direction of Total Copper for the Dikes

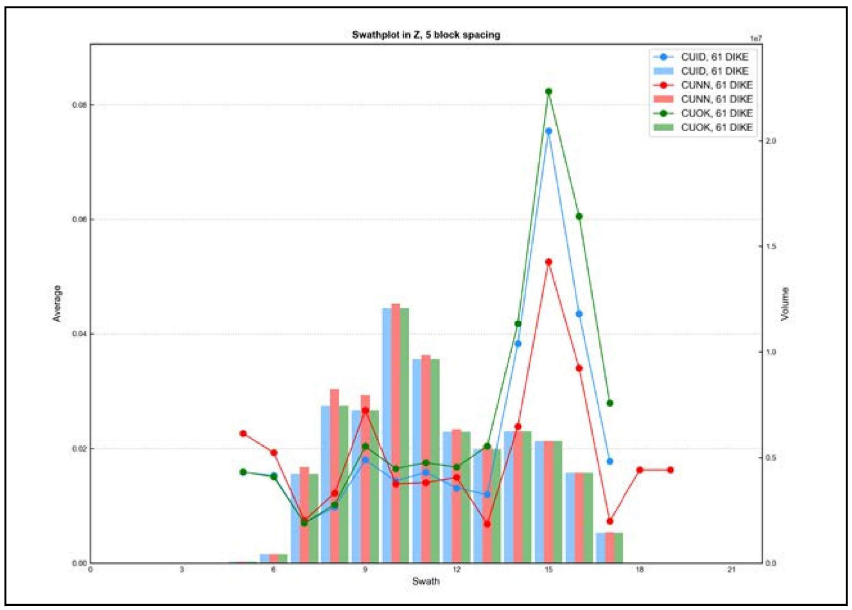

Figure E - 117 Swath Plot in the Z Direction of Total Copper for the Dikes

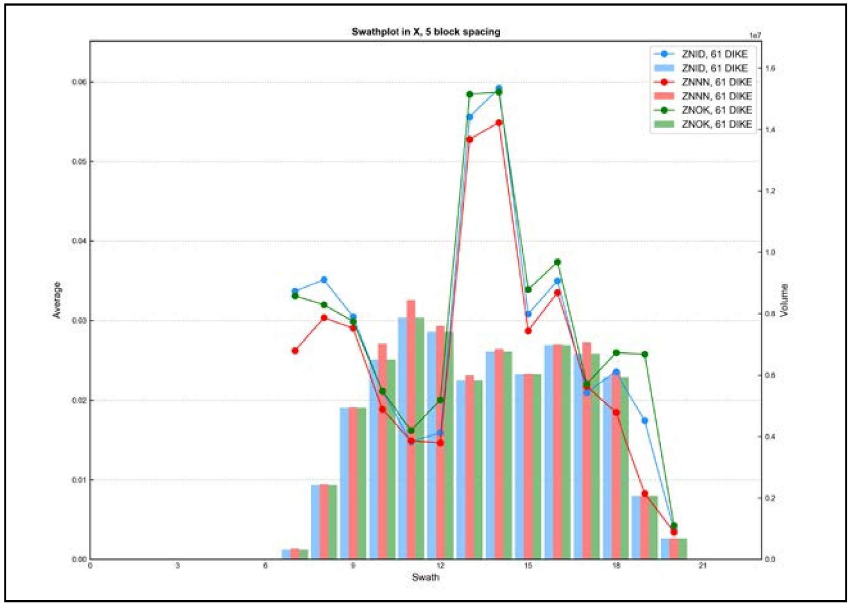

Figure E - 118 Swath Plot in the X Direction of Total Zinc for the Dikes

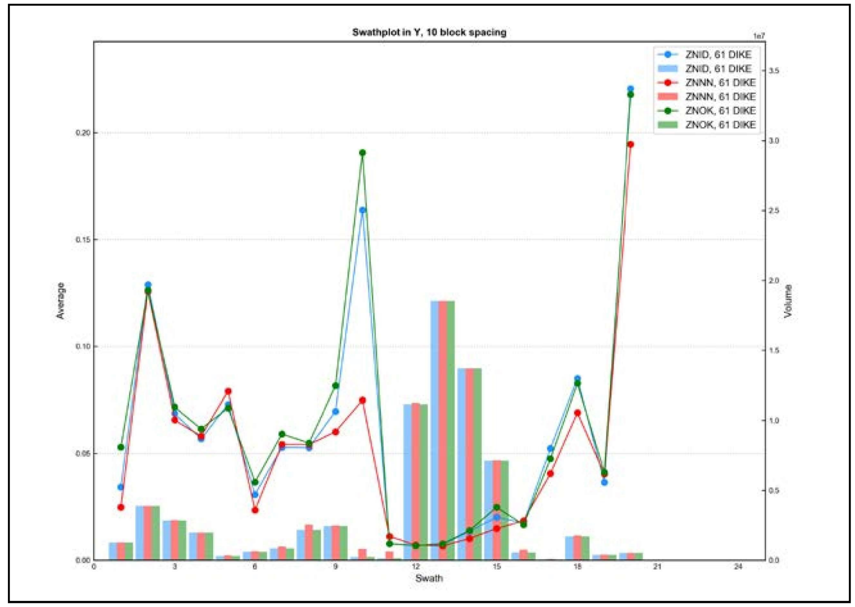

Figure E - 119 Swath Plot in the Y Direction of Total Copper for the Dikes

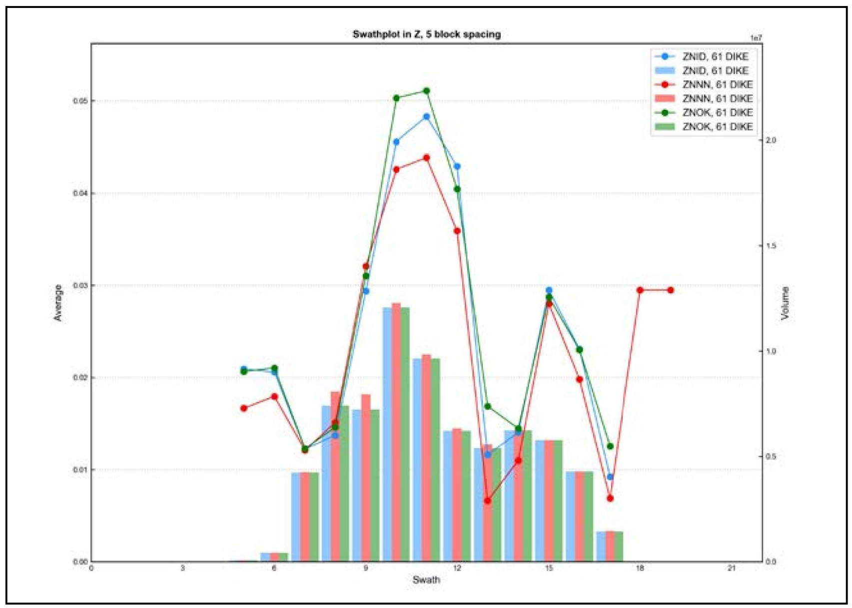

Figure E - 120 Swath Plot in the Z Direction of Total Copper for the Dikes