Kirkham Geosystems Ltd.

NI 43-101 TECHNICAL REPORT, **MACTUNG PROJECT, YUKON**

JULY 28, 2023

Effective Date: July 28, 2023
Report Date: July 28, 2023

Qualified Person:
Garth Kirkham, P.Geo.

FIREWEED
METALS

DATE AND SIGNATURE PAGE

This report entitled "NI 43-101 Technical Report, Mactung Project, Yukon", effective as of July 28, 2023 was prepared and signed by the following authors:

Original document signed and sealed by:

Signed and sealed "Garth Kirkham" ***July 28, 2023***

Garth Kirkham, P. Geo. Date Signed

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1 Executive Summary

This report on the Mactung Project ("Mactung" or the "Project") has been prepared by Kirkham Geosystems Ltd. ("Kirkham" or "KGL") for Fireweed Metals Corp. ("Fireweed" or the "Company" or the "Issuer") of Vancouver, Canada in accordance with National Instrument 43-101. The author and Qualified Person of this report is Garth Kirkham, P.Geo. (the "Author" or "QP"), Principal of Kirkham.

Fireweed is a Canadian mining company listed on TSX Venture Exchange (TSXV:FWZ) in Canada and the OTCQB Exchange (OTCQB:FWEDF) in the USA. It owns three projects: Mactung straddled between the Yukon and Northwest Territories ("NWT"), Macmillan Pass in the Yukon, and Gayna River in the NWT.

1.1 Property Description and Location

The Mactung property straddles the Yukon and NWT border, approximately 8 kilometres (km) northwest of Macmillan Pass and 13 km north of Fireweed's Macmillan Pass ("Macpass") Project camp. The property is located at latitude 63°17'N and longitude 130°10'W (NTS Map Sheet 105O-01). The nearest community is Ross River, Yukon, located 200 km to the southwest via the North Canol Road. Whitehorse, Yukon's capital, is located approximately 450 km away from the property by road, is a regional supply and service centre and has an international airport.

The Mactung property comprises a contiguous block of 113 mineral (quartz) claims and 38 mining leases in the Yukon (Mayo Mining District), and eight mining leases in the NWT, with a total area of 3,760.6 hectares (ha). The Mactung property in the Yukon and NWT lies within Traditional Territories of the Kaska Dena Nation and First Nation of Na-Cho Nyäk Dun. The NWT portion of the property also overlaps with the Sahtú Settlement Area.

1.2 Geology and Mineralization

The Mactung deposit is located in the eastern Selwyn Basin, a generally deep-water, off shelf basin that persisted from late Precambrian to Middle Devonian time off the western margin of the North American continent (Gordey and Anderson, 1993). The dominantly thin-bedded siliciclastic rocks grade to the northeast into the thick-bedded carbonate sediments of the Mackenzie Platform. Local stratigraphy of importance includes the Late Cambrian Sekwi Formation and Rabbitkettle Formation and the Ordovician to Lower Devonian Road River Group which includes the Duo Lake Formation and the overlying Steel Formation. Facies-changes between deep-water clastic rocks (shale basin) and shallow water carbonate rocks (platform) are transitional.

The divergent setting transitioned during the Devonian to a convergent setting, resulting in the subduction of the Panthalassa ocean basin. An influx of marine, turbiditic, chert-rich clastic rocks (Earn Group) spread to the south and east from an uplifted source in northern Yukon and to the east from uplifted western portions of Selwyn Basin. These clastic rocks, locally accompanied by mafic and less abundant felsic volcanism, blanketed all previous facies, covering Selwyn Basin sediments and onlapping onto the western Mackenzie platform.

In Jurassic and Early Cretaceous time, the northwest margin of continental North America was deformed by northeast directed compression caused by plate convergence and the accretion of pericratonic terranes onto North America. The rocks of Selwyn Basin, relatively incompetent when compared to the carbonate rocks of the platforms, responded by thrust faulting and the development of open to tight similar folds. Structural trends generally parallel the arcuate Paleozoic shale-carbonate facies boundary.

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The rocks in the Mactung area are part of the west-trending Macmillan Fold Belt, which is discordant to the regional northwest structural grain. This fold belt is interpreted to reflect a deep-seated Devonian fault zone that localized facies changes within the Earn Group and responded differently to Mesozoic deformation. Folding is tight and a narrow imbricate fault zone of southerly directed east-west trending thrust faults repeats Lower Cambrian to Devonian stratigraphy. South of the imbricate belt, open to closed folds and steep faults are the dominant structures.

Mactung is localized within thermal aureoles, typically above the altered apical zones of a suite of Late Cretaceous quartz-monzonite stocks. At Mactung, the putatively related intrusive has been referred to variously as the Cirque Lake stock (Harris 1977) or the Mactung North pluton (Anderson 1982, 1983, Gebru 2017).

The Mactung deposit occurs within a bedded sequence of altered limestones, shales and siltstones of Cambrian to Silurian age up to 230 metres (m) in thickness. Mactung consists of scheelite-bearing skarns developed near the contacts of two biotite quartz monzonite plutons, the Mactung North Pluton (Cirque Lake stock) and the Mactung South Pluton (Rockslide Mountain Stock). The main mineralized outcrop occurs in the NWT along a steep northerly sloping cliff on the north side of Mount Allan.

The deposit comprises Upper and Lower skarn zones, separated by 100 m of hornfelsed metapelite. Tungsten-copper-gold mineralization is hosted within calcic skarns-altered metasedimentary rocks derived from carbonate-rich protoliths of the early Cambrian Sekwi Formation in the Lower zone, and the Rabbitkettle Formation in the Upper Zone. The Lower Zone is approximately 20 m to 35 m thick, and the Upper Zone is up to 150 m thick but includes some interbedded barren layers. The skarn mineralization is broadly stratiform and the majority of the mineralization is stratabound within Unit 2B (Lower Zone), and Units 3D, 3E, and 3F (Upper Zone), with comparatively minor amounts of mineralization within Units 3C, 3G and 3H (units described below). The deposit is over 1,000 m in strike length and extends over 800 m down-dip.

Tungsten mineralization at Mactung occurs predominantly as scheelite ($CaWO_4$), hosted within skarn layers - limestone units that have been altered and metamorphosed by heat and fluids emanating from a granitoid intrusion.

1.3 History

The Mactung deposit was discovered in 1962 by James Allan (https://megcalgary.com/january-11-2019-calgary-meg-luncheon-jim-allan/), an AMAX Exploration Inc. (AMAX) geologist, probably as a result of follow-up prospecting to a regional stream sediment survey carried out as part of the Ogilvy Reconnaissance Project (Allan, 1963). The deposit was originally known as MacMillan Pass Tungsten and then as MacMillan Tungsten before it became known as Mactung. A chronological summary of the property is presented in Table 1-1.

Table 1-1: Mactung Deposit History of Exploration and Development

Year	Works	Company
1962	During work on the Selwyn Project, James (Jim) Allan, a geologist working for AMAX, discovered and staked the Mactung deposit.	AMAX
1963	Geological mapping and surface sampling	AMAX
1964	Geological mapping and surface sampling	AMAX
1967	Geological mapping and surface sampling	AMAX
1968	1,513 m in five surface diamond drill holes	Cameron McCutcheon Diamond Drilling
1969	Canol road reopened from Ross River to MacMillan Pass	AMAX
1970	Construction of 11 km access road to property	AMAX
1971	2,313 m surface diamond drilling in 21 holes	Canadian Mine Services
1972	6,956 m surface diamond drilling in 48 drill holes	Canadian Mine Services
1973	Excavated 9 m adit	Cameron McMynn Ltd.
	747 m lateral development underground and 27 m of raising	Cameron McMynn Ltd.
	Development rounds sampled	AMAX
	300 ton bulk sample sent to Colorado	
	1,653 m underground diamond drilling in 48 drill holes	Canadian Mine Services
	Reserve estimate performed	Amax Northwest Mining Co. Ltd.
1979	1,113 m surface diamond drilling in seven holes.	
	668 m underground diamond drilling in eight holes	Canadian Mine Service
1980	2,305 m surface diamond drilling in 10 holes.	Amity Diamond Drilling
1981	Capital costs, scheduling, project design	Wright Engineers Ltd.
1982	Geological mapping and relogging of diamond drill core	Amax Northwest Mining Co. Ltd.
	Surface bulk samples Units 3D, 3E and 3F	
	Ore Reserve Study for the Mactung Project	Strathcona Mineral Services
	Initial Environmental Evaluation	Amax Northwest Mining Co. Ltd.
1983	Relogging diamond drill core	Amax Northwest Mining Co. Ltd..
	Adit reopened and two bulk samples totaling 720 t taken	Redpath Ltd.
1984	Relogging diamond drill core	Amax Northwest Mining Co. Ltd.
	Mactung Project Scope Book, volumes 1, 2, and 3	Amax Northwest Mining Co. Ltd.
1985	Canada Tungsten Mining Co. Ltd. purchased the Mactung deposit from AMAX	Cantung
1993	Canada Tungsten Inc. becomes the owner of the property through company mergers	Cantung

Year	Works	Company
1994	Aur Resources purchases the property	Aur
1997	North American Tungsten Co. Ltd. purchased the Mactung deposit from Aur Resources	NATC
2005	6,639 m surface diamond drilling in 25 holes	DJ Diamond Drilling for NATCL
	Environmental studies resumed	EBA Engineering
2006	Ongoing environmental studies	EBA Engineering
2007	NI 43-101 resource estimate	Scott Wilson RPA
	Scoping study started	Strathcona Mineral Services
2008	2,645 m surface diamond drilling in 20 holes	DJ Diamond Drilling for NATCL
2009	Internal technical report and resource estimate	Lacroix & Associates
	Feasibility Study published	Wardrop (2009)
	9,294 m surface diamond drilling in 61 holes	DJ Diamond Drilling for NATCL
2015	North American Tungsten applied for and was granted creditor protection and the Mactung project was put under the control of a creditor monitor.	NATC
	The Government of the Northwest Territories purchases Mactung for $4,500,000	GNWT
2023	Fireweed purchased the Mactung project from the Government of the NWT for $5,000,000 plus additional payments totalling $10,000,000 due upon certain production decisions (see Section 4.3).	Fireweed

1.4 Exploration and Drilling

Between 1968 and 2009, 312 surface and underground drill holes with a combined total of 37,657 m were completed on the property. Fifty-one of these holes (2,326 m) were drilled underground from the exploration adit during the 1970s. Table 10-1 summarizes the drill programs completed to date.

Most of the drill holes that intersected the deposit were collared on the south facing slopes of Mount Allan and drilled at an angle of about 70° to the north, which is approximately perpendicular to the dip of the sedimentary bedding in most of the deposit. In the earlier drilling north-south drill hole section lines were spaced at intervals of 30 m (100 ft.), but this was increased to 60 m (200 ft.) in 2005 owing to the good continuity of mineralization along strike from east to west. Holes were generally placed from 40 m to 60 m apart up- and down-dip of the mineralized horizons. The closer spacing was indicated because there was more variability of both tungsten grade and of thickness of mineralization in this direction. The 2008 and 2009 exploration program roughly followed this broader spacing and was primarily for delineation purposes, with 81 diamond holes completed above, west and southwest of the deposit.

Other drill programs were designed to collected geotechnical and hydrological data. Four surface holes drilled in 1980 were for testing of the mill site and tailings impoundment areas. In 2007 and 2008, 50 short (Becker OB drill) geotechnical holes and eight deeper diamond drill holes were completed to assess potential infrastructure development sites and obtain hydrological monitoring data. This was followed by an additional two deeper diamond drill holes for water monitoring in 2009.

Original collar locations were recorded in a local AMAX mine grid and underground development survey. In 1981 and 1982, the Project site was resurveyed by Underhill Geomatics of Whitehorse to convert the local mine grid, which exists in both imperial and metric forms, to the UTM NAD27 grid. This work was updated in 2005 and 2008 by Underhill to convert the NAD 27 collars to the NAD 83 datum that is currently in use and survey all of the 2005 and 2008 drill using a differential GPS system.

1.5 Mineral Resource Estimate

The mineral resource estimate work was undertaken by Kirkham, including the key assumptions and parameters used to prepare the mineral resource models for the Mactung deposit, together with appropriate commentary regarding the merits and possible limitations of such assumptions.

The mineral resource has a footprint measuring approximately 1,100 m in length, 900 m in width and 600 m in elevation, between elevations of 1,600 m and 2,200 m above sea level (masl).

Table 1-2 summarizes the Updated Mineral Resource Estimate on the Mactung deposit is as follows:

- A new mineral resource estimate totals 41.5 million tonnes (Mt) Indicated Resource at 0.73% WO_3 and 12.2 Mt Inferred Resource at 0.59% WO_3.
- Open pit and underground.
- The resource estimate also includes copper in addition to gold as by-product metals.

Table 1-2: Combined Mineral Resource Statement for the Mactung Project for WO_3%

Classification	Cut-off Grade WO_3 (%)	Tonnage (tonnes)	WO_3 Grade (%)	Contained WO_3 (mtu)
Indicated (underground)	0.50	12,168,000	1.05	12,789,000
Indicated (open pit)	0.25	29,319,000	0.59	17,367,000
Total Indicated (OP+UG)	**0.25/0.50**	**41,487,000**	**0.73**	**30,156,000**
Inferred[4] (underground)	0.50	2,817,000	0.73	2,066,000
Inferred[4] (open pit)	0.25	9,430,000	0.55	5,139,000
Total Inferred[4] (OP+UG)	**0.25/0.50**	**12,247,000**	**0.59**	**7,205,000**

Source: KGL (2023)

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only, and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
5. A metric tungsten unit (mtu) is 10 kilograms of tungsten trioxide (WO_3).

Resources that have the possibility of potential open pit extraction methods are listed in Table 1-3. These indicated and inferred resources are limited to within a pit shell based on reasonable prospects of eventual economic extractions criteria and are limited to WO_3% only. Copper and gold were estimated as by-product metals for underground constrained resources only (Table 14-3). Grades of copper and gold were considered too low to include within the Mineral Resource Statement for open-pit constrained resources. No metallurgical testwork has been conducted to assess the recovery of copper or gold at Mactung. Based on historical production of small quantities of gold and of copper concentrate from the geologically similar Cantung mine, it has been reasonably assumed that gravity separation and a copper circuit could be incorporated into the flowsheet to recover a portion of the gold and copper in the current Mineral Resource to satisfy the reasonable prospects of eventual economic extraction. Fireweed and its consultants are currently completing metallurgical test programs to validate the recovery of tungsten and assess the recovery of gold, and copper at Mactung.

Table 1-3: Mineral Resources Statement within the Potential Open Pit

Open-pit Cutoff Grade (WO_3%)	Tonnage (tonnes)	WO_3 grade (%)
Indicated		
0.25	**29,319,000**	**0.59**
Inferred		
0.25	**9,430,000**	**0.55**

Source: KGL (2023)

Notes:

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum (“CIM”) definitions, as required under National Instrument 43-101 (“NI43-101”).
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

It is estimated that there is the potential for an Exploration Target at Mactung of between 2.5 Mt and 3.5 Mt at a grade of between 0.4% WO_3 and 0.6% WO_3 in addition to the current Mineral Resources disclosed in this Technical Report. The Exploration Target is within the current geological model, supported by drilling and surface mapping. The Exploration Target includes material located beyond the boundaries of the Inferred and Indicated resource classification but is located within the boundaries of the open-pit shell and underground volumes used to constrain the current Mineral Resource.

The Exploration Target is conceptual in nature and requires additional drilling to test the geological model, grade continuity, and extent of mineralization. It is uncertain if additional drilling will validate the geological potential or fulfill the mining and economic criteria necessary to establish reasonable prospects of eventual economic extraction to lead to the classification of the Exploration Target as Mineral Resources.

1.6 Interpretation and Conclusions

The Mactung project has been evaluated and as demonstrated by the results and findings detailed within this Technical Report, illustrates that the Project warrants advancement. This Technical Report shows the results of the Project for the reasonable, long-term metal prices, exchange rates and reasonable prospects extraction scenarios.

The Mactung deposit consists of six mineral domains with unique geological characteristics. The Mactung deposit Mineral Resource Estimate is comprised of six mineral domains: 2B, 3C, 3D, 3E, 3F, 3G and 3H. The mineral resource is separated into an open pit and underground component based on reasonable prospects of eventual economic extraction criteria namely; an optimized pit shell for open pit; and reasonable underground mining shapes and continuity of grade.

This resource estimate also includes copper in addition to gold as by-product metals. Bismuth and phosphate were also evaluated however not deemed economically viable at this time and therefore not included. This may change in the future depending on market conditions and further exploration.

The primary conclusion and result to be derived from the Technical Report is the statement of resources which totals 41.5 Mt Indicated Resource at 0.73% WO_3 and 12.2 Mt Inferred Resource at 0.59% WO_3.

There are no current known environmental, permitting, legal, taxation, title, socio-economic, political or other relevant factors that materially affect the mineral resources. However, areas that may factor as risks related to the advancement and realization of the Project are as follows:

- Due to the size, mass and homogeneity of the Mactung deposit, there may be minor global differences with subsequent revisions to lithological data, understanding, domaining and volumetrics.
- Metallurgical considerations are important to understand which may have material effects on the reasonable prospects of eventual economic extraction and viability of the Project.
- Local, Indigenous, Territorial and Federal intergovernmental regulation and legislation will factor directly upon the Project's viability and progress.
- Social license needs to be obtained and maintained in order for the resource to be realized sustainably.
- Climate change particularly in these northern environs must be conserved and planned for the successful continued operation of the Project in order for the resource to be viable as source of critical minerals necessary for a net zero future.
- Market conditions will dictate viability of the Mactung Project as the price of tungsten, both short term and long term, will be affected not only by inflation and traditional "supply and demand" economic forces but also the inevitable volatility due to international relationships and tensions.

1.7 Recommendations

The extent of mineralization at the Mactung deposit, beyond the bounds of the current mineral resource, remains open and trends well known. The Deposit currently contains a modest Inferred Mineral Resource, which resides mostly at the extents of the 2B, 3D and 3F units however extension in all units is likely. The copper and gold resources are localized however, further resampling and drilling may extend these localized resources.

Therefore, an extended diamond drilling campaign is recommended to: determine the extents of the Deposit; increase the density of drilling in the Inferred Mineral Resource areas the deposit; and, continue re-sampling data as opportunities arise.

Drilling to delineate the unclassified material (geological potential) along with drilling in order to potentially upgrade inferred resources to indicated and exploration (8,000 m to 10,000 m). There needs to be further work to optimize the scope and size of the drill program that will directly drive the total estimated cost. Once completed, an updated resource estimate would guide further work and development initiatives.

Metallurgical and variability test work is recommended to allow the development of an up-to-date robust metallurgical process flowsheet and the updated Mineral Resource Estimate to be expressed on a Net Smelter Return (NSR) or valuation basis. Opportunities to improve the metallurgical through current, modern will be identified in the future metallurgical testwork programs.

Further engineering work is also recommended to advance the Project toward a Preliminary Economic Assessment (PEA) or other advanced studies to further detail the Project schedule, engineering design, costs and revenue, increase geological confidence in addition to high grade continuity and to improve accuracy of Project economics.

Ongoing environmental studies are also recommended to support working toward an economic evaluation and permitting requirements of the Mactung deposit.

Continued engagement with respect to indigenous consultation and involvement, and gaining social licence is recommended.

The budget for the program is summarized in Table 1-4.

Table 1-4: Recommended Budget 2023 – 2024

Item	Cost Estimate (CAD$)
Diamond Drilling: NQ2/HQ incl. assaying, heli-support, camp and food	5,250,000
Metallurgical Test Work Program	450,000
Environmental Studies +	200,000
Resource Update	250,000
Advanced Engineering Studies	500,000
Subtotal	**6,650,000**
Contingency (15%)	997,500
Total	**7,647,500**

Source: KGL (2023)

2 Introduction

This report on the Mactung Project ("Mactung" or the "Project") has been prepared by Kirkham Geosystems Ltd. ("Kirkham" or "KGL") for Fireweed Metals Corp. ("Fireweed" or the "Company" or the "Issuer") of Vancouver, Canada in accordance with National Instrument 43-101. The author and Qualified Person of this report is Garth Kirkham, P.Geo. (the "Author" or "QP"), Principal of Kirkham.

2.1 Issuer

Fireweed is a Canadian mining company listed on TSX Venture Exchange (TSXV:FWZ) in Canada and the OTCQB Exchange (OTCQB:FWEDF) in the USA. It owns three projects: Mactung straddled between the Yukon and Northwest Territories ("NWT"), Macmillan Pass in the Yukon, and Gayna River in the NWT.

2.2 Terms of Reference

Kirkham has been commissioned by the Issuer to provide a Technical Report compliant with National Instrument 43-101 on the Mactung Project in Yukon and NWT.

This report was produced for the purpose of supplying updated exploration information, an updated Mineral Resource Estimate, and recommendations for further work. The report was written following disclosure and reporting guidance set forth in the Canadian Securities Administrations' current "Standards of Disclosure for Mineral Projects" under provisions of National Instrument 43-101, Companion Policy 43-101 CP and Form 43-101 F1.

2.3 Sources of Information

This report includes information and data supplied by Fireweed, sources referenced in Section 3, and public sources that are listed in Section 27. Some information including the property history along with regional and property geology has been sourced from previous publicly available technical assessment reports and revised or updated as required. The Project has been the subject of publicly reported resource estimates in 2005 (RPA 2005) and 2009 (Lacroix et al) along with a Feasibility Study in 2009 (Wardrop 2009). Information has been validated and utilized within this current Technical Report. This 2023 Technical Report supersedes all previous technical reports. Kirkham has taken reasonable steps to verify this information where possible and is familiar with the information through previous work on the Project.

2.4 Qualified Person Inspection

Mr. Kirkham visited the Mactung Project, on various occasions in 2005 through 2008. Most recently on the September 25 to 27, 2022 to provide a current site inspection along with perform validation and verification of information and data.

2.4.1 Qualifications and Responsibilities

The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Fireweed and the QP. The QP is being paid a fee for their work in accordance with normal professional consulting practice and are independent of Fireweed as per NI 43-101 definition of independence.

The author, Garth Kirkham, P.Geo., FGC, is responsible for all sections of the Technical Report and is the Qualified Person by virtue of his education and experience. He is a registered professional geologist in multiple jurisdictions, included British Columbia and has practiced continuously as a geologist and geophysicist since 1983 with 35 years practicing within the mineral exploration, mining and resource development fields. He has which range throughout the world and include precious metals (e.g., Au and Ag), platinum group metals (e.g., Pt, Pd, Rd), base and critical metals (e.g., Ni, Co, Cu, Zn, Pb, Mo, W), potash and coal. He has authored numerous NI 43-101 Technical Reports, from exploration stage to resource estimation stage advanced through PEA to Feasibility Study (FS) level reports. Included in these were numerous skarn type and carbonate hosted deposits such as Las Minas and Esperanza Au-Ag deposits in Mexico, and the Craigmont Cu mine in Merritt, BC. He also consulted for North American Tungsten Corporation (“NATC”) and Government of Northwest Territories (“GNWT”) working at the Cantung Mine which is the sister deposit to Mactung which was also owned by NATC, having visited and investigated Mactung extensively in the late 2000s. Following this, he advised and reported on Mactung on behalf of the GNWT until the sale to Fireweed. He has worked in the Yukon and NWT work for over 30 years.

In addition, the Author teaches mineral resource estimation via university level classes at BCIT, is a guest lecturer on the topic at educational institutions throughout Canada and is a presenter of industry short courses covering resource estimation and regulatory frameworks.

2.5 Units, Currency and Rounding

The units of measure used in this report are as per the International System of Units (SI) or “metric” except for Imperial units that are commonly used in industry (e.g., ounces (oz.) for the mass of precious metals).

All dollar figures quoted in this report refer to Canadian dollars (C$ or $) unless otherwise noted.

This report includes technical information that required subsequent calculations to derive subtotals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the QP does not consider them to be material and in most cases are required.

3 Reliance on Other Experts

Kirkham has relied on information provided by the Issuer on claims, ownership, property agreements, royalties, environmental liabilities, permits and First Nations as described in Sections 4.2, 4.3, 4.4, 4.5, and 4.6. The information appears reasonable, but Kirkham has not independently verified this information beyond the information that is publicly available.

Other experts relied upon include:

Expert Name	Company	Section
George Gorzynski, P.Eng	Fireweed Metals Corp.	4.2, 4.3
Pamela O'Hara, RPBio	Fireweed Metals Corp.	4.4, 4,5, 4.6, 5, 24

4 Property Description and Location

4.1 Property Location

The Mactung property straddles the Yukon and NWT border, approximately 8 km northwest of MacMillan Pass and 13 km north of Fireweed's Macpass Project camp (Figure 4-1). The property is located at latitude 63°17'N and longitude 130°10'W (NTS Map Sheet 105O-01). The nearest community is Ross River, Yukon, located 200 km to the southwest via the North Canol Road. Whitehorse, Yukon's capital located approximately 450 km away from the property by road, is a regional supply and service centre and has an international airport.

4.2 Property Description and Mineral Tenure

The Mactung property comprises a contiguous block of 113 mineral (quartz) claims and 38 mining leases in the Yukon (Mayo Mining District), and eight mining leases in the NWT, with a total area of 3,760.6 ha (Figure 4-2 and Table 4-1). All leases and claims are 100% owned by Fireweed. Mining leases (including those covering the Mactung deposit) have anniversary dates of May 9, 2037 (Yukon) and September 12, 2041 (NWT) and can be extended. Yukon quartz claims covering adjacent ground have expiry dates varying in 2026, which can be extended by carrying out work such as drilling, mapping, surveying, etc. as described under the Yukon Quartz Mining Act or paying C$100 per claim per year in lieu of such work. In recent years, these work requirements and fees have been waived by the Yukon Government as the property is within an area withdrawn from staking.

The Issuer has informed Kirkham that all mineral claims and leases pertaining to the Mactung property are in good standing with the earliest good-to-dates being July 25, 2026, and the latest being September 12, 2041.

In the 1970s, AMAX had the then existing claims and leases surveyed by Underhill & Underhill (now Underhill Geomatics Ltd.) of Whitehorse. The territorial border was surveyed by Paul S. Dixon C.L.S. in the period July 28 to August 5, 2003. The 36 Grind claims staked in 2005 using a handheld Global Positioning System (GPS) unit have not been surveyed.

Table 4-1: Mactung Leases and Claims

Yukon					
Lease	Claim		Lease	Claim	
NM00408	PAT NO. 17		NM00727	Pat No. 6	
NM00409	PAT NO. 19		NM00728	Pat No. 7	
NM00410	PAT NO. 21		NM00729	Pat No. 8	
NM00411	PAT NO. 23		NM00730	Pat No. 18	
NM00412	BETTY NO. 11		NM00731	Pat No. 20	
NM00413	BETTY NO. 12		NM00732	Pat No. 22	
NM00414	BETTY NO. 3		NM00733	Pat No. 24	

Yukon					
Lease	Claim		Lease	Claim	
NM00415	BETTY NO. 4		NM00734	Pat No. 25	
NM00416	BETTY NO. 5		NM00735	Pat No. 26	
NM00417	BETTY NO. 6		NM00736	Border No. 1	
NM00418	BETTY NO. 7		NM00737	Border No. 2	
NM00419	BETTY NO. 8		NM00738	Border No. 3	
NM00420	BETTY NO. 9		NM00739	Border No. 4	
NM00421	BETTY NO. 10		NM00740	Border NO. 5	
NM00422	BORDER NO. 10		NM00741	Border No. 6	
NM00723	Pat No. 1		NM00742	Border No. 7	
NM00724	Pat No. 3		NM00743	Border No. 8	
NM00725	Pat No. 4		NM00744	Border No. 9	
NM00726	Pat No. 5		NM00745	DONNA 1	
Claims					
Betty 1	Border 6 Extension	Grind 16	Grind 35	NAT11F 11	Par 16
Betty 2	Border 9 Extension	Grind 17	Grind 36	NAT12F 12	Par 17
Betty 3 Extension	Border 10 Extension	Grind 18	Gull 1	NAT13F 13	Par 18
Betty 3A Extension	Dawn 1 Extension	Grind 19	Gull 2	NAT14F 14	Par 19
Betty 4 Extension	Grind 1	Grind 20	Gull 3	Par 1	Par 20
Betty 13	Grind 2	Grind 21	Gull 4	Par 2	Par 21
Betty 13 Extension	Grind 3	Grind 22	Gull 5	Par 3	Par 22
Betty 14	Grind 4	Grind 23	Gull 6	Par 4	Par 23
Betty 15	Grind 5	Grind 24	Gull 7	Par 5	Par 24
Betty 16	Grind 6	Grind 25	NAT 1F 1	Par 6	Pit 1
Betty 17	Grind 7	Grind 26	NAT2F 2	Par 7	Pit 2
Betty 18	Grind 8	Grind 27	NAT3F 3	Par 8	Pit 3
Betty 19	Grind 9	Grind 28	NAT4F 4	Par 9	Pit 4
Betty 20	Grind 10	Grind 29	NAT5F 5	Par 10	Pit 5
Border 1 Extension	Grind 11	Grind 30	NAT6F 6	Par 11	Pit 6
Border 3 Extension	Grind 12	Grind 31	NAT7F 7	Par 12	Pit 7
Border 3A Extension	Grind 13	Grind 32	NAT8F 8	Par 13	Pit 8
Border 5 Extension	Grind 14	Grind 33	NAT9F 9	Par 14	Wasteful 1
Border 5A Extension	Grind 15	Grind 34	NAT10F 10	Par 15	

Northwest Territories		
Lease		Lease
2605		2888
2692		2889
2886		2890
2887		2891

4.3 Property Agreements and Royalties

The following information has been previously publicly disclosed in Fireweed news releases and on government websites.

The original Mactung claims were staked in 1962 by AMAX and various claims were taken to lease, expired / restaked and staked since then to arrive at the current Project leases and claims (Table 4-1). The property changed ownership several times and was subsequently acquired by the NATC in 1997. In June 2015, NATC filed for and was granted creditor protection mainly related to operation of their Cantung mine located to the south. The GNWT purchased the Mactung Project for $4,500,000 in the fall of 2015. In February 2023, Fireweed signed and subsequently closed a definitive Asset Purchase Agreement to acquire 100% interest in the Mactung Project from the GNWT under the following terms:

An initial payment for C$5,000,000 plus a commitment to make additional payments totalling C$10,000,000 staged as follows:

1. Fireweed paid the GNWT the sum of $1,500,000 upon execution of a binding Letter of Intent (previously executed and paid).
2. Fireweed will pay to the GNWT an additional $3,500,000 within 18 months of the closing date of the definitive Asset Purchase Agreement. GNWT finalized the sale and transfer of 100% interest in the Mactung assets to Fireweed on May 3, 2023, the closing date.
3. Fireweed will pay to the GNWT an additional $5,000,000 upon Fireweed announcing its intention to construct a mine on either the Mactung Project or any portion of the mineral property interests controlled by Fireweed in the Yukon, commonly known as the Macpass Project.
4. Fireweed will pay to the GNWT an additional $5,000,000 upon Fireweed announcing its intention to construct a mine on the Mactung Project.

The Asset Purchase Agreement does not include responsibility for any assets or liabilities related to the defunct NATC Cantung mine located further south. Mactung carries an existing net smelter return royalty (“NSR”) of 4%, which is held by a third party, 2% of which can be purchased at any time for $2,500,000.

Taxes and royalties on production are payable to the Yukon and NWT Governments under their respective mining and tax legislation.

4.4 Environmental Liabilities

Fireweed has informed the Author that environmental liabilities at Mactung are currently minimal. Upon acquisition of the property in 2015, the GNWT spent approximately $200,000 to clean up outstanding environmental liabilities. Current infrastructure at the camp includes two trailers, several wooden tent pads and sheds, a core shack, drill core racks, and a grizzly rock sorting screen.

The Project is subject to the restrictions and conditions of applicable legislation, regulations, laws, by-laws, and ordinances, and a Class 4 Quartz Mining Land Use Approval (LQ00521) issued by Yukon Energy, Mines and Resources in 2020 (Section 4.5).

4.5 Permitting

Fireweed has confirmed to the QP that all necessary permits for current or planned activities at Mactung are in good standing.

4.5.1 Yukon

For exploration programs (over specific activity thresholds) and mine development in the Yukon, a project proposal must be reviewed in accordance with the Yukon Environmental and Socioeconomic Assessment Act (YESAA) by the Yukon Environmental and Socioeconomic Assessment Board (YESAB) prior to seeking project licenses, authorizations, or permits. Annual exploration program activities are permitted at Mactung under a Yukon Class 4 Quartz Mining Land Use Approval (LQ00521) in accordance with the Quartz Mining Act and Quartz Mining Land Use Regulation. This permit expires on January 15, 2030. Approved project activities include use of heavy equipment, surveying and soil sampling, environmental studies, camp operation, new trail construction, use of existing roads, diamond drilling, water use, clearing, waste management, fuel storage and reclamation. Reclamation and/or decommissioning of roads and trails is to be progressively completed when no longer needed to support activities.

For mine development, NATC submitted a project proposal to the YESAB in 2008. and a positive screening report for the Mactung Project was issued in mid-2014. The YESAB recommended that the Project proceed without review, subject to terms and conditions. The federal and Yukon governments subsequently varied certain terms and conditions, as documented in their respective Decision Documents, providing direction on additional information requirements for licensing applications. Fireweed reports that it is carrying out field programs at Mactung to strengthen the environmental database and inform subsequent licensing processes for mine approval, and engaging with affected First Nations.

4.5.2 Northwest Territories ("NWT")

Exploration activities in NWT are subject to NWT's Mineral Resources Act, Mackenzie Valley Resource Management Act, NWT Mining Regulations and additional GNWT regulations. If the scope of the Mactung Project expands to include exploration or development activities in the NWT (beyond use of the existing access road), Fireweed will pursue regulatory approvals to enable such work, commencing with the Mackenzie Valley Land and Water Board and/or the Sahtú Land and Water Board processes.

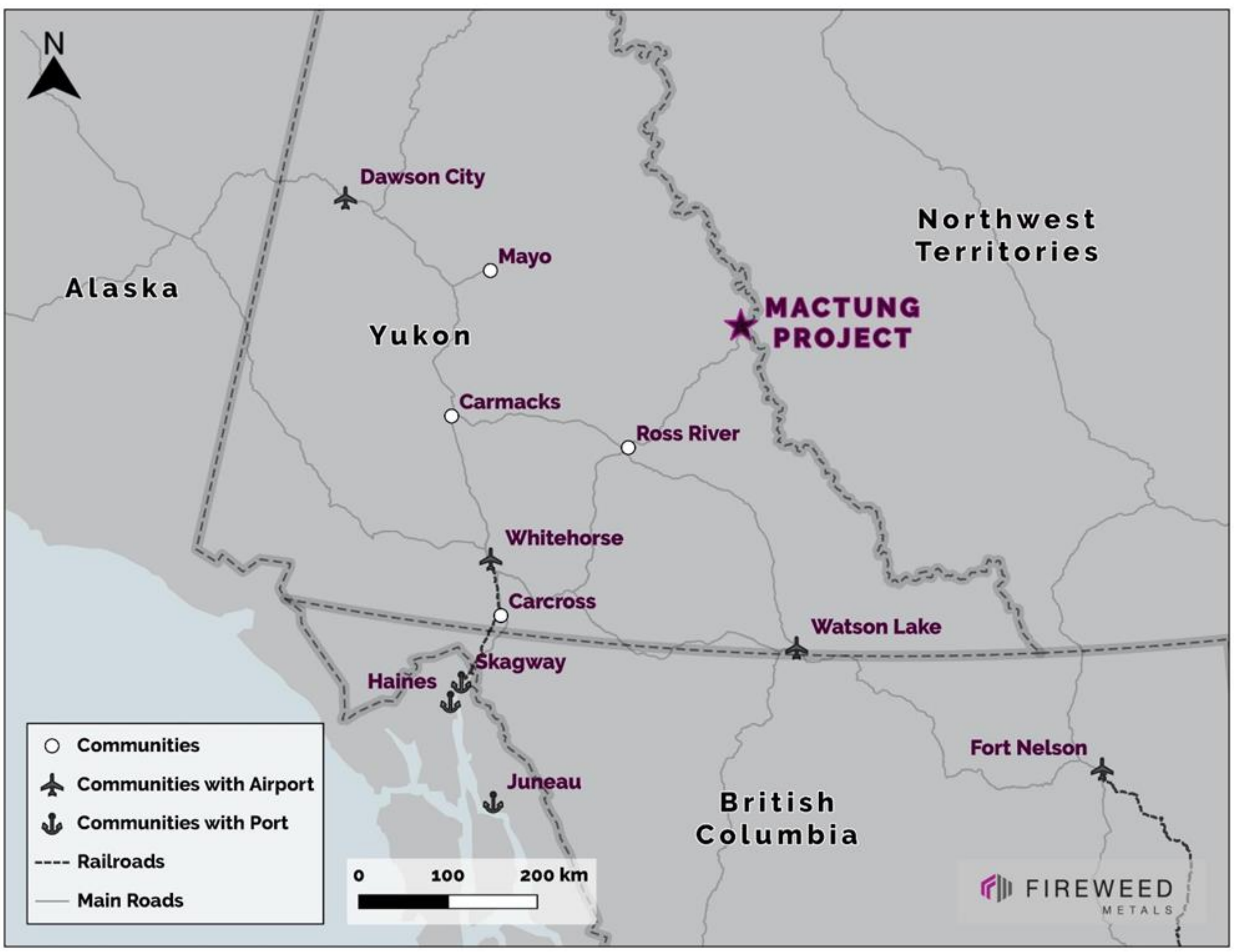
4.6 First Nations

The Mactung property in the Yukon and NWT lies within Traditional Territories of the Kaska Dena Nation and First Nation of Na-Cho Nyäk Dun. The NWT portion of the property also overlaps with the Sahtú Settlement Area. Fireweed has proposed to work collaboratively with Indigenous groups through a planning process referred to as participatory design. All prior studies and assessment, and proposed work by Fireweed, will inform technical working group discussions with Indigenous groups to collaboratively develop robust mining applications and associated management plans.

4.7 Significant Factors and Risks

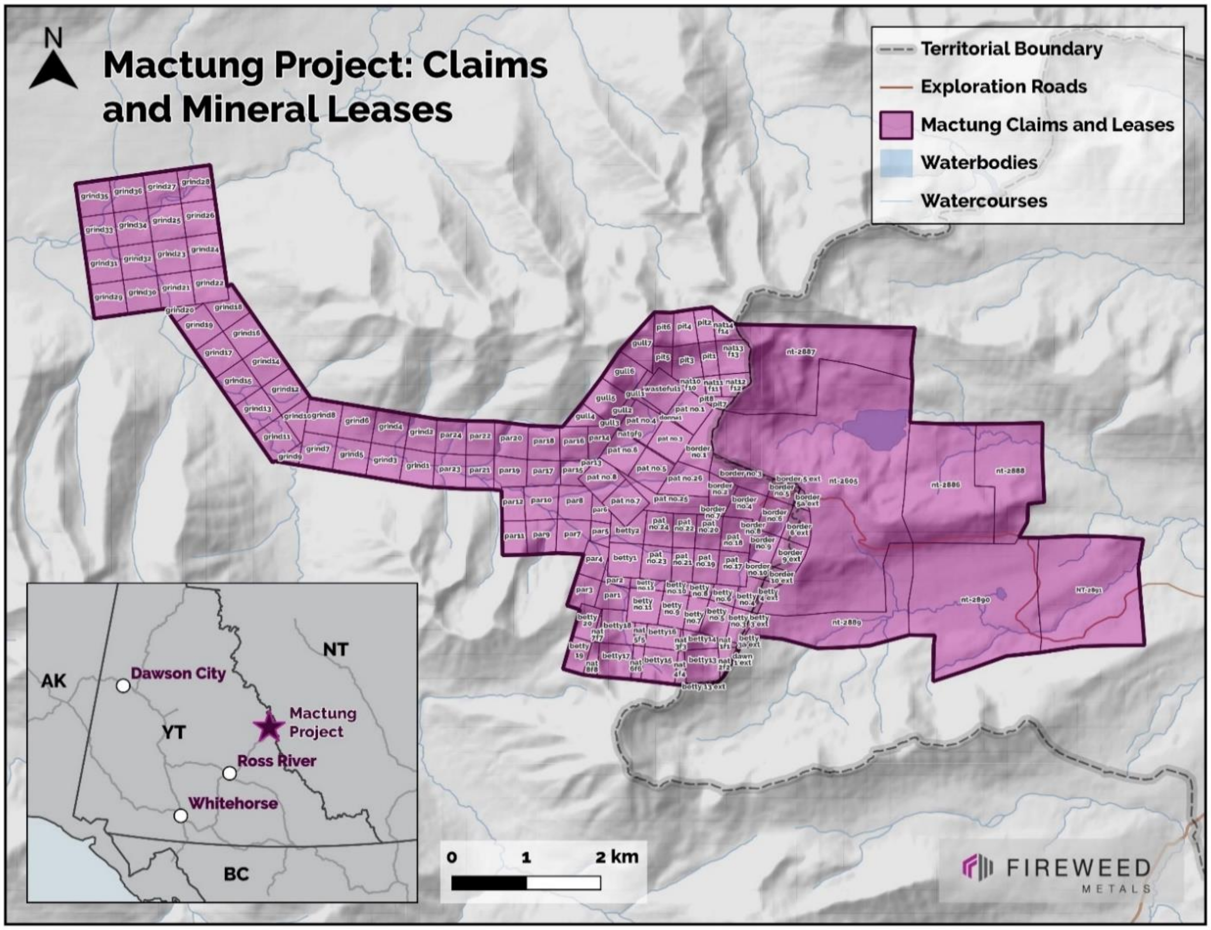
As of the effective date of this report, the Author is unaware of any other significant factors and risks that may affect access, title, or the right or ability to perform work on the Mactung property.

Figure 4-1: Property Location Map



Source: Kirkham (2023)

Figure 4-2: Claim Map



Source: Kirkham (2023)

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Access

The Mactung property can be accessed from Ross River via the North Canol Road (distance approximately 200 km) and a public access road (approximately 11 km). The North Canol Road, a public highway, is accessible between spring and fall while the Pelly River ferry at Ross River is in operation.

Mactung is also accessible via a Yukon Government maintained aerodrome located within Fireweed's Macpass Project area. Another airstrip is also located in the NWT approximately 14 km from the territorial border at Tsichu River (also referred to as Mile 222 of the North Canol Road).

Access from MacMillan Pass is facilitated via helicopter, which is the base of logistics support. In addition, the two properties are connected by an un-maintained, seasonal small vehicle/ATV trail.

5.2 Climate

The area has a continental climate modified by the mountain setting. The mean summer air temperature is typically between 5°C and 10°C, with daily maximums around 15°C and minimums around 5°C. The maximum air temperature recorded at the station over the study period was 20.0°C. Mean winter temperatures have more day-to-day variation, but are typically between -10°C and -20°C. The minimum air temperature recorded at the site over the period of record was -36.6°C. During the winter season, air temperatures rarely rise above freezing. The average annual precipitation is 672 mm. Midwinter snowpack varies from thin discontinuous on windswept sites to greater than 2 m in drifted areas. Winds at the site are observed to come predominantly from the W/SW and from the NE/NNE.

5.3 Local Resources

Labour and business suppliers and services are available from the local Yukon communities of Ross River, Faro, Mayo, and Watson Lake, as well as Whitehorse. As with its Macpass Project, Fireweed intends to hire and train local employees and retain qualified local business whenever possible to support site activities in future years.

The city of Whitehorse, 600 km via road from the Project, is the major center of supplies and communications in the Yukon and is a source of skilled labor for exploration diamond drilling, construction and mining operations. There is daily jet airplane service from Whitehorse to Vancouver, British Columbia and other points south. The closest population centres to the Project via road (Figure 4-1) from which local supplies may be obtained are:

- Ross River (population 350; 200 km);
- Faro (population 400; 275 km);

- Carmacks (population 500; 435 km); and
- Watson Lake (population 1,200; 570 km).

5.4 Infrastructure

Underground infrastructure at Mactung includes an adit and underground workings that were driven into the Mount Allan Lower Zone (2B) mineral horizon in 1973. This infrastructure is located on the Yukon side of the border at an elevation of 1,900 m.

Surface infrastructure includes a relatively small waste rock dump located near the adit entrance, a core shack, unprotected core racks, two Atco trailers, several wooden tent pads and old sheds, and a derelict grizzly rock sorting screen. All surface infrastructure is in poor condition. There are no services available at the Project site. Electricity must be generated locally by diesel or liquid natural gas generators.

With the proximity to the Macpass Project there are opportunities for synergies and support due to common ownership. A 49-person trailer camp exists at Macpass Project including a septic system, offices, core logging facilities, helipad and various pieces of heavy equipment and ATVs.

5.5 Physiography

The Mactung region is above the tree line and classified as arctic/alpine tundra. The topography is rugged and landforms include small glacier remnants, rock glaciers, glaciated surfaces, moraines and fluvio-glacial deposits. Rock talus slopes are common especially on Mount Allan. The valleys on the Yukon side of the border are relatively narrow and steep sided, while those on the NWT side are broader with more gradual slopes. The elevation of the valley floor on the Yukon side is about 1,400 m, while the peak of Mount Allan is at 2,200 m.

5.6 Indigenous Group Engagement

The Mactung property is located within the Traditional Territories of the Kaska Dena Nation and First Nation of Na-Cho Nyäk Dun, and the Sahtú Settlement Area. Fireweed engages regularly with the Ross River Dena Council, the closest Kaska Nation band to the Macmillan Pass area, and during future mine development planning processes, is committed to collaboratively working with Indigenous groups and local communities to achieve a high standard of environmental stewardship, and to undertake studies and implement measures to address local interests and issues.

6 History

The Mactung deposit was discovered in 1962 by James Allan, an AMAX geologist, probably as a result of follow-up prospecting to a regional stream sediment survey carried out as part of the Ogilvy Reconnaissance Project (Allan, 1963). The deposit was originally known as MacMillan Pass Tungsten and then as MacMillan Tungsten before it became known as Mactung. A chronological summary of the property is presented in Table 6-1.

Table 6-1: Mactung Deposit History of Exploration and Development

Year	Works	Company
1962	During work on the Selwyn Project, James Allan, a geologist working for AMAX, discovered and staked the Mactung deposit.	AMAX
1963	Geological mapping and surface sampling	AMAX
1964	Geological mapping and surface sampling	AMAX
1967	Geological mapping and surface sampling	AMAX
1968	1,513 m in five surface diamond drill holes	Cameron McCutcheon Diamond Drilling
1969	Canol road reopened from Ross River to MacMillan Pass	AMAX
1970	Construction of 11 km access road to property	AMAX
1971	2,313 m surface diamond drilling in 21 holes	Canadian Mine Services
1972	6,956 m surface diamond drilling in 48 drill holes	Canadian Mine Services
1973	Excavated 9 m adit	Cameron McMynn Ltd.
	747 m lateral development underground and 27 m of raising	Cameron McMynn Ltd.
	Development rounds sampled	AMAX
	300 ton bulk sample sent to Colorado	
	1,653 m underground diamond drilling in 48 drill holes	Canadian Mine Services
	Reserve estimate performed	Amax Northwest Mining Co. Ltd.
1979	1,113 m surface diamond drilling in seven holes.	
	668 m underground diamond drilling in eight holes	Canadian Mine Service
1980	2,305 m surface diamond drilling in 10 holes.	Amity Diamond Drilling
1981	Capital costs, scheduling, project design	Wright Engineers Ltd.
1982	Geological mapping and relogging of diamond drill core	Amax Northwest Mining Co. Ltd.
	Surface bulk samples Units 3D, 3E and 3F	
	Ore Reserve Study for the Mactung Project	Strathcona Mineral Services
	Initial Environmental Evaluation	Amax Northwest Mining Co. Ltd.
1983	Relogging diamond drill core	Amax Northwest Mining Co. Ltd..
	Adit reopened and two bulk samples totaling 720 t taken	Redpath Ltd.
1984	Relogging diamond drill core	Amax Northwest Mining Co. Ltd.

Year	Works	Company
	Mactung Project Scope Book, volumes 1, 2, and 3	Amax Northwest Mining Co. Ltd.
1985	Canada Tungsten Mining Co. Ltd. purchased the Mactung deposit from AMAX	Cantung
1993	Canada Tungsten Inc. becomes the owner of the property through company mergers	Cantung
1994	Aur Resources purchases the property	Aur
1997	North American Tungsten Co. Ltd. purchased the Mactung deposit from Aur Resources	NATC
2005	6,639 m surface diamond drilling in 25 holes	DJ Diamond Drilling for NATCL
	Environmental studies resumed	EBA Engineering
2006	Ongoing environmental studies	EBA Engineering
2007	NI 43-101 resource estimate	Scott Wilson RPA
	Scoping study started	Strathcona Mineral Services
2008	2,645 m surface diamond drilling in 20 holes	DJ Diamond Drilling for NATCL
2009	Internal technical report and resource estimate	Lacroix & Associates
	Feasibility Study published	Wardrop (2009)
	9,294 m surface diamond drilling in 61 holes	DJ Diamond Drilling for NATCL
2015	North American Tungsten applied for and was granted creditor protection and the Mactung project was put under the control of a creditor monitor.	NATC
	The Government of the Northwest Territories purchases Mactung for $4,500,000	GNWT
2023	Fireweed purchased the Mactung project from the Government of the NWT for $5,000,000 plus additional payments totalling $10,000,000 due upon certain production decisions (see Section 4.3).	Fireweed

6.1 1962 – 1972

The Mactung deposit was discovered in 1962 as stated above.

During the years 1963 to 1967, AMAX completed geological mapping, rock geochemical sampling, magnetometer surveying, and grid geochemical soil sampling on the property. The five surface diamond drill holes completed in 1968 (1,513 m) were followed by 11 km of access road construction from the Canol Road to the property in 1970, and an additional twenty-one surface diamond drill holes (2,313 m) in 1971 and 48 holes (6,956 m) in 1972. In 1973, an adit was collared at the 1,890 m elevation and 726 m of lateral development and 27 m of raising were completed in the Lower Zone. A 295-tonne bulk sample was excavated and shipped to an AMAX facility in Colorado for metallurgical testing. Every second round taken in the adit was crushed and then sampled using a Jones Riffle. A total of 43 underground holes (1,653 m) were drilled from the adit to better define the mineralization in the Lower Zone, stratigraphically known as the "2B" horizon. Further surface diamond drilling was done in 1979 (Table 6-1), and another 49 m of underground development was done in 1979, with nine 45-gallon barrels of mineralized skarn blasted for metallurgical test purposes. The last surface drilling conducted by AMAX was in 1980. Ongoing environmental and feasibility studies, including an examination of local flora and fauna, archaeology, geomorphology, air quality, water quality and soil studies that commenced in the early 1970s, continued until 1985, when falling tungsten prices caused work on the project to stop.

6.2 1973 – 1980

In 1973, an adit was collared at the 1,890 m elevation and 726 m of lateral development and 27 m of raising were completed in the Lower Zone. A 295-t bulk sample was excavated and shipped to an AMAX facility in Colorado for metallurgical testing. Every second round taken in the adit was crushed and then sampled using a Jones Riffle (Splitter). A total of 43 underground holes (1,653 m) were drilled from the adit to better define the mineralization in the Lower Zone, stratigraphically known as the “2B” horizon. Further surface diamond drilling was done in 1979 (Table 6-1), and another 49 m of underground development was done in 1979, with nine 45-gallon barrels of mineralized skarn blasted for metallurgical test purposes. The last surface drilling conducted by AMAX was in 1980.

6.3 1981 – 1985

Ongoing environmental and feasibility studies, including an examination of local flora and fauna, archaeology, geomorphology, air quality, water quality, and soil studies that commenced in the early 1970s continued until 1985 when falling tungsten prices caused work on the Project to stop.

Nearly all the diamond drill core was relogged during the period 1982 to 1985. This work was undertaken by D. Atkinson (1982, 1983); D. Baker (1982); J. MacMillan (1984, 1985); J. Mustard (1985) and L. Erdman (1985). As most drill holes have been logged on several different occasions at differing levels of detail, it will be a challenge to summarize the information to produce a single diamond drill hole record for each drill hole. The drill core that remains, which is no longer a complete record of the drilling because it has been extensively sampled and resampled, is stored at the Cantung Mine.

6.4 1986 – 1996

AMAX sold the Mactung property to Canada Tungsten Mining Corporation (CTMC) in 1986 as part of a larger sale that also included the Cantung mine. CTMC merged with Canamax Resources and Minerex Resources in 1993, to become Canada Tungsten Inc. In August 1994, Aur purchased a 48% interest in Canada Tungsten Inc. and subsequently, in January 1997, the two companies merged.

6.5 1997 – 2014

In October 1997, the property, along with the Cantung Mine and other Aur assets, was sold to NATC.

In 2005, NATC drilled 25 surface diamond drill holes (6,639 m) to better define the west end of the deposit and to upgrade the resource classification of some mineral resource blocks from the “Inferred” to “Indicated” category. Also, one old drill hole was “twinned”. The adit was rehabilitated and a bulk sample of 79 tonnes (t) in size taken for metallurgical test purposes.

During 2005 and 2006, EBA restarted environmental studies partly to confirm previous work done by AMAX, and partly to prepare for environmental and mining permit applications.

NATC filed with SEDAR the "*Technical Report on the Mactung Tungsten Deposit, MacMillan Pass, Yukon*" as prepared by Scott Wilson RPA on April 18, 2007.

In 2007 and 2008, in preparation for an updated scoping study and FS, 17 infill and three condemnation diamond holes were completed for delineation and classification purposes. Other drilling was targeted toward acquisition of geotechnical and hydrological data.

An internal mineral resource estimate and supporting report authored by Lacroix et al, was completed in February 2009 delineating resources split at the Yukon/NWT border and including copper with WO_3%.

The amended FS was completed and published on April 3, 2009 (Wardrop, 2009).

In the summer of 2009, an additional 61 surface holes producing 9,294 m were drilled to the west and southwest to further delineate the deposit.

6.6 2015 – 2023

In June 2015, NATC filed for and was granted creditor protection mainly related to operation of their Cantung Mine located to the south. The GNWT purchased the Mactung Project for $4,500,000 in the fall of 2015.

In February 2023, Fireweed signed and subsequently closed a definitive Asset Purchase Agreement to acquire 100% interest in the Mactung Project from the GNWT, the terms of which are detailed in Section 4.

6.7 Exploration

Between 1962, when the Mactung deposit was discovered and staked, and 1985, a total of about $26,000,000 was spent by AMAX on exploration and development, and a further $14,000,000 was spent by NATCL from 2005 to the end of 2009. Annual expenditures by NATCL are summarized in Table 6-2.

Table 6-2: Exploration and Development Expenditures

Year	$1,000s
2005	1,574
2006	799
2007	1,412
2008	5,940
2009	4,261*
Total NATC	**13,986**

Source: Wardrop (2009) *total NATC Mactung spending in 2009 disclosed in year-end Financial Statements filed on SEDAR January 28, 2010; exact exploration and development costs not specified

Geological mapping, geochemical sampling, and magnetometer surveys were carried out in 1963, 1964, and 1967. The deposit gave rise to patchy magnetic readings. Surface diamond drill programs followed in

1968, 1971 and 1972, and an adit into the Lower Zone (2B) and an underground drill programme (43 drill holes totalling 1,653 m) were completed in 1973.

During the years 1974 to 1978, AMAX changed their emphasis away from geology to environmental, metallurgical, and engineering studies. In 1979, the adit was reopened and more bulk samples of the mineralization taken for metallurgical testing. Another eight holes (668 m) were drilled from the underground workings, and another seven holes (1,113 m) on surface. The year 1980 saw another ten surface holes completed (2,305 m). From 1982 to 1985, drill core was relogged, and extensive environmental and engineering studies completed, culminating in the Initial Environmental Evaluation in 1983 (International Environmental Consultants, 1983) and the Mactung Project Scope Book (1984).

The property was dormant from 1985 until 2005, when DJ Drilling of Watson Lake, under contract to NATC, carried out a 25-hole (6,639 m) surface diamond drilling program on the west and deeper end of the deposit. At the same time, the adit was reopened and a metallurgical test bulk sample of approximately 79 t blasted by Mainstreet Mining of Whitehorse. This sample is being held for possible future testing. Environmental and permitting studies were started the same year by EBA Engineering. An additional 17 delineation and three condemnation diamond holes were drilled in 2008, and another 61 holes in 2009. Other drilling included 50 short geotechnical holes completed in 2007 and 2008, 10 deeper diamond holes (eight geotechnical, two hydrological) completed in 2008, and two hydrological diamond holes in 2009.

6.8 Historical Mineral Resource Estimates

The historic mineral resource estimates referred to in Table 6-3 predate current NI 43-101 regulations and do not comply with current requirements as set out in CIM Definition Standards on Mineral Resources and Mineral Reserves. The terms “resources”, “measured”, “indicated”, and “inferred” used in the original documents should not be construed to infer compliance with present CIM classifications and current NI 43-101 regulations.

Table 6-3: Historical Mineral Resource Estimates

Measured & Indicated		Inferred		Total		Comments
Tons	%WO_3	Tons	%WO_3	Tons	%WO_3	
31,917,000	0.96	12,600,000	0.94			P. Cain, F. Harris, W. Lodder, Amax Exploration 1973
31,917,000	0.96	31,000,000	0.92			R. Steininger, Climax Mine Evaluation Group, 1976
36,091,000	0.95	27,181,000	0.95			R. Steininger, Climax Mine Evaluation Group, 1979
9,369,800	1.17	22,400,300	0.93			R. Steininger, Climax Mine Evaluation Group, 1980
16,159,000	1.01	13,785,000	0.84			Strathcona Mineral Services, 1982
-	-	-	-	22,055,700	0.8	A. Noble, 1982
-	-	-	-	31,991,700	0.92	Atkinson & McNeil 1983
-	-	-	-	31,991,700	0.92	Amax Scoping Report 1984 “Geologic”

Measured & Indicated		Inferred		Total		Comments
Tons	$\%WO_3$	Tons	$\%WO_3$	Tons	$\%WO_3$	
-	-	-	-	25,351,700	0.88	Amax Scoping Report 1984 “Mineable”
33,029,000	0.88	11,857,000	0.78			Roscoe Postle Associates Inc. 2001, “Mineable”
32,153,000	0.88	13,074,000	0.79			Lacroix et al 2009
33,029,000	0.88	11,857,000	0.78			Wardrop 2009

The historical Resource Estimates, which, except for the Roscoe Postle Associates Inc. (RPA) estimate, are summarized by Atkinson and McNeil (1983), were made from 1973 to 2001 using a cut-off grade of 0.4% WO_3 and minimum mining widths from 3.0 m to 4.5 m (10 ft. to 15 ft.). The Mineral Resource estimated by Strathcona (1982) forms the basis for the potentially mineable reserves reported in the Mactung Project Scope Book (1984).

In its 2001 detailed review, RPA used the Strathcona resource classifications to estimate the amount of proven and probable reserves and noted that, since the Mactung deposit had not yet been demonstrated to be economic, the potential reserves should be classified as Measured and Indicated Resources. These resources, along with some prior estimates, are listed in Table 6-3 above. The Strathcona report also included an additional Inferred Resource of 13.8 Mtt grading 0.94% WO_3 which is not compliant with the CIM classifications.

A “Qualified Person” as per NI 43-101 has not done sufficient work to classify the historical estimate as current Mineral Resources or Mineral Reserves and Fireweed is not treating the historical estimate as current Mineral Resources or Mineral Reserves. The current mineral resource which is the subject of this technical report, supersedes any historical resources. The historical resources should not relied upon however they are relevant for context and to demonstrate progression of the project through resource growth.

6.8.1 Bulk Samples

A 300-ton underground bulk sampling was sent to Colorado for metallurgical test purposes in 1973 (Amax Exploration, 1973). The average calculated grade of the 55 muck samples that were composited for this work was 1.66% WO_3, while the average grade for all the muck samples in the bulk sampling area was 1.46% WO_3. The averaged grade for a set of underground chip samples taken during the same summer was 1.62% WO_3. Grades are higher than the average grades for the Lower Skarn unit because the underground development passed through a higher-grade portion of it. Average calculated underground diamond drill hole grades were calculated by Strathcona to be highest closest to the walls of the adit at 1.73% WO_3 (Strathcona, 1982). The average grade of the 28 channel samples taken in the adit in 2005 was also 1.73% WO_3.

Metallurgical test bulk samples were taken from both surface and underground in 1979, and most recently a 79 t bulk sample was taken from underground in 2005. The grade and potential metallurgical recoveries of this last sample have not yet been determined.

6.9 Historical Advanced Engineering Studies

Part of the objective for the surface drilling carried out in the summer of 2005 was to upgrade that part of these "inferred reserves" lying at the west end of the deposit to indicated resources. The drill results from this work, as well as the 2008 program, are included in the updated mineral resource described in this report.

A NI43-101 Feasibility Study was published by NATC in 2009. Wardrop Engineering Inc. ("Wardrop") provided the principal engineering services for the project design and the capital and operating cost estimates. Geotechnical and environmental input was provided by EBA Engineering Consultants Ltd. ("EBA").

The Mactung Project was forecast to run at 2,000 tonnes per day (tpd) from an underground operation using conventional long hole plus cut and fill mining methods. The ore was envisioned to be processed into both a premium gravity concentrate (67% WO_3) and a flotation concentrate (55% WO_3).

The mine life was envisioned to be 11.2 years for the underground mine with the potential to expand by 17 years with an open pit, exploiting near surface, lower grade indicated and inferred mineral resources.

The capital expenditure estimate was comprised of a project capital cost of C$356,500,000 plus a contingency of C$45,600,000 in 2009 dollars.

Note that the results of this advanced study is for historical context only and should not be replied upon. In addition, they are based on prices, costs and parameters that are not current and therefore not realistically attainable. This information is relevant from the perspective that the Project demonstrated economic viability in the past. However, there is no guarantee that this will be the case in the future therefore a current advanced economic study such as a PEA should be considered which forms part of the recommendations for this Technical Report as shown in Section 26.

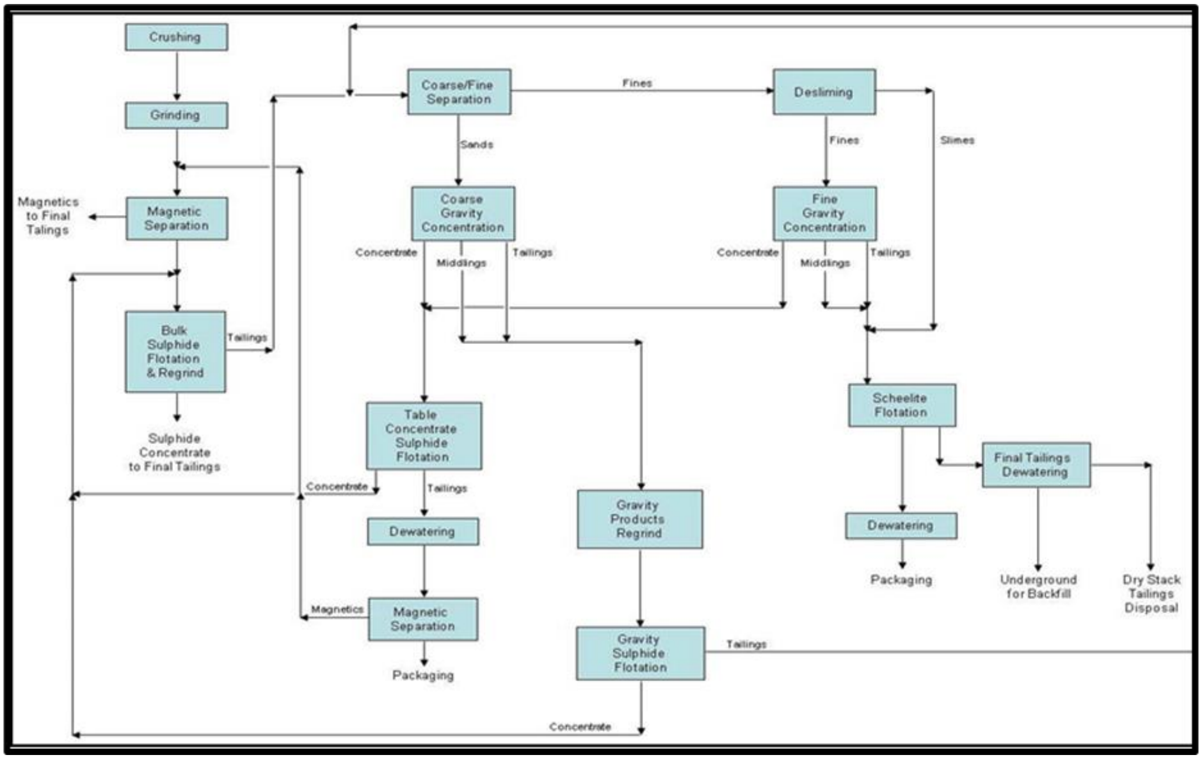
6.10 Mineral Processing and Metallurgical Testing

The Technical Report published in 2009 by Wardrop described the mineral processing methods and historic metallurgical testing conducted. The Mactung process plant was designed to treat scheelite ore that was proposed to be mined from underground at a rate of 730,000 tpa. The design was primarily based on metallurgical testwork conducted by Lakefield Research Limited of Canada (Lakefield) in 1985, together with processing experience from the existing Cantung Mine, NWT, although various testwork results from as early as 1974 were used to define the recovery process.

The treatment processes as designed involved comminution followed by the rejection of sulphide minerals and the concentration of scheelite. As shown in the simplified flowsheet (Figure 6-1), sulphide minerals were rejected via the wet and dry magnetic separation process and several sulphide flotation stages. High grade tungsten concentrates were produced through coarse and fine gravity separation methods, as well as a lower grade tungsten concentrate through the scheelite flotation process.

This work is historic and has not been validated and verified by a QP primarily because the Cantung mill, on which much of the assumption have been derived, is no longer available. In addition, evolutions in technology and methods warrant a first principles development of a metallurgical testing and analysis plan which forms part of the recommendations for this Technical Report as shown in Section 26.

Figure 6-1: Simplified Flowsheet



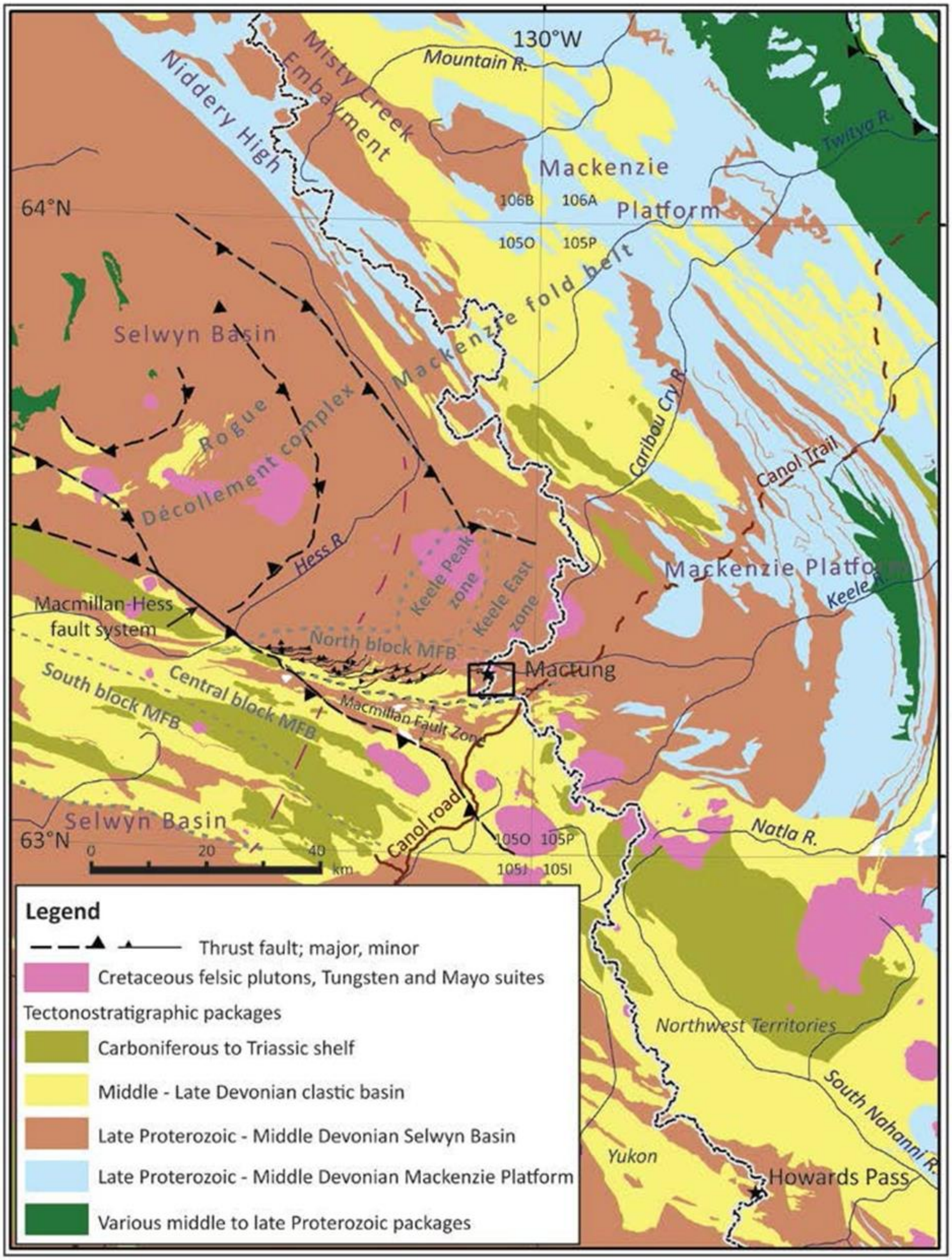
Source: Wardrop (2009)

7 Geological Setting and Mineralization

7.1 Regional Geology

The Mactung deposit is located in the eastern Selwyn Basin, a generally deep-water, off shelf basin that persisted from late Precambrian to Middle Devonian time off the western margin of the North American continent (Gordey and Anderson, 1993). The dominantly thin-bedded siliciclastic rocks (shale, chert, and basinal limestone) grade to the northeast into the thick-bedded carbonate sediments of the Mackenzie Platform. Local stratigraphy of importance includes the Late Cambrian Sekwi Formation (limestone, silty limestone, limestone breccia, interbedded brown siltstone/hornfels) and Rabbitkettle Formation (basinal silty limestone) and the Ordovician to Lower Devonian Road River Group which includes the Duo Lake Formation (black graptolitic shale, laminated chert, and minor limestone) and the overlying Steel Formation (pyritic, locally wispy laminated, siliceous, locally dolomitic mudstone to siltstone). Facies-changes between deep-water clastic rocks (shale basin) and shallow water carbonate rocks (platform) are transitional.

Figure 7-1: Regional Geological Map



Source: Fischer et al. (2018), after Cecile (1982)

The divergent setting transitioned during the Devonian to a convergent setting, resulting in the subduction of the Panthalassa Ocean basin. An influx of marine, turbiditic, chert-rich clastic rocks (Earn Group) spread to the south and east from an uplifted source in northern Yukon and to the east from uplifted western portions of Selwyn Basin. These clastic rocks, locally accompanied by mafic and less abundant felsic volcanism, blanketed all previous facies, covering Selwyn Basin sediments and onlapping onto the western Mackenzie platform. The Selwyn Basin, as a distinct topographic entity, no longer existed.

In Jurassic and Early Cretaceous time, the northwest margin of continental North America was deformed by northeast directed compression caused by plate convergence and the accretion of pericratonic terranes onto North America. The rocks of Selwyn Basin, relatively incompetent when compared to the carbonate rocks of the platforms, responded by thrust faulting and the development of open to tight similar folds. Structural trends generally parallel the arcuate Paleozoic shale-carbonate facies boundary.

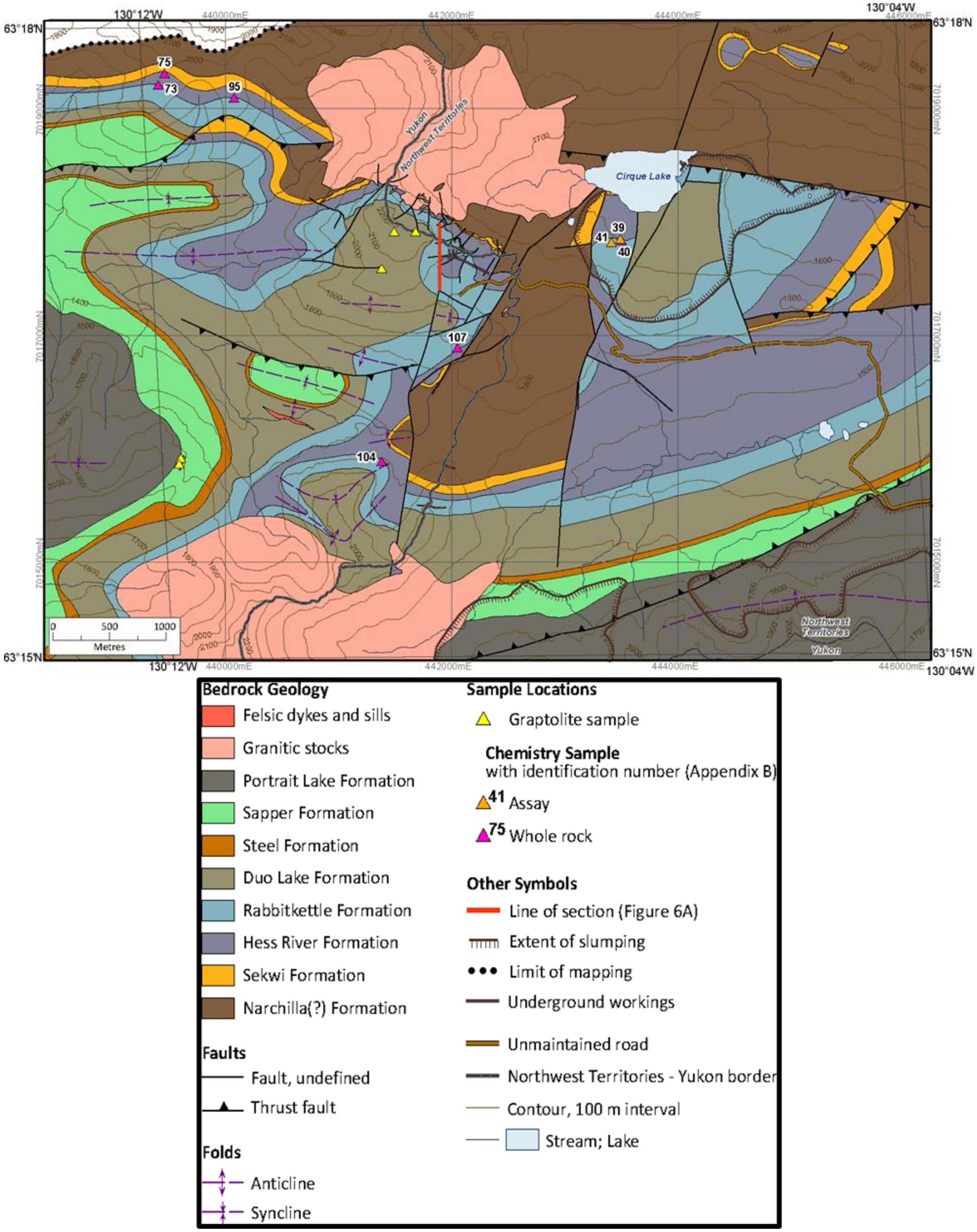
7.2 Local Geology

The rocks in the Mactung area are part of the west-trending Macmillan Fold Belt, which is discordant to the regional northwest structural grain. This fold belt is interpreted to reflect a deep-seated Devonian fault zone that localized facies changes within the Earn Group and responded differently to Mesozoic deformation. Folding is tight and a narrow imbricate fault zone of southerly directed east-west trending thrust faults repeats Lower Cambrian to Devonian stratigraphy. South of the imbricate belt, open to closed folds and steep faults are the dominant structures.

Stratigraphy in the general area of Mactung trends generally E-W and dips from 10° to 40° to the south. The axes of large folds also trend E-W and may have a shallow westerly plunge. Several ages of high angle normal faulting, of various orientations, are known in the area. Strong slaty to fracture cleavage is locally developed. In the Palaeozoic rocks, the grade of regional metamorphism is very low – sub-greenschist facies. The area has been glaciated, being located close to the ice-divide of the Cordilleran ice-sheet in the last major glaciation.

Mactung is the most northerly of a group of W-Cu-Au-(Zn) skarn deposits that occur in a 200 km long northwesterly trending belt, which roughly follows the NWT-Yukon boundary. The past producing Cantung mine is approximately 160 km to the southeast of Mactung. These deposits are localized within thermal aureoles, typically above the altered apical zones of a suite of Late Cretaceous quartz-monzonite stocks. At Mactung, the putatively related intrusive has been referred to variously as the Cirque Lake stock (Harris 1977) or the Mactung North pluton (Anderson 1982, 1983, Gebru 2017) as used in this report.

Figure 7-2: Local Geological Map



Source: Fischer et al. (2018)

7.3 Property Geology

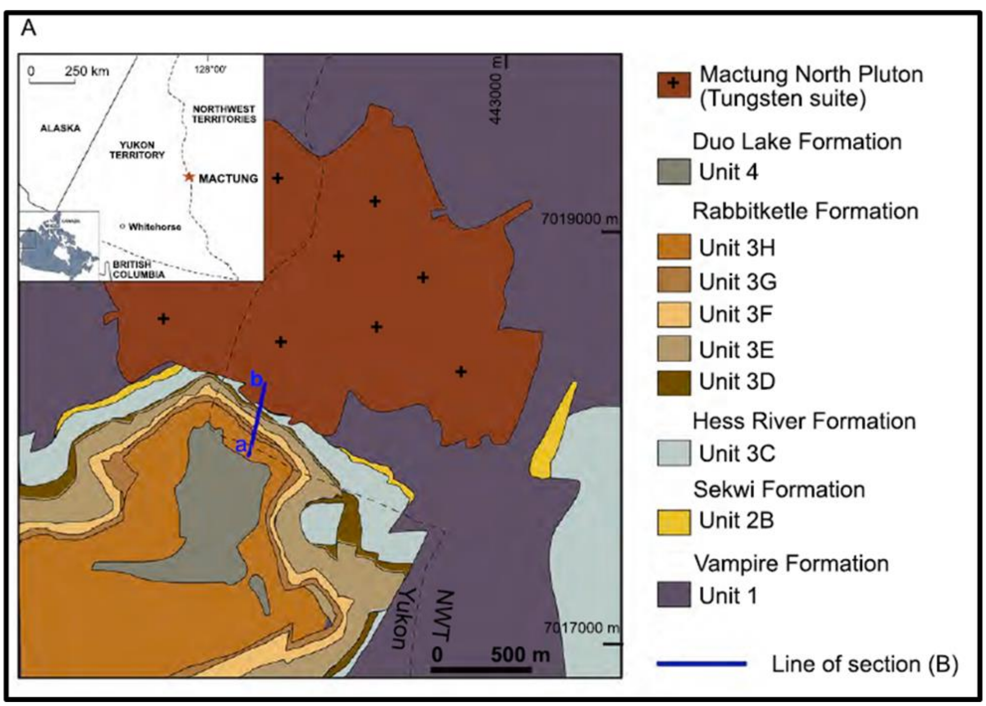
The property geology has been described by Dick and Hodgson (1982), Harris and Godfrey (1975), Atkinson and Baker (1986), Selby (2003), Gebru (2017), and Fischer et al. (2018).

The Mactung deposit occurs within a bedded sequence of altered limestones, shales and siltstones of Cambrian to Silurian age up to 230 m in thickness. Mactung consists of scheelite-bearing skarns developed near the contacts of two biotite quartz monzonite plutons, the Mactung North Pluton (Cirque Lake stock) and the Mactung South Pluton (Rockslide Mountain Stock). The main mineralized outcrop occurs in the NWT along a steep northerly sloping cliff on the north side of Mount Allan. The watershed at the top of the cliff marks the border between the Yukon and the NWT in this region. The main sedimentary sequence dips at low angles to the south.

7.3.1 Deposit Form

The deposit comprises Upper and Lower skarn zones, separated by 100 m of hornfelsed metapelite. Tungsten-copper-gold mineralization is hosted within calcic skarns - altered metasedimentary rocks derived from carbonate-rich protoliths of the early Cambrian Sekwi Formation in the Lower Zone, and the Rabbitkettle Formation in the Upper Zone. The Lower Zone is approximately 20 m to 35 m thick, and the Upper Zone is up to 150 m thick but includes some interbedded barren layers. The skarn mineralization is broadly stratiform and the majority of the mineralization is stratabound within Unit 2B (Lower Zone), and Units 3D, 3E, and 3F (Upper Zone), with comparatively minor amounts of mineralization within Units 3C, 3G and 3H (units described below). The deposit is over 1,000 m in strike length and extends over 800 m down-dip.

Figure 7-3: Geologic Map and Detailed Cross Section Location



Source: Fischer et al. (2018)

7.3.2 Stratigraphy

A stratigraphic sequence has been established on the property, with 11 mappable units distinguished and designated from oldest to youngest alpha-numerically 1, 2B, 2, 3C, 3D, 3E, 3F, 3EF, 3G, 3H, and 4 (Figure 7-1 and Figure 7-2). The following descriptions are modified from Atkinson and Baker (1986) and Fischer et al. (2018).

Unit 1, the lowermost unit exposed on the property, is a heterogeneous brown to grey, thinly to moderately bedded clastic unit composed of interbedded mudstone, shale, siltstone and greywacke. The unit is considered to be of Proterozoic to Cambrian age, correlated to the Vampire Formation by Abbott (2013) and tentatively to the Narchilla Formation by Fischer et al. (2018).

Units 2B and 2, hosted within the Sekwi Formation and containing the Lower Zone, is highly variable in thickness and composition. The unit is characterized by the presence of limestone slump breccias which appear to have formed as a series of coalescing debris fans at this stratigraphic level. In outcrops on the North Face of Mount Allen, 20 m of dominantly well-bedded, fine-grained limestones and clastics with interbedded slump breccias are interpreted to represent the upslope extension of 35 m of chaotic, medium to light grey limestone slump breccia exposed in underground workings. Down dip, these slump breccias abruptly thin and fragment size decreases as the slumps grade into a few centimetres of calcareous pelite as seen in southern drill holes. South of these drill intersections, additional slump breccias also crop out. Slumps are chiefly lime or locally mud hosted. Fragments include: limestone clasts, which may be fossiliferous containing Archaeocyathids, well-bedded or breccias; calcareous pisolites and ooids; phosphatic nodules; and various siliciclastic rocks including fragments of Unit 1. Clasts are generally elongate and range from a few millimetres up to 10 m in diameter. Slumps rest locally with erosional unconformity on Unit 1, although, in southern drill intersections, the calcareous pelites of Unit 2B appear to conformably overlie shales of Unit 1.

Unit 3C is part of the Hess River Formation and is in gradational contact with Unit 2B. It consists of 100 m of black, pyritic, carbonaceous, fine grained clastic rocks and rare thin limestone beds. Numerous elongate clasts of mudstone, shale, siltstone, and collophane occur as separate distinct clasts, as intraformational conglomerates, and as boudinaged beds presumably disrupted by soft sediment deformation. This unit separates the Lower and Upper Zones. Siliceous sponge spicules found in Unit 3C have been identified as Protospongia of broad Early to Middle Cambrian age. This unit has been metamorphosed to hornfels where it intervenes between the upper and lower skarn zones. The hornfels is a light to dark brown or black and represents metamorphosed shales and siltstones with various amounts of muscovite, biotite and graphite. Numerous thin veinlets of quartz or quartz carbonate containing pyrite, pyrrhotite, scheelite, and molybdenite cut the unit.

Unit 3D is the oldest member of the Rabbitkettle Formation and consists of 20 m of repetitively intercalated 2 cm to 1 m thick beds of calcic and phosphatic limestone slump breccias, mudstone, shale and siltstone that conformably overlie Unit 3C. Slump breccias contrast with Unit 2B in that the breccia beds are characteristically thin and contain smaller, compositionally less variable, well sorted and bedded fragments. Fragments include limestone clasts, black phosphatic nodules, and siliciclastic rocks. Metasomatized calcic limestones within Unit 3D form the basal unit of the Upper mineralized skarn zone.

Unit 3E is in gradational contact with Unit 3D, as slump breccias die out and the sequence becomes dominantly pelitic. The unit consists of 60 m of finely interbanded black to brown mudstones, shales, and siltstones, with limestone beds scattered throughout. The central portion of Unit 3E, with up to 20% limestone beds, hosts the middle part of the upper skarn zone.

Unit 3F is similar to Unit 3E, consisting of 30 m of intercalated compositionally distinct layers commonly less than 10 cm in thickness.

Unit 3EF comprises 50 m to 120 m of mudstone, siltstone, and contains up to 35% locally metamorphosed limestone beds which are host to the upper part of the Upper mineralized skarn zone.

Unit 3G is a 20 m thick cliff forming unit of light-coloured talc-tremolite dolomite with thin shale interbeds, conformably caps the upper skarn zone and is the youngest of the Rabbitkettle Formation units.

Unit 3H consists of 90 m to 200 m of black, carbonaceous, pyritic, fissile shale which is characterized by strong limonite staining on surface exposures and is the lower member of the Duo Lake Formation, Road River Group.

Unit 4 consists of at least 50 m of black, carbonaceous, fossiliferous flagstones and shale. Abundant graptolite fossils include late Ordovician species (all the above from Atkinson and Baker 1979) and is the upper member of the Duo Lake Formation, Road River Group.

7.3.3 Intrusions

The following descriptions of the grantitic suites are modified from (Gebru et al., 2017):

The **Mactung North Pluton** comprises 15% to 20% porphyritic biotite granite with quartz, K-feldspar, Ca-plagioclase, biotite, muscovite, and tourmaline. The contact with the surrounding unit dips at a high angle to the northeast, and the wall rock within 1 km is metamorphosed to biotite hornfels. Quartz veins with molybdenite occur within the granite, while quartz veinlets similar to those found within unit 3C hornfels are present within the partially assimilated biotite hornfels xenoliths present in the southern contact zone. The veinlets within the xenoliths terminate at the xenolith edges and are considered early.

The **Mactung South Pluton** consists of four granitoids: a biotite granite mineralogically similar to the Mactung North pluton, a leucogranite which occurs as a smaller intrusion within the biotite granite, fine to medium grained felsic dykes, and porphyritic granite dykes. The leucogranite is coarse grained and locally porphyritic, consisting of feldspars, quartz, muscovite, tourmaline, garnet, apatite, epidote, and rare dark biotite. East west striking, steeply dipping, fine-to-medium grained felsic dykes are similar in composition to the leucogranite. The porphyritic dykes are similar in colour and texture to the biotite granite intrusions and are seen in drill core intercepts within the mineralized-zone - the composition of these dykes are lower in biotite and higher in plagioclase than the biotite granite intrusions.

The composition of the biotite granites is calc-alkaline, weakly peraluminous to moderately peraluminous, and may have been derived from partial melting of the older North American crust with arc type chemical signatures. Emplacement of the granitic stocks in the Mactung area occurred in a syn collisional plate tectonic setting, utilizing zones of localized extension. Magmatic fluids were further contaminated and reduced by the sedimentary units they passed through and were emplaced within.

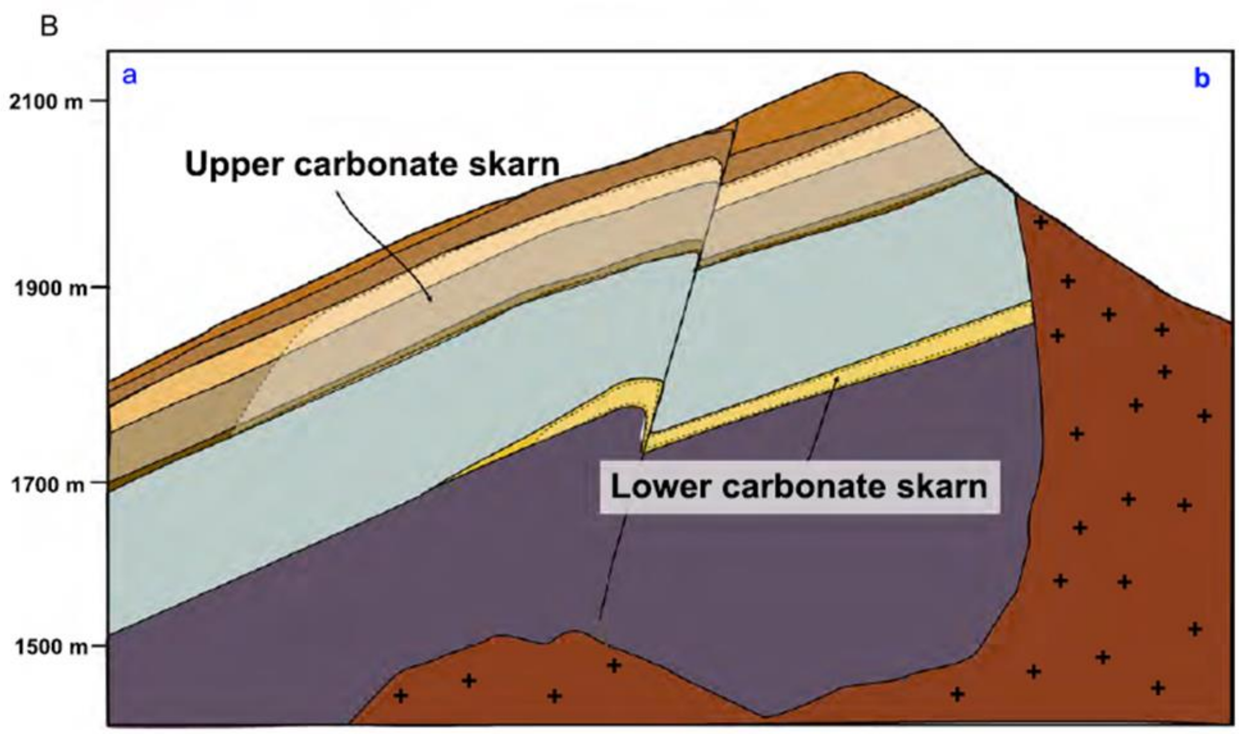
7.3.4 Structure

Both the Lower and Upper mineralized zones dip gently to the south; the Lower Zone has previously been suggested to be a "Z" fold (viewed down plunge to the west), which has raised the southern limb of the mineralized zone 60 m. It has also been suggested that the fold is potentially a fault, as there is significant fault material associated with it as well as evidence for plastic deformation in the thickening of the mineralized zone within the fold limbs and attenuation within the hinge, and this is the interpretation followed in the geological model that supports the current resource estimate described in this report. The Lower Zone unconformably overlies the phyllite unit which comprises a substantial thickness of folded schistose micaceous phyllite of Cambrian age. This rock forms the local base of the geological succession.

The entire sequence is overthrust to the north, producing a recumbent isoclinal fold with an axis that plunges at a shallow angle (about 16º) to the west in the west, and at a shallow angle to the east at the eastern end of the deposit. This gives the upper limb of the 2B layer a slightly domed geometry.

The deposit is cut and offset by numerous steeply dipping northerly trending faults. Some of the faults have displacements of up to 30 m or more, as interpreted by Strathcona (1982), and up to 45 m as recorded in the Mactung Project Scope Book (1984). The faults are generally characterized by up to 1 m of clay and sand gouge, with breccia zones of quartz, calcite, and ice-filled pore space.

Figure 7-4: Generalized N-S Cross Section (Looking West)



Source: Fischer et al. (2018)

7.4 Mineralization

Mineralization at the Mactung deposit was described in detail by Dick and Hodgson (1982) and the alteration facies by the Mactung Project Scope Book (1984). More recent studies include granitoid petrogenesis and mineral characterization by Gebru et al. (2017), mineral paragenesis and geochemical controls by Elongo et al. (2020, 2022), as well as geological mapping by Fischer et al. (2018-01 and 2018-02).

Tungsten mineralization at Mactung occurs predominantly as scheelite ($CaWO_4$), hosted within skarn layers - limestone units that have been altered and metamorphosed by heat and fluids emanating from a granitoid intrusion. Tungsten-copper-gold deposits within the Tombstone-Tungsten Belt (TTB), including Mactung, are associated with reduced ore forming fluids that originated from Cretaceous granite stocks. Reduced skarns tend to form large tungsten deposits such as Mactung, Cantung, and Lened, the primary tungsten deposits within the TTB, and reduced skarns have the potential to host copper-gold mineralization in addition to tungsten.

Mineralization comprises a prograde skarn formation stage consisting of garnet-pyroxene skarn facies, followed by pyroxene skarn facies; both facies are overprinted by retrograde hydrous alteration consisting of an amphibole rich facies followed by a biotite rich facies. A late sulphide stage overprints all previous facies and is followed quartz sulphide veining. Scheelite is the primary tungsten mineral and is paragenetically associated with all stages of skarnification but is most concentrated where it is found predominantly with pyrrhotite in the pyroxene-pyrrhotite facies (Elongo, 2022). In this facies, the scheelite content increases and grain size decreases with pyrrhotite content. Minor scheelite also occurs in the garnet facies and is coarser grained than that of the pyrrhotite facies. The correlation between scheelite and pyrrhotite is considered to be spatial, rather than coeval, relating primarily to the fluid permeability of the host rock (Elongo, 2022).

Scheelite is the tungsten mineral of economic interest at Mactung as it is host to the vast majority of tungsten mineralization, with wolframite ($(Fe,Mn)WO_4$) reported in minor amounts within biotite skarn. Copper occurs within chalcopyrite at Mactung, and is found in greatest abundance in the lower skarn layer (Unit 2B). Gold has been observed hosted within native bismuth and the mode of gold occurrence has not been characterized in detail. Disseminated pyrite occurs in some of the phyllite layers of the lower unit, with galena and sphalerite present in quartz veinlets.

The upper skarn zone is composed of interbedded shale and white limestone that is often phosphatic due to the presence of fine-grained apatite that is particularly concentrated in Unit 3D. Disseminated scheelite occurs within the skarned rock, coarse grained in vein selvages, in fractures, along bedding planes, and around clasts within the pyrrhotite-pyroxene skarn. The limestone is generally recrystallized to white marble and varieties of skarn variably described as greenish, fine-grained diopside-hedenbergite, with local red-brown garnet with various amounts of pyrrhotite. Tremolitic amphibole and biotite-rich skarns are described as occurring in patches, derived from pyroxene skarn. The retrograde skarns are enriched in scheelite compared to the disseminated forms found elsewhere. An argillite, siltstone and hornfels unit of indeterminate thickness, containing interbedded limestone and marble, overlies the Upper skarn zone and crops out mainly to the west of the deposit.

The best grades have been found within quartz skarn and pyrrhotite-pyroxene skarn, commonly averaging above 5% WO_3 and 1.5% WO_3 with 0.2% Cu, respectively. Good grades of >1% WO_3 are found within the pyroxene skarn, while the garnet-pyroxene skarn averages <1% WO_3 and the garnet skarn contains only trace scheelite (Fischer et al., 2018).

These deposits display textural evidence that scheelite has a protracted crystallization history over all stages of skarn evolution. Given the spatial association and lack of coevolution, the distribution of sulphides and scheelite are proposed to be stratigraphically controlled by the preferential fluid pathways in the wallrock surrounding the intrusions (Elongo, 2022). These fluid pathways may have been created or enhanced due to doming created by the emplacement of this stock (Gebru et al., 2017). Gold is intimately related to bismuth and copper mineralization is intimately related to sulphur content, while both are associated with areas of increased pyrrhotite and chalcopyrite mineralization (Gebru et al., 2017).

Two interpretations of mineral paragenesis and causative plutons have been debated over the history of the deposit. The close spatial association with the tungsten deposit, the presence of abundant accessory garnet and quartz-tourmaline veins within the Mactung North (Cirque Lake) stock led initial workers to suggest that hydrothermal fluids originated from this stock. However, Atkinson and Baker (1979) stated that this interpretation was not compatible with critical geological observations, notably that no mineralization is developed in contact with the stock. They concluded that the Mactung deposit is only coincidentally located near the contact with the Mactung North stock and that the source of mineralizing fluids is probably a blind stock located immediately south of Mactung. Detailed petrogenetic work by Gebru has returned to the interpretation that the Mactung North pluton is the causative intrusion; and that the Mactung North Pluton extends under the deposit with the contact becoming shallowly dipping and may join with the Mactung South pluton at depth. This interpretation is based on the high values of tungsten within the biotite granite, as well as values of copper, gold, and bismuth sufficient to provide the concentrations found within the skarns. Additional evidence is provided by hornfelsing which decreases from the contact with stock, tungsten found within veins cutting the stock, the presence of scheelite within sulphidized granite dykes within the mineralized zone, and Re-Os molybdenite dates from the mineralized zone matching U-Pb zircon dates from the Mactung North stock (Gebru et al., 2017).

8 Deposit Types

Tungsten is a critical mineral and is utilized in a wide range of applications including industrial, chemical, scientific, and military due to its high temperature resistance and extreme durability. Tungsten occurs in over 20 different minerals; however, only scheelite ($CaWO_4$) and wolframite ($(Fe,Mn)WO_4$) are of economic interest. Scheelite and wolframite are found in several deposit types, including skarn, vein, breccia, porphyry, and disseminated or greisens; of these, skarns are the largest and most prolific source of tungsten (Du Bray et al., 1995). Production figures from 2022 place 84% of world tungsten supply from China (USGS, 2022), with 60% of known tungsten mineralization in China occurring in skarns (Ni et al., 2023). The classification of tungsten deposit is based on the dominant mineralization style, and several styles of mineralization may occur within a single deposit. For example, within a tungsten skarn there may also be scheelite hosted within quartz veins and greisen. Tungsten skarns are also commonly polymetallic, containing combinations of tin, molybdenum, copper, gold, lead, zinc, antimony, and bismuth as by-products, or co-products, but tungsten deposits are commonly exploited based on tungsten as the primary economic commodity.

Tungsten skarns are a member of the skarn family of deposits; skarns are hosted within carbonate rocks including limestone, dolomite, marble, and carbonate-bearing pelite, argillite, and shale that have experienced metamorphism and metasomatism due to their proximity with granitic intrusions. Skarn orebodies are stratigraphically controlled and can extend for hundreds of metres along bedding (Du Bray et al., 1995).

Skarn deposits exhibit temporal and spatial zoning reflective of the stage of skarn development. Early prograde mineral assemblages are overprinted and crosscut by retrograde mineral assemblages as well as later hydrothermal alteration and mineral suites that may take advantage of the same fluid pathways. In tungsten skarns, the prograde stage of metasomatism deposits fine grained scheelite near the marble front which is subsequently remobilized during the retrograde stage into coarser-grained higher-grade zones (Du Bray et al., 1995). An increase in the concentration and changes to the grainsize of scheelite may be coeval with sulphides; however, the presence of sulphide is not necessary for the development or an increased grade of scheelite (Elongo, 2022).

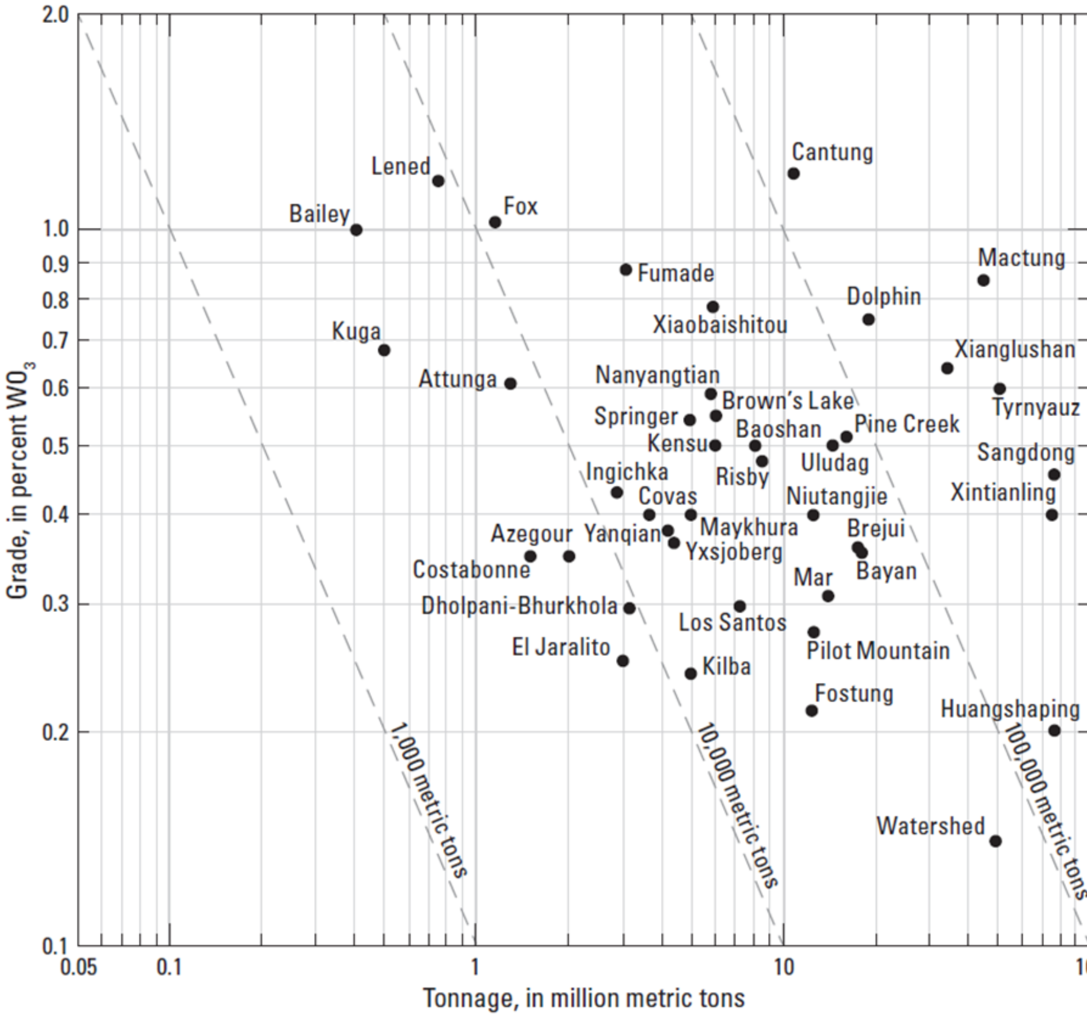
Tungsten skarns can be subdivided into two categories based on the redox state of the source intrusion(s) responsible for the metasomatic alteration of the deposit—reduced skarns and oxidized skarns. Metasomatism, fluid and metal input of skarns are intimately associated with granitic intrusions in close proximity to the calc-silicate host rocks, and granitic intrusions are highly fractionated igneous bodies and common sources of metal input in skarn, porphyry and intrusion related gold systems. Reduced skarns are associated with reduced S-type or ilmenite series magmas, and with I-type or magnetite series magmas of intermediate depth environments. Oxidized skarns are associated with oxidized I-type magmas of hypabyssal environments (Einaudi et al., 1982).

Mactung is a reduced tungsten skarn, and shares similarities with other large and significant members of this category such as Sangdong (South Korea), Cantung (Canada), Caojiaba (China), Vostok-2 (Russia), and Darongxi (China). As shown in Figure 8-1, reduced tungsten skarns form some of the largest and highest-grade tungsten deposits. Reduced tungsten skarns tend to have pyroxenes on the hedenbergite end member, while garnets vary in composition from almandine/spessarite/pyrope to grossular. Oxidized skarns conversely contain andradite garnets and diopside pyroxenes. Some deposits display both reduced and oxidized characteristics, such as Sangdong, South Korea (Kang et al., 2022), Xianglushan, China (Wu et al., 2019), and Dolphin, Australia (Kwak and Tan, 1981). Figure 8-2 shows ternary diagrams with compositional variation of garnet and pyroxene from the Caojiaba tungsten deposit compared with garnet and pyroxene from reduced tungsten skarn deposits at Mactung, Cantung, and Darongxi, and oxidized tungsten skarn deposits at Round Valley and Kara (Zhang et al., 2020).

Reduced intrusions are also responsible for prolific intrusion related gold belts such as the Tintina Gold Belt in Yukon territory and Alaska and provide significant gold input to some tungsten skarn systems such as Mactung and Vostok-2 (Soloviev and Krivoshchekov, 2011).

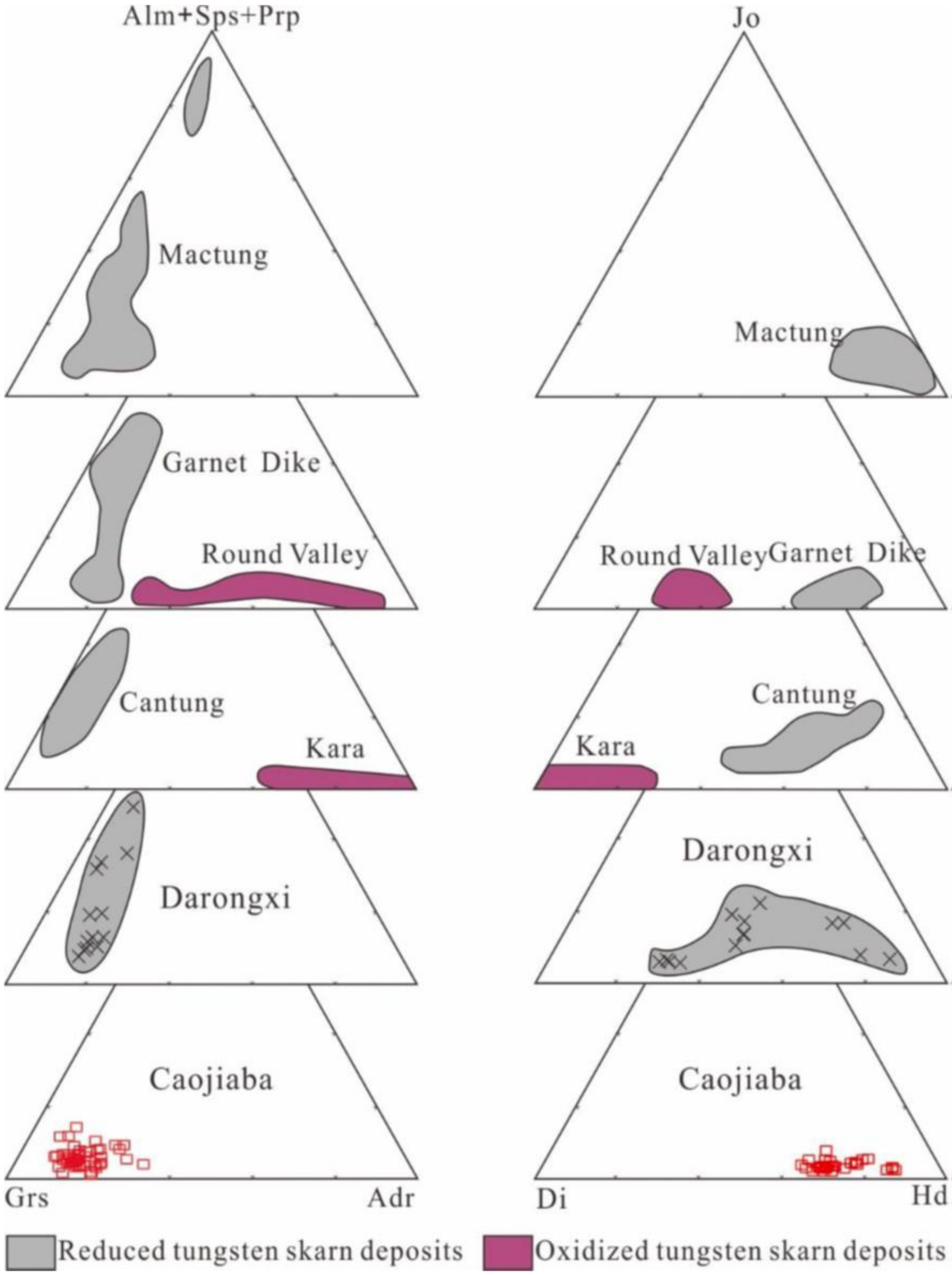
Both underground and open pit methods of mining are employed in the exploitation of skarn deposits, depending on the grade and form of the deposit. Scheelite concentrates can be produced using a combination of gravity, flotation, and magnetic separation techniques; some concentrators operate with a gravity circuit alone. In Russia and China, the Petrov process is also implemented to concentrate scheelite – an intermediate step within the flotation process involving heating and agitation in the presence of sodium silicate.

Figure 8-1: Grade and Tonnage of Representative Tungsten Skarns*



Source: USGS 2020 models (Green et al., 2020)

Figure 8-2: Ternary Diagrams of Garnet and Pyroxene Compositions within Tungsten a



(Abbreviations: Grs-grossularite; Adr-andradite; Alm-almandine; Sps-spessartite; Prp-pyrope; Hd-hedenbergite; Di-diopside; Jo-johannsenite).

Source: Zhang, Z., Xie, G., and Thompson, J. (2022)

9 Exploration

There is no current exploration data or results performed by the Issuer to report in this section for the purpose of this resource report. The historical exploration information listed in Section 6 did not inform the current mineral resource work.

10 Drilling

Between 1968 and 2009, 312 surface and underground drill holes with a combined total of 37,657 m were completed on the property. Fifty-one of these holes (2,326 m) were drilled underground from the exploration adit during the 1970s. Table 10-1 summarizes the drill programs completed to date.

Most of the drill holes that intersected the deposit were collared on the south facing slopes of Mount Allan and drilled at an angle of about 70° to the north, which is approximately perpendicular to the dip of the sedimentary bedding in most of the deposit. In the earlier drilling north-south drill hole section lines were spaced at intervals of 30 m (100 ft.), but this was increased to 60 m (200 ft.) in 2005 owing to the good continuity of mineralization along strike from east to west. Holes were generally placed from 40 m to 60 m apart up- and down-dip of the mineralized horizons. The closer spacing was indicated because there was more variability of both tungsten grade and of thickness of mineralization in this direction. The 2008 and 2009 exploration program roughly followed this broader spacing and was primarily for delineation purposes, with 81 diamond holes completed above, west and southwest of the deposit.

Other drill programs were designed to collected geotechnical and hydrological data. Four surface holes drilled in 1980 were for testing of the mill site and tailings impoundment areas. In 2007 and 2008, 50 short (Becker OB drill) geotechnical holes and eight deeper diamond drill holes were completed to assess potential infrastructure development sites and obtain hydrological monitoring data. This was followed by an additional two deeper diamond drill holes for water monitoring in 2009.

Original collar locations were recorded in a local AMAX mine grid and underground development survey. In 1981 and 1982, the Project site was resurveyed by Underhill Geomatics of Whitehorse to convert the local mine grid, which exists in both imperial and metric forms, to the UTM NAD27 grid. This work was updated in 2005 and 2008 by Underhill to convert the NAD 27 collars to the NAD 83 datum that is currently in use and survey all of the 2005 and 2008 drill using a differential GPS system.

10.1 1968 – 1983

The original drilling by AMAX from 1968 to 1980 was done on an imperial grid that had north-south drill section lines at 30 m (100 ft) intervals, with holes generally spaced along the lines at 30 m to 60 m intervals. Drill core sample lengths were routinely 1.5 m (5 ft) but varied from 0.3 m to 3.05 m with very minor exceptions.

10.2 2005 - 2009

The NQ size core was logged for geology while core recovery and RQD were measured. Recoveries were excellent being predominantly at or near, 100%.

The core was also examined with a short wavelength ultraviolet lamp, which causes any scheelite on the surface of the drill core to fluoresce a bright bluish white. This technology has been employed at Cantung and other scheelite deposits as it is not only excellent at detecting the presence of scheelite but also useful in allowing for visual approximations of the scheelite concentrations. Although the estimates are not precise, they do provide a relative estimate of the grade that could be used as a check against the final assay results. Because of the good continuity of the mineralization along strike from east to west, holes were drilled on north-south section lines that were approximately 60 m apart on a grid. This was done by extending the AMAX grid to the west. Holes were placed at approximately 40 m to 60 m intervals up and down the dip of the mineralized horizons, because there was more variability of both tungsten grade and thickness of mineralization in this direction, justifying a tighter interval. Hole dips and bearings were measured with a "Flexit" down hole magnetic survey instrument, but only the dip was used, due to the effects of localized pyrrhotite, some of which is magnetic, which could not be predicted. Some down-hole survey acid tests were also performed.

Surface diamond drill hole MS 156 was collared beside drill hole MT72071 and in the same direction and at the same dip therefore being a "twin" relatively. The width and grade encountered in the "2B" horizon by these two holes were very similar with hole MS156 intersecting 35.3 m grading 1.55% WO_3 in comparison to 32.0 m grading 1.66% WO_3 in hole MT72071.

The 2008 and 2009 drilling followed holes were subsequently drilled approximately 30 m to 50 m apart along north-south sections lines that are spaced approximately 60 m apart. The 2008 drilling was focused on delineating the central and upper parts of the deposit, while 2009 focussed on extending to the south and southwest.

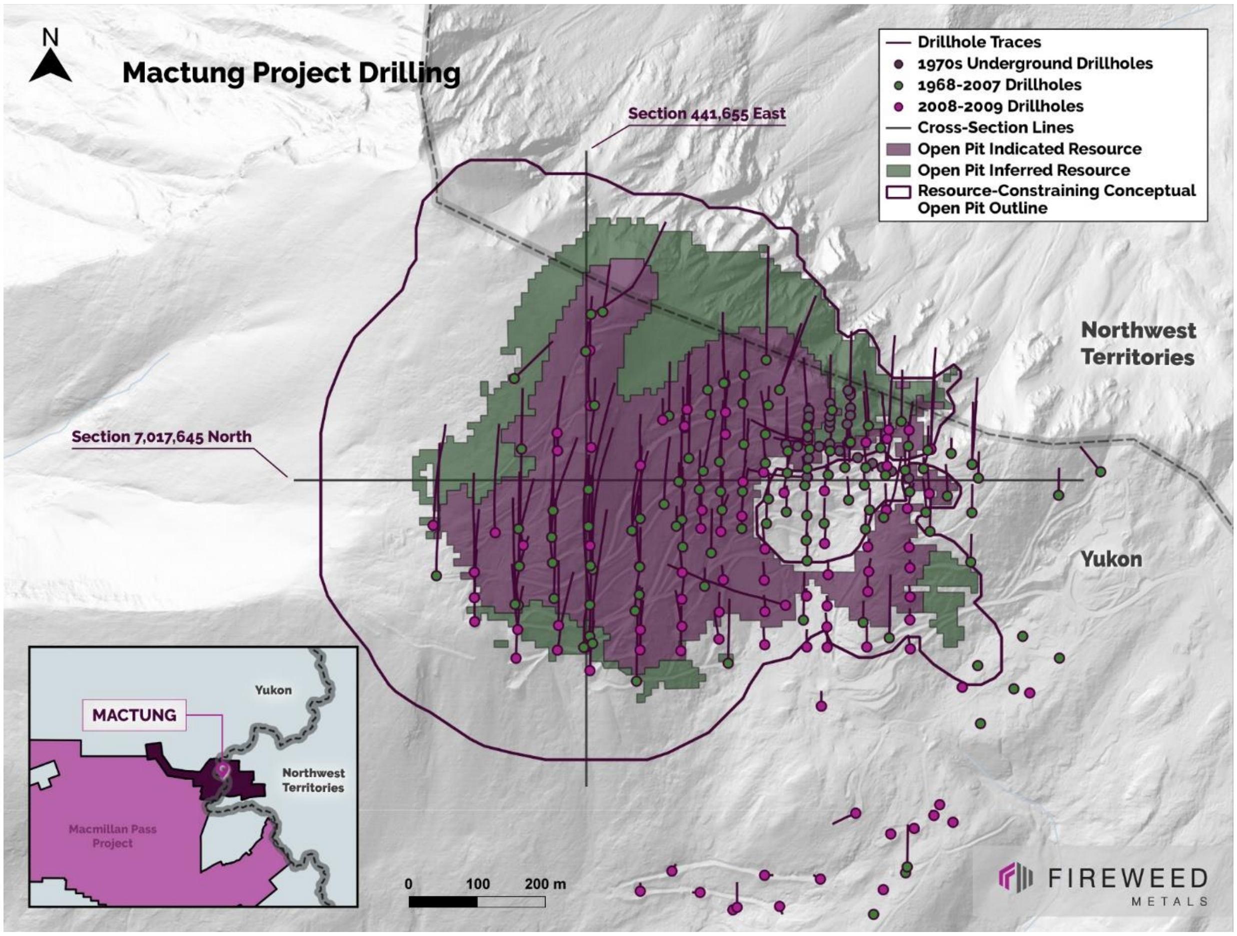
An additional 61 surface holes producing 9,294 m of NQ size core were drilled in 2009 to the west and southwest to further delineate the deposit. As in 2008, holes were drilled at approximately 40 m spacing on north-south section lines 60 m apart and similar sampling protocols followed, generating sample lengths mainly 1.5 m (5 ft) to 3.05 m (10 ft).

Table 10-1: Summary of Drilling Programs

Year	Type	Series	Core Size	No. Holes	Metres
1968	Surf Expl/Diamond	MT68001-005	BQ	7	1,513
1971	Surf Expl/Diamond	MT71006-025	BQ	21	2,313
1972	Surf Expl/Diamond	MT72026-073	BQ	48	6,955
1973	UG Expl/Diamond	MT73074-116	BQ	43	1,656
1979	Surf Expl/Diamond	MT79117-123	NQ, BQ	7	1,107
1979	UG Expl/Diamond	MT79124-131	NQ, BQ	8	670
1980	Surf Expl/Diamond	MT79132-141	NQ, BQ	10	2,305
2005	Surf Expl/Diamond	MS142-166	NQ	25	6,639
2007	Geotech/Becker OB	BH01-23	n/a	23	158
2008	Surf Expl/Diamond	MS167-185	NQ	20	2,654
2008	Hydrology/Diamond	MWMT0801-07	HQ	8	858
2008	Geotech/Becker OB	BH24-50	n/a	27	645
2008	Geotech/Diamond	GTWAR01-03	HQ, NQ	2	308
2009	Surf Expl/Diamond	MS186-243	NQ	61	9,294
2009	Hydrology/Diamond	MWMT0909-10	HQ	2	584
Total				**312**	**37,657**

Source: Kirkham (2023)

Figure 10-1: Plan Map of Drillholes



Source: Kirkham (2023)

11 Sample Preparation, Analyses, and Security

11.1 Introduction

The sample data utilized as the source for the resource estimation was derived from various vintages, all of which employed varying levels of quality assurance and quality control (QA/QC) procedures and methods at the time.

11.2 Pre- 2023 Sampling Method and Approach

11.2.1 Sample Preparation

Diamond drill core selected for assaying during the 2005, 2008 and 2009 drilling programs was marked off in the core box using a red crayon, and a metal tag with the sample number inscribed on it, nailed to the core box at the start of the sample run. A pre- numbered paper sample tag was placed with it. A record of the sample “from” and “to” was made in the sample book on the appropriate sample ticket stub. This information was also recorded on the drill log along with the sample number and the recovered length of core, which was usually 100%. Diamond drill core, which was mainly sampled in lengths of 1.5 m, was split with a hydraulic core splitter set up in a room attached to the core storage shed on the Mactung property although some core was split with a diamond saw. Once the sample was split, it was placed in a large polyethylene bag, which also had the sample number marked on it in black felt marker. This bag was then placed inside a second identical bag and the paper sample tag placed between the two bags, which were then sealed with a single plastic tie. The samples were transported in rice bags, each rice bag containing about five samples. The rice bags were sealed with a numbered plastic security tie and shipped by commercial carrier from Whitehorse or Watson Lake to Global Discovery Laboratories (GDL) in Vancouver, BC. Sample pulps were shipped by GDL to ALS Chemex of Vancouver and Becquerel Laboratories of Toronto, ON for further assaying. The Teck-Cominco Global Discovery Laboratories no longer exists, nor does the original AMAX laboratory therefore an extensive check sampling program performed in a round robin type of format was employed in order to confirm the validity of the assay data at the time.

As one of the primary check sample laboratories, ALS Chemex was and continues to be a well known and respected as varying incarnations since 2009 Bondar-Clegg Laboratories was acquired by ALS Chemex in 2001. The ALS Chemex Laboratory was ISO/IEC 17025 certified at the time. The analytical method employed at the time was Aqua Riga digestion with ICP-ES (Induced Coupled Plasma – Atomic Emission Spectroscopy) (ME-ICP-41. A prepared sample (0.50 g) is digested with aqua regia for at least one hour in a graphite heating block. After cooling, the resulting solution is diluted to 12.5 ml with demineralized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. The analytical results are corrected for inter-element spectral interferences. In addition, ME-ICP51 was used which utilizes the high boiling point and low volatility of phosphoric acid and its effective component, pyrophosphate, formed at high temperature for a more complete dissolution of Nb, Ta, U and W. Lastly, ME-XRF10 which utilizes X-Ray Fluorescence Spectroscopy (XRF) was also used. This involves extracting a calcined or ignited sample (0.9 g) is added to 9.0 g of Lithium Borate Flux (50 % - 50% $Li_2B_4O_7$ – $LiBO_2$), mixed well and fused in an auto fluxer between 1,050 °C to 1100°C. A flat molten glass disc is prepared from the resulting melt. This disc is then analysed by x-ray fluorescence spectrometry.

Becquerel Laboratories Inc., Mississauga, Ontario was used as one of the laboratories for the check assay program and employed a Neutron Activation Analysis (NAA). NAA is a physical technique that is based on nuclear reactions whereby the elemental content is determined by irradiating the subject sample with neutrons, creating radioactive forms of the desired target element in the sample. As the sample becomes radioactive from the interaction of the neutron particle source and the nuclei of the element's atoms, radioisotopes are formed that subsequently decay, emitting gamma rays unique in half-life and energy. These distinct energy-signatures provide positive identification of the targeted element(s) present in the sample, while quantification is achieved by measuring the intensity of the emitted gamma rays that are directly proportionate proportional to the concentration of the respective element(s) in the sample. Since the neutrons activate the nucleus of the atom, this allows the total elemental content to be observed regardless of the oxidation state, physical location, or chemical form of the desired element. Since neutrons possess the ability to pass through most materials with little difficulty, this allows the center of the sample to become as radioactive as the surface, thereby reducing or even eliminating the potential for matrix effects. Neutron activation can be applied to any element with an appropriated isotope, therefore nearly 70% of elements in the Periodic Table can be analyzed by NAA. Becquerel is endorsed and listed by the Natural Resources Canada (NRCAN) which would imply ISO 9001 certification.

11.2.2 Duplicates

All duplicate testing for Mactung was performed on splits from the same pulps used for the original assays. Check assays were performed by a number of laboratories, including Bondar Clegg (Vancouver), Chemex (North Vancouver), Warnock Hersey (Vancouver), and Crest Laboratories (Vancouver) and SGS (Burnaby).

The original assay sources were from the AMAX's laboratories, while the duplicate checks were performed at ALS Chemex, Bondar Clegg (acquired by ALS Chemex) and Becquerel, respectively. Table 11-1 summarizes the results duplicate verification sampling program from various labs, including the 190 paired AMAX/Chemex assays.

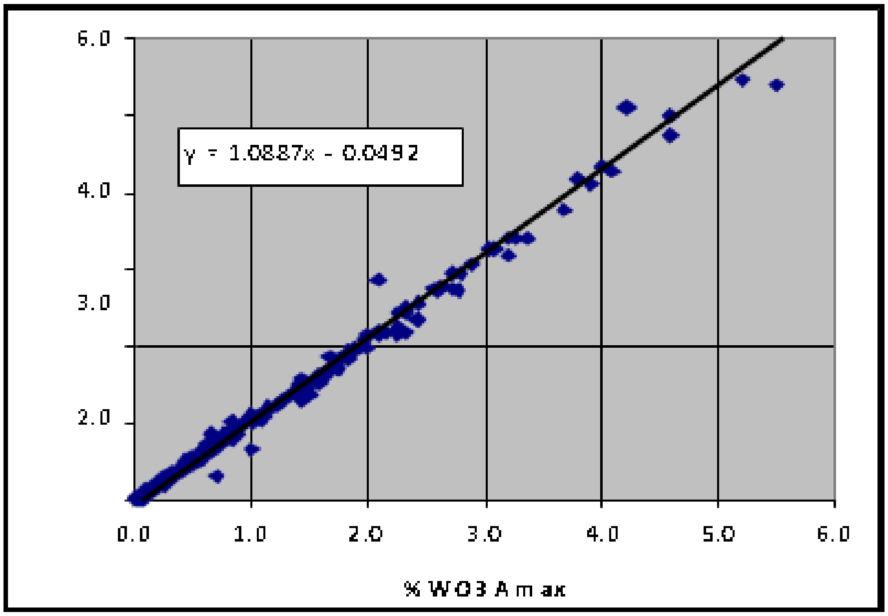
Table 11-1: Duplicate Statistics

Duplicate	Amax Colour	Crest Colour Gravity	Chemex Colour	Bondar Clegg Colour	Amax Golden Colour	Becquerel Neutron Activation	Becquerel Neutron Activation	Total
Original Lab	Warnock Hersey	Amax	Amax	Amax	Amax	GDL 2005	GDL 2008	
Original Method	Gravity	Colour	Colour	Colour	Colour	Fusion/XRF	Fusion/XRF	
#	42	47	190	39	26	48	26	418
Original % WO_3	0.234	0.793	1.362	0.739	0.719	1.036	1.153	0.814
Duplicate % WO_3	0.249	0.766	1.434	0.682	0.765	1.026	1.139	0.866
Difference (%)	6.30%	-3.50%	5.30%	-7.80%	6.30%	-1.00%	-1.20%	0.63%

Source: Kirkham (2023)

Analysis shows that the differences between original and duplicate range from ±1% to 7.8%. The Becquerel results shows to lowest differential. It is unclear if this is as a result of the Fusion/XRF method being the most reproducible or a function of the methods and procedures employed at the source laboratory, GDL. For the complete combined datasets, the overall difference in very good at 0.63% so although there will be local variability, globally the differences are negligible. The magnitude of the difference for the largest data set (Chemex colour) is only 5.3% which is an excellent correlation as shown in the scatterplot in Figure 11-1.

Figure 11-1: Scatterplot of Original vs. Duplicate Samples for Amax/Chemex WO_3 Assays



Source: Wardrop (2009)

11.2.3 Standards and Blanks

Prior to the 2005 drilling program, the laboratories routinely used standards for quality control however no external QA/QC program using standards and blanks was undertaken. Commencing in 2005 and continuing with the 2008 program, either a standard or blank were inserted every 20th sample, constituting 5% of the total number of samples submitted. Three sets of certifies standard samples and a set of blanks were prepared by CDN Resource Laboratories Ltd. (CDN). The origin of the reference material was mineralized material supplied from underground workings at NATCL's Cantung mine in the NWT which was in operation during this time. It has high sulphide content consisting primarily of pyrrhotite containing chalcopyrite. Native gold and bismuth are associated with the chalcopyrite. The tungsten occurs as scheelite. Accepted %W and %WO_3 values and ranges for these samples as published by CDN are presented in Table 11-2. The results are based on round-robin testing at eleven laboratories. A variety of analytical methods were used by the labs, including fusion/XRF, acid digestion/ICP, fusion/ICP-MS, and fusion/ICP, which may partly explain the high standard deviations and ranges for the standards. Sample homogeneity may have also be an issue.

Table 11-2: Inserted Tungsten Standards

Standard Number	%W	%WO_3
CDN-W-1	1.04 ± 0.10	1.31 ± 0.13
CDN-W-2	2.78 ± 0.39	3.51 ± 0.49
CDN-W-3	1.73 ± 0.19	2.18 ± 0.24

Notes: Range is based on 95% confidence interval or 1.96 Std. Dev. %WO3=1.261 %W

Standard and blank samples were selected randomly and inserted blindly into the sample sequence and analyzed by GDL or ALS Chemex. The ratio of standard to blank insertions was approximately 2:1. Table 11-3 provides a summary of key statistical parameters for the standards database.

Table 11-3: Analytical Results, Standards and Blanks

2005 Drilling Program – GDL							
	Acceptable Range		Results, % WO_3				
Standard	Min	Max	Count	Mean	Min	Max	Std Dev
CDN-W-1	1.18	1.44	8	1.28	1.21	1.32	0.04
CDN-W-2	3.02	4.00	3	3.54	3.49	3.59	0.05
CDN-W-3	1.94	2.42	4	2.26	2.19	2.34	0.06
Blanks	NA	NA	9	<0.01	<0.01	0.01	NA

2005 Drilling Program – Chemex							
	Acceptable Range		Results, % WO_3				
Standard	Min	Max	Count	Mean	Min	Max	Std Dev
CDN-W-1	1.18	1.44	3	1.28	1.26	1.32	0.03
CDN-W-2	3.02	4.00	6	3.46	3.40	3.51	0.05
CDN-W-3	1.94	2.42	5	2.15	2.10	2.22	0.04
Blanks	NA	NA	6	<0.01	<0.01	0.01	NA

2008 Drilling Program – GDL							
	Acceptable Range		Results, % WO_3				
Standard	Min	Max	Count	Mean	Min	Max	Std Dev
CDN-W-1	1.18	1.44	2	1.32	1.31	1.32	0.01
CDN-W-2	3.02	4.00	7	3.73	3.67	3.81	0.06
CDN-W-3	1.94	2.42	9	2.33	2.26	2.40	0.05
Blanks	NA	NA	8	<0.01	<0.01	0.01	NA

2005 & 2008 Drilling Programs Combined – GDL Only							
	Acceptable Range		Results, % WO_3				
Standard	Min	Max	Count	Mean	Min	Max	Std Dev
CDN-W-1	1.18	1.44	10	1.29	1.21	1.32	0.04
CDN-W-2	3.02	4.00	10	3.67	3.49	3.81	0.10
CDN-W-3	1.94	2.42	13	2.31	2.19	2.40	0.06
Blanks	NA	NA	17	<0.01	<0.01	0.01	NA

Source: Wardrop (2009)

There were no failures as the analytical results for all the inserted standards fall within the accepted ranges indicated by CDN. However, it should be noted that, the mean results for CDN-W-2 and CDN-W-3 during the 2008 season are about 6% to 7% higher than the means from round-robin testing. Some of the 2005 samples were also sent to Chemex. Results from the Chemex lab were closer to the accepted means however only 20 samples in total were analyzed. It is not known whether the differences are due to lack of sample homogeneity or laboratory bias, however it is recommended that a new set of standards with a tighter range of acceptable values be produced for subsequent drilling programs. Analytical results for inserted blanks yielded very little tungsten, usually below detection limits. The highest result was 0.001% WO_3. Overall, the QA/QC performance is very favourable.

11.3 2022-2023 Resampling Program

Fireweed Metals contracted Aurora Geosciences to conduct a core resampling program in late 2022 and early 2023 that served two purposes: collecting additional assay and bulk density data to improve the coverage of Au, Cu and bulk density data available for this resource estimate (discussed in this section); and to validate and verify the historic assay data (see Section 12).

Core was resampled from drill holes that spanned a range of years throughout the AMAX and NATC drilling campaigns. Core was cleaned and photographed. Half-core or split-core was sawn in half to produce two quarter-core samples. One quarter-core sample was archived in the core boxes and the other quarter-core was sampled. The entire length of the sampled core was measured for bulk density using the water immersion method and then the samples were sent to Bureau Veritas preparation laboratory in Whitehorse for crushing and on to Vancouver for assays.

A significant amount of AMAX era drill core was being stored at the Cantung mine site which was shipped by truck and relocated to Whitehorse for the extensive resampling and data verification program at the Aurora Geosciences core processing facility. The NATC era drill core was located on-site at the Mactung camp where Aurora performed the resampling.

A total of 1,343 samples, representing 16% of historical core samples, was resampled. For QA/QC purposes, a total of 5% assay standards, 5% blanks and 1% core duplicates were included in the sample stream and reviewed after analyses were received.

The laboratory selected to perform the analytical work for the 2022/2023 program was Bureau Veritas which is an international recognized ISO 9001 certified laboratory. Samples were sent to the Bureau Veritas preparation laboratory in Whitehorse, where the samples were crushed and a 500 g split was sent to the Bureau Veritas laboratory in Vancouver to be pulverized to 85% passing 200 mesh size pulps. Clean crush material was passed through the crusher and clean silica was pulverized between each sample.

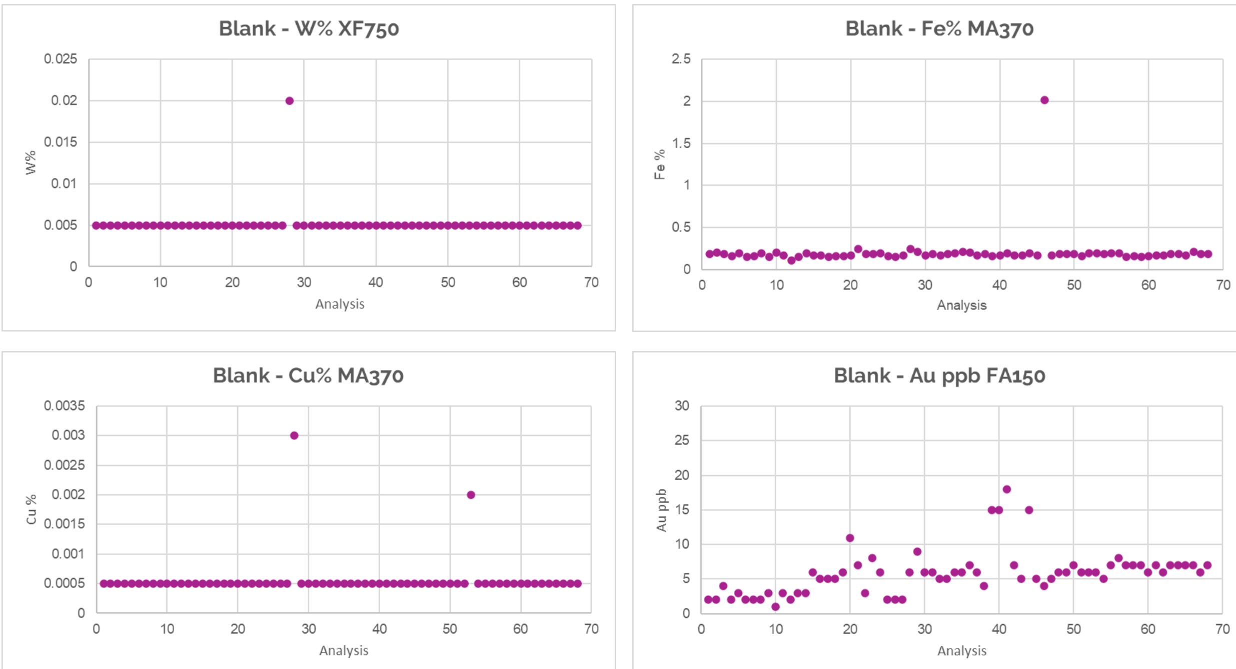
The assay method selection was based on the elements of interest (WO_3%, Cu%, Auppm, Fe%) and the ability for accurate comparability and reproducibility to the historic data.

The pulps were then analyzed for W by lithium borate fusion and x-ray fluorescence analysis (XRF) finish (BV Code XF750). WO_3% was calculated from XRF values for W% by multiplying W by a factor of 1.26. In addition, the samples were analyzed for Au by fire assay using a 50 g charge with an ICP-MS finish (BV code FA150) for samples <1,000 ppb Au and by lead collection fire assay with ICP-ES finish (BV code FA350) for samples with >1,000 ppb Au. Finally, all samples were also analyzed using multi-acid digestion followed by Inductively Coupled Plasma Emission Spectrometry (ICP-ES) (BV Code MA370).

As described above standards and blanks were inserted randomly within the sample sequence for the re-assay program.

Figure 11-2 illustrates the results for the blanks inserted to the sample stream showing with the exception of one failure for W% and Fe% while there were two failures for Cu%, contamination was not an issue. In the case of the Au blanks, there is more variability in the results. This is not necessarily an issue or indicative of poor cleaning practices, but more related to the concentrations being detected for the gold assays being in part per billion and therefore extremely sensitive to very minute remnants in dust.

Figure 11-2: Blank Results from the 2022/2023 Resampling Program



Source: Kirkham (2023)

The primary standard employed for the 2022-2023 re-sampling program was the OREAS 701 whose specifications are listed in Table 11-4.

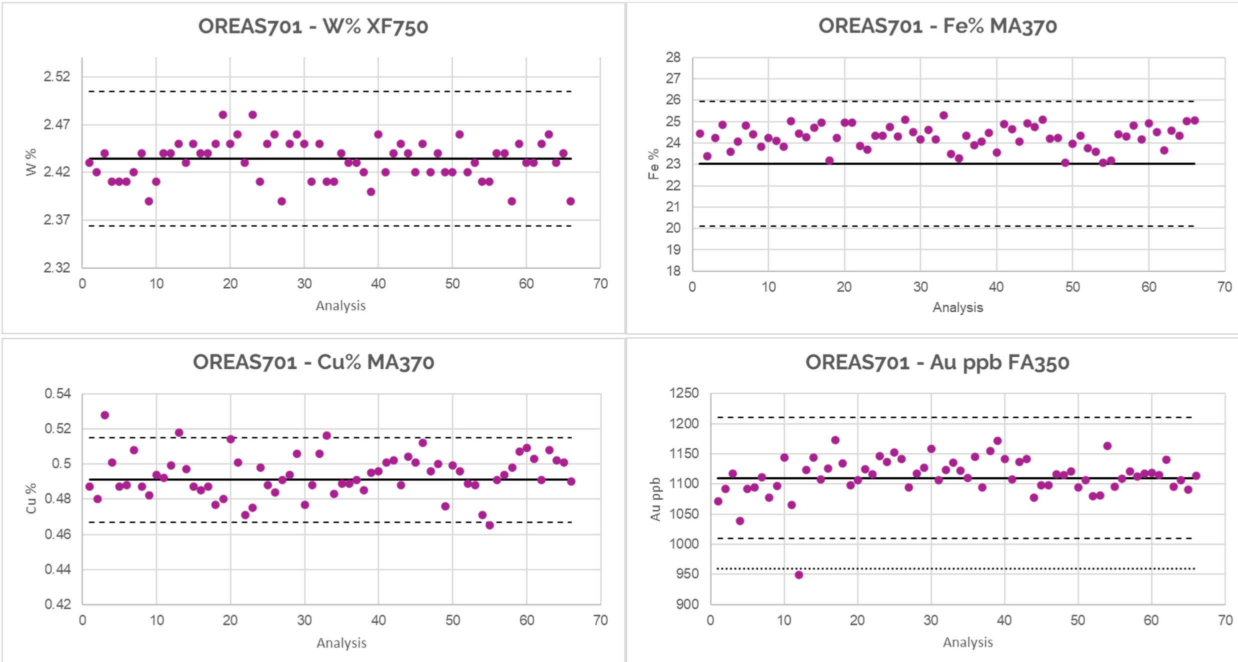
Table 11-4: OREAS 701 Standard Specifications

Analyte	Certified Value	1SD	95% Confidence Limits Low	95% Confidence Limits High	Method
W, Tungsten (wt.%)	2.43	0.035	2.41	2.45	Borate Fusion XRF
Au, Gold (ppm)	1.11	0.046	1.08	1.14	Pb Fire Assay
Cu, Copper (wt.%)	0.491	0.012	0.485	0.498	4-Acid Digestion
Fe, Iron (wt.%)	23.02	1.455	21.97	24.06	4-Acid Digestion

Source: OREAS Research (https://www.oreas.com/crm/oreas-701)

Figure 11-3 illustrates the results for the OREAS 701 certified standard that were utilized for the 2022/2023 re-sampling program as described above. Results indicate that, apart from the exception of a few two Cu% standards and one Au standard being close to the failure limit of 2SD and 3SD, respectively, the dataset illustrates very good precision.

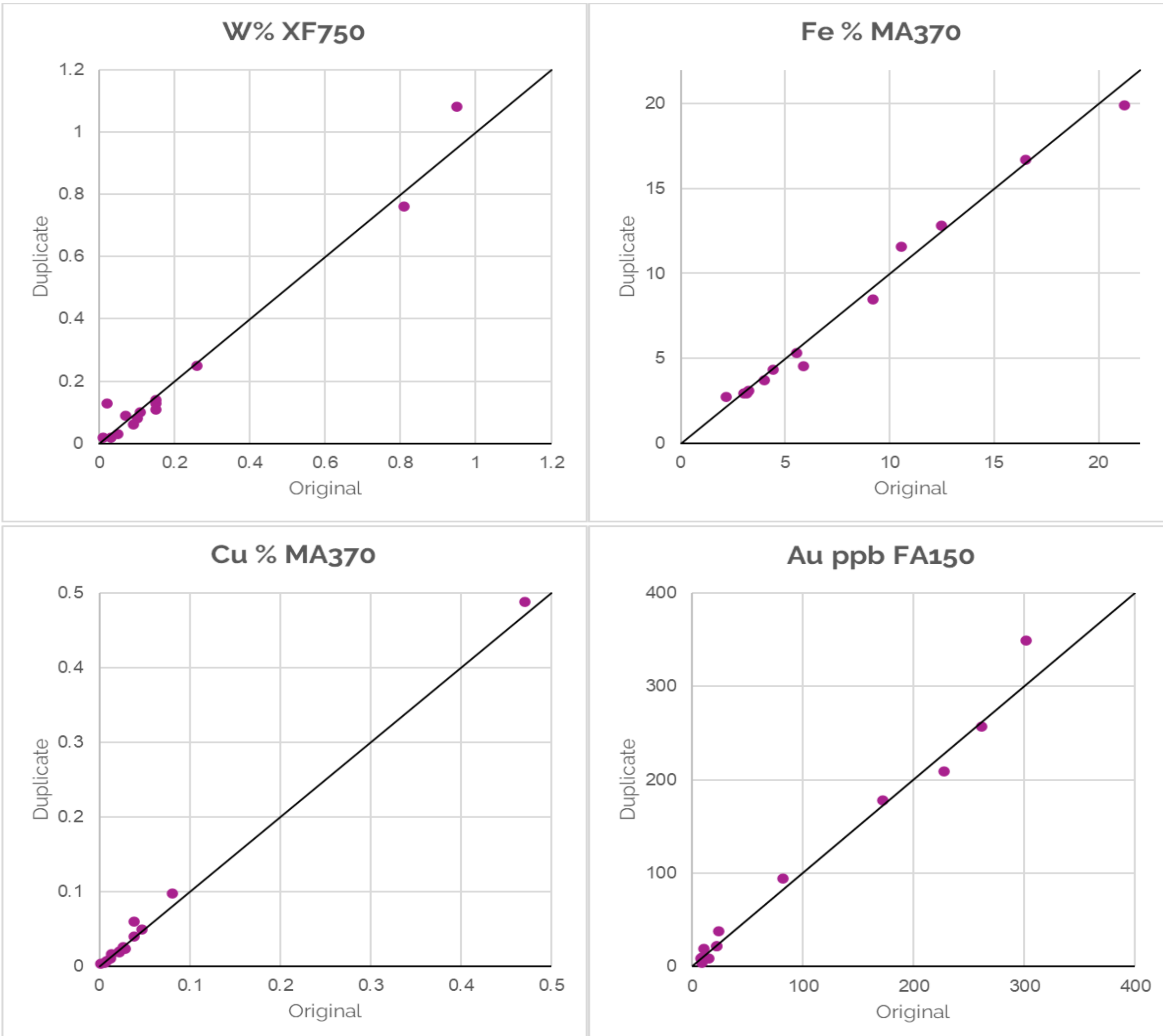
Figure 11-3: OREAS 701 Standard Results from the 2022/2023 Resampling Program



Source: Kirkham (2023)

Furthermore, a comparison of the pulp duplicates, a measure of reproducibility and accuracy, illustrate excellent correlations.

Figure 11-4: Duplicate Sample Results for W%, Cu%, Fe% and Au ppb



Source: Kirkham (2023)

Resampled interval from and to were matched to existing sample intervals to allow comparison between different methods and improve the coverage for elements that were not assayed historically. The values of WO_3, Au and Cu that were used for the purpose of mineral resource estimation were prioritized from a ranking of the different analytical methods and datasets. Where available, historical values were used, and resample data were used solely for data validation. In the absence of historical data, the new XF-750 data were used for WO_3. In the case of copper, only new MA370 values were used. In the case of gold, new FA350 data were used for Au >1,000 ppb and new FA150 values were used for Au <1,000 ppb.

11.3.1 Specific Gravity Measurements

During the 2008 program, limited specific gravity measurements were performed on core from five intercepts of the 2B horizon within four drill holes. Weight measurements were taken with an electronic balance (Ohaus Scout Pro). As was the norm with water immersion specific gravity measurements, the scale was zeroed with the wire mesh wet sample basket suspended in a bucket of water, and a second dry basket on the scale. The set up was rigged so that the weight of both baskets was registering on the scale. The drill core sample was then introduced into the dry basket on the scale and the dry weight recorded. The sample was then moved to the "wet" basket, which was sufficiently below the surface of the water that no part of the sample was left protruding above the water (leaving the dry basket in place on the scale) and the new apparent weight in water recorded. The difference between the two weights represents the apparent loss of weight in water.

Density values were calculated by dividing the weight in air by the difference of the weight in air and the weight in water (i.e., weight in air/(weight in air - weight in water)). The fact that samples were not sealed during immersion in water would result in a slight overestimate in density proportional to the amount of water absorbed by pores. Overall porosity is estimated to within approximately 2%. There may also small offsetting errors generated by the wet basket which is more deeply immersed in water for the wet reading than for the dry reading. This would give rise to a greater loss in weight and a lower density, which is conservative. The effect is very small and usually not considered.

In all, 59 sample intervals within the 2B horizon were measured. The mean of individual sample intervals were 3.47 t/m^3. After removal of outliers, the weighted average bulk density of the composite measurements was 3.26 t/m^3.

In 2022/2023, Aurora Geosciences performed the bulk density and sampling program from which 1,343 bulk density measurements were collected. The bulk density values ranged from a minimum of 2.11 t/m^3 to a maximum of 4.25 t/m^3 with a mean value for all samples being 2.92 t/m^3. However, within the 2B unit the mean value was a bit higher at 2.96 t/m^3.

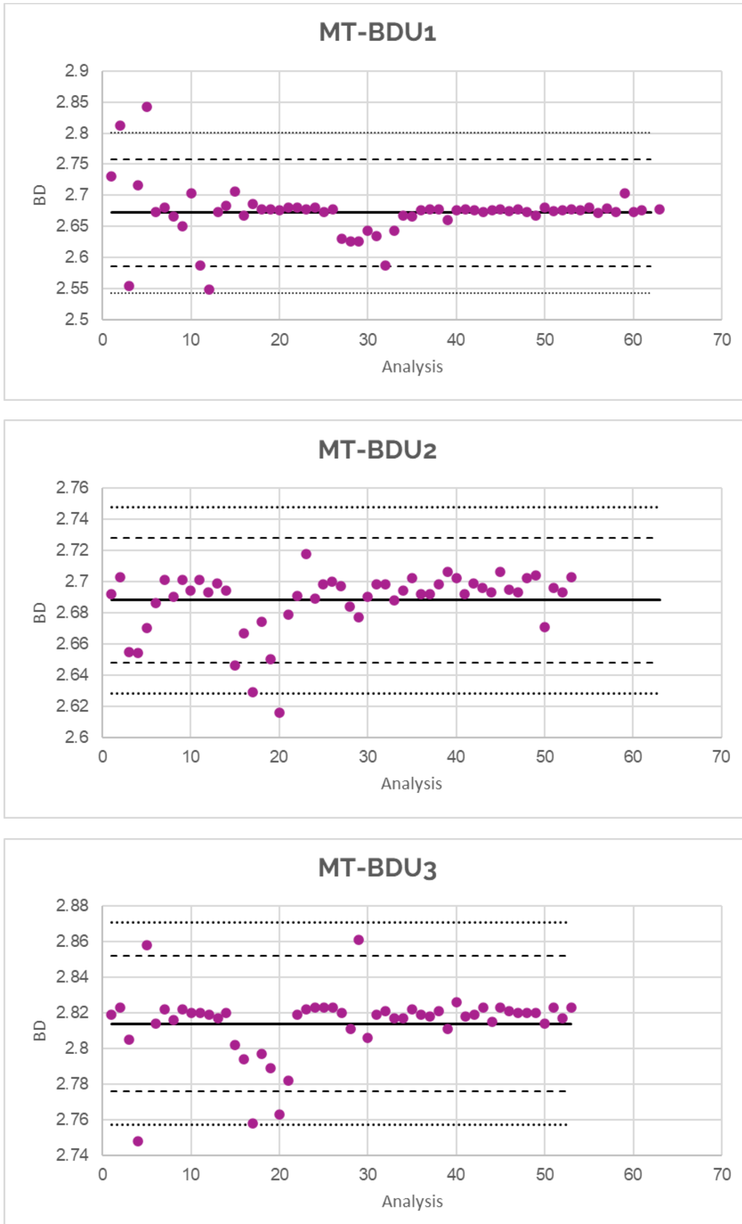
Bulk density was determined for the entire length of each sample re-assayed by measurement of mass in air and mass in water. Scales were calibrated using a range calibration of certified masses. The accuracy of the scales was checked at the start and end of every day by measuring the same three standard rocks and comparing them to previous measurements of the same standard rocks. Three bulk density standards were established from core selected from the Mactung deposit. Determinations of the standards' bulk density throughout the resampling program enabled a long-term precision to be calculated and to establish acceptable values for these standards to enable future drilling programs to monitor accuracy. Sample bulk density standard determinations were made at a rate of approximately 10%.

Table 11-5: Bulk Density Standards

	MT-BDU1	MT-BDU2	MT-BDU3
Bulk Density	2.672	2.688	2.814
Std Dev	0.043	0.02	0.019

Figure 11-5 shows the performance of the 2022/2023 bulk density standards and although there are few failures, one for each standard, the results are surprisingly variable for bulk density measurements. Much of the variability appears to be localized to the samples measured early in the program and then stabilized as it progressed.

Figure 11-5: 2022-2023 Bulk Density Standards



Source: Kirkham (2023)

11.4 Adequacy Statement

In conclusion, no significant issues were identified within the sample preparation, analysis or security methods nor the QA/QC procedures, either historically or currently under Fireweed. It is the opinion of the QP, Garth Kirkham, P.Geo., that the sampling preparation, security, analytical procedures and quality control protocols used in the past and currently by Fireweed are consistent with generally accepted industry best practices and are therefore reliable for the purpose of resource estimation.

12 Data Verification

The data verification performed included reviews of documentation and data sources, the previous Technical Reports, site visit and data supplied by Fireweed including drillhole data, geochemical data with assay certificates, previous lithology and domain models, along with all historic data. The author had previous involvement dating back to 2007 up until the sale of the property to Fireweed and is therefore familiar and informed with respect to the historic work performed. In addition, independent check sampling has been performed in 2005 and 2022 through 2023.

12.1 Site Visits and Information Validation

Prior to the site visit, the author reviewed all collected data sources and reports. The primary sources of data for inspection were the drillhole data, related assay data, QA/QC data and analyses, assay certificates, reports, models. In addition, the various previous Technical Reports authored by RPA, Wardrop, Lacroix were reviewed. The Author reviewed historic verification practices and procedures along with validating data analysis and results through data import and statistical analysis.

Mr. Kirkham visited the Mactung Project, on various occasions in 2005 through 2008 and most recently on the September 25 to 27, 2022. On each of these site visits, The QP examined several core holes, drill logs and assay certificates. Assays were examined against drill core mineralized zones. The QP used a UV (ultra-violet) lamp to detect and confirm the presence of scheelite throughout. The QP inspected the offices, core logging/processing/sawing facilities as well as sampling procedures and core security along with core storage. The facilities at Mactung, although still useable and functional, require a moderate amount of maintenance and rehabilitation.

The tour of the offices, core logging, and storage facilities showed a clean, well organised, professional environment. Fireweed geological staff and on-site personnel led Kirkham through the chain of custody and methods used at each stage of the logging and sampling process. All methods and processes are to common industry standards and common best practices, and no issues were identified.

Several drill holes were selected by Kirkham and laid out at the core logging and storage areas. Site staff supplied the logs and assay sheets for verification against the core and the logged intervals. The data correlated with the physical core and no issues were identified. In addition, Kirkham toured the complete core storage facilities. No issues were identified, and core recoveries appeared to be very good.

12.2 2005 Data Verification

In 2005, three quarter core check sample duplicates were taken by the then independent QP. These verification samples were analysed at the SGS laboratory in Don Mills, Ontario. This SGS laboratory was ISO 17025 certified. Analysis for tungsten was done using ICP while the Au was analysed using fire assay/flame with an AA (atomic absorption). The results of this small initial verification program are listed in Table 12-1.

Table 12-1: 2005 Verification Check Assays

DDH	Sample Location	Sample No.	Sample Description	SGS Assay		Original Mactung Assay WO_3 (%)
				Au (ppb)	WO_3 (%)	
MS-157	215.7 m - 216.6 m	70962	1/4 Core	51	5.27	4.34
MS-157	218.8 m - 220.5 m	70963	1/4 Core	10	8.57	6.27
MS-157	222.4 m - 223.9 m	70964	1/4 Core	25	4.71	3.24
	Duplicate	70962		51	5.43	

Source: RPA (2005)

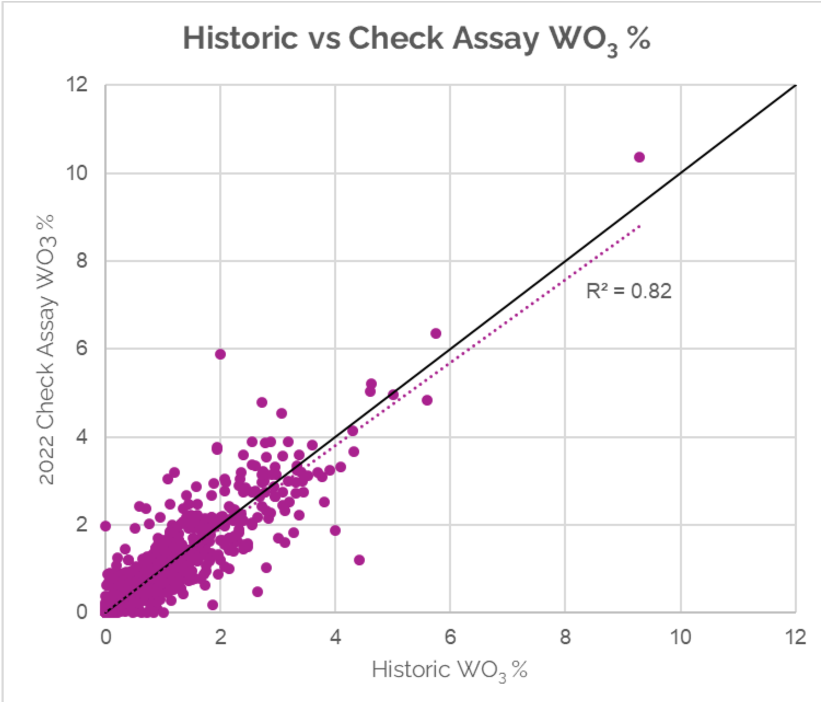
The results showed there are intersections with a significant amounts of tungsten, gold less so at least for these samples. The original interpretation attributed the difference between the original assays and the SGS assay values as being easily explained by the very coarse nature of the mineralization. In the Author's opinion, the variance is very high and could point to the possibility that the original assay data may have been underestimated. The warrants investigation and support continued check sampling and verification as performed in 2022/2023.

In 2005, assay data provided to QP which was in the form of Excel™ spreadsheets. The QP independently verified a portion of the database by randomly selecting a hole on each drill section and comparing the WO_3 values in the provided data with the assay certificates and/or assay sheets from the various labs. Data from the 2005 drilling program was compared against Excel™ spreadsheets provided by the labs while data from earlier drilling programs was verified by using scanned handwritten or typed assay sheets. Much of the scanned data did not identify the lab. In total, assay results for the mineralized portions of 31 holes drilled within the four interpreted zones were verified.

12.3 2023 Data Verification

A total of 1,343 samples, representing 16% of historical core samples, was resampled during the 2022/2023 re-sampling program. In the instances where there was no historic sampling for the intercepts that were re-sampled, these values were input to the resource database for estimation purposes. In those cases where the re-sampled data had been sampled historically, the historic data remained and the resample data was utilized for verification purposes. Figure 12-1 illustrates the comparisons of the historic data versus the re-sampled WO_3% data shows good agreement overall with a 0.82 R^2 correlation. Therefore, there is no obvious or systematic bias either high or low and it is clear that the historic data validates well against current datasets.

Figure 12-1: Scatterplot of Original vs. Check Assays from 2022/2023 Re-sampling Program



Field outcrop samples taken from the 2B and 3F units, were collected and analyzed to confirm and validate presence and tenor of tungsten mineralization. Table 12-2 shows the results which also illustrate very good agreement to the values derived within the block model estimates.

Table 12-2: Assay Results from Rock Samples Collected by Garth Kirkham in 2022

Sample	XF750 W (%)	Conv. WO_3%=W%*1.26 WO_3 (%)	MA370 Cu (%)	FA150 Au (PPB)	Block Model Estimate WO_3 (%)
4511600A (2B Outcrop)	0.39	0.49	0.015	91	0.33
4511600B (3F Outcrop)	0.72	0.91	0.003	71	0.69

Source: Kirkham (2023)

12.4 2023 Database Validation

In addition to the resampling program, an assay data spot check was conducted to compare the Fireweed database with historic assay certificate values to ensure data completeness and accuracy. The spot check involved a review of a sample of 353 samples from 20 drill logs ranging from 1968 to 2009, representing 6.2% of total historic samples. Historic results were digitized and compared in Excel™ to values exported from the database, which was built from the NATC database files provided by GNWT during the Mactung acquisition. The GNWT database files and found to be free of errors with only three instances of minor transcription errors that have no material effect on this resource.

To validate collar locations, a subset of surface drill collars were surveyed using differential GPS equipment similar to that used by Underhill to survey the 2005 and 2008 drill holes was supplied. Of the 18 collars surveyed, all but one was found to be within 30 cm, and most within 15 cm, of the coordinates recorded in the NATC database.

Collars not field-surveyed were visually assessed against high resolution, 20 cm cell size, LiDAR and orthophoto imagery produced during a 2022 survey flown for Fireweed by McElhanney. No major discrepancies were identified during this process.

13 Mineral Processing and Metallurgical Testing

There is no current metallurgical data or work to report in this section for the purpose of this resource report. Any programs that have been conducted in the past that were relied upon for recovery used in cut-off grade determination are summarized in Section 6 and were considered valid for use. A metallurgical test program is currently underway to validate the historical work referenced in previous NI 43-101 documents.

14 Mineral Resource Estimate

14.1 Introduction

This section describes the work undertaken by Kirkham Geosystems Ltd. (KGL), including key assumptions and parameters used to prepare the mineral resource models for the Mactung deposit, together with appropriate commentary regarding the merits and possible limitations of such assumptions.

The mineral resource has a footprint measuring approximately 1,100 m in length, 900 m in width and 600 m in elevation, between elevations of 1,600 m and 2,200 m above sea level (masl).

Table 14-1 summarizes the Updated Mineral Resource Estimate on the Mactung deposit is as follows:

- A new mineral resource estimate totals 41.5 Mt Indicated Resource at 0.73% WO_3 and 12.2 Mt Inferred Resource at 0.59% WO_3.
- Open pit and underground.
- The resource estimate also includes copper in addition to gold as by-product metals.

Table 14-1: Combined Mineral Resource Statement for the Mactung Project for WO_3%

Classification	Cut-off Grade WO_3 (%)	Tonnage (tonnes)	WO_3 Grade (%)	Contained WO_3 (mtu)
Indicated (underground)	0.50	12,168,000	1.05	12,789,000
Indicated (open pit)	0.25	29,319,000	0.59	17,367,000
Total Indicated (OP+UG)	**0.25/0.50**	**41,487,000**	**0.73**	**30,156,000**
Inferred[4] (underground)	0.50	2,817,000	0.73	2,066,000
Inferred[4] (open pit)	0.25	9,430,000	0.55	5,139,000
Total Inferred[4] (OP+UG)	**0.25/0.50**	**12,247,000**	**0.59**	**7,205,000**

Source: KGL (2023)

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only, and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
5. A metric tungsten unit (mtu) is 10 kilograms of tungsten trioxide (WO_3).

Resources that have the possibility of potential open pit extraction methods are listed in Table 14-2. These indicated and inferred resources are limited to within a pit shell based on reasonable prospects of eventual economic extractions criteria and are limited to WO_3% only. Copper and gold were estimated as by-product metals for underground constrained resources only (Table 14-3). Grades of copper and gold were considered too low to include within the Mineral Resource Statement for open-pit constrained resources. No metallurgical testwork has been conducted to assess the recovery of copper or gold at Mactung. Based on historical production of small quantities of gold and of copper concentrate from the geologically similar Cantung mine, it has been reasonably assumed that gravity separation and a copper circuit could be incorporated into the flowsheet to recover a portion of the gold and copper in the Current Mineral Resource to satisfy the reasonable prospects of eventual economic extraction. Fireweed and its consultants are currently completing metallurgical test programs to validate the recovery of tungsten and assess the recovery of gold, and copper at Mactung.

Table 14-2: Mineral Resources Statement within the Potential Open Pit

Open-pit Cutoff Grade (WO_3%)	Tonnage (tonnes)	WO_3 grade (%)
Indicated		
0.25	**29,319,000**	**0.59**
Inferred		
0.25	**9,430,000**	**0.55**

Source: KGL (2023)

Notes:

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

Table 14-3: WO_3 Resources with Copper and Gold By-Product Metals for the Underground Mineral Resources Subdivided by Geological Unit

Unit	Cut-off WO_3 (%)	Tonnage (tonnes)	Grade WO_3 (%)	Contained WO_3 (mtu[5])	Copper (%)	Contained Copper (lbs)	Gold (g/t)	Contained Gold (troy oz)
Indicated								
20	0.50	3,710,000	0.83	3,076,000	0.010	834,000	0.034	4,000
21	0.50	1,845,000	1.21	2,229,000	0.036	1,448,000	0.060	4,000
22	0.50	6,496,000	1.13	7,366,000	0.093	13,261,000	0.107	22,000
23	0.50	55,000	1.28	70,000	0.092	111,000	0.205	0
3D	0.50	62,000	0.78	48,000	0.011	15,000	0.018	0
Total	**0.50**	**12,168,000**	**1.05**	**12,789,000**	**0.058**	**15,666,000**	**0.078**	**30,000**
Inferred								
21	0.50	932,000	0.83	775,000	0.014	288,000	0.023	1000
22	0.50	638,000	0.66	420,000	0.047	654,000	0.016	0
23	0.50	6,000	0.84	5,000	0.108	14,000	0.068	0
3D	0.50	1,241,000	0.70	866,000	0.009	252,000	0.013	1000
Total	**0.50**	**2,817,000**	**0.73**	**2,066,000**	**0.020**	**1,208,000**	**0.017**	**2,000**

Source: KGL (2023)

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum (“CIM”) definitions, as required under National Instrument 43-101 (“NI43-101”).
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only, and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
5. A metric tungsten unit (mtu) is 10 kilograms of tungsten trioxide (WO_3).

It is estimated that there is the potential for an Exploration Target at Mactung of between 2.5 Mt and 3.5 Mt at a grade of between 0.4% and 0.6% WO_3 in addition to the current Mineral Resources disclosed in this technical report. The Exploration Target is within the current geological model, supported by drilling and surface mapping. The Exploration Target includes material located beyond the boundaries of the Inferred and Indicated resource classification but is located within the boundaries of the open-pit shell and underground volumes used to constrain the current Mineral Resource.

The Exploration Target is conceptual in nature and requires additional drilling to test the geological model, grade continuity, and extent of mineralization. It is uncertain if additional drilling will validate the geological potential or fulfill the mining and economic criteria necessary to establish reasonable prospects of eventual economic extraction to lead to the classification of the Exploration Target as Mineral Resources.

In the opinion of the QP, the mineral resource estimate reported herein is a reasonable representation of the mineralization found at the Mactung Project at the current level of sampling. The mineral resources were estimated in conformity with the CIM Definition Standards for Mineral Resources and Mineral Reserves (2014) and the generally accepted guidelines stated in Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines (November 29, 2019) and are reported in accordance with NI 43-101 (CIM, 2019).

Mineral resources are not mineral reserves, and they do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into a mineral reserve upon application of modifying factors.

Two previous publicly reported resource estimates were published by a previous operator, entitled "*Technical Report on the Mactung Tungsten Deposit, Macmillan Pass, Yukon*" authored by RPA with effective date April 18, 2007 and the "*Amended Technical Report on the Mactung Property*" authored by Wardrop effective date April 3, 2009. The resources reported within these reports are listed in Section 6.

14.2 Data

The drill hole database was supplied in electronic format (CSV files exported from MX Deposit database). This included collars, down hole surveys, lithology and stratigraphic data, logged mineralization, structure, geotechnical (RQD and % recovery) and assay data with multi-element geochemical analysis including WO_3%, copper, gold and P_2O_5%, and down hole "from" and "to" intervals in metric units. It should be noted that a significant amount of the historic data only had WO_3% which was subsequently re-sampled and assayed in 2022 to derive a valid, representative dataset for copper and gold. Lithology group and description information was provided, along with abbreviated alpha-numeric codes were assigned (Table 14-4).

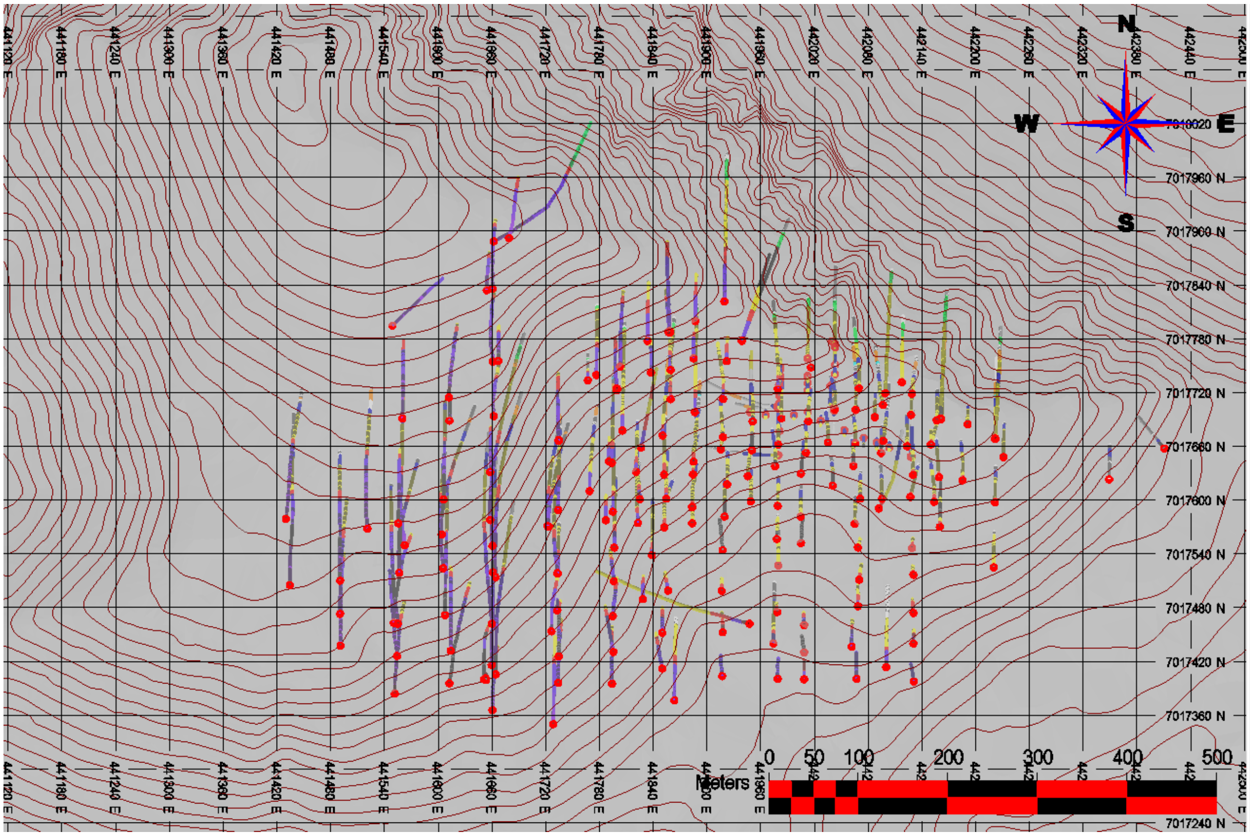
Table 14-4: Lithology Units & Codes

Lith Code	Description
FLT	Fault
QTY	Quaternary
DLK	Road River Group; Duo Lake Formation
RAB	Rabbitkettle Formation
HES	Hess River Formation
SEK	Sekwi Formation
VAM	Vampire Formation (Narchilla)
IDK	Strat unit uncertain
KQM	Cretaceous Qtz Monzonite
KFD	Cretaceous Felsic Dykes and Sills

Source: KGL (2023)

Figure 14-1 shows the plan view of drill holes with collars for 312 diamond drill holes (37,657 m) with 1,373 down hole survey records. Critical to the Project has been to standardize and regularize the coordinate systems to UTM (Universal Trans Mercator). In 1981 and 1982, the Project site was resurveyed and the local mine grid, which exists in both imperial and metric units, reconciled to the UTM NAD27 coordinate system. However, in 2005 the drill collars were surveyed by Underhill Geomatics of Whitehorse using differential GPS and the data was converted from NAD 27 to NAD 83 datum on which all data is currently standardized and regularized.

Figure 14-1: Plan View of Drill Holes



Source: KGL (2023)

A total of 8,574 assay values, 8,658 lithology were supplied for the Project in separate spreadsheets. Furthermore, there are 3,221 density (SG) measurements and 9,928 geotechnical measurements including RQD and core recovery percentages. Core recoveries are very good with 8,988 of the samples or 90% of the core having >80% recoveries and 6% (667 samples) of the core having poor recoveries of <50%.

Detailed logging provided additional interpretative data that included 8,343 mineralization and logging values. Validation and verification checks were performed during import to confirm there were no overlapping intervals, typographic errors, or anomalous entries. A summary of the assay values by lithology are shown in Table 14-5.

Table 14-5: Statistics for Weighted Assays for Lithology Domains

	Lith Code	#	Length (m)	Mean	SD	CV	Variance	Min	1Q	Median	3Q	Max
WO_3%	DLK	0	0									
	HES	2125	2632.4	0.17	0.37	2.1	0.13	0.01	0.02	0.06	0.17	9.41
	IDK	1	1.11	0.1				0.1	0.1	0.1	0.1	0.1
	KFD	0	0									
	KQM	43	64.92	0.01	0.01	0.9	0	0.01	0.01	0.01	0.01	0.04
	QTY	13	15.72	0.12	0.36	2.9	0.13	0.01	0.01	0.04	0.07	1.8
	RAB	4845	6126.09	0.54	0.71	1.3	0.5	0.01	0.08	0.3	0.74	12.12
	SEK	2919	3400.75	1.2	1.13	0.9	1.28	0.01	0.36	0.88	1.71	9.28
	VAM	435	521.49	0.16	0.32	2.1	0.1	0.01	0.01	0.03	0.14	3.2
CU%	DLK	0	0									
	HES	1263	1573.98	0.032	0.035	1.1	0.001	0.002	0.02	0.02	0.035	0.564
	IDK	0	0									
	KFD	0	0									
	KQM	0	0									
	QTY	7	9.85	0.033	0.099	3.0	0.01	0.009	0.01	0.01	0.01	0.38
	RAB	2729	3525.75	0.019	0.024	1.3	0.001	0	0.01	0.01	0.02	0.345
	SEK	2502	2925.49	0.141	0.136	1.0	0.018	0.001	0.03	0.1	0.22	0.87
	VAM	356	438.33	0.026	0.046	1.7	0.002	0.002	0.01	0.01	0.02	0.39
AUPPM	DLK	0	0									
	HES	716	815.44	0.037	0.062	1.7	0.004	0.002	0.01	0.017	0.037	0.656
	IDK	0	0									
	KFD	0	0									
	KQM	0	0									
	QTY	3	2.53	0.037	0.04	1.1	0.002	0.006	0.02	0.017	0.079	0.079
	RAB	1842	2325.54	0.065	0.097	1.5	0.009	0.002	0.02	0.034	0.076	1.132
	SEK	1312	1564.9	0.18	0.215	1.2	0.046	0.001	0.02	0.101	0.265	1.418
	VAM	111	113.79	0.043	0.057	1.3	0.003	0.003	0.02	0.017	0.047	0.317

Source: KGL (2023)

It is important to note that bismuth and P_2O_5% were initially considered relevant and significant. The reasons being that bismuth, at significant amounts, although not deleterious, may be the source of smelter penalties in the future as at Cantung. However, the concentrations experienced at Mactung to date do not warrant concern although caution should always be exercised. In regard to P_2O_5%, although concentrations are low, it will be prudent to monitor and evaluate going forward.

There are values within the quaternary unit which require investigation and perhaps reassignment to the adjacent footwall unit. The mineralization is predominantly within the Hess River, Sekwi, Rabbitkettle and Vampire (Narchilla) formation rocks. The Hess River and Vampire formation mineralization is very low grade and for the most part will be low grade waste which the primary and significant mineralization is within the Rabbitkettle and the Sekwi formation rocks. Mean WO_3% grades range from 0.54% to 1.20% with maximum values being quite significant up to 12.12%. Variability as evidenced by the CV is relatively low and for the most part less than 1.0 however a CV of 1.3 within the Rabbitkettle will require investigation and treatment through compositing and outlier grade limiting strategies. Coefficient of Variation or CV is a unit independent measure of variability which indicates the spread of the data throughout the population and is calculated as CV=standard deviation/mean.

The copper and gold values tend only to be elevated within the Sekwi Formation rocks at 0.141% and 0.18 ppm, respectively.

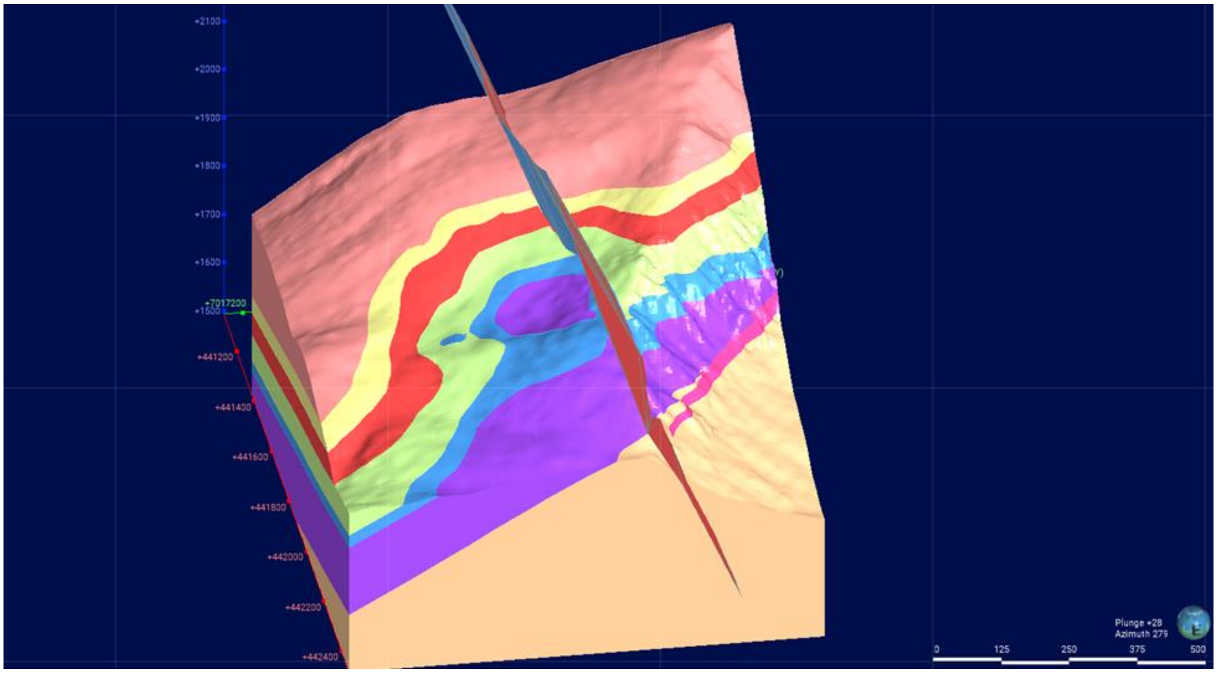
14.3 Geology & Domain Model

The modelling approach that was taken was to model the fault intersections resulting with the structural framework of the deposit and then create geology and estimation domains resulting in a non-grade informed lithostratigraphic model, all performed in LeapFrog™. As expected, the mineralized domains are predominantly within the Sekwi, Hess River and Rabbitkettle formations with local zonation within the Rabbitkettle resulting in six sub-domains which are grouped and assigned lithologic, alpha-numeric codes as follows: 2B, 3C, 3D, 3E, 3F, 3G and 3H.

As previously discussed, the Lower and Upper mineralized zones dip gently to the south; the Lower Zone has previously been suggested to be a “Z” fold (viewed down plunge to the west), which has raised the southern limb of the mineralized zone 60 m. There is little data and information to support this as the definitive structural characteristic in contrast to a simple normal fault where the 2B unit is bifurcated on the footwall. Either interpretation is valid and are similar volumetrically and positionally. The multi-bedded approach has been modelled and is the geological model that supports the current resource estimate described in this report.

Apart from the main fault transecting the project, there are various minor faults that have been interpreted in the past. However, these fault interpretations are not necessarily supported but surface mapping nor drill core structural logging. Therefore, for the purpose of this resource estimate, the significant normal fault transecting the project, as shown in Figure 14-2, has been modelled and shows a plan view of the structural framework of the deposit along with the interpreted mineralized zones and offsets and lithostratigraphic bedding from north to south.

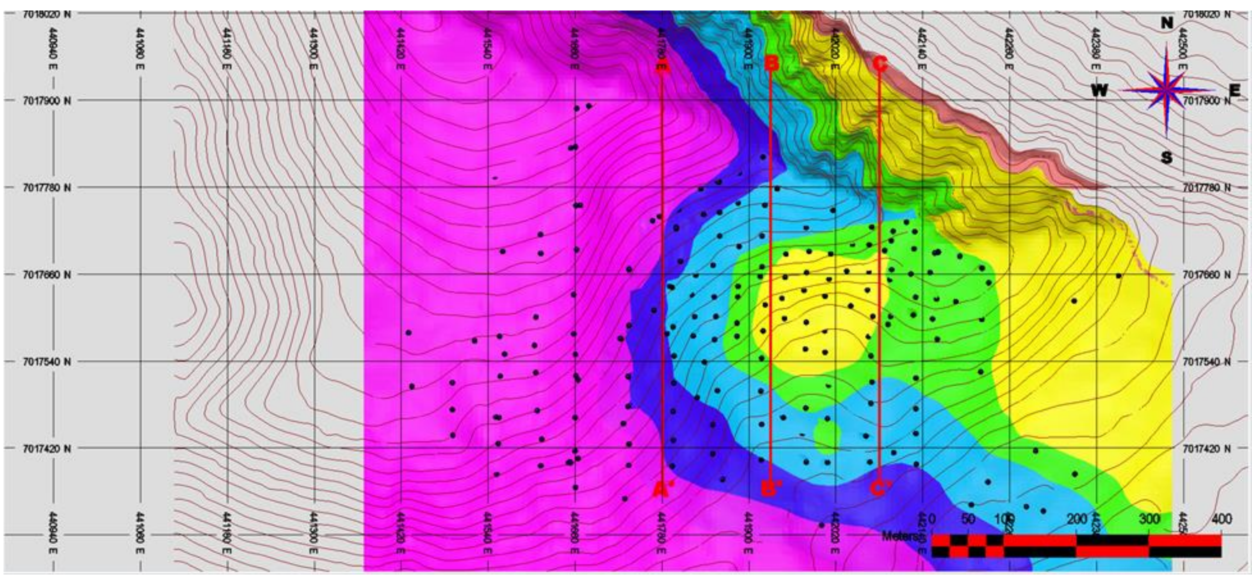
Figure 14-2: Faults for the Mactung Deposit with the Interpreted Mineralized Zones



Source: KGL (2023)

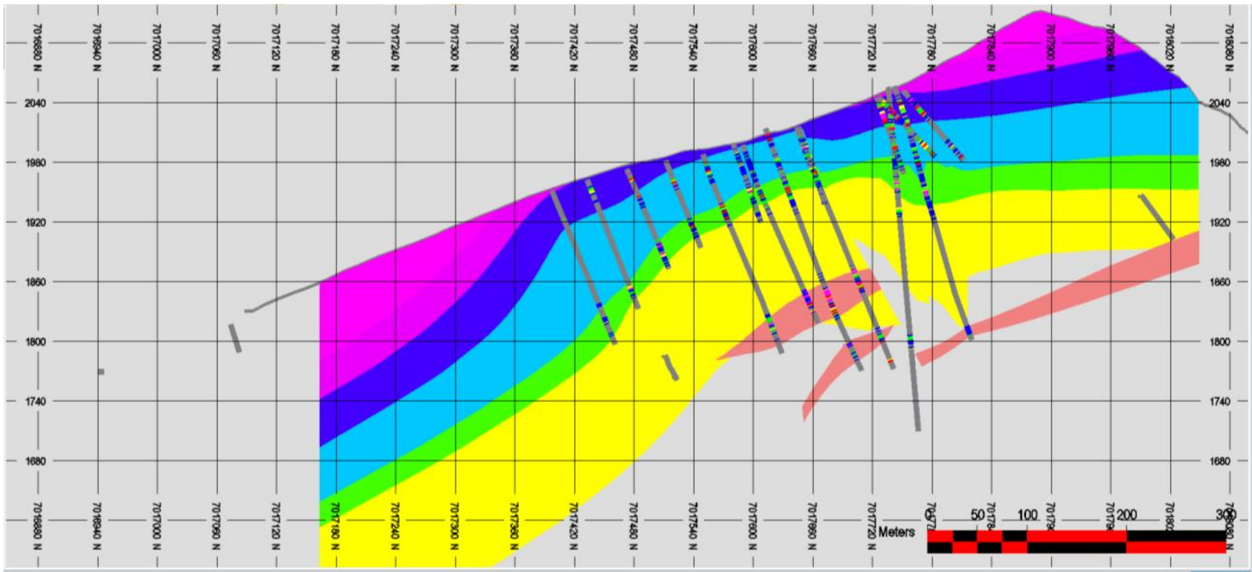
The coded database and complete domain solids were then exported from LeapFrog™ for modelling of the lithologic units accounting for the faulted structures and subsequently imported to Hexagon MinePlan™ for refinement and use for the resource estimation processes. Figure 14-3 through Figure 14-6 illustrates the resultant imported models by unit.

Figure 14-3: Plan View of the Lithologic Domain Model with Drillholes



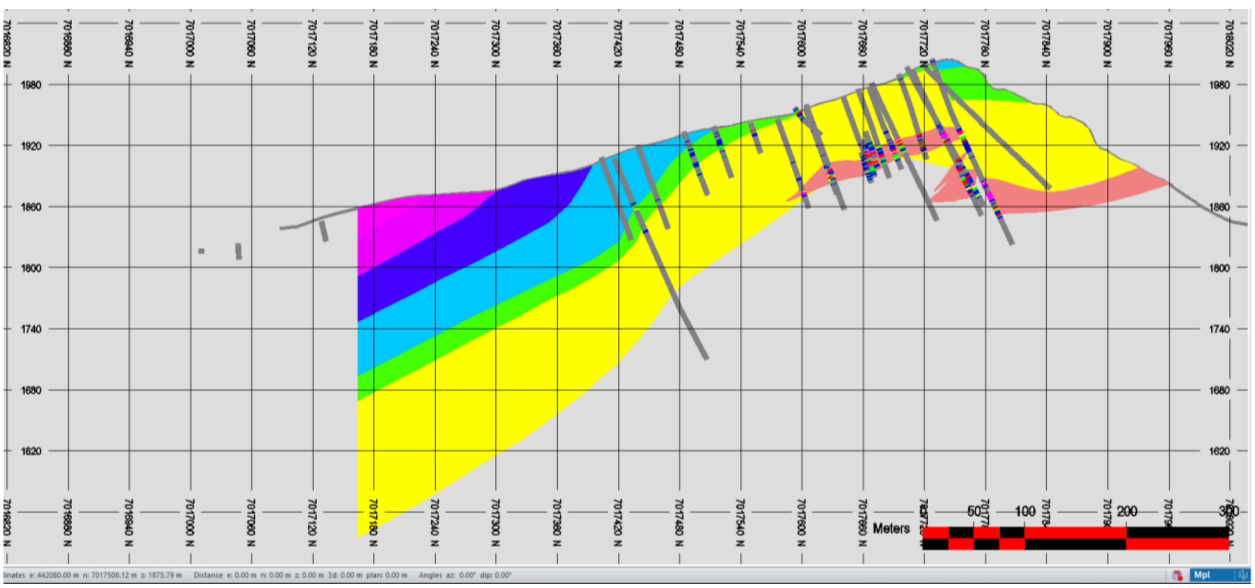
Source: KGL (2023)

Figure 14-4: A-A' Section View of the Lithologic Domain Model with Drillholes



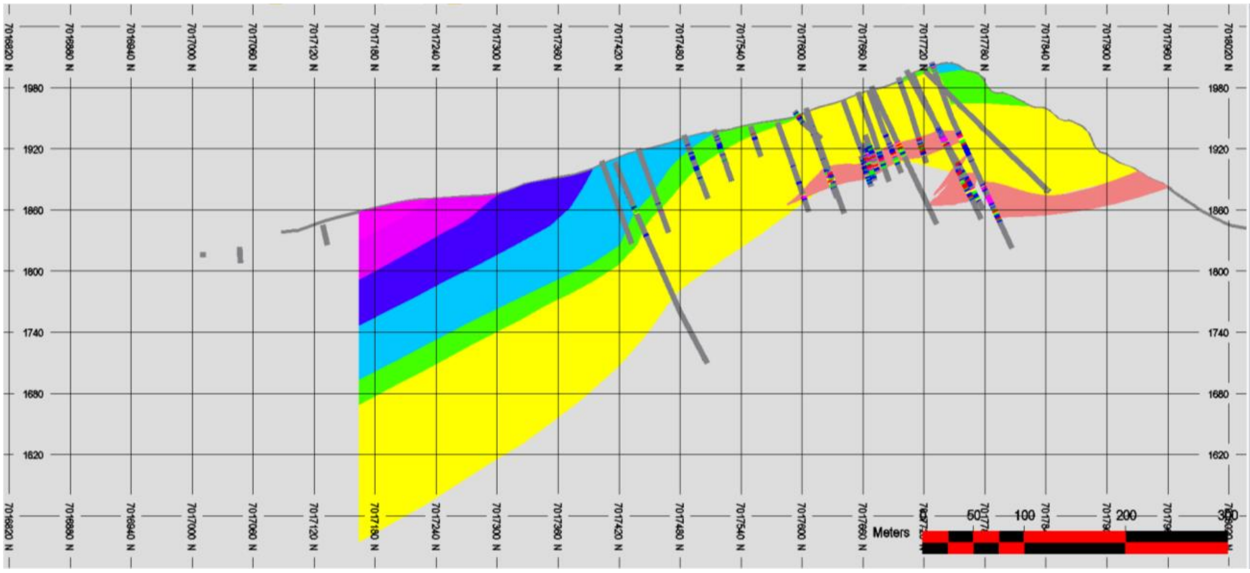
Source: KGL (2023)

Figure 14-5: B-B' Section View of the Lithologic Domain Model with Drillholes



Source: KGL (2023)

Figure 14-6: C-C' Section View of the Lithologic Domain Model with Drillholes



Source: KGL (2023)

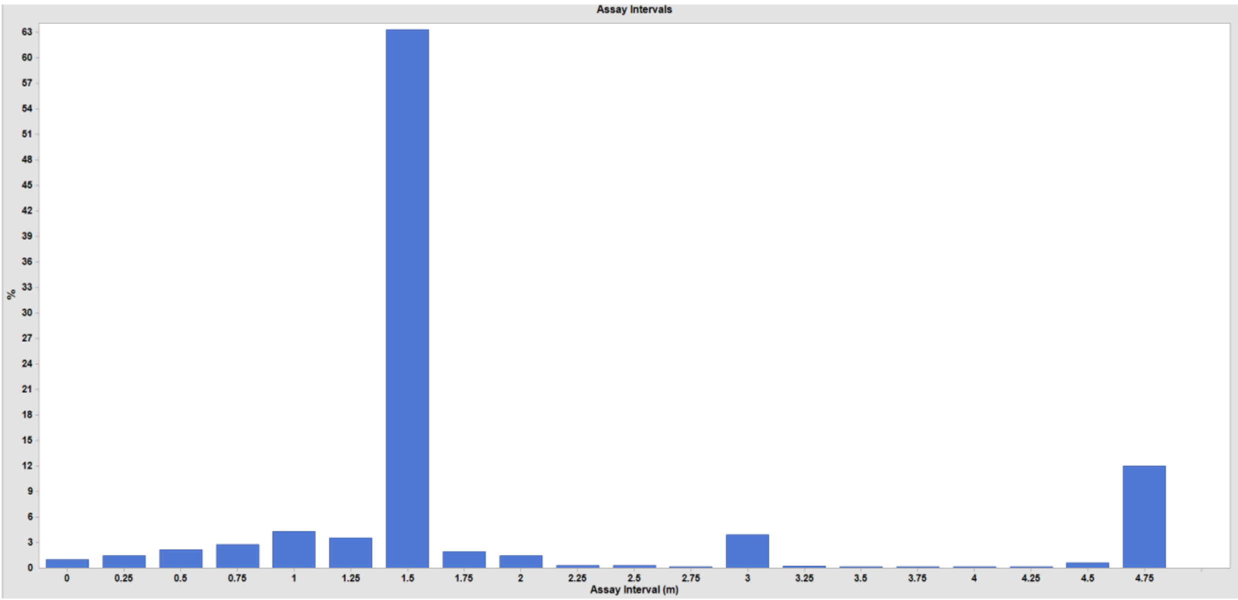
Once completed, the models were exported into Hexagon MinePlan™ where the solids were validated and verified against the drill hole data and also checked for openings and self-intersecting faces. Drillhole logs describe the zonation boundaries as "transitional" which is evidenced by the mineralization bleeding from footwall to hangingwall and vice-versa. These boundary values were reassigned to the appropriate unit thereby reducing the likelihood of over-estimation within the lower grade or waste units. In addition, the solids were adjusted in order to appropriately account for minor volumetric differences. Once the solid models were edited and complete, they were used to "back code" the drill hole assays and composites for subsequent statistical and geostatistical analysis. In addition, the solid zones were utilized to constrain the block model, by matching assays to those within the zones.

14.4 Composites

It was determined that the 1.5 m composite lengths offered the best balance between supplying common support for samples and minimizing the smoothing of grades. Figure 14-7 shows a histogram illustrating the distribution of the assay interval lengths for the complete database with more than 80% of the data having interval lengths of 1.5 m or 1.52 m in the case of the historic data that has been converted from imperial coordinates and measures. Figure 14-7 shows the histogram of for the assay intervals for the complete database. To determine whether there may be selective sampling, an analysis of high-grade gold samples versus assay interval lengths was performed. The scatterplot of Figure 14-8 for samples for all domains shows that the assay intervals and corresponding WO_3% grade have the same distribution and illustrate that there is not a high-grade bias within the small intervals and sample selectivity is not occurring with the exception of a few outliers. It appears approximately three of the very high-grade samples are within intervals that are 1 m or less. Each were investigated and once composited, they were effective smoothed and the grade regularized.

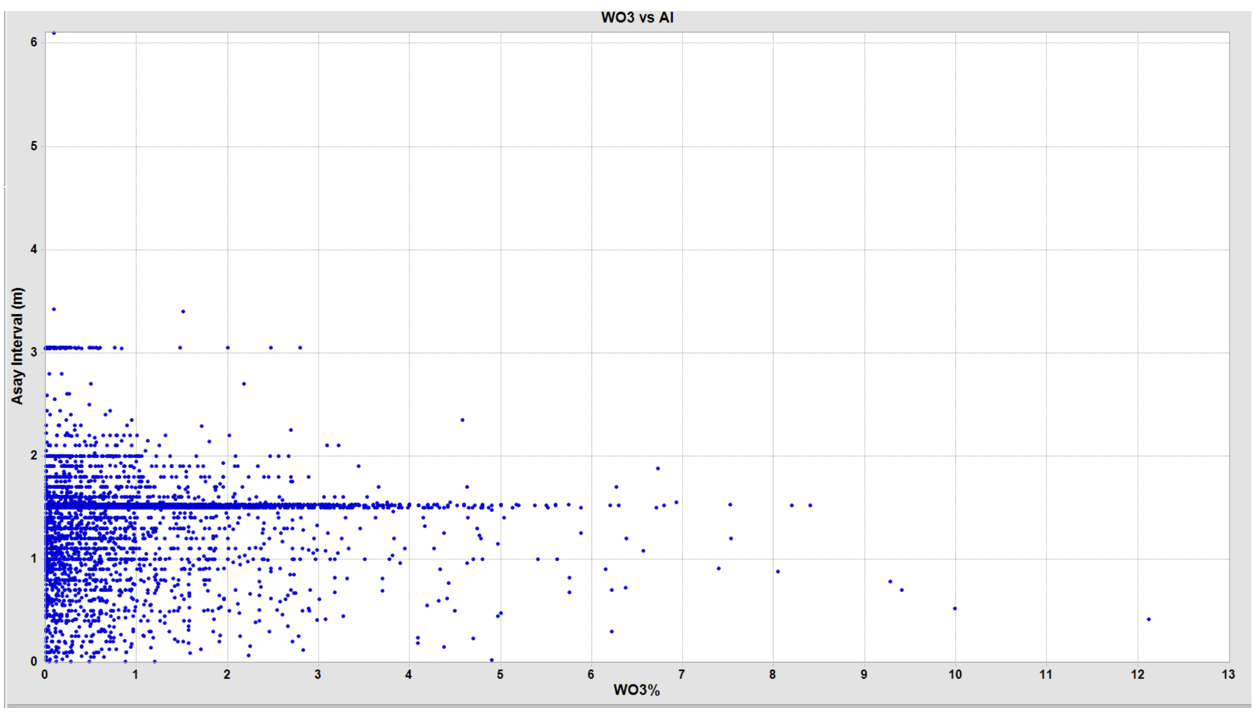
The 1.5 m sample length also was consistent with the distribution of sample lengths. It should be noted that although 1.5 m is the composite length, any residual composites of greater than 0.75 m in length and less than 1.5 m remained to represent a composite, while any composites residuals less than 0.75 m were combined with the composite above.

Figure 14-7: Histogram of Assay Interval Lengths in Metres



Source: KGL (2023)

Figure 14-8: Scatterplot of Assay Interval Lengths within Lithological Domains vs. WO_3% Grade

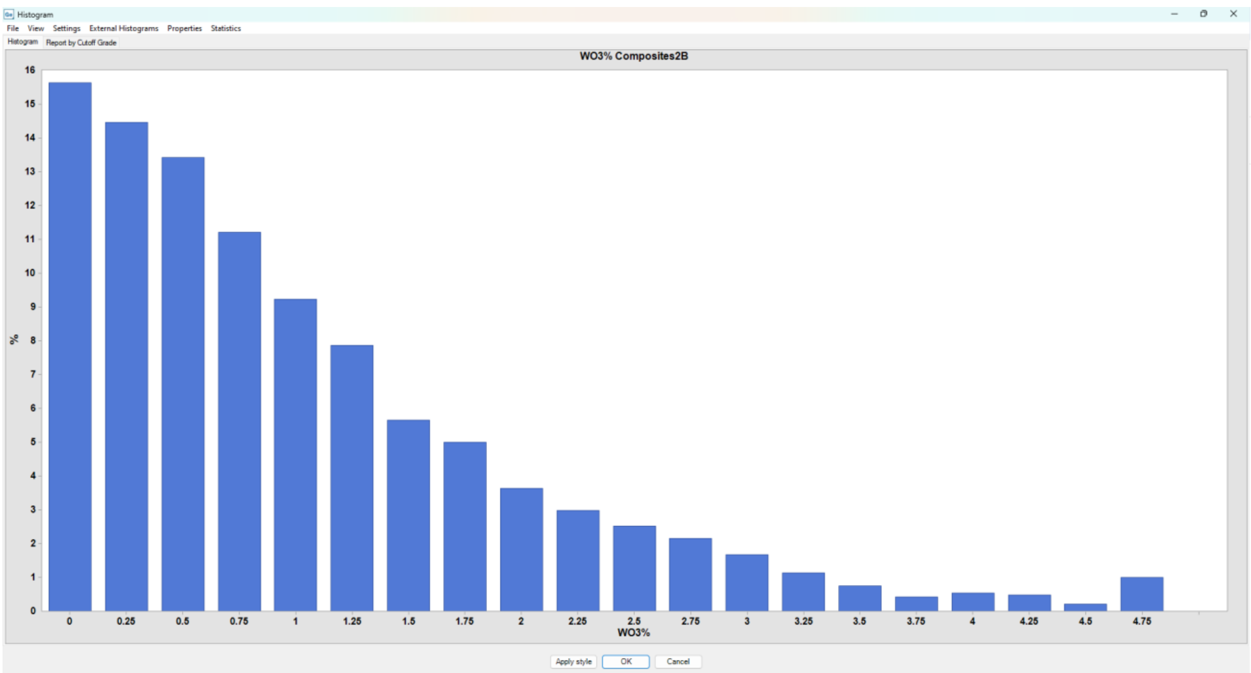


Source: KGL (2023)

14.4.1 Composite Analysis

Figure 14-9 through Figure 14-16 show histograms of the WO_3% composite values for all composites within the mineralized domains, respectively. Histograms are a useful tool for visualizing particular distribution characteristics of large datasets such as skewness, existence of multiple or outlier populations, dispersion and variability. The histograms for the Mactung mineralized domains illustrate log-normal distributions as expected for a massive relatively low-grade porphyry system with a small outlier population. The variability appears low, and the data doesn't demonstrate any discernable skewness. However, the domains with relatively low grades and less data, demonstrate higher variability and less continuity which may be addressed though grade limiting strategies and the smoothing of the grades during estimation.

Figure 14-9: Histogram of WO_3% Composite Grades

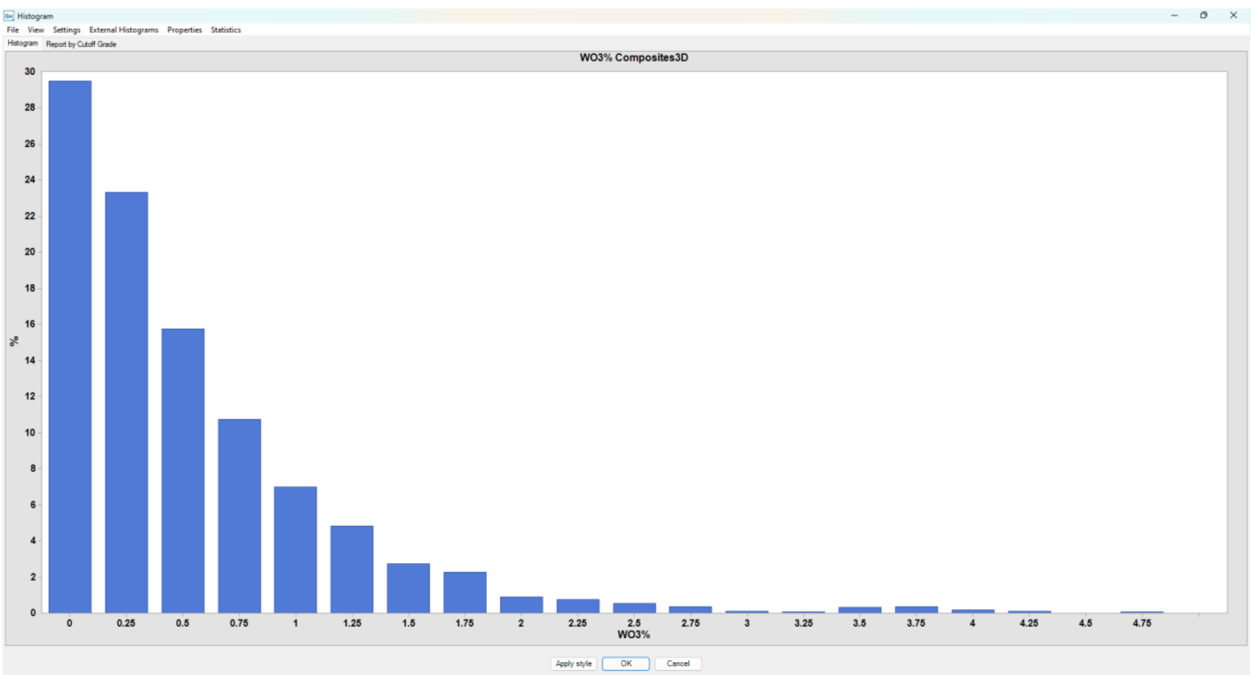


Source: KGL (2023)

Figure 14-10: Histogram of WO_3% Composite Grades

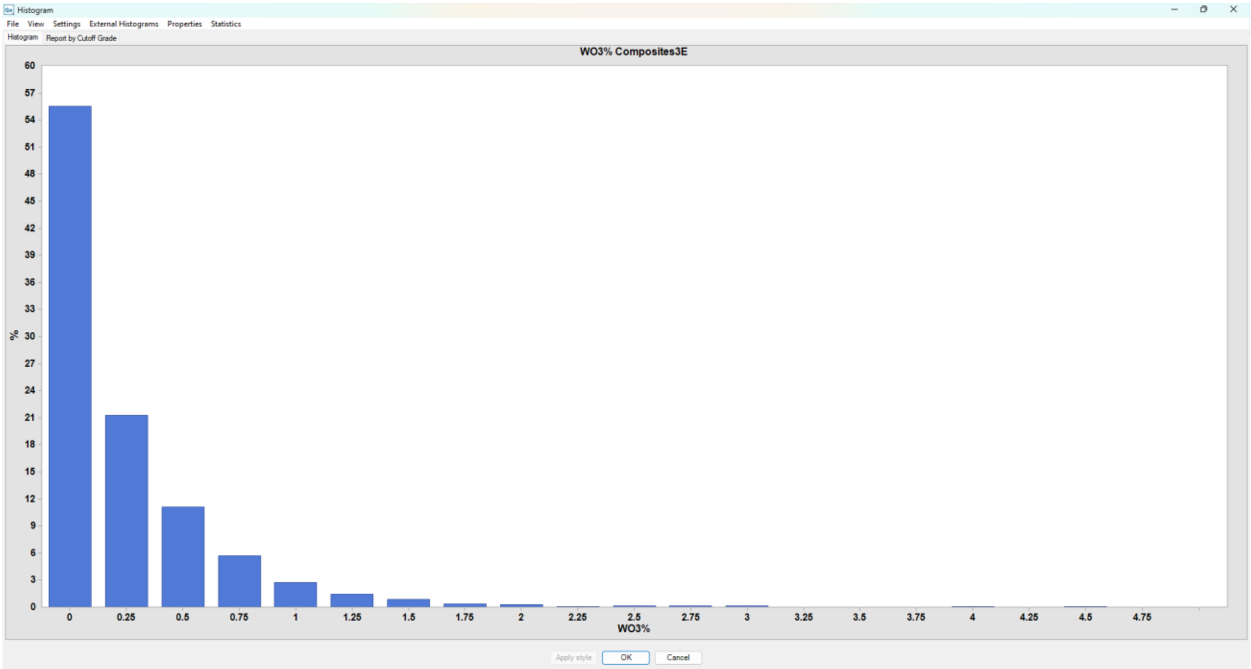
Source: KGL (2023)

Figure 14-11: Histogram for the WO_3% Composites for Domains



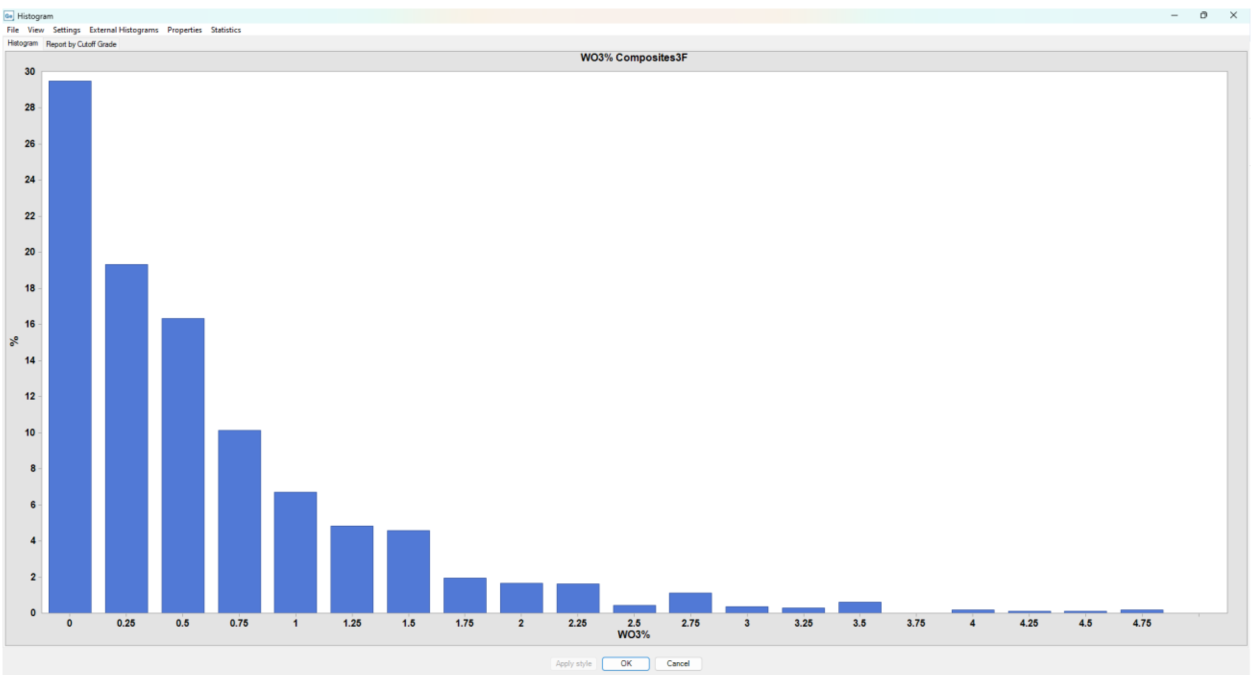
Source: KGL (2023)

Figure 14-12: Histogram for WO_3% Composites for the 3E Domain



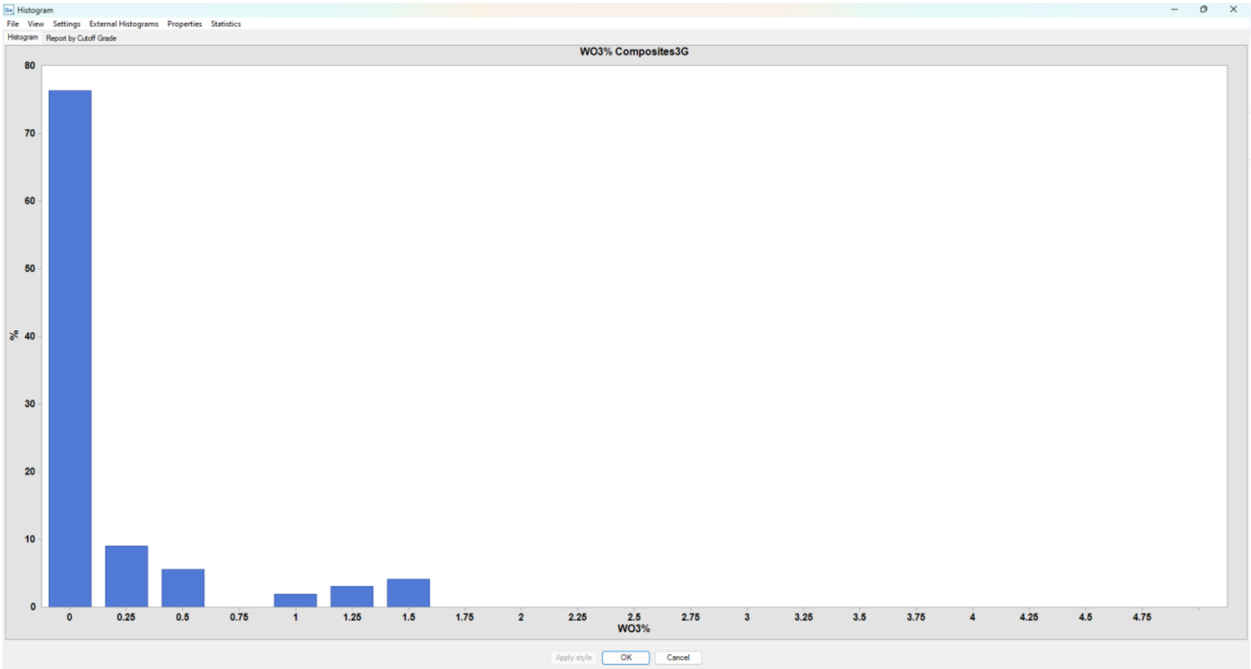
Source: KGL (2023)

Figure 14-13: Histogram of WO_3% Composites within the 3F Domain



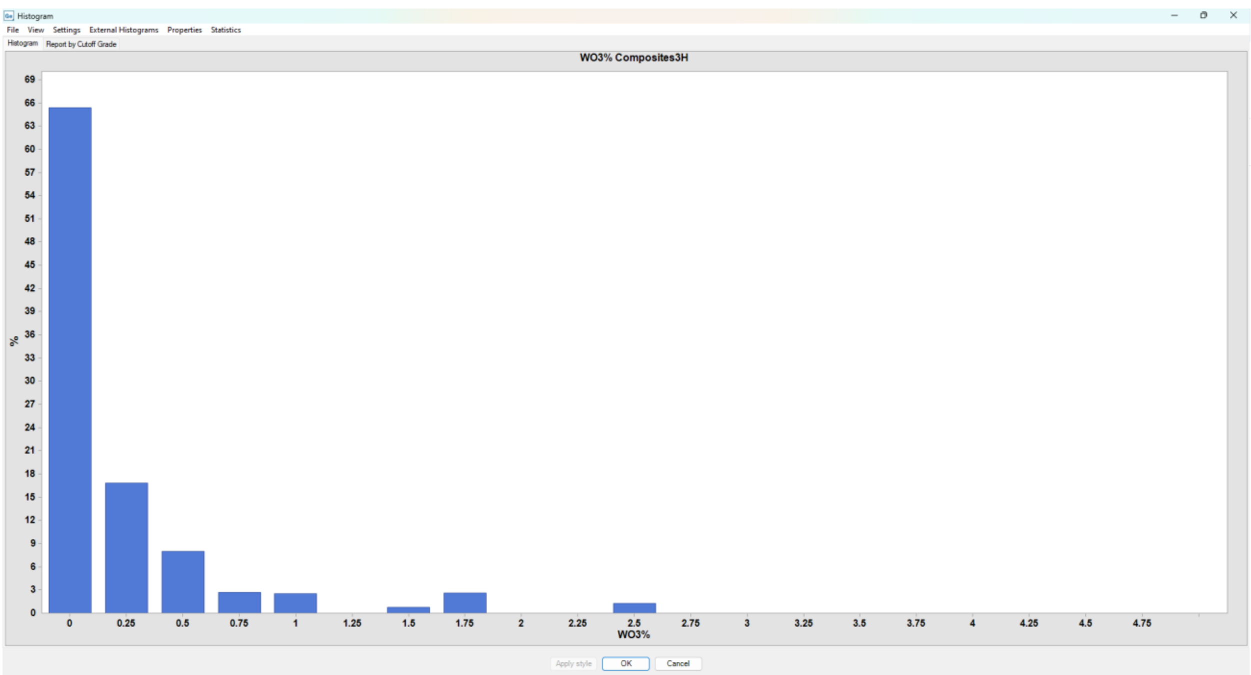
Source: KGL (2023)

Figure 14-14: Histogram for WO_3% Composites within the 3G Domain



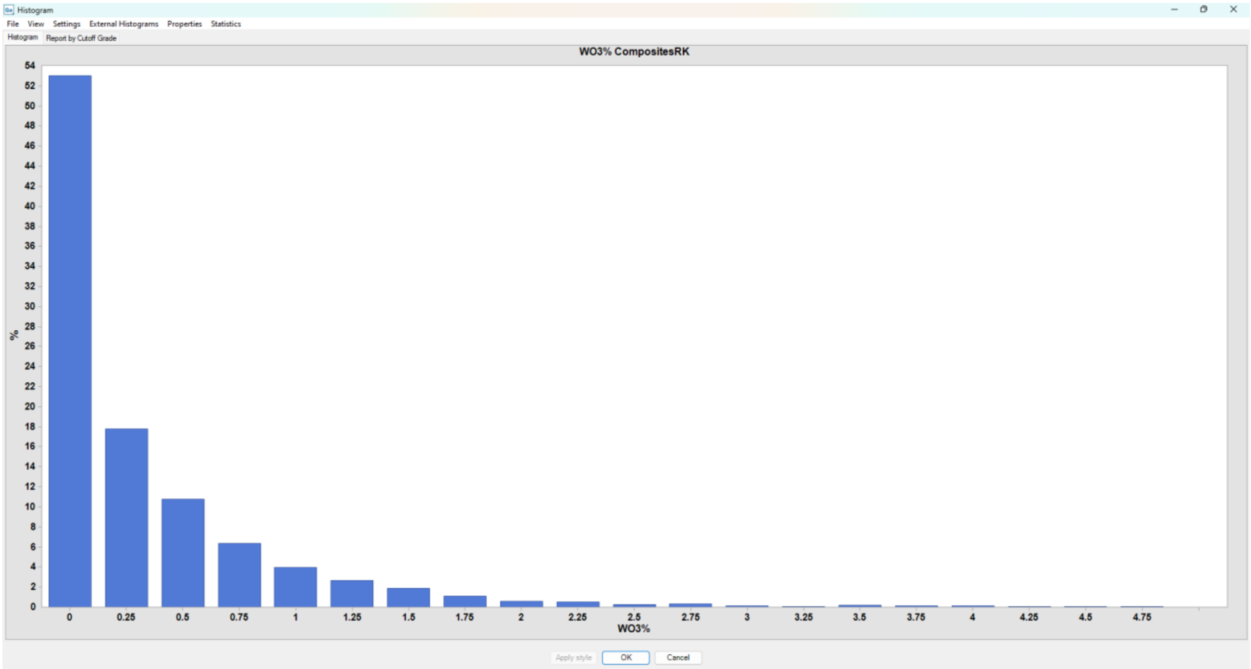
Source: KGL (2023)

Figure 14-15: Histogram for WO_3% Composites within the 3H Domain



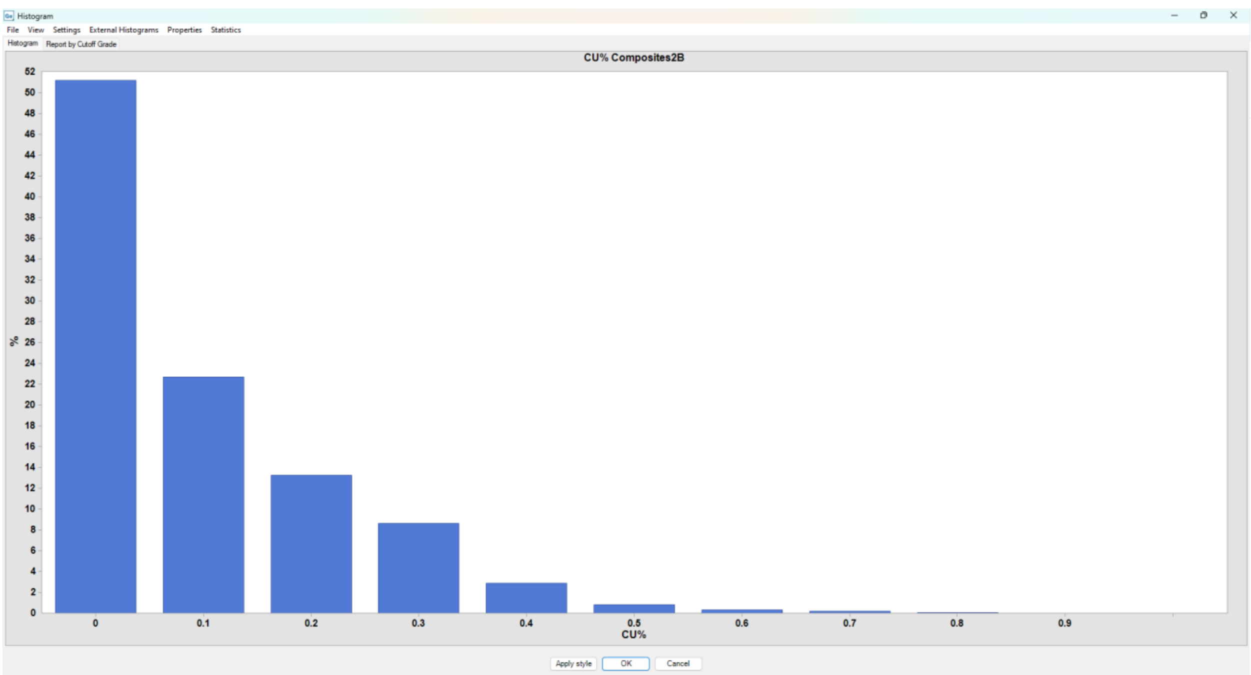
Source: KGL (2023)

Figure 14-16: Histogram for WO_3% Composites within the Combined 3C-3H Domains



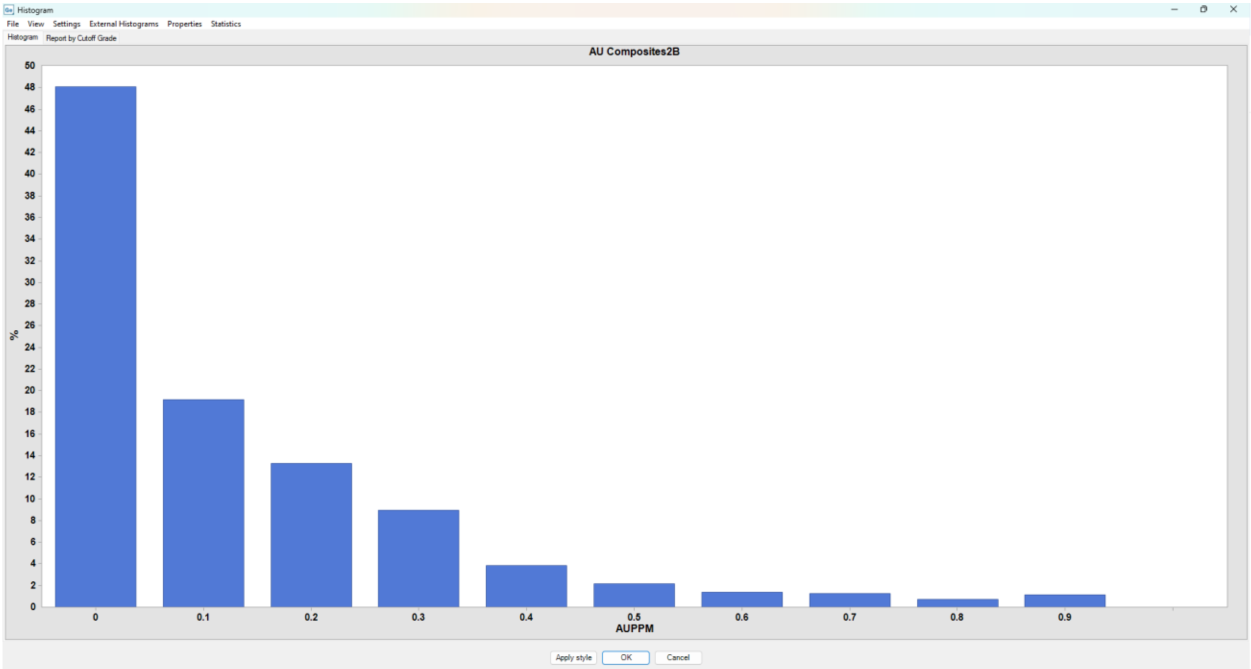
Source: KGL (2023)

Figure 14-17: Histogram of Copper (%) Composite Grades within the 2B Domains



Source: KGL (2023)

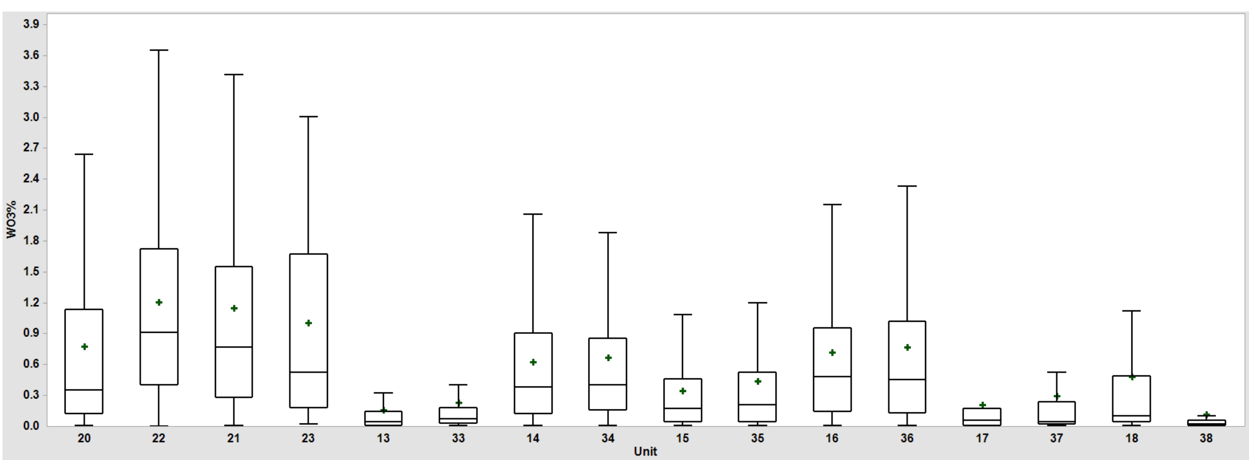
Figure 14-18: Histogram of Gold (g/t) Composite Grades within the 2B Domains



Source: KGL (2023)

As each of the units are present both within the hangingwall and footwall, the question that requires resolution is whether it is appropriate to allow the corresponding limbs to be combined for statistical and geostatistical analysis and subsequent estimation. Figure 14-19 shows a box plot of each of the units, sub-domained by limb; 2B (20, 21, 22, 23), 3C (13,33), 3D (14, 34), 3E (15, 35), 3F (16,36), 3G (17, 37), 3H (18, 38). It is clear, with the exception of the 3H unit that the faulting is post mineral and therefore the sub-domains do not require separation and warrant being grouped.

Figure 14-19: Box Plot of WO_3% Composites for Sub-Domains Transected by Faulting



Source: KGL (2023)

In addition, Figure 14-20 through Figure 14-25 shows box plots and basic statistics for the grouped WO_3%, copper and gold composites within the each of the domains (2B, 3C, 3D, 3E, 3F, 3G, 3H).

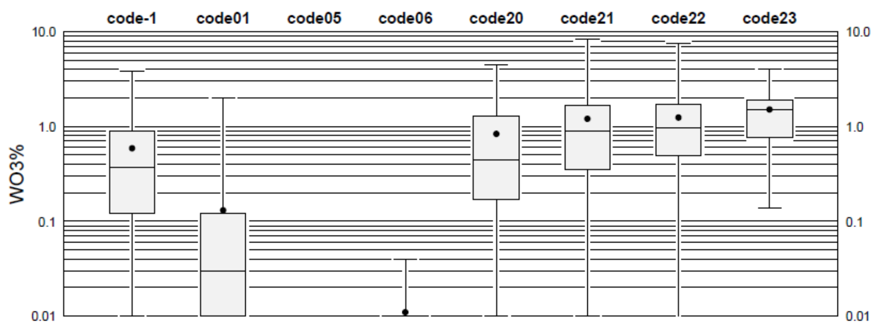
The weighted average WO_3% grades are consistently within the 0.8% to 1.8% range and modest CVs within the mineralized domains with the exception the 0.6 to 1.1. Copper and gold are predominant within the 2B and therefore, only the 2B zones are deemed to have these in significant enough concentrations and continuity for resource reporting.

For all units, distributions and relative values are as expected and align with the interpretations and models. The tenor and distribution of metals confirm that the 2B (20, 21, 22, 23) unit should be evaluated and estimated using the same parameters and that the significant copper and gold mineralization resides within the 2B as opposed to the 3C though 3H. However, the 3C through 3H do have significant enough levels of WO_3%, the individual units are fairly different supporting using hard boundaries during estimation.

Figure 14-20: Box Plot of WO_3% Composites for the 2B and Waste Domains

MacTung ***MacTung Modeling***

MacTung : Domain Code



	code-1	code01	code05	code06	code20	code21	code22	code23	
Number of data	115	359	0	44	206	412	1621	26	**Number of data**
Mean	0.589	0.131	0.0	0.011	0.836	1.206	1.244	1.513	**Mean**
Variance	0.399	0.06	0.0	0.0	0.824	1.273	1.079	0.81	**Variance**
Skewness	2.098	3.651	0.0	4.471	1.492	1.962	1.582	0.759	**Skewness**
Coef of Variation	1.073	1.874	0.0	0.445	1.086	0.936	0.835	0.595	**Coef of Variation**
Maximum	3.8	2.0	0.0	0.04	4.48	8.25	7.56	4.06	**Maximum**
Upper quartile	0.887	0.12	0.0	0.01	1.303	1.663	1.73	1.91	**Upper quartile**
Median	0.374	0.03	0.0	0.01	0.44	0.89	0.98	1.518	**Median**
Lower quartile	0.12	0.01	0.0	0.01	0.171	0.355	0.499	0.76	**Lower quartile**
Minimum	0.01	0.01	0.0	0.01	0.01	0.01	0.0	0.14	**Minimum**

Variable: WO3%
Acceptable range: 0.0 to 100.0
Weights: LNGTH

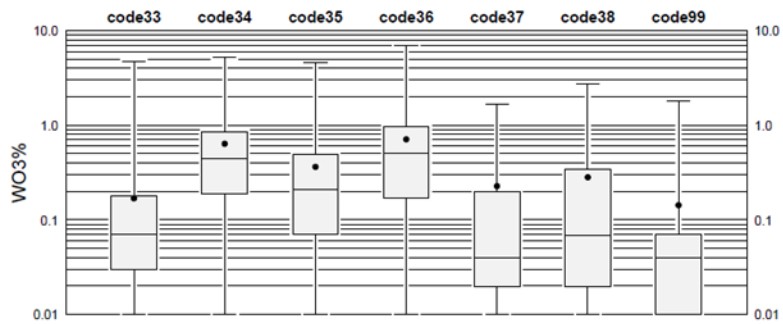
code-1 file: c-1.prn
code01 file: c01.prn
code05 file: c05.prn
code06 file: c06.prn
code20 file: c20.prn
code21 file: c21.prn
code22 file: c22.prn
code23 file: c23.prn

Source: KGL (2023)

Figure 14-21: Box Plot of WO_3% Composites for the 3C-3H Domains and Overburden

MacTung ***MacTung Modeling***

MacTung : Domain Code



	code33	code34	code35	code36	code37	code38	code99	
Number of data	2063	1482	1662	1021	64	75	14	**Number of data**
Mean	0.169	0.638	0.364	0.711	0.228	0.282	0.143	**Mean**
Variance	0.098	0.43	0.215	0.571	0.17	0.228	0.15	**Variance**
Skewness	6.111	2.262	3.309	2.318	2.437	2.88	3.929	**Skewness**
Coef of Variation	1.848	1.028	1.275	1.063	1.81	1.695	2.698	**Coef of Variation**
Maximum	4.77	5.18	4.58	6.99	1.68	2.71	1.8	**Maximum**
Upper quartile	0.177	0.856	0.493	0.975	0.198	0.341	0.07	**Upper quartile**
Median	0.07	0.44	0.21	0.5	0.04	0.068	0.04	**Median**
Lower quartile	0.03	0.19	0.07	0.17	0.02	0.02	0.01	**Lower quartile**
Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	**Minimum**

Variable: WO3%
Acceptable range: 0.0 to 100.0
Weights: LNGTH

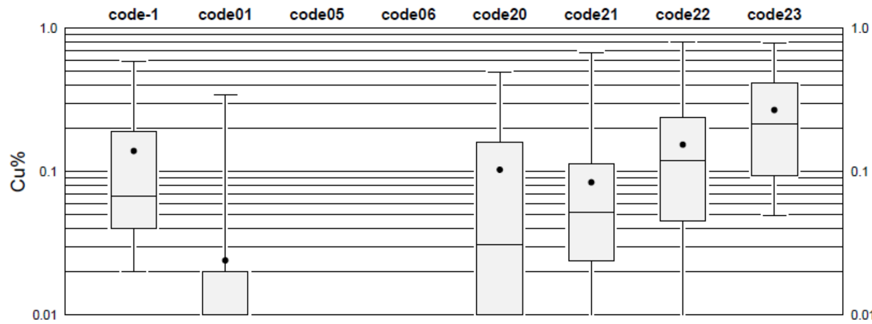
code33 file: c33.prn
code34 file: c34.prn
code35 file: c35.prn
code36 file: c36.prn
code37 file: c37.prn
code38 file: c38.prn
code99 file: c99.prn

Source: KGL (2023)

Figure 14-22: Box Plot of Cu% Composites for the 2B and Waste Domains

MacTung ***MacTung Modeling***

MacTung : Domain Code



	code-1	code01	code05	code06	code20	code21	code22	code23	
Number of data	10	298	0	0	105	356	1484	26	**Number of data**
Mean	0.139	0.024	0.0	0.0	0.103	0.084	0.154	0.268	**Mean**
Variance	0.027	0.002	0.0	0.0	0.015	0.008	0.018	0.04	**Variance**
Skewness	1.909	5.07	0.0	0.0	1.306	2.395	1.056	0.991	**Skewness**
Coef of Variation	1.185	1.646	0.0	0.0	1.204	1.09	0.859	0.748	**Coef of Variation**
Maximum	0.59	0.34	0.0	0.0	0.495	0.677	0.802	0.782	**Maximum**
Upper quartile	0.19	0.02	0.0	0.0	0.161	0.114	0.238	0.413	**Upper quartile**
Median	0.067	0.01	0.0	0.0	0.031	0.052	0.12	0.215	**Median**
Lower quartile	0.04	0.01	0.0	0.0	0.01	0.024	0.045	0.094	**Lower quartile**
Minimum	0.02	0.002	0.0	0.0	0.001	0.001	0.0	0.049	**Minimum**

Variable: Cu%
Acceptable range: 0.0 to 100.0
Weights: LNGTH

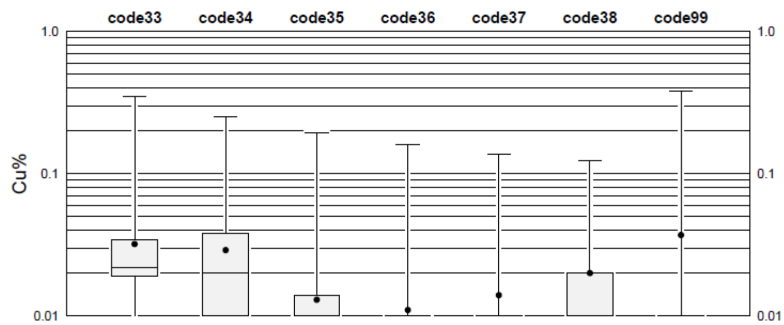
code-1 file: c-1.prn
code01 file: c01.prn
code05 file: c05.prn
code06 file: c06.prn
code20 file: c20.prn
code21 file: c21.prn
code22 file: c22.prn
code23 file: c23.prn

Source: KGL (2023)

Figure 14-23: Box Plot of Cu% Composites for the 3C-3H Domains and Overburden

MacTung ***MacTung Modeling***

MacTung : Domain Code



	code33	code34	code35	code36	code37	code38	code99	
Number of data	1184	907	913	619	54	37	10	**Number of data**
Mean	0.032	0.029	0.013	0.011	0.014	0.02	0.037	**Mean**
Variance	0.001	0.001	0.0	0.0	0.001	0.0	0.009	**Variance**
Skewness	4.526	2.473	7.153	5.976	3.201	4.407	3.344	**Skewness**
Coef of Variation	0.96	1.035	0.981	1.129	2.021	0.923	2.597	**Coef of Variation**
Maximum	0.346	0.25	0.194	0.159	0.138	0.124	0.38	**Maximum**
Upper quartile	0.034	0.038	0.014	0.01	0.01	0.02	0.01	**Upper quartile**
Median	0.022	0.02	0.01	0.01	0.006	0.02	0.01	**Median**
Lower quartile	0.019	0.01	0.009	0.006	0.002	0.01	0.01	**Lower quartile**
Minimum	0.002	0.001	0.001	0.0	0.001	0.003	0.009	**Minimum**

Variable: Cu%
Acceptable range: 0.0 to 100.0
Weights: LNGTH

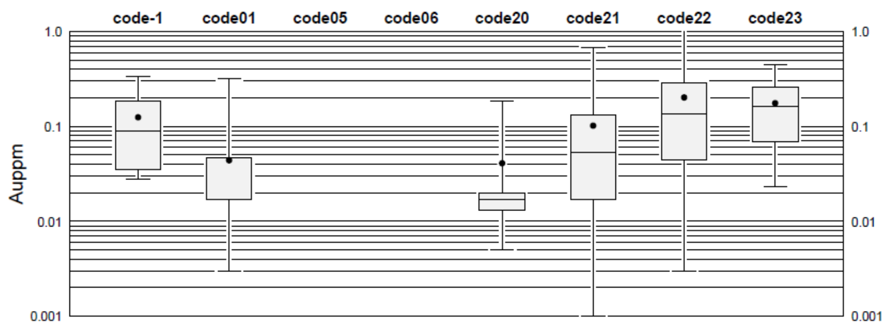
code33 file: c33.prn
code34 file: c34.prn
code35 file: c35.prn
code36 file: c36.prn
code37 file: c37.prn
code38 file: c38.prn
code99 file: c99.prn

Source: KGL (2023)

Figure 14-24: Box Plot of Gold Composites by 2B and Waste Domains

MacTung ***MacTung Modeling***

MacTung : Domain Code



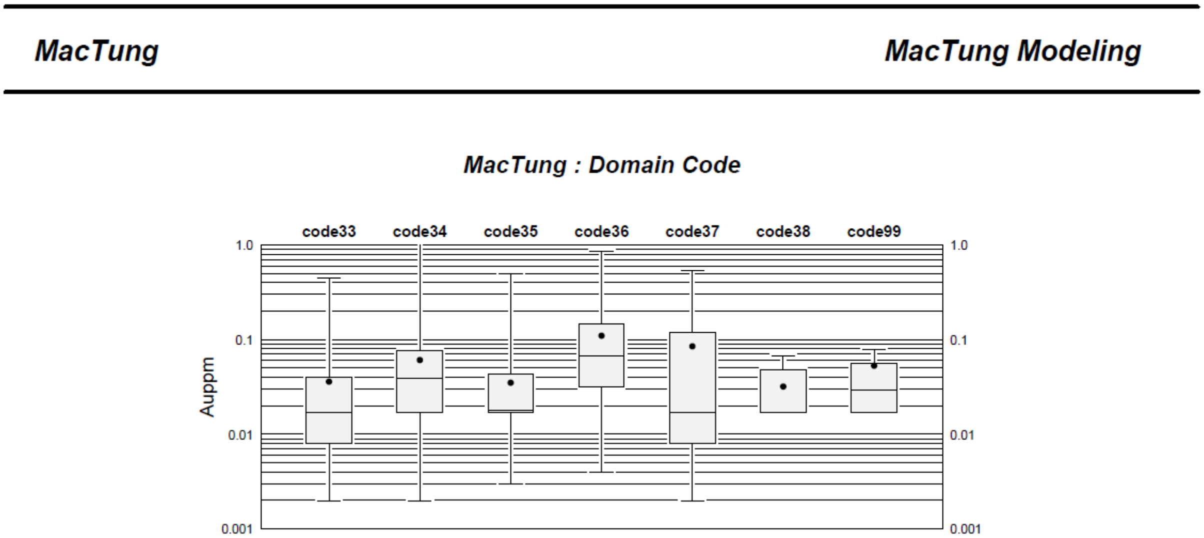
	code-1	code01	code05	code06	code20	code21	code22	code23	
Number of data	5	81	0	0	10	212	819	17	**Number of data**
Mean	0.125	0.044	0.0	0.0	0.041	0.102	0.202	0.176	**Mean**
Variance	0.013	0.004	0.0	0.0	0.004	0.016	0.047	0.015	**Variance**
Skewness	1.119	2.683	0.0	0.0	1.864	2.063	2.041	0.555	**Skewness**
Coef of Variation	0.907	1.397	0.0	0.0	1.514	1.234	1.067	0.686	**Coef of Variation**
Maximum	0.339	0.317	0.0	0.0	0.185	0.676	1.418	0.443	**Maximum**
Upper quartile	0.184	0.047	0.0	0.0	0.02	0.133	0.29	0.257	**Upper quartile**
Median	0.089	0.017	0.0	0.0	0.017	0.054	0.134	0.162	**Median**
Lower quartile	0.035	0.017	0.0	0.0	0.013	0.017	0.045	0.069	**Lower quartile**
Minimum	0.028	0.003	0.0	0.0	0.005	0.001	0.003	0.023	**Minimum**

Variable: Auppm
Acceptable range: 0.0 to 100.0
Weights: LNGTH

code-1 file: c-1.pm
code01 file: c01.pm
code05 file: c05.pm
code06 file: c06.pm
code20 file: c20.pm
code21 file: c21.pm
code22 file: c22.pm
code23 file: c23.pm

Source: KGL (2023)

Figure 14-25: Box Plot of WO_3% Composites for 3C-3H Domains and Overburden



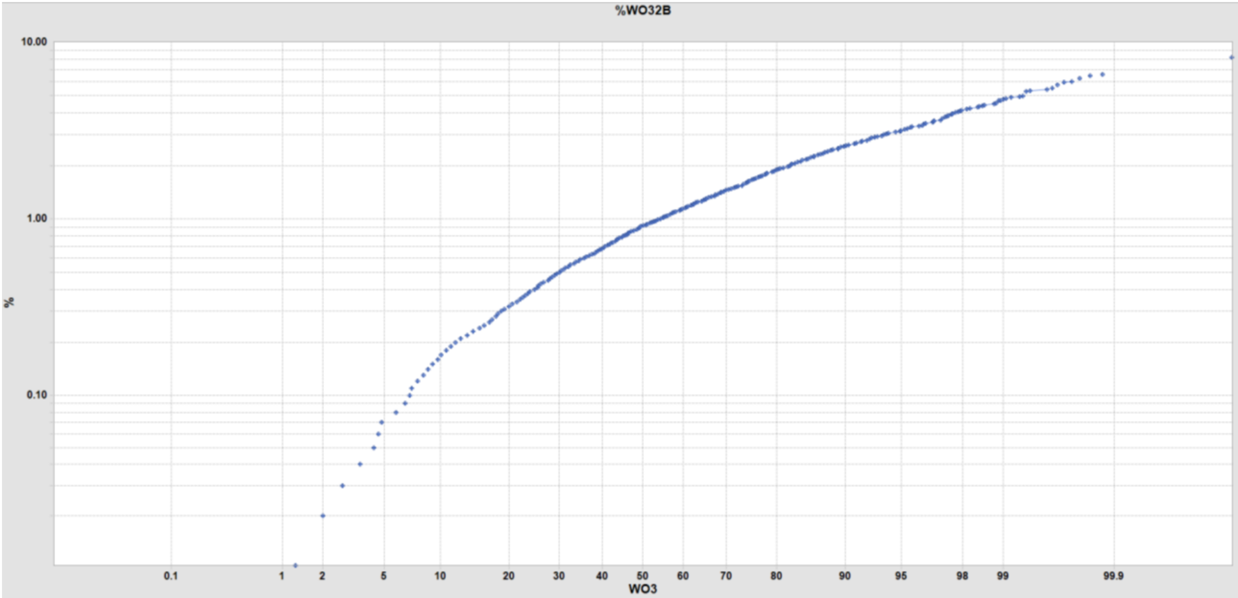
	code33	code34	code35	code36	code37	code38	code99
Number of data	661	677	573	413	38	4	3
Mean	0.036	0.061	0.035	0.11	0.085	0.032	0.053
Variance	0.003	0.006	0.002	0.015	0.016	0.001	0.001
Skewness	3.667	5.818	5.521	2.667	1.965	0.934	-0.311
Coef of Variation	1.497	1.241	1.254	1.103	1.481	0.729	0.58
Maximum	0.45	1.132	0.498	0.862	0.543	0.068	0.079
Upper quartile	0.04	0.076	0.043	0.146	0.12	0.048	0.056
Median	0.017	0.039	0.018	0.068	0.017	0.017	0.029
Lower quartile	0.008	0.017	0.017	0.032	0.008	0.017	0.017
Minimum	0.002	0.002	0.003	0.004	0.002	0.017	0.017

Source: KGL (2023)

14.5 Evaluation of Outlier Assay Values

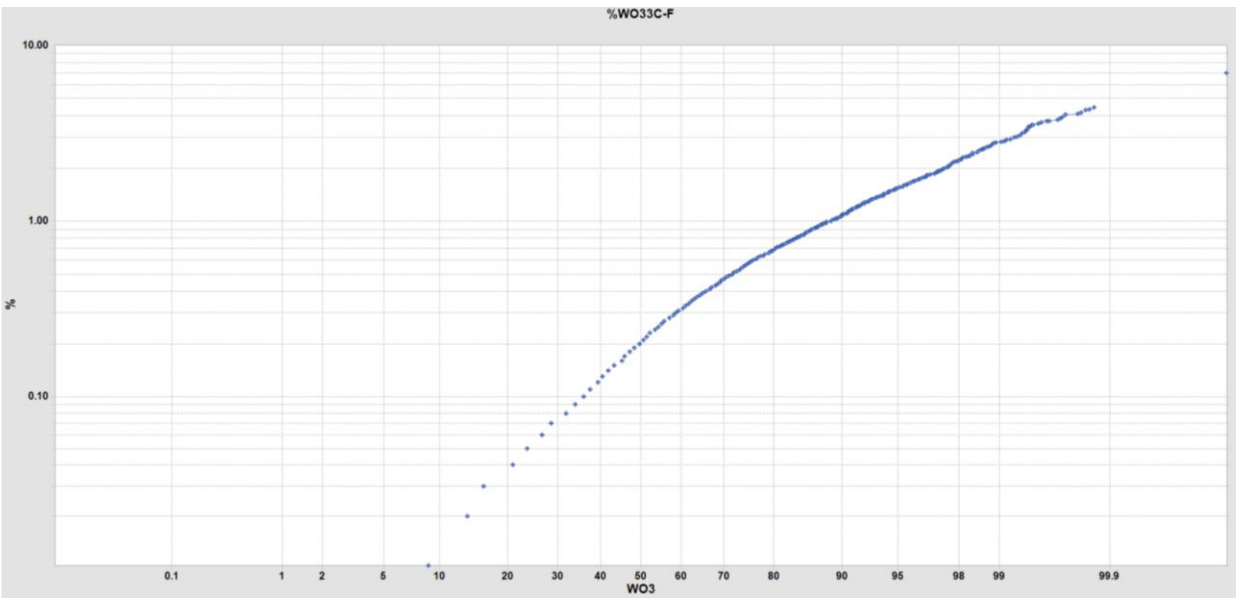
During the estimation process, the influence of outlier composites is controlled to limit their influence and to ensure against over-estimation of grades and metal content. Although the outlier grades at Mactung are not particularly extreme nor numerous, it is still prudent to ensure that they do not have an over-weighted influence that may result in over-estimation. In addition, the treatment of outliers is effective at reducing the variability and thereby uncertainty and risk. The high-grade outlier thresholds were chosen by domain and are based on an analysis of the breaks in the cumulative frequency plots for each of the mineralized domains. Figure 14-26 through Figure 14-31 show examples of the WO_3, copper and gold cumulative frequency plots for composites grouped within the 2B and 3C through 3H domains, respectively.

Figure 14-26: WO_3% Cumulative Frequency Plot for the 2B Domains



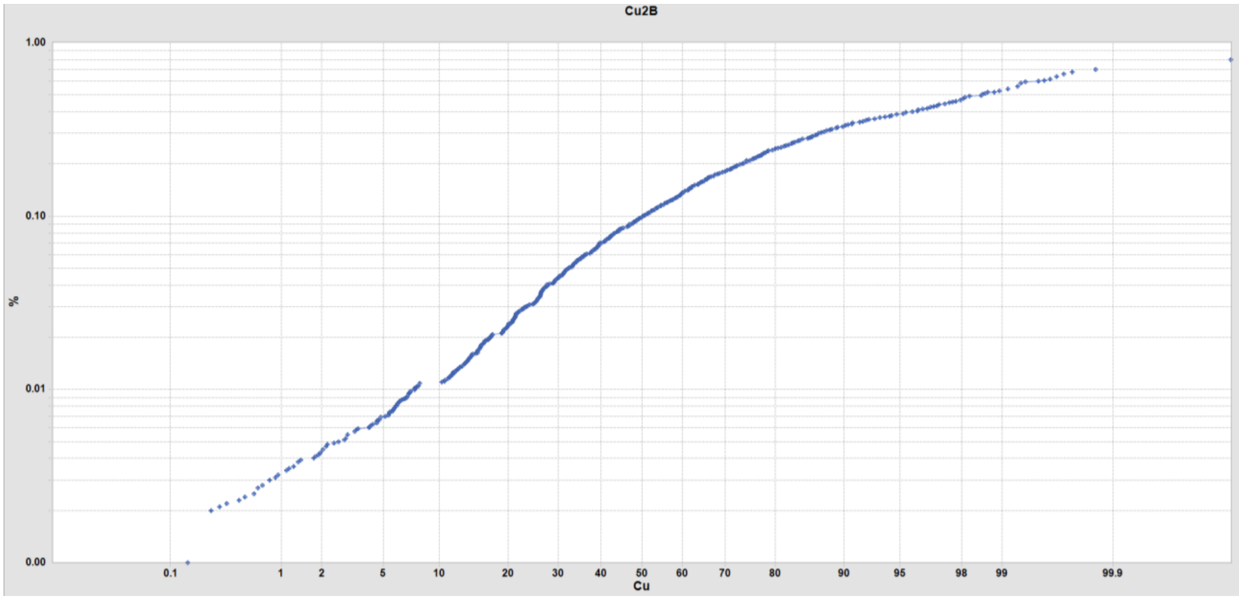
Source: KGL (2023)

Figure 14-27: WO_3% Cumulative Frequency Plot for 3C-3H Domains



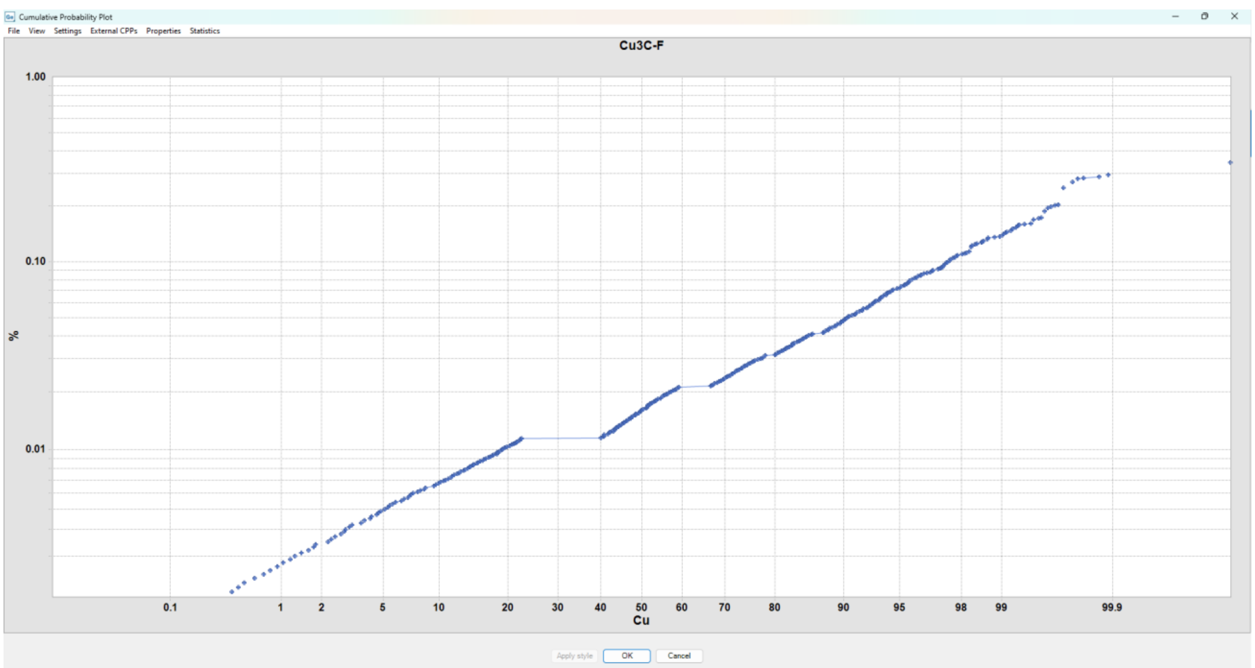
Source: KGL (2023)

Figure 14-28: Cu Cumulative Frequency Plot for the 2B Domains



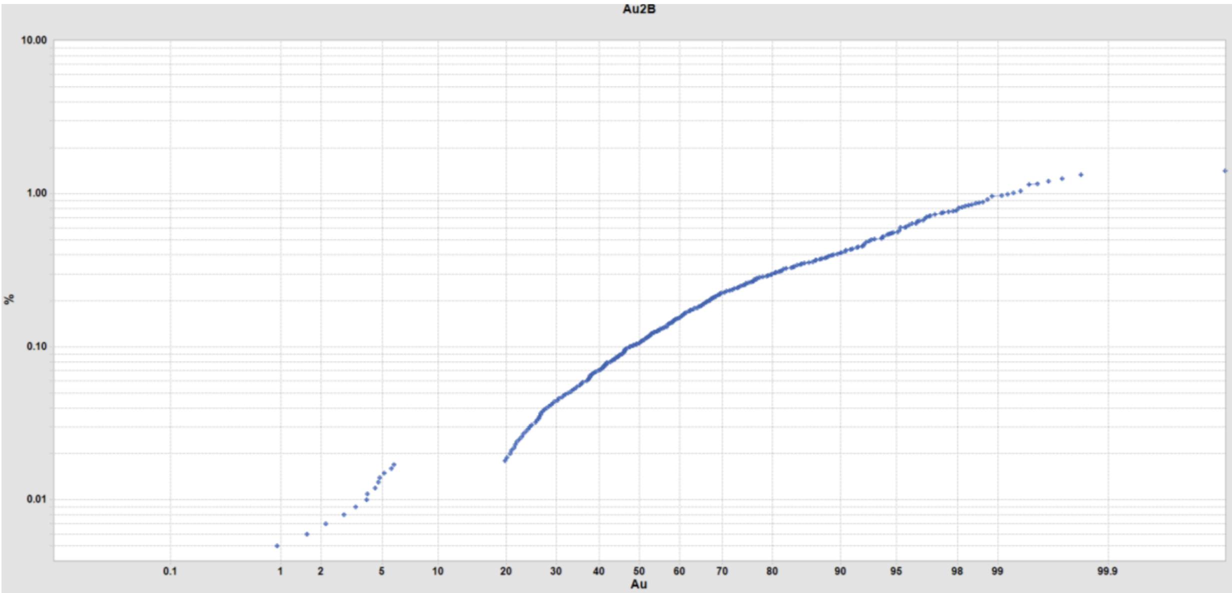
Source: KGL (2023)

Figure 14-29: Cu Cumulative Frequency Plot for the 3C-3H Domains



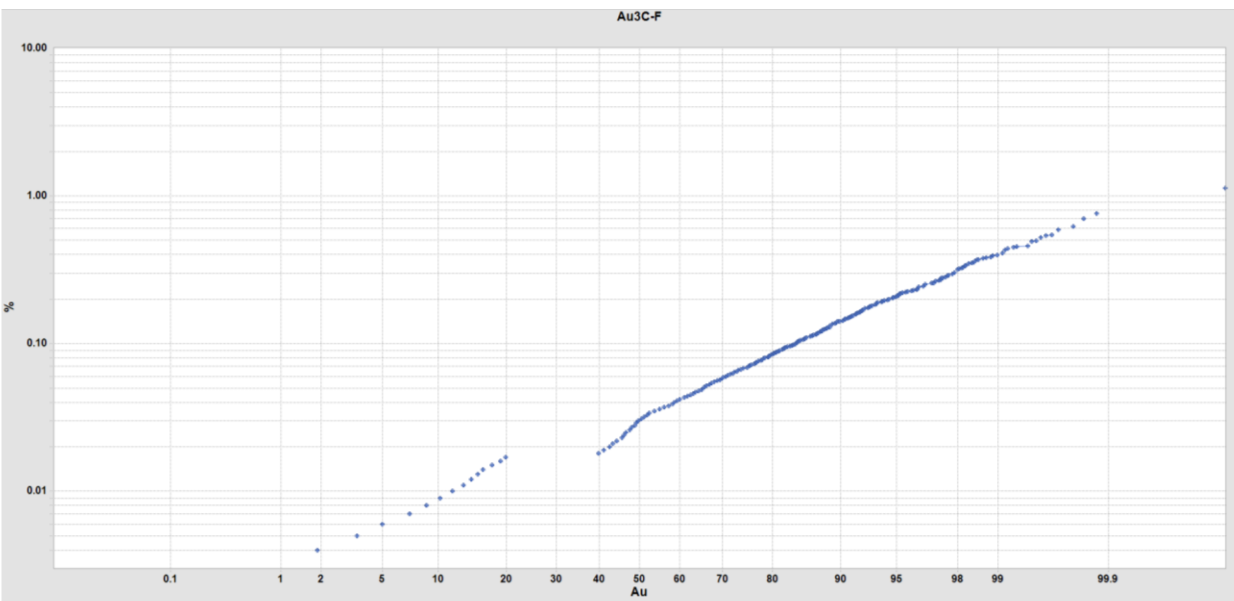
Source: KGL (2023)

Figure 14-30: Au Cumulative Frequency Plot for 2B Domains



Source: KGL (2023)

Figure 14-31: Au Cumulative Frequency Plot for 3C-3H Domains



Source: KGL (2023)

The analysis of the "breaks" within the cumulative frequency plot shows that the appropriate threshold for which to limit or "cut" the grades by domain grouping are as listed in Table 14-6.

Table 14-6: Cut Grades for WO_3%, Cu and Au within Lithological Domains

Domains Group	WO_3 Cut Threshold (%)	Cu Cut Threshold (%)	Au Cut Threshold (gpt)
2B	5	0.5	0.95
3C-3H	3.5	0.15	0.45

Source: KGL (2023)

Table 14-7 shows the effects of cutting the outlier grades within the domains, respectively. It is important to note that at this point an additional step was employed to ensure that intervals that did not have sample information or missing data due to no sampling or poor recovery or lost historic data was set to 0.000. This included the WO_3% sample set which does not show any discernable difference which is understandable due to the historic focus being on the potential of the tungsten resource. However, the copper and gold values do illustrate a marked decrease in mean grades and an increase in variability as shown by the higher CVs which in the case of gold is a very significant increase. Although the lower values and higher variability will have a more dilutive effect and be a source of uncertainly globally, the significant copper and gold mineralization is very localized and therefore is not expected to have a marked detrimental effect on the reportable copper and gold resource as a by-product limited to the 2B units.

Table 14-7: Cut vs. Uncut Comparisons for WO_3%, Copper and Gold Composites by Domain Grouping

	Code	Zone	#	Length	Min	Max	Mean	SD	CV	Max	Mean	CV
WO_3%	20	2B	220	324.9	0.01	4.48	0.81	0.90	1.1	4.48	0.80	1.1
	21	2B	430	647.9	0.01	8.25	1.17	1.12	1.0	5	1.16	0.9
	22	2B	1,731	2560.2	0	7.56	1.21	1.03	0.8	5	1.20	0.8
	23	2B	37	57.4	0.07	4.06	1.14	0.95	0.8	4.06	1.14	0.8
	33	3C	1,879	2370.4	0.01	4.77	0.12	0.22	1.8	2.13	0.11	1.5
	34	3D	1,649	2443.1	0.01	5.18	0.65	0.65	1.0	3.5	0.64	1.0
	35	3E	1,655	2322.0	0.01	4.58	0.34	0.43	1.3	3.5	0.33	1.2
	36	3F	1,067	1523.2	0.01	6.99	0.72	0.76	1.1	3.5	0.70	1.0
	37	3G	63	78.0	0.01	1.68	0.23	0.41	1.8	1.68	0.21	1.8
	38	3H	77	98.3	0.01	2.71	0.28	0.47	1.7	2.17	0.24	1.6
	Total	**Total**	8,808	12425.4	0	8.25	0.64	0.82	1.3	5	0.63	1.2
	All	**All**	9,230	12969.7	0	8.25	0.62	0.81	1.3	5	0.61	1.3
CU%	**20**	**2B**	**112**	**165.3**	**0.0011**	**0.495**	**0.101**	**0.122**	**1.2**	**0.5**	**0.050**	**2.0**
	21	**2B**	**373**	**560.5**	**0.001**	**0.677**	**0.083**	**0.090**	**1.1**	**0.5**	**0.071**	**1.2**
	22	**2B**	**1,566**	**2324.0**	**0**	**0.802**	**0.151**	**0.132**	**0.9**	**0.5**	**0.135**	**1.0**
	23	**2B**	**37**	**57.4**	**0.0108**	**0.782**	**0.203**	**0.197**	**1.0**	**0.5**	**0.187**	**0.9**
	33	3C	1,056	1371.0	0.004	0.346	0.029	0.024	0.9	0.15	0.015	1.3
	34	3D	993	1457.1	0.0005	0.282	0.032	0.033	1.0	0.15	0.018	1.5
	35	3E	900	1242.8	0.0008	0.094	0.012	0.008	0.7	0.0863	0.006	1.3
	36	3F	642	893.1	0.0001	0.159	0.011	0.012	1.1	0.1356	0.006	1.7
	37	3G	53	68.9	0.0005	0.138	0.014	0.029	2.0	0.1382	0.012	2.2
	38	3H	38	50.6	0.0028	0.124	0.020	0.018	0.9	0.0538	0.009	1.2
	Total	**Total**	5,770	8190.6	0	0.802	0.066	0.099	1.5	0.5	0.042	2.0

	Code	Zone	#	Length	Min	Max	Mean	SD	CV	Max	Mean	CV
	All	**All**	6,062	8577.8	0	0.802	0.064	0.098	1.5	0.59	0.041	2.0
	20	**2B**	**11**	**14.3**	**0.005**	**0.185**	**0.038**	**0.060**	**1.6**	**0.185**	**0.002**	**9.7**
	21	**2B**	**223**	**334.6**	**0.001**	**0.663**	**0.100**	**0.122**	**1.2**	**0.663**	**0.052**	**2.0**
	22	**2B**	**860**	**1271.2**	**0.003**	**1.418**	**0.198**	**0.213**	**1.1**	**0.95**	**0.095**	**1.8**
	23	**2B**	**24**	**37.6**	**0.007**	**0.443**	**0.142**	**0.117**	**0.8**	**0.443**	**0.093**	**1.3**
	33	3C	575	672.1	0.002	0.350	0.028	0.040	1.4	0.244	0.007	3.0
AU ppm	34	3D	743	1088.8	0.003	1.132	0.063	0.078	1.2	0.45	0.027	2.0
	35	3E	563	752.6	0.002	0.498	0.034	0.043	1.3	0.45	0.011	2.6
	36	3F	432	577.5	0.004	0.862	0.108	0.120	1.1	0.45	0.037	2.1
	37	3G	37	44.5	0.002	0.543	0.084	0.125	1.5	0.398	0.043	2.1
	38	3H	5	5.2	0.017	0.068	0.032	0.023	0.7	0.068	0.002	5.5
	Total	Total	3,473	4798.3	0.001	1.418	0.098	0.146	1.5	0.95	0.036	2.6
	All	All	3,545	4882.5	0.001	1.418	0.097	0.145	1.5	0.95	0.035	2.7

Source: KGL (2023)

14.6 Specific Gravity Estimation

Specific Gravity (SG) measurements were derived using standard water displacement methods as discussed in Section 11. Values range from a minimum of 2.11 to a maximum of 4.25. The high values and the low values are not limited or cut as the small number of these are not clustered and pose little risk for over influence.

In the absence of measured SG data, final densities were derived by way of the calculation of a regression algorithm that performed a best fit against the measured SG data. Table 14-8 shows the basic statistics for the combined specific gravity (SG) used for volume to tonnage conversion for the Mactung deposit.

Table 14-8: Basic Statistics for Measured and Regressed Density Data by Unit Domain

	CODE	ZONE	Minimum	Maximum	Mean	SD	CV
	20	2B	2.70	3.17	2.89	0.16	0.1
	21	2B	2.64	3.43	2.96	0.19	0.1
	22	2B	2.45	3.70	2.98	0.22	0.1
	23	2B	2.70	3.71	2.99	0.25	0.1
	33	3C	2.54	3.16	2.76	0.08	0.0
SG	34	3D	2.14	3.68	2.86	0.10	0.0
	35	3E	2.15	3.12	2.78	0.11	0.0
	36	3F	2.46	4.25	2.80	0.14	0.0
	37	3G	2.11	3.49	2.82	0.20	0.1
	38	3H	2.71	2.93	2.76	0.07	0.0
	Total	Total	2.11	4.25	2.85	0.17	0.1
	All	All	2.11	4.25	2.85	0.17	0.1

Source: KGL (2023)

14.7 Variography

Experimental variograms and variogram models in the form of correlograms were generated for gold, silver and copper grades. The definition of nugget value was derived from the down hole variograms. The correlograms and geostatistical models are shown in Table 14-9 through Table 14-11. These variogram models were used to estimate WO_3%, copper and gold grades using ordinary kriging as the interpolator to estimate these domains. As the units are generally gently dipping at ±20° to the west, the variography was flattened to reflect the layered nature of the deposit and orientations.

Table 14-9: Geostatistical Model Parameters for WO_3% by Domain Group

Code	20-23	33-38
Domain Name	2B	3C-3H
Nugget (C0)	0.377	0.35
First Sill (C1)	0.585	0.501
Second Sill (C2)	0.077	0.149
1st Structure		
Range along the Z’	9.8	10.7
Range along the X'	39.7	68.8
Range along the Y'	9	6.9
R1 about the Z	3	-61
R2 about the X'	0	0
R3 about the Y'	0	0
2nd Structure		
Range along the Z'	81	484.2
Range along the X'	202	232.8
Range along the Y'	10	30
R1 about the Z	33	-44
R2 about the X'	0	0
R3 about the Y'	0	0

Source: KGL (2023)

Table 14-10: Geostatistical Model Parameters for Copper by Domain Group

Code	20-23	33-38
Domain Name	2B	3C-3H
Nugget (C0)	0.011	0.189
First Sill (C1)	0.745	0.519
Second Sill (C2)	0.243	0.292
1st Structure		
Range along the Z’	22.5	62.6
Range along the X'	15.9	5.5
Range along the Y'	10	16.3
R1 about the Z	50	5

Code	20-23	33-38
Domain Name	2B	3C-3H
R2 about the X'	0	0
R3 about the Y'	0	0
2nd Structure		
Range along the Z'	149.5	134.8
Range along the X'	637.2	384
Range along the Y'	10	16
R1 about the Z	79	33
R2 about the X'	0	0
R3 about the Y'	0	0

Source: KGL (2023)

Table 14-11: Gold Correlogram Models

Code	20-23	33-38
Domain Name	2B	3C-3H
Nugget (C0)	0.25	0.25
First Sill (C1)	0.438	0.449
Second Sill (C2)	0.292	0.301
1st Structure		
Range along the Z'	8.1	7.7
Range along the X'	11	48
Range along the Y'	20	15
R1 about the Z	-43	-44
R2 about the X'	0	0
R3 about the Y'	0	0
2nd Structure		
Range along the Z'	80.1	54.2
Range along the X'	1576.9	249.9
Range along the Y'	20	54.2
R1 about the Z	31	41
R2 about the X'	0	0
R3 about the Y'	0	0

Source: KGL (2023)

14.8 Block Model Definition

The block model used for estimating the resources was defined according to the origin and orientation shown in Figure 14-32 and the limits specified in Figure 14-33.

Figure 14-32: Block Model Origin and Orientation

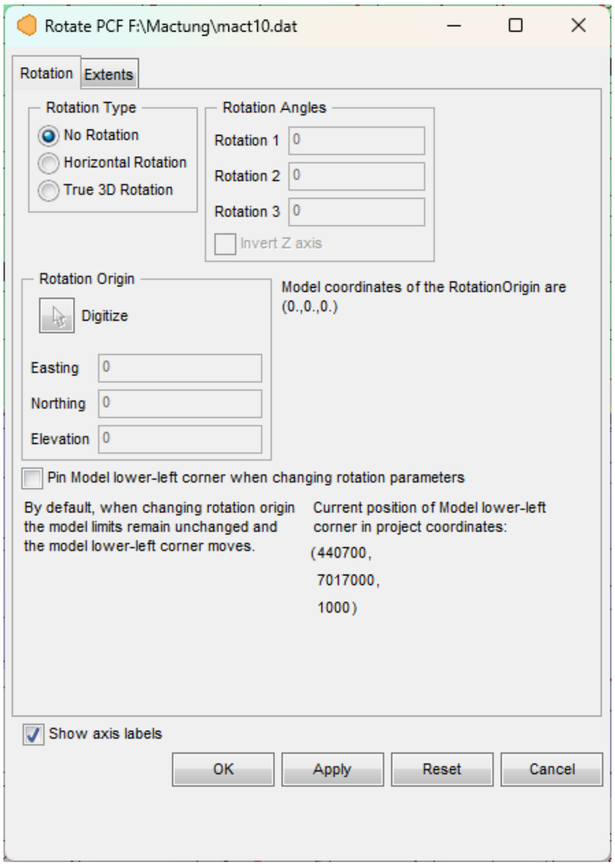
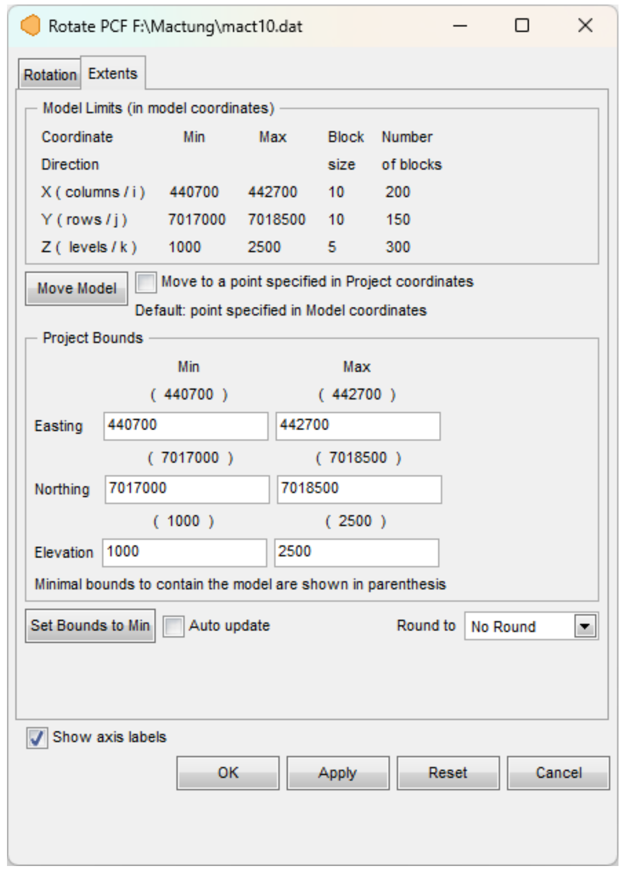


Figure 14-33: Block Model Extents and Dimensions



Source: KGL (2023)

The block model employs whole blocking for ease of mine planning and is orthogonal and non-rotated, roughly reflecting the orientation of the north and the south vein sets within the deposit. The block size chosen was 10 m x 10 m x 5 m. Note that MineSight™ uses the centroid of the blocks as the origin.

14.9 Resource Estimation Methodology

The estimation strategy entailed estimating the predominant mineralized domains in addition to those external to the mineralized domains constrained be the lithological solids. Once completed, the final whole block grades were created by determined by way of a weighted average calculation.

The estimation plan for the model was as follows:

- Coding of the topography and overburden.
- Domain code of modelled mineralization stored in each block along with partial percentage.
- Underground drift volumes coded to the block model for exclusion.

- Specific gravity assigned to domains individually.
- WO_3%, copper and gold estimation by ordinary kriging for domain codes.

Two pass estimation strategy was employed with the first pass being an omni-directional spheroid of 150 m followed by a second pass as shown in Table 14-12.

For the mineralized domains that make up the Mactung deposit, the search ellipsoids are anisotropic to a maximum of 100 m but varying by domain depending upon orientation. Hard boundaries were used so that the domains are tightly constrained, and grade is not smeared between domains. A minimum of three composites and maximum of fifteen composites, and a maximum of three composites per hole, were used to estimate block grades for first passes and tightened for subsequent estimation passes.

Table 14-12: Search Strategy for Mactung Resource Estimation

Code	20	21	22	23	33	34	35	36	37	38
Zone	2B	2B	2B	2B	3C	3D	3E	3F	3G	3H
Pass	2	2	2	2	2	2	2	2	2	2
Range 1 (m)	100	100	100	100	100	100	100	100	100	100
Range 2 (m)	100	100	100	100	100	100	100	100	100	100
Range 3 (m)	30	30	30	30	30	30	30	30	30	30
1st Rotation (degrees)	0	0	0	0	0	0	0	0	0	0
2nd Rotation (degrees)	20	20	20	20	20	20	20	20	20	20
3rd Rotation (degrees)	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
Min # of Composites	4	4	4	4	4	4	4	4	4	4
Max # of Composites	12	12	12	12	12	12	12	12	12	12
Max # Composites/DDH	3	3	3	3	3	3	3	3	3	3

14.10 Mineral Resource Classification

Mineral resources were estimated in conformity with generally accepted CIM "*Estimation of Mineral Resource and Mineral Reserve Best Practices*" Guidelines (2019). Mineral resources are not mineral reserves and do not have demonstrated economic viability. Mineral resources for the Mactung deposit were classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (2014) by Garth Kirkham, P.Geo., of Kirkham Geosystems Ltd. (KGL), an Independent Qualified Person as defined by NI 43-101.

Mineral resource categories can be based on an estimate of uncertainty within a theoretical measure of confidence. The thresholds for the uncertainty and confidence are based on rules of thumb; however, they can vary from project to project depending upon the risk tolerance that the project and the company is willing to bear. Indicated resources may be estimated so the uncertainty of yearly production is approximately ±15% with 90% confidence and Measured resources may be estimated so the uncertainty of quarterly production is no greater than ±15% with 90% confidence.

The spatial variation pattern of WO_3% at the Mactung tungsten deposit can be represented by a variogram or correlogram. Using the variogram and the drill hole spacing the reliability of estimated grades in large volumes can be predicted. The measure of estimation reliability or uncertainty is expressed by the width of a confidence interval or the confidence limits. Then by knowing how reliably metal content must be estimated to adequately undertake mine planning, it is possible to calculate the drill hole spacing necessary to achieve the target level of reliability. For instance, Indicated resources may be adequate for planning in most pre-feasibility and production work.

The continuity and variability seem a little more erratic than usual but not totally atypical for this style deposit. As more drilling is completed the results from this study should be validated against the continuity of mineralization observed in more closely spaced holes.

It should also be noted that the confidence limits only consider the variability of grade within the deposit. There are other aspects of deposit geology and geometry such as geological contacts or the presence of faults or offsetting structures that may impact the drill spacing.

The spacing distances are intended to define contiguous volumes and they should allow for some irregularities due to actual drill hole placement. The final classification volume results typically must be adjusted manually to come to a coherent classification scheme. The thresholds should be used as a guide and boundaries interpreted and defined to ensure continuity.

Confidence intervals are intended to estimate the reliability of estimation for different volumes and drill hole spacing. A narrower interval implies a more reliable estimate and attempts should be made to have enough closely spaced holes in the drilling to accurately determine the spatial correlation structure of gold samples less than 15 m apart. Using hypothetical regular drill spacing and the variograms from the composited drill hole sample data, confidence intervals or limits can be estimated for different drill hole spacing and production periods or equivalent volumes. The confidence limits for 90% relative confidence intervals should be interpreted as such that if the limit is given as 8%, then there is a 90% chance the actual value (tonnes and grade) of production is within ±8% of the estimated value over a quarterly or annual production volume. This means that it is unlikely the true value will be more than 8% different relative to the estimated value (either high or low) over the given production period.

The method of estimating confidence intervals is an approximate method that has been shown to perform well when the volume being predicted from samples is sufficiently large (Davis, B. M., Some Methods of Producing Interval Estimates for Global and Local Resources, SME Preprint 97-5, 4p.) At this porphyry, the smallest production volume for this study is about one year. Using these guidelines, an idealized block configured to approximate the volume produced in one month is estimated by ordinary kriging using the idealized spacing of samples.

Relative variograms are used in the estimation of the block. Relative variograms are used rather than ordinary variograms because the standard deviations from the kriging variances are expressed directly in terms of a relative percentage.

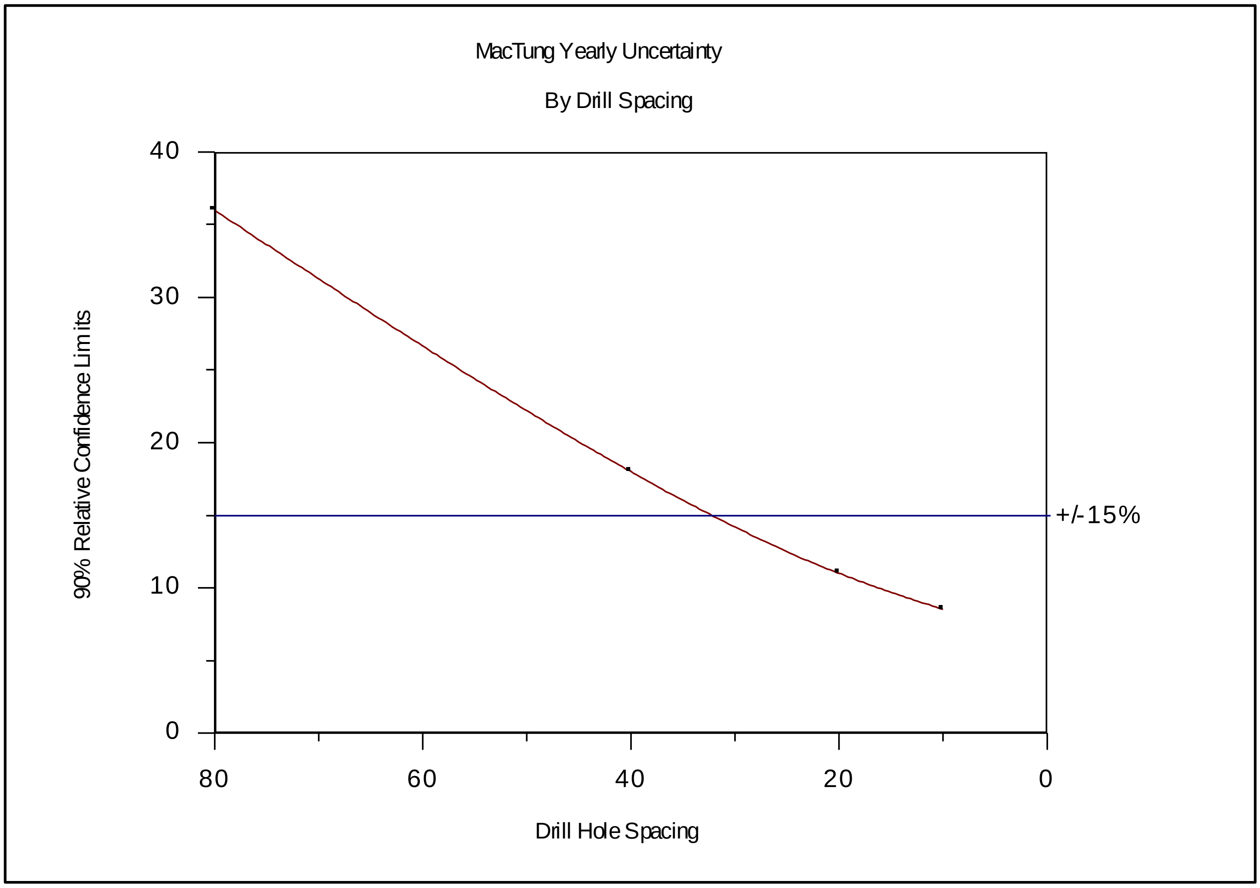
The kriging variances from the ideal blocks and spacing are divided by twelve or three (assuming approximate independence in the production from month to month) to get a variance for yearly or quarterly ore output. The square root of this kriging variance is then used to construct confidence limits under the assumption of normally distributed errors of estimation. For example, if the kriging variance for a block is $\sigma 2m$ then the kriging variance for a year is $\sigma 2y = \sigma 2m/12$. The 90% confidence limits are then C.L. = ±1.645 x σy. The confidence limits for a given production rate are a function of the spatial variation of the data and the sample or drill hole spacing. For this exercise the drill hole spacing distances tested are 80 m, 40 m, 20 m and 10 m.

Further assumptions made for the confidence interval calculations are:

- The variograms are appropriate representations of the spatial variability for presence of mineralization and metal grade.
- The daily production may be 2 ktpd.
- The bulk density is approximately 3.1.
- Most of the uncertainty in metal production within the domain is due to the fluctuation of metal grades and not to variation in the presence or absence of the mineralized unit.

Yearly confidence limits for tungsten metal production are shown in Figure 14-34. The curves show a graphical representation of how the uncertainty decreases with decreasing drill hole spacing. The curves show sampling at a spacing of 40 m will produce uncertainty for the year of ±18% at the 2 ktpd production rate and a spacing of 60 m will produce uncertainty of ±25%.

Figure 14-34: Yearly Uncertainty by Drill Spacing



Source: KGL (2023)

Drill hole spacing is sufficient for preliminary geostatistical analysis and evaluating spatial grade variability. Therefore, classification of resources was based primarily upon distance to the nearest composite; however, the multiple quantitative measures, as listed below, were inspected and taken into consideration.

The estimated blocks were also classified with consideration to the following:

- Continuity of the mineralized zones.
- Number of composites used to estimate a block.
- Number of composites allowed per drill hole.
- Distance to nearest composite used to estimate a block.
- Average distance to the composites used to estimate a block.
- Kriged variance.

Therefore, the following lists the spacing for each resource category to classify the resources assuming the current rate of metal production:

- **Measured:** Continuity must be demonstrated in the designation of Measured (and Indicated) resources. No Measured resources can be declared based on one hole. More closely spaced sampling is required before it is possible to confidently nominate a drill spacing to delineate Measured resources.
- **Indicated:** Resources in this category would be delineated from drill holes spaced on a nominal 40 m pattern for the production rate tested. As more information becomes available some adjustment may be necessary.
- **Inferred:** Any material not falling in the categories above and within a maximum of approximately 60 m of one hole.

To ensure continuity, the boundary between the Indicated and Inferred categories was contoured and smoothed, eliminating outliers and orphan blocks. The spacing distances are intended to define contiguous volumes and they should allow for some irregularities due to actual drill hole placement. The final classification volume results typically must be adjusted manually to come to a coherent classification scheme.

The spacing distances are intended to define contiguous volumes and they should allow for some irregularities due to actual drill hole placement. The final classification volume results typically must be adjusted manually to come to a coherent classification scheme.

The suggested classification parameters differ from past classification criteria being significantly tighter and conservative. Classification in future models may differ, but principal differences should be due to changes in the amount of drilling.

The mineral resources may be impacted by further infill and exploration drilling that may result in an increase or decrease in future resource evaluations. The mineral resources may also be affected by subsequent assessment of mining, environmental, processing, permitting, taxation, socio-economic and other factors.

14.11 Mineral Resource Estimate

The cut-off grades of 0.5% WO_3 for underground mining and 0.25% WO_3 for open-pit mining were selected based on a conservative tungsten concentrate price assumption of approximately US$240/mtu, supported by updated estimates from trading companies that specialize in tungsten, and preliminary estimates of operating costs (Table 14-15).

Reasonable prospects for eventual economic extraction of the mineral resources, as required by NI 43-101, were demonstrated by developing underground constraining volumes, conceptual pit shells using Lerchs-Grossman and Floating Cone algorithms and input parameters derived from preliminary cost estimates (see Map 2 and Cross-Sections). Only mineral resources above these cut-offs and within the mineral resource-limiting underground constraining volumes and pits are reported; mineralization falling below this cut-off grade or outside the resource-limiting volumes or pits are not reported, irrespective of the grade. Potential underground resources are constrained initially to only the 2B unit and a portion of the 3D unit below the pit shell leaving a crown pillar. The potential open-pit resource was optimized for only the 3C, 3D, 3E, 3F, 3G and 3H units. Gold and copper are considered by products and were not utilized in cut-off grades, pit optimizations, underground constraints, or for establishing reasonable prospects of eventual economic extraction.

This estimate is based upon the reasonable prospect of eventual economic extraction based on continuity and an optimized pit, using estimates of operating costs and price assumptions. The "reasonable prospects for eventual economic extraction" were tested using floating cone pit shells based on reasonable prospects of eventual economic assumptions, as shown in Table 14-13. Figure 14-35 and Figure 14-38 illustrates the WO_3 block model along with the "reasonable prospects of eventual economic extraction" pit. The pit optimization results are used solely for testing the "reasonable prospects for eventual economic extraction" and do not represent an attempt to estimate mineral reserves.

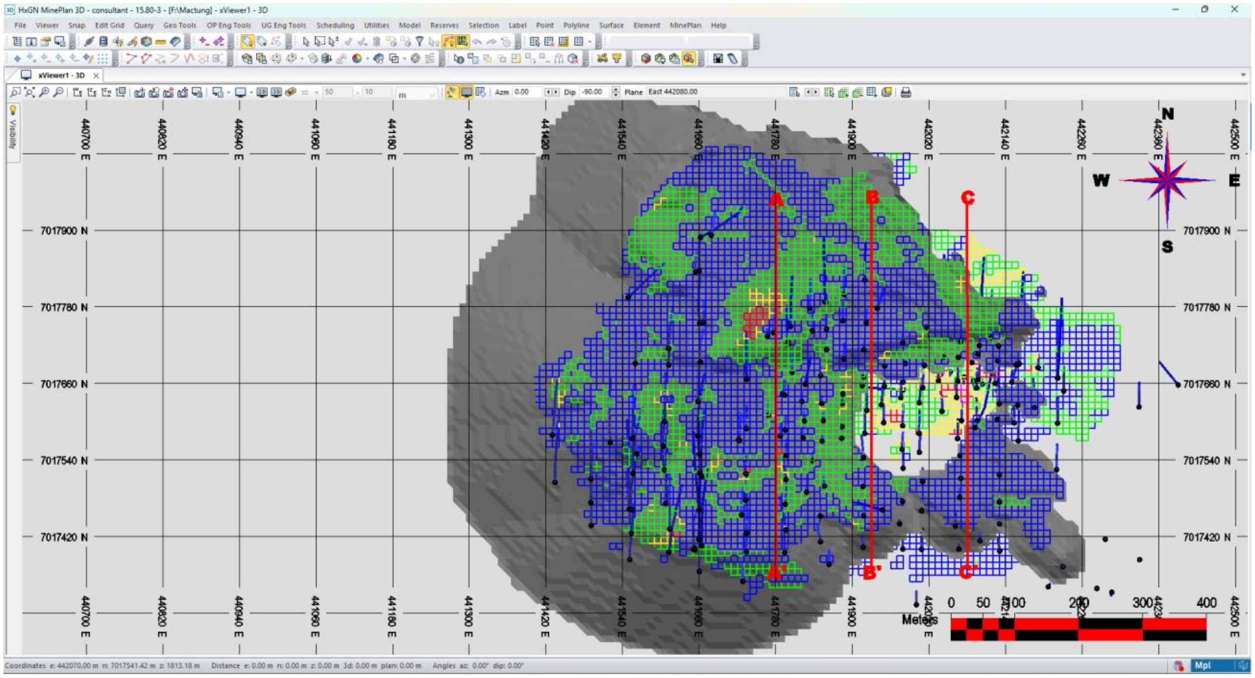
Table 14-13: Parameters Used for Reasonable Prospects Pit Optimization and WO_3 Cut-off Grade Calculation Assumptions

Input Parameters	Unit	Value	Notes
OP Mining Cost – Resource or Waste	US$/tonne mined	3.00	
UG Mining Cost – Resource	US$/tonne mined	38.00	Incl. maintenance and surface
Processing Cost	US$/tonne milled	32.00	
G&A and Site Services Cost	US$/tonne milled	20.00	
WO_3 Recovery	%	82	
Royalties	%	2	Assumes buy-down from 4%
Pit Slopes	degrees	50	
WO_3 Concentrate Selling Price	US$/mtu con	240.00	
Mining dilution	%	0	
Mining recovery	%	100	

Source: KGL (2023)

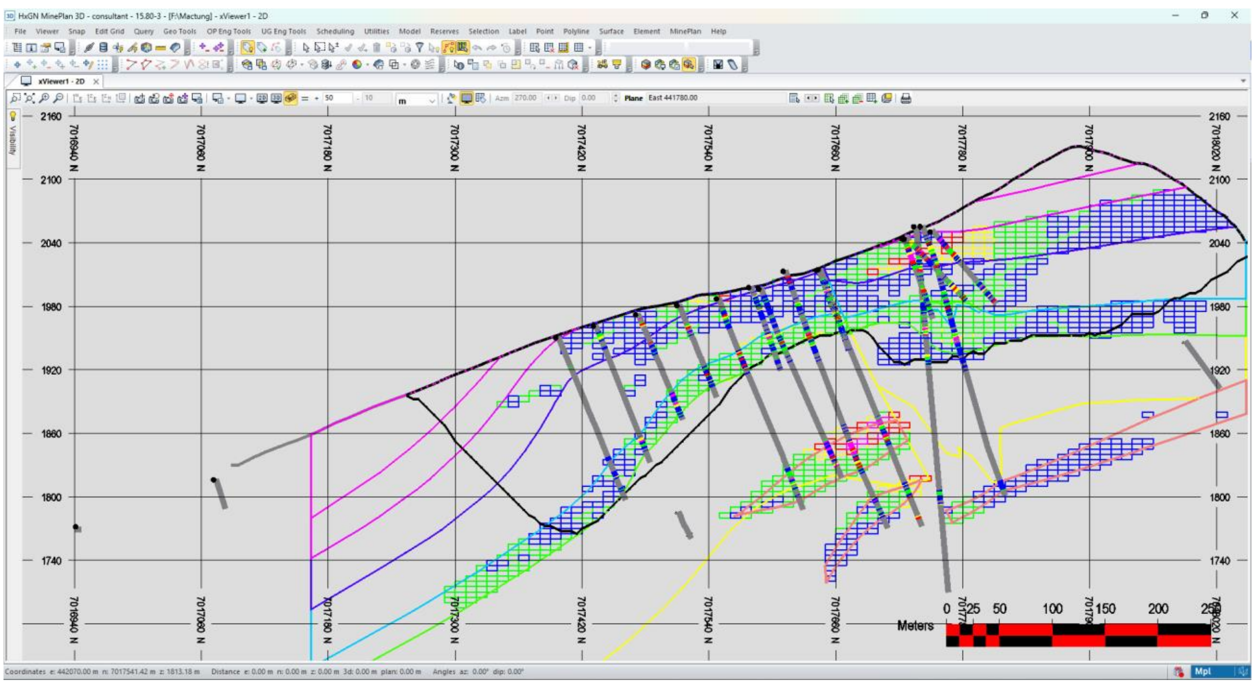
Assumptions used to derive the cut-off grades and define the resource-limiting pits are estimated to meet the NI 43-101 requirement for mineral resource estimates to demonstrate "reasonable prospects for eventual economic extraction.

Figure 14-35: Plan View of WO_3% Block Model with Reasonable Prospects Optimized Pit



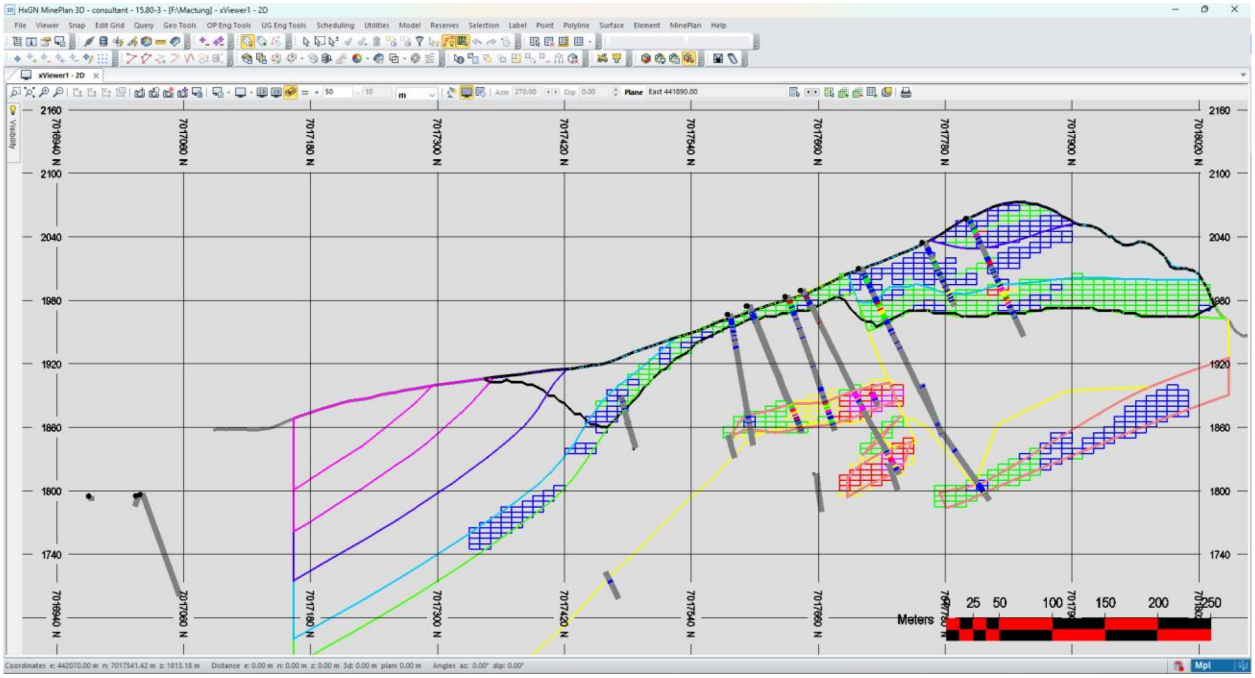
Source: KGL (2023)

Figure 14-36: Section View of WO_3% Block Model with Reasonable Prospects Optimized Pit



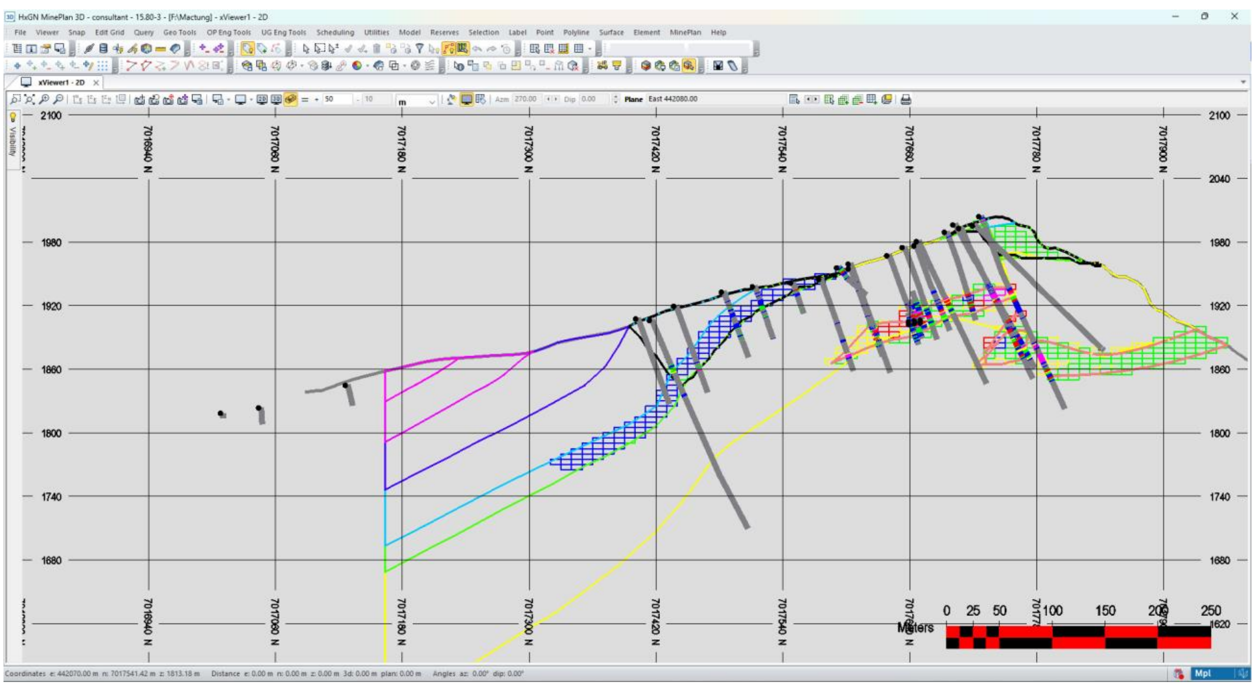
Source: KGL (2023)

Figure 14-37: Section View of WO_3% Block Model with Reasonable Prospects Optimized Pit



Source: KGL (2023)

Figure 14-38: Section View of WO_3% Block Model with Reasonable Prospects Optimized Pit



Source: KGL (2023)

The Mactung deposit consists of six mineral domains with unique geological characteristics.

Summaries of the Indicated and Inferred Mineral Resources for the Mactung deposit at a 0.25% WO_3 cut-off for potentially open pitable resources and a 0.5% WO_3 cut-off for potentially underground mineable resources are shown in Table 14-14.

Table 14-14 : Mineral Resource Statement (0.25% WO_3 Cut-off for Pit Resources and 0.5% WO_3 Cut-off for Underground Resources)

Classification	Cut-off Grade WO_3 (%)	Tonnage	Classification	Cut-off Grade WO_3 (%)
Indicated (underground)	0.50	12,168,000	1.05	12,789,000
Indicated (open pit)	0.25	29,319,000	0.59	17,367,000
Total Indicated (OP+UG)	**0.25/0.50**	**41,487,000**	**0.73**	**30,156,000**
Inferred[4] (underground)	0.50	2,817,000	0.73	2,066,000
Inferred[4] (open pit)	0.25	9,430,000	0.55	5,139,000
Total Inferred[4] (OP+UG)	**0.25/0.50**	**12,247,000**	**0.59**	**7,205,000**

Source: KGL (2023)

Notes:

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only, and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
5. A metric tungsten unit (mtu) is 10 kilograms of tungsten trioxide (WO_3).

14.12 Sensitivity of the Block Model to Selection Cut-off Grade

The mineral resources are sensitive to the selection of cut-off grade. Table 14-15 shows tonnage and grade in the Mactung deposit at different WO_3% cut-off grades.

The reader is cautioned that these values should not be misconstrued as a mineral reserve. The reported quantities and grades are only presented as a sensitivity of the resource model to the selection of cut-off grade.

The Mactung sensitivity tables report the variation of resource grade and tonnage with respect to the change in cut-off grades for the Indicated and Inferred Mineral Resources.

A range of cut-off grades were applied to the estimate within the mining volumes established for open-pit and underground resources (Table 14-15 and Table 14-16).

Table 14-15: Sensitivity to Underground Cut-Off Grade (Current Resource Highlighted)

Underground Cut-off Grade (WO_3%)	Tonnage (tonnes)	WO_3 grade	Underground Cut-off Grade (WO_3%)	Tonnage (tonnes)
Indicated				
0.40	12,885,000	1.02	0.074	0.057
0.45	12,548,000	1.03	0.076	0.058
0.50	12,168,000	1.05	0.078	0.058
0.55	11,702,000	1.07	0.080	0.059
0.60	10,979,000	1.11	0.083	0.061
Inferred				
0.40	3,231,000	0.70	0.016	0.019
0.45	3,062,000	0.71	0.016	0.019
0.50	2,817,000	0.73	0.017	0.019
0.55	2,521,000	0.76	0.018	0.020
0.60	2,042,000	0.80	0.019	0.020

Source: KGL (2023)

Notes:

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum (“CIM”) definitions, as required under National Instrument 43-101 (“NI43-101”).
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only, and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

Table 14-16: Sensitivity to Open-pit Cut-Off Grade (Current Resource Highlighted)

Underground Cut-off Grade (WO_3%)	Tonnage (tonnes)	WO_3 Grade
Indicated		
0.15	36,452,000	0.51
0.20	32,668,000	0.55
0.25	29,319,000	0.59
0.30	26,207,000	0.63
0.35	23,395,000	0.67
Inferred		
0.15	11,335,000	0.49
0.20	10,143,000	0.52
0.25	9,430,000	0.55
0.30	8,699,000	0.57
0.35	7,539,000	0.61

Source: KGL (2023)

Notes:

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only, and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

14.13 Resource Validation

A graphical validation was done on the block model. The purpose of this graphical validation is to:

- Check the reasonableness of the estimated grades, based on the estimation plan and the nearby composites.
- Check the general drift and the local grade trends, compared to the drift and local grade trends of the composites.
- Ensure that all blocks in the core of the deposit have been estimated.
- Check that topography, and overburden volumes have been properly accounted for.
- Check against partial model to determine reasonableness.

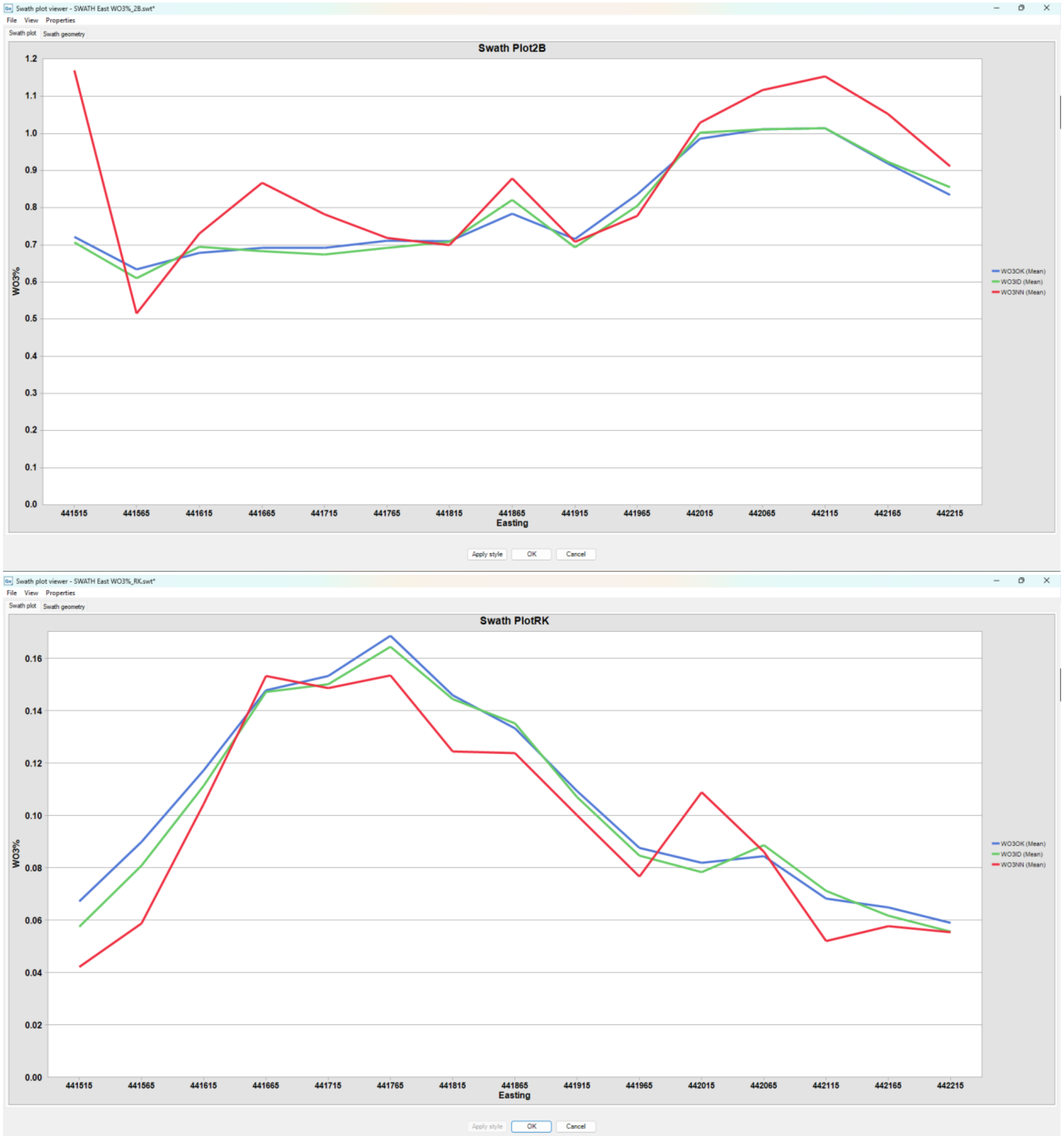
- Check against manual approximate estimates of tonnage to determine reasonableness.
- Inspect and explain potentially high-grade block estimates in the neighborhood of extremely high assays.

A full set of cross-sections, long sections and plans were used to check the block model on the computer screen, showing the block grades and the composites. There was no apparent evidence of blocks being incorrectly estimated and it appears that the block grades could be explained as a function of the surrounding composites and the estimation plan applied.

These validation techniques included the following:

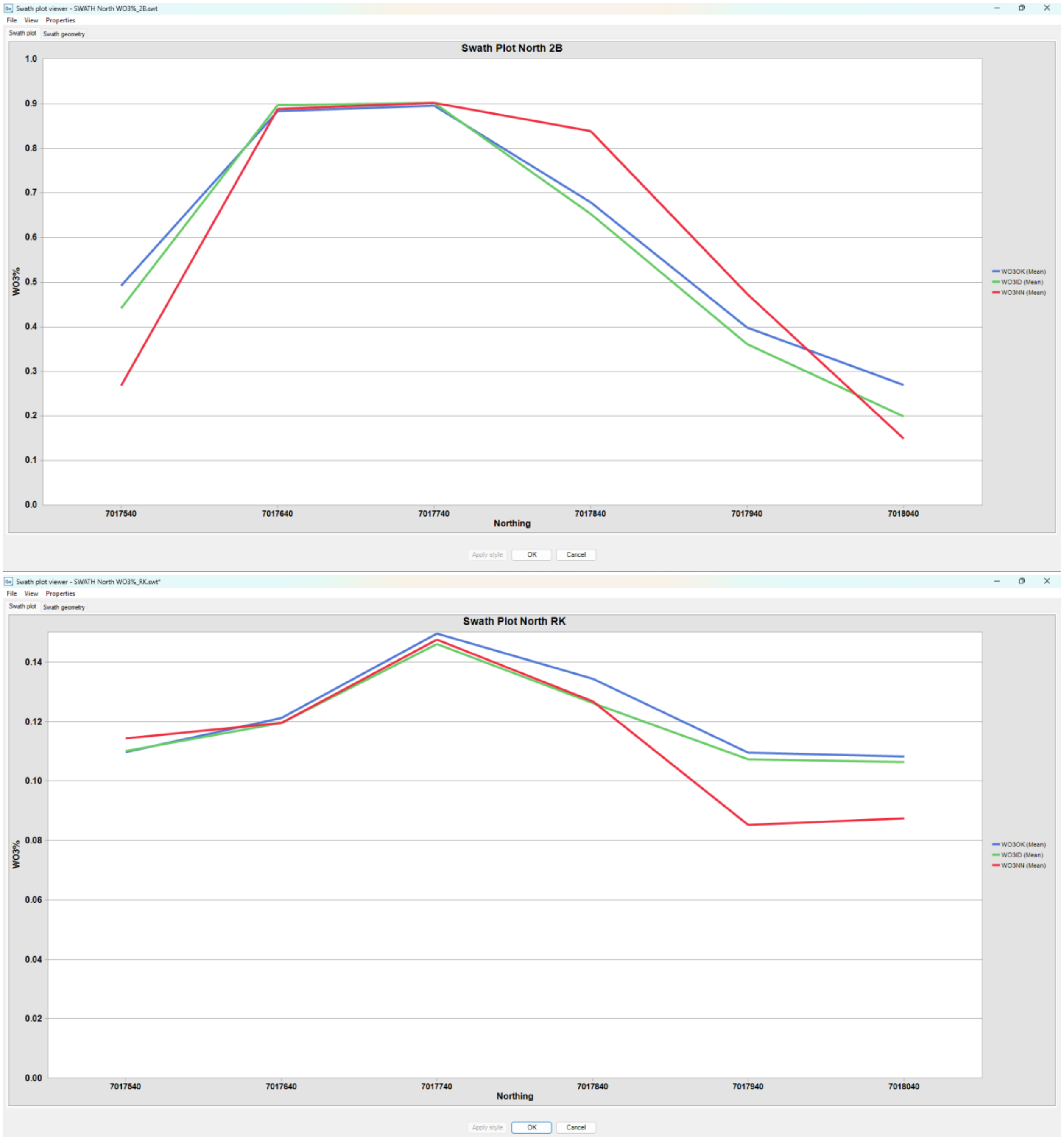
- Visual inspections on a section-by-section and plan-by-plan basis.
- The use of grade-tonnage curves.
- Swath plots comparing kriged estimated block grades with inverse distance and nearest neighbor estimates as illustrated in Figure 14-39 through Figure 14-41.
- An inspection of histograms of distance of the first composite to the nearest block, and the average distance to blocks for all composites used, which gives a quantitative measure of confidence that blocks are adequately informed in addition to assisting in the classification of resources.

Figure 14-39: Swath Plots for WO_3% Block Model Grades



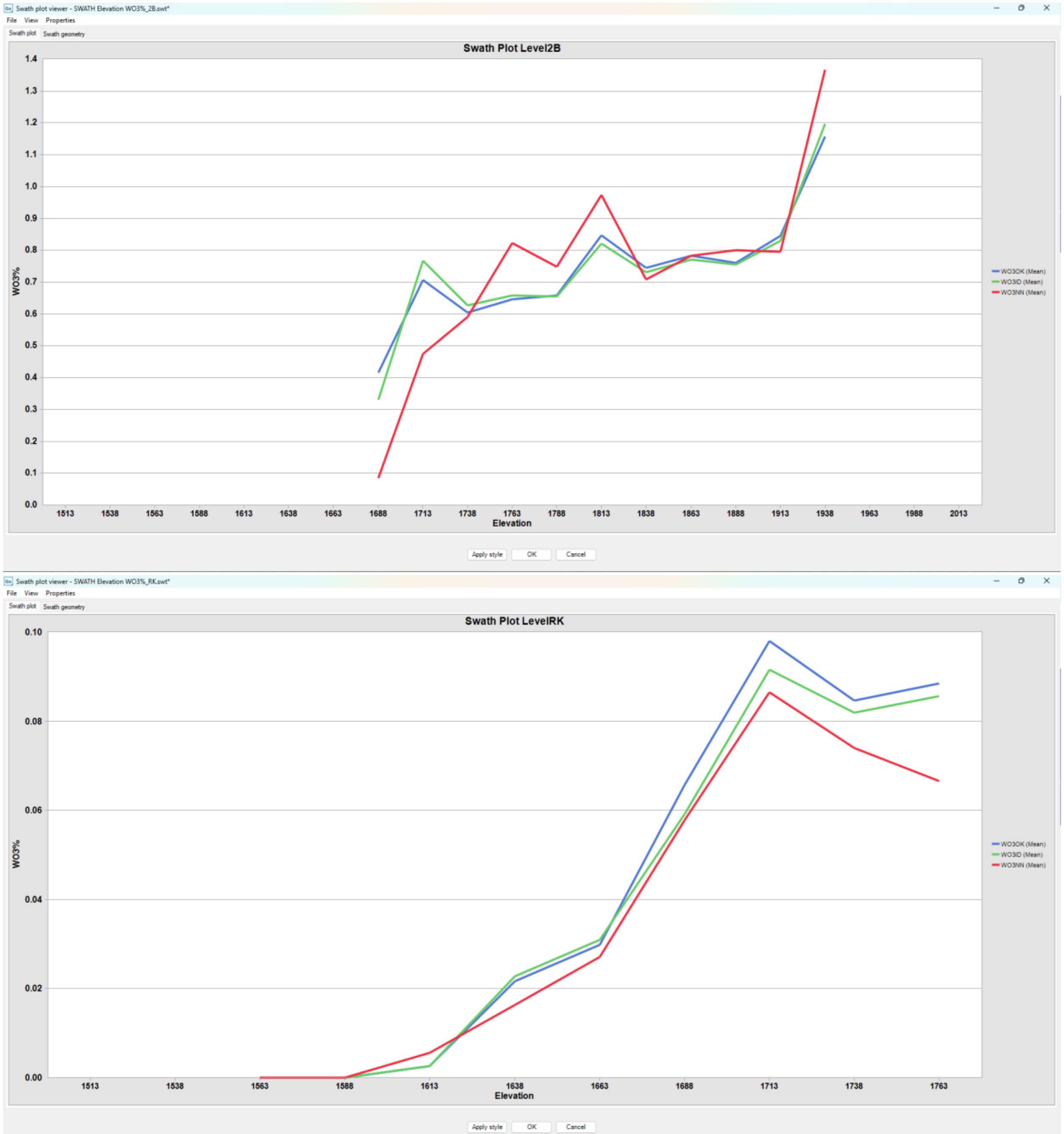
Source: KGL (2023)

Figure 14-40: Swath Plots for Tungsten Block Model Grades



Source: KGL (2023)

Figure 14-41: Swath Plots for Tungsten Block Model Grades



Source: KGL (2023)

14.14 Comparison to Previous Resource Estimate

The resources presented within this Technical Report are an update to the resources presented most recently in 2007. The new estimate disclosed in this news release (Table 14-17) represents Fireweed's current Mineral Resources for the Mactung Project and supersedes the historic 2007 mineral resource estimate by a previous owner. The current Mineral Resource at Mactung ranks it as one of the largest tungsten resources in the world in terms of contained metal*. Furthermore, the Mactung resource is a clear outlier in terms of grade and represents the largest high-grade tungsten deposit in the world*.

The historical 2007 and the current 2023 estimate disclosed here are not equivalent, and any comparisons should consider the following key differences:

1. The 2023 estimate is constrained by open-pit shells and underground mining volumes.
2. The 2023 estimate uses a classification scheme that utilizes tighter drill spacing based on drill-spacing studies, considers and employs reasonable prospects for eventual economic extraction, and is applied within classification domains that are continuous.
3. The 2023 estimate uses 0.25% WO_3 and 0.5% WO_3 cut-off grades for resources constrained by open-pit and underground mining shapes, respectively.

The new estimate also incorporates information not present in the 2007 estimate: (1) results of 120 drillholes with more than 14,000 m of drilling completed by a previous operator in 2007 to 2009; (2) additional bulk density and assay data collected during an extensive Fireweed campaign of re-sampling historic drill core in late 2022 and early 2023; (3) a new geological interpretation; (4) the addition of gold and copper as by-products; and (5) estimates of resources within certain geological units (units 3C, 3G and 3H described in methodology).

In comparing 2007 to the 2023 Mineral Resource Statements, there is an approximate 25% tonnage increase in Indicated Resources, an approximate 3% tonnage increase in Inferred Resources, and in both categories, modest decrease in average WO_3 grade, overall resulting in similar totals of contained tungsten metal (Table 14-17) as well as adding gold and copper to the resource as by-products.

Table 14-17: Summary of 2023 and 2007 Mineral Resource Statements for the Mactung Project

Classification	Tonnage (tonnes)	WO_3 Grade (%)	Contained WO_3 (mtu)
2023 Estimate			
Indicated	41,487,000	0.73	30,156,000
Inferred[4]	12,247,000	0.59	7,205,000
2007 Historic Estimate			
Indicated	33,029,000	0.88	29,065,520
Inferred[4]	11,857,000	0.78	9,248,460

Source: KGL (2023)

Notes:

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only, and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
5. A metric tungsten unit (mtu) is 10 kilograms of tungsten trioxide (WO_3).

The reasons for the differences are as follows:

- Revised domains.
- Revised classification schema.
- Separated resource estimates for underground and open pit.
- Current economic criteria.
- Cut-off grade selectivity based on updated prices and costs.
- Additional data.
- Revised reasonable prospect of eventual economic extraction (RP3E) which relates to all of the above.

14.15 Discussion with Respect to Potential Material Risks to the Resources

There are no current known environmental, permitting, legal, taxation, title, socio-economic, political, or other relevant factors that materially affect the mineral resources. However, areas that may factor as risks related to the advancement and realization of the Project are as follows:

- Due to the size, mass and homogeneity of the Mactung deposit, there may be minor global differences with subsequent revisions to lithological data, understanding, domaining and volumetrics.
- Metallurgical considerations are important to understand which may have material effects on the reasonable prospects of eventual economic extraction and viability of the Project.
- Local, Indigenous, Territorial and Federal intergovernmental regulation and legislation will factor directly upon the Project's viability and progress.
- Social license needs to be obtained and maintained in order for the resource to be realized sustainably.
- Climate change particularly in these northern environs must be conserved and planned for the successful continued operation of the Project in order for the resource to be viable as source of critical minerals necessary for a net zero future.
- Market conditions will dictate viability of the Mactung Project as the price of tungsten, both short term and long term, will be affected not only by inflation and traditional "supply and demand" economic forces but also the inevitable volatility due to international relationships and tensions.

15 Mineral Reserve Estimates

This section is not applicable to this Technical Report.

16 Mining Methods

This section is not applicable to this Technical Report.

17 Recovery Methods

This section is not applicable to this Technical Report.

18 Project Infrastructure

This section is not applicable to this Technical Report.

19 Market Studies and Contracts

This section is not applicable to this Technical Report.

20 Environmental Studies, Permitting and Social or Community Impact

This section is not applicable to this Technical Report.

21 Capital and Operating Costs

This section is not applicable to this Technical Report.

22 Economic Analysis

This section is not applicable to this Technical Report.

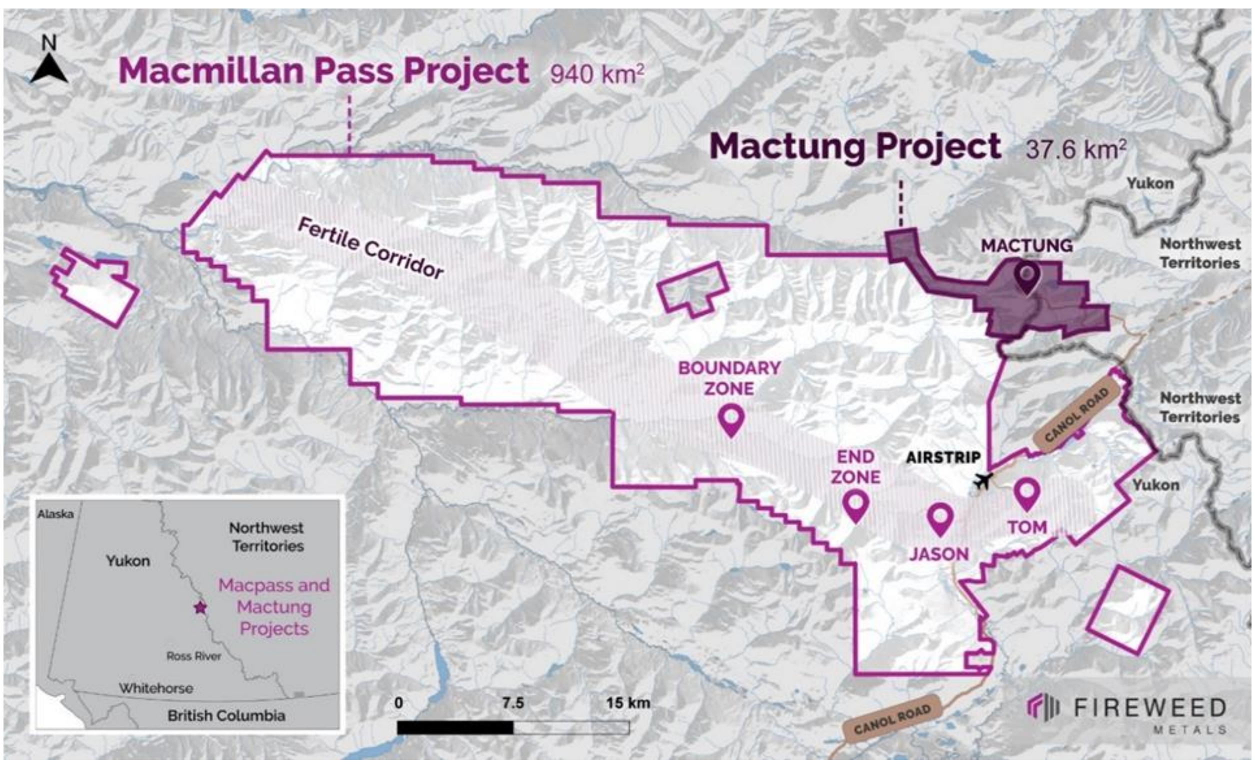
23 Adjacent Properties

23.1 Macmillan Pass

The Macpass Project is also owned 100% by Fireweed, is located adjacent to and contiguous with the Mactung claims in eastern Yukon (Figure 23-1) providing for potential synergies in development of both projects. Macpass consists of 940 km^2 of contiguous claims and mining leases which host large zinc-lead-silver deposits. Access to the site is by the same gravel road as Mactung or by air to the same Macmillan Pass airstrip on the Macpass property.

In 2018 Fireweed published a PEA on the Tom and Jason deposits at Macpass which described mining of the deposits using conventional open pit and underground mining methods to extract zinc, lead and silver using a 5,000 tpd flotation mineral processing facility (JDS, 2018). In recent years, Fireweed has published significant zinc-lead-silver drill results from the Boundary Zone at Macpass. Fireweed has stated its intention to publish updated mineral resources for Tom and Jason, and an initial mineral resource for the Boundary Zone after the current drill program is completed.

Figure 23-1: Macmillan Pass Project and Mactung Project Locations and Mineral Deposits



Source: Fireweed (2023)

24 Other Relevant Data and Information

24.1 Environmental

The Mactung property is within the Selwyn Mountains Ecoregions. Mountains in the region are extensively covered with talus and intermittently with grasses, moss, and lichen. Vegetation is more developed in the valley bottoms, consisting primarily of grasses, small shrubs, moss and lichen.

In support for a project proposal submission to YESAB by NATC in 2008 (Section 4.5), EBA Engineering supplemented earlier environmental studies by completing wildlife, vegetation, fish, avifauna, hydrology, weather and archaeology studies from 2005 to 2008 in both the Yukon and NWT. Regional wildlife studies have been conducted by Fireweed since 2018 for the Macpass Project which have applicability and utility at Mactung.

The predominant wildlife species in the region are moose, caribou, grizzly bears, wolves and Thinhorn sheep, with smaller mammals such as voles, lemmings, chipmunks, shrews, ground squirrels, hares and foxes. Over 50 species of birds have been reported in the environs surrounding Mactung with approximately 40 species breeding in the region.

Fireweed intends to complete field programs in the summer of 2023 at Mactung to strengthen the environmental database, confirm the distribution of discontinuous permafrost, validate geochemical analyses of ore and waste material, and to identify potential borrow material sources for construction. The upper reaches of Tributary C (with its headwaters near the existing Mactung camp) are likely non-fish bearing. A natural barrier exists several kilometers downstream, and additional studies will be conducted in 2023 by Fireweed to confirm fish species and distribution in Tributary C. Results of these programs will inform project planning including license applications and engineering aspects to advance the reference concept design. All prior and proposed work will inform technical working group discussions with Indigenous groups to collaboratively develop robust mining applications and associated management plans.

25 Interpretation and Conclusions

The Mactung Project has been evaluated and as demonstrated by the results and findings detailed within this Technical Report, illustrates that the Project warrants advancement. This resource report shows the results of the project for the reasonable, long-term metal prices, exchange rates and reasonable prospects extraction scenarios.

The Mactung deposit consists of six mineral domains with unique geological characteristics. The Mactung deposit Mineral Resource Estimate is comprised of six mineral domains; 2B, 3C, 3D, 3E, 3F, 3G and 3H. The mineral resource is separated into an open pit and underground component based on reasonable prospects of eventual economic extraction criteria namely; an optimized pit shell for open pit; and reasonable underground mining shapes and continuity of grade.

The resource estimate also includes copper in addition to gold as by-product metals. Bismuth and phosphate were also evaluated however not deemed economically viable at this time and therefore not included. This may change in the future depending on market conditions and further exploration.

The primary conclusion and result to be derived from the Technical Report is the statement of resources which totals 41.5 Mt Indicated Resource at 0.73% WO_3 and 12.2 Mt Inferred Resource at 0.59% WO_3. A summary of the Indicated and Inferred Mineral Resources for the Mactung deposit at a 0.25% WO_3 cut-off for potentially open pitable resources and a 0.5% WO_3 cut-off for potentially underground mineable resources are shown in Table 25-1.

Table 25-1: Mineral Resource Statement (0.25% WO_3 Cut-off for Pit Resources and 0.5% WO_3 Cut-off for Underground Resources)

Classification	Cut-off Grade WO_3 (%)	Tonnage	Classification	Cut-off Grade WO_3 (%)
Indicated (underground)	0.50	12,168,000	1.05	12,789,000
Indicated (open pit)	0.25	29,319,000	0.59	17,367,000
Total Indicated (OP+UG)	**0.25/0.50**	**41,487,000**	**0.73**	**30,156,000**
Inferred[4] (underground)	0.50	2,817,000	0.73	2,066,000
Inferred[4] (open pit)	0.25	9,430,000	0.55	5,139,000
Total Inferred[4] (OP+UG)	**0.25/0.50**	**12,247,000**	**0.59**	**7,205,000**

Source: KGL (2023)

Notes:

1. All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").
2. Mineral resources are reported in relation to a conceptual pit shell and underground mining volumes to demonstrate reasonable prospects for eventual economic extraction, as required under NI43-101; mineralization lying outside of the pit shell or underground volumes is not reported as a mineral resource. Note the conceptual pit shell and underground volumes are used for mineral resource reporting purposes only, and is not indicative of the proposed mining method; future mining studies may consider underground mining, open pit mining or a combination of both. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Open pit (OP) mineral resources are reported at a cut-off grade of 0.25% WO_3. Underground (UG) mineral resources are reported at a cut-off grade of 0.5% WO_3. Cut-off grades are based on a price of US$240 per mtu of WO_3 concentrate and a number of operating cost and recovery assumptions (see details below).
4. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to the measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
5. A metric tungsten unit (mtu) is 10 kilograms of tungsten trioxide (WO_3).

26 Recommendations

The extent of mineralization at the Mactung deposit, beyond the bounds of the current mineral resource, remains open and trends well known. The Deposit currently contains a modest Inferred Mineral Resource, which resides mostly at the extents of the 2B, 3D and 3F units however extension in all units is likely. The copper and gold resources are localized however, further resampling and drilling may extend these localized resources.

Therefore, an extended diamond drilling campaign is recommended to, 1) determine the extents of the Deposit, 2) increase the density of drilling in the Inferred Mineral Resource areas the deposit, 3) continue re-sampling data as opportunities arise.

Drilling to delineate the unclassified material (geological potential) along with drilling in order to potentially upgrade inferred resources to indicated and exploration (8,000 m to 10,000 m). There needs to be further work to optimize the scope and size of the drill program that will directly drive the total estimated cost. Once completed, an updated resource estimate would guide further work and development initiatives.

Metallurgical and variability test work is recommended to allow the development of an up-to-date robust metallurgical process flowsheet and the updated Mineral Resource Estimate to be expressed on an NSR valuation basis. Opportunities to improve the metallurgical through current, modern will be identified in the future metallurgical testwork programs.

Further engineering work is also recommended to advance the Project toward a PEA or other advanced studies to further detail the project schedule, engineering design, costs and revenue, increase geological confidence in addition to high grade continuity and to improve accuracy of project economics.

Ongoing environmental studies are also recommended to support working toward an economic evaluation and permitting requirements of the Mactung deposit.

Continued engagement with respect to indigenous consultation and involvement, and gaining social licence is recommended.

The budget for the program is summarized in Table 26-1.

Table 26-1: Budgetary Costs for 2023-2024

Item	Cost Estimate (CAD$)
Diamond Drilling: NQ2/HQ incl. assaying, heli-support, camp and food	5,250,000
Metallurgical Test Work Program	450,000
Environmental Studies +	200,000
Resource Update	250,000
Advanced Engineering Studies	500,000
Subtotal	**6,650,000**
Contingency (15%)	997,500
Total	**7,647,500**

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