Happy Creek Minerals Ltd.

NI 43-101 Resource Update for the RC and BN Zones and Maiden Resource Estimate for the BK Zone of the Fox Tungsten Project British Columbia

Authors:

Pierre Desautels, P. Geo, AGP Mining Consultants Inc.

Paul Berndt, FAusIMM

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Glossary

Units of Measure

Above mean sea level	amsl
Acre	ac
Ampere	A
Annum (year)	a
Billion	B
Billion tonnes	Bt
Billion years ago	Ga
British thermal unit	BTU
Centimetre	cm
Cubic centimetre	cm^3
Cubic feet per minute	cfm
Cubic feet per second	ft^3/s
Cubic foot	ft^3
Cubic inch	in^3
Cubic metre	m^3
Cubic yard	yd^3
Coefficients of Variation	CVs
Day	d
Days per week	d/wk
Days per year (annum)	d/a
Dead weight tonnes	DWT
Decibel adjusted	dBa
Decibel	dB
Degree	°
Degrees Celsius	°C
Diameter	ø
Dollar (American)	US$
Dollar (Canadian)	C$
Dry metric ton	dmt
Foot	ft
Gallon	gal
Gallons per minute (US)	gpm
Gigajoule	GJ
Gigapascal	GPa

Gigawatt	GW
Gram	g
Grams per litre	g/L
Grams per tonne	g/t
Greater than	>
Hectare (10,000 m^2)	ha
Hertz	Hz
Horsepower	hp
Hour	h
Hours per day	h/d
Hours per week	h/wk
Hours per year	h/a
Inch	"
Kilo (thousand)	k
Kilogram	kg
Kilograms per cubic metre	kg/m^3
Kilograms per hour	kg/h
Kilograms per square metre	kg/m^2
Kilometre	km
Kilometres per hour	km/h
Kilopascal	kPa
Kilotonne	kt
Kilovolt	kV
Kilovolt-ampere	kVA
Kilovolts	kV
Kilowatt	kW
Kilowatt hour	kWh
Kilowatt hours per tonne (metric ton)	kWh/t
Kilowatt hours per year	kWh/a
Less than	<
Litre	L
Litres per minute	L/min
Megabytes per second	Mb/sec
Megapascal	MPa
Megavolt-ampere	MVA
Megawatt	MW
Metre	m
Metres above sea level	masl
Metres Baltic sea level	mbsl
Metres per minute	m/min
Metres per second	m/s
Metric ton (tonne)	t
Microns	µm
Milligram	mg
Milligrams per litre	mg/L
Millilitre	mL

Millimetre	mm
Million	M
Million bank cubic metres	Mbm^3
Million tonnes	Mt
Minute (plane angle)	'
Minute (time)	min
Month	mo
Ounce	oz
Pascal	Pa
Centipoise	mPa·s
Parts per million	ppm
Parts per billion	ppb
Percent	%
Pound(s)	lb
Pounds per square inch	psi
Revolutions per minute	rpm
Second (plane angle)	"
Second (time)	sec
Specific gravity	SG
Square centimetre	cm^2
Square foot	ft^2
Square inch	in^2
Square kilometre	km^2
Square metre	m^2
Thousand tonnes	kt
Three Dimensional	3D
Tonne (1,000 kg)	t
Tonnes per day	t/d
Tonnes per hour	t/h
Tonnes per year	t/a
Tonnes seconds per hour metre cubed	ts/hm^3
Total	T
Volt	V
Week	wk
Weight/weight	w/w
Wet metric ton	wmt

Abbreviations and Acronyms

Absolute Relative Difference	ABRD
Acid Base Accounting	ABA
Acid Rock Drainage	ARD
Alpine Tundra	AT
Atomic Absorption Spectrophotometer	AAS
Atomic Absorption	AA
British Columbia Environmental Assessment Act	BCEAA
British Columbia Environmental Assessment Office	BCEAO

British Columbia Environmental Assessment	BCEA
British Columbia	BC
Canadian Dam Association	CDA
Canadian Environmental Assessment Act	CEA Act
Canadian Environmental Assessment Agency	CEA Agency
Canadian Institute of Mining, Metallurgy, and Petroleum	CIM
Canadian National Railway	CNR
Carbon-in-leach	CIL
Caterpillar's® Fleet Production and Cost Analysis software	FPC
Closed-circuit Television	CCTV
Coefficient of Variation	CV
Copper equivalent	CuEq
Counter-current decantation	CCD
Cyanide Soluble	CN
Digital Elevation Model	DEM
Direct leach	DL
Distributed Control System	DCS
Drilling and Blasting	D&B
Environmental Management System	EMS
Flocculant	floc
Free Carrier	FCA
Gemcom International Inc.	Gemcom
General and administration	G&A
Gold equivalent	AuEq
Heating, Ventilating, and Air Conditioning	HVAC
High Pressure Grinding Rolls	HPGR
Indicator Kriging	IK
Inductively Coupled Plasma Atomic Emission Spectroscopy	ICP-AES
Inductively Coupled Plasma	ICP
Inspectorate America Corp.	Inspectorate
Interior Cedar – Hemlock	ICH
Internal rate of return	IRR
International Congress on Large Dams	ICOLD
Inverse Distance Cubed	ID3
Land and Resource Management Plan	LRMP
Lerchs-Grossman	LG
Life-of-mine	LOM
Load-haul-dump	LHD
Locked cycle tests	LCTs
Loss on Ignition	LOI
Metal Mining Effluent Regulations	MMER
Methyl Isobutyl Carbinol	MIBC
Metres East	mE
Metres North	mN
Mineral Deposits Research Unit	MDRU
Mineral Titles Online	MTO

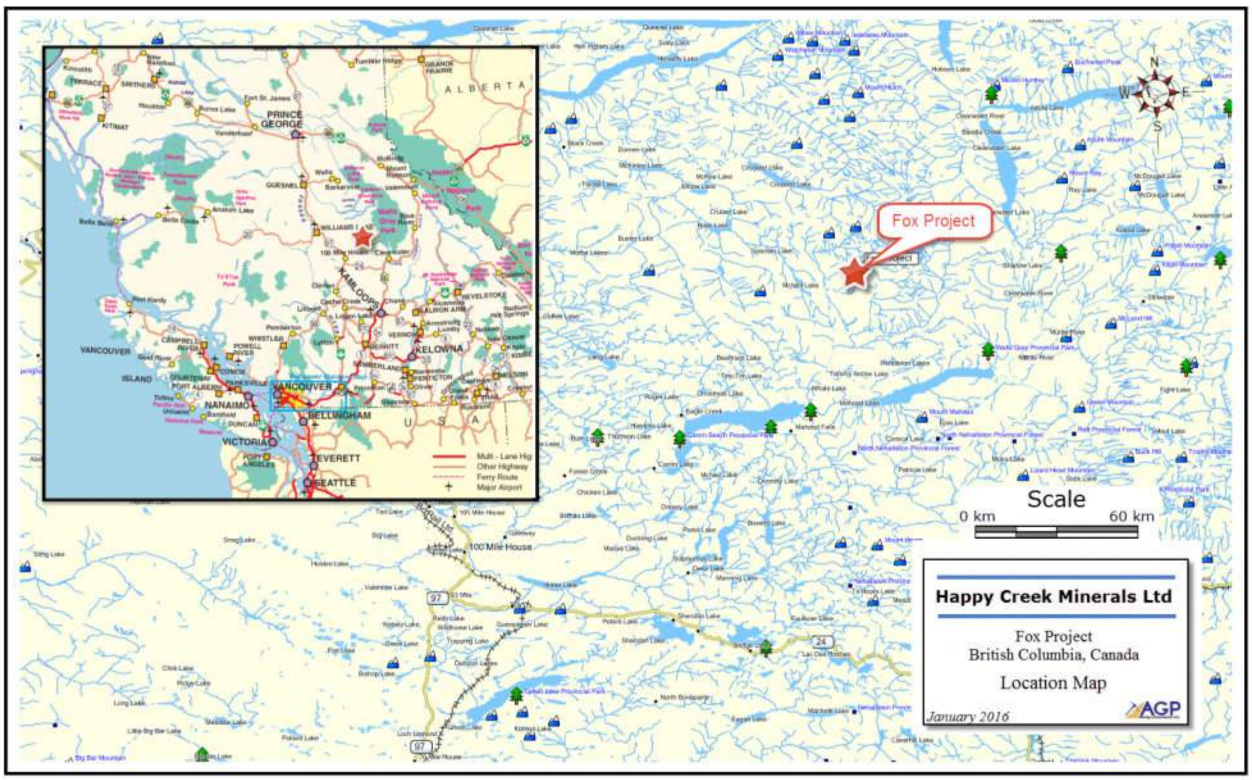
National Instrument 43-101	NI 43-101
Nearest Neighbour	NN
Net Invoice Value	NIV
Net Present Value	NPV
Net Smelter Prices	NSP
Net Smelter Return	NSR
Neutralization Potential	NP
Northwest Transmission Line	NTL
Official Community Plans	OCPs
Operator Interface Station	OIS
Ordinary Kriging	OK
Organic Carbon	org
Potassium Amyl Xanthate	PAX
Predictive Ecosystem Mapping	PEM
Preliminary Assessment	PA
Preliminary Economic Assessment	PEA
Qualified Persons	QPs
Quality assurance	QA
Quality control	QC
Rhenium	Re
Rock Mass Rating	RMR ‘76
Rock Quality Designation	RQD
SAG Mill/Ball Mill/Pebble Crushing	SABC
Semi-autogenous Grinding	SAG
Standards Council of Canada	SCC
Stanford University Geostatistical Software Library	GSLIB
Tailings storage facility	TSF
Terrestrial Ecosystem Mapping	TEM
Total dissolved solids	TDS
Total Suspended Solids	TSS
Tunnel boring machine	TBM
Underflow	U/F
Valued Ecosystem Components	VECs
Waste rock facility	WRF
Water balance model	WBM
Work Breakdown Structure	WBS
Workplace Hazardous Materials Information System	WHMIS
X-Ray Fluorescence Spectrometer	XRF

1 SUMMARY

Happy Creek Minerals Ltd. (Happy Creek) commissioned AGP Mining Consultants Inc. (AGP) to provide an update to the Mineral Resource Estimate of the Fox project's Ridley Creek Zone (RC Zone), BN Zone, and a maiden independent mineral resource estimate for the BK Zone. This report has been prepared in accordance with National Instrument 43-101 (NI 43-101) Standards of Disclosure for Mineral Projects and Form 43-101F1.

The Fox property (the "Property") is in southern British Columbia approximately 70 km northeast of the town of 100 Mile House, and approximately 30 km east of the former Boss Mountain molybdenum mine in the south--central Cariboo region, British Columbia, Canada (Figure 1-1). The southern and central portion of the Property are easily accessible by paved and gravel logging roads from 100 Mile House, the largest community in the region.

FIGURE 1-1: PROPERTY LOCATION



The Property consists of 31 converted legacy and new cell claims totaling ~13,589 hectares (135.89 km^2). All tenures are 100% owned by Happy Creek and are subject to a 2.5% Net Smelter Royalty (NSR), with Happy Creek having the right to purchase 1% of the NSR. The property has no known environmental liabilities.

The property is situated within the Quesnel Highlands of the Interior Plateau just west of the Cariboo Mountains. The area is mountainous with elevation raging between 1,120 m to 2,340 m at the summit of Deception Mountain. The present landforms are the result of extensive glaciation. Climate is typical of the south-central interior of British Columbia with mild summers and cold winters. The ample precipitation supports a variety of vegetation with the lower slopes forested with spruce, sub-alpine fir, pine, and aspen interspersed with alder thickets. Open areas of low lying bush occur in the alpine terrain on Deception Mountain.

In the southern part of the property clear-cut logging has taken place and this has provided good quality road access. A hydro transmission line approximately 17 km west of the property powered the former Boss Mt. molybdenum mine and currently supplies power to the Hendrix Lake town site. Asphalt roads, power and telephone lines extend to Eagle Creek, and natural gas services the village of Forest Grove. Both are small communities situated approximately 40 km and 60 km west of the Property, respectively.

The earliest regional mineral exploration history dates to prospectors moving northward through British Columbia in search of gold in the 1800s. More recent exploration efforts were spurred on by the search for porphyry copper deposits in the 1970s. On Deception Mountain in mid June 1982 with 75% snow cover, a small crew followed up on a government initiated regional stream sediment survey. They collected soil, silt, and rock samples and identified a previously un-mapped two-mica granite intrusion. Although several soil samples returned positive tungsten values, workers never returned, and the claims lapsed. In 1997, D. and C. Ridley prospected along the newly constructed 7200 logging road on the south side of Deception Creek. They located the southern contact of the Deception stock and identified garnet-rich skarn alterations associated with it. Between June 21 and June 26, 1999, D. Blann, D. Black, and D. Ridley carried out geological mapping and prospecting in this area. A boulder was discovered bearing patches of molybdenite, (the “Discovery Zone”) and the first mineral claims were staked. Further prospecting uncovered skarn with significant molybdenum, tungsten and anomalous zinc. In July 2000, the Deception 1-9 mineral claims were staked, covering the northern edge of Deception stock about 4 km north of the Discovery Zone. Happy Creek acquired an option on the Fox property in June 2005. Since then, Happy Creek has conducted exploration virtually every year resulting in the discovery of several tungsten mineralized zones as well as sizeable geochemical anomalies.

Geologically, the property is underlain by Snowshoe Formation, a Permian age and older assemblage comprised of gneiss, schist, marble, and calc-silicate. These are cut by the mid Cretaceous Deception stock, a two-mica quartz monzonite to granite. A hornfels and metasomatic zone (aureole) extends outward from the stock for up to several kilometres. Scheelite is the dominant tungsten mineral, along with sulphide minerals occurring as exoskarn and endoskarn developed in calc-silicate, and in quartz veins. Molybdenite is locally present but is generally separated from the scheelite.

Seven areas of outcropping, tungsten-bearing, skarn and several substantial soil and stream geochemical anomalies occur over an area of 10 km by 3 km oriented in a north-south direction. Mineralized zones of interest around the south side of the Deception Stock are the

South Grid and Nightcrawler-Discovery Zone. Further north, around the Deception Stock, from south to north, are five additional zones namely: 708, BN, Ridley Creek (RC), BK, and North Zones.

From 2007 to 2015 six diamond drilling campaigns were completed totaling 10,421 m in 82 holes. Exploration expenditures total nearly $4,000,000. Drilling has identified the RC Zone to consist of a gently dipping, tabular shaped, calc-silicate (metasomatic replacement of marble or limestone) ranging in thickness from 5 m to over 40 m outcropping along the eastern flank of Deception Mountain. This geological unit is mapped at surface from the BN Zone through the RC Zone to the BK Zone, a distance of approximately 2 km. Drilling at the Ridley Creek Zone (RC) in 2011 and the RC, BN, and BK Zones in 2012 were successful in intersecting multiple intervals containing grade and thickness comparable to the Cantung tungsten mine located in the Northwest Territories. This was considered the discovery point of potentially economic mineralization for the property.

Positive exploration results led Happy Creek to conclude that the RC Zone could have the potential to host a sizeable tungsten deposit and thus initiated a resource estimate, announced on March 15, 2016.

Encouraged by these results, Happy Creek expanded its exploration activity in 2016 with in-fill drilling on the RC Zones and additional exploration holes on the BN Zones. Drilling consisted of 2,330 m in 28 holes. Happy Creek also collected surface chip, channel, and soil samples. Geological mapping was expanded, and trail construction facilitated access through the property. From this work, Happy Creek updated the RC Zone mineral resource estimate and considered there was sufficient information on the BN Zone to warrant a maiden resource estimate.

The NI43-101 compliant resource estimate was announced on January 26, 2017 and included resources reported within a constraining shell for the RC Zone and resources amendable to underground extraction for both the RC Zone and the BN Zone.

Happy Creek expanded once again its exploration activity during the summer of 2017. The $1.48 million program consisted of rock sampling, prospecting, and geological mapping. Nineteen meters of hand trenches were dug on the RC and Creek Zones, and 66 drill holes were completed. Drilling focused on:

- expanding the resource on the BN Zone
- infill drilling within the 2016 Resource area on the RC Zone
- drilling to expand the RC Zone resources to the north and northeast of the 2016 resources

1.1 Conclusion

Based on the review of the Quality Assurance/Quality Control (QA/QC) program, data validation, and statistical analysis the following conclusions were made:

- AGP has reviewed the methods and procedures to collect and compile geological, geotechnical, and assaying information for the Fox project and found them to be suitable for the style of mineralization found on the property and to meet accepted industry standards.
- The mineralization on the Fox project, RC Zone, and BK Zone were sampled over the years with core drilling and trenching. Both data types were used in the resource estimate. The BN Zone was sampled exclusively with core drilling.
- Samples from the drill program prior to the 2016 drill program were analyzed at Agat Labs located in Burnaby B.C. The laboratory is ISO/IEC 17025 and ISO 9001 accredited. Since 2016 data has been analyzed at SGS Laboratory and this laboratory is IEC 17025 accredited.
- For drill core prior to 2016, Agat Laboratories performed a multi-element analysis using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) or the Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP_OES) method for all samples. Anomalous tungsten assays were re-analysed in triplicate using peroxide fusion method. Samples above 0.6% W were re-assayed using the Agat XRF classical tungsten assays. In the database, the final WO_3 assay represents the average value of the triplicate peroxide fusion analysis and the Agat's XRF classical tungsten assays (converted to tungsten trioxide). For the low-grade sample analyzed solely with ICP the final WO_3 assay represents the tungsten ICP value converted to tungsten trioxide.
- For the 2016 data, Happy Creek performed ICP assays along with peroxide fusion analysis on all samples regardless of the grade.
- For the 2017 data, Happy Creek reverted to using a multi-element ICP assay on all samples along with a peroxide fusion analysis on samples grading above 40 ppm W. Samples grading in excess of 4% W were re-analyzed for tungsten by XRF.
- A limited QA/QC program was introduced by Happy Creek during the 2007 drill program. In 2007, a select suite of samples was sent for neutron activation analysis (INAA) at Activation Laboratory (ActLabs) to validate the peroxide fusion results from Agat Laboratories. No significant difference was encountered.
- The QA/QC program was improved in 2011 with the inclusion of blanks, core duplicates, and standards reference material (SRM). This program continued through to the 2017 drill campaign. Submission rates meet the industry accepted practice for each of the QA/QC type of samples. The sampling procedures, analytical methods, and QA/QC procedures undertaken by Happy Creek indicated reasonable accuracy of the sample data and no obvious cross contamination at the sample preparation level.
- Examination of the QA/QC standards by AGP shows the SGS Laboratory results in 2016 were more precise than the Agat Laboratory results. While the average grade produced by Agat's for the standard reference material was within specs, the data did show more variations which were not present in the SGS assays.
- QA/QC results during the 2016 and 2017 drill campaign indicated that SGS provided quality assay results. While the ICP-MS is not considered the ideal analytical method for tungsten assays, the threshold of 40 ppm W set by Happy Creek during the 2017 drill campaign, to switch analytical methods to sodium peroxide fusion, is low enough not to introduce a significant bias in the data used for the resource estimation at the stated cut-off grade.

- MS Analytical Laboratory was selected as the empire laboratory during the 2017 drill campaign. A suite of high-grade samples was submitted to MS Analytical and results indicated a low bias for samples below 1% and a high bias for samples that were re-assayed with XRF. Due to the possible bias in the MS analytical assays, Happy Creek re-submitted the same pulps to ActLab. The results indicated ActLabs was able to reproduce the SGS fusion assays with high accuracy, even with values below 1% W.
- During the 2017 drill campaign Happy Creek submitted a suite of core sample to SGS for specific density measurements. This program was implemented to validate the in-house measurements collected throughout the years. AGP noted the SGS results compared very well with Happy Creek's measurements.
- Data verification was originally performed by Geoquest Consulting Ltd., and later by AGP, through site visits in 2016 and 2017, collection of independent character samples, and a database audit. The drill database was found to be error free and suitable to be used for a resource estimate.
- Core handling, core storage, and chain of custody are consistent with industry best practice.
- At the current stage of the project, the preliminary first-pass metallurgical testing, used a combination of flotation to separate sulphides, followed by Falcon concentrator and Tables (gravity) that produced an initial cleaner concentrate and an additional middling product which can be recycled back upstream for re-processing. Together these two products contain 70.8% of the tungsten.
- In 2015, another sample of approximately 400 kg was collected from the face of the RC Zone and submitted to SGS Laboratories of Vancouver, B.C. From this data, a mass balance was prepared with reference to standard practice at operating tungsten mines. This trial has returned 75.8% of the WO_3 within a 68% WO_3 concentrate.

Based on the above conclusions, and effective February 27, 2018, AGP completed an update of the January 26, 2017 estimate conducted by AGP Mining Consultants Inc. and covering the RC Zone and BN Zone. The estimate also includes a first-time resource estimate for the BK Zone. The mineral resource presented herein is in conformance with the CIM Mineral Resource definitions (2014) referred to in NI 43-101 Standards of Disclosure for Mineral Projects.

The RC Zone model was interpolated with 80 core holes and 23 trenches completed by Happy Creek from 2010 through to 2017, totalling 5,711 m and containing 2,198 assays. The BN Zone model is supported by 52 drill holes completed by Happy Creek in 2012, 2016, and 2017 totalling 6,366 m of drilling and containing 1,213 assays. The BK Zone model is supported by 11 drill holes and 12 trenches completed by Happy Creek in 2012 and 2016 totalling 606 m and containing 226 assays. The estimate considers all data that was available prior to January 28, 2018.

The resource encompasses the RC, BN, and BK Zones of the Fox project. The estimate was completed based on the concept of a small scale open pit operation for the BK Zone, a combined open pit and underground room-and-pillar operation for the RC Zone, and a small scale underground room-and-pillar mining operation for the BN Zone.

Under CIM definitions, mineral resources should have a reasonable prospect of economic extraction. A tungsten price of US$230/MTU of WO_3 in concentrate was used for the cut-off estimation. To assess the mineral resources, an in-situ resource cut-off grade of 0.175% WO_3 has been applied for potential open pit resources and 0.45% WO_3 for potential underground material.

To further assess reasonable prospects of economic extraction, Lerchs-Grossman optimized shells were generated to constrain the potential open pit material. Parameters used included:

- 50° slopes for the pit shell
- CDN$8/t mining, CDN$26/t milling, CDN$10/t G&A operating costs
- 75.8% WO3 recovery to a 68% WO3 concentrate
- CDN$285/MTU WO3 price
- economics applied to Indicated and Inferred materials

For the RC Zone, at the greater than 0.175% WO_3 cut-off selected, the updated model returns a total of 397,400 Indicated tonnes grading at 0.713% WO_3, containing 283,400 metric ton unit (MTU) of tungsten trioxide contained within the resource constraining shell. Below the constraining shell and reported at a greater than 0.45% WO_3 cut-off, the updated model returns 185,000 tonnes of Indicated resources grading at 1.067 WO_3, containing 197,100 MTU of tungsten trioxide.

Inferred resources within the resource constraining shell and reported at a greater than 0.175% WO_3 cut-off, amounted to 14,700 tonnes grading at 0.662% WO_3, containing 9,700 MTU of tungsten trioxide. Below the constraining shell and reported at a greater than 0.45% WO_3 cut-off, the updated model returned 76,800 tonnes of Inferred resources grading at 0.961 WO_3, containing 73,800 MTU of tungsten trioxide.

For the BN Zone, at the greater than 0.45% WO_3 cut-off selected, the new resource estimate deemed amendable to underground extraction, returned a total of 453,000 Inferred tonnes grading at 1.321% WO_3, containing 598,300 MTU of tungsten trioxide.

For the BK Zone, at the greater than 0.175% WO_3 cut-off selected, the new resource estimate deemed amendable to open pit extraction, returned a total of 20,900 Inferred tonnes grading at 0.672% WO_3, containing 14,000 MTU of tungsten trioxide.

The Fox project total Indicated resources for the RC Zone amounted to 582,400 tonnes grading at 0.826% WO_3, containing 480,500 MTU of tungsten trioxide. The Inferred resources for the RC, BN, and BK Zones combined, amounted to 565,400 tonnes grading at 1.231% WO_3, containing 695,800 MTU of tungsten trioxide (Table 1-1).

TABLE 1-1: RESOURCE ESTIMATE OF THE FOX PROJECT FOR THE RC ZONE AND BN ZONE

Classification	Zone	WO3 Cut-off (%)	Tonnage (T)	WO3 (%)	WO3 (MTU)
Indicated	RC Zone within resource constraining shell	> 0.175	397,400	0.713	283,400
	RC Zone below the resource constraining shell	> 0.450	185,000	1.067	197,100
Inferred	RC Zone within resource constraining shell	> 0.175	14,700	0.662	9,700
	RC Zone below the resource constraining shell	> 0.450	76,800	0.961	73,800
Inferred	BN Zone (amendable to UG extraction)	> 0.450	453,000	1.321	598,300
	BK Zone (within resource constraining shell)	> 0.175	20,900	0.672	14,000
Indicated	Total	Various	582,400	0.826	480,500
Inferred	Total	Various	565,400	1.231	695,800

Notes: Cut-off determined by using a WO3 price of CDN$285/MTU WO3 in concentrate
Rounding of Tonnes as required by reporting guidelines may result in apparent differences between tonnes, grade, and contained metal.

AGP is not aware of any information not already discussed in this report, which would affect their interpretation or conclusions regarding the subject property. AGP is required to inform the public that the quantity and grade of reported Inferred resources in this estimation must be regarded as conceptual in nature and are based on limited geological evidence and sampling. The geological evidence is sufficient to imply, but not verify, geological grade or quality of continuity. For these reasons, an Inferred resource has a lower level of confidence than an Indicated resource. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. It is also noted that mineral resources that are not Mineral Reserves do not have demonstrated economic viability. And lastly, rounding of values as required by the reporting guidelines, may result in apparent differences between tonnes, grade, and metal content.

In addition to the RC Zone, BN Zone, and BK Zone resources, the Nightcrawler Zone and South Grid have returned potentially economic grade and thickness of scheelite tungsten mineralization and remains open to further expansion. The North Zone has not been drill-tested. There is a reasonable likelihood that further drilling could increase the tungsten resources of the project.

1.2 Main Recommendations

AGP recommends Happy Creek continue exploration on the Fox project and carry out a Preliminary Economic Assessment (PEA) study on the RC Zone and BN Zone.

The goal of further drilling is to expand existing mineralized zones and bring more inferred resources into the indicated category using NQ size drill holes. Several holes are planned to test extensions of the BN and RC Zones to the north and northwest, respectively, beneath Deception Mountain, and require holes 300 m in length. It is also proposed to collect representative bulk samples from the different deposits for metallurgy and performing geotechnical study in preparation for a PEA study. The total cost of this work is estimated at $3,440,600 (Table 1-2).

TABLE 1-2: PROPOSED BUDGET

Zone	# of holes	Metres	Total Metres	Cost/m	Total
Trenching – BN, RC, BK and SG Zones	30	10	300	$125	$37,500
NQ drill holes – BN Zone	15	200	3000	$250	$750,000
NQ drill holes – RC Zone	15	250	3750	$250	$937,500
NQ drill holes – BK Zone	15	75	1125	$250	$281,250
NQ drill holes - South Grid	15	100	1500	$175	$262,500
HQ drill holes Geotech/Metallurgical Holes	10	150	1500	$300	$450,000
Sub-Total:	**100**		**11,175**		**$2,718,750**
Metallurgical Work					
Definitive Process Design & Plant Cost Estimate					$100,000
Engineering					
geotechnical, metallurgical, environmental					$250,000
Preliminary Economic Assessment or pre-feasibility					$100,000
Total Budget:					**$3,168,750**
10% Contingency					$271,875
				Total	**$3,440,625**

2 INTRODUCTION AND TERMS OF REFERENCE

Happy Creek commissioned AGP to provide an updated resource estimate for the Ridley Creek Zone (RC Zone), the Blann Zone (BN Zone) and a maiden independent mineral resource estimate for the BK Zone of the Fox project located in British Columbia, Canada.

This report includes the results of the National Instrument 43-101 (NI 43-101) Mineral Resource Estimation and complies with standards set out in by the Canadian Securities Commission form NI 43-101F1.

2.1 Qualified Persons and Site Visit

This report was prepared at the request of Mr. Dave Blann P. Eng., President, CEO and Director for Happy Creek. This report was prepared under the direct supervision of:

Pierre Desautels, P. Geo – Principal Resource Geologist with AGP, is a registered Professional Geoscientist in the province of Ontario, British Columbia, and Newfoundland. Mr. Desautels visited the project site on August 29 and 30, 2016 and again on July 31 and August 1, 2017 to review drill core logging and sampling procedures, collect representative character samples, verify drill hole collar locations, and gain knowledge of the geological setting of the deposit. Mr. Desautels is responsible for all sections of this report dealing with scientific and technical information except for Section 13 of the report. Mr. Desautels' responsibility excludes the portion of the report dealing with legal, political, environmental, and tax matters as indicated in Section 3 titled "Reliance on Other Experts".

Paul Berndt, FAusIMM is a metallurgical and mineral processing professional with extensive experience on tungsten projects worldwide. Mr. Berndt directed and supervised the test work at SGS between October 2015 and May 2016 and is responsible for Section 13 of this report. He visited the Fox property on October 1, 2015 and is a director of Happy Creek.

The following individuals provided the regional, local geological and historical information on the Fox project, along with the text related to the drill program conducted by Happy Creek.

Sassan Liaghat, PhD., Senior Geologist and Project Manager for Happy Creek - was responsible for supervising the 2010 to the 2017 work programs as well as data management for the project. Mr. Liaghat contributed to a portion of the text related to the diamond drilling and trenching program and a summary of the exploration activity and provided several figures used in this report.

Effective Dates

The report has several dates:

- The Mineral Resources have an effective date of February 27th, 2018
- Drill data and information on the project is current to January 28th, 2018

2.2 Information Source and References

Much of the report text related to the history and geological settings of the deposit was sourced from the following documents:

- Gruenwald W., Desautels P., May 2016, NI43-101 Technical Report, Resource Estimate of the Fox, Property, Ridley Creek Zone, 118p
- Desautels P., Berndt P., March 2017, NI43-101 Resource Update for the RC Zone and Maiden Resource Estimate for the BN Zone of the Fox Tungsten Project British Columbia, Canada, 153p

There were no material changes to the scientific and technical information on the project between the effective date and the signature date of the report.

Distance and weight measures presented in this report are in the metric system. Currency for expenditures and proposed work are stated in Canadian Dollars unless otherwise stated.

Tungsten grades are typically stated in percent (%) of tungsten trioxide (WO_3) rather than elemental tungsten (W). Tungsten is most typically priced in metric ton units (MTU) which is 10kg WO_3. A metric ton unit of tungsten trioxide contains 7.93 kg of elemental tungsten equating to a 1.261 conversion factor.

3 RELIANCE ON OTHER EXPERTS

AGP has followed standard professional procedures in preparing the content of this resource estimation report. Data used in this report has been verified where possible, and the report is based upon information believed to be accurate at the time of completion.

AGP has not verified the legal status, legal title to any permit, or the legality of any underlying agreements for the subject properties regarding mineral rights, surface rights, permitting, and environmental issues in sections of this technical report. AGP has relied on information provided on March 22, 2018 by Mr. Dave Blann, P. Eng., President, CEO, and Director of Happy Creek.

4 PROPERTY DESCRIPTION AND LOCATION

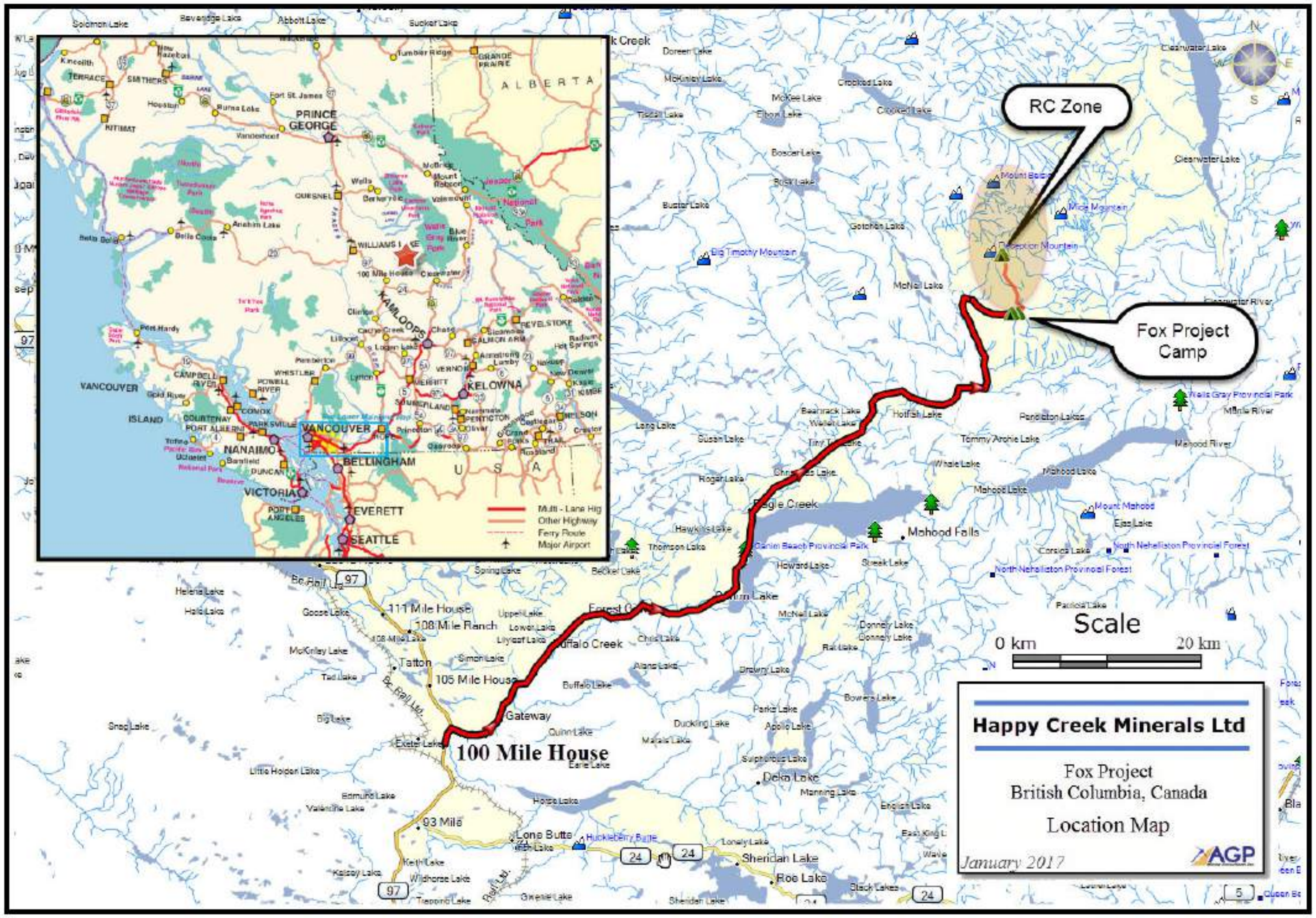
4.1 Location

The Fox property is located approximately 70 km northeast of 100 Mile House and 160 km north-northeast of Kamloops in the south-central Cariboo region of British Columbia (Figure 4-1), within the Cariboo Mining District.

The property is accessed on paved and well-maintained gravel roads. Access from 100 Mile House is via the Canim-Hendrix road, 2 km north of 100 Mile House, which heads northeast for 50 km to the villages of Forest Grove and Eagle Creek. At the Eagle Creek bridge the pavement ends and the Hendrix Lake (6000) Forest Service Road (an all-weather, year-round gravel road) continues in a north-easterly direction for 17 km to its junction with the Spanish-Deception (7000) road. The 7000 road is followed in an easterly direction for about 15 km to its junction with the Deception (7200/720) road. The 720 road is followed past No-Name Lake campsite northward for 15 km to the Nightcrawler Zone and approximate centre of the property. Several spur roads provide access to the lower elevations of the property while access to the north, at higher elevations on Deception Mountain, require crossing Deception Creek and a long hike, or by helicopter. A bridge and logging operations are planned to include the southwest slope of Deception Mountain, within approximately 4 km of the 708 and BN Zones.

The property is located between 52°03’13” N and 51°58’47” N latitude and 120°38’49” W and 120°34’06” W longitude.

FIGURE 4-1: LOCATION MAP



4.2 Mineral Tenure and Agreements

The property is comprised of 31 converted legacy and new cell claims totaling approximately 13,589 hectares (135.89 km2). The property is 100% owned by Happy Creek of Vancouver, BC (FMC 203169). Details of the mineral tenures are provided in Table 4-1 and Figure 4-2.

The property was 100% acquired by Happy Creek in 2006 and is subject to a 2.5% Net Smelter Royalty (NSR). Happy Creek can purchase 1% of the NSR at any time for $2m, leaving a 1.5% NSR. No other payments or agreements are in place.

Mineral and placer claims in British Columbia are now acquired using the Mineral Titles Online system (MTO). Fee for a mineral claim registration is $1.75 per hectare. Upon registration, a cell claim is deemed to commence as of that date ("Date of Issue") and is good until the "Expiry Date". To maintain the claim beyond that expiry date, the recorded holder (or an agent) must, on or before the expiry date, register either exploration and development work that was performed on the claim, or a payment instead of exploration and development. The work requirement increases from $5 per hectare for the first and second anniversary date to $10 per hectare on the third and fourth anniversary date to $15 per hectare on the fifth and sixth anniversary date to $20 per hectare thereafter.

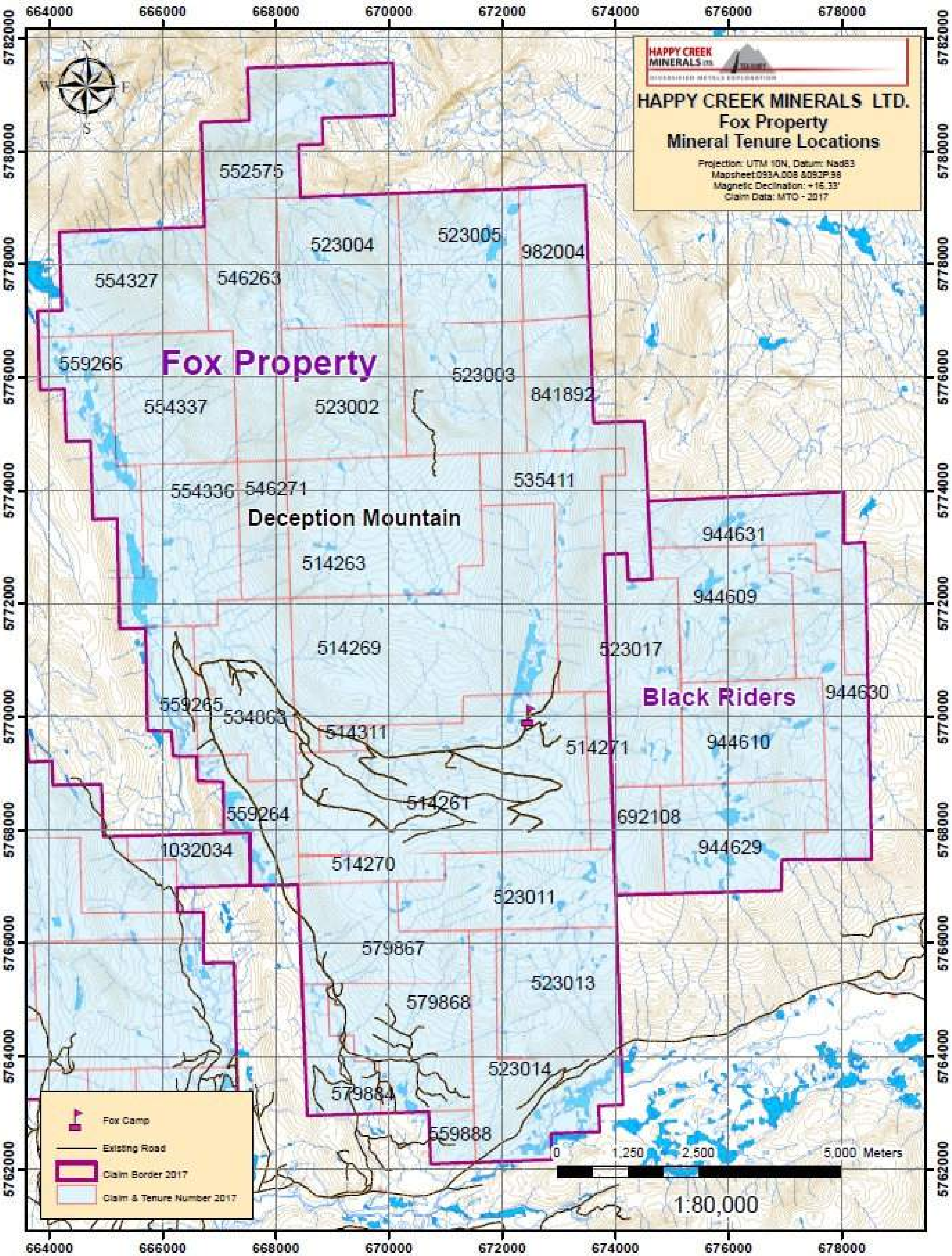
Located or ground-staked mineral claims are termed "legacy" claims. These claims were converted to cell claims by Happy Creek to provide a modernized and secure title, eliminate overlapping claim or other mapping issues, and consolidate smaller titles into larger ones.

AGP validated the claim data provided by Happy Creek against the information provided by the British Columbia mineral titles online database and the information provided by Happy Creek was found to be correct. No other validation was performed by AGP regarding the mineral tenure.

TABLE 4-1: FOX MINERAL TENURE

Tenure ID	Claim Name	Map Number	Issue Date	Expiry Date	Area (ha)
514261		093A	2005/jun/10	2027/dec/31	1232.619
514263		093A	2005/jun/10	2027/dec/31	774.619
514269		093A	2005/jun/10	2027/dec/31	1231.988
514270		093A	2005/jun/10	2026/dec/31	119.301
514271		093A	2005/jun/10	2026/dec/31	119.296
514311		093A	2005/jun/11	2027/dec/31	39.749
523002	FOXNORTH-1	093A	2005/nov/30	2026/dec/31	496.331
523003	FOXNORTH-2	093A	2005/nov/30	2027/dec/31	496.339
523004	FOXNORTH-3	093A	2005/nov/30	2026/dec/31	496.122
523005	FOXNORTH-4	093A	2005/nov/30	2026/dec/31	496.116
523011	FOXSOUTH-1	093A	2005/nov/30	2026/dec/31	497.247
523013	FOXSOUTH-2	093A	2005/nov/30	2026/dec/31	497.458
523014	FOXSOUTH-3	092P	2005/nov/30	2026/dec/31	497.568
534863	FOX TAIL	093A	2006/jun/04	2026/dec/31	496.728
535411	FOXOCUBE	093A	2006/jun/12	2026/dec/31	496.648
546263	FOXNW	093A	2006/dec/01	2026/dec/31	496.1976
546271	FOX W	093A	2006/dec/01	2026/dec/31	198.6073
552575	FOXBILL 3	093A	2007/feb/23	2025/dec/31	495.8985
554327	FOX NORTH 1	093A	2007/mar/15	2025/dec/31	496.1535
554336	FOX NORTH 10	093A	2007/mar/15	2025/dec/31	496.5207
554337	FOX NORTH 11	093A	2007/mar/15	2026/dec/31	496.3255
559264	FOX NO NAME 1	093A	2007/may/26	2027/dec/31	238.5309
559265	FOX NONAME 1	093A	2007/may/26	2025/dec/31	178.8132
559266	FOX NONAME 2	093A	2007/may/26	2025/dec/31	337.5655
579867	FOXTUNG	093A	2008/mar/30	2027/dec/31	437.5385
579868	FOXTUNG 2	092P	2008/mar/30	2026/dec/31	497.3854
579884	FOXTUNG 3	092P	2008/mar/30	2026/dec/31	198.9687
579888	FOXTUNG 4	092P	2008/mar/30	2025/dec/31	79.6086
841892	FOX EAST	093A	2010/dec/28	2025/dec/31	496.4318
982004	FOX NORTH-5	093A	2012/apr/25	2025/dec/31	297.6647
1032034	FOX CONNECTOR	093A	2014/nov/04	2025/dec/31	159.0348
				Total ha	**13,589**

FIGURE 4-2: FOX FIGURE PROPERTY CLAIM MAP



4.3 Permits and Environmental Liabilities

All exploration permits applied for have been approved. Happy Creek currently holds MX-4-453 Permit for mine number 1620134, a 5-year permit for access trail construction (18 km) and drilling 118 holes or about 13,750 m, trenching 1,350 m issued March 22, 2016.

Work programs conducted at the BN, RC and BK zones are subject to the normal mine exploration permitting process with the addition of the Ungulate Wildlife Habitat Area order 5-117. The Company has received an exemption (File 36460-20 – February 19, 2016) to conduct exploration work for two years, requiring machine work be performed from July 1 to Dec 31 of each year. Most machine-related exploration work is anticipated to be performed after the snow has left the area and this and future surface mining activity would likely be campaigns between those months, or underground. Prospectors, or personnel engaged by the Company have yet to note the presence or signs of Mountain Caribou while working in the area since 1990, which supports a government study that the area of interest is not occupied by Mountain Caribou, although it contains habitat thought to be suitable. There are no salmon spawning grounds or other environmental issues that have been brought to the Company's attention through the permitting process. Much of the property has been clear cut logged and West Fraser has approved logging plans that include roads and clear-cuts from Deception Creek north, up the southwest side of Deception Mountain to the edge of the Wildlife Habitat Area, at about 4,500 ft. (1,500 m) elevation or within 4 km of the BN Zone. In 2017, Norbord Inc. begun investigations to construct roads and logging activities in the upper Deception Creek watershed and the southeast side of Deception Mountain that further demonstrate the active industrial use of this area.

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

The bulk of the text in this section was extracted from the previous NI43-101 report (Gruenwald, Desautels) with additions or modification from AGP.

5.1 Accessibility

The Fox property is located approximately 70 km northeast of 100 Mile House, British Columbia. Road travel from 100 Mile House is north on Highway 97 for three kilometres and then via the paved Canim-Hendrix Lake road for 46 km to the community of Eagle Creek near the north end of Canim Lake (Figure 4-1). Travel is then along the all-weather gravel Canim-Hendrix (6000) road northerly for about 17 km to the junction with Spanish-Deception (7000) road. From here travel is easterly for 14 km to the No-Name-Deception (7200) road. The 7200 road is driven northerly for 14.5 km to the Fox camp near the approximate center of the property. Local logging roads and cut blocks provide good access through the southern portion of the property. Driving distance from 100 Mile House is 102 km and takes around 1.5 hours to drive to the Fox camp.

5.2 Climate

Climate is typical of the south-central interior of British Columbia. Summer temperatures average daytime highs in the 20°C range with occasional temperatures reaching the low 30°s. October through April sees average sub-zero temperatures with lows reaching -30° C from November through March. Annual precipitation totals over 100 cm with much of it falling during the winter months. Total snowpack at the Fox Camp can reach 2.0 to 3.0 m before melting and is generally snow-free by early to mid May, while the upper elevations of Deception Mountain are largely snow-free from July to November.

5.3 Local Resources and Infrastructure

The Fox property is located approximately 70 km northeast of 100 Mile House which is the largest population center. The town was originally founded to serve the gold rush traffic between Kamloops and Fort Alexandria and later during the Cariboo gold rush. Today, according to the 2011 census data, the 100 Mile House district has a population of 1,886. It services an area that has a population roughly ten times the size of the town when the smaller communities of Lac La Hache, Forest Grove, Lone Butte, Horse Lake, Bridge Lake, 70 Mile House, Canim Lake, and 108 Mile Ranch are included. The primary industries of 100 Mile House are forestry and ranching, log home building and tourism. The town has a regional airport but no commercial air service at the time this report was completed. CN rail connects the town to the coastal terminals at Squamish and North Vancouver, and to Prince George to the north with access to eastern Canada.

Logging activity has provided good quality road access to the southern part of the property. From 1990 to 1993 the 7200-logging road was constructed for clear-cut logging.

Asphalt roads, power, and telephone lines extend to Eagle Creek, and natural gas services the village of Forest Grove. Both are small communities situated approximately 40 and 60 km west of the Fox property, respectively.

A hydro transmission and telephone line located approximately 17 km west of the property, powered the former Boss Mountain mine and currently supplies power and telephone service to the Hendrix Lake town site. When Boss Mountain was operating, power was sufficient to supply the residences of Hendrix Lake and the operation of a 2,500 tonne per day mine/mill. The power and telephone lines are still used to service Hendrix Lake.

The region has the capacity to provide the support services and an ample work force for property development.

5.4 Physiography

The Property is situated within the Quesnel Highlands of the Interior Plateau just west of the Cariboo Mountains. The area is mountainous with slopes ranging from gentle to steep with local cliffs. All the present landforms are a result of extensive glaciation. Elevations range from 1,120 m in Deception Creek to 2,340 m at the summit of Deception Mountain.

The Fox property lies within the Interior Wet Belt bio-geoclimatic zone. Given the ample precipitation, the area supports a variety of vegetation. Lower slopes are well forested with spruce, sub-alpine fir, pine and aspen interspersed with alder thickets. Open areas of low lying bush occur in alpine terrain on Deception Mountain. Due to pine and spruce beetle infestations, large portions of the lower elevations of the property have been or are planned for clear-cut logging.

6 HISTORY

The earliest regional mineral exploration history dates to the prospectors moving northward in the search for gold in the 1800s. More recent exploration efforts were spurred on by the search for porphyry copper deposits in the 1970s.

In 1981, the provincial government released a regional stream sediment geochemical survey when Mattagami Resources staked claims covering the uppermost elevations of Deception Mountain. Following up on the government and 1979 regional Mattagami work, a fly-camp was placed at high elevations on Deception Mountain on June 14, 1982. At that time, snow covered approximately 75% of the claims and severely limited exploration effectiveness. Systematic soil sampling proved difficult and was limited to patches of snow-free areas on the south-facing slope of Deception Mountain. Results include several samples containing 15-20 ppm W and up to 80 ppm W near the contacts of the intrusive. This area is located about 1.0 km south of the current BN Zone. Due to snow, the eastern side of Deception Mountain was not investigated. The work identified a previously unknown two-mica granite intrusion and Snowshoe Formation schist containing thin (5 cm) calc-silicate bands. Rocks collected during the program showed no sign of scheelite under ultra violet light. Results were considered slightly anomalous locally for tungsten and definitely not anomalous for copper, lead, zinc, silver and molybdenum (Helson 1982).

In 1997, D. and C. Ridley prospected along the new 7200 (720) logging road as part of BC Prospectors Assistance Program (Ref. No. 97-98 P66). This work located the southern contact of the Deception stock and identified garnet-rich skarn alteration associated with the stock. No mineralization was found associated with this skarn near the 7218-kilometre post on the 7200 road.

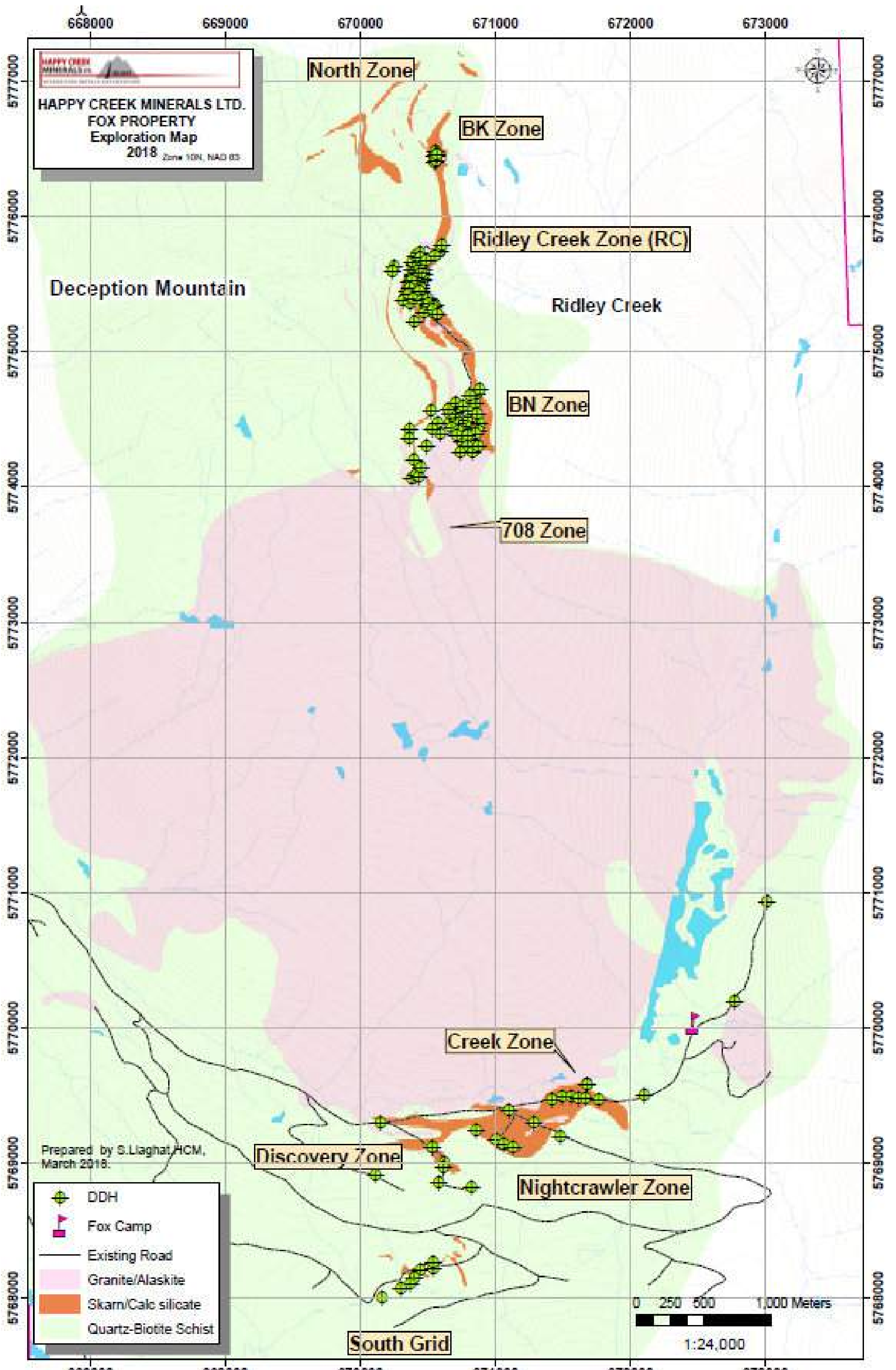
Between June 21 and June 26, 1999, D. Blann, D. Black and D. Ridley carried out additional geological mapping and prospecting along the 7200 road. On June 21, 1999, a granite-aplite boulder containing quartz veins with small patches of molybdenite was found beside the road and the first Fox claims were staked. D. Ridley later prospected and soil sampled above this area and discovered a large boulder of garnet-pyroxene calc-silicate containing significant molybdenum, tungsten and anomalous zinc. The work was part of the Prospectors Assistance Program (Ref. No. \99-\00 P-62) and was recorded for assessment work credits (Ridley 2000a).

During 2000, additional grid-based prospecting, geological mapping, soil sampling, and geophysical surveys, as well as additional claim staking was performed. Several zones of mineralization were found (Ridley 2000b). In July 2000, staking of the Deception 1-9 mineral claims covered the northern edge of the Deception stock, on Deception Mountain. Prospecting identified garnet and pyroxene skarn alteration most prevalent in the eastern half of the claims and several occurrences of pyrrhotite, scheelite, sphalerite and chalcopyrite were found. Reconnaissance silt sampling returned up to 412 ppm tungsten in silt samples (Ridley 2000c).

In July 2001, the Fox 1-6 claims were optioned to Starcore Resources Ltd., who expanded the claim position and conducted soil sampling south of the Discovery Zone, resulting in several samples containing anomalous concentrations of tungsten in soil ("South Grid", Ridley 2002). K. Dawson, PhD, P. Geo. Examined the property and obtained a 4.99% molybdenum assay from a grab rock sample of a 10-cm mineralized zone at the Discovery molybdenum skarn (Dawson 2002). No further work was performed, and the property was returned to Ridley.

In June 2005, Happy Creek, a private company, conducted prospecting, geological mapping and grid soil sampling. In June 2005, Happy Creek converted the property to the new Mineral Title Online (MTO) cell claims and filed assessment work (Blann and Ridley 2005) and in August 2006, Happy Creek acquired a 100% interest in the Fox property. Since May 2005, Happy Creek continuously explored the Fox project. Seven mineralized zones have been discovered to date. These are shown on . Descriptions of Happy Creek's exploration are described in Section 9 and 10 of this report.

FIGURE 6-1: MINERALIZED ZONE LOCATION OF THE FOX PROJECT



7 GEOLOGICAL SETTING

The bulk of the text in this section was extracted from the NI43-101 report (Gruenwald, Desautels) with additions or modification from AGP.

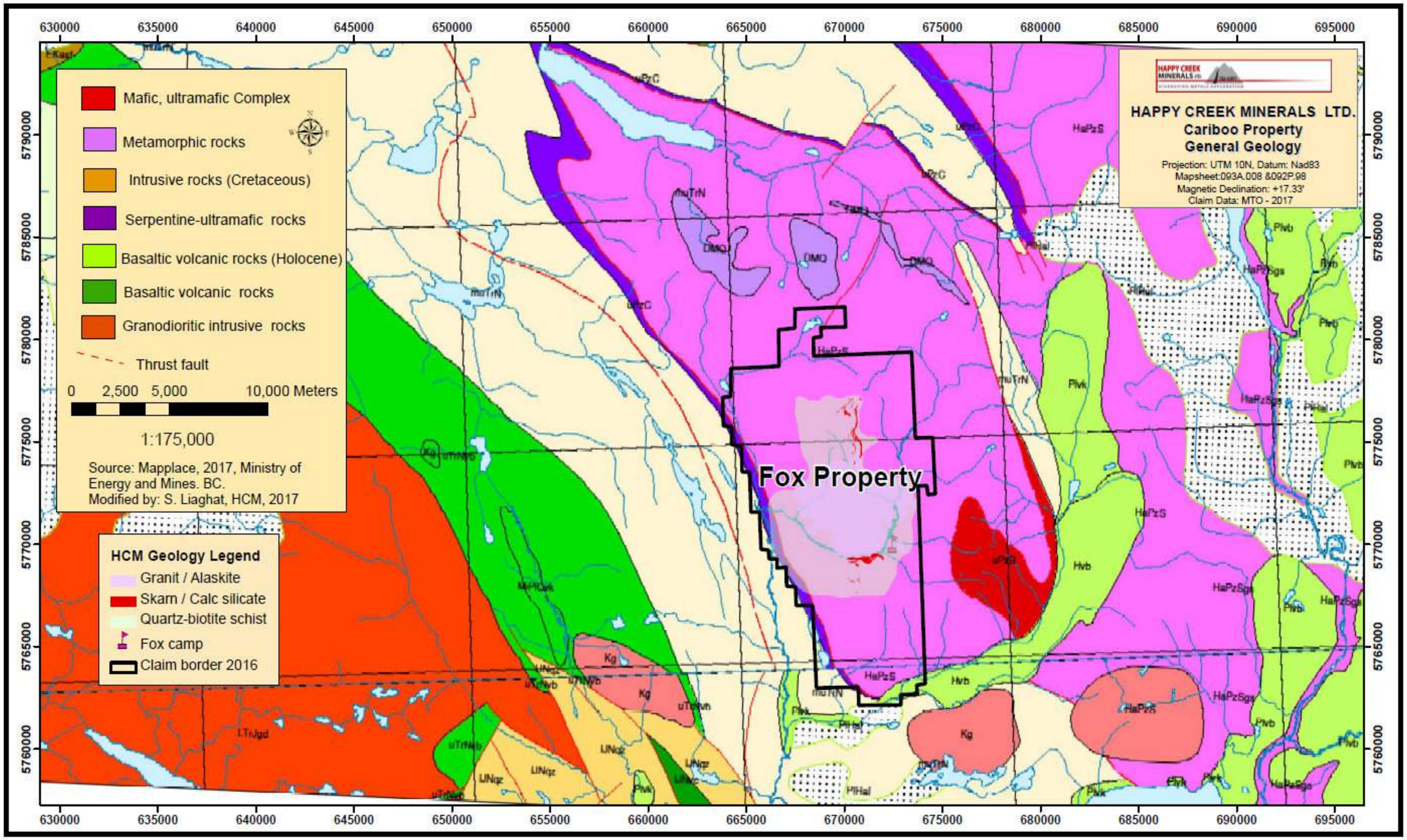
7.1 Regional Geology

The Fox property area is underlain by metasedimentary rocks of the Late Proterozoic-Early Paleozoic Snowshoe Group, part of the Kootenay Terrane of displaced and deformed North American shelf sedimentary rocks. In the area of Deception Mountain, these rocks consist of quartz-biotite schist (Pzqs), micaceous quartzite (Pzq), marble with associated skarnoids (Pzm), garnet-muscovite schist (Pzms) and plagioclase schists and augen gneiss (Pzqfs). These rocks lie east of the continental scale Eureka Thrust which marks the collision boundary between the Quesnel Terrane allocation to the west, and older continental shelf sediments to the east (Figure 7-1). The basal black phyllite unit of the Nicola Group occurs immediately west of the Fox property and was likely the focus of regional strain during tectonic activity.

Intrusions of multi-phase biotite-muscovite monzogranite composition cut the Snowshoe rocks. These are of Cretaceous age or younger and are of similar age to the Boss Mt. stock approximately 30 km to the northwest. Regional mapping north of the property suggests that rocks are comprised of quartz rich grit/metapelite gneiss to the west and are more carbonate-rich to the east, proximal to a major northwest trending anticline axis (Helson 1982; Filipone 1990). The Redfern Ultramafic Complex, of Permian-Mississippian age, is comprised of amphibolite, gabbro, dunite and serpentinite and occurs on the eastern side of the property. These rocks cover an area of approximately 4.5 km by 1.5 km in dimension.

The youngest rocks in the region are post glacial age cinder cones and blocky olivine basalt flows that are located southeast of the property in the Spanish Creek valley (Flourmill volcanoes). Very recent glacio-fluvial related deposits cover most valley bottoms and low-lying areas and are between 1 m to 20 m in thickness. Olivene bearing basalt dikes also cut metasediment, calc silicate and intrusive rocks on the Fox property.

FIGURE 7-1: REGIONAL GEOLOGY

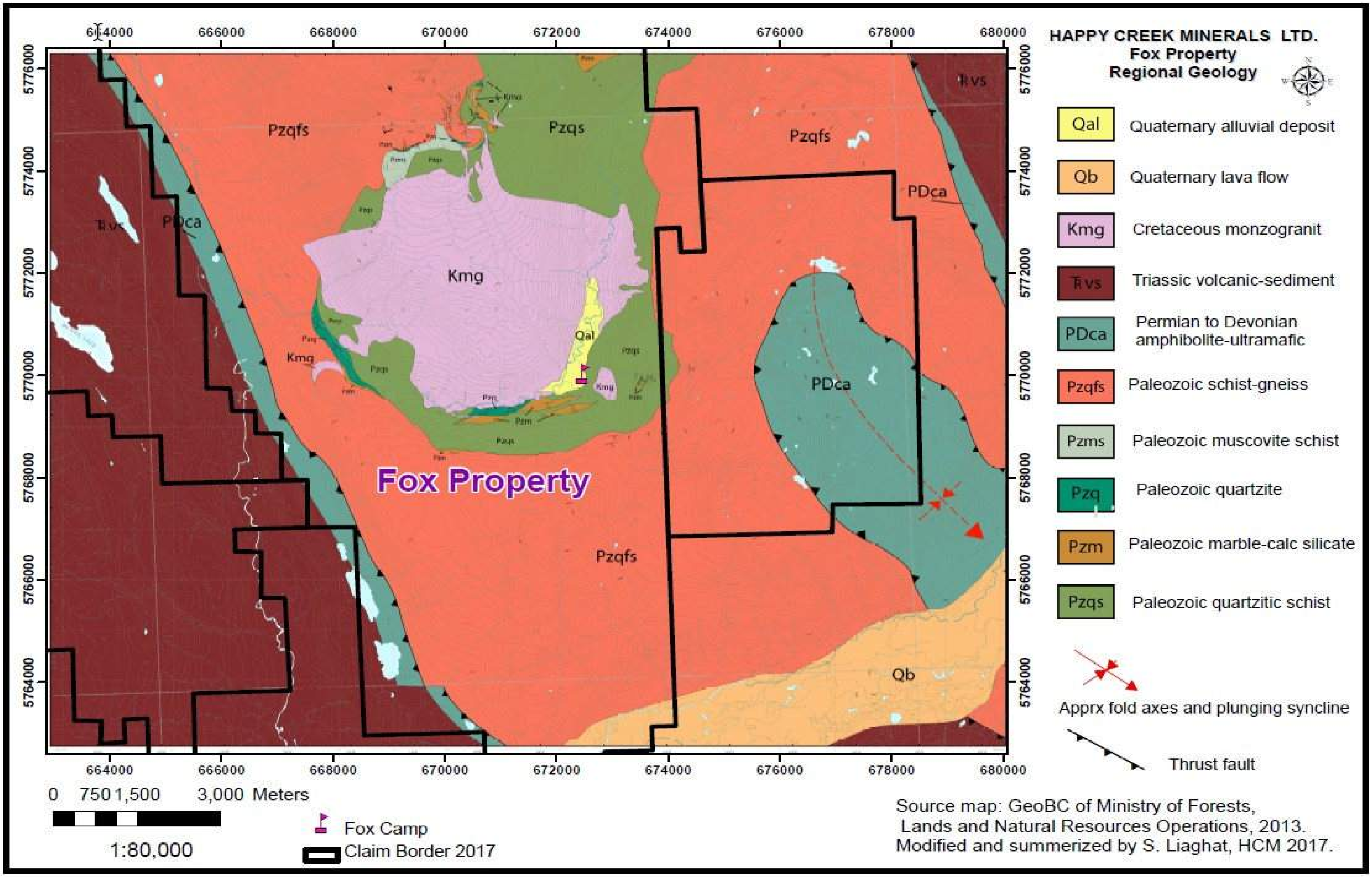


7.2 Property Geology

The main 7200 logging road and clear-cut access roads have exposed bedrock along their right-of-way's, otherwise rock exposure is limited at lower elevations. In late summer, outcrops become accessible in Deception Creek. Outcrops are more prevalent at higher elevations on Deception Mountain, and the upper-most 150 m of elevation is largely outcrop.

The property has not been mapped by the BC Geological Survey therefore the geology is a compilation based on the work from several individuals. A study by post-doctoral student Mr. Thomas Chudy, under the direction of professor Lee Groat, PhD., of the University of British Columbia is funded in part by a grant from the Natural Sciences and Engineering Research Council of Canada (NSERC) and Happy Creek. Portions of this work titled "The origin of tungsten and molybdenum mineralization at the Fox property" is presented within this report. During 2017, ARC Geoscience Group Ltd. performed 24 days of mapping predominantly on Deception Mountain with some time around the South Grid- Nightcrawler zones. A summary of the property geology and geological map (Figure 7-2) is provided below with references to the above authors.

FIGURE 7-2: LOCAL GEOLOGY



7.2.1 Lithology

Five differentiable units were defined to delineate the structure and sequencing of the metamorphic units. These are outlined below beginning from the structurally lowest to highest metamorphic unit. These units are cut and intruded by the Cretaceous Age Deception monzogranite stock along with dikes and sills, alaskite in composition.

Quartz-Biotite Schist (Pzqs)

This unit refers to a lithology most prominent in the lower structural unit. It weathers a dark-grey colour, and is dominantly composed of medium to coarse-grained plagioclase, muscovite, biotite, and quartz (from least to greatest abundance).

Micaceous Quartzite (Pzq)

The micaceous quartzite unit lies above the quartz-biotite schist and is recognizable by its planar joint patterns and grey weathered surface in outcrop. This lithology is composed of medium-grained biotite, muscovite, and quartz.

Marble with Associated Skarns and Skarnoids (Pzm)

The marbles in the area occur typically together with calc-silicate rocks and minor skarnoids developed at the contacts with silicic rocks. The marbles are fairly homogeneous in their mineralogical composition which includes medium-grained calcite with minor fine-grained calcic silicate minerals such as diopside and andradite garnet. Diopside is dispersed throughout the matrix, whereas garnet is concentrated into laminae which define the foliation of the rock.

The calc-silicate rocks are usually thicker than the marble and occur mostly at the upper contact with the siliceous rocks, and rarely below it. The transition from marble to calc-silicate is in most cases sharp, but gradational contacts were also observed. The calc-silicate rocks are compositionally heterogeneous and show layering and lamination of fine- to medium-grained diopside, garnet and wollastonite that grow around quartz layers. The space between these layers is filled with calcite and minor diopside. These calc-silicate rocks are clearly the product of metamorphic re-equilibration of calcareous siliciclastic sediments during the regional metamorphism. A skarnoid is usually coarser-grained than the calc-silicate rocks and consists of medium to coarse-grained andradite garnet and diopside with minor plagioclase, wollastonite and calcite. The minerals show a patchy zonal distribution of the individual mineral groups which overprint the compositional layering in the marble or calc-silicate rock. Monomineralic aggregates of up to 20 cm in diameter of garnet with minor calcite and wollastonite are common. A regional skarnoid can form by an increase rate of chemical exchange between silicic-aluminous metasediments and the carbonate rock, potentially aided by increased fluid flow. It can also be produced by the infiltration of reactive external fluids related either to metamorphism or magmatism. Mineralogically, the skarnoid is very like an igneous skarn which develops proximal to an igneous intrusion, but it lacks the pronounced complex retrograde reaction textures associated with its formation.

At least three separate major units of marble and calc-silicate rocks occur in the mapped area on Deception Mountain:

1. **Upper Marble Unit** within the plagioclase schist/augen gneiss is approximately 40cm to 50 cm in thickness and the associated calc-silicate rocks can exceed one metre. It can be traced for several hundred meters on the eastern cliff just above the RC – BN Zones at an elevation of 2100 m.
2. **Middle Unit** at the base of the plagioclase schist underlying the BN Zone is composed predominantly of calc-silicate rocks with minor marble. It is well exposed at an elevation of approximately 1960 m near the BN Zone. It can be traced northwards along the bottom of the cliffs for a few hundred meters and southwards for 350 m to 400 m. This unit shows great variation in thickness between the southern outcrops (>5 m) and the northern extension (1-2 m) where it eventually wedges out.
3. **Lower Marble Unit** and associated calc-silicate rocks underlie most of the RC Zone at an elevation of 1840 m. It varies in thickness between 3 m to 5 m in the south and more than 10 m just below the RC Zone. Minor occurrences of calc-silicate rocks that are not part of the above, are found at several locations. One location between the main upper and middle marble and calc-silicate units on a very steep cliff above the RC Zone consists of only calc-silicate with significant hydrothermal alteration at the lower contact with schists.

Garnet-Muscovite Schist (Pzms)

The unit stratigraphically following the marble/calc-silicate units is a garnet-muscovite schist, which weathers pale-grey and contains medium to coarse-grained garnet, plagioclase, muscovite, and quartz. This unit was modified by ARC to a magnetite-garnet-mica schist.

Plagioclase Schist/Augen Gneiss (Pzgfs)

The unit is distinct because of its coarse grain size (up to 3 cm large) and abundance of metamorphic index minerals. This unit first appears above the garnet-muscovite schist where it contains garnet, biotite, quartz, and plagioclase. Well-developed, 3 cm long staurolite occurs in an augen gneiss. Kyanite was also observed in various parts of the unit.

Deception Mountain Stock (Kmg)

This large granitic intrusion (stock) is cropping out in the southern-most part of the mapped area and underlies the southern and south-western slopes of Deception Mountain (Figure 7-2). The stock is compositionally a monzogranite characterized by an average modal abundance of 30% quartz, 35% plagioclase, and 35% orthoclase. Specifically, the monzogranite is locally termed "alaskite" due to the lack of mafic minerals and appears to be a discrete and separate phase of intrusion. Observed variations with respect to texture and composition include the presence of garnet and biotite in some samples, grain size variation but most notably, potassic alteration viewed in drill core and “float” samples. The Deception stock is U-Pb zircon dated at 106.4 +/-0.2 Ma, or Middle-Cretaceous in age. This compares closely with the Boss Mountain molybdenum mine stock at (105+/- 2 Ma) to the west.

7.2.2 Vein, Dykes and Pegmatites

Three major vein and dyke types occur

- hydrothermal quartz veins
- pegmatitic dykes
- granitic sills and dykes

Hydrothermal quartz veins are found as joint infillings and other structural breaks that strike from N-NW to S-SE and N-NE to S-SW as conjugate sets that dip sub-vertically. Joint orientation varies with respect to regional folds but generally parallels the axes of folds. Veins are compositionally heterogeneous and show a vertical and lateral transition from coarse-grained, milky-white to translucent quartz towards pegmatitic feldspar and muscovite-dominant compositions.

The pegmatitic dykes are characterized by very coarse-grained muscovite, quartz, and albite. They can be distinguished from the hydrothermal veins by an abundance of massive quartz, and the lack of well-developed albite crystals. The pegmatitic dykes cut the hydrothermal veins, therefore indicating a later origin. However, it could not be determined whether the pegmatites are associated with the later stages of the monzogranite stock, or if they are related to an even later unrelated event. Dykes are generally steeply plunging (>60°) and show no preferred strike orientation.

Monzogranite and alaskite sills and dykes range from a few decimeters to 25 m in thickness near the stock contact and they are compositionally and texturally very like the main stock in the Deception Mountain area. They were emplaced sub-parallel to the host gneiss and schist with a mean strike of 171° and a slightly steeper dip to the west (20 – 50°). Locally, granitic dykes show limited reaction with the marbles or calc-silicate rocks, however, some thin (<5cm) hydrothermal veins composed mostly of quartz and minor feldspar occur with the presence of minor garnet when in contact with calc-silicate rocks.

7.2.3 Structure

Foliation in schist and calc-silicate bands has variable orientations. The area can be subdivided into three domains or sectors based on the structural data:

- south sector (including Discovery and Nightcrawler Zones)
- west sector
- northeast sector, which includes the RC and BN Zones.

In the south sector, the predominant strike direction of the metamorphic foliation is roughly east-west (067°- 115°) dipping to the south at about 30°. Minor isoclinal folds plunging 55° to the south were also observed in finely-banded carbonate-bearing schists.

In the west sector, the foliation strikes on average 171° with a dip of 30° west. Orientations in this area remain consistent within a quartz-rich schist, with no visible mesoscopic folds.

The northeastern part of the study area is structurally very like the western sector with a mean strike of 187° and dip of 23° to the west. Lineation measurements indicate a very similar direction of 345° (and 170°) at very shallow plunging angles (<11°).

The upper calc-silicate unit is relatively flat-lying and conforms well to the general structural trend. However, both the marble and the calc-silicate units show pervasive/penetrative internal deformation of the planar features such as garnet layers and diopside-garnet-quartz laminae. These structural features are best visible in outcrops perpendicular to the main strike and reveal complex, three-dimensional geometries including isoclinal and disharmonic folds indicating at least two deformational events. On the east side of Deception Mountain, the calc-silicate units are intensely deformed forming mesoscopic up-right to overturned folds which appear to belong to a larger box fold structure.

Within the limbs of these first-order folds, second-order asymmetric and disharmonic folds developed to compensate for the shortening. Z-folds of garnet layers within the marble, indicate this is the upper limb of an antiform which continues further at depth. The fold axes of these fold structures are trending N-S (i.e. striking between 342° and 024°, and 175°) and plunging at about 20° to the south in the BN Zone, and in the RC Zone with the same angle to the north. This points to the presence of a culmination of the overall structure centered between the RC and BN Zones. The first-order fold structures are additionally transected by sub-horizontal kink-folds indicating top-to-the-east brittle shearing. Thus, the thickness of the marbles and calc-silicate units in the RC and BN Zones has been tectonically increased by repeated folding and potentially also stacking. In addition, folding and faulting appear to have contributed to the increased level of porosity (pressure solution), permeability (faulting), and potentially the development of structural traps (fold hinges, large-scale culmination of fold structure) for fluids emanating from the intrusion.

7.2.4 Mineralization

The Fox property contains eight areas of tungsten mineralization (Figure 6-1). Tungsten mineralization is hosted mainly in calc-silicate rocks of the Snowshoe Formation. The Nightcrawler-Discovery and the South Grid are located on and around the southern side of the Deception stock. The Nightcrawler-Discovery Zone consists of outcrop, boulders and drill core with scheelite-bearing calc-silicate that at surface is approximately two kilometres east-west and has been traced by drilling for 500 m away from the intrusion. Multiple layers of mineralized calc-silicate occur. ARC has mapped five separate calc-silicate/marble units on Deception Mountain.

The South Grid is approximately 150 m higher in elevation and one kilometre south of the Nightcrawler Discovery Zone. It consists of positive tungsten-in-soil in an area that is approximately 1.25 km by 500 m in dimension. At surface, this area contains boulders and local outcrops containing scheelite in calc-silicate.

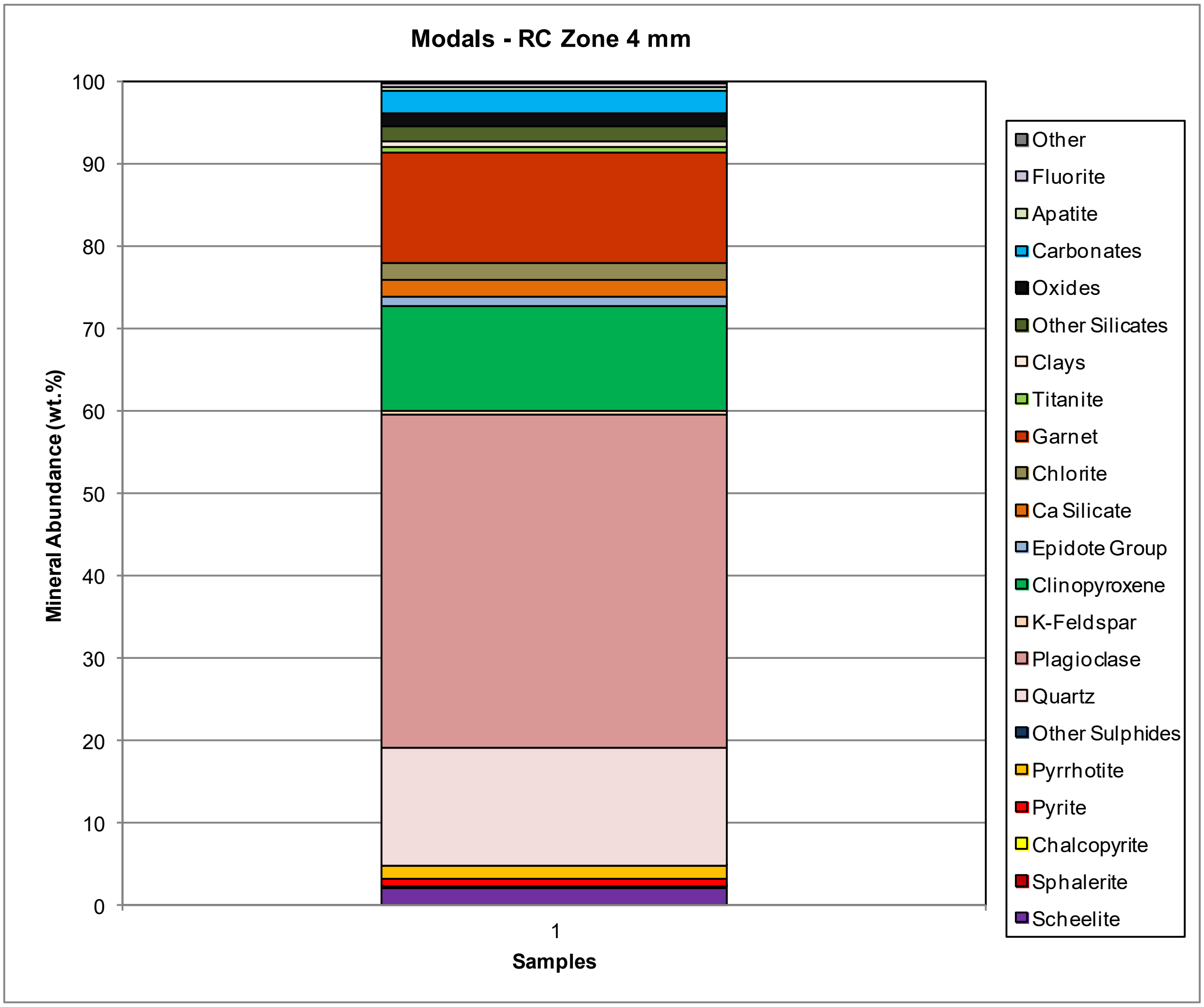
The 708, BN, Ridley Creek, BK and North Zones () occur from south to north, respectively, extending over two kilometres on the north side of the Deception stock and on the eastern and northern flank of Deception Mountain. Other zones containing tungsten in outcrop, stream sediment or soils occur, however less information is available. A U-Pb age date for scheelite has returned 64 and 84 Ma, however these results are thought to be erroneous due to the possibility of remobilization/alteration events subsequent to deposition. Molybdenum occurs on the Fox property mainly within or in proximity to the Deception stock. Re-Os age of molybdenite is around 108Ma, and 108 Ma by U-Pb, and demonstrate that the molybdenite is coeval with the Deception stock. Although molybdenite forms local concentrations within quartz veins in the intrusive rocks and very locally within skarn, molybdenum is very minor or geochemically near detection limits within scheelite mineralized zones around the Deception stock. Concentrations of sulphide and scheelite are variable throughout the mineralized zones.

7.2.5 QEMSCAN Analysis

QEMSCAN analysis of a composited 500 kg sample from the Ridley Creek (RC) Zone trench was conducted. QEMSCAN (Quantitative Evaluation of Minerals by Scanning) electron microscopy, is an integrated automated mineralogy and petrography solution providing quantitative analysis of minerals and rocks. The integrated system comprises a Scanning Electron Microscope (SEM) with a large specimen chamber, up to four light-element Energy-dispersive X-ray spectroscopy (EDS) detectors, and proprietary software controlling automated data acquisition.

The analysis shown in Figure 7-3 returned 40.5% plagioclase, 14.4% quartz, 13.5% garnet, 12.6% clinopyroxene for approximately 81% of the rock mass. Chlorite, calc-silicate and calcium carbonate are each approximately 2% of the rock mass. Sulphide consists of pyrrhotite 1.55%, pyrite 0.76%, sphalerite 0.29% and chalcopyrite 0.03%. Scheelite is 2.1% of the rock mass (1.3% WO_3). Scheelite (calcium tungstate $CaWO_4$) is approximately 80.5% tungsten trioxide (WO_3), the mineral for which is payable to a producer. An 800-kg bulk sample, subjected to metallurgical analysis, is detailed in Section 13.0 of this report.

FIGURE 7-3: QEMSCAN RESULT



A summary of work completed at UBC is summarized after Chudy, 2018:

The mineralogical study of drill core samples provided sufficient evidence in support of a genetic model that includes the formation of skarn rocks by hydrothermal fluids related to the monzogranite/alaskite intrusion. The results are not consistent with a strata-bound tungsten deposit model which was another investigated possibility. A very simplified, general model of the scheelite mineralization includes two main stages.

The first stage of mineralization (prograde) included the formation of coarse-grained calc-silicate rocks (skarnoids) composed of variable proportions of garnet, vesuvianite, diopside, calcite, dolomite, plagioclase, and minor quartz, wollastonite, scapolite, titanite, chlorite, sulfides (pyrrhotite), apatite, and zircon after regional impure marbles. The prograde alteration in regional clinopyroxene-dominant calc-silicate had similar effects although the developed skarn assemblage has fewer leucocratic phases and contains mostly medium- to coarse-grained diopside, epidote (clinozoisite), quartz and plagioclase with minor actinolite, garnet, vesuvianite, chlorite and carbonates, and the accessory phases titanite and zircon. The first generation of scheelite was deposited at this stage, predominantly in the leucocratic skarn rocks.

The second stage of mineralization encompasses the development of retrograde skarn that overprinted all existing rock types such as biotite gneiss, clinopyroxene-dominant calc-silicate rocks, prograde skarn rocks, marbles and the monzogranite. The overprint encompassed extensive chloritization of the rock-forming minerals, breakdown of biotite, growth of the calcsilicate minerals diopside, actinolite and plagioclase, and the deposition of significant amounts of sulfides such as pyrrhotite, sphalerite and chalcopyrite, together with the much higher quantities of the second generation of scheelite. Calcite is variably present and titanite is an ubiquitous minor phase and likely the product of decomposition of mafic silicates and alteration of ilmenite.

8 DEPOSIT TYPES

This section has been compiled from text sourced from Meinert, L. D. (1984) and Ray, G.E. (1995).

Tungsten skarns are found on most continents in association with calc-alkaline plutons in major orogenic belts. As a group, tungsten skarns are associated with coarse-grained, equigranular batholiths (with pegmatite and aplite dikes) surrounded by large, high-temperature, metamorphic aureoles.

They are separable into two types, based on host rock composition (carbonaceous versus hematitic), skarn mineralogy (ferrous versus ferric iron), and relative depth (metamorphic temperature and involvement of oxygenated groundwater):

- reduced skarns (e.g. Cantung, Mactung), formed in carbonaceous rocks and/or at greater depths
- oxidized skarns (e.g. King Island), formed in hematitic or non-carbonaceous rocks, and/or at shallower depths

They form in continental margin, synorogenic plutonism intruding deeply buried sequences of eugeoclinal carbonate-shale sedimentary rocks. They can develop in tectonically thickened packages in back-arc thrust settings. The age of mineralization is mainly Mesozoic but can be of any age. Most tungsten skarn deposits in British Columbia, including the Fox Project mineralization, are related to Cretaceous intrusions. They are typically associated with tonalite, granodiorite, quartz monzonite and granite.

Deposits forms stratiform, tabular, and lens-like orebodies. They can be continuous for hundreds of metres and follow intrusive contacts.

Common ore mineralogy includes Scheelite ± molybdenite ± chalcopyrite ± pyrrhotite ± sphalerite ± arsenopyrite ± pyrite ± powellite. They may contain trace wolframite, fluorite, cassiterite, galena, marcasite and bornite. Variable amounts of quartz-vein stock work (with local molybdenite) can cut both the exo and endoskarn.

Endoskarn alteration associated with tungsten skarn deposit is characterized by Pyroxene ± garnet ± biotite ± epidote ± amphibole ± muscovite ± plagioclase ± pyrite ± pyrrhotite ± trace tourmaline and scapolite with local greisen development.

Grades of these deposits range between 0.4 and 2% WO_3 (typically 0.7%). Deposits vary from 0.1 to >30 Mt.

On the Fox project, the geological setting consists of tungsten-bearing calc-silicate/skarn that are spatially associated with the Deception stock and dikes and sills of increasing felsic, quartz-rich composition including alaskite, aplite, pegmatite and quartz veins.

Known intrusion related skarn deposits having similar characteristics which occur in the Southern BC and Yukon areas such as Emerald /Dodger, Dimac, MacTung and Cantung (Yukon/ Northwest Territories), Canada.

9 EXPLORATION

Since 1997, individuals and companies performed prospecting, geochemical, geophysical, geological surveys, trenching and diamond drilling. Historical exploration prior to Happy Creek is discussed in Section 6 of this report.

9.1 Geochemical Survey Methodology

Provincial Government Regional Geochemical Surveys (RGS) in the area identified several streams containing strongly anomalous tungsten in stream sediments.

9.1.1 Stream Sampling

Stream sediment, moss mat, and several pan concentrate surveys were conducted around the Nightcrawler and the south, west, and east side of Deception Mountain. Evaluation of moss mat and pan concentrate results as compared with basic stream sediment samples was performed early in the exploration of the property. All three types of samples were collected from the same stream drainage site. Although the tungsten concentration is often higher in pan concentrates, a stream could be identified as anomalous just using stream sediments. Stream sediment containing >11 ppm W are deemed to be anomalous against the background of <5 ppm W, using an aqua regia digest which is partial for tungsten.

This work identified anomalous tungsten in streams mainly on the south and east side of Deception Mountain. It was follow-up prospecting that ultimately identified the BN and RC Zones.

9.1.2 Soil Sampling

At the Nightcrawler-Discovery and South Grid Zones, soil samples were collected mainly at 50 m separations on north-south oriented grid lines 100 m apart. Locally, around the Discovery-Nightcrawler Zones, the grid line spacing was reduced to 50 m. On Deception Mountain, grids were initially constructed with 200 m spaced lines and later reduced to 100 m between the BN and 708 Zones. Samples were collected using a tree planting shovel or soil auger. Soil samples consisted of material collected from the "B" or "Bf" horizon and if not present, from the "C" horizon.

Positive tungsten-in-soil occurs and generally identifies near-surface tungsten mineralization. Soil sampling in areas having thick glacial till of ≥3 ms has limited effectiveness. Positive and strongly positive tungsten values are >11 and >19 ppm W, respectively against a background of <5 ppm using the same analytical method as silts.

Four main areas with positive and strongly positive values of tungsten in soil are the South Grid, Nightcrawler Zone, BN and RC. Dimensions containing these geochemical anomalies are: South Grid, 1.25 km by 500 m, Nightcrawler, 1.5 km by 200 m and BN, 1.1 km by 250 m. The

RC and BK Zones have single point anomalies of strongly positive tungsten in soil, however the grid lines in these areas are 200 m apart. The North and Northwest Zones have not been covered by soil geochemical surveys.

Prospecting, surface sampling and drill testing of the geochemical anomalies have successfully revealed high tungsten concentrations in outcropping bedrock at the BN, RC, and BK Zones. At the northeast edge of the BN geochemical anomaly, high tungsten grades occur in outcrop and in blind zones at depth. This geochemical anomaly remains untested for over 1.0 km. The South Grid geochemical anomaly remains untested by trenching and drilling.

9.2 Geological Survey

As the Fox property is a relatively new discovery, it has never been mapped by the government or other company. Between 2005 and 2015, Happy Creek performed geological mapping and prospecting during reconnaissance traverses covering much of the property. Basic geology of the property was obtained. More detailed geological mapping was performed at the Nightcrawler, BN, RC, and BK Zones and although the work was sufficient to form geological understanding to allow drilling, detailed property geology overall remains incomplete. Recently, Happy Creek has engaged U.B.C. to conduct more scientific studies in connection with Federal NSERC grants provided to the project.

9.3 Trenching Methodology and Results

Machine trenching totaling 711 m was performed in the Nightcrawler (NC) Zone in 2007. Hand trenching totaling 56.0 m was performed at the BN, Ridley Creek and BK Zone in 2010. In 2016, 79.1 m of mainly hand-trenching was performed at the RC, BK and south Grid. In 2017, approximately 10 m of hand trenching were performed at the RC zone and 9.75m at the Creek zone. The trenches were dug to bedrock where possible, chained and marked, mapped, GPS surveyed, and sampled using moil and hammer chips and /or diamond rock saw channels. Sample intervals were generally from approximately 0.4m to 2.0 m in length, depending on exposure. Happy Creek reported that mineralization in most trenches remain open due to depth of talus or overburden. The rock samples collected were handled, shipped, prepared, and analyzed as for drill core. A summary of trenching and chip sampling/ rock saw channel results are provided in Table 9-1 for the Nightcrawler (NC), Ridley Creek (RC), BK and BN zones. Samples 708658-708660 are from the 708 Zone.

TABLE 9-1: TRENCH AND CHIP/ROCK SAW CHANNEL SAMPLING NIGHTCRAWLER, RIDLEY CREEK, BK, BN AND 708 ZONES

Zone	Year	Trench	Width (m)	WO_3 %	Zone	Year	Trench	Width (m)	WO_3 %
NC	2007	NC-6A	2.70	0.13	BK	2016	BK-T-1	2.00	1.64
NC	2007	NC-6D	3.00	0.21	BK	2016	BK-T-2	2.00	0.66
RC	2010	RT-1	6.60	0.30	BK	2016	BK-T-3	0.60	0.38
RC	2010	RT-2	7.00	0.80	BK	2016	BK-T-1a	3.00	0.97
RC	2010	RT-3	4.90	1.07	BK	2016	BK-T-2a	6.00	0.66
RC	2010	RT-4	1.30	2.54	BK	2016	BK-T-3a	3.40	3.42
RC	2010	RT-6	2.00	5.00	BK	2016	BK-T-1a1	0.50	0.62
RC	2010	RT-6	2.00	4.36	RC	2016	RC-T-1	3.65	1.21
RC	2010	RT-7	4.00	1.22	RC	2016	RC-T-2	3.50	1.53
RC	2010	RT-1	1.00	0.57	RC	2016	RC-T-3	5.00	1.25
RC	2010	RT-1	7.30	1.25	Creek Zone	2017	17CZ-1	1.00	1.17
RC	2010	RT-1	4.60	0.85	Creek Zone	2017	17CZ-1	0.90	0.72
BN	2010	BN10-1	1.00	0.11	Creek Zone	2017	17CZ-1	1.10	1.10
BN	2010	BN10-2	0.40	11.01	Creek Zone	2017	17CZ-1	0.80	0.16
BN	2010	BN10-3	0.60	3.86	RC south	2017	17RCS-1	3.30	0.91
BN	2010	BN10-4	0.75	1.63	RC south	2017	17RCS-2	0.35	0.44
BN	2010	BN10-5	0.75	2.95	RC south	2017	17RCS-3	0.35	1.32
BK	2010	BK-3	4.60	0.85	RC south	2017	17RCS-3	0.35	0.07
BK	2010	BK-4	4.00	0.12	RC south	2017	17RCS-4	0.70	0.52
BK	2010	BK-5	3.00	2.11	RC south	2017	17RCS-4	0.95	0.03
708	2010	708658	0.3	5.83	RC south	2017	17RCS-5	0.45	0.56
708	2010	708659	0.3	2.51	RC Main	2017	17RC-1	1.00	0.07
708	2010	708660	2.0	1.52	RC Main	2017	17RC-2	1.00	2.28

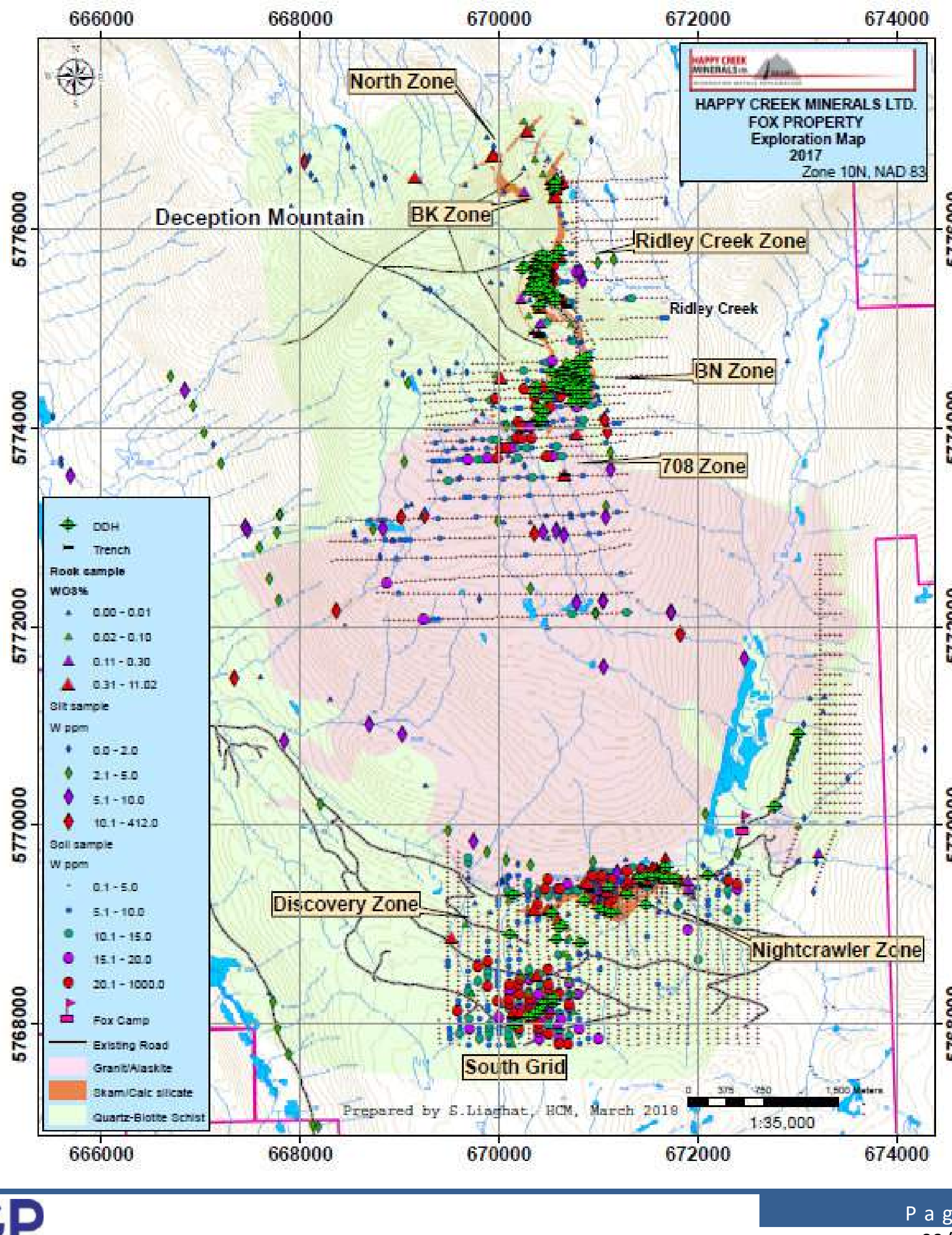
9.4 Diamond Drilling

Happy Creek conducted diamond drilling programs on the Ridley Creek (RC) Zone in 2011, 2012 2013, 2016 and 2017. Results of these programs are discussed in Section 10.0.

9.5 Happy Creek Exploration Highlights (2005 to present)

Figure 9-1 displays the location of the exploration activity from 2005 through to 2016. The following text discusses the highlights of exploration activity by Happy Creek since 2005.

FIGURE 9-1: EXPLORATION MAP 2005 TO 2017



9.5.1 2005 Exploration Program

In June 2005, Happy Creek conducted prospecting, geological mapping, and grid soil sampling east of the Discovery Zone. The Nightcrawler tungsten prospect was discovered at this time. Between August and November 2005, exploration consisted of additional prospecting, rock and stream sediment and moss mat sampling, fill-in grid and soil geochemistry (Fox grid), and three reconnaissance soil lines to the northeast of the Fox grid. Prospecting at low water in Deception Creek in September located sub crop boulders containing up to 4.25% WO_3 at the Creek prospect of the Nightcrawler Zone (Blann, 2006).

9.5.2 2006 Exploration Program

In August 2006, Happy Creek acquired a 100% interest in the Fox property and conducted detailed prospecting, geological mapping, silt, soil and rock samples to the south, east and north of the Nightcrawler Zone. A helicopter was deployed for a fly-camp and set-outs on Deception Mountain. Following up on the positive tungsten in stream sediments taken in 2000, rock samples from the Ridley creek headwater area returned a grab sample containing 0.26% tungsten and anomalous zinc from a 2.5 m wide outcrop, and 450 m south, 0.17% tungsten and 2.07% zinc in a sub crop grab sample (Blann, 2007).

9.5.3 2007 Exploration Program

Between May and December 9, 2007, Happy Creek constructed a 10-person exploration camp, performed prospecting, and collected rock and silt geochemical samples, On Deception Mountain, 41.85 km of flagged soil geochemical grid was established from which 785 soil geochemical samples were collected. Happy Creek also performed trenching, and 3,823 m of NQ diamond drilling in 13 widely spaced holes over a distance of 1.5 km at the Nightcrawler Zone. Trenching located tungsten-bearing calc-silicate zones and drilling revealed multiple, stacked, scheelite-bearing calc-silicate skarn horizons extending from surface up to 500 m south of the Deception Stock contact. These mineralized skarn zones were found to dip moderately southward. Results of the drilling include 5.0 m of 0.33% WO_3, 2.0 m of 0.74% WO_3, 0.5 m of 1.8% WO_3 and 0.45 m of 1.13% WO_3. At the original Discovery Zone, drilling intersected a molybdenite bearing skarn containing 4.2 m of 0.25% Mo and underlying intrusive rocks also containing geochemically anomalous molybdenum. New showings were located on Deception Mountain containing up to 7.11 % WO_3 over 25 cm in thickness and 4.65 % WO_3 at the Blann (BN) and Black (BK) Zones, located approximately one kilometre south and north of the RC Zone, respectively (Blann, 2008).

9.5.4 2008 Exploration Program

In 2008 Happy Creek conducted bedrock mapping over part of the Deception Mountain area and a 2.5 km by 2.5 km area was grid, and soil sampled covering the northern contact area of the Deception stock around the BN Zone. The geochemical survey outlined tungsten-in-soil anomalies spanning an area of 1,000 m by 350 m extending southwest of the BN Zone (Lane, B. McDonald, K., 2009).

9.5.5 2010 Exploration Program

During 2010, Happy Creek conducted detailed prospecting, hand trenching, rock and silt sampling on Deception Mountain. Hand trench chip sample highlights included: 7.0 m of 0.80% WO_3, 2.0 m of 5.00% WO_3 at the RC Zone, 7.3 m grading 1.25% WO_3 at the BK Zone and 1.0 m of 4.66% WO_3 at the BN Zone. These three zones occur over a two-kilometre distance. Positive zinc, indium, bismuth, and local gold and silver values were also identified to occur with tungsten. In addition, diamond drilling of three NQ2 holes totaling 663.1 m was performed at the Nightcrawler-Discovery Zone. Highlights from the drill program are discussed in Section 10 of this report, entitled Drilling. The zone remains open in extent to the east (Duba, D., MSc., Blann, D. P. Eng., 2011).

9.5.6 2011 Exploration Program

In 2011, Happy Creek collected additional silt and rock samples from the Deception Mountain area. Eleven grab samples of altered monzogranite and quartz vein swarm from the Deception Stock contained from trace to 2.04% molybdenum and 1.6 g/t rhenium. Ten shallow BQ diameter diamond drill holes totaling 415.5 m were completed at the RC Zone behind the trenches described during the 2010 exploration program. Seven of these holes intersected encouraging tungsten along with zinc, indium, and trace to weakly anomalous silver and gold values. Several drill results were better than the trenches. A 3D induced polarization geophysical survey totaling 2.375 km identified a strong chargeability anomaly beneath the RC Zone. The 2011 drilling at the RC Zone is considered the discovery point for potentially economic grade and thickness tungsten mineralization for the Fox property (Blann, D. P. Eng., Liaghat, S., 2012).

9.5.7 2012 Exploration Program

In 2012, Happy Creek conducted diamond drilling of 29 holes totaling 2,649.69 m in the RC, BN, and BK area with most drilling done in the RC Zone. In addition, geological mapping and prospecting, and a Lidar topographic survey covering 87.79 km2 was performed. An 800-kg bulk surface rock sample for mineralogy and metallurgy studies was collected from the BK, BN, and RC Zone. Drilling continued to expand and outline a continuous mineralized zone to the west and south at the RC Zone. Two of four holes at the BK Zone returned positive results.

9.5.8 2013 Exploration Program

In 2013, Happy Creek drilled 21 diamond drill holes in the RC Zone totaling 1371.4 m. Drilling was successful in that it expanded and confirmed continuity of the RC Zone. Tescan Integrated Mineral Analyzer (TIMA) was performed on a few samples. Met Solve Laboratories of Langley, B.C. performed an initial metallurgical test for the 800-kg bulk rock sample. This work presented a method to process the material using flotation to recover a zinc sulphide concentrate and a tungsten gravity concentrate (Blann, Liaghat, 2014). Further details of this metallurgical testing are described in Section 13.0 of this report.

9.5.9 2014 Exploration Program

During 2014, Happy Creek conducted geological mapping of the northwestern side of Deception Mountain. This work identified continuous calc-silicate units from 3 m to 20 m in thickness for 400 m, granite-pegmatite intrusive and six rock samples returned from 0.12 to 1.90% WO_3. The North Zone appears like that occurring at the RC and BK Zones to the east, and the favorable tungsten-bearing calc-silicate units were speculated to be continuous through Deception Mountain, potentially for 1.5 km (Blann, Liaghat, 2015).

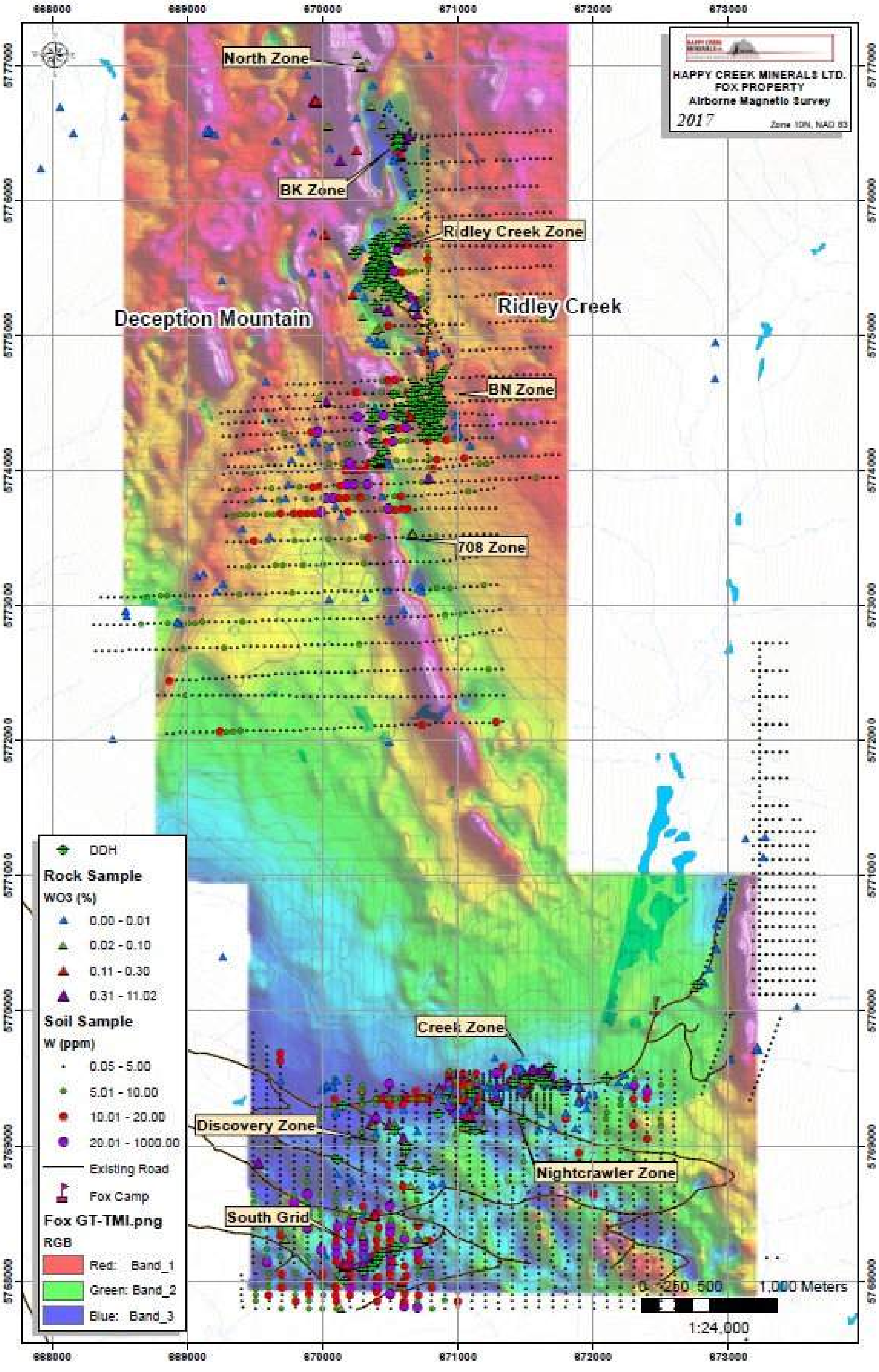
9.5.10 2015 Exploration Program

During 2015 Happy Creek completed eight NQ diameter diamond drill holes totaling 1579 m around the Creek Zone at the east end of the Nightcrawler Zone. Drill hole F15-02 returned 5.0 m of 1.0% WO_3, the best result to date from the Nightcrawler Zone. Drilling extended for another 500-m east the tungsten bearing calc-silicate horizons. In addition, a property-wide airborne magnetic and radiometric survey, soil sampling at the South Grid, and prospecting and geological mapping at the BK and North Zones were completed. A 500-kg bulk sample was also collected from the Ridley Creek Zone for additional mineralogy and metallurgical studies.

Geophysical Survey

In 2015, Happy Creek completed 320-line kilometres of Helicopter – 3G magnetics and gamma spectrometer survey covering a 10 km by 3 km area extending from the South Grid to the North Zone. The linear high magnetic features as shown in Figure 9-2 have not been thoroughly investigated. Further geological mapping is required.

FIGURE 9-2: FOX PROPERTY AIRBORNE MAGNETIC SURVEY

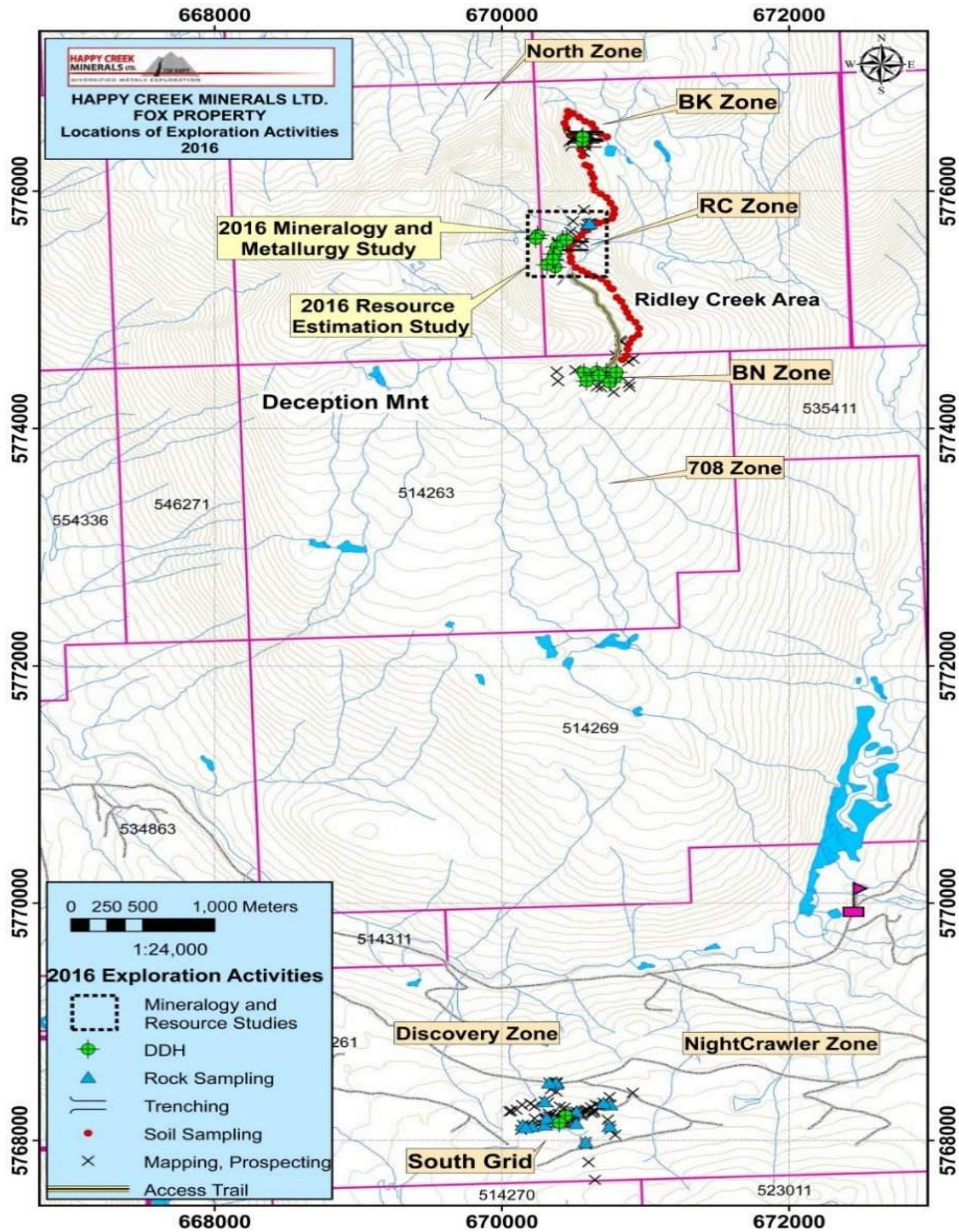


9.5.11 2016 Exploration Program

Between May and October 12, 2016, the Company completed 2,330 m of drilling in 28 holes, 79 m of surface chip and channel sampling in 11 trenches, 1.2 km of access trail construction between the BN and Ridley Creek zones, 61 contour soil samples between the BN and BK Zones, and geological mapping with 23 rock samples collected for assay (Figure 9-3).

The results from rock saw channel and chip samples from three trenches at the main Ridley Creek Zone include 3.65 m of 1.21% WO_3, 3.5 m of 1.53% WO_3 and 5.0 m of 1.25% WO_3, with associated values of zinc, indium, gold, silver and bismuth. At the South Grid, a machine trench cleared off an 8 m long and approximately 0.60 m wide portion of surface outcrop and grab samples collected at two metre intervals returned 0.22 – 0.54% WO_3. Results from three BK trenches defined continuity at surface over a 20-m strike length with 3.0 m of 0.97% WO3, 6.0 m of 0.66% WO_3, and between these trenches, 3.4 m of 3.42% WO_3. Geological mapping traced the favorable geology north of the Ridley Creek Zone and a 1.5 m chip sample returned 3.44% WO_3 at a new prospect. Contour soil samples at 50 m intervals returned positive tungsten in soil that indicate potential to located additional tungsten at surface south of Ridley Creek, north of the BN Zone and south of the BK Zone. Figure 9-3 shows the extent of the exploration program for 2016.

FIGURE 9-3: EXTENT OF THE EXPLORATION PROGRAM FOR 2016



9.5.12 2017 Exploration Program

During 2017, the Company drilled 6,983 m in 66 holes on the Fox property. In addition, geological mapping, scientific studies on the origins of the tungsten, prospecting and hand trenching were also conducted. Drilling was focussed on expanding outward, the known mineralized areas at the BN and RC zone and form the basis of the updated resource estimate.

Drilling results from the South Grid zone include: DDH F17-61: Starting at 12.6 m below surface, 3.07 m of 0.496% WO_3. This is considered a discovery of potentially economic grade in this new, road accessible target that is underlain by a 1.5 km by 500 metre tungsten in soil anomaly.

Drilling results from the Creek zone include DDH F17-64: Starting at the top of the hole, 0.7m of 0.991% WO_3 in the first sample, and the mineralized zone remains open in several directions.

Prospecting, geological mapping and hand-trenching was performed mainly on Deception Mountain. Mapping by ARC Geoscience Group identified and traced five separate calc-silicate layers each of which was found to contain scheelite (tungsten). Layer # 4 is the main layer hosting the BN, RC and BK zone., and layers 1-3 were found stratigraphically above this layer. These layers remain untested by drilling. Prospecting located a number of new outcrops containing scheelite along strike to the north and south of the RC zone. Hand-trenching was performed in the area south of the RC zone and returned positive results including: 3.3 m containing 0.91% WO_3, 0.35m of 1.32% WO_3, 0.7m of 0.52% WO_3 and others, which all remain open in width. These results confirm potential for mineralization to connect at or near-surface between the RC and BN zones. Figure 9-4 shows the extent of the exploration program conducted in 2017 and Happy Creek's exploration work since 2005 is summarized in Table 9-2.

FIGURE 9-4: EXTENT OF EXPLORATION IN 2017

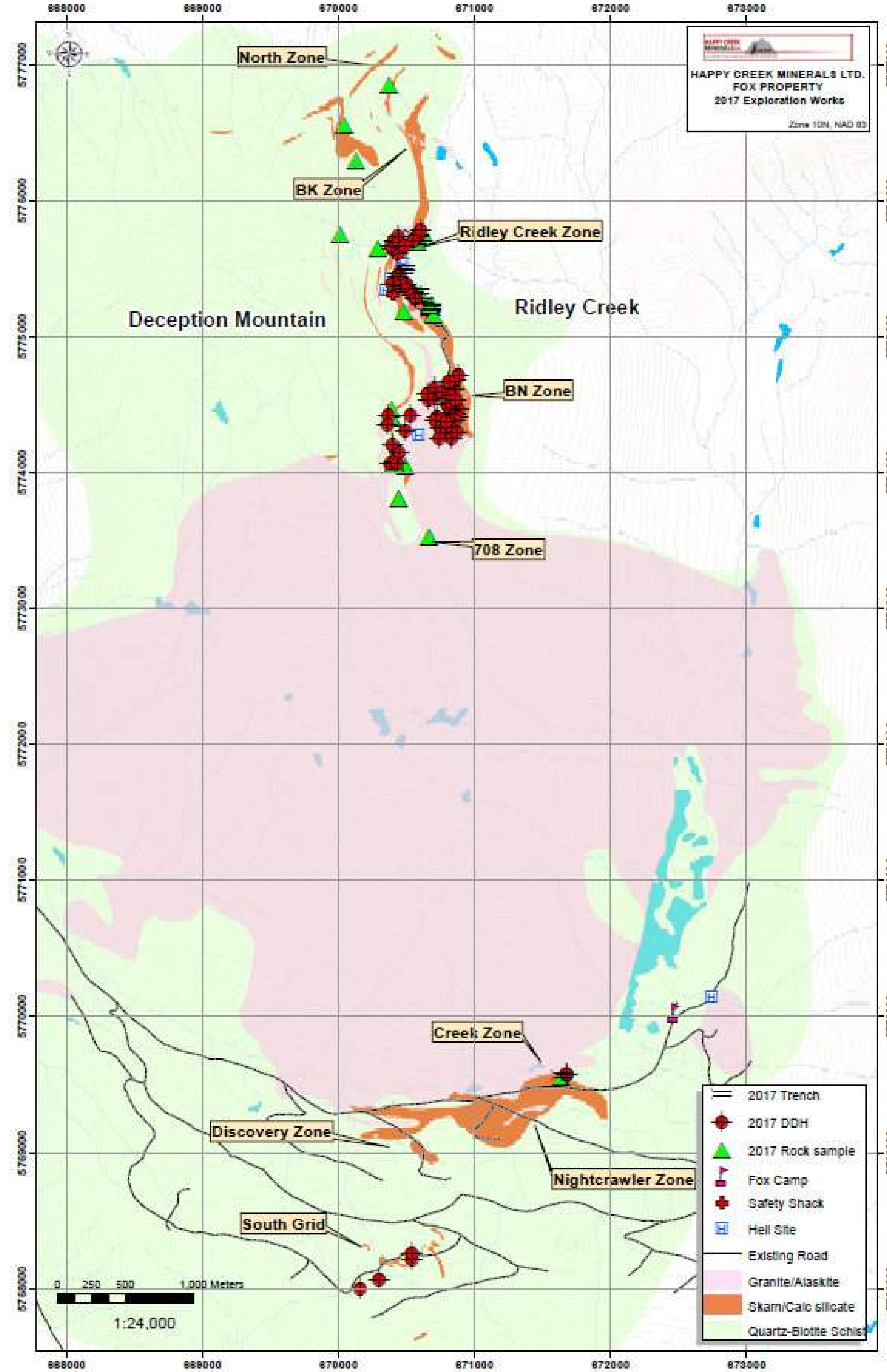


TABLE 9-2: FOX PROPERTY EXPLORATION SINCE 2005

AR	Work Year	Work filed $CDN	Samples			P*	G*	GP*	Trench (m)	Drilling		Testing	Details and Results
			Silt	Soil	Rock					DDHs	(m)		
27886	2005	32,831		280	50	y	y						
28514	2005	53,327	38	243	56	y	y						
28982	2006	87,818		165	110	y	y						Ridley Creek Zone first sampling
30008	2007	1,263,780	133	785	53	y	y		711.6	13	3,823		Nightcrawler Zone – NQ drilling, Deception Mountain soil sampling. New zones (BN, BK) found south and north of Ridley Creek Zone
30824	2008	102,224	14	683	113	y	y						Deception Mountain soil sampling expands W anomaly southwest of BN Zone.
32054	2010	202,627	8		125	y	y		56.35	3	663		Nightcrawler Zone drilling. Hand trenching at BN, RC and BK Zones.
32762	2011	393,113	14		13			IP 2.375km		10	415		RC Zone: BQ drilling considered the "Discovery point" of potentially economic tungsten grade and thickness for the property.
33695	2012	1,003,679	18		11		y	LiDAR 84 km^2		29	2,649		RC Zone: NQ drilling outlining a tungsten deposit with encouraging grade and thickness. BN Zone 4 holes, BK Zone 5 holes:
34642	2013	418,777			12				816 kg sample from BK, RC, BN Zones for met test	21	1,371	Met Solve Labs testing	RC Zone drilling. Metallurgy test work shows flotation and gravity are viable processes.
35342	2014	58,000	5		34	y	y						North –Northwest end of Deception Mountain mapping of calc-silicate units with discovery of several tungsten showings.
	2015	389,700		203	13	y	y	320-line km airborne magnetic and K-Th	500Kg total 16 big trench samples from RC Zone	8	1,578	SGS Labs: Met and Min-pro testing	Nightcrawler- NQ drilling with step out hole 450m to east traced favorable W bearing calc-silicate unit. South Grid soil sampling returns 1.25 km X 500 m W anomaly. New showings found along strike of BK Zone. Detailed airborne mag- radiometric survey. NSERC grant and scientific studies initiated with UBC. Additional Met tests. AGP conduct RC Zone resource estimate.

AR	Work Year	Work filed $CDN	Samples			P*	G*	GP*	Trench (m)	Drilling		Testing	Details and Results
			Silt	Soil	Rock					DDHs	(m)		
	2016	784,328		67	23	y	y		79	29	2335	SGS testing	Drilling expands area of Ridley Creek, BN and BK Zones. Resource estimate completed. Drill and trench results at BK expand area of mineralization, Geology and soils map favorable units connecting BN, RC, BK Zones and new tungsten prospects found. South Grid drilling confirms tungsten in calc-silicate units extend from surface, but all holes lost or abandoned at shallow depth due to deep mud conditions.
	2017	1,475,000			16	y	y		19.2	66	6,983		Drilling further expands mineralized area at BN and RC zone, and intersected near-surface positive W grades above cut-off at south Grid. Mapping finds and traces other mineralized layers above BN-RC-BK zones. Trenching locates positive W grade along strike to south of RC zone. Age dating and detailed studies at UBC increases geological knowledge and model of the mineralization.
	Totals:	**6,265,204**	**230**	**2359**	**606**					**179**	**19,814**		

Zone Drilling Summary	**Nightcrawler**	27	6,335
	BK	11	538.7
	BN	52	6,365.2
	RC	79	4,091.47
	South Grid	8	888.9

P*: Prospecting

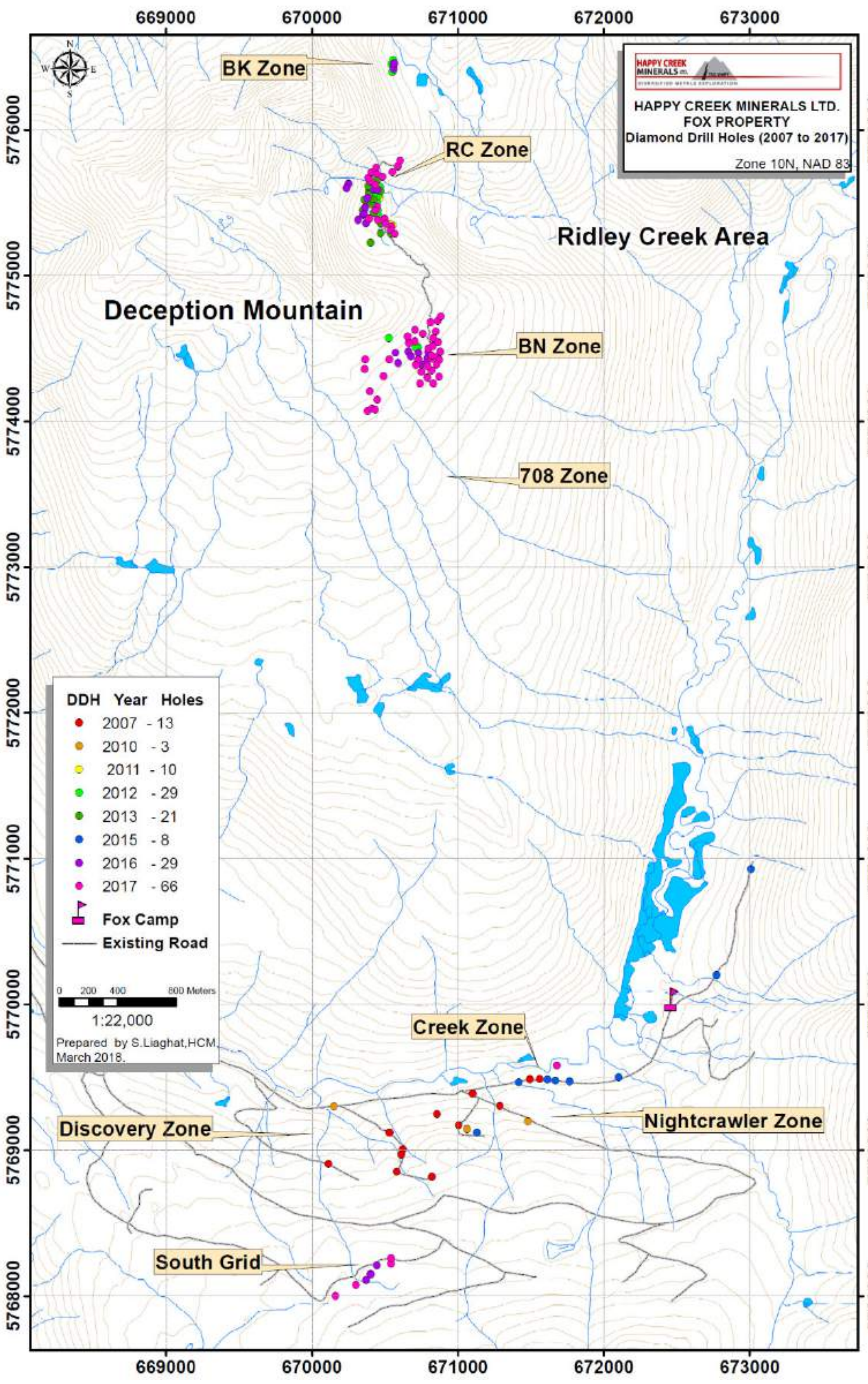
G*: Geology

GP*: Geophysics

10 DRILLING

Diamond drilling was conducted by Happy Creek in 2007, 2010, 2011-2013, 2015, 2016 and 2017 with a total 19,814 m in 179 holes completed for the RC, BN, BK, NC, and South Grid Zones (Figure 10-1). Over the years, drilling utilized various rigs providing mainly NQ diameter drill core except in 2011, where drilling produced 415 m of BQ drill core. All hole locations are surveyed using GPS, NAD83 UTM coordinate system with recorded accuracy of +/- 3 m. In 2011, 8 holes at the RC Zone were surveyed using a differentially corrected GPS system. Comparison with original GPS locations revealed east-west differences of <1.5 m. Handheld GPS units are not very accurate for elevation data and the comparison attested to that problem. In 2011, Dudley Thompson Mapping Corporation conducted an 84 km LiDAR (Light Detection and Ranging) survey. This airborne, remote sensing method provided highly accurate topographic mapping which allowed the correction of the drill hole collar elevation. The 2017 drill program was the largest drill program carried out by Happy Creek. A total of 59 NQ diameter diamond drill holes (F17-01 to F17-28) were collared in the RC and BN Zones of Deception Mountain and the Nightcrawler-Creek zone and South Grid Zone for a total of 6,977 m by Paycore Drilling Ltd. BC.

FIGURE 10-1: DRILL PLAN BY ZONES AND YEAR



All drill core was photographed and RQD measurements and estimates of core recovery were measured. Core logging was completed on site at the core shack at the Happy Creek's Fox project camp. A UV light assisted the logger to locate the presence of scheelite and separate the higher-grade intervals from the low-grade/waste. A local geological technician was hired to cut the core and prepare the samples for shipment under supervision of the project manager on site. Upon completion of the drilling, the work sites were inspected to ensure they were clean and no debris was left behind.

10.1 Nightcrawler Zone

In 2007, drilling of 13 widely spaced holes over a distance of approximately 1.5 km was completed at the Nightcrawler Zone (NC). Two additional holes in the Nightcrawler and one reconnaissance hole, further west, were drilled in 2010, and 8 holes totaling 1500 m were completed in 2015 which extended the tungsten bearing calc-silicate unit an additional 450 m east. Drill hole F10-01 tested 75 m further east of a previous hole returned 0.16% WO_3 over 9.2 m and 1.37% WO_3 over 0.9 m. In 2015, drilling focussed on expanding the Creek zone-located in the eastern portion of the Nightcrawler area. The best results (5.0 m of 1.0% WO_3) were obtained near the Creek prospect, and 200 m west F15-08 returned 6.5m of 0.21% WO_3. Reconnaissance hole F15-05 returned 1.8 m of 0.26% WO_3 that is 450 m further east. Significant tungsten results are presented in Table 10-1 .

TABLE 10-1: NIGHTCRAWLER DRILL RESULTS

Zone	Drill Hole	From (m)	Interval (m)	WO_3 (%)
NC	F07-03	160.50	5.00	0.33
NC	F07-05	28.80	2.00	0.74
NC	F10-01	8.30	0.90	1.37
NC	F10-01	168.00	9.20	0.16
NC	F15-02	138.00	5.00	1.00
NC	F15-08	78.00	6.50	0.21

The Nightcrawler Zone is defined by multiple layers of tungsten-bearing calc-silicate and positive tungsten in soil that is approximately 2.0 km in an east-west orientation at surface and around the southern contact of the Deception stock. Drilling has intersected positive tungsten in calc-silicate layers that are up to 500 m further south and down-dip of the surface mineralized zones. The Nightcrawler Zone remains undefined and open in extent.

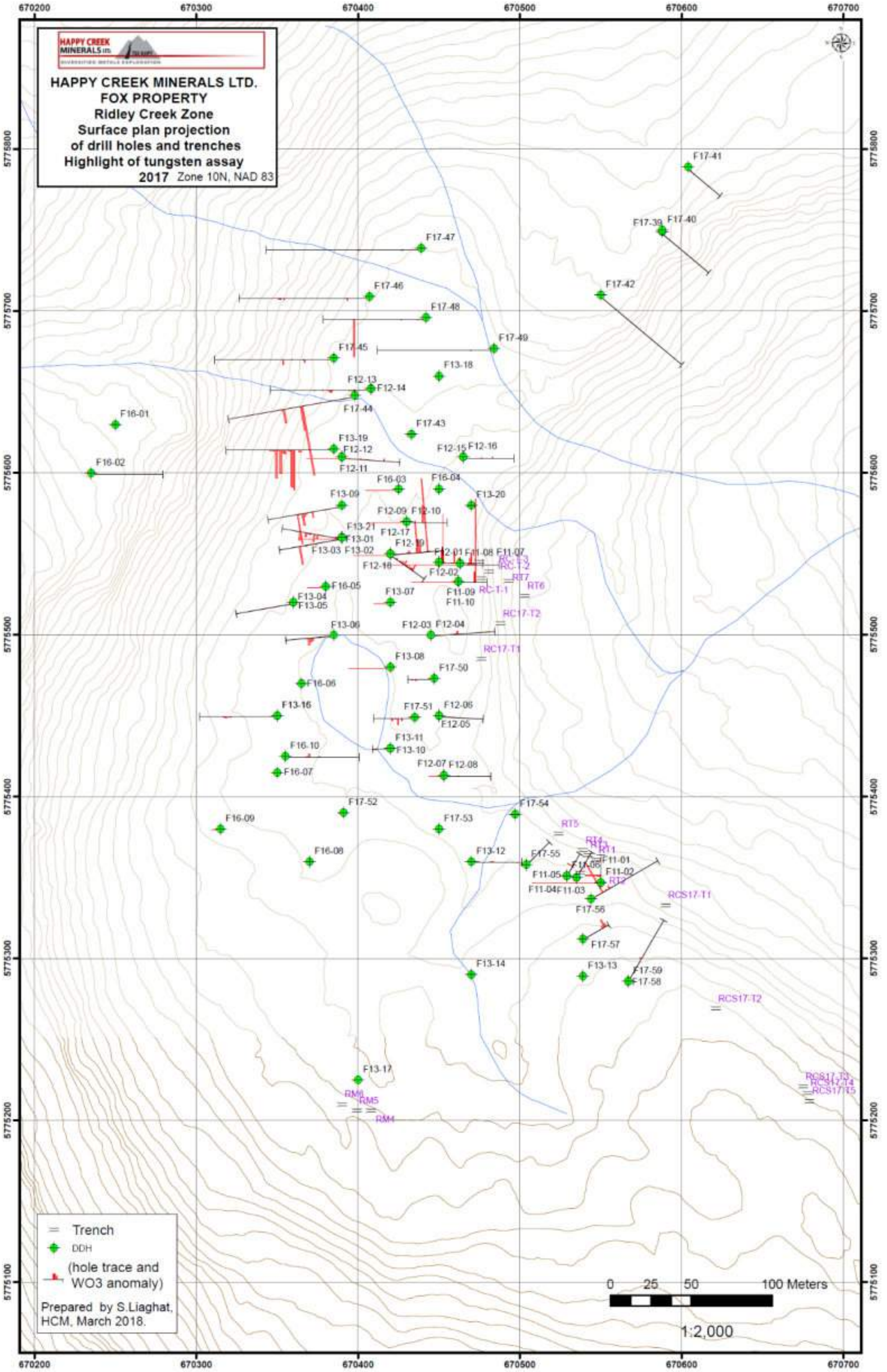
10.2 Ridley Creek Zone

On Deception Mountain, between 2011 and 2013, forty-eight holes totaling 3,278 m were drilled at the Ridley Creek (RC) Zone. The drilling on the RC Zone is shown on Figure 10-2. A cross section that illustrates the geology and geometry of the mineralized zones is presented on Figure 10-3. Multiple intervals of tungsten bearing skarn were intersected in drill hole F11-07 including 9.6% WO_3 over 0.4 m and 1.02% WO_3 over 4.7 m, and in hole F11-08, 8.15% WO_3 over 0.65 m and 1.22% WO_3 over 7.35 m. Hole F11-02 also returned 0.5 m of 8.45% WO_3. During the 2013 drill campaign, the western most hole, F13-19 returned 26.3 m averaging 1.19% WO_3, including 3.66 m of 4.625% WO_3 and 9.78 m of 1.4% WO_3.

Drilling in 2016 expanded on the Ridley Creek mineralized zone. Drill hole F16-03 is located at the north edge of the Ridley Creek deposit and cut 8.45 m of 1.14% WO_3, including 1.95 m of 1.11% WO_3 and 3.4 m of 2.19% WO_3. F16-05 is located approximately 70 m southwest of F16-03 and cut 4.1 m of 1.0% WO_3 and suggests potential to increase the resource grade in this area. Drill hole F16-09 returned 3.0 m of 0.52% WO_3 that is 70 m southwest of any previous drilling.

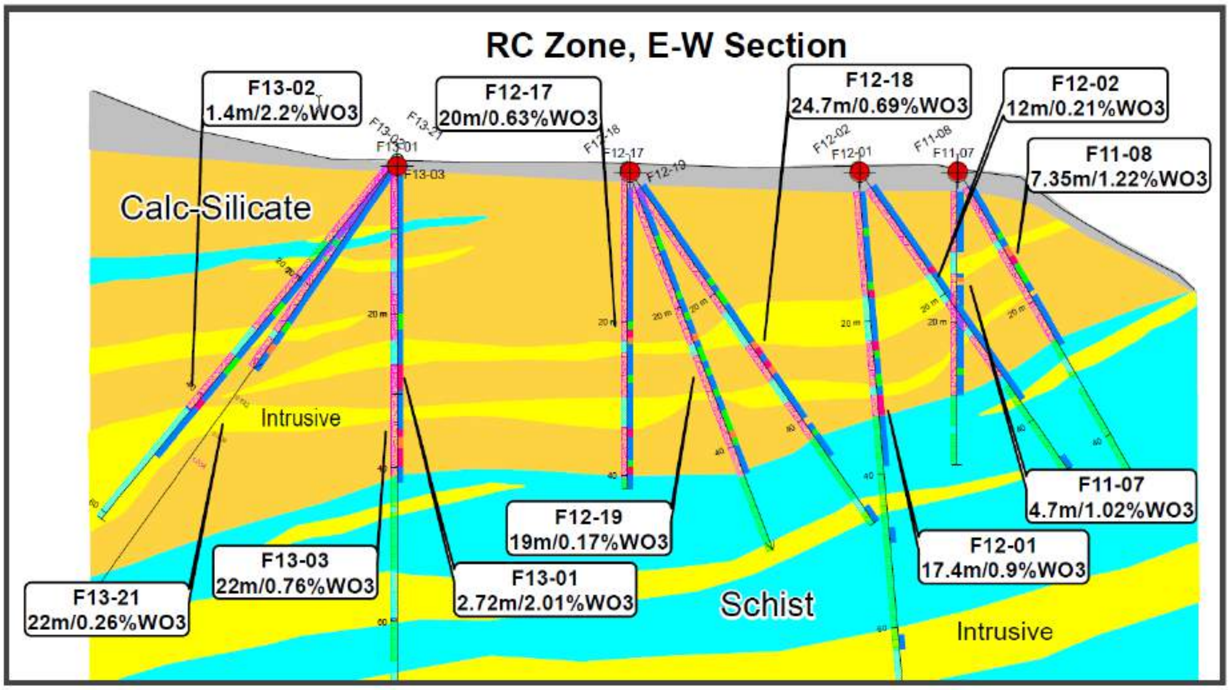
Drilling results from the Ridley Creek zone in 2017 include: DDH F17-44: Starting at 46.0 m, 19.4 m of 0.927% WO_3, including 2.59 m of 5.824% that expands the Ridley Creek zone approximately 35 m to the northwest and this high-grade zone remains open in that direction; DDH F17-48: Starting at 62.6 m, 0.72 m of 4.653% WO_3 that expands the Ridley Creek zone 100 m north of the current resource area; DDH F17-56: Starting at 11.45 m, 0.85 m of 4.160% WO_3 at Ridley Creek south and; DDH F17-57: starting at 21.2 m, 4.82 m of 0.516% WO_3 that expands Ridley Creek 45 m further southeast of the current resource area where it is open to the west and southeast.

FIGURE 10-2: RC ZONE DRILL COLLAR LOCATIONS



The RC Zone is approximately 400 m by 175 m in dimension and remains open in extent. A representative section is shown in Figure 10-3.

FIGURE 10-3: REPRESENTATIVE GEOLOGICAL SECTION RC ZONE



In 2017, Significant tungsten drilling results from the RC Zone are presented in Table 10-2.

TABLE 10-2: RIDLEY CREEK DRILL RESULTS

Location	Hole ID	From (m)	To (m)	Interval (m)	WO_3 %
RC	F11-01	8.3	10.1	1.8	1.29
RC	F11-02	5.7	10.9	5.2	0.91
RC	F11-06	14.5	15.1	0.6	0.75
RC	F11-07	14.3	19.0	4.7	1.02
RC	F11-08	8.3	20.7	12.4	0.74
RC	F11-09	22.1	31.1	9.0	0.33
RC	F11-10	19.8	22.3	2.5	0.89
RC	F11-10	17.0	19.0	2.0	1.12
RC	F12-01	8.0	9.0	1.0	0.15
RC	F12-01	14.0	33.4	19.4	0.82
RC	includes	22.6	32.4	9.8	1.43
RC	also, includes	29.7	31.0	1.3	6.08
RC	F12-02	13.0	25.0	12.0	0.21
RC	F12-03	31.0	33.0	2.0	0.03
RC	F12-04	26.0	29.6	3.6	0.21
RC	F12-05	9.0	10.0	1.0	0.22
RC	F12-05	19.0	22.9	3.9	0.20
RC	F12-06	32.0	34.0	2.0	0.02
RC	F12-07	13.0	16.0	3.0	1.18
RC	F12-07	22.0	24.0	2.0	0.07
RC	F12-08	15.0	16.0	1.0	0.06
RC	F12-09	15.0	26.0	11.0	0.80
RC	includes	22.0	26.0	4.0	2.12
RC	F12-10	17.0	19.0	2.0	1.12
RC	F12-11	27.0	41.0	14.0	0.68
RC	includes	28.3	31.6	3.3	2.65
RC	F12-12	45.0	46.0	1.0	0.30
RC	F12-13	19.0	22.4	3.4	0.64
RC	F12-14	41.0	44.0	3.0	0.15
RC	F12-15	8.0	9.0	1.0	0.48
RC	F12-16	31.0	32.0	1.0	0.16
RC	F12-17	20.0	40.0	20.0	0.63
RC	includes	34.0	40.0	6.0	1.51
RC	also, includes	34.0	35.0	1.0	4.54
RC	F12-18	18.0	42.7	24.7	0.68
RC	includes	28.0	41.0	13.0	1.24
RC	includes	40.0	41.0	1.0	9.08

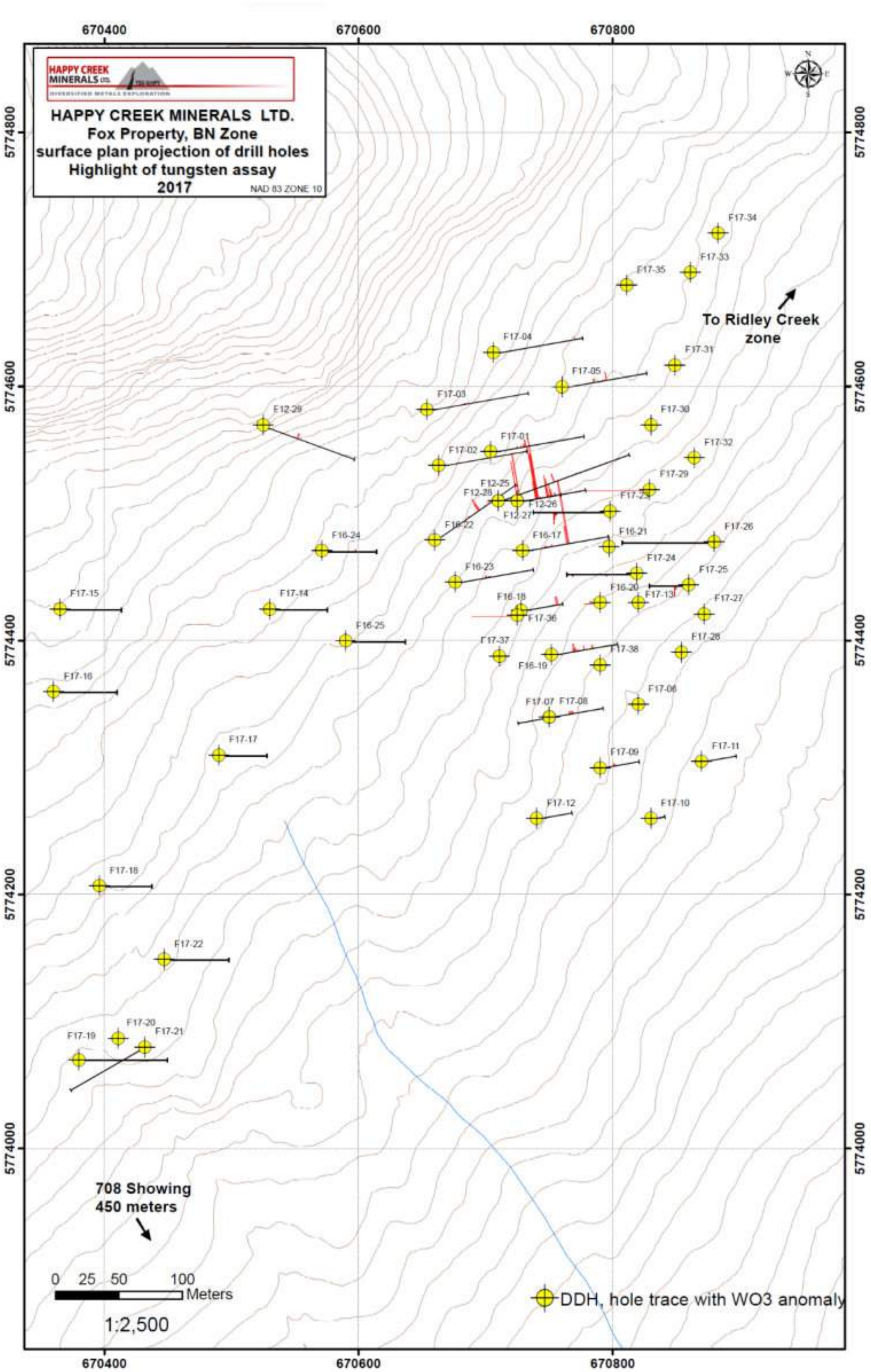
Location	Hole ID	From (m)	To (m)	Interval (m)	WO_3 %
RC	F12-19	10.0	12.0	2.0	0.10
RC	F12-19	17.0	40.0	23.0	0.15
RC	includes	35.0	40.0	5.0	0.32
RC	F13-01	26.8	29.5	2.7	2.01
RC	F13-02	40.4	41.8	1.4	2.21
RC	F13-03	20.0	42.0	22.0	0.76
RC	F13-06	21.9	28.0	6.1	0.55
RC	F13-07	12.0	34.0	22.0	0.36
RC	F13-08	12.0	26.8	14.8	0.59
RC	F13-09	31.7	49.1	17.4	0.50
RC	F13-10	12.0	20.0	8.0	0.11
RC	F13-11	12.0	17.0	5.0	0.08
RC	F13-12	6.0	8.0	2.0	0.08
RC	F13-15	24.0	28.0	4.0	0.58
RC	F13-16	44.0	54.0	10.0	0.05
RC	F13-18	6.0	8.1	2.1	0.14
RC	F13-19	31.8	57.9	26.1	1.19
RC	F13-20	4.0	12.3	8.3	0.15
RC	F13-21	24.0	46.0	22.0	0.26
RC	F16-03	20.1	28.5	8.5	1.14
RC	includes	20.1	22.0	2.0	1.11
RC	also, includes	25.1	28.5	3.4	2.19
RC	F16-05	21.0	32.1	11.1	0.48
RC	includes	21.0	22.9	1.9	0.64
RC	also, includes	28.0	32.1	4.1	1.00
RC	F16-07	36.9	38.6	1.7	0.65
RC	F16-09	50.0	53.0	3.0	0.52
RC	F16-10	22.0	24.0	2.0	0.52
RC	F17-40	24.00	24.80	0.80	0.100
RC	F17-41	5.18	7.20	2.00	0.083
RC	F17-43	14.35	16.35	2.00	0.116
RC	And	22.35	23.35	1.00	0.594
RC	F17-44	46.00	65.40	19.40	0.927
RC	Includes	46.00	48.59	2.59	5.824
RC	And	62.27	65.40	3.13	0.919
RC	F17-45	27.70	28.20	0.50	0.339
RC	And	48.08	49.07	0.99	0.608
RC	F17-46	18.93	19.51	0.58	0.274

Location	Hole ID	From (m)	To (m)	Interval (m)	WO_3 %
RC	And	73.93	74.43	0.50	0.213
RC	And	76.72	77.33	0.61	0.106
RC	And	78.15	79.00	0.85	0.113
RC	F17-47	15.93	17.40	1.47	0.078
RC	And	53.65	55.55	1.90	0.054
RC	F17-48	62.63	63.35	0.72	4.653
RC	F17-51	15.30	28.35	13.05	0.124
RC	Includes	20.25	21.05	0.80	0.764
RC	F17-53	15.60	17.35	1.75	0.175
RC	F17-54	42.74	43.74	1.00	0.074
RC	F17-56	11.45	12.30	0.85	4.161
RC	F17-57	21.44	26.26	4.82	0.516
RC	F17-58	20.72	21.85	1.13	0.108
RC	F17-59	22.50	23.50	1.00	0.227

10.3 BN Zone

In 2012, a total of five holes totaling 859 m were completed at the BN Zone (Figure 10-4). Significant tungsten drilling results for the BN are presented in Table 10-3 below. It should be noted that due to the shallow dip of the mineralization, the intercepts true width is generally between 80% to 100% of the core lengths indicated in the table.

FIGURE 10-4: BN ZONE DRILL COLLAR



Drilling at the BN Zone tested outcropping mineralization with holes F12-25 to F12-29. Drilling through granite sills revealed multiple mineralized layers occur. Drill hole F12-27 returned three separate intervals including: 4.1 m of 1.78% WO_3, 14.8 m of 4.0 % WO_3 and 24.0 m of 0.79% WO_3 and is thought to be among the best tungsten drill result known (Blann, Liaghat, 2013). Reconnaissance hole F12-29, located approximately 150 m northwest of the BN Zone, intersected 2.1 m of 0.413% $WO_3$3 and 0.3% zinc starting from 56.0 m down hole. This is thought to potentially be a continuation of the surface zone intersected in F12-27.

Follow-up drilling in 2016 proved successful. Drill hole F-16-17 is located about 50 m south of F12-27 and cut an interval of 4.1 m of 5.1% WO_3. F16-20 returned 5.0 m of 0.97% WO_3 and is located approximately 70 m east of drill hole F16-18 (3.0 m of 1.07% WO_3). Drill hole F16-22 is located approximately 65 m southwest of drill hole F12-28 (2.90 m of 1.20% WO_3) and returned 4.0 m of 1.36 % WO_3. Drill hole F16-21 is located approximately 70 m east of drill hole F16-17 and returned two low-grade intervals thought to be beyond a marble front. Drill hole F16-23 is located approximately 65 m southwest of drill hole F16-17 and returned 9.5 m of 0.12% WO_3, including 2.0 m of 0.30% WO_3. Drill hole F16-24 is located approximately 80 m west of drill hole F16-22 and returned 2.0 m of 0.24% WO_3 and 10.0 m of 0.21% zinc. Drill hole F16-25 is located approximately 75.0 m south of F16-24 and intersected granite to a depth of about 100 m where the hole ended. A resource statement has been completed for this zone and the methodology used is detailed in Section 14 of this report. A representative section for the BN Zone is presented in Figure 10-5

Drilling in 2017 focused on expanding the mineralized zone and increasing the resource. F17-25 returned 6.8 m of 0.435% WO_3 starting at 37.6 m that expands the Middle layer approximately 50 m to the southeast. F17-29 returned 5.05 m of 2.980% WO_3 starting at 45.6 m that expands the Middle layer approximately 75 m to the east. F17-33 returned 2.0 m of 0.578% WO_3 starting at 19.5 m that expands the Middle layer approximately 200 m to the northeast. F17-36 returned 7.81 m of 1.36% WO_3 starting at 55 m that expands the middle layer approximately 40 m to the southwest.

F17-23 returned 4.0 m of 0.963% WO_3 starting at 162 m that expands the Lower layer approximately 35 m south. Other drill holes expanded the BN general mineralized zone substantially to the east, northeast and southwest. The favorable calc-silicate host outcrops to the east and northeast and continues at surface northward to the RC zone, an untested gap of around 850 m.

A number of holes collared further to the west and southwest intersected relatively thick granite sill and may not have gone deep enough to intersect the projected Middle or Lower layers. Further west, several drill holes intersected calc-silicate /skarn at or near surface that is thought to continue for another km southwest. Although tungsten values are low in these drill holes, there is thought to be potential along this trend for better grade to occur.

FIGURE 10-5: BN ZONE REPRESENTATIVE CROSS SECTION

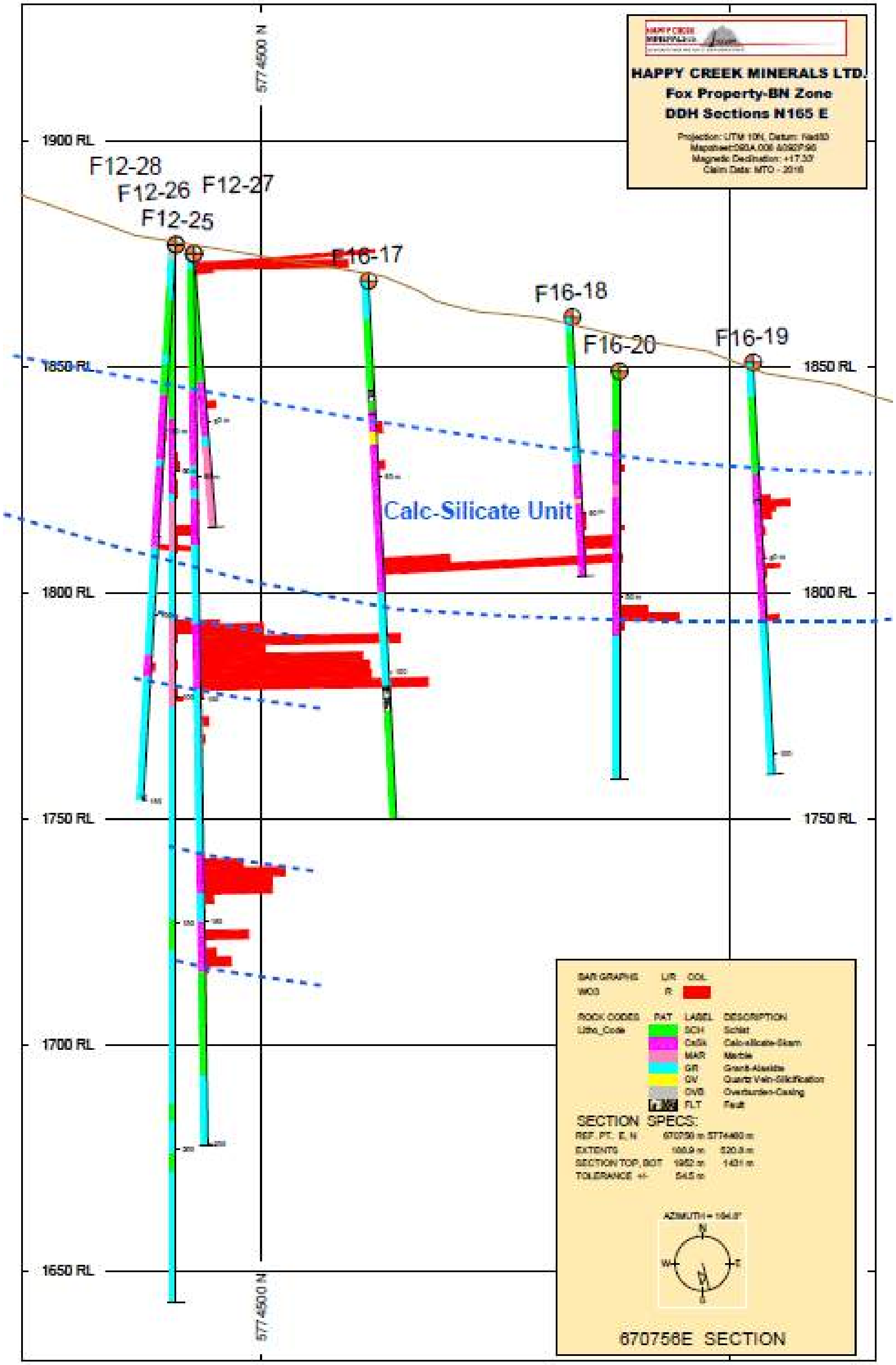


TABLE 10-3: BN SIGNIFICANT DRILL RESULTS

Location	Hole ID	From (m)	To (m)	Interval (m)	WO_3%
BN	F12-25	51.0	53.0	2.0	0.03
BN	F12-25	79.0	82.1	3.1	0.34
BN	F12-25	113.0	115.0	2.0	0.09
BN	F12-26	3.0	6.0	3.0	1.93
BN	F12-27	1.9	6.0	4.1	1.78
BN	F12-27	83.2	98.0	14.8	4.04
BN	F12-27	136.0	160.0	24.0	0.79
BN	F12-28	46.0	70.0	24.0	0.08
BN	includes	62.0	64.0	2.0	0.57
BN	F12-28	82.0	86.0	4.0	0.87
BN	F12-28	98.0	101.0	3.0	0.08
BN	F12-29	34.0	36.0	2.0	0.06
BN	F12-29	56.0	58.0	2.0	0.52
BN	F16-17	70.8	74.9	4.1	5.10
BN	F16-18	50.0	59.1	9.1	0.41
BN	includes	56.1	59.1	3.0	1.07
BN	F16-19	34.0	55.0	21.0	0.21
BN	includes	34.0	40.0	6.0	0.56
BN	also, includes	35.3	38.1	2.8	0.81
BN	F16-19	64.5	66.1	1.6	0.44
BN	F16-20	52.0	57.0	5.0	0.97
BN	F16-22	99.0	103.0	4.0	1.36
BN	F16-23	58.0	67.5	9.5	0.12
BN	includes	58.0	60.0	2.0	0.30
BN	F17-01	77.0	83.0	6.0	0.378
BN	F17-02	116.0	118.0	2.0	0.712
BN	F17-03	85.0	87.5	2.5	0.124
BN	F17-03	94.0	96.2	2.2	0.100
BN	F17-04	190.0	191.0	1.0	0.272
BN	F17-05	59.7	61.8	2.0	0.383
BN	F17-05	84.0	85.0	1.0	0.849
BN	F17-07	38.0	46.0	8.0	0.214
BN	F17-09	24.0	29.7	5.7	0.163
BN	F17-13	50.0	54.2	4.2	0.238
BN	F17-23	162.0	174.0	12.0	0.470
BN	Includes	168.0	172.0	4.0	0.960
BN	F17-24	91.8	93.5	1.7	0.161

Location	Hole ID	From (m)	To (m)	Interval (m)	WO_3%
BN	F17-25	37.6	44.4	6.8	0.435
BN	Includes	42.5	44.4	1.9	1.028
BN	F17-26	9.0	9.7	0.7	0.216
BN	F17-26	11.5	12.8	1.3	0.139
BN	F17-27	21.0	27.0	6.0	0.083
BN	F17-29	30.9	33.1	2.2	0.820
BN	F17-29	44.8	49.8	5.1	2.980
BN	F17-30	44.5	45.5	1.0	0.460
BN	F17-31	32.0	33.0	1.0	0.309
BN	F17-32	20.4	21.5	1.1	0.648
BN	F17-33	19.5	21.5	2.0	0.578
BN	F17-36	55.0	62.8	7.8	1.361
BN	F17-37	54.02	54.75	0.70	0.619
BN	F17-38	52.55	53.64	1.09	0.122

10.4 BK Zone

In 2012, five holes totaling 298 m were completed at the BK Zone. The five holes intersected the favorable calc- silicate unit seen in surface trenches (Figure 10-6). The best result from F12-20 returned 9.0 m of 0.42% WO_3, including 5.0 m of 0.60% WO_3. In 2016, six holes totalling 240.69 m were drilled. The best results include 5.2 m of 0.70% WO_3 in F16-14 and six m of 0.67% WO_3 in F16-15. The BK Zone is near-horizontal in orientation, from 2.5 m to 7 m in thickness and extends from the surface trenches through the drill holes for approximately 50 m. True width are generally believed to be between 80% to 100% of the core lengths indicated in the table (Table 10-4). Folding or displacement by structure is thought to occur locally, and the zone remains open to further expansion.

FIGURE 10-6: BK ZONE DRILL HOLES COLLAR LOCATIONS

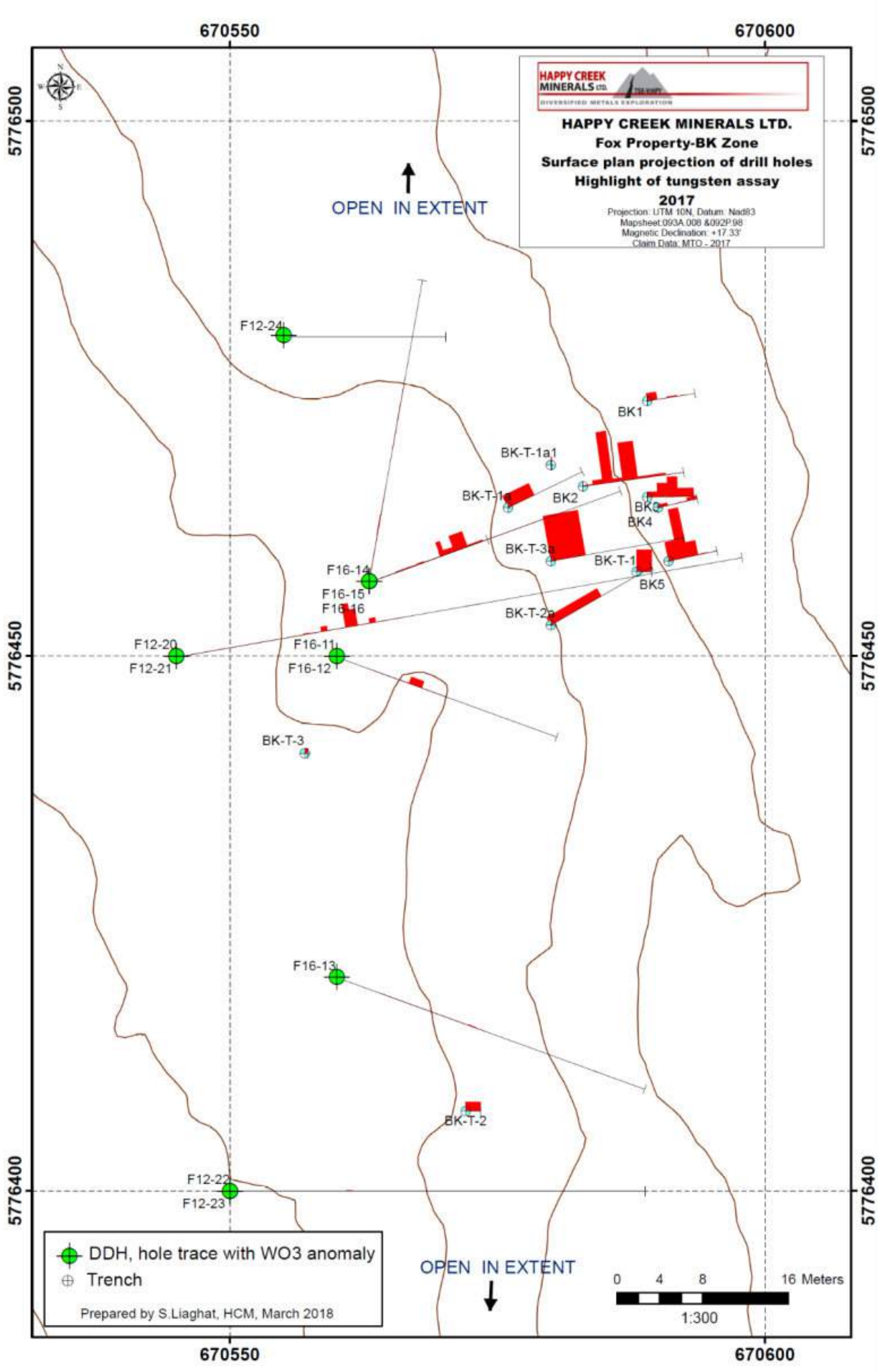


TABLE 10-4: BK ZONE SIGNIFICANT DRILL RESULTS

Location	Hole ID	From (m)	To (m)	Interval (m)	WO_3 %
BK	F12-20	24.0	33.0	9.0	0.42
BK	includes	28.0	33.0	5.0	0.68
BK	F12-21	18.0	19.0	1.0	0.30
BK	F12-23	19.0	20.0	1.0	0.06
BK	F12-23	23.0	24.0	1.0	0.03
BK	F16-12	12.5	14.7	2.2	0.66
BK	F16-14	20.8	26.0	5.2	0.70
BK	F16-15	10.0	16.0	6.0	0.67

11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 Exploration Sample Preparation

11.1.1 Stream and Soil Samples

Stream and soil samples were identified by their grid locations or sample code marked on Kraft paper envelopes or fibre cloth bags. These were strung together and hung to partially dry, and then later bundled and placed into rice bags holding approximately 50 samples. The rice bags were tied closed, labeled, and prepared for shipping.

11.1.2 Rock Samples

Rock samples were cleaned of organic debris as much as possible and placed into new plastic bags along with a sample tag, tied closed, and labeled with the sample number. These were placed into a large rice bag, tied, labelled, and prepared for shipping.

11.2 Drill Core Sample Preparation (2011-2017)

If possible, the drill core is initially logged utilizing a UV light (short wave length) and basic geology notes are collected at the drill prior to flying the core to camp.

Once the core was received at the Fox project core facility, the drill core depth blocks were converted to metric and the rock-quality designation (RQD) and percentage recovery measurements were recorded. The core is photographed wet, dry, and under UV light three boxes at a time.

This procedure was followed by detailed core logging and marking of sample intervals by the geologist. Drill core descriptions include:

- lithology
- mineralization (Py, Po, Sc, Sp, and Mo) visually estimated in percent
- alteration estimated with a code from 1 to 5 indicating the alteration intensity
- core axis measurements for the structures
- quartz and calcite veining expressed in percent
- fracture intensity expressed as a code from 1 to 5

As the core is logged, the sample intervals are marked on the core by the geologist. A minimum sample interval of 1.0 m and a maximum interval of 2.0 m are targeted. Occasionally, a few samples are longer or shorter than the nominal 1 and 2-meter lengths since sample breaks are preferentially selected based on lithology, alteration, and mineralization.

Specific gravity measurements are carried out at the camp using the Archimedes' principle weighting the core in air, and then weighting the core in water. No wax coating is used on the core since it is not considered porous.

Magnetic susceptibility readings are collected. In waste, the average of the box is recorded. For mineralized zones, every sample is measured.

The generally solid, unbroken, and firm rock quality encountered while drilling and in the drill core resulted in over 96% recovery on the BN and RC Zones. The RQD measurements recorded in the database for the BN and RC Zones averaged 26% up to the end of the 2016 drill program. Mr. Warren Newcomen, P. Eng. of BCG Engineering indicated that based on the few holes examined during the site visit, the RQD appeared higher than what was stated in the database. The methodology was updated during the 2017 drill campaign and the RQD measurement now averages 71% for the data collected in 2017.

Drill core has been longitudinally split in half using a diamond saw since the 2013 drill program. Prior to that, the core was either split using a saw or a manual hand splitter. One half of the core is bagged and used for samples, the other half is returned to the core box for future reference. Sample bags are labelled with the sample ID assigned by the geologist and include the corresponding sample tag provided by the analytical laboratory. Samples are then placed in numerical sequence into larger rice bags and prepared for shipment to the lab.

All core boxes are stored in locked, large metal shipping containers on site.

The samples prior to the 2016 drill program were transported by Company representatives to 100 Mile House. From there, shipments went by Greyhound Bus or Bandstra Transport who delivered the samples to either Acme Analytical Laboratories in Vancouver BC, or Agat Laboratories in Burnaby, BC, for sample preparation and analysis.

The samples collected during the 2016 and 2017 drill program were transported by Company representatives to 100 Mile House. From there, shipments were delivered to SGS Laboratories in Burnaby, BC for sample preparation and analysis via Bandstra Trucking or Greyhound bus.

11.3 2011-2015 Sample Analysis

11.3.1 Soil Samples

Once received by the laboratory, samples are inventoried, weighed, and dried at 60°C. Silt, moss mat, and soil samples are screened to obtain a -80-mesh fraction.

11.3.2 Rock Samples

Rock samples are first coarse crushed to pass through a 2 mm (-10 mesh) screen. A portion (100 g to 250 g) is then pulverized using a ring pulveriser to -200 mesh.

From this a 1.0 g sample is digested in aqua regia. Element determination was by Induction Coupled Plasma (ICP – Acme 1999 to 2001), ICP - Mass Spectrometry (ICP-MS – Acme 2005 to 2008) and ICP-MS (Agat Labs 2009 to the end of the 2015 exploration program).

Since aqua regia digestion is only partial for tungsten, those samples containing anomalous tungsten, or over limit by ICP-MS, were assayed using peroxide fusion digestion in triplicate.

A selected number of samples in 2007 were sent for neutron activation analysis (INAA) at Activation Laboratory (ActLabs) to validate the peroxide fusion results. No significant differences were noted by Happy Creek.

11.3.3 Drill Core

Drill core for the RC Zone were analyzed at Agat Labs which is ISO/IEC 17025 and ISO 9001 accredited. Upon receipt, the samples were first logged into Agat's Laboratory Information Management System (LIMS) which monitors the progress of a sample's analysis throughout the laboratory process.

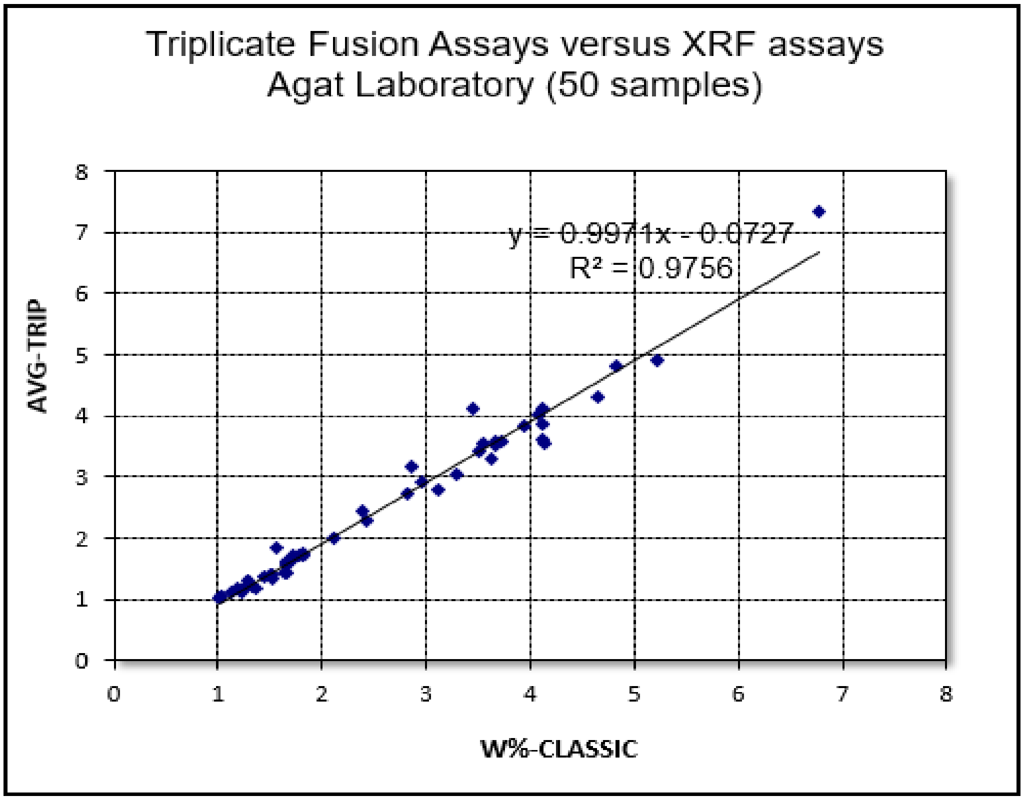
Samples were then weighed and dried (60°C) after which they were crushed so 90% of the material is a <2 mm (-10 mesh) particle size. A minimum 100 g split was pulverized until 85% of the material passes was <75 µm (200 mesh). A sample of approximately 1.0 g was digested with a 3:1 hot mixture of aqua regia (nitric and hydrochloric acid) for one hour and then diluted to 50 ml with deionized water. An aliquot was analyzed for 51 elements utilizing a combination of Inductively Coupled Plasma - Optical Emission Spectroscopy (ICP-OES) and Inductively Coupled Plasma – Mass Spectroscopy (ICP-MS) using AGAT's method MIN-200-12018.

Samples within, and adjacent to, a scheelite mineralized zone as indicated by UV light, were also analyzed using a 0.2 g pulverized sample digested by peroxide fusion at 675°C for 20 minutes. This method utilizes sodium peroxide, a strong oxidizing reagent, to fully digest particle matrices especially those with high sulfide content and is considered a total digestion for tungsten. For each sample, the peroxide fusion analyses are performed in triplicate. A diluted aliquot is measured by ICP-OES using the Agat's method MIN -200-12001.

Samples that averaged over 0.60% W by the triplicate peroxide fusion were again re-assayed by Agat's Classic tungsten assay using X-Ray Fluorescence (XRF). Happy Creek performed a mathematical average of the three fusion assays and the classic tungsten assay (if available) to derive the final W% value as one method was not considered better than the other.

The XRF assays generally compared favorably with the triplicate peroxide fusion assays. Of the 50 assays in the database with an XRF assay, the mean value of the triplicate fusion average is 2.516 W% and the mean value of the XRF assay is 2.596 W%. The median shows 1.913 W% for the fusion average versus 1.965 W% for the XRF assay. Scattered plots of the 50 samples show a slope of 0.997 and an R^2 value of 0.97. It appears the XRF analysis shows a slight positive bias (Figure 11-1) which is possibly related to coarse grained scheelite minerals in the sample and are thought to account for the variance.

FIGURE 11-1: TRIPLICATE FUSION ASSAYS VERSUS XRF ASSAYS



The final tungsten (W%) value was converted into WO_3% using a factor of 1.261.

11.4 2016 Sample Analysis

Drill core samples for the 2016 exploration campaign were prepared and analyzed at SGS Laboratories in Burnaby, BC. The SGS is ISO/IEC 17025 and ISO 9001 accredited.

Upon receipt, the samples were first logged into SGS's Laboratory Information Management System (LIMS) which monitors the progress of a sample's analysis throughout the laboratory process.

Samples are then weighed and dried after which they are crushed so 90% of the material is a <2 mm (-10 mesh) particle size. A minimum 250 g split is pulverized until 85% of the material that passes is <75 µm (200 mesh). A sample of approximately 25 g is digested with a hot mixture of aqua regia (nitric and hydrochloric acid). An aliquot is analyzed for 49 elements utilizing ICP-MS per SGS's method GE ARM133.

During the 2016 program, all samples were also analyzed by sodium peroxide fusion / ICP-MS, SGS procedure code GE_ICP90A. Fusion involves the complete digestion of the sample in molten flux. Fusions are generally more aggressive than acid digestion methods and are suitable for many refractory, difficult-to-dissolve minerals, and are presumed to provide a complete chemical analysis.

Over limit samples greater than 4% W are analyzed for tungsten by XRF using SGS procedure code GO_XRF77B. During the 2016 campaign, only three samples were analyzed with XRF. The XRF value replaced the sodium peroxide fusion in the database.

11.5 2017 Sample Analysis

During the 2017 program, Happy Creek no longer analysed all samples by sodium peroxide fusion, instead all samples were analyzed for 49 elements utilizing ICP-MS per SGS's method GE ARM133. Samples assaying above 40 ppm W (0.004 W%) were re-assayed using the sodium peroxide fusion / ICP-MS using SGS procedure code GE_ICP90A. Over limit samples greater than 4% W were analyzed for tungsten by XRF using SGS procedure code GO_XRF77B. During the 2017 drill campaign there was only 3 over limit samples and the XRF value replaced the sodium peroxide fusion in the database.

AGP noted that in the 2016 dataset, the SGS ICP-MS assays in the 40-50 ppm W range returned assays using the sodium peroxide fusion method of 0.005 W% which is well below the stated cut-off grade for the resource estimation. While the ICP-MS is not considered ideal for tungsten assays, the threshold of 40 ppm W set by Happy Creek, to switch analytical methods, is low enough not to introduce a significant bias in the data used for the resource estimation at the stated cut-off grade.

11.6 2007-2016 Quality Assurance/ Quality Control Program

In addition to the Quality Assurance/Quality Control (QA/QC) program implemented by the analytical laboratory, Happy Creek undertook an independent QA/QC program involving systematic use of standards and blanks during the 2007 drill campaign. Core duplicates were added during the 2010 drill campaign and maintained since that time. Over the years, the insertion rate averaged 7.13%. The rate of insertion was lower during the 2007 and 2010 drill campaigns. Since 2011, Happy Creek inserts one quality control sample (blank, standard, or duplicate) every 11 samples yielding an insertion rate of 9.18%. Additionally, for every 60th sample, the laboratory created a duplicate pulp for a comparative analysis.

The QA/QC program is monitored by the staff working for Happy Creek however, the data is not routinely charted. It is not known if any of the sample batches were re-submitted.

11.6.1 Blanks

Blank samples consist of barren crushed limestone purchased from the local hardware store suitable for monitoring contamination at the crushing stage of the sample preparation. Data from 2007 through to 2015 is not reliable since Happy Creek did not run Fusion assays on low-grade values, therefore all blank samples were assayed with aqua regia digest and ICP. For the

2016 data, all blanks submitted to the laboratory were well below the 5-times detection limit and show no signs of cross contamination.

11.6.2 Duplicate

Quarter core duplicates protocol was introduced during the 2010 drill campaign and remain in effect through to the 2016 exploration season. Happy Creek systematically introduces a quarter core duplicate in the sample chain. This sample is not preferentially selected in the higher-grade zones of the deposit. As a result, the assays from the drill program prior to 2016 do not exceed the threshold set by Happy Creek to switch to a Fusion analysis. Consequently, all original and duplicate assays, except one, are based on the ICP-OES or ICP-MS value. Because of that, the duplicate value can vary greatly from the original data. A linear regression through the data point on all quarter core duplicate shows a slope of 0.854 and an R^2 value of 0.53 which would normally indicate a bias.

Using the 2016 data where a fusion analysis is available for all samples, the linear regression is better with a slope of 1.096, however the R^2 is not as good at 0.31 and the data set is very small and is not considered statistically representative. Additionally, the data pairs are often at, or approaching, the detection limit.

AGP concludes that currently the quarter core duplicates are of limited use.

11.6.3 Standards

Standards Reference Material (SRM) were introduced early in the life of the project. The two purchased standards used were supplied by CDN Resource Laboratory.

The CDN-W-5 material originated from of a calc-silicate contact tungsten deposit where the tungsten occurred as scheelite. The expected value is 0.391 +/- 0.040% W. This material appears to be a good match for the Fox project mineralization.

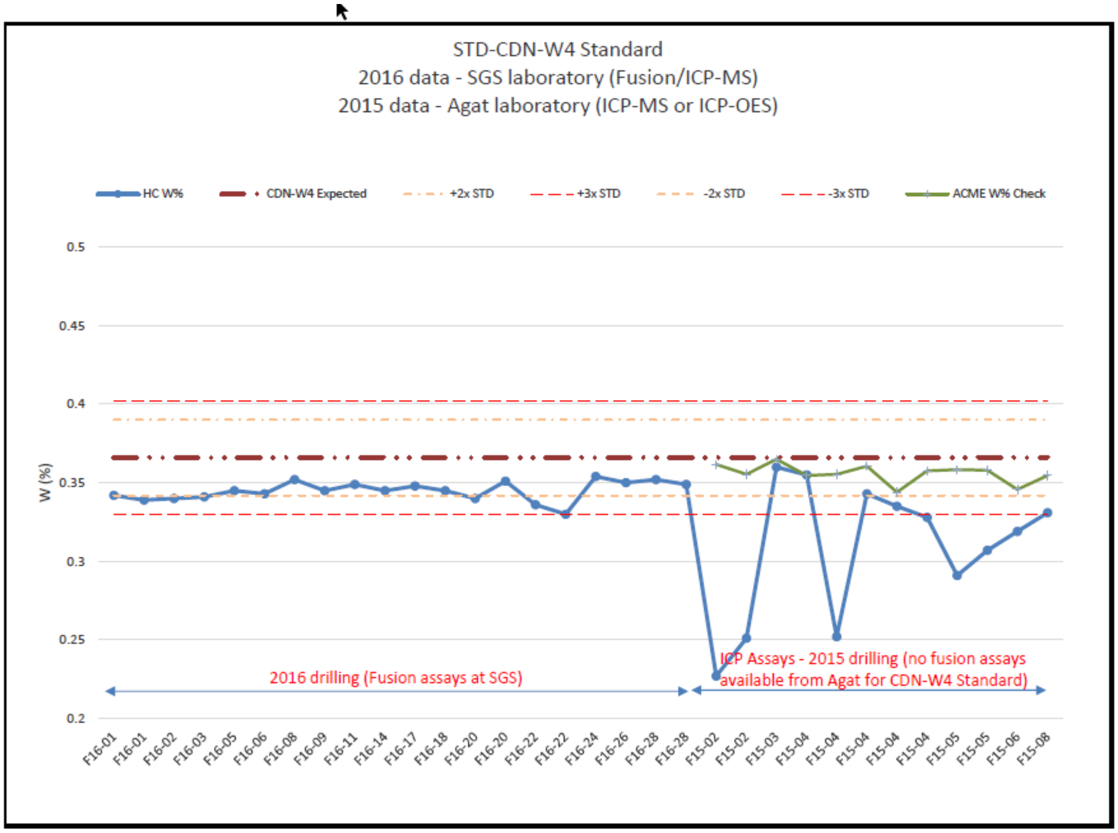
The CDN-W-4 material originated from the former Cantung mine. The material is a high sulphide ore that was mixed with various Cu, Mo, and Au ore from other properties. The tungsten at Cantung occurs as Scheelite. The expected value is 0.366 +/- 0.024% W.

The data was charted by AGP and the charts were based on the triplicate fusion assays at Agat's or the Fusion assay at SGS unless otherwise noted.

For the CDN-W4 standard, the SGS displayed consistent results, a slightly low bias, and no failure. There was no triplicate fusion analysis available for this standard from the Agat Laboratory (Figure 11-2).

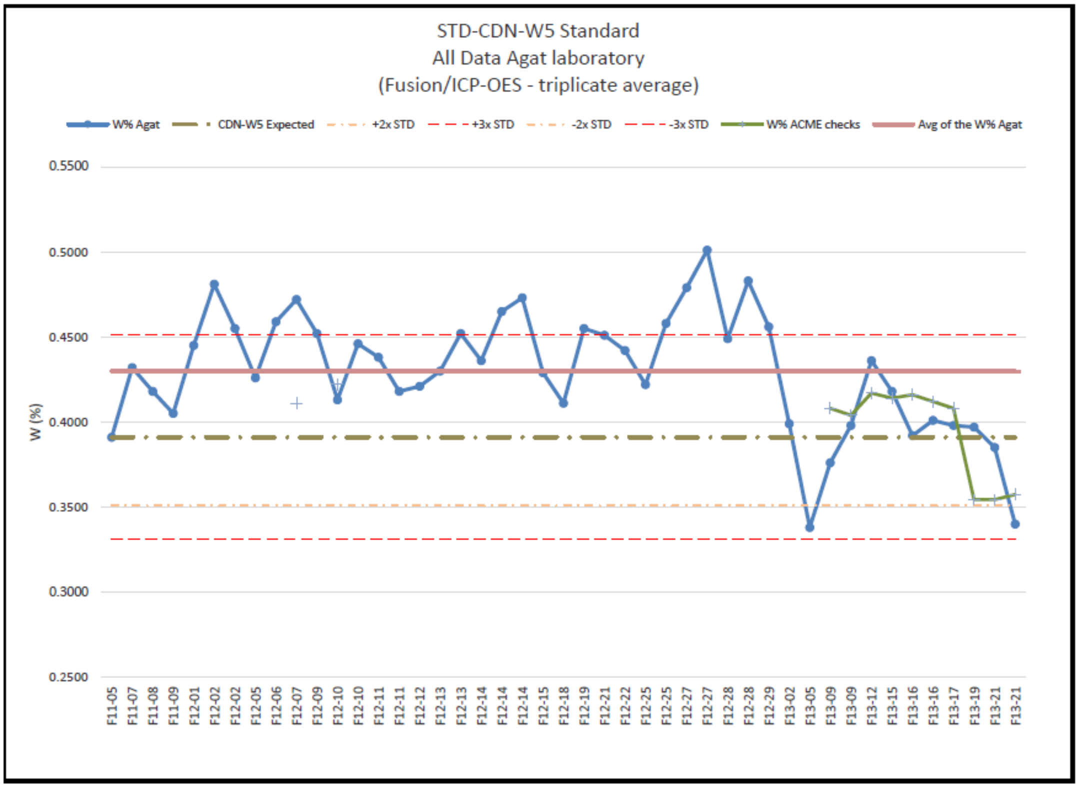
Happy Creek ran duplicate assays of the pulp at ACME Laboratory with good results.

FIGURE 11-2: CDN-W4 STANDARD



Review of the charts for the CDN-W5 SRM indicated that Agat Laboratory produces highly variable tungsten assays indicating poor precision. AGP noted 13 failures above the 2x standard deviation (Figure 11-3) however the average of the Agat SRM assays is slightly below the standard +2x deviation and as such, the average is within the norm despite the high bias when compared to the CDN-W5 expected value.

FIGURE 11-3: CDN-W5 STANDARD



11.7 2017 Quality Assurance/ Quality Control Program

In addition to the QA/QC program implemented by the analytical laboratory, Happy Creek continued its independent QA/QC program during the 2017 drill campaign. Happy Creek inserts one quality control sample (blank, standard, or duplicate) every 10th sample yielding an insertion rate of 10%. Additionally, for every 60th sample, the laboratory created a duplicate pulp for a comparative analysis.

The QA/QC program is monitored by the staff working for Happy Creek however the data is not routinely charted. It is not known if any of the sample batches were re-submitted.

11.7.1 Blanks

For 2017, the blank samples material did not change and consisted of barren crushed limestone purchased from the local hardware store suitable for monitoring contamination at the crushing stage of the sample preparation. Data from 2017 is not as reliable as the 2016 data since Happy Creek did not run Fusion assays on low-grade values and all blank samples were assayed with aqua regia digest and ICP. For the 2017 data, four samples exceeded the 5x detection limit out of a total of 58 blanks. Only one failure could be attributed to cross-contamination since the previous sample was 0.815 W%.

11.7.2 Duplicate

Happy Creek systematically introduces a quarter core duplicate in the sample chain. This sample is not preferentially selected in the higher-grade zones of the deposit. As a result, out of the 54 quarter core duplicates only 8 samples where above the threshold grade to be assayed using the Fusion analysis. All others were assayed with the ICP-MS and close to the detection limit. Because of that, the duplicate value can vary greatly from the original data. A linear regression through the data point on all quarter core duplicates show a slope of 0.5448 and an R^2 value of 0.43 which would normally indicate a bias.

Using the eight samples where a fusion analysis is available, the linear regression is slightly better with a slope of 0.5094 and an R^2 of 0.71 however the data set is very small and is not considered statistically representative.

AGP concludes that currently the quarter core duplicates are of limited use.

11.7.3 Standards

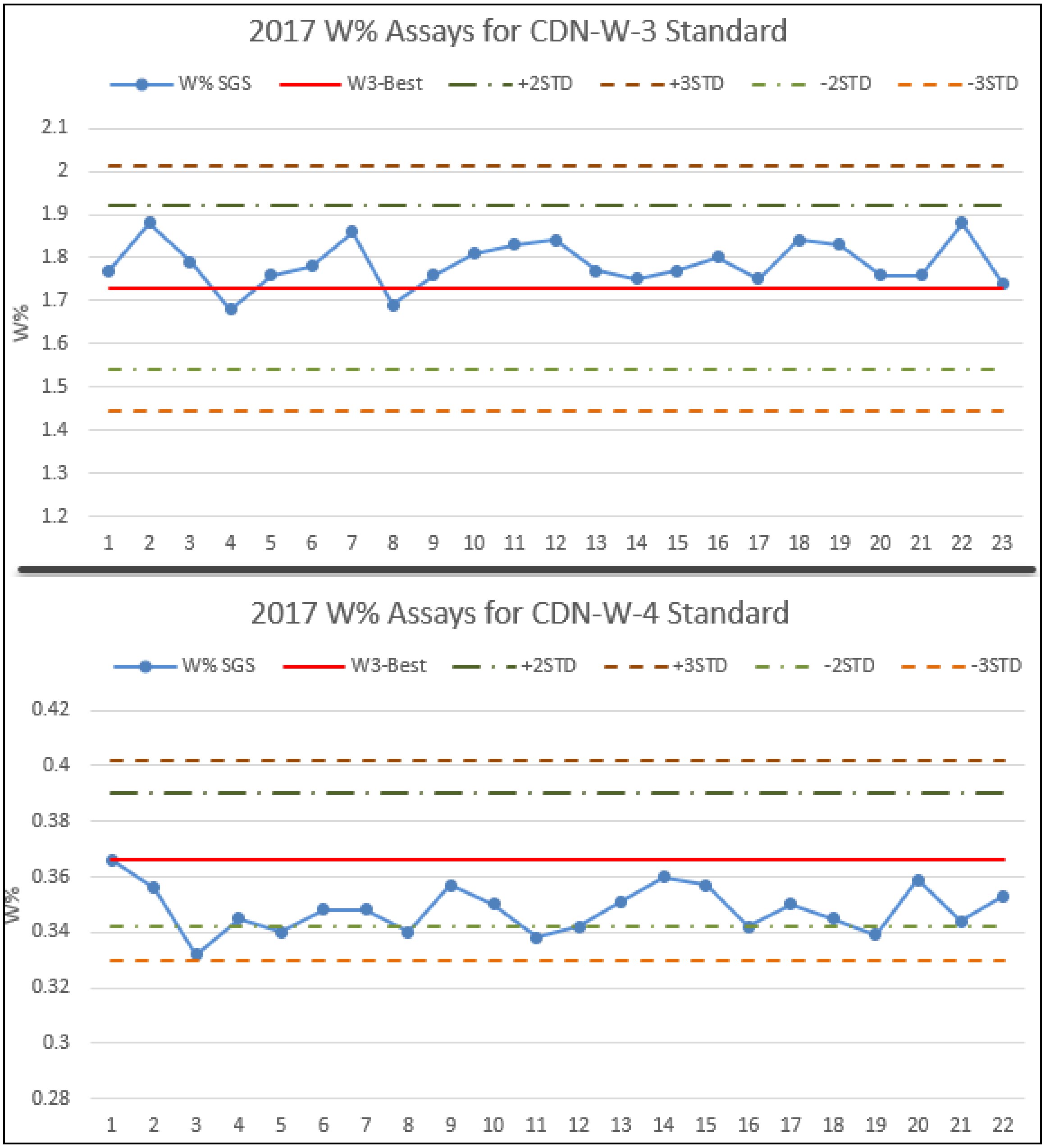
During the 2017 drill campaign, Happy Creek used two purchased standards supplied by CDN Resource Laboratory. Both standards material originated from the former Cantung mine. The material is a high sulphide ore that was mixed with various Cu, Mo, and Au ore from other properties. The tungsten at Cantung occurs as Scheelite. The material appears to be a good match for the Fox project mineralization. The standard materials were assayed in a round robin fashion by a variety of methods namely: Fusion/XRF, Pressed Pellet/XRF, 4-acid/AA or ICP.

The expected value for the CDN-W-3 material is 1.730 +/- 0.019% W and the expected value for the CDN-W-4 material is 0.366 +/- 0.024% W.

The data was charted by AGP and the charts were based on the Fusion assay at SGS.

For the CDN-W-3 standard, the SGS displayed consistent results, a slightly high bias, and no failure. For the CDN-W-4 standard the data shows a low bias. Five data points exceeding the -2x standard deviation warning limit without 2 consecutive assays exceeding that limit (Figure 11-4).

FIGURE 11-4: CDN-W-3 AND CDN-W-4 STANDARD FOR 2017



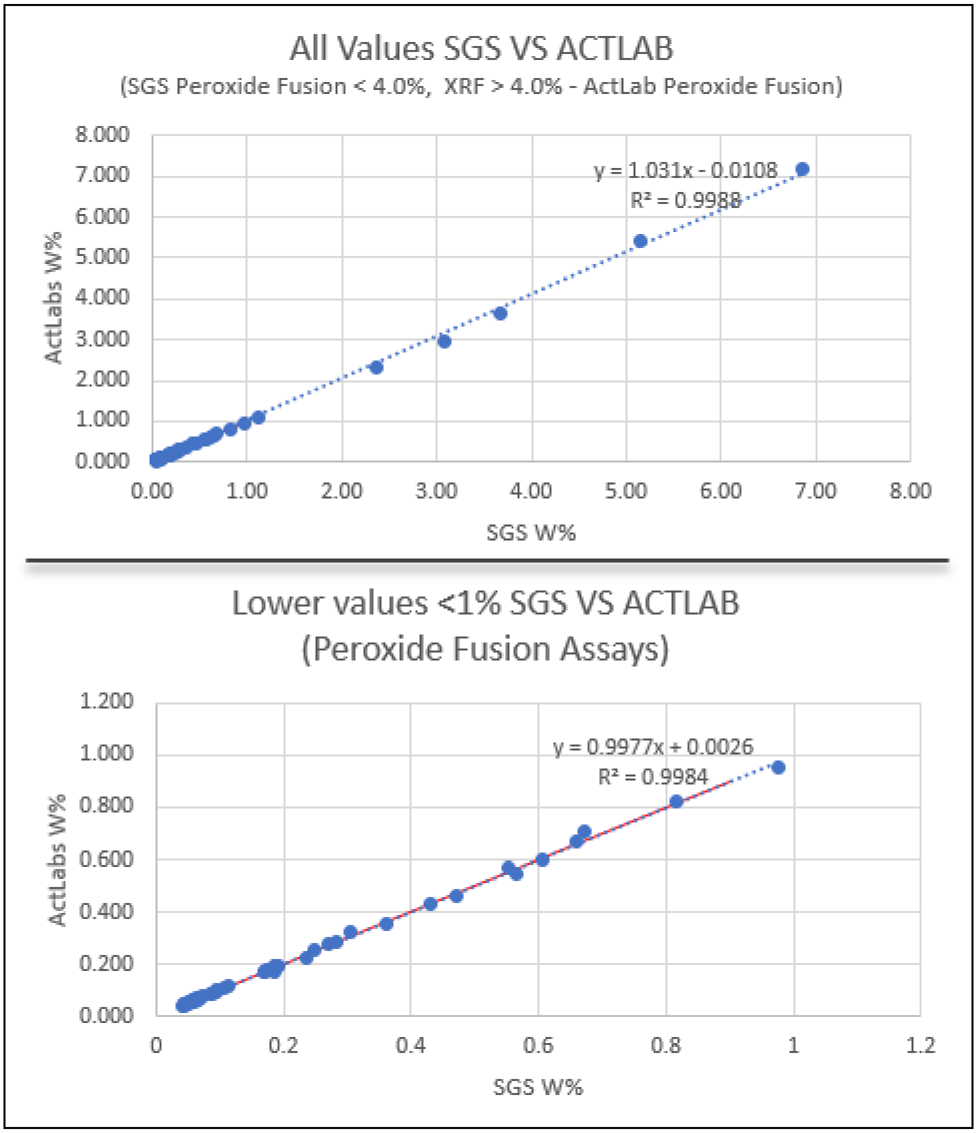
11.7.4 Pulp Duplicate to Empire Laboratory

At the end of the 2017 drill campaign, Happy Creek re-submitted 51 high-grade pulp samples originally assayed at SGS by Peroxide Fusion or XRF for samples above 4% W to MS Analytical Laboratory in Langley, BC. The MS Analytical Laboratory (MS) is a ISO/IEC 17025:2005 accredited facility. At the MS facility samples were assayed using Peroxide Fusion (Procedure Code 7W) and XRF (Procedure Code WRX-3W). Results indicated the following:

- For all samples, the SGS assays compared to the MS Peroxide Fusion assays show low bias with a slope of regression of 1.049 and an excellent R^2 value of 0.99 compared to the MS XRF assay, with a slope of regression of 0.961 and an R^2 of 0.99.
- For samples below 1% W, SGS Peroxide Fusion assays tend to return a lower value than the MS Fusion assays while the MS XRF assays are consistently higher grade (for assays below 0.8% W) than the SGS Peroxide Fusion assays. The percent difference of the SGS Peroxide Fusion assays versus the MX Peroxide Fusion assays shows no trend as the W5 value increases. This is not the case when comparing the percent difference between the SGS Peroxide Fusion assays versus the MS XRF assays. Data shows the MS XRF assays are progressively higher grade, and the SGS assays are lower grade.

Due to the possible bias in the MS analytical assays, Happy Creek re-submitted the same pulps to Activation Laboratory (ActLabs) located in Ancaster ON. ActLabs is an ISO 17025 accredited facility. At ActLabs, the pulps were re-assayed using peroxide fusion. Results indicated that ActLabs was able to reproduce the SGS fusion assays with high accuracy, even in the values below 1% W where the slope of regression is 0.997 and an R^2 of 0.9984 (Figure 11-5).

FIGURE 11-5: 2017 SGS PULPS DUPLICATE AT ACTLABS



11.8 Security

Sample preparation, handling, and transport followed company procedures that provide a well-controlled chain of custody from the field to the point of shipping. The core from 2007 programs, through to the 2017 programs, are stored inside shipping containers adjacent to the Fox project camp. The containers are locked and accessible only to authorized personnel.

11.9 AGP Comments

The sampling procedures, and analytical methods undertaken by Happy Creek are to industry standard. The insertion rate for the QA/QC sample is to industry standard however, AGP would recommend the blanks material be preferentially inserted immediately following known high-grade samples. Additionally, AGP recommends Happy Creek bias the collection of quarter core duplicates in the known high-grade sections of the core.

For drill core, the aqua regia digest and ICP analyses provided multi-element geochemical data for zinc, gold, silver, indium, and other trace elements that are often found with tungsten mineralization. In several cases where zinc values exceeded 5,000 ppm zinc, a formal zinc assay was performed.

Aqua regia digestion is partial for tungsten resulting in lower values and less reliable assays; this method was restricted to soil, silt samples, and drill core prior to the 2016 program located in waste zones. Since the 2016 drill program, all assays are analyzed using the Fusion/ICP-MS method.

For drill core in the mineralized zones, the performance of the triplicate tungsten Fusion/ICP-MS assays at the Agat's Laboratory indicated high variability and a high bias when compared to the CDN-W5 standard. The SGS Fusion/ICP-MS assay method shows low variability and a low bias when compared to the CND-W4 standard. AGP therefore recommends continuing to send all samples to the SGS with 5% of the pulp being submitted to a secondary laboratory.

In the database, the final WO_3 assay represents the average value of the triplicate peroxide fusion analysis and the Agat XRF classical tungsten assays (converted to tungsten trioxide). For the low-grade sample analyzed solely with ICP, the final WO_3 assay represents the tungsten ICP value (converted to tungsten trioxide).

Considering the QA/QC review through to the end of the 2017 drill campaign, AGP makes the following recommendations:

- AGP recommends continuing to use the SGS. A secondary laboratory should also be selected and 5% of the high-grade pulps should be submitted as duplicates.
- AGP favors inserting blanks, preferentially following high-grade samples, to monitor the cross contamination at the crushing stage of the sample preparation.
- AGP also recommends Happy Creek bias the insertion of quarter duplicates in the higher-grade zones of the deposits.
- Happy Creek should consider re-submitting a portion of the 794 pulps assayed by Agat's Laboratory for samples within the mineralized zones prior to a Feasibility Study to validate the accuracy of the data.

AGP believes the sample handling, core logging, sampling, and security protocols are at industry standard and conform to generally accepted best practices.

Assay quality from the SGS appear excellent from the data that was collected during the 2016 and 2017 drill campaign. While the ICP-MS is not considered the ideal analytical method for tungsten assays, the threshold of 40 ppm W set by Happy Creek during the 2017 drill campaign, to switch analytical methods to sodium peroxide fusion, is low enough not to introduce a significant bias in the data used for the resource estimation at the stated cut-off grade.

The assay quality from the Agat's Laboratory does not appear as good and shows high variability in the precision of the estimate although the average of the SRM are within specs. Cross contamination at the Agat Laboratory could not be assessed due to the lack of Fusion assays. Despite these findings, the data is considered representative for the level of study presented in this report.

This author concludes that Happy Creek's exploration, sampling practices, and resulting data are suitable for the estimation of an NI 43-101 Mineral Resource Estimate.

12 DATA VERIFICATION

12.1 AGP Assay Validation prior to the 2016 Resource Estimate

Field inspection and database validation was carried out by W. Grunewald, P. Geo in September 2016. As part of this work, the assay data in the database were compared to the analytical data provided in the laboratory assay certificates. Grunewald reported no instances of discrepancies. There was no mention of the data validation rate, therefore AGP is unsure on how many assays were validated.

Prior to the resource estimate of 2016, AGP spot checked a limited number of high-grade assays exceeding 0.25% WO_3 against the original assay certificates provided by Happy Creek. The validation covered 58 assays out of 1,329 representing 4.4% of the entire assay database in proximity to the mineral resource. The database was found to be error free for the samples that were checked. AGP also validated the conversion equation used to calculate the WO_3 % content from the W% assays provided by the laboratory and found it to be correct.

12.2 AGP Field Inspection 2016/2017 and Data Validation

12.2.1 AGP Site Visit 2016/2017

Mr. Pierre Desautels, P.Geo. visited the Fox property on August 29 & 30, 2016 accompanied by Mr. David Blann, P.Eng., CEO and Director and Mr. Sassan Liaghat, PhD Geology, Senior Geologist/Project Manager both of Happy Creek, and Mr. Warren Newcomen P.Eng., Principal Geotechnical Engineer of BGC Engineering Inc. Mr. Desautels re-visited the project on July 31 & August 1, 2017 accompanied by Mr. Sassan Liaghat, PhD, Geology, Senior Geologist/Project Manager of Happy Creek. Drilling was in progress at the time of the visit.

The 2016 site visit entailed brief reviews of the following:

- overview of the geology and exploration history of the Fox property
- management of the exploration program on the property
- drill hole collar locations for the RC Zone
- description of the drill rig procedures including core handling
- sample collection protocols at the core logging facility
- discussion on the sample transportation and sample chain of custody and security
- core recovery
- QA/QC program (insertion of standards, blanks, duplicates etc.)
- monitoring of the QA/QC program
- review of diamond drill core, core logging sheets and core logging procedures (the review included commentary on typical lithology's, alteration and mineralization styles, and contact relationships at the various lithological boundaries)
- specific gravity sample collection

The 2017 site visit focused on the BN Zone drill data and improvements made to the data collection.

Independent character samples were collected during both site visits. AGP packaged the samples which were subsequently shipped via Canada Post directly to Activation Laboratories Ltd. at 41 Bittern Street, Ancaster, Ontario. The sample analysis allowed an independent laboratory to confirm the presence of tungsten in the deposit and assess differences in terms of grade ranges. Samples were analyzed for Tungsten and 34 other elements using procedure code 1D Enh INNA which is described by ActLabs as follows:

> *"INAA (Instrumental Neutron Activation Analysis) is an analytical technique dependent on measuring gamma radiation induced in the sample by irradiation with neutrons. A 30-g aliquot, is encapsulated in a polyethylene vial and irradiated in a nuclear reactor. After a suitable decay period, samples are measured for the emitted gamma ray fingerprint. Samples are encapsulated and irradiated in a nuclear reactor. After a suitable decay, samples are measured for the emitted gamma ray fingerprint. INAA is very good for Au, Co, As, Sb, W, Ta, U, Th, Cs, In, Re, Cl and lower levels of LREE. Samples are encapsulated and irradiated in a nuclear reactor. After a suitable decay, samples are measured for the emitted gamma ray fingerprint. INAA is very good for Au, Co, As, Sb, W, Ta, U, Th, Cs, In, Re, Cl and lower levels of LREE."*

This methodology is different from the fusion and/or XRF method used by Happy Creek as described in Section 11 of this report. Table 12-1 shows the analytical results of the AGP samples along with Mr. Gruenwald's samples.

TABLE 12-1: INDEPENDENT CHARACTER SAMPLE RESULTS VERSUS HAPPY CREEK – WO_3%

Source (AGP)	Year	Independent Sample Number	Independent WO_3 (%)	Hole Number	From	To	HC Sample Nb	HC WO_3 (%)	WO_3% diff Ind-HC
¼ core sample duplicate	2016	83613	3.871	F13-19	40	41	HCM023	4.467	-0.60
¼ core sample duplicate	2016	83614	0.115	F12-25	113	115	5631612	0.093	0.02
¼ core sample duplicate	2016	83615	2.093	F13-01	26.78	28	5527824	2.172	-0.08
¼ core sample duplicate	2017	83657	0.172	F17-13	50	52	10598	0.357	-0.185
¼ core sample duplicate	2017	83658	0.163	F17-09	24	26	10561	0.106	0.057
¼ core sample duplicate	2017	83660	0.041	F17-06	47	49.15	10526	0.066	-0.025
Source (AGP)	**Year**	**Independent Sample number**	**Independent SG (g/cm^3)**	**Hole Number**	**From**	**To**	**Calculation**	**HC SG (g/cm^3)**	**diff Ind-HC**
Full core	2017	83659	2.75	F17-19	14.40	14.56	638/(638-406)	2.75	0

Assay results on the AGP check samples also revealed three other anomalous elements (Table 12-2).

TABLE 12-2: OTHER ANOMALOUS ELEMENTS

AGP Sample Number	Au (g/t)	Mo (ppm)	Zn (%)	Fe (%)
83613	0.149	60	0.291	9.71
83614	0.001	< 1	0.019	3.01
83615	0.121	18	0.395	7.28
83657	0.068	< 1	0.316	9.28
83658	0.017	< 1	0.030	3.01
83660	< 0.002	10	0.098	2.78

The drilling program was in progress during both site visits. The drill rig was operated by Paycore Enterprise Ltd. and was located on the RC Zone drilling hole number F16-01 in 2016 and on the second site visit, the drill rig was located on the BN Zone drilling hole F17-19. Core size was NQ or 47.6 mm in diameter. No land access is available to allow 4-wheel drive vehicles to reach the drill site. All drill equipment moves, personnel, and core handling is carried out via helicopter support.

The drillholes down-the-hole survey are now using a modern Reflex instrument. Prior to the 2016 drill program, Happy Creek used a Pajarie instrument. The holes were short and therefore not susceptible to large azimuth and dip deviation.

The drill core is delivered daily to the core logging facility. The core boxes are open, laid out on the core logging table, and the core is measured and marked for sampling. A strong ultraviolet light model UVG-47 254 NM assists the core logger by locating the scheelite mineralization.

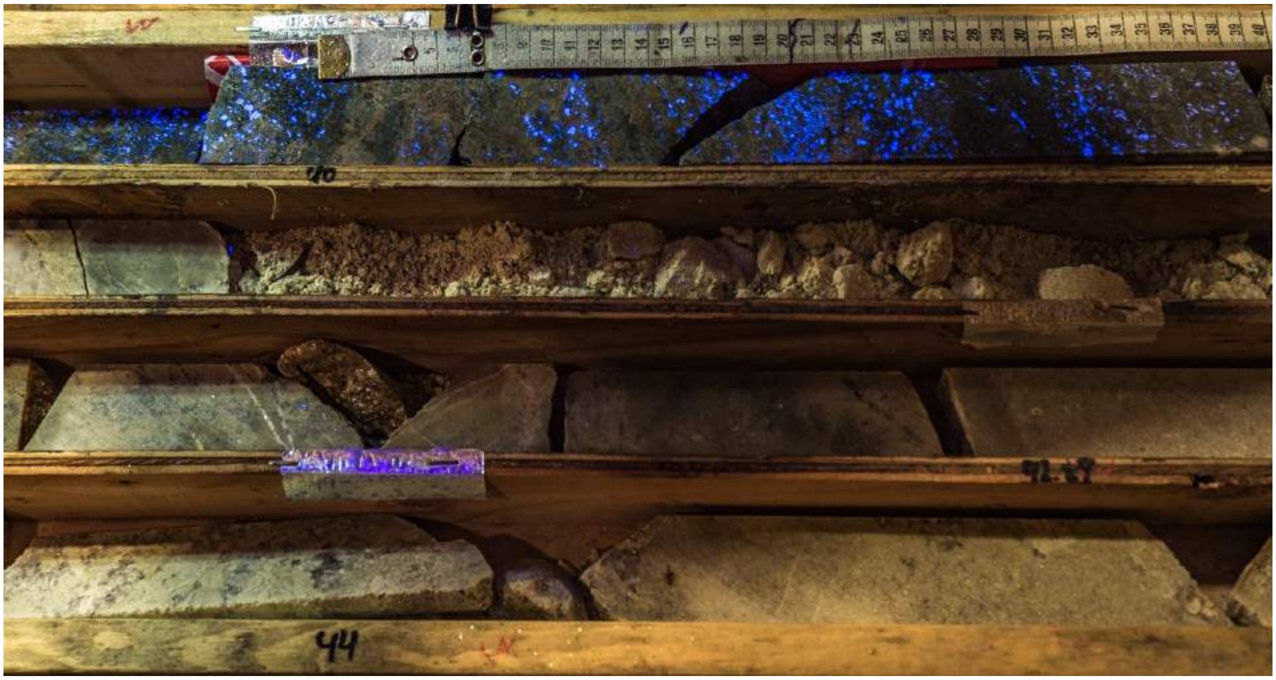
The core is logged in the core logging facility on paper logs and then transcribed into Excel spreadsheets. Items logged are mineralization, alteration, structure, veining, fracture density, and magnetic susceptibility. During the site visit the geotechnical information collected consisted of RQD and core recovery. In 2016, Mr. Warren Newcomen of BGC Engineering was brought in to offer suggestions on improving the geotechnical logs. Core is routinely photographed dry, wet, and under UV light, 3 boxes at a time.

Bulk density was measured using a modified electronic scale. Samples are air dried before weighting, and not sealed. This does not appear to be an issue since the core observed by AGP did not appear porous. AGP recommended Happy Creek submit a suite of samples to an accredited laboratory to validate the specific gravity collected on-site.

The drillholes inspected show the core was properly marked. Sampling intervals ranged between 1.5 m to 2.0 m in length depending on lithology and tungsten mineralization. The NQ sized core is cut longitudinally with a gas-powered Husqvarna diamond saw which uses fresh water to cool the blade and to minimize cross sample contamination.

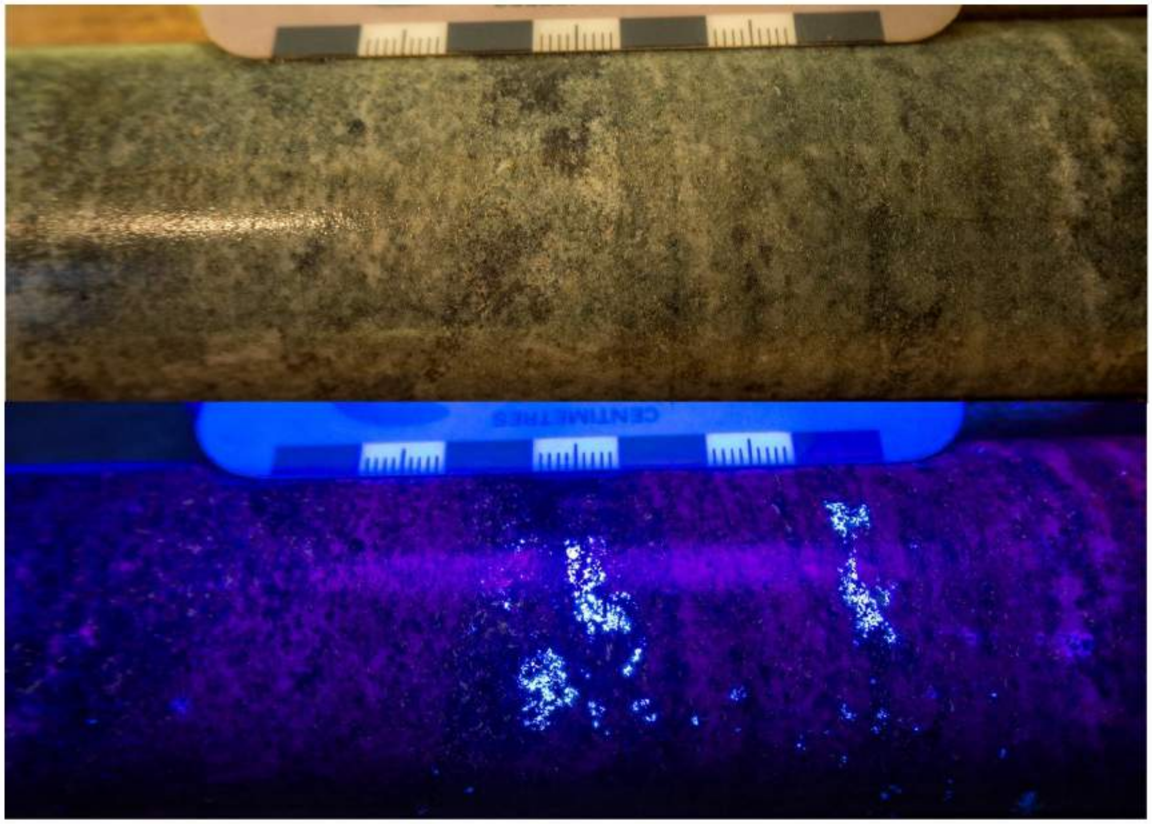
The high-grade scheelite mineralization occurs in bands of various width often in the 25 mm to 50 mm range that are easily identifiable under UV light as shown in Figure 12-1.

FIGURE 12-1: SCHEELITE MINERALIZATION IN HOLE F13-19 @ 40.10M



Inspection of the grade distribution at the high-grade/waste boundary is dependent on the intensity of the scheelite grains and can stop rather abruptly. Figure 12-2 shows details of the scheelite mineralization under fluorescent light and the same image under UV light in the calc-silicate unit. Contact between the calc-silicate rock and the granite sill are sharp and well defined.

FIGURE 12-2: HOLE 16-01 SCHEELITE MINERALIZATION UNDER UV LIGHT @ 124 M



Hole 16-01 - Box 22 @ 124.00 meter (top photo fluorencent light, bottom photo UV light)

The QA/QC samples consist of reference material, blank material, and core duplicates. AGP notes that Happy Creek uses a crushable blank capable of monitoring cross contamination at the crushing stage of the sample preparation. The material consists of marble chips purchased at a local garden supply store.

One QA/QC sample is inserted every 10th sample. The samples alternate between a blank, duplicate, or standard. Happy Creek uses purchased standard reference material from CDN Laboratory as discussed in detail in Section 11 of this report.

Happy Creek stores the core in locked sea containers located at the camp site. Sample pulps are kept in the same containers and sample rejects are discarded. The core is considered secure by AGP even though the camp is not surrounded by a locked fence.

In the field, the drillholes are clearly marked with a wooden stick inserted over the drillhole; these will likely deteriorate with time and a more secure method of marking the drill collar is recommended. Figure 12-3 and Figure 12-4 show a few photographs taken during the site visit by AGP.

FIGURE 12-3: 2016 SITE VISIT PHOTOGRAPHS BY AGP

Hole F12-09 and F12-10 Collar

Diamond Drill Rig on Hole 16-01

Core Cutting Saw

Core Storage

Camp

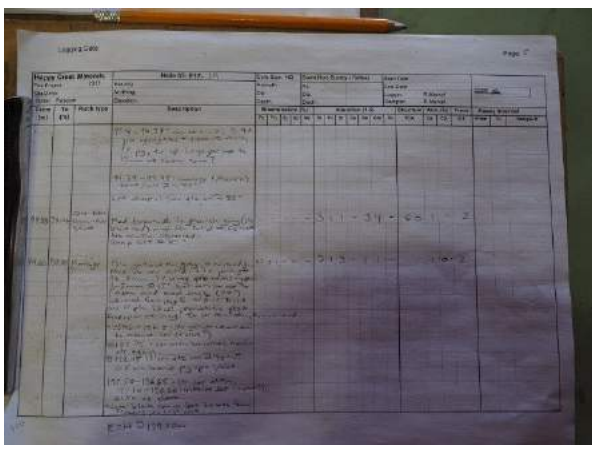
Core Logging Facility at Camp

FIGURE 12-4: 2017 SITE VISIT PHOTOGRAPHS BY AGP

Hole F17-13 Collar

Schist Outcrop Az 340, Dip 44 west

F17-19 Field logs



Modified scale for density data collection

Camp Site with access road

Bagged samples ready for shipment

Overall, AGP concludes the logging, sampling, sample preparation, security, and chain of custody procedures reviewed during the two separate site visits are to industry standards and adequate to support the resource estimate.

12.2.2 Database Validation

Following the site visits, and prior to the resource evaluation, AGP carried out an internal validation of the drillholes in the Happy Creek database.

12.2.3 Collar Coordinate Validation

All holes drilled by Happy Creek were surveyed using a hand-held GPS unit. AGP found the collar elevation to be erroneous when compared to the Lidar topographic surface. For this resource estimate, AGP considered the Lidar survey to be accurate and all hole collar elevations were modified vertically to match the topography.

Collar coordinates were validated by AGP with the aid of a hand-held Garmin GPS Map, model 60CSx during the site visit. Collars were randomly selected from various drill campaigns and the GPS position was recorded. The difference with the GEMS database was calculated in an X-Y 2-D plane using the following formula:

$$\boldsymbol{X - Y\ difference} = \sqrt{(\Delta \boldsymbol{East})^2 + (\Delta \boldsymbol{North})^2}$$

As shown in Table 12-3, results indicated an average difference in the X-Y plane of 4.5 m. On the Z plane, an average difference of -3.7 m was recorded.

TABLE 12-3: COLLAR COORDINATE VERIFICATION

Gemcom Database Entry				GPS Points Recorded During Site Visit			Differences between GEMS and GPS	
Point-ID	East	North	Elev.	East	North	Elev.	X-Y plane (m.)	Z plane (m.)
F11-07	670463	5775544	1833	670463	5775542	1847	2.4	-14.5
F12-09	670430	5775570	1835	670431	5775575	1837	4.7	-2
F12-16	670465	5775610	1834	670467	5775611	1843	2.6	-8.7
F12-02	670450	5775545	1834	670448	5775549	1837	4.1	-2.9
F13-08	670420	5775480	1830	670416	5775484	1814	5.8	16
F15-01	671613	5769484	1211	671606	5769483	1221	7.3	-10
F17-13	670820	5774430	1847	670834	5774411	2007	23.6	-160.4
F17-06	670820	5774350	1839	670821	5774344	2008	6.1	-169.2
F17-12	670740	5774260	1846	670730	5774270	2013	14.1	-166.7
F17-17	670490	5774310	1885	670489	5774316	2045	6.1	-159.9
F17-18	670396	5774207	1894	670392	5774208	2048	4.1	-153.6
F17-19	670380	5774070	1850	670381	5774050	2020	20.0	-170.2
F16-20	670790	5774430	1849	670784	5774429	2016	6.1	-166.2
F16-21	670797	5774474	1859	670794	5774473	2027	3.2	-168.4
Average Difference (GEMS elevation adjusted to LiDaR topo)							7.9	N/A

12.2.4 Down-Hole Survey Validation

AGP reviewed the down-hole deviation data comparing each entry with the previous ones. There was no obvious erroneous entry noted.

12.2.5 Assay Certificate Validation 2016 Drill Campaign

Since the high-grade assays supporting the previous resources were validated by AGP, the assay validation focused on the 2016 drill data. A total of seven assay certificates were reviewed by AGP. The certificates were provided in Excel format and in signed Portable Document File (PDF) format.

Out of the 421 assays reviewed covering the 2016 drill data, no error was noted.

12.2.6 Assay Certificate Validation 2017 Drill Campaign

A total of twenty-five assay certificates were reviewed by AGP. The certificates were provided in Excel format and in signed PDF format. Out of the 1240 assays reviewed covering the 2017 drill data, no error was noted.

The overall validation rate amounted to 44% of all received assays in the database as indicated in Table 12-4.

TABLE 12-4: ASSAY VALIDATION RATE

Drill Program Year	Number of Assays	Number Validated	Percent Validated
2011	157	5	3%
2012	1126	21	2%
2013	422	32	8%
2015	362	0	0%
2016	421	421	100%
2017	1387	1240	93%
Total	3875	1719	44%

12.2.7 Density Data Validation

During the 2017 drill campaign, Happy Creek submitted 11 core sample for density determination at the SGS facility. The results were compared with the field measurements. AGP inspected the data prior to resource estimation and the difference between the laboratory analysis and the field measurements was found to be negligible. The data also suggested coating the core sample with paraffin wax was is not necessary.

12.2.8 Qualified Person's (QP) Comments

The QP identified no material sample issues during the review of the drill data and assays. The data collected by Happy Creek adequately represents the style of mineralization present on the Fox property without a restriction on resource classification. The error rate in the Happy Creek drill database, for the data that was validated by the QP, was found to be very low.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

In 2012, the Company conducted preliminary metallurgical and mineralogical testing of a surface sample collected by drilling and blasting outcrops at the BN, RC and BK Zones. This 816-kg sample collected in several large sacks that were trucked directly to Met Solve Laboratories of Langley, British Columbia. A dried and coarse-crushed subsample was taken from each sack of the shipment for assay, and a composite sample for the test program was created from all the sample sacks. The Bond Ball Mill Work Index (BMWi) for the material was determined to be 12.7 kWh/t. The results from this Phase I test work indicated froth flotation to recover zinc, followed by gravity concentration to recover tungsten was a viable process for the Fox mineralization. A follow-up test using a larger sub-sample added cleaner stages to produce high-grade tungsten and zinc products. The results of this test program were used to design a locked cycle test flow sheet. Gold, silver and indium deportment were monitored in the program. This first-pass metallurgical testing used a combination of froth flotation to separate out the sulphides followed by gravity separation using shaking tables and Falcon centrifugal separators.

Between December 2015 and April 2016, a new 400 kg sample was collected using pionjar drilling and nonel explosives from channels of the exposed vertical face of the skarn deposit at the RC Zone. This was subjected to a program of test work at SGS Laboratories of Vancouver, B.C., conducted under the direction and supervision of Paul Berndt, FAusIMM, a Director of Happy Creek who is a practicing metallurgist with significant prior tungsten experience. Detailed mineralogical investigations, specific gravity determinations and static heavy liquid separation tests at various sizes, as well as scouter tests of tabling, sulphide flotation and magnetic separation were carried out.

Based on mineralogy work, SGS determined the bulk sample has an average specific gravity of 2.95 g/cm^3 and a gravity concentrate consisting of the ≥3.5 g/cm^3 fraction will contain 95.1% of the total scheelite and 18.1% of the mass. The mineralogy demonstrates that at a crush size of 2 mm, 80% of the mass can be rejected while maintaining high tungsten recovery.

After performing the tests, SGS prepared a general process flowsheet which anticipates grind, gravity (tabling), table concentrate to regrind, tabling cleaning, and concentrate with one option for sulfide flotation to remove sulphides followed by WHIMS (wet high intensity magnetic separation). The gravity tails (combined rougher and cleaner tails) would go to scheelite flotation. Several options remain to be explored that could refine the process further.

From the data, Mr. Berndt prepared a mass balance with reference to standard practice at operating tungsten mines. This trial returned 75.8% of the WO_3 within a 68% WO_3 concentrate. A conceptual process flowsheet and mass balance were devised by Paul Berndt based on his interpretation of the test results, with reference to standard practice at operating tungsten mines, as reported in Figure 13-1 and Figure 13-2.

FIGURE 13-1: TRIAL MASS BALANCE FLOW SHEET

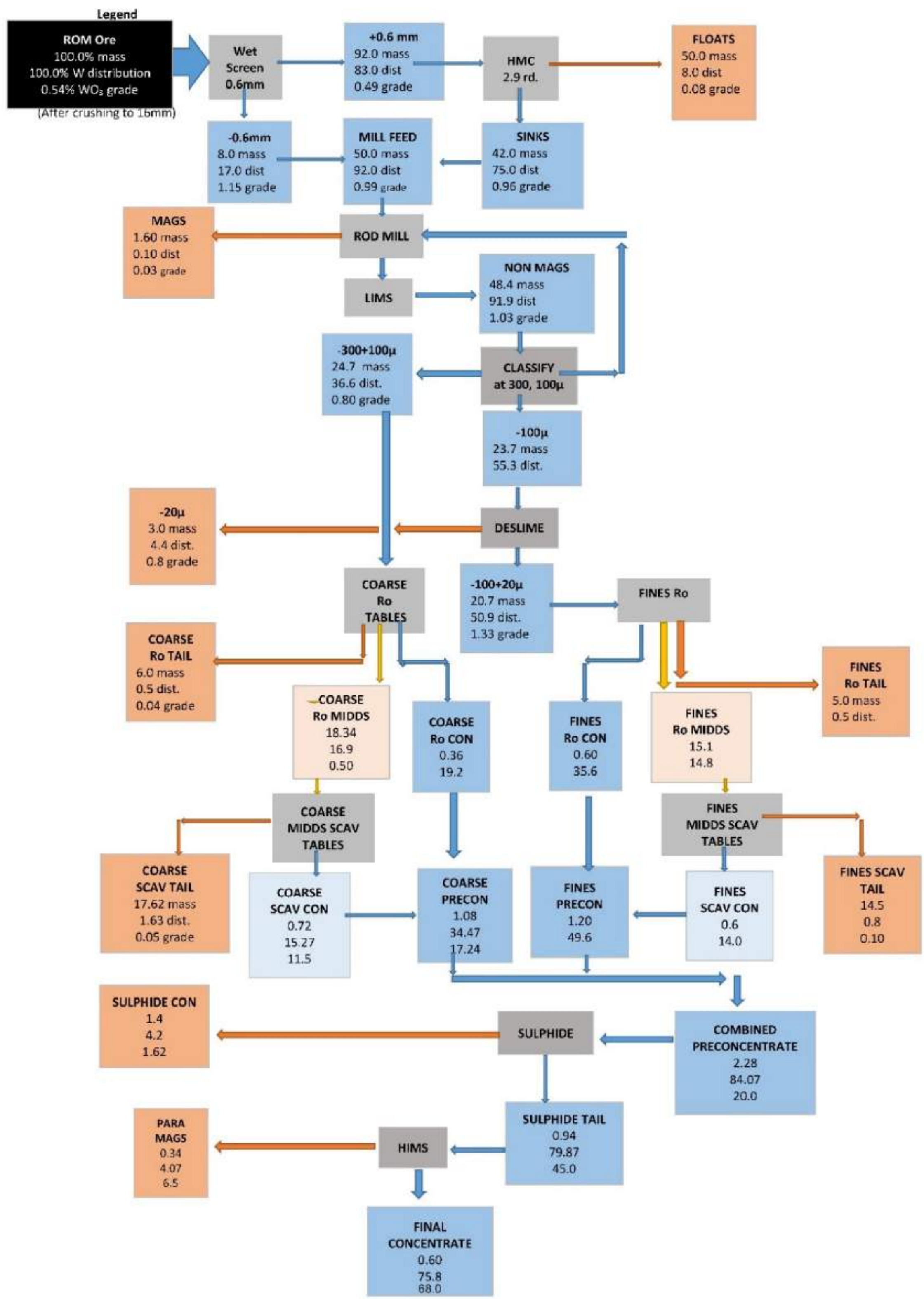
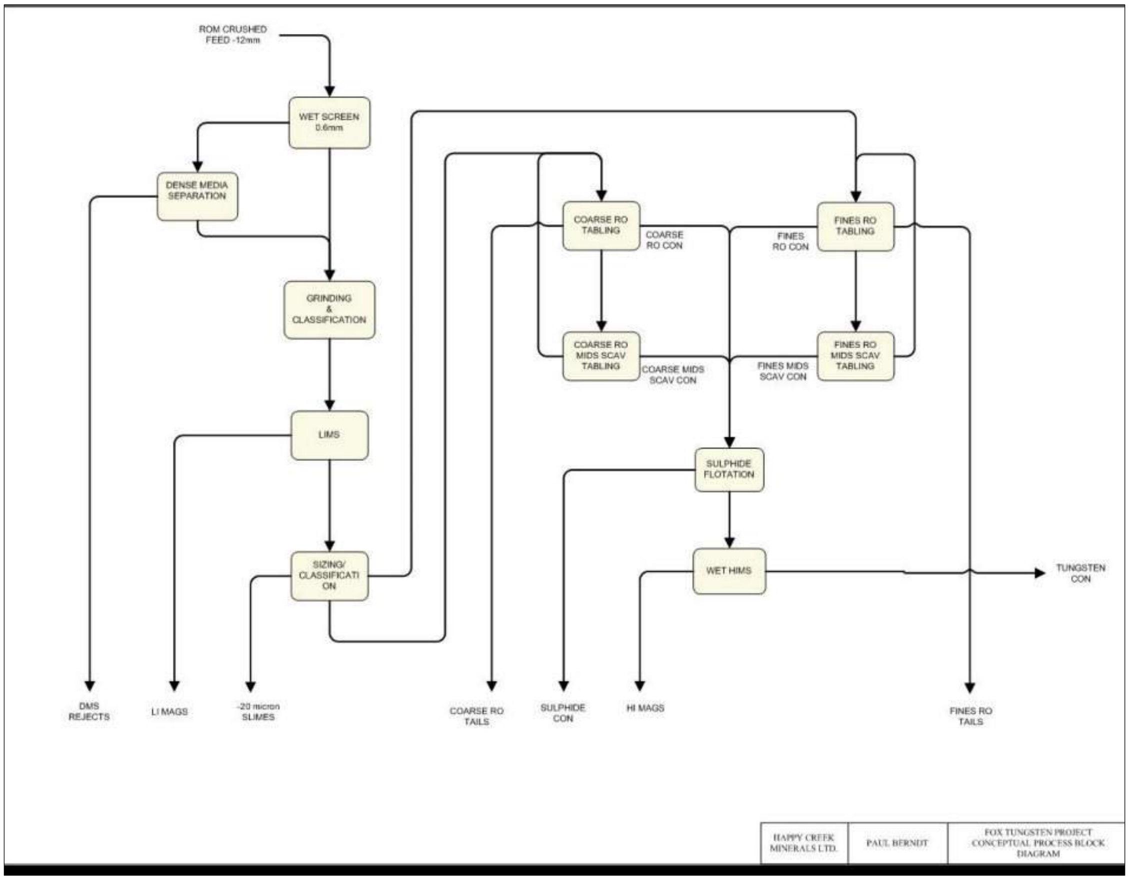


FIGURE 13-2: CONCEPTUAL PROCESS BLOCK DIAGRAM



From this methodology, Fox is thought to have potential to produce a concentrate having acceptable commercial grades and containing no deleterious elements that would affect its ability to be sold. A by-product containing zinc, gold, silver and indium is also potentially achievable. Further phases of test work will include more detailed investigation and fine tuning which could be expected to improve the separation performance and lead to detailed process design. Of particular interest in this regard, to simplify or optimize the process route, would be the evaluation of alternative preconcentration strategies such as spirals, jigs and ore sorting.

14 MINERAL PROCESSING AND METALLURGICAL TESTING

AGP completed an updated Mineral Resource Estimate for the RC Zone, BN Zone, and a maiden Mineral Resource Estimate for the BK Zone of the Fox Tungsten project held by Happy Creek. The project is located approximately 25 km east of the former Boss Mountain molybdenum mine, and approximately 70 km northeast of 100 Mile House in the South Cariboo region of British Columbia, Canada. Geovia's GEMS Version 6.8™ software was used for the resource estimate, in conjunction with SAGE 2001™ for the variography. The metal of interest at the Fox project is tungsten, with minor quantities of gold and molybdenite that were not estimated.

14.1 Data

In late fall 2017, Happy Creek provided AGP with a project data set covering the 2017 drill campaign. The BN Zone data set was received on November 8, 2017 and the RC Zone dataset was received on December 13, 2017. For the BK Zone a revised interpretation and drill hole re-logged was provided on January 28, 2018. The new data consisted of:

- drill and trench data for the RC and BN Zones
- assay certificates
- sectional interpretation of the BN Zone
- a revised drill log for Holes F16-11 and F16-12
- a revised sectional interpretation for the BK Zone

This data complemented the data set received in previous years, which consisted of:

- laboratory assay certificates in digital format for samples of soils, rocks, trenches, and drill holes for the exploration programs prior to 2017
- drill data comprising the following:
  - drill hole collar surveys, lithology, assays, and RQD for the drill programs prior to 2017
  - silts, soils, and rocks point database
  - maps and section interpretations in PDF format
- LiDAR topography 2012, in 24 sheets covering the entire area

AGP imported the additional collar data, down-the-hole survey data, lithology, and assays in the GEMS database. All data was checked for overlapping, missing, and negative length intervals. A minor number of database records needed adjustment. The data was fully validated before being used in the resource estimate (described in Section 12 of this report).

No further addition was made to the database after January 28, 2018 which constitutes the official data cut-off date for this resource estimate.

Table 14-1 below shows a summary of the number of holes and assays used in the resource estimate. A complete list of the holes can be found in Appendix A of this report.

TABLE 14-1: SUMMARY OF NUMBER OF HOLES USED IN THE RESOURCE ESTIMATE

Zone	Type	Number of Holes	Total Length (m)	Number of Assays
In Proximity to the Resource Estimate				
RZ Zone	Core hole	80	5,582	2,099
	Trench	23	129	99
BN Zone	Core hole	52	6,366	1,213
BK Zone	Core hole	11	539	185
	Trench	12	67	41
Subtotal		178	12,683	3,637
Exploration and Abandoned Holes (not used for resource estimation)				
CZ Zone	Core hole	6	1,337	333
EZ Zone	Core hole	2	242	29
RC Zone (abandon hole)	Core hole	1	30	16
Subtotal		9	1,609	378
Total in Database				
Grand Total		187	14,292	4,015

The 2012 LiDAR topography polylines provided by Happy Creek were imported into the database and a large 3D surface was created using the index contour and the spot height points. A smaller, more precise, 3D surface covering the block model was generated using the index and intermediate contour lines along with the spot elevation data.

According to Happy Creek, the drill hole collar elevations were field-surveyed using a hand-held GPS unit. For this resource estimate, the LiDAR topography was assumed to be correct, and all drill hole collar elevations were changed vertically to coincide with the topography.

Happy Creek sampled rock cuts at several locations. The sampling sites are entered in the database as trench data and are labelled RM-(1 to 6) and RT-(1 to 7), RC-T-(1-3), RCS-17-(1-5), RC-17-(1-2), BK (1-5), and BK-T-(1, 2, 3, 1a, 1a1, 2a and 3a). On the RC Zone, seven sampling site clusters affected the resource estimate. In the southeast end of the property, the average grade posted for the RT-1, -2, -3, and -4 trenches is higher than the average grade from the core holes F11-01, -04, and -06 drilled in proximity. In the center portion of the deposit, the average grade of the RT-6, and -7 appear somewhat like the average grade present in the nearby F11-10 hole. Results from the RC-T-(1-3) trench appear to correlate well with F11-10 and -08 core holes drilled in proximity. It remains that, on average, the trench grade is significantly higher grade than the nearby drill hole grade.

Despite these differences, AGP included the trench data in this resource estimate because:

- the drill holes are not true twins of the trench data
- the grade of the deposit shows a fair variability over short distances

- trenches provide observable proof of continuity of the CSSK mineralization
- the ratio of trench data to nearby drill holes is low on the RC Zone, and consequently the differences are not statistically significant and the impact of using the trenches in the resource estimate is low.
- the ratio of trench data to nearby drill holes on the BK Zone is much higher and consequently the impact of using the trenches in the resource estimate is more significant.

AGP inspected the percentage of the block grade affected by trenches. For the RC Zone, at a cut-off greater than 0.15% WO_3, approximately 5% of the resources were affected by trenches. For the BK Zone, that proportion increases to 40% and for that reason, the BK Zone bears a resource classification of Inferred only.

14.1.1 Sampling Length

Happy Creek preferentially samples the drill core in either 1 m or 2 m intervals. Within the mineralized CSSK unit, sampling intervals average 1.53 m for the RC Zone, 1.89 m for the BN Zone, and 1.32 m for the BK Zone. The upper third quartile of the sampling length is at 2.0 m for both the RC and BN Zone, and 1.89 m for the BK Zone.

14.1.2 Bulk Density

Happy Creek provided 1,045 bulk density samples collected in, or in proximity to, the mineralized zones. Samples were weighted using a conventional portable scale modified to allow the samples to be weighed dry on the platen and then re-weighed in a cradle suspended in a bucket of water. Core samples were reportedly solid and did not require coating with paraffin or shellac.

The 1,045 samples collected, averaged 2.78 g/cm^3. The mineralized zones contain significant sulphide minerals in various lithology's, and it was therefore deemed prudent to investigate the average bulk density for each of the lithological units. The bulk densities for the CSSK, GRA, MAR, and SCH averaged 2.86, 2.65, 2.73, and 2.77 g/cm^3, respectively. A simple regression linking the WO_3 grade with the bulk density did not produce meaningful results. Plotting the bulk density by grade bins indicated a weak link may be present but the correlation is not obvious.

Since there is some mixing of lithology's within the domains, AGP elected to calculate an average density weighted by the count of each lithology's within the domains (compositional count weighted average).

For the overburden (OVB), the bulk density was estimated to be equivalent to "broken" CSSK, reduced by 10% to account for soils. The term 'broken', in this context, is equivalent to 62% of the measured bulk density of the unbroken material. The formula used is therefore:

$$2.865\ g/cm3 * ((62-10)/100) = 1.4898\ (rounded\ to\ 1.500)$$

No overburden was modelled on the BN Zone and the granite/schist was combined and not separated out. From the data provided, AGP assigned the average bulk density by zones and lithologies as indicated in Table 14-2.

TABLE 14-2: BULK DENSITY BY DOMAINS

Domain	RC ZONE Bulk Density (g/cm³)	BN ZONE Bulk Density (g/cm³)	BK ZONE Bulk Density (g/cm³)
OVB	1.50	N/A	1.50
CSSK	2.85	2.84	2.86
GRA	2.68	2.72 (Gra/Sch mix)	2.65
MAR	2.73	N/A	2.73
SCH	2.75	N/A	2.74

14.2 RC Zone

14.2.1 Geological Interpretation

At the RC Zone, the mineralization is located almost exclusively in the calc-silicate unit (CSSK). This lithological unit overlies a schist unit (SCH). The project is intruded by granite sills (GRA), which can cut across both the CSSK and SCH units. The high-grade mineralization is located near the bottom contact of the CSSK unit. The granite bears minor tungsten mineralization; however, AGP believes this is due to alternating GRA with minor CSSK lithology logged as GRA. The 3D wireframes developed to control the grade interpolation of the resource model were based primarily on lithology's. During the construction of the wireframes, the goals were to:

- ensure no grade was interpolated in the SCH unit
- ensure the granite sills were accounted for in the final volume report as waste dilution with the correct grade assigned to the volume
- ensure the tungsten mineralization honoured the raw assay distribution, and was kept close to the CSSK/SCH boundary without smearing vertically in the lower grade/waste areas of the CSSK unit

To achieve these goals, the geological wireframes were constructed in the following steps:

1) The CSSK bottom surface was created using the lithological CSSK/SCH contacts from the drill holes. The surface creation utilized a combination of Laplace gridded surfaces with the interpreted data points saved to the database. The original and interpolated data were then used to create the final surface, which honoured the location of the CSSK/SCH contact in the drill holes.
2) The two primary granite sills were modelled in GEMS using top and bottom surfaces describing the contact between the GRA/CSSK unit. The surface creation used the same methodology as the CSSK bottom surface described above. Once completed, the top and bottom contacts were then "stitched" together to create the 3D granite wireframes. Two other minor granite intersections in the drill holes were modelled using conventional polylines and tie lines.
3) The overburden surface was constructed by creating a 10 m x 10 m Laplace transform grid of the overburden thickness. The overburden thickness was subtracted from a matching 10 m x 10 m grid of the topographical elevation to create

the final overburden surface. In the drill holes, the overburden thickness ranges from a minimum of 0.01 m to a maximum of 7.5 m, averaging 1.56 m. The Laplace interpolated overburden thickness ranges from 0.01 m to a maximum of 7.56 m, averaging 1.0 m. As with all other digitally interpolated overburden surfaces, areas protruding above the topography were lowered below the topography by 0.5 m.

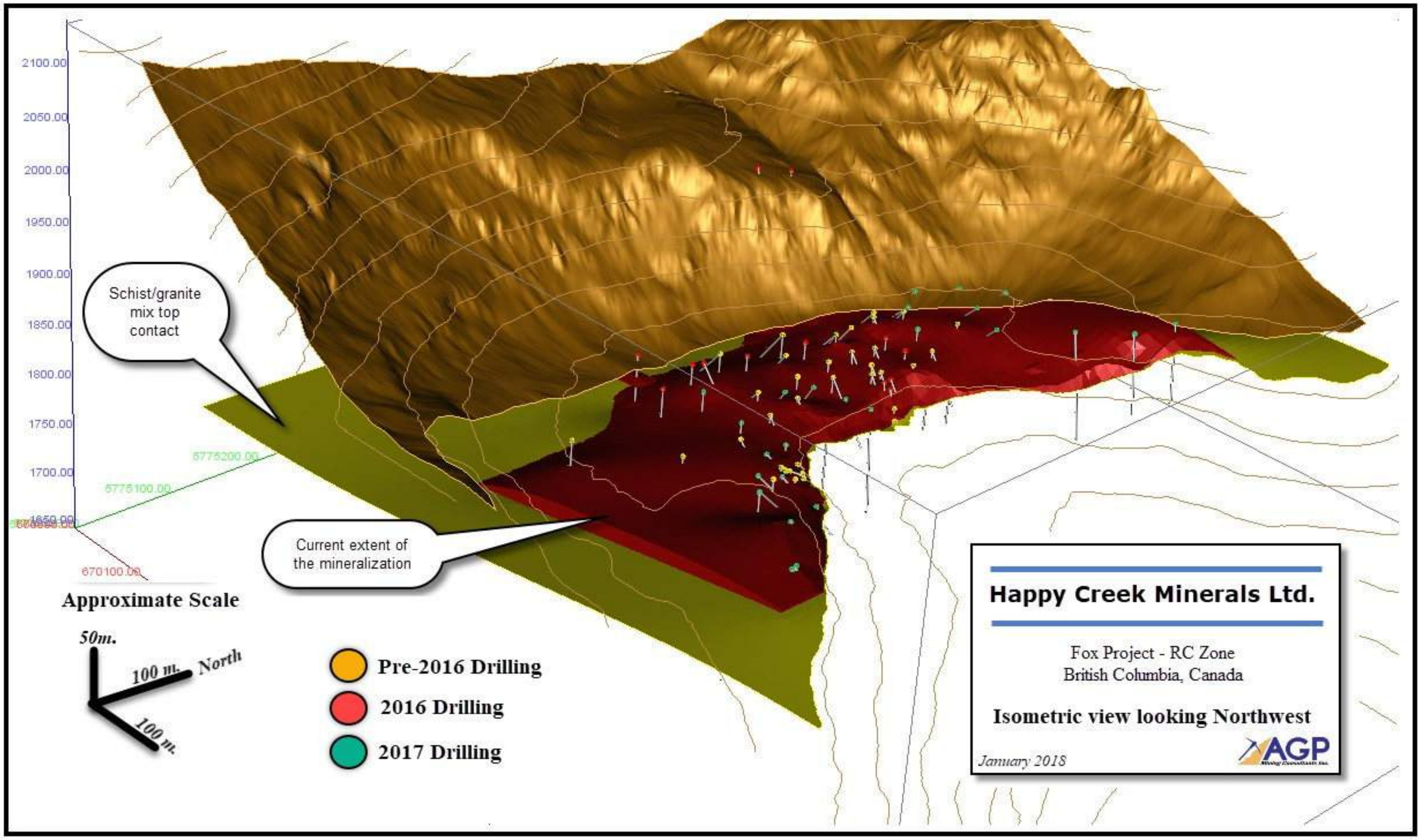
To limit the grade interpolation to a reasonable distance beyond the last drill holes, a mineralized wireframe was constructed. This wireframe limits the grade interpolation to an area extending vertically from the CSSK/SCH contact up to the start of the sampling in the drill hole database. Laterally, the mineralized zone outlined by the wireframe tapered to the west, with the maximum reach beyond the most westerly drill hole set between 75 m and 100 m. On the east side of the deposit, the mineralized zone outcrops to the surface. All blocks in the resource model outside this mineralized zone were not interpolated.

In addition to the upper interpolation limit, a high-grade probability model was constructed within the mineralized wireframe to prevent the smearing of high values to the surrounding low-grade assays. The probability model was constructed using 1.5 m composites. A threshold grade of 0.080% WO_3 was selected based on the start of the inflexion seen in the raw assays probability plot and, a visual examination of the high-grade assays. The probability values (1 and 0) were interpolated in a high-resolution block model. All blocks above a probability value of 0.37 (representing 37% probability of the block been above 0.085% WO_3) were flagged as high-grade blocks. The probability model was thereafter re-blocked into the RC Zone final block model matrix size. The high-grade probability model only applies to the material within the mineralized zone.

14.2.2 Wireframe Volume

The total wireframe volume of the mineralized zone amounted to 2,825,412 m^3, including the granite sills contained within its boundaries. Figure 14-1 illustrates the position of the mineralized wireframes in relation to the overburden and the schist unit.

FIGURE 14-1: POSITION OF THE 3D WIREFRAMES, RC ZONE



14.2.3 Exploratory Data Analysis

Exploratory data analysis is the application of various statistical tools to characterize the statistical behaviour or grade distributions of the data set. In this case, the objective is to understand the population distribution of the grade elements in the various domains using such tools as histograms, descriptive statistics, and probability plots.

14.2.4 Assays

The raw assay statistics were evaluated, grouping all assays intersecting the various lithology's. Table 14-3 provides descriptive statistics for raw, uncapped WO_3% assays in the calc-silicate (CSSK), granite (GRA), schist (SCH), and marble (MAR) lithology's.

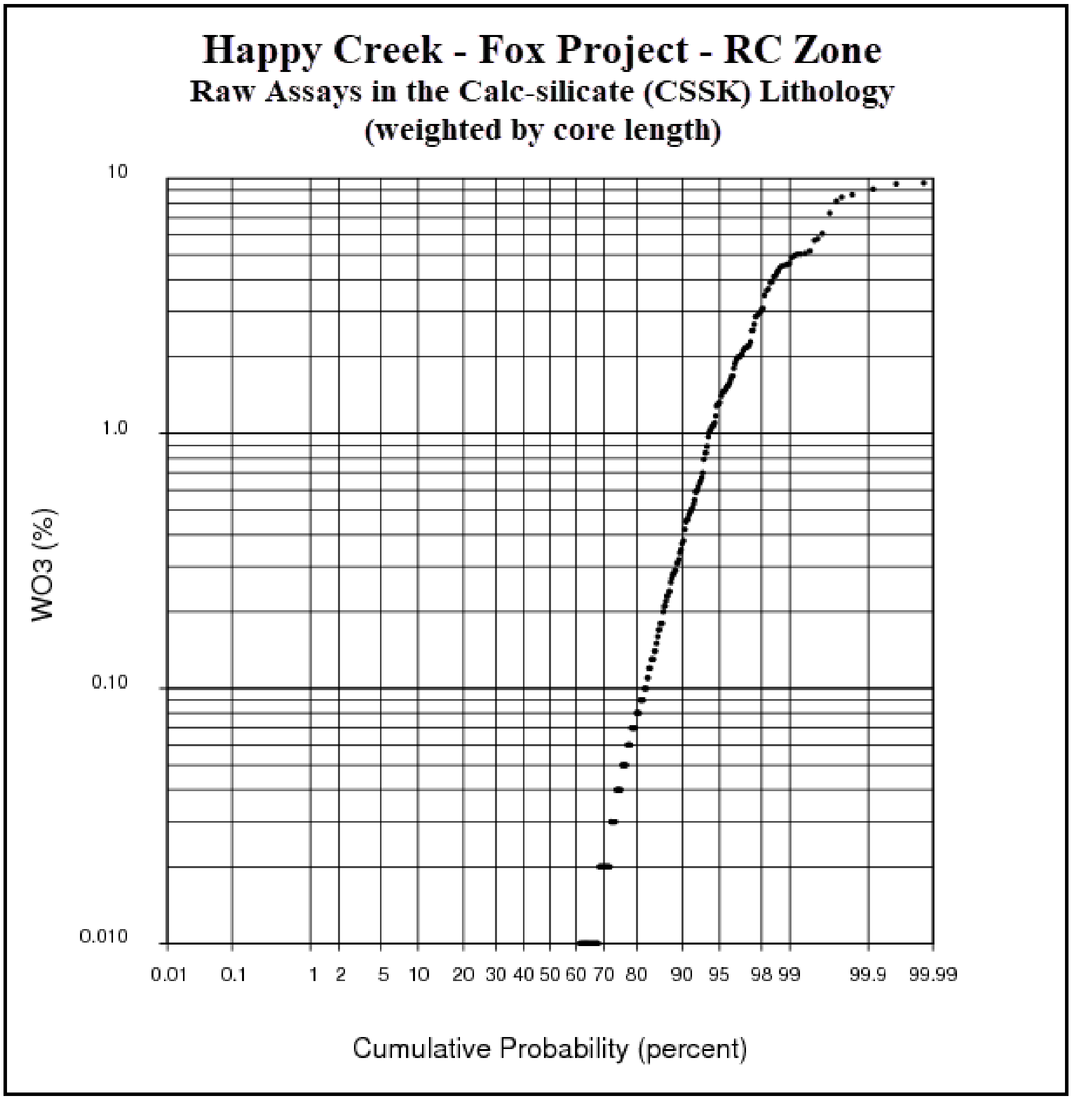
TABLE 14-3: DESCRIPTIVE RAW ASSAY STATISTICS (WO_3%, UNCAPPED -- RC ZONE)

Lithology	All Data	CSSK	GRA	SCH	MAR
Valid cases	2179	1572	237	326	29
Mean	0.143	0.194	0.013	0.005	0.005
Variance	0.541	0.739	0.004	0.001	0.000
Std. Deviation	0.735	0.860	0.061	0.030	0.012
Coefficient of Variation (CV)	5.159	4.423	4.683	5.460	2.361
Relative CV (%)	11.052	11.156	30.422	30.238	43.849
Minimum	0.000	0.000	0.000	0.000	0.000
Maximum	9.596	9.596	0.746	0.457	0.059
1st percentile	0.000	0.000	0.000	0.000	----
5th percentile	0.000	0.000	0.000	0.000	0.000
10th percentile	0.000	0.000	0.000	0.000	0.000
25th percentile	0.000	0.000	0.000	0.000	0.000
Median	0.001	0.002	0.000	0.000	0.000
75th percentile	0.006	0.013	0.004	0.001	0.004
90th percentile	0.104	0.224	0.023	0.006	0.016
95th percentile	0.493	0.900	0.059	0.016	0.042
99th percentile	4.361	4.909	0.345	0.112	----

Statistically, the CSSK lithology hosts the bulk of the mineralization with the granite displaying low-grade values. The overall average grade in the GRA lithology is driven mostly by a few outlier values above the 99th percentile. There is no significant mineralization in the SCH or MAR lithology's.

Frequency distribution of the raw assays within the CSSK domain (Figure 14-2) shows a lognormal distribution, with 95% of the WO_3% values below 1.5% in the CSSK domain.

FIGURE 14-2: RAW ASSAY FREQUENCY DISTRIBUTION, RC ZONE IN CSSK LITHOLOGY



14.2.5 Capping

A combination of decile analysis and a review of probability plots was used to determine the potential risk of grade distortion from higher grade assays. A decile is any of the nine values that divide the sorted data into ten equal parts, such that each part represents one tenth of the sample or population. In a mining project, high-grade outliers can contribute excessively to the total metal content of the deposit.

Typically, in a decile analysis, capping is warranted if:

- the last decile has more than 40% metal
- the last decile contains more than 2.3 times the metal quantity contained in the penultimate decile

- the last centile contains more than 10% metal
- the last centile contains more than 1.75 times the metal quantity contained in the penultimate centile

The decile analysis results indicated grade capping was warranted.

In *Applied Mineral Inventory Estimation* (Cambridge University Press, 2002), Alistair Sinclair states that, in a geological context, outliers represent a separate grade population characterized by its own continuity; generally, the physical continuity of high-grade is much less than that of the more prevalent low-grades. Thus, serious overestimation of both tonnage and average grade above a cut-off can occur if the same interpolation methodology for a model, normally dominated by the lower, more continuous grades, is applied to very high-grade values. The problem becomes acute when high-grades are isolated in a field of lower values.

After conducting a careful examination of the data set, AGP elected to use a two-fold approach:

- apply a high hard cap on the raw assay prior to compositing
- impose a sample search restriction on the "mild" outlier's population

The grade capping strategy used has the benefit of limiting grade distortion from extreme outliers while restricting the range of influence of the "mild" high-grade outliers, thereby applying the principle that true outliers generally have restricted physical continuity and do not extend much beyond a short distance from where they are located. In essence, the high-grade values are acknowledged in the model, but their spatial influences are limited.

Raw Assay Capping

Table 14-4 shows a summary of the treatment of high-grade outliers during the interpolation. The cap value selected was above the 99th percentile of the raw assay distribution and should affect between 1% to 3% of the metal content. The raw assay capping scenario reduced the coefficient of variation (CV) from 4.4 down to 4.3 for the CSSK domain, and from 4.68 down to 3.1 for the GRA domain. The CV of the capped raw assays remains high for linear interpolation methods. Once the data was split into high-grade and low-grade CSSK domains and then composited at 2.5 m (as described in Section 14.2.6) the CV for the CSSK domains was reduced to 1.34 in the high-grade component. The CV of the low-grade component remained high at 8.22 which indicated that capping and compositing was not sufficient to reduce to CV at or below 2.0.

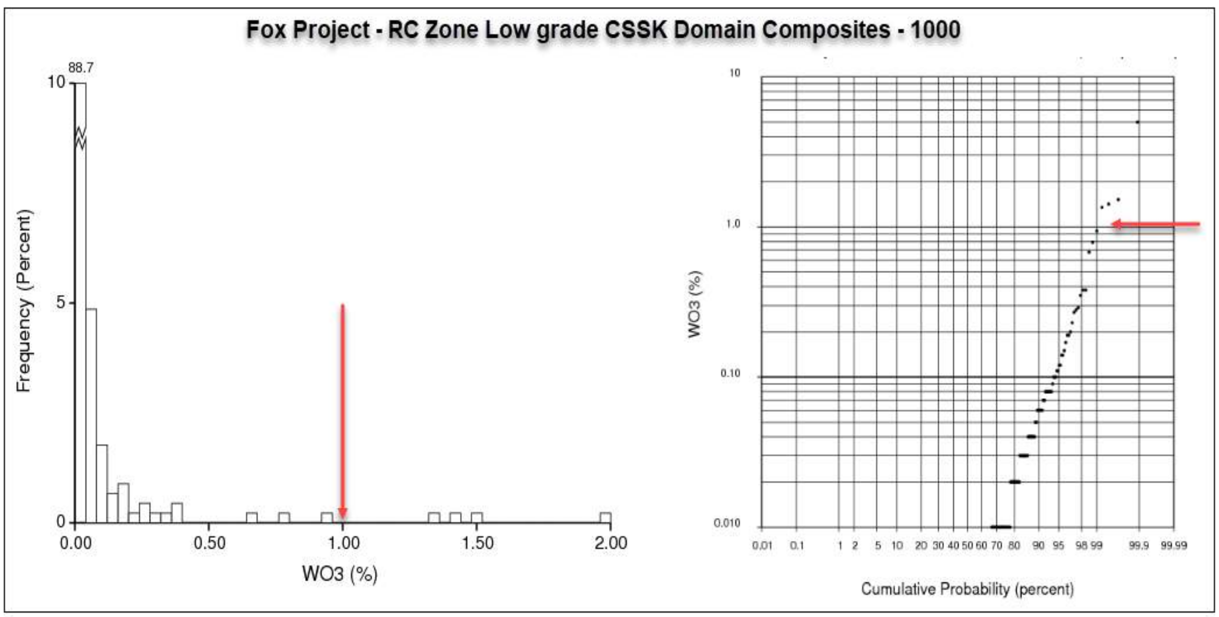
TABLE 14-4: HIGH-GRADE TREATMENTS FOR RC ZONE

Domain	Raw Assay Capping				Composite Search Restriction			
	Raw Assay Cap Value (% WO_3)	Number of Assays Affected	Total Number of Assays	Percent of Assays Affected (%)	Composite Grade Threshold	Number of Composites Affected	Total Number of Composites	Percent of Composites Affected (%)
CSSK (1000-LG)	8.0	6	1572	0.38	1.0	4	892	0.45
CSSK (1001 -HG)					N/A	N/A	N/A	N/A
GRA (2000)	0.18	2	237	0.84	N/A	N/A	N/A	N/A

Search Restriction Threshold Grade and Range

The search threshold was set in the CSSK domain by inspecting the histogram and probability plots (Figure 14-3). A value of 1.0% WO_3 was selected. The selected search restriction ranges of 60 m, 38 m, and 15 m corresponded to the ranges displayed by the variogram at approximately 95% of the sill value.

FIGURE 14-3: SEARCH RESTRICTION THRESHOLD VALUE DETERMINATION – RC ZONE



Total Metal Affected by the Treatment of Outliers

The total metal affected by the treatment of outliers was evaluated in the final model. At a 0.15% WO_3 cut-off, the capping strategy removed 1.1% of the metal in the Indicated and Inferred categories, as shown in Table 14-5. Overall, at the 0 cut-off, 1.7% of the metal was removed from the model.

TABLE 14-5: METAL REMOVED BY CAPPING STRATEGY (IND + INF CATEGORY RC ZONE)

Grade Bins (WO_3%)	Cumulative WO_3 MTU Removed Overall (MTU)	Cumulative Percent of Metal Removed Overall (%)
>0.30	5,328	0.9
>0.20	5,699	0.9
>0.15	7,164	1.1
>0.10	11,910	1.8
>0.00	12,255	1.7

14.2.6 Composites

From the sampling length statistics, AGP elected to use a composite length of 2.5 m. The composite size selected is above the third quartile and allows grade variations to be represented while reducing the variance.

Assays were length-weight averaged, and any grade capping was applied to the raw assay data prior to compositing. True gaps in sampling, and samples below detectable limits, were composited at zero grade. There was no stope void, drift, or other underground excavation that needed to be considered while compositing the raw assays.

The 2.5 m composite intervals were created moving downward from the collar of the holes toward the hole bottoms. Composite lengths are automatically adjusted by the software to leave no remnants. The adjustment resulted in composite lengths ranging between 1.28 m and 3.71 m, with 83.2% of the composites ranging between 2.25 m and 2.75 m within the CSSK and GRA lithologies. Table 14-6 shows the descriptive statistics for the composites point located within the mineralized envelope only.

TABLE 14-6: DESCRIPTIVE STATISTICS FOR COMPOSITES (WO_3 % CAPPED) WITHIN THE RC - MINERALIZED ZONE

Domain Code	ALL RC	CSSK-HG 1001	CSSK-LG 1000	GRA 2000
Valid cases	702	139	480	83
Mean	0.154	0.659	0.031	0.021
Variance	0.237	0.816	0.019	0.003
Std. Deviation	0.486	0.903	0.136	0.054
Coefficient of Variation (CV)	3.149	1.370	4.343	2.532
Relative CV (%)	11.884	11.619	19.824	27.789
Minimum	0.000	0.000	0.000	0.000
Maximum	5.507	5.507	1.525	0.367
1st percentile	0.000	0.001	0.000	----
5th percentile	0.000	0.005	0.000	0.000
10th percentile	0.000	0.017	0.000	0.000

Domain Code	ALL RC	CSSK-HG 1001	CSSK-LG 1000	GRA 2000
25th percentile	0.000	0.070	0.000	0.000
Median	0.005	0.250	0.003	0.002
75th percentile	0.044	0.976	0.013	0.021
90th percentile	0.323	1.919	0.052	0.057
95th percentile	1.097	2.290	0.104	0.142
99th percentile	2.286	5.165	0.824	----

The final composites were back tagged using the high-grade probability model. This allowed the CSSK composites to be coded with either 1,001 for the CSSK composites within the high-grade probability model or 1,000 for the CSSK composites in the low-grade buffer zone within mineralized envelopes but outside the high-grade probability model.

14.2.7 Spatial Analysis - Variography

Geostatisticians use a variety of tools to describe the pattern of spatial continuity, or strength of the spatial similarity of a variable with separation distance and direction. If we compare samples that are close together, it is common to observe that their values are quite similar. As the distance between samples increases, there is likely to be less similarity in the values. The experimental variogram mathematically describes this process. It is commonly represented as a graph that shows the variance in measurements with distance between all pairs of sampled locations.

In all semi-variograms, the distance where the model first flattens out is known as the range. Sample locations separated by distances closer than the range are believed to be spatially auto-correlated. The sill is the value on the Y-axis where the model attains the range, while the nugget is the value at the location where the model intercepts the Y-axis. The nugget typically represents variation at a micro scale that can be attributed to measurement errors, sources of variation at distances smaller than the sampling interval, or both. Therefore, the shape of the semi-variogram describes the pattern of spatial continuity. A very rapid decrease near the origin indicates short-scale variability. A more gradual decrease moving away from the origin suggests longer-scale continuity.

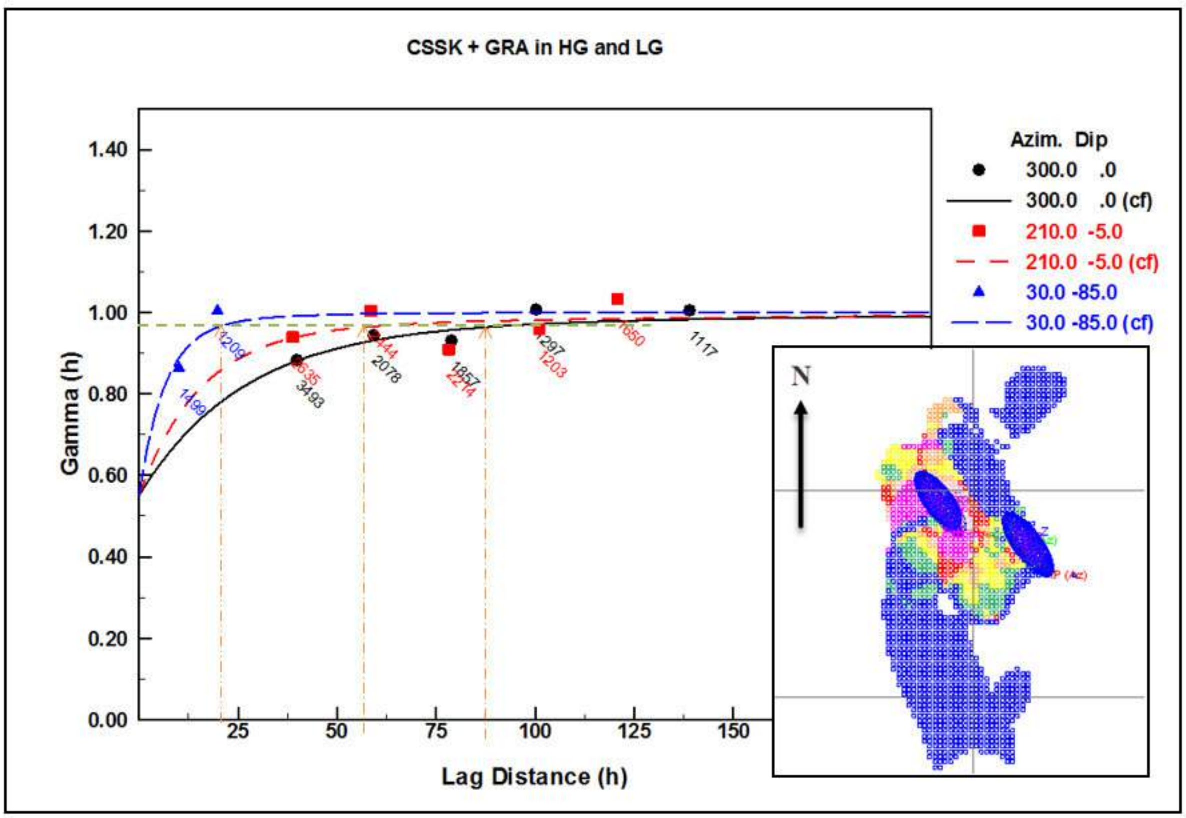
Variograms for the RC Zone remain the same as in the January 2017 model since only a limited number of in-fill holes were added to the model and therefore, the variogram described in this section reflects the RC Zone data prior to the 2017 drill campaign.

Various semi-variogram types exist; using SAGE 2001™ software, experimental correlograms for WO_3 in the combined CSSK, and GRA lithology within the interpreted mineralized wireframe were computed in 73 directions from the composites for the RC Zone. The azimuth, dip angle, and lag distances were optimized to coincide with orientation of the deposit and the preferred drill angles. Nugget component was derived from the down-hole variogram. The resulting anisotropy models generated by SAGE 2001™ were visually inspected in GEMS 6.7.2™. The anisotropy ellipsoid model corresponded well with the expected orientation of the deposit.

The effective range at 97% of the sill along the apparent plunge of the mineralization is approximately 87 m. The nugget effect is moderate, at 55% of the sill value. At 100% of the sill, the maximum range is estimated to be between 100 m and 125 m. The definition of the variogram near the origin is good as long as the lag distances are adjusted to the drill angle.

Figure 14-4 illustrates the final variogram, along with a plan view of the C1 ellipsoid generated by SAGE software (inset image). The direction and plunge, represented by the variogram, coincide with the known interpreted plunge of the mineralization at the RC Zone. The variography is considered representative of the trend of the mineralization. As a result, AGP elected to interpolate the grade model using ordinary kriging.

FIGURE 14-4: RC ZONE VARIOGRAM



14.2.8 Search Ellipsoid Dimension and Orientation

While it is common to use the variogram model as a guide to set the search ellipsoids' ranges and attitudes, the geologist modelling the deposit must consider the strike and dip of the mineralized horizon and the drill hole spacing and distribution. For this model, AGP used the overall geometry as confirmed by the variography, along with the CSSK bottom contact, as guiding principles to set the search ellipsoid orientation.

The first pass maximum range was sized to reach at least the next drill section. A 1.8 x multiplier (from Pass 1) was used to set the range of the second pass. The maximum range for the second interpolation pass did not exceed the range displayed by the variogram at 97% of the sill. Lastly, a 1.8 x multiplier (from Pass 2) was used to set the range for the third interpolation pass, which reached the maximum range displayed by the variogram.

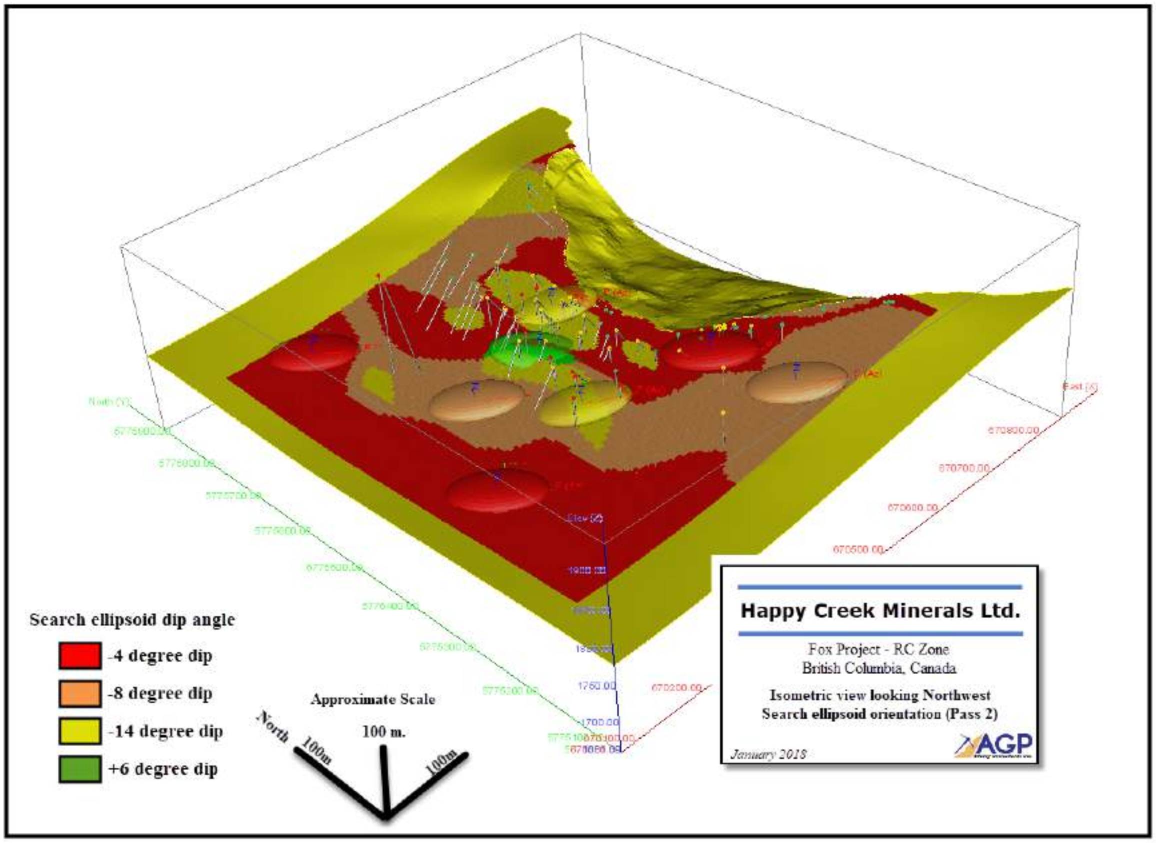
Due to the undulating nature of the CSSK bottom contact, four subdomains were delineated. The sub-domains allowed for rotation of the search ellipsoid, in order to optimize the sample search with the orientation of the zones without resorting to unfolding methodology. For the GRA domains, the search ellipsoid was oriented to best represent the orientation of the sill. The orientation sub-domains were coded 10, 20, 30, 40, and 50.

Table 14-7 lists the final values used in the resource model for the range of the major, semi-major, and minor axes. Figure 14-5 illustrates the location of the sub-domains, along with the range of the search ellipsoid for Pass 2. Rotation angles are based on the GEMS ZXZ or ZYZ methodology, which uses a conventional right-hand rule.

TABLE 14-7: SEARCH ELLIPSOID DIMENSIONS – RC ZONE

CSKK Domain (Code 1000)	Rotation Z, X, Z (degrees)	Pass 1 Range Major, Semi-major, minor (m)	Pass 2 Range Major, Semi-major, minor (m)	Pass 3 Range Major, Semi-major, minor (m)
Sub-domain 10 – CSSK	-50, -4, 0	34, 21, 8	60, 38, 15	109, 69, 27
Sub-domain 20 – CSSK	-50, -8, 0	34, 21, 8	60, 38, 15	109, 69, 27
Sub-domain 30 – CSSK	-50, -14, 0	34, 21, 8	60, 38, 15	109, 69, 27
Sub-domain 40 – CSSK	-50, +6, 0	34, 21, 8	60, 38, 15	109, 69, 27
GRA Domain (Code 2000)	**Rotation as Indicated (degrees)**	**Pass 1 Range Major, Semi-major, minor (m)**	**Pass 2 Range Major, Semi-major, minor (m)**	**Pass 3 Range Major, Semi-major, minor (m)**
Sub-domain 10 – GRA1	ZYZ (-2, -2, 0)	36, 24, 13	68, 46, 24	123, 82, 44
Sub-domain 20 – GRA2	ZYZ (88, -20, 23)	36, 24, 13	68, 46, 24	123, 82, 44
Sub-domain 30 – GRA3	ZXZ (88, -5, 3)	36, 24, 13	68, 46, 24	123, 82, 44
Sub-domain 40 – GRA4	ZYZ (-2, -2, 0)	36, 24, 13	68, 46, 24	123, 82, 44
Sub-domain 50 – GRA5	ZYZ (-2, -2, 0)	36, 24, 13	68, 46, 24	123, 82, 44

FIGURE 14-5: ORIENTATION SUB-DOMAIN LOCATION AND SEARCH ELLIPSOIDS (PASS 2)



14.2.9 Resource Block Model

The block model was constructed using GEMS 6.8™. An equidistant block size of 5 m horizontally by 5 m across by 2.5 m vertically was selected, based on mining selectivity considerations and the density of the dataset. This block matrix size assumed drilling and blasting on 5 m bench and mine in flitches 2.5 m high. The 2.5 m high lift is also suitable for room-and-pillar underground operation.

The block model was defined on the project coordinate system with a 0-degree rotation. Table 14-8 lists the upper southeast corner of the model and is defined on the block edge.

The rock type model was coded by combining the domain code with the sub-domain code, controlling the search ellipsoid orientation.

TABLE 14-8: BLOCK MODEL DEFINITION (BLOCK EDGE)

Resource Model Items	Parameters
Easting	670,120
Northing	5,775,170
Top relative elevation	2,030
Rotation angle (counterclockwise)	0
Block size (X, Y, Z in meters)	5 x 5 x 2.5
Number of blocks in the X direction	118
Number of blocks in the Y direction	126
Number of blocks in the Z direction	112

14.2.10 Interpolation Plan

The resource model was created in GEMS 6.8™ with a multiple folder setup, using ordinary kriging for interpolating the WO_3 grade. Both a nearest neighbour (NN) model and inverse distance to the power of two (ID^2) were used for validation. The interpolation was carried out in a multi-pass approach, with an increasing search dimension coupled with decreasing sample restrictions.

- Pass 1 used an ellipsoid search with 7 samples minimum, and 15 maximum. A maximum of 3 samples per hole was imposed on the data selection, forcing a minimum of 3 holes to be used in the search.
- Pass 2 used an ellipsoid search with 4 samples minimum, and 15 maximum. A maximum of 3 samples per hole was imposed on the data selection, forcing a minimum of 2 holes to be used in the search.
- Pass 3 used an ellipsoid search with 2 samples minimum, and 15 maximum. A maximum of 3 samples per hole was imposed on the data selection, allowing a block to be interpolated by a single hole.

All orientation sub-domain boundaries were treated as soft boundaries, allowing samples from one sub domain to be used in the interpolation of the adjacent sub domain. This is the correct methodology, since the orientation sub domains were only used to control the orientation of the sample search ellipsoids, and do not correspond to any known lithological contacts or faults. The remaining domains were treated as hard boundaries, including the boundary between the CSSK high-grade and CSSK low-grade domain.

The model was interpolated only within the mineralized wireframe. Volume reporting used the lithological wireframes to correctly assign the tonnages of the CSSK and GRA to the correct grade bins. The methodology intrinsically assumes the granite will be separated out during mining. For this deposit, AGP believes this is the correct approach, since in the field, the granite is visually distinct from the calc-silicate, and Happy Creek is planning to use a UV light to further reduce dilution.

14.2.11 Mineral Resource Classification

Several factors are considered in the definition of a resource classification:

- Canadian Institute of Mining (CIM) requirements and guidelines
- experience with similar deposits
- spatial continuity
- confidence limit analysis
- geology

No environmental, permitting, legal, title, taxation, socioeconomic, marketing, or other relevant issues are known to the author that may currently affect the estimate of mineral resources. Mineral reserves can only be estimated based on an economic evaluation used in a prefeasibility or feasibility study of a mineral project. Thus, no reserves have been estimated. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability.

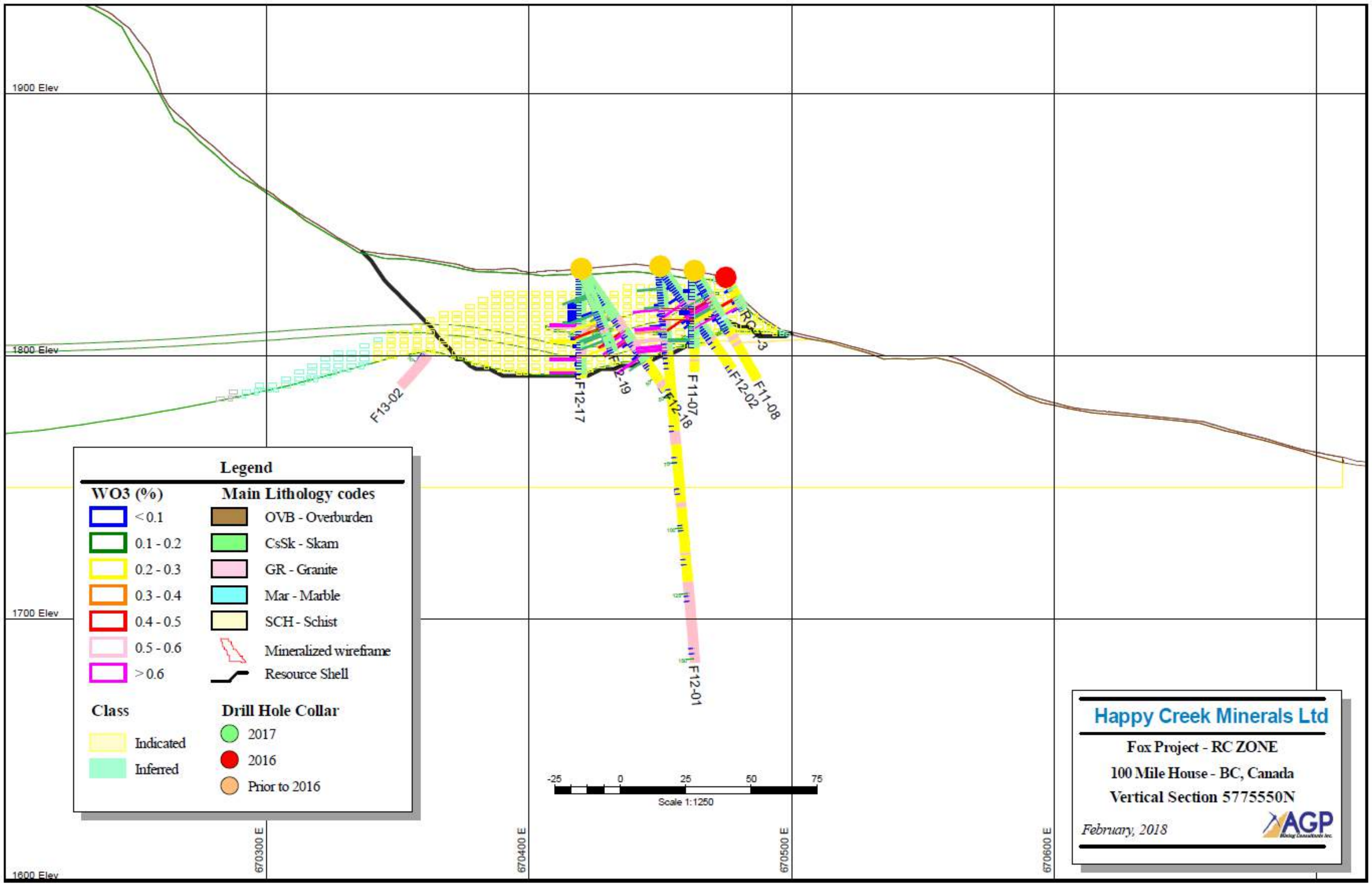
Typically, the confidence level for a grade in the block model is reduced with the increase in the search ellipsoid size, along with the diminishing restriction on the number of samples used for the grade interpolation. This is essentially controlled by the pass number of the interpolation plan, as described in the previous section. A common technique is to categorize a model based on the pass number and distance to the closest sample. For the RC Zone, in addition to using the pass number and distance to the closest composite, AGP downgraded the classification in areas with low kriging efficiency. Lastly, a core area model was used to avoid having “potential” mineralization in areas in proximity to the most densely drilled area. In this context, the core is an area where the QP believes the continuity of the mineralization has been well demonstrated by current drilling. For the RC Zone, it was defined by creating a 25-m radius wireframe around each drill hole used in the resource estimate. The wireframes from the isolated holes were deleted, and the remaining wireframes were used to create a core area model.

Two confidence categories exist in the model. The usual CIM guideline classes of Indicated and Inferred are coded 2 and 3, respectively. A special Code 4 represents mineralization that was considered too far away from the existing drilling to be classified as an Inferred resource. The Code 4 blocks have been left in the classification model to assist Happy Creek in its exploration activity. Table 14-9 lists the parameters used to code the classification model, and Figure 14-6 illustrates a representative section of the block classification of the Fox Deposit.

TABLE 14-9: CLASSIFICATION PARAMETERS – RC ZONE

Pass Number	Retained As	Downgraded To
Passes 1 and 2	Indicated (Code 2) if distance to closest composite is <60 m	Inferred if distance to closest composite is ≥60 m and <120 m and/or if the krige efficiency is ≤0.3
Pass 3	Inferred (Code 3) if distance to closest composite is <120 m	Code 4 if distance to closest sample is ≥120 m and/or if the krige efficiency is ≤0

FIGURE 14-6: BLOCK MODEL CLASSIFICATION ON VERTICAL CROSS-SECTION 5775550N



One additional modifier was used in addition to the above parameters:

- Code 4 were upgraded to Inferred for any blocks located within the core area.

Final adjustments are often required to the classification of individual block values to create areas suitable for mine planning. This is accomplished by using a GEMS™ Cypress-enabled script that adjusts, or "grooms", the confidence category of isolated blocks to create contiguous resource blocks with reasonably smooth class values. The classifications of isolated blocks were upgraded or downgraded depending on the classifications of the 26 surrounding blocks. AGP validated the final block classification visually. AGP also generated histograms of the distance to the closest composites versus the class model value to evaluate the class model for reasonableness.

Approximately 46% of the volume within the interpolated solid is classified as Indicated. Inferred resources accounted for 39% of the total volume. The remaining 15% of the volume was either Code 4 or areas that could not be interpolated and therefore bore no grade. No resources were classified as Measured.

14.2.12 Block Model Validation

The RC Zone deposit grade models were validated by four methods:

- visual comparison of colour-coded block model grades with composite grades on sections and plans
- comparison of the global mean block grades for OK, ID2, NN models, composite, and raw assay grades
- comparison using grade profiles to investigate local bias in the estimate
- naïve cross-validation tests with composite grade versus block model grade

14.2.13 Visual Comparison

The visual comparison of block model grades with composite grades shows a reasonable correlation between values for most of the model (Appendix B, C, D, E, and F).

Diamond drill during the 2017 campaign extended the model to the Northeast where mineralization was encountered but the intercepts were narrow. AGP notes that only minor adjustments to the lithological wireframes were necessary to account for the new drilling on the Northeast portion of the deposit and to account for the in-fill drilling.

14.2.14 Global Comparisons

Table 14-10 shows the grade statistics for the raw assays, composites, NN, ID^2, and OK models. Statistics for the tungsten trioxide composite mean grades compare well to the raw assay grades, with a normal reduction in values due to smoothing, related to volume variance. The block model mean grade, when compared against the composites, showed a normal reduction in values especially when compared to the de-clustered raw assay and composite grade. More importantly, the grade of the NN, ID^2, and OK models are within reasonable limit of each other, indicating the methodology used did not introduce a bias into the estimate.

TABLE 14-10: GLOBAL COMPARISONS (INDICATED AND INFERRED, RC ZONE)

Methodology	WO_3 (%) at >0.0 Cut-off (Cat. 1–3)	WO_3 (%) at >0.0 Cut-off (Cat. 1–4)
Raw assays uncapped at 0.0 Cut-off (clustered/de-clustered)	0.212/0.145	0.212/0.145
Composite capped at 0.0 Cut-off (clustered/de-clustered)	0.154/0.106	0.154/0.106
Nearest neighbor (NN)	0.105	0.094
Inverse distance squared using true distance (ID)	0.096	0.084
Ordinary krige	0.096	0.084

14.2.15 Local Comparisons – Grade Profile

Comparison of the grade profiles (swath plots) of the raw assay, composites, and estimated grades allow for visual verification of an over- or underestimation of the block grades at the global and local scales. A qualitative assessment of the smoothing and variability of the estimates can also be observed from the plots. The output consists of three swath plots, generated at 25 m intervals in the X direction, 25 m in the Y direction, and 13 m vertically.

The OK and ID^2 estimates should be smoother than the NN estimate; the NN estimate should fluctuate around the OK and ID^2 estimates on the plots or, display a slightly higher grade. The composite line is generally located between the assay and the interpolated grade. A model with good composite distribution should show very few crossovers between the composite and the interpolated grade line on the plots. In the fringes of the deposits, as composite data points become sparse, crossovers are often unavoidable. The swath size also controls this effect to a certain extent; if the swaths are too small, then fewer composites will be encountered, which usually results in a very erratic line on the plots.

Due to the orientation of the RC deposit, the swath plot should show the best results in the X and Y axes for this model.

In general, the swath plots show good agreement, with the three methodologies showing no major local bias, except in the area close to 670,330E and 5,775,507N, where a crossover is displayed. These areas were investigated separately. This issue is related to the lower grade domain which contains a significant number of zero grade composites reducing the composite average.

For the remaining areas, the peaks and valleys on the assay and composite lines are well represented in the resource model, with the interpolated model offering more smoothing. The effect of capping the assays is readily visible in the plots, and the search restriction on the mild outliers appears to have normalized the grade. Grade profiles for tungsten trioxide are presented in Figure 14-7 and Figure 14-8. The profile for the Z chart was omitted.

FIGURE 14-7: X AXIS SWATH PLOTS (INDICATED AND INFERRED CLASSIFICATION)

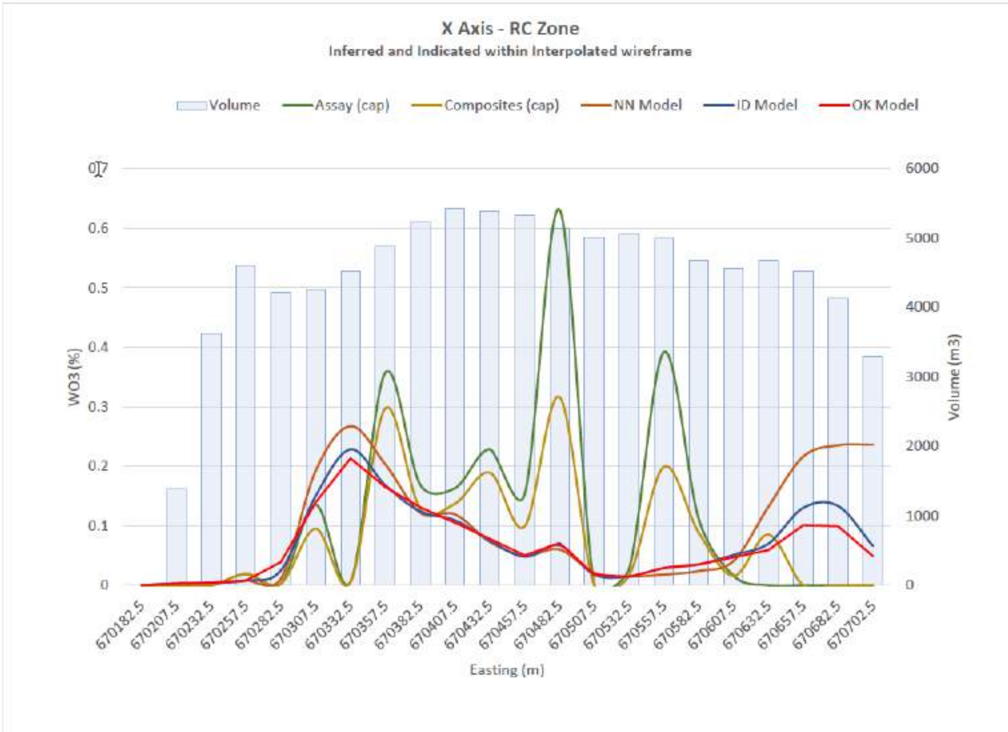
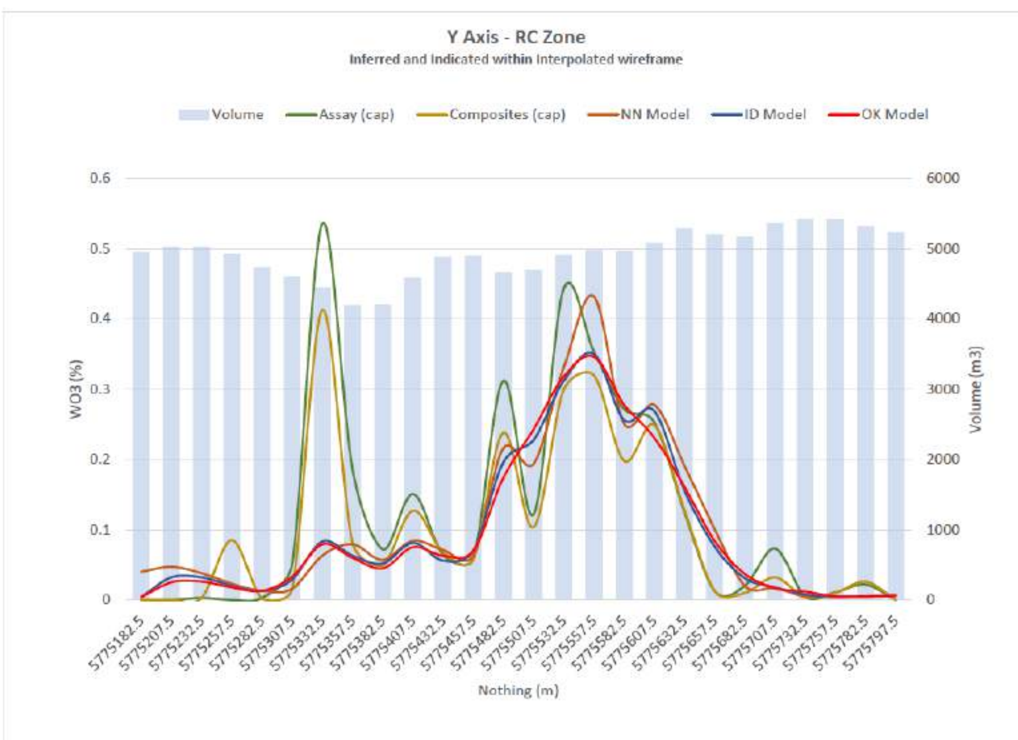


FIGURE 14-8: Y AXIS SWATH PLOTS (INDICATED AND INFERRED CLASSIFICATION)



14.2.16 Naïve Cross-Validation Test

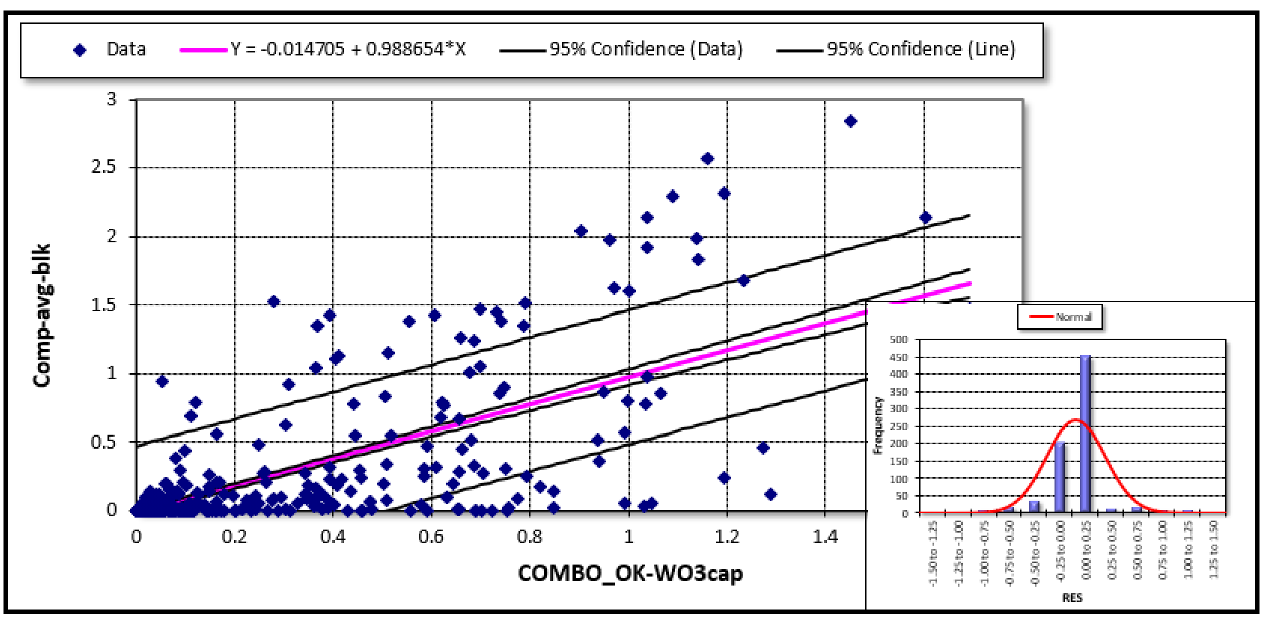
A comparison of the average grade of the composites within a block with the estimated grade of that block provides an assessment of the estimation process close to measured data. Pairing of these grades on a scatter plot gives a statistical valuation of the estimates. This methodology is distinct from "jackknifing", which replaces a composite with a pseudo-block at the same location and evaluates and compares the estimated grade of the pseudo-block against that of the composite grade.

It is anticipated that the estimated block grades should be similar (while not exactly the same value) to the composited grades within the block. This is especially true with deposits bearing a higher nugget component.

A high correlation coefficient (R^2) indicates satisfactory interpolation process results, while a medium to low correlation coefficient indicates larger differences in the estimates or a low data density which would suggest a further review of the interpolation process. Results from the pairing of the composited and estimated grades within blocks pierced by a drill hole are presented in Figure 14-9. After removing 8 outliers out of 778 pairs, the R^2 value is moderate for this type of deposit, at 0.46 R^2. The slope of the regression is 1.10 indicating a good spread around the parity line.

The regression residuals are the differences, on a case-by-case basis, between the actual Y values and the values calculated by the best-fit equation. These can be evaluated for normality and randomness. The inset image in Figure 14-9 shows the residual distribution. The chart shows a bell curve with a slight positive bias.

FIGURE 14-9: NAÏVE CROSS-VALIDATION TEST RESULTS



14.3 BN Zone

14.3.1 Geological Interpretation

At the BN Zone, the mineralization occurs in stacked layers within a calc-silicate (*CSSK*) horizon. The CSSK lithological unit is intruded by a granite sill and overlain and underlain by schist/granite mix unit (SCH-GRA). The 3D wireframes developed to control the grade interpolation of the resource model were based primarily on grade within the calc-silicate lithology. During the construction of the wireframes, the goals were to:

- ensure no grade was interpolated in the SCH-GRA unit
- ensure the tungsten mineralization above 0.1% WO_3 is bounded by a wireframe

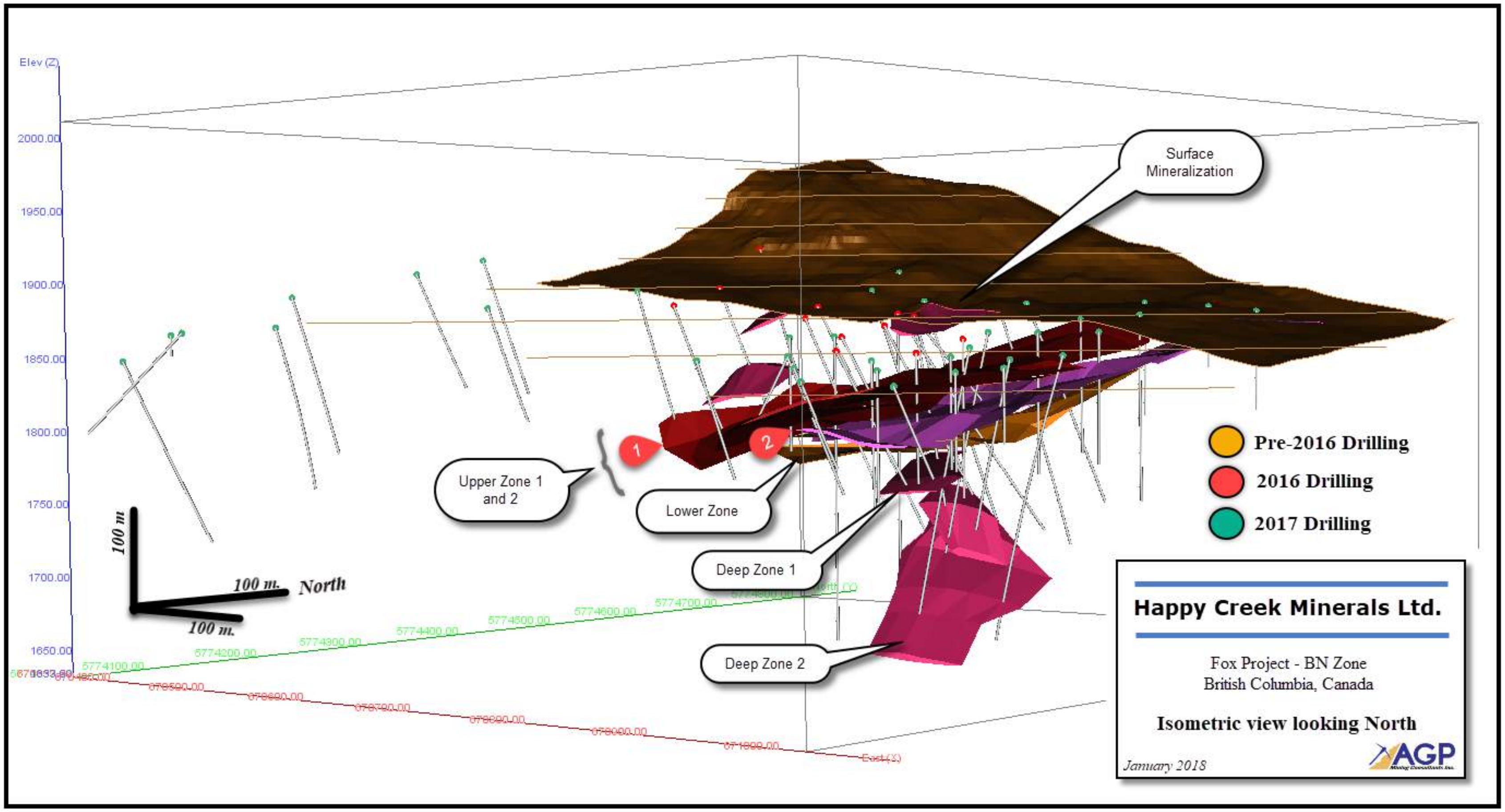
To achieve these goals, the geological wireframes were constructed in the following steps:

1) The Lithological wireframes were constructed using surfaces. The surface creation utilized a combination of Laplace gridded surface with the interpreted data points saved to the database. The surfaces describe the upper and lower GRA/SCH units. The 3D lithological wireframes were created by clipping these surfaces against a cube matching the block model geometry. The remaining space created between the SCH-GRA units was modelled as the CSSK Unit.
2) High-grade 3-dimentional wireframes describing the mineralization were constructed with conventional sectional polylines and tie lines. The interpretation of the high-grade mineralized horizons was constraint as much as possible within the CSSK lithological unit. In the construction of the wireframes, anomalous low-grade/waste intersections were included in the model, so the interpolated grade is appropriately reduced toward the edge of the wireframe. High-grade drill hole intersections were checked and expanded to a 2-meter minimum mining width if required.
3) Zones with very poor data supports were also modelled. These were modelled primarily to assist Happy Creek in its exploration activity and were not included in the resource statement. These zones were typically modelled by extruding the polygons half way to the next section.
4) The BN Zone only has a minor amount of overburden and since the deposit is deemed amenable to underground extraction, the overburden surface was not considered necessary at this time.

14.3.2 Wireframe Volume

The total wireframe volume of the high-grade mineralized zones amounted to 233,874 m^3. Figure 14-100 illustrates the position of the mineralized wireframes in relation to the current drilling.

FIGURE 14-10: POSITION OF THE 3D WIREFRAMES BN ZONE



Volumes for each individual zone are shown in Table 14-11.

TABLE 14-11: BN ZONE MINERALIZED WIREFRAME VOLUME

Wireframe	NAME1	NAME2	NAME3	Domain Code	Volume (M^3)
CSSK Surface	6300	Clip-Topo	BN-FINAL	6300	10,874
CSSK Upper Zone 1	4100	Clip-Topo	BN-FINAL	4100	307,226
CSSK Upper Zone 2	4200	Clip-Topo	BN-FINAL	4200	171,418
CSSK Lower	5100	Clip-Topo	BN-FINAL	5100	86,200
CSSK Deep Zone 1	6600	Clip-Topo	BN-FINAL	6600	11,380
CSSK Deep Zone 2	6200	Clip-Topo	BN-FINAL	6200	40,706
CSSK Accessory Zone 1 (Poor support)	6100	Clip-Topo	BN-FINAL	6100	3,861
CSSK Accessory Zone 2 (Poor support)	6400	Clip-Topo	BN-FINAL	6400	8,891
CSSK Accessory Zone 3 (Poor support)	6500	Clip-Topo	BN-FINAL	6500	6,596
Total					647,152

14.3.3 Assays

The raw assay statistics were evaluated by grouping all assays intersecting the mineralized zones. Table 14-12 provides descriptive statistics for raw, uncapped WO_3% assays. Zones 6100, 6400, and 6500 with poor support were eliminated from the dataset presented in the table.

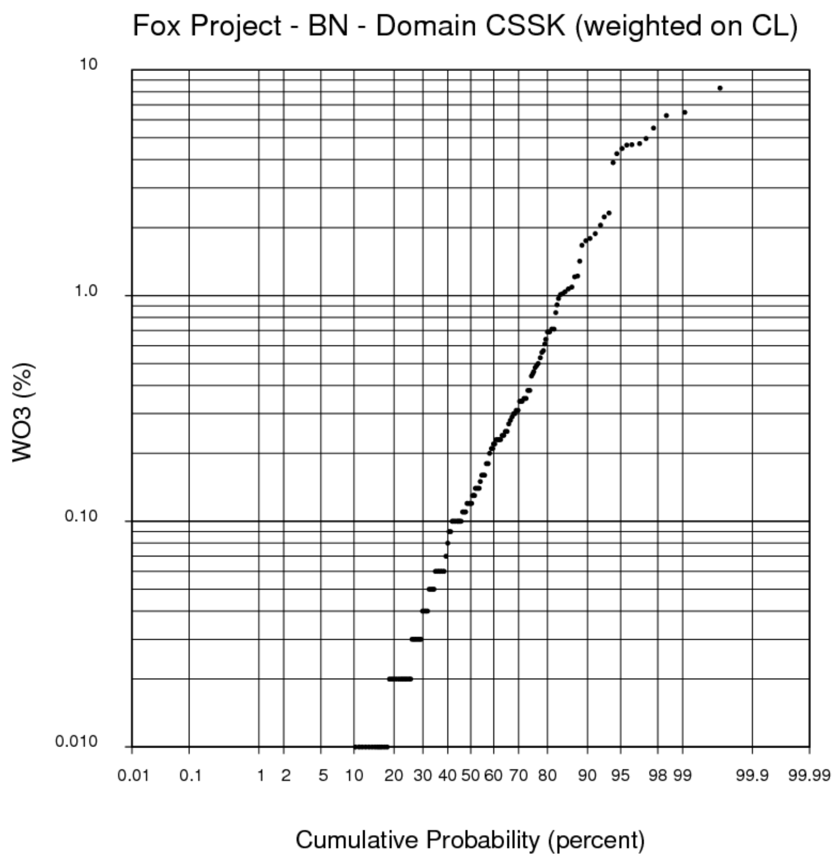
TABLE 14-12: DESCRIPTIVE RAW ASSAY STATISTICS (WO_3%, UNCAPPED – BN ZONE)

Domain	ALL	4100	4200	5100	6200	6300	6600
Valid cases	157	66	44	24	15	4	4
Mean	0.665	0.283	0.695	1.435	0.366	2.439	1.369
Variance	1.941	0.552	2.495	4.177	0.169	6.377	0.776
Std. Deviation	1.393	0.743	1.579	2.044	0.411	2.525	0.881
Coefficient of Variation (CV)	2.095	2.623	2.274	1.425	1.121	1.035	0.644
relative CV (%)	16.721	32.286	34.283	29.082	28.947	51.769	32.176
Minimum	0.000	0.001	0.001	0.011	0.000	0.055	0.257
Maximum	8.310	4.640	8.310	6.273	1.229	4.962	2.235
1st percentile	0.001	----	----	----	----	----	----
5th percentile	0.003	0.003	0.001	0.013	----	----	----
10th percentile	0.008	0.006	0.004	0.021	0.002	----	----
25th percentile	0.029	0.023	0.024	0.050	0.081	0.164	0.467
Median	0.136	0.098	0.161	0.166	0.232	2.370	1.491
75th percentile	0.502	0.235	0.567	1.784	0.697	4.784	2.148
90th percentile	1.812	0.515	1.740	5.120	1.221	----	----
95th percentile	4.642	1.053	5.442	6.086	----	----	----
99th percentile	7.250	----	----	----	----	----	----

The CSSK lithology's host the mineralization. There is no significant mineralization in the SCH-GRA lithology.

Frequency distribution of the raw assays within the high-grade mineralized zones of the CSSK domains (Figure 14-11) show a lognormal distribution, with 95% of the WO_3% values below 4.5% in the CSSK domains.

FIGURE 14-11: RAW ASSAY FREQUENCY DISTRIBUTION IN CSSK LITHOLOGY OF THE BN ZONES



14.3.4 Capping

A decile analysis was conducted on the combination of all raw assays in the high-grade mineralized zones. Results indicated that grade capping was warranted. After conducting a careful examination of the data set, AGP elected to use a 6% WO_3% cap level. The cap value selected affected 3 out of 162 assays (1.85%) and was between the 98^{th} and 99^{th} percentile of the raw assay distribution. The raw assay capping scenario reduced the CV from an overall 2.2 down to 2.1. Once that data was composited at 2.5 m (as described below) the CV was further reduced to 1.98 or below for all high-grade mineralized zones.

Total Metal Affected by the Treatment of Outliers

Total metal affected by the treatment of outliers was evaluated in the final model. At the 0.5% WO_3 cut-off, the capping strategy removed 5.1% of the metal in the Inferred categories, as shown in Table 14-13.

TABLE 14-13: METAL REMOVED BY CAPPING STRATEGY (INFERRED CATEGORY – BN ZONE)

Grade Bins (WO_3%)	Cumulative WO_3 MTU Removed Overall (MTU)	Cumulative Percent of Metal Removed Overall (%)
>0.6	31,356	5.39
>0.5	31,339	5.10
>0.4	30,355	4.68

14.3.5 Composites

From the sampling length statistics, AGP elected to use a composite length of 2.5 m. The composite size selected is above the third quartile of the assay sampling interval length.

The 2.5 m composite intervals were created moving downward from the collar of the holes toward the hole bottoms. Composite lengths are automatically adjusted by the software to leave no remnants. The adjustment resulted in lengths ranging between 1.5 m and 3.75 m, with 75.6% of the composites ranging between 1.75 m and 2.75 m.

Because the 2.5-meter composite length selected exceeded the 2.0-meter minimum mining width, the compositing process converted a significant portion of the wireframe intervals into single point composites.

Assays were length-weight averaged, and any grade capping was applied to the raw assay data prior to compositing. True gaps in sampling, and samples below detectable limits, were composited at zero grade. There was no stope void, drift, or other underground excavation that needed to be considered while compositing the raw assays.

Table 14-14 shows the descriptive statistics for the composites point located within the mineralized zone.

TABLE 14-14: DESCRIPTIVE STATISTICS FOR COMPOSITES (WO_3 % CAPPED – BN ZONE) WITHIN ALL MINERALIZED ZONES

Domain Code	ALL BN	4100	4200	5100	6200	6300	6600
Valid cases	130	53	36	20	11	4	6
Mean	0.578	0.201	0.609	1.415	0.385	1.067	0.959
Variance	1.263	0.156	1.457	3.815	0.118	0.656	0.876
Std. Deviation	1.124	0.394	1.207	1.953	0.344	0.810	0.936
Coefficient of Variation (CV)	1.94	1.97	1.98	1.38	0.89	0.76	0.98
Relative CV (%)	17.057	27.0	33.0	30.9	26.9	38.0	39.8
Minimum	0.000	0.003	0.002	0.018	0.004	0.000	0.000
Maximum	5.756	1.970	5.728	5.756	1.050	1.815	2.095
1st percentile	0.000	----	----	----	----	----	----
5th percentile	0.004	0.005	0.005	0.018	----	----	----
10th percentile	0.011	0.008	0.011	0.026	0.021	----	----
25th percentile	0.034	0.023	0.039	0.068	0.101	0.223	0.000
Median	0.139	0.085	0.210	0.243	0.281	1.226	0.888

Domain Code	ALL BN	4100	4200	5100	6200	6300	6600
75th percentile	0.497	0.197	0.507	2.274	0.615	1.751	1.937
90th percentile	1.808	0.442	1.680	4.802	1.023	----	----
95th percentile	3.353	1.327	4.650	5.709	----	----	----
99th percentile	5.748	----	----	----	----	----	----

14.3.6 Spatial Analysis – Variography

Variography was attempted using the combined composites for the 4100 and 4200 zones. A maximum range of approximately 90 m was obtained but the variograms did not point in the correct direction. AGP concluded there were too few composites to generate a meaningful variogram.

14.3.7 Search Ellipsoid Dimension and Orientation

For the BN model, AGP used the overall geometry of the mineralized zone as guiding principles to set the search ellipsoid size and orientation.

The first pass maximum range was sized to reach at least the next drill section. This was followed by a 1.4 multiplier (from Pass 1) used to set the range of the second pass. Lastly, a 1.8 multiplier (from Pass 2) was used to set the range for the third interpolation pass, which reached a maximum range of 75 m.

Table 14-155 lists the final values used in the resource model for the range of the major, semi-major, and minor axes. Rotation angles are based on the GEMS ZXZ methodology, which uses a conventional right-hand rule.

TABLE 14-15: SEARCH ELLIPSOID DIMENSIONS BN ZONE

Mineralized Domains	Rotation Z, X, Z (degrees)	Pass 1 Range Major, Semi-major, minor (m)	Pass 2 Range Major, Semi-major, minor (m)	Pass 3 Range Major, Semi-major, minor (m)
4100, 4200, 5100	-20, 9, 35	30, 38, 8	42, 53, 11	59, 74, 15
6100	-20, 25, -40	38, 30, 8	53, 42, 11	74, 59, 15
6200	20, 41, 0	30, 38, 8	42, 53, 11	59, 74, 15
6300	18, 10, 5	30, 38, 8	42, 53, 11	59, 74, 15
6400, 6500, 6600	18, 15, 5	30, 38, 8	42, 53, 11	59, 74, 15

14.3.8 Resource Block Model

The block model was constructed using GEMS 6.8™. An equidistant block size of 5 m horizontally by 5 m across by 2.5 m vertically was selected, based on mining selectivity considerations and the density of the dataset. This block matrix size assumes a room-and-pillar operation, mining in 2.5 m lifts.

The block model was defined on the project coordinate system with a 0-degree rotation. Table 14-166 lists the upper southeast corner of the model and is defined on the block edge.

The rock type model was coded using the domain code of the mineralized wireframes.

TABLE 14-16: BLOCK MODEL DEFINITION FOR BN ZONE (BLOCK EDGE)

Resource Model Items	Parameters
Easting	670,500
Northing	5,774,240
Top relative elevation	1950
Rotation angle (counterclockwise)	0
Block size (X, Y, Z in meters)	5 x 5 x 2.5
Number of blocks in the X direction	100
Number of blocks in the Y direction	102
Number of blocks in the Z direction	136

14.3.9 Interpolation Plan

The resource model was created in GEMS 6.8™ with a single folder setup, using Inverse Distance Square (true distance) for interpolating the WO_3 grade. A nearest neighbor (NN) model was used for validation. The interpolation was carried out in a multi-pass approach, with an increasing search dimension coupled with decreasing sample restrictions.

- Pass 1 used an ellipsoid search with 4 samples minimum, and 15 maximum. A maximum of 3 samples per hole was imposed on the data selection, forcing a minimum of 2 holes to be used in the search.
- Pass 2 used an ellipsoid search with 3 samples minimum, and 15 maximum. A maximum of 3 samples per hole was imposed on the data selection, allowing a block to be interpolated by a single hole.
- Pass 3 used an ellipsoid search with 1 sample minimum, and 15 maximum. A maximum of 3 samples per hole was imposed on the data selection, allowing a block to be interpolated by a single hole.

It is noted that the maximum number of composites per hole parameter rarely applied to this model since there were only five intersections wide enough to generate more than three 2.5-meter composites.

During the grade interpolation, all domain boundaries were treated as hard boundaries.

The model was interpolated only within the mineralized wireframe. Volume reporting used the high-grade mineralized wireframes to correctly assign the tonnages. The methodology intrinsically assumes the high-grade will be separated out from the surrounding waste during mining. For this deposit, AGP believes this assumption appears to be the correct approach, particularly since Happy Creek is planning to use UV light to reduce dilution during mining. As more holes are drilled on the deposit, this assumption may change.

14.3.10 Mineral Resource Classification

Several factors are considered in the definition of a resource classification:

- Canadian Institute of Mining (CIM) requirements and guidelines
- experience with similar deposits
- spatial continuity

- confidence limit analysis
- geology

No environmental, permitting, legal, title, taxation, socioeconomic, marketing, or other relevant issues are known to the author that may currently affect the estimate of mineral resources. Mineral reserves can only be estimated based on an economic evaluation used in a prefeasibility or feasibility study of a mineral project. Thus, no reserves have been estimated. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability.

Typically, the confidence level for a grade in the block model is reduced with the increase in the search ellipsoid size, along with the diminishing restriction on the number of samples used for the grade interpolation. This is essentially controlled by the pass number of the interpolation plan.

A single confidence category exists for the BN model. The usual CIM guideline classes of Inferred are Code 3 in the class model. A special “Code 4” represents mineralization that was considered too far away from the existing drilling, or poorly supported by drilling, to be classified as an Inferred resource. The Code 4 blocks have been left in the classification model to assist Happy Creek in its exploration activity. Table 14-17 lists the parameters used to code the classification model.

TABLE 14-17: BN ZONE CLASSIFICATION PARAMETERS

Pass Number	Retained As	Downgraded To
Passes 1 and 2 and 3	Inferred (Code 3) if distance to closest composite is <120 m	Code 4 if distance to closest sample is > 120 m and/or the number of hole used in the interpolation is = 1

Approximately 77% of the volume within the high-grade mineralized zones are classified as Inferred. The remaining 23% of the volume was either downgraded to a Code 4 or were areas that could not be interpolated and therefore bore no grade.

AGP notes that solely in terms of drill supports and distance between drill holes, the majority of the tonnages within the 4100, 4200, and 5100 Zones which comprise over 87 percent of the total volume for the BN deposit, could be classified as Indicated. The decision to leave the resources as Inferred was mostly due to the large number of changes that had to be made to the 2016 wireframes. This typically indicates the geometry of the deposit was not well understood in 2016. Although AGP believes the geometry of the 4100, 4200, and 5100 is much improved in this resource estimate, a few well placed in-fill drill holes are recommended to confirm the interpretation. Once these holes are completed, AGP believes much of the Inferred mineralization could be converted to Indicated.

14.3.11 Block Model Validation

The BN Zone deposit grade models were validated by two methods:

- visual comparison of colour-coded block model grades with composite grades on sections and plans (Appendix G and H)

- comparison of the global mean block grades for ID^2, NN models, composite, and raw assay grades
- comparison using grade profiles to investigate local bias in the estimate

14.3.12 Visual Comparison

The visual comparison of block model grades with composite grades shows a reasonable correlation between values for most of the model. Sections and plans are presented in Appendix E and F.

14.3.13 Global Comparisons

Table 14-18 shows the grade statistics for the raw assays, composites, NN, ID^2 models. Statistics for the tungsten trioxide composite mean grades compare well to the raw assay grades, with a normal reduction in values due to smoothing related to volume variance. The block model mean grade, when compared against the composites, showed a normal reduction in values for the model output in categories 3 and 4. More importantly, the grade of the NN, ID^2 models are within 10% of each other. This discrepancy is considered high (albeit lower than the 2016 estimate) due to the limited number of data points and the clustering of the data in a few drill holes. AGP believes the methodology used did not introduce an extraordinary bias into the estimate and the Inferred resource class remains appropriate for this model.

TABLE 14-18: GLOBAL COMPARISONS (INDICATED AND INFERRED)

Methodology	WO_3 (%) at >0.0 Cut-off (Cat. 3)	WO_3 (%) at >0.0 Cut-off (Cat. 3–4)
Raw assays uncapped at 0.0 Cut-off (clustered)	0.651	0.651
Composite capped at 0.0 Cut-off (clustered)	0.564	0.564
Nearest neighbor (NN)	0.446	0.423
Inverse distance squared using true distance (ID)	0.497	0.463

14.3.14 Local Comparisons – Grade Profile

Comparison of the grade profiles (swath plots) of the raw assay, composites, and estimated grades allows for a visual verification of an over- or underestimation of the block grades at the global and local scales. A qualitative assessment of the smoothing and variability of the estimates can also be observed from the plots. The output consists of three swath plots, generated at 25 m intervals in the X direction, 25 m in the Y direction, and 13 m vertically.

Due to the orientation of the BN deposit, the swath plot should show the best results in the X and Y axes for this model.

In general, the swath plots show good agreement and no major bias with the two interpolation methodologies employed. The peaks and valleys on the assay and composite lines are well represented in the resource model, with the interpolated model offering more smoothing. Grade profiles for tungsten trioxide are presented in Figure 14-12 and Figure 14-13. The profile for the Z chart was omitted.

FIGURE 14-12: X AXIS SWATH PLOTS (INDICATED AND INFERRED CLASSIFICATION)

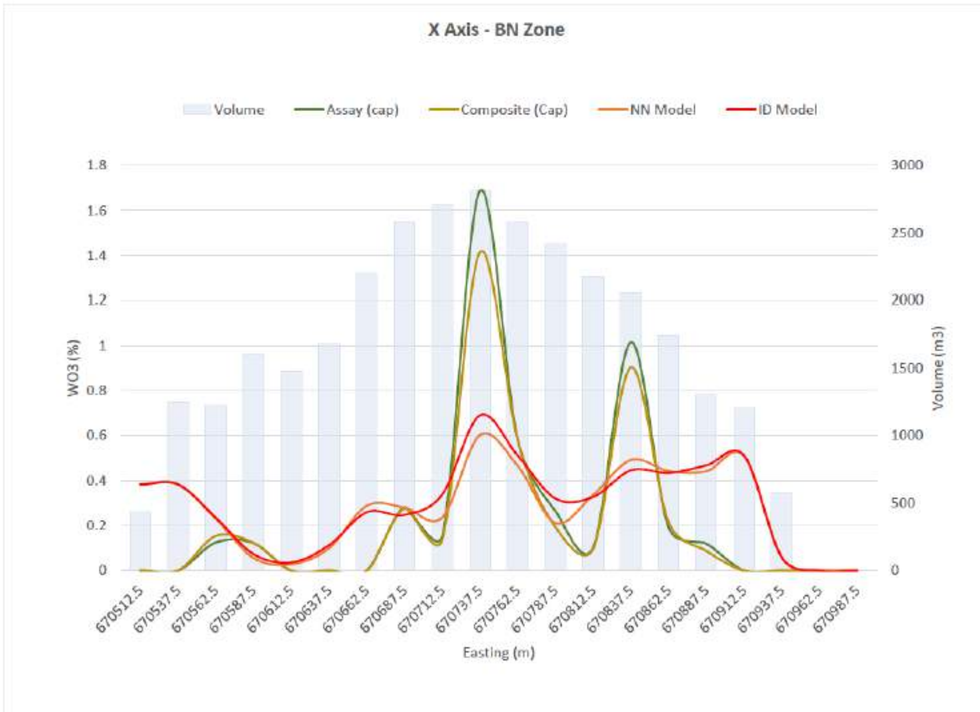
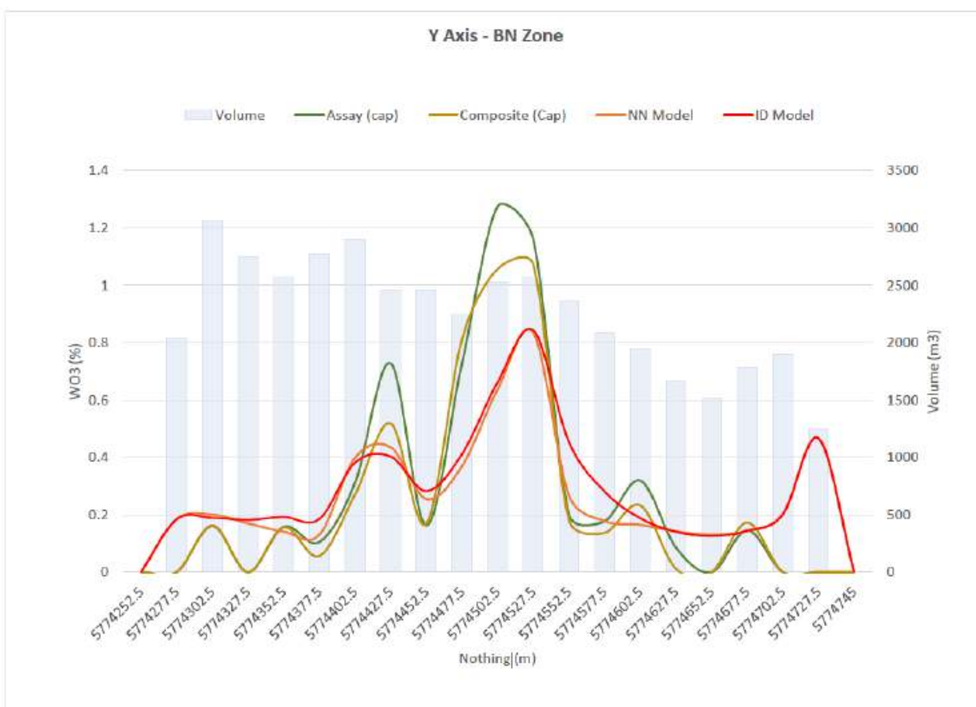


FIGURE 14-13: Y AXIS SWATH PLOTS (INDICATED AND INFERRED CLASSIFICATION)



14.4 BK Zone

14.4.1 Geological Interpretation

At the BK Zone, the mineralization is located almost exclusively in the calc-silicate unit (CSSK) and shares many similarities with the RC Zone mineralization. This lithological unit overlies a schist unit (SCH). The project is intruded by several granite sills (GRA), which can cut across both the CSSK and SCH units. The high-grade mineralization is located near the bottom contact of the CSSK unit. The granite bears minor tungsten mineralization however, AGP believes this is due to alternating GRA with minor CSSK lithology logged as GRA. The 3D wireframes developed to control the grade interpolation of the resource model were based primarily on lithology's. During the construction of the wireframes, the goals were to:

- ensure no grade was interpolated in the SCH unit
- ensure the granite sills were accounted for in the final volume report as waste dilution with the correct grade assigned to the volume
- ensure the tungsten mineralization honoured the raw assay distribution, and was kept close to the CSSK/SCH boundary without smearing vertically in the lower grade/waste areas of the CSSK unit

To achieve these goals, the geological wireframes were constructed in the following steps:

1) The CSSK bottom surface was created using the lithological CSSK/SCH contacts from the drill holes. The surface creation utilized a combination of Laplace gridded surfaces with the interpreted data points saved to the database. The original and interpolated data were then used to create the final surface, which honoured the location of the CSSK/SCH contact in the drill holes.
2) The small lower CSSK wireframe on the north part of the deposit was modelled using conventional polylines and tie lines. The main upper CSSK unit was constructed by clipping a 3DI box (sized to the block model matrix) with the CSSK/SCH surface and a bottom granite surface.
3) A marble unit and two primary granite sills were modelled using conventional polylines and tie lines.
4) The overburden surface was constructed by creating a 10 m x 10 m Laplace transform grid of the overburden thickness. The overburden thickness was subtracted from a matching 10 m x 10 m grid of the topographical elevation to create the final overburden surface. In the drill holes, the overburden thickness ranges from a minimum of 0.20 m to a maximum of 4.35 m, averaging 1.64 m. The Laplace interpolated overburden thickness ranges from 0.5 m to a maximum of 6.2 m, averaging 1.18 m. As with all other digitally interpolated overburden surfaces, areas protruding above the topography were lowered below the topography by 0.5 m.

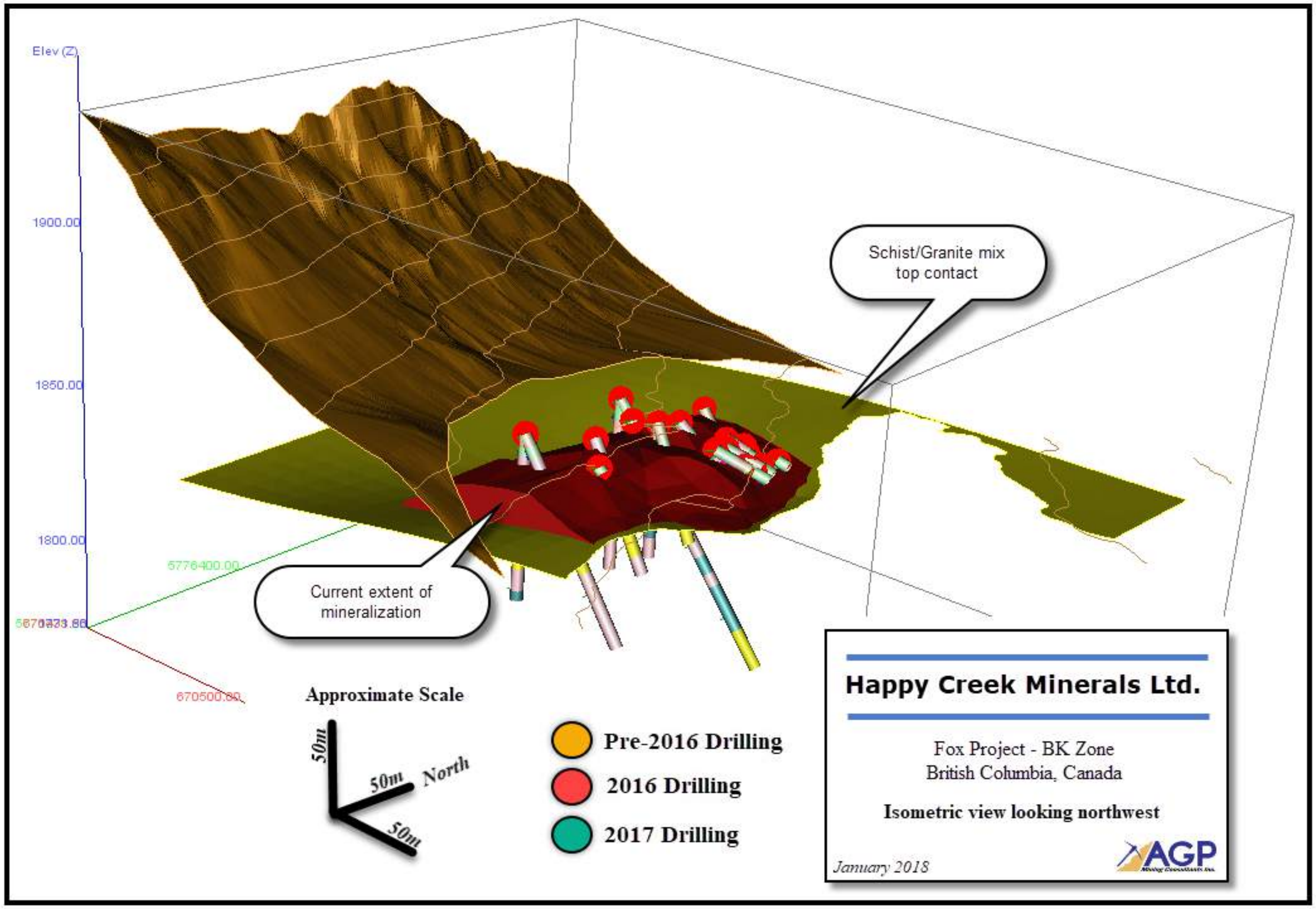
To limit the grade interpolation to a reasonable distance beyond the last drill holes, a mineralized wireframe was constructed. This wireframe limits the grade interpolation to an area extending vertically from the CSSK/SCH contact up to the start of sampling in the drill hole database. Laterally, the mineralized zone outlined by the wireframe tapered to the west. On the east side of the deposit, the mineralized zone outcrops to the surface. All blocks in the resource model outside this mineralized zone were not interpolated.

In addition to the upper interpolation limit, a high-grade probability model was constructed within the mineralized wireframe to prevent the smearing of high values to the surrounding low-grade assays. The probability model was constructed using 1.5 m composites. A threshold grade of 0.080% WO_3 was selected similar to the RC Zone. The probability values (1 and 0) were interpolated in a high-resolution block model. All blocks above a probability value of 0.37 (representing 37% probability of the block above 0.085% WO_3) were flagged as high-grade blocks. The probability model was thereafter re-blocked into the BK Zone final block model matrix size. The high-grade probability model only applies to the material within the mineralized zone.

14.4.2 Wireframe Volume

The total wireframe volume of the mineralized zone amounted to 90,793 m^3, including the granite sills and marble unit contained within its boundaries or 82,720 M^3 without the marble unit. Figure 14-14 illustrates the position of the mineralized wireframes in relation to the topography and the schist unit.

FIGURE 14-14: POSITION OF THE 3D WIREFRAMES, BK ZONE



14.4.3 Exploratory Data Analysis

Exploratory data analysis is the application of various statistical tools to characterize the statistical behaviour or grade distributions of the data set. In this case, the objective is to understand the population distribution of the grade elements in the various domains using such tools as histograms, descriptive statistics, and probability plots.

14.4.4 Assays

The raw assay statistics were evaluated, grouping all assays intersecting the various lithology's. Table 14-19 provides descriptive statistics for raw, uncapped WO_3% assays in the calc-silicate (CSSK), granite (GRA), schist (SCH), and marble (MAR) lithology's.

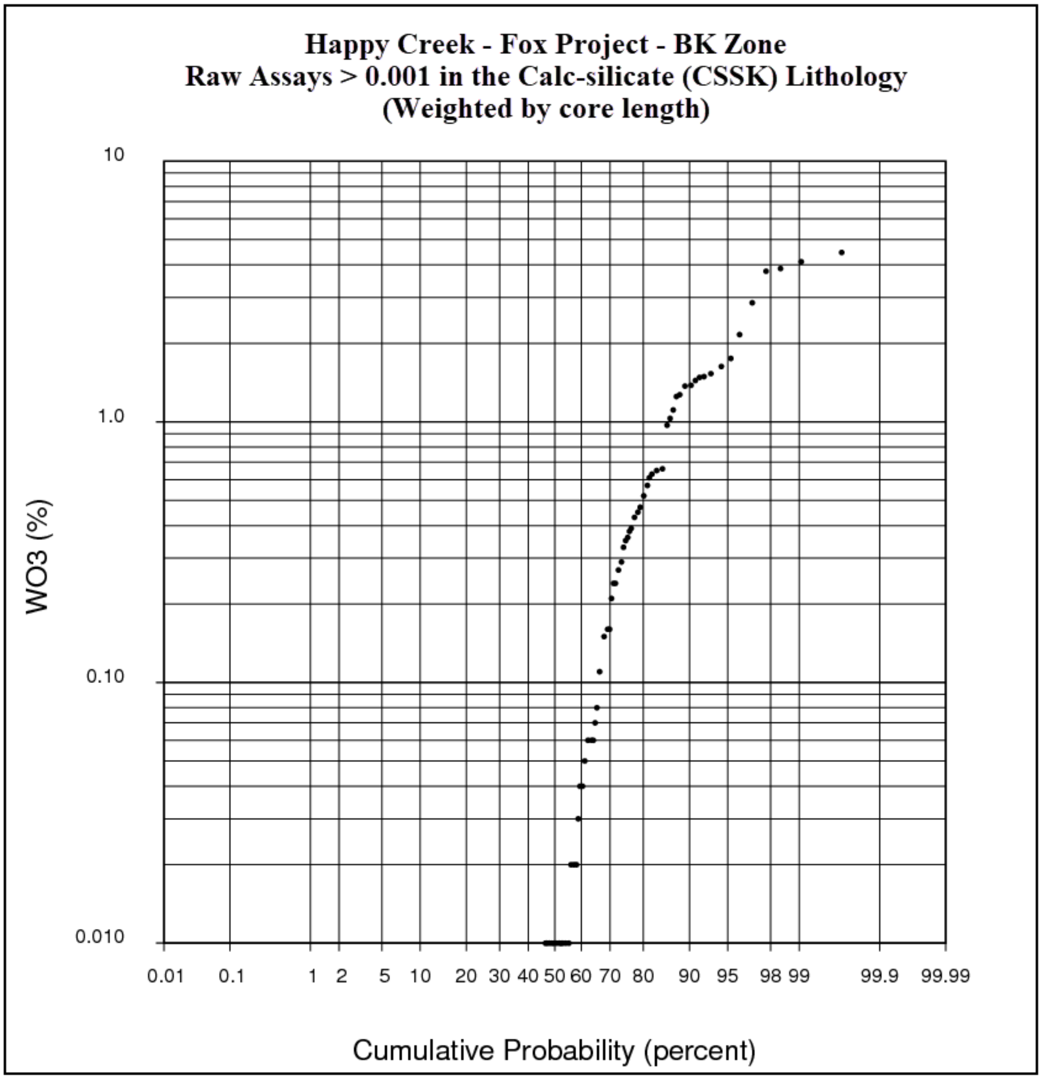
TABLE 14-19: DESCRIPTIVE RAW ASSAY STATISTICS (WO_3%, UNCAPPED -- BK ZONE)

Lithology	All Data	CSSK	GRA	SCH	MAR
Valid cases	224	152	31	20	21
Mean	0.219	0.320	0.011	0.000	0.005
Variance	0.436	0.611	0.001	0.000	0.000
Std. Deviation	0.660	0.782	0.028	0.001	0.014
Coefficient of Variation (CV)	3.015	2.446	2.567	2.372	2.607
Relative CV (%)	20.142	19.843	46.106	53.032	56.883
Minimum	0.000	0.000	0.000	0.000	0.000
Maximum	4.464	4.464	0.135	0.003	0.056
1st percentile	0.000	0.000	----	----	----
5th percentile	0.000	0.000	0.000	0.000	0.000
10th percentile	0.000	0.000	0.000	0.000	0.000
25th percentile	0.000	0.000	0.000	0.000	0.000
Median	0.003	0.003	0.001	0.000	0.000
75th percentile	0.026	0.199	0.003	0.000	0.002
90th percentile	0.625	1.267	0.053	0.003	0.025
95th percentile	1.476	1.678	0.098	0.003	0.053
99th percentile	4.051	4.277	----	----	----

Statistically, the CSSK lithology hosts the bulk of the mineralization with the granite displaying low-grade values. The overall average grade in the GRA lithology is mostly driven by a few outlier values above the 99th percentile. There is no significant mineralization in the SCH or MAR lithology's.

Frequency distribution of the raw assays within the CSSK domains for assays above 0.001 (Figure 14-15) show a lognormal distribution, with 95% of the WO_3% values below 2.0% in the CSSK domain.

FIGURE 14-15: RAW ASSAY FREQUENCY DISTRIBUTION, BK ZONE IN CSSK LITHOLOGY



14.4.5 Capping

A combination of decile analysis and a review of probability plots was used to determine the potential risk of grade distortion from higher grade assays. The decile analysis results indicated that grade capping was warranted.

After conducting a careful examination of the data set, AGP elected to apply a hard cap of 3.8% WO_3 on the CSSK raw assay, and 0.08% WO_3 on the GRA assays prior to compositing.

Raw Assay Capping

Table 14-20 shows a summary of the treatment of high-grade outliers during the interpolation. The cap value selected was above the 98th percentile of the raw assay distribution and should affect between 1% and 2% of the metal content. The raw assay capping scenario reduced the

CV from 2.45 down to 2.39 for the CSSK domain, and from 2.57 down to 2.28 for the GRA domain. The CV of the capped raw assays remains high for linear interpolation methods. Once the data was split into high-grade and low-grade CSSK domains and then composited at 2.5 m, the CV for the CSSK domains was reduced to 2.5 in the high-grade component and 1.1 for the low-grade component which indicated that capping and compositing was not sufficient to reduce to CV at or below 2.0. Despite the high CV in the high-grade domain, the model was interpolated without a search restriction mostly due to the very compact nature of the deposit where the search restriction range would approach the size of the entire mineralized zone.

TABLE 14-20: HIGH-GRADE TREATMENTS

Domain	Raw Assay Capping			
	Raw Assay Cap Value (% WO_3)	Number of Assays Affected	Total Number of Assays	Percent of Assays Affected (%)
CSSK (1000-LG)	3.8	3	152	1.97
CSSK (1001 -HG)				
GRA (2000)	0.08	1	31	3.23

Total Metal Affected by the Treatment of Outliers

The total metal affected by the treatment of outliers was evaluated in the final model. At a 0.15% WO_3 cut-off, the capping strategy removed 0.7% of the metal in the Inferred categories, as shown in Table 14-21. Overall, at the 0 cut-off, 0.6% of the metal was removed from the model.

TABLE 14-21: METAL REMOVED BY CAPPING STRATEGY (INF CATEGORY BK ZONE)

Grade Bins (WO_3%)	Cumulative WO_3 MTU Removed Overall (MTU)	Cumulative Percent of Metal Removed Overall (%)
>0.50	225	1.4
>0.20	153	0.7
>0.15	153	0.7
>0.10	153	0.7
>0.00	153	0.6

14.4.6 Composites

From the sampling length statistics, AGP elected to use a composite length of 2.5 m. The composite size selected is above the third quartile and allows grade variations to be represented while reducing the variance.

Assays were length-weight averaged, and any grade capping was applied to the raw assay data prior to compositing. True gaps in sampling, and samples below detectable limits, were composited at zero grade. There was no stope void, drift, or other underground excavation that needed to be considered while compositing the raw assays.

The 2.5 m composite intervals were created moving downward from the collar of the holes toward the hole bottoms. Composite lengths are automatically adjusted by the software to leave no remnants. The adjustment resulted in composite lengths ranging between 1.4 m and 3.69 m, with 73% of the composites ranging between 2.25 m and 2.75 m within the CSSK and GRA lithologies. Table 14-22 shows the descriptive statistics for the composites point located within the mineralized envelope only.

The final composites were back tagged using the high-grade probability model. This allowed the CSSK composites to be coded with either 1,001 for the CSSK composites within the high-grade probability model or 1,000 for the CSSK composites in the low-grade buffer zone within the mineralized envelope but outside the high-grade probability model.

TABLE 14-22: DESCRIPTIVE STATISTICS FOR COMPOSITES (WO_3 % CAPPED) WITHIN THE BK ZONE

Domain Domain Code	ALL RC	CSSK-HG 1001	CSSK-LG 1000	GRA 2000
Valid cases	117	31	55	31
Mean	0.188	0.676	0.014	0.007
Variance	0.229	0.549	0.001	0.000
Std. Deviation	0.479	0.741	0.036	0.020
Coefficient of Variation (CV)	2.551	1.096	2.484	2.796
Relative CV (%)	23.581	19.683	33.501	50.216
Minimum	0.000	0.000	0.000	0.000
Maximum	3.128	3.128	0.187	0.094
1st percentile	0.000	----	----	----
5th percentile	0.000	0.002	0.000	0.000
10th percentile	0.000	0.016	0.000	0.000
25th percentile	0.000	0.135	0.000	0.000
Median	0.003	0.521	0.003	0.000
75th percentile	0.092	0.916	0.006	0.003
90th percentile	0.747	1.928	0.038	0.021
95th percentile	0.990	2.652	0.131	0.075
99th percentile	2.985	----	----	----

14.4.7 Spatial Analysis - Variography

Variography was not attempted for the BK Zone because there were too few composites to generate a meaningful variogram.

14.4.8 Search Ellipsoid Dimension and Orientation

Without the benefit of variography to assist in assigning the correct range, it is typical for a geologist modelling the deposit to consider the strike and dip of the mineralized horizon and the drill hole spacing and distribution. For this model, AGP used the overall geometry, along with the CSSK bottom contact, as guiding principles to set the search ellipsoid orientation. Since the mineralization is similar to the RC Zone, the range used for the BK Zone was borrowed from the RC Zone search ellipsoids.

The first pass maximum range was sized to reach at least the next drill section. A 1.8 x multiplier (from Pass 1) was used to set the range of the second pass. Lastly, a 1.8 x multiplier (from Pass 2) was used to set the range for the third interpolation pass, which reached the maximum range displayed by the variogram.

The CSSK bottom contact formed a shallow structural basin. In order to optimize the sample search with the orientation of the zone, without resorting to unfolding, five subdomains were delineated. The sub-domains allowed for rotation of the search ellipsoid. For the GRA domains, the search ellipsoid was oriented to best represent the orientation of the sill. The orientation sub-domains were coded 10, 20, 30, 40, and 50.

Table 14-23 lists the final values used in the resource model for the range of the major, semi-major, and minor axes. Rotation angles are based on the GEMS ZXZ or ZYZ methodology, which uses a conventional right-hand rule.

TABLE 14-23: SEARCH ELLIPSOID DIMENSIONS – BK ZONE

CSKK Domain (Code 1000, 1001)	Rotation (Rot/degrees)	Pass 1 Range Major, Semi-major, minor (m)	Pass 2 Range Major, Semi-major, minor (m)	Pass 3 Range Major, Semi-major, minor (m)
Sub-domain 10 – CSSK	ZYZ/ -50, -4, 0	34, 21, 8	60, 38, 15	109, 69, 27
Sub-domain 20 – CSSK	ZXZ/ -50, 10, 0	34, 21, 8	60, 38, 15	109, 69, 27
Sub-domain 30 – CSSK	ZXZ/ -50, 20, 0	34, 21, 8	60, 38, 15	109, 69, 27
Sub-domain 40 – CSSK	ZXZ/ 30, -20, 0	34, 21, 8	60, 38, 15	109, 69, 27
Sub-domain 50 – CSSK	ZXZ/ 30, -10, 0	34, 21, 8	60, 38, 15	109, 69, 27
GRA Domain (Code 2000)	**Rotation as Indicated (degrees)**	**Pass 1 Range Major, Semi-major, minor (m)**	**Pass 2 Range Major, Semi-major, minor (m)**	**Pass 3 Range Major, Semi-major, minor (m)**
GRA	ZXZ/ -85, 15, 0	30, 25, 10	55, 45, 20	100, 45, 20

14.4.9 Resource Block Model

The block model was constructed using GEMS 6.8™. An equidistant block size of 5 m horizontally by 5 m across by 2.5 m vertically was selected, based on mining selectivity considerations and the density of the dataset. This block matrix size assumed drilling and blasting on 5 m bench and mine in flitches, 2.5 m high. The 2.5 m high lift is also suitable for a room-and-pillar underground operation.

The block model was defined on the project coordinate system with a 0-degree rotation. Table 14-24 lists the upper southeast corner of the model and is defined on the block edge.

The rock type model was coded by combining the domain code with the sub-domain code, controlling the search ellipsoid orientation.

TABLE 14-24: BLOCK MODEL DEFINITION FOR BK ZONE (BLOCK EDGE)

Resource Model Items	Parameters
Easting	670,520
Northing	5,776,380
Top relative elevation	1,880
Rotation angle (counterclockwise)	0
Block size (X, Y, Z in meters)	5 x 5 x 2.5
Number of blocks in the X direction	24
Number of blocks in the Y direction	23
Number of blocks in the Z direction	32

14.4.10 Interpolation Plan

The resource model was created in GEMS 6.8™ with a multiple folder setup, using inverse distance to the power of two (ID^2) for interpolating the WO_3 grade. A nearest neighbour (NN) model was used for validation. The interpolation was carried out in a multi-pass approach, with an increasing search dimension coupled with decreasing sample restrictions.

- Pass 1 used an ellipsoid search with 7 samples minimum, and 15 maximum. A maximum of 3 samples per hole was imposed on the data selection, forcing a minimum of 3 holes to be used in the search.
- Pass 2 used an ellipsoid search with 4 samples minimum, and 15 maximum. A maximum of 3 samples per hole was imposed on the data selection, forcing a minimum of 2 holes to be used in the search.
- Pass 3 used an ellipsoid search with 2 samples minimum, and 15 maximum. A maximum of 3 samples per hole was imposed on the data selection, allowing a block to be interpolated by a single hole.

All orientation sub-domain boundaries were treated as soft boundaries, allowing samples from one sub domain to be used in the interpolation of the adjacent sub domain. This is the correct methodology, since the orientation sub domains were only used to control the orientation of the sample search ellipsoids, and do not correspond to any known lithological contacts or faults. The remaining domains were treated as hard boundaries, including the boundary between the CSSK high-grade and CSSK low-grade domain.

The model was interpolated only within the mineralized wireframe. Volume reporting used the lithological wireframes to correctly assign the tonnages of the CSSK and GRA to the correct grade bins. The methodology intrinsically assumes that the granite will be separated out during mining. For this deposit, AGP believes this is the correct approach, since in the field the granite is visually distinct from the calc-silicate, and Happy Creek is planning to use a UV light to further reduce dilution.

14.4.11 Mineral Resource Classification

Several factors are considered in the definition of a resource classification:

- Canadian Institute of Mining (CIM) requirements and guidelines
- experience with similar deposits
- spatial continuity
- confidence limit analysis
- geology

No environmental, permitting, legal, title, taxation, socioeconomic, marketing, or other relevant issues are known to the author that may currently affect the estimate of mineral resources. Mineral reserves can only be estimated based on an economic evaluation used in a Prefeasibility or Feasibility Study of a mineral project. Thus, no reserves have been estimated. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability.

Typically, the confidence level for a grade in the block model is reduced with the increase in the search ellipsoid size, along with the diminishing restriction on the number of samples used for the grade interpolation. This is essentially controlled by the pass number of the interpolation plan, as described in the previous section. A common technique is to categorize a model based on the pass number and distance to the closest sample.

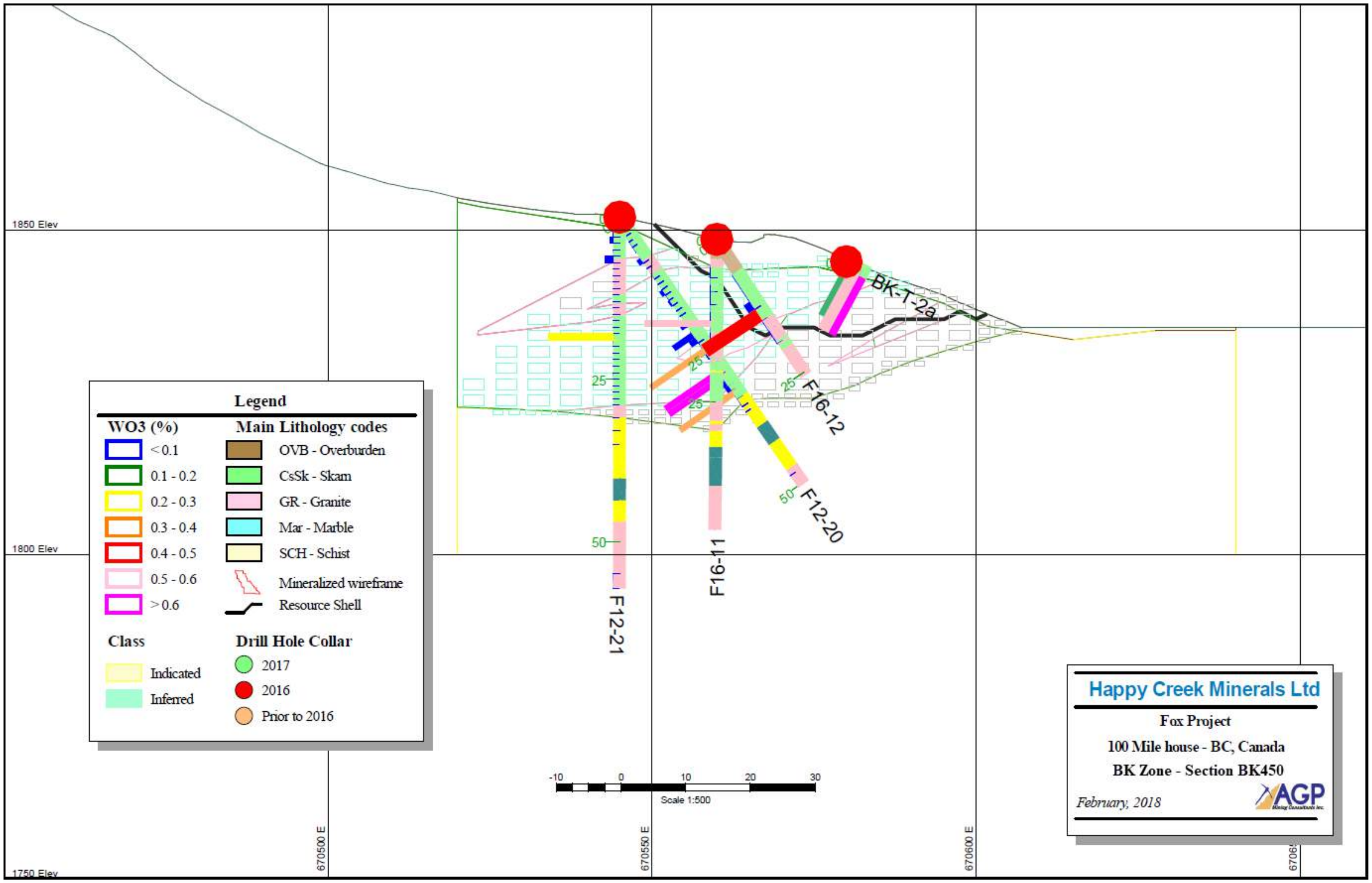
Because the BK Zone is at an early stage of exploration and the resources relied heavily on trench data, a single confidence category exists for the model. The usual CIM guideline classes of Inferred are Code 3 in the class model. Table 14-25 lists the parameters used to code the classification model. A special Code 4 represents mineralization that was considered too far away from the existing drilling to be classified as an Inferred resource. The Code 4 blocks have been left in the classification model to assist Happy Creek in its exploration activity. Figure 14-16 displays the block model classification on section.

TABLE 14-25: BN ZONE CLASSIFICATION PARAMETERS

Pass Number	Retained As	Downgraded To
Passes 1 and 2 and 3	Inferred (Code 3) if distance to closest composite is <120 m	Code 4 if distance to closest sample is > 120 m and/or the number of hole used in the interpolation is = 1

Approximately 86% of the volume within the high-grade mineralized zones are classified as Inferred. The remaining 14% of the volume was either flagged as Code 4 or are areas that could not be interpolated and therefore bore no grade.

FIGURE 14-16: BLOCK MODEL CLASSIFICATION ON VERTICAL CROSS-SECTION BK450N - BK ZONE



14.4.12 Block Model Validation

The BK Zone deposit grade models were validated by four methods:

- visual comparison of colour-coded block model grades with composite grades on sections and plans
- comparison of the global mean block grades for OK, ID2, NN models, composite, and raw assay grades
- comparison using grade profiles to investigate local bias in the estimate

14.4.13 Visual Comparison

The visual comparison of block model grades with composite grades shows a reasonable correlation between values for most of the model (Appendix I, J, K and L).

14.4.14 Global Comparisons

Table 14-26 shows the grade statistics for the raw assays, composites, NN, and ID^2 models. Statistics for the tungsten trioxide composite mean grades compare well to the raw assay grades, with a normal reduction in values due to smoothing, related to volume variance. The block model mean grade, when compared against the composites, showed a normal reduction in values especially when compared to the de-clustered raw assay and composite grade. The grade of the ID^2 model is a higher grade than the NN models. This is attributed to the clustered and limited data support, and it is sometimes encountered at that classification level.

TABLE 14-26: GLOBAL COMPARISONS (INDICATED AND INFERRED, BK ZONE)

Methodology	WO_3 (%) at >0.0 Cut-off (Cat. 1–3)	WO_3 (%) at >0.0 Cut-off (Cat. 1–4)
Raw assays uncapped at 0.0 Cut-off (clustered/de-clustered)	0.303/0.193	0.303/0.193
Composite capped at 0.0 Cut-off (clustered/de-clustered)	0.205/0.115	0.205/0.115
Nearest neighbor (NN)	0.092	0.079
Inverse distance squared using true distance (ID)	0.105	0.091

14.4.15 Local Comparisons – Grade Profile

Comparison of the grade profiles (swath plots) of the raw assay, composites, and estimated grades allows for visual verification of an over- or underestimation of the block grades at the global and local scales. A qualitative assessment of the smoothing and variability of the estimates can also be observed from the plots. The output consists of three swath plots, generated at 25 m intervals in the X direction, 25 m in the Y direction, and 13 m vertically.

Due to the orientation of the BK deposit, the swath plot should show the best results in the X and Y axes for this model.

In general, the swath plots show an over-estimation of grades in the southwest corner of the deposit. In other areas the model does not show any local bias. The southwest corner was investigated and was found to be poorly supported by drill holes.

For the remaining areas, the peaks and valleys on the assay and composite lines are well represented in the resource model, with the interpolated model offering more smoothing. Grade profiles for tungsten trioxide are presented in Figure 14-17 and Figure 14-18. The profile for the Z chart was omitted.

FIGURE 14-17: X AXIS SWATH PLOTS (INDICATED AND INFERRED CLASSIFICATION)

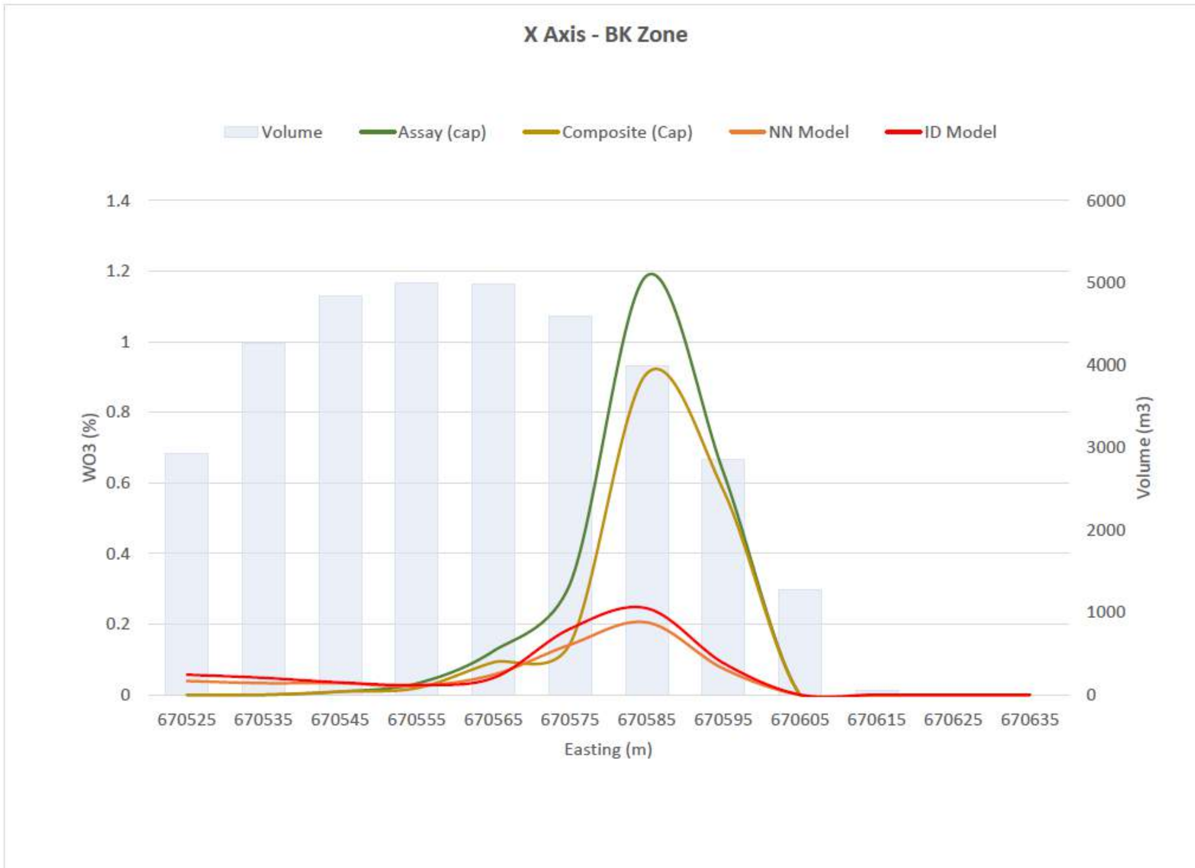
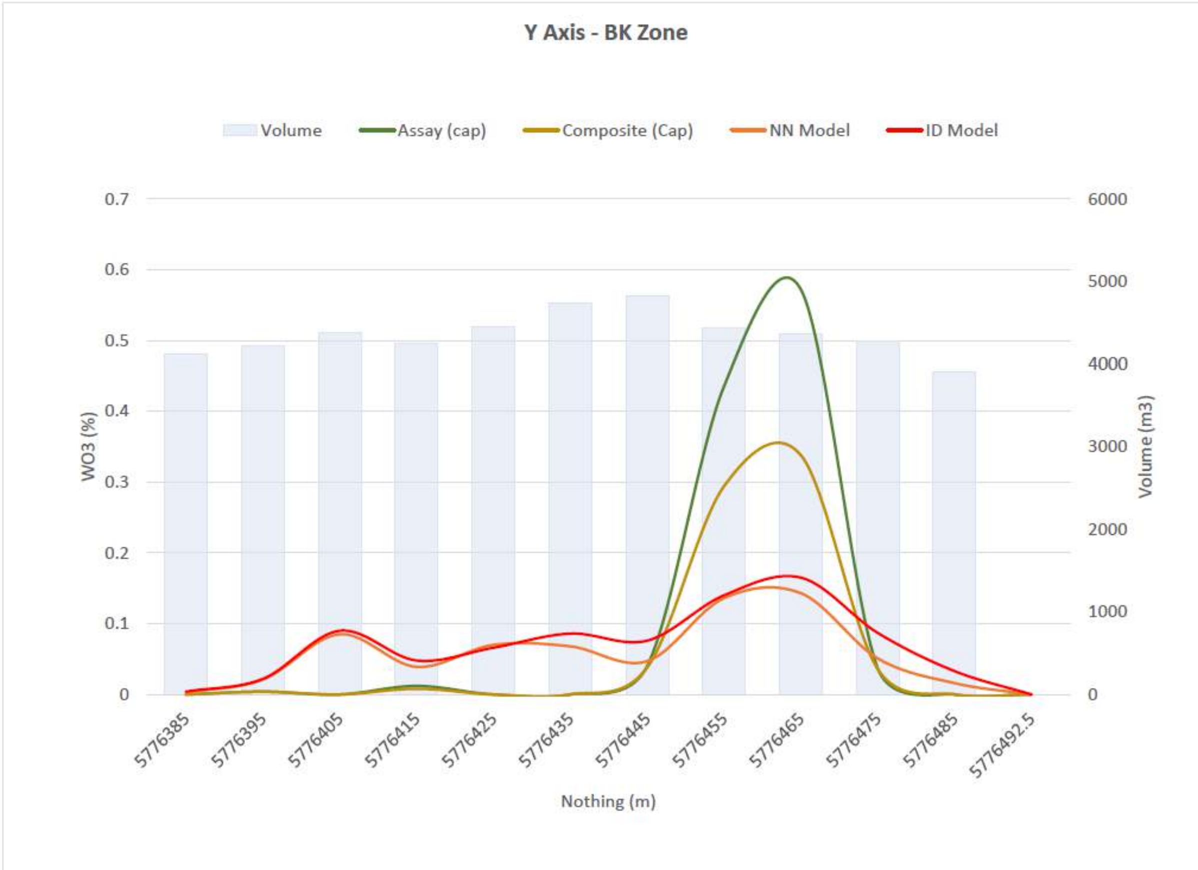


FIGURE 14-18: Y AXIS SWATH PLOTS (INDICATED AND INFERRED CLASSIFICATION)



14.5 Mineral Resource Tabulation, RC, BN and BK Zones

Effective February 27, 2018, AGP completed an update of the January 26, 2017 estimate covering the RC Zone and BN Zone. The estimate also included a first-time resource estimate for the BK Zone. The mineral resource presented herein is in conformance with the CIM Mineral Resource definitions (2014) referred to in the NI 43-101 Standards of Disclosure for Mineral Projects.

The RC Zone model was interpolated with 80 core holes and 23 trenches completed by Happy Creek from 2010 through to 2017, totalling 5,711 m and containing 2,198 assays. The BN Zone model is supported by 52 drill holes completed by Happy Creek in 2012, 2016, and 2017 totalling 6,366 m of drilling and containing 1,213 assays. The BK Zone model is supported by 11 drill holes and 12 trenches completed by Happy Creek in 2012 and 2016 totalling 606 m and containing 226 assays. The estimate considers all data that was available prior to January 28, 2018.

The resource encompasses the RC, BN, and BK Zones of the Fox project. The estimate was completed based on the concept of a small scale open pit operation for the BK Zone, a combined open pit and underground room-and-pillar operation for the RC Zone, and a small scale underground room-and-pillar mining operation for the BN Zone. This resource also assumes a certain degree of selectivity in order to separate the granite from the mineralized calc-silicate on the RC and BK deposits, or separate the high-grade zones on the BN deposit from the surrounding waste. AGP assumed this selectivity will be obtained via a comprehensive grade control program, using UV light and possibly pre-sorting technologies. No other zones on the Fox project were evaluated.

The resource estimate consists of Indicated and Inferred resources reported as tungsten trioxide. Based on current exploration drilling data, the RC and BK Zones are tungsten-bearing calc-silicate and skarn. Grades tend to be better at depth in proximity to the calc-silicate/schist contact. The mineralization for the RC Zone is trending to the northwest and is gently dipping to the southwest. The trend of the westerly dipping mineralization for the BK Zone is currently unknown.

Based on the current exploration drilling data, the BN Zone is a tungsten-bearing calc-silicate and skarn. The mineralization appears to be trending to the northwest and is gently dipping to the southwest. Multiple stacked high-grade mineralized zones are contained within calc-silicate horizons.

No mining plans have yet been prepared for the deposit however, from the geometry described, it seems likely the deposit could be mined by open pit on the RC Zone, followed by an underground operation, likely using a room-and-pillar mining method, with or without backfill. The BN Zone could be mined via an underground room-and-pillar operation. At present, the BK Zone could potentially be mined by open pit only.

At the current stage of the project and metallurgical testing, the mineral processing is anticipated to include Tables (gravity) and flotation to separate sulphides, with several paths for final optimization available. From the SGS Laboratory data, a mass balance was prepared with reference to standard practice as operating tungsten mines. This trial returned 75.8% of the WO_3 within a 68% WO_3 concentrate.

At the current stage of the project, the preliminary first-pass metallurgical testing, used a combination of flotation to separate sulphides, followed by Falcon concentrator and Tables (gravity) that produced an initial cleaner concentrate and an additional middling product which can be recycled back upstream for re-processing. Together these two products contain 70.8% of the tungsten. In 2015, another sample of approximately 400 kg was collected from the face of the RC Zone and submitted to SGS Laboratories of Vancouver, B.C. From the data, a mass balance was prepared with reference to standard practice at operating tungsten mines. This trial has returned 75.8% of the WO_3 within a 68% WO_3 concentrate.

14.5.1 Marginal Cut-off Grade for Resource Estimate

The economic calculation to support this estimate is provided in Table 14-27. Operating costs and metal recovery assumptions must be considered conceptual at this stage, and no detailed economic analysis has been made to test these figures. A tungsten price of US$230/MTU of WO_3 in concentrate was used for the calculation, which was 4% higher than the Rotterdam spot price on January 30, 2018, but 15% lower than the monthly average price for January 2018. To assess the mineral resources, an in-situ resource cut-off grade of 0.175% WO_3 was used for potential open pit material and 0.45% WO_3 for potential underground material.

TABLE 14-27: PRELIMINARY BREAKEVEN CUT-OFF GRADE RANGE ASSUMPTIONS

Fox Project – RC Deposit	Unit	Price	
Price in US$	US$/ mtu of WO_3 in conc.	230	
Forex Rate	US$/CDN$	0.8	
Price in CDN$	CDN$/mtu of WO_3 in conc.	287.50	
Fox Project -– RC Deposit	**Unit**	**Open Pit**	**Underground**
Mining	CDN$/t	8.00	50.00
Milling	CDN$/t	26.00	26.00
G&A	CDN$/t	10.00	10.00
Ore Based Cost	CDN$/t	36.00	86.00
Process Recovery	%	75.8	75.8
Conc. Grade	% WO_3	68	68
Con Moisture Content	%	5	5
Trucking to Vancouver	CDN$/WMT	66.00	66.00
Port Charges	CDN$/WMT	20.00	20.00
Shipping to China/Japan/Korea	CDN$/WMT	75.00	75.00
Sub-total (Trucking, Port, and Shipping)	CDN$/WMT	161.00	161.00
Breakeven Cut-off	% WO_3	0.175	0.45

RC Zone

For the RC Zone, it is understood the deposit is close to surface, but dips toward the cliff on the west side of the deposit. This will become a limiting factor for an open pit expansion, assuming future drilling expands the deposit to the northwest. For the reasonable prospect of economic extraction, the open pit scenario option considered, limited the pit shell from climbing up the cliff. This approach left a sizable resource which could be potentially accessed from the pit bench and mined via a room-and-pillar operation. For the reasonable prospect of economic extraction below the resource constraining shell, AGP used a higher cut-off grade suitable for underground mining and visually validated the blocks above the cut-off to ensure most of them coalesce into mineable shapes.

BN Zone

The BN Zone as defined by the current drilling is deep seated. Resources are considered amendable to underground extraction, likely using a small-scale room-and-pillar operation. The deposit displays a shallow dip to the south-west and consequently may outcrop to the surface on the north-east side. Additional drilling will be required to test this hypothesis. For the reasonable prospect of economic extraction, AGP used a higher cut-off grade suitable for underground mining and visually validated the blocks above the cut-off to ensure most of them coalesce into mineable shapes.

BK Zone

The BK Zone is close to surface and dips gently to the west into the topography. This may eventually become a limiting factor for an open pit expansion, assuming future drilling expands the deposit to the west. For this resource estimate, the open pit scenario option, considered for the reasonable prospect of economic extraction, was not impeded by the rising topography since the low-grade in the western portion of the deposit limited the resource constraining shell to the material outcropping on surface on the eastern edge of the deposit.

14.5.2 Mineral Resource

To meet the CIM definitions of reasonable prospects of economic extraction, a Lerchs-Grossman (LG) optimized shell was generated to constrain the potential open pit material in the RC and BK Zones. Parameters used to generate this shell included the open pit parameters shown in Table 14-27, and 50° slopes for the pit shell. The LG shell on the RC Zone was constrained from extending up a steep bank to the west into a high strip area that would be more readily exploited by underground methods. The remaining material below the RC Zone resource constraining shell, and at the BN Zone, is considered amendable to underground extraction.

The operating costs assume conventional milling at a rate of 1,000 tonnes per day. The tungsten trioxide recovery used is supported by metallurgical test work performed on several surface bulk samples. The resulting optimized resource constraining shell in the RC Zone has a strip ratio of 3.28 to 1.

Cut-off grades in the resource report tables were reported 0.175% WO_3 for potential open pit material and 0.45% WO_3 for potential underground material.

Table 14-28 shows a summary of the results of the resource estimate at the Fox Project, RC, BN, and BK Zones.

RC Zone

At the greater than 0.175% WO_3 cut-off selected, the updated model returned a total of 397,400 Indicated tonnes grading at 0.713% WO_3, containing 283,400 metric ton unit (MTU) of tungsten trioxide contained within the resource constraining shell. Below the constraining shell, and reported at a greater than 0.45% WO_3 cut-off, the updated model returns 185,000 tonnes of Indicated resources grading at 1.067 WO_3, containing 197,100 MTU of tungsten trioxide.

Inferred resources within the resource constraining shell, and reported at a greater than 0.175% WO_3 cut-off, amounted to 14,700 tonnes grading at 0.662% WO_3, containing 9,700 MTU of tungsten trioxide. Below the constraining shell, and reported at a greater than 0.45% WO_3 cut-off, the updated model returned 76,800 tonnes of Inferred resources grading at 0.961 WO_3, containing 73,800 MTU of tungsten trioxide.

BN Zone

At the greater than 0.45% WO_3 cut-off selected, the new resource estimate deemed amendable to underground extraction, returned a total of 453,000 Inferred tonnes grading at 1.321% WO_3, containing 598,300 MTU of tungsten trioxide.

BK Zone

At the greater than 0.175% WO_3 cut-off selected, the new resource estimate deemed amendable to open pit extraction, returned a total of 20,900 Inferred tonnes grading at 0.672% WO_3, containing 14,000 MTU of tungsten trioxide.

Fox Project Total Resources

The Fox Project total Indicated resources for the RC Zone amounted to 582,400 tonnes grading at 0.826% WO_3, containing 480,500 MTU of tungsten trioxide. The Inferred resources for the RC, BN, and BK Zones combined, amounted to 565,400 tonnes grading at 1.231% WO_3, containing 695,800 MTU of tungsten trioxide.

TABLE 14-28: RESOURCE ESTIMATE OF THE FOX PROJECT FOR THE RC BN AND BK ZONES

Classification	Zone	WO_3 Cut-off (%)	Tonnage (T)	WO_3 (%)	WO_3 (MTU)
Indicated	RC Zone within resource constraining shell	> 0.175	397,400	0.713	283,400
	RC Zone below the resource constraining shell	> 0.450	185,000	1.067	197,100
Inferred	RC Zone within resource constraining shell	> 0.175	14,700	0.662	9,700
	RC Zone below the resource constraining shell	> 0.450	76,800	0.961	73,800
Inferred	BN Zone (amendable to UG extraction)	> 0.450	453,000	1.321	598,300
	BK Zone (within resource constraining shell)	> 0.175	20,900	0.672	14,000
Indicated	Total	Various	582,400	0.826	480,500
Inferred	Total	Various	565,400	1.231	695,800

Notes: Cut-off determined by using a WO_3 price of CDN$287.50/MTU WO_3.in concentrate
Rounding of Tonnes as required by reporting guidelines may result in apparent differences between tonnes, grade, and contained metal.

AGP is required to inform the public that the quantity and grade of reported Inferred resources in this estimation must be regarded as conceptual in nature and are based on limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological grade or quality of continuity. For these reasons, an Inferred resource has a lower level of confidence than an Indicated resource. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. It is also noted that mineral resources, that are not Mineral Reserves, do not have demonstrated economic viability. Lastly, rounding of values as required by the reporting guidelines may result in apparent differences between tonnes, grade, and metal content.

Table 14-29, Table 14-30, Table 14-31, and Table 14-32 show the sensitivity of the model to changes in cut-off. Table 14-29 shows the RC Zone within the resource constraining shell, Table 14-30 and Table 14-31 show the RC Zone and the BN Zone material deemed amendable to underground extraction, and Table 14-32 shows the BK Zone within the resource constraining shell. The base case cut-off of 0.175% WO_3 and 0.45% WO_3 is highlighted in the tables. Figure 14-19 illustrates an isometric view of the grade distribution of the RC Zone in the Indicated and Inferred categories with grades above 0.175% WO_3.

TABLE 14-29: CUT-OFF SENSITIVITY RC ZONE WITHIN THE RESOURCE CONSTRAINING SHELL

Zone	Classification	WO_3 Cut-off (%)	Tonnage (T)	WO_3 (%)	WO_3 (MTU)
RC Zone within the resource constraining shell	Indicated	> 0.40	353,000	0.765	270,000
		> 0.35	368,000	0.749	275,700
		> 0.30	377,700	0.738	278,900
		> 0.20	392,700	0.720	282,600
		> 0.175	**397,400**	**0.713**	**283,400**
		> 0.15	403,500	0.705	284,400
	Inferred	> 0.40	13,400	0.692	9,300
		> 0.35	14,200	0.673	9,600
		> 0.30	14,700	0.662	9,700
		> 0.20	14,700	0.662	9,700
		> 0.175	**14,700**	**0.662**	**9,700**
		> 0.15	14,700	0.662	9,700

TABLE 14-30: CUT-OFF SENSITIVITY RC ZONE BELOW THE RESOURCE CONSTRAINING SHELL

Zone	Classification	WO_3 Cut-off (%)	Tonnage (T)	WO_3 (%)	WO_3 (MTU)
RC Zone Below the resource constraining shell	Indicated	> 0.70	141,800	1.217	172,500
		> 0.60	159,200	1.156	184,000
		> 0.55	166,300	1.131	188,000
		> 0.50	173,100	1.107	191,600
		> 0.45	**184,700**	**1.067**	**197,100**
		> 0.40	198,500	1.022	202,900
		> 0.30	228,800	0.933	213,400
	Inferred	> 0.70	54,200	1.118	60,600
		> 0.60	64,800	1.041	67,400
		> 0.55	69,600	1.009	70,200
		> 0.50	72,900	0.988	72,000
		> 0.45	**76,800**	**0.961**	**73,800**
		> 0.40	84,500	0.913	77,100
		> 0.30	92,300	0.866	79,900

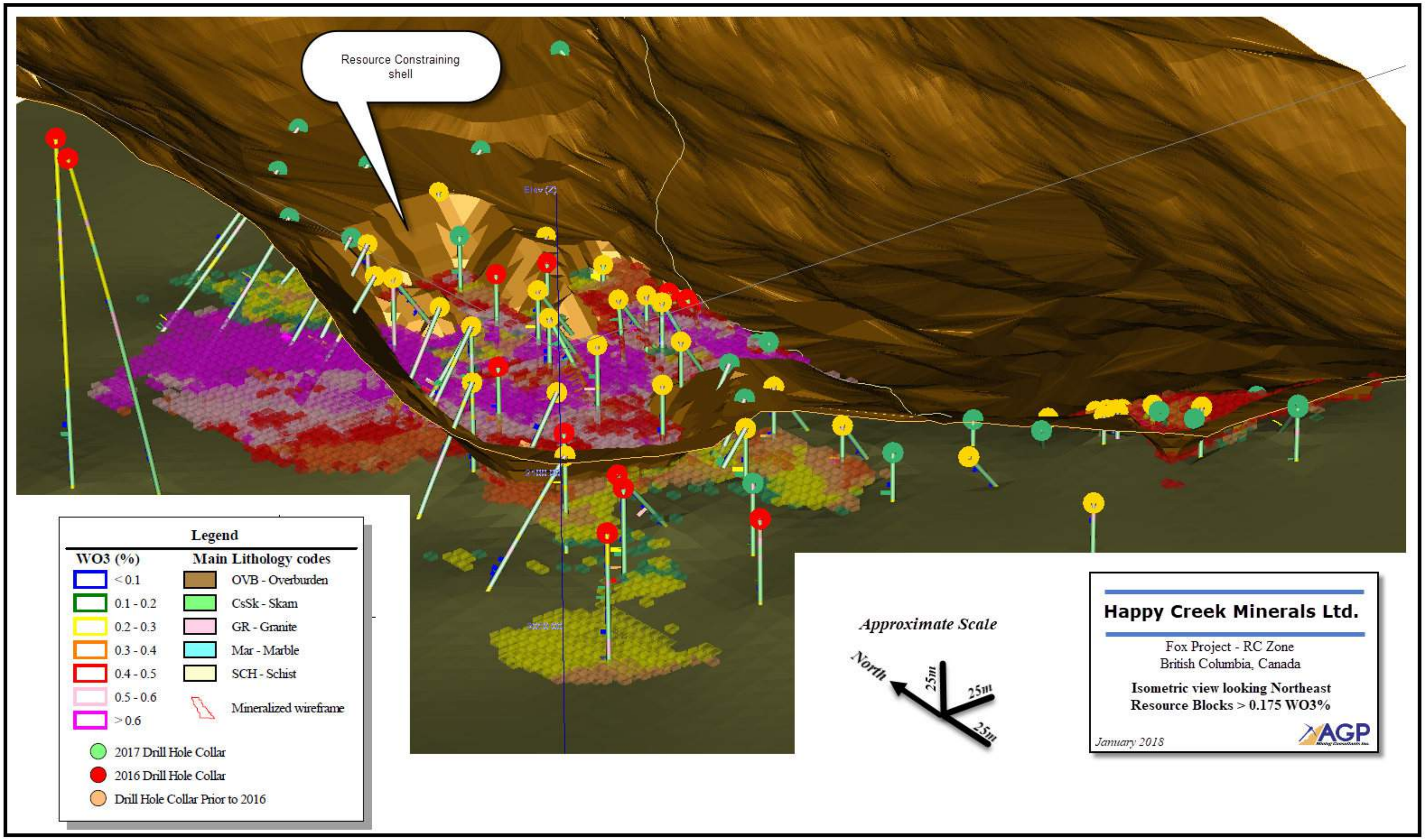
TABLE 14-31: CUT-OFF SENSITIVITY BN ZONE

Zone	Classification	WO_3 Cut-off (%)	Tonnage (T)	WO_3 (%)	WO_3 (MTU)
BN Zone	Inferred	> 0.70	321,400	1.634	525,100
		> 0.60	360,500	1.527	550,400
		> 0.55	381,100	1.475	562,300
		> 0.50	420,000	1.387	582,600
		> 0.45	**453,000**	**1.321**	**598,300**
		> 0.40	498,800	1.238	617,800
		> 0.30	655,100	1.027	672,700

TABLE 14-32: CUT-OFF SENSITIVITY BK ZONE

Zone	Classification	WO_3 Cut-off (%)	Tonnage (T)	WO_3 (%)	WO_3 (MTU)
BK Zone	Inferred	> 0.40	20,100	0.685	13,800
		> 0.35	20,600	0.677	14,000
		> 0.30	20,600	0.677	14,000
		> 0.20	20,900	0.672	14,000
		> 0.175	**20,900**	**0.672**	**14,000**
		> 0.15	20,900	0.672	14,000

FIGURE 14-19: ISOMETRIC VIEW OF THE RC ZONE (IND. + INF., WO_3% GRADE > 0.175%)



14.6 Comparison to Previous Estimate

Comparing this new resource estimate against the figure published on January 26, 2017 reveals an increase of 19.8% in the Indicated tonnes. The resource grade increases slightly from 0.818% WO_3 to 0.826% WO_3 yielding an increase of 21.0% in MTU of tungsten trioxide.

The change in the Inferred resource amounted to 56.6% more tonnes, mostly due to the expansion of the BN Zone and the addition of the BK Zone. Grade is slightly lower from 1.568% WO_3 to 1.231% WO_3. This combined with the higher tonnage, yielded a 22.9% increase in the MTU of tungsten trioxide. (Table 14-33)

TABLE 14-33: RESOURCE STATEMENT COMPARED WITH PREVIOUS ESTIMATE

Date **Zones** WO_3**% Cut-off**	**February 2018 Resource** ***RC + BN + BK Zones*** ***> 0.175 OP and > 0.450 UG***			**January 2017 Resource** ***RC + BN Zones*** ***> 0.2 OP and > 0.55 UG***					
Classification	**Tonnage (T)**	**WO_3 (%)**	**WO_3 (MTU)**	**Tonnage (T)**	**WO_3 (%)**	**WO_3 (MTU)**	**Tonnage % Diff.**	**Grade Diff.**	**MTU % Diff**
Indicated	582,400	0.826	480,500	486,000	0.818	397,000	19.8%	0.01	21.0%
Inferred	565,400	1.231	695,800	361,000	1.568	566,000	56.6%	-0.34	22.9%

The result of this comparison indicates that Happy Creek successfully converted more Inferred resources to Indicated resources on the RC Zone. Additional drilling on the BN Zone expanded the deposit and improved the understanding of the mineralized structures. A few additional confirmation drill holes are still required to convert the Inferred mineralization to Indicated. The BK Zone resources are encouraging. This zone is at an early stage of exploration and shares similar mineralization as the RC Zone.

15 MINERAL RESERVE ESTIMATES

These items are not applicable to the current stage of the Property.

16 MINING METHODS

These items are not applicable to the current stage of the Property.

17 RECOVERY METHODS

These items are not applicable to the current stage of the Property.

18 PROJECT INFRASTRUCTURE

These items are not applicable to the current stage of the Property.

19 MARKET STUDIES AND CONTRACTS

These items are not applicable to the current stage of the Property.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

These items are not applicable to the current stage of the Property.

21 CAPITAL AND OPERATING COSTS

These items are not applicable to the current stage of the Property.

22 ECONOMIC ANALYSIS

These items are not applicable to the current stage of the Property.

23 ADJACENT PROPERTIES

There are no adjoining properties to the Fox property. The past-producing Boss Mountain molybdenum mine is located 25 km west of the Fox property. Boss Mountain is a molybdenum-tungsten mineral system associated with a mid-Cretaceous age stock of similar age to the Deception Mountain stock. Boss Mountain was Canada's first primary molybdenum producer, operating between 1968 and 1983 from underground and open pits. The only relevance to the Fox property is the presence of molybdenum and tungsten and association with a mid-Cretaceous intrusion.

24 OTHER RELEVANT DATA AND INFORMATION

In addition to tungsten, the Fox property has identified zones of molybdenum in outcrop, drill core, and soil that are of potential interest. Molybdenum appears associated with the Deception stock and a broad halo of positive molybdenum occurs in soil at the upper edge of the stock's contact with overlying metasediments. The presence of molybdenum in soil, rock, and drill core and similar age of intrusive to the Boss Mountain molybdenum mine, should not be overlooked for its bulk tonnage molybdenum potential.

Logging roads and clear cuts occupy much of the southern portion of the property. Access to Deception Mountain is currently by helicopter or by walking. Commercial logging plans call for extension of roads further north (uphill) of the Fox camp area onto the south flank of Deception Mountain. This would reduce the access distance to the northern mineral occurrences such as the RC Zone. Consideration for future road access to, and development of, the Deception Mountain prospects will depend on the economics of the deposits and meeting various government parameters to limit potential effects on Mountain Caribou, fish, bear, wolves or other wildlife habitat, or as accommodation of First Nations. To date, all exploration work conducted on the Fox property has been approved and permitted by provincial government agencies and local First Nations. There are no environmental issues on the Property and exploration permits are valid until March 22, 2021

25 INTERPRETATION AND CONCLUSIONS

The Fox property is situated in southern British Columbia approximately 70 km northeast of 100 Mile House. Infrastructure and local resources favour continued exploration and future development. The southern parts of the property are readily accessible due to logging activity. Future timber harvesting will continue to enhance access.

The Property is underlain by gneiss, schist, calc-silicate, and marble of the Late Proterozoic-Early Paleozoic Snowshoe Group. Granitic rocks of the mid-Cretaceous Deception Stock intruding these rocks has created a hornfeld and metasomatic zone (aureole) that extends outward from the stock for several kilometres. It is within this aureole that tungsten mineralized zones have formed. Tungsten mineralization occurs in at least three sub-horizontals to moderately dipping stratigraphic units of 1 m to over 40 m in thickness. Scheelite, the dominant tungsten mineral, along with sulphide minerals occur as exoskarn and endoskarn, developed in calc-silicate and in quartz veins.

Since 2005, Happy Creek has successfully moved the property from early to advanced stages. To date, seven tungsten occurrences have been found around the Deception Stock within an area approximately 10 km by 3 km in extent. Many of the mineralized zones have not yet been fully delineated. The high tungsten grades in some of these zones compare favourably with well-known global deposits and mines. Although the primary commodity is tungsten, there are significant amounts of gold, silver, indium, and zinc present in some occurrences such as the RC Zone that remain to be investigated. In addition, exploration has identified well defined molybdenum and tungsten-in-soil anomalies. These have been only partially tested by diamond drilling and may offer additional potential for the discovery of other mineralized zones.

Based on the review of the QA/QC, data validation, and statistical analysis the following conclusions were made:

- AGP has reviewed the methods and procedures to collect and compile geological, geotechnical, and assaying information for the Fox project and found them to be suitable for the style of mineralization found on the property and meet accepted industry standards.
- The mineralization on the Fox project, RC Zone, and BK Zone were sampled over the years with core drilling and trenching. Both data types were used in the resource estimate. The BN Zone was sampled exclusively with core drilling.
- Samples from the drill program prior to the 2016 drill program were analyzed at Agat Labs located in Burnaby B.C. The laboratory is ISO/IEC 17025 and ISO 9001 accredited. Since 2016, data has been analyzed at SGS Laboratory (SGS); this laboratory is IEC 17025 accredited.
- For drill core prior to 2016, Agat Laboratories performed a multi-element analysis using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) or the Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP_OES) method for all samples.

Anomalous tungsten assays were re-analysed in triplicate using peroxide fusion method. Samples above 0.6% W were re-assayed using the Agat XRF classical tungsten assays. In the database, the final WO_3 assay represents the average value of the triplicate peroxide fusion analysis and the Agat's XRF classical tungsten assays (converted to tungsten trioxide). For the low-grade sample analyzed solely with ICP the final WO_3 assay represents the tungsten ICP value converted to tungsten trioxide.

- For the 2016 data, Happy Creek performed ICP assays along with peroxide fusion analysis on all samples regardless of the grade.
- For the 2017 data, Happy Creek reverted to using a multi-element ICP assay on all samples along with a peroxide fusion analysis on samples grading above 40 ppm W. Samples grading in excess of 4% W were re-analyzed for tungsten by XRF.
- A limited QA/QC program was introduced by Happy Creek during the 2007 drill program. In 2007, a select suite of samples was sent for neutron activation analysis (INAA) at Activation Laboratory (Act Labs) to validate the peroxide fusion results from Agat Laboratories. No significant difference was encountered.
- The QA/QC program was improved in 2011 with the inclusion of blanks, core duplicate, and standards reference material (SRM). This program continued through to the 2017 drill campaign. Submission rates meet the industry accepted practice for each of the QA/QC type of samples. The sampling procedures, analytical methods, and QA/QC procedures undertaken by Happy Creek indicate reasonable accuracy of the sample data and no obvious cross contamination at the sample preparation level.
- Examination of the QA/QC standards by AGP shows the SGS results in 2016 were more precise than the Agat Laboratory results. While the average grade produced by Agat's for the standard reference material was within specs, the data did show more variations which were not present in the SGS assays.
- QA/QC results during the 2016 and 2017 drill campaign indicated SGS provided quality assay results. While the ICP-MS is not considered the ideal analytical method for tungsten assays, the threshold of 40 ppm W set by Happy Creek during the 2017 drill campaign, to switch analytical methods to sodium peroxide fusion, is low enough not to introduce a significant bias in the data used for the resource estimation at the stated cut-off grade.
- MS Analytical Laboratory was selected as the empire laboratory during the 2017 drill campaign. A suite of high-grade samples was submitted to MS Analytical and results indicated a low bias for samples below 1% and a high bias for samples that were re-assayed with XRF. Due to the possible bias in the MS analytical assays, Happy Creek re-submitted the same pulps to ActLab. Results indicated that ActLabs was able to reproduce the SGS fusion assays with high accuracy, even in the values below 1% W. AGP recommends using ActLab as the umpire laboratory on future drill programs.
- During the 2017 drill campaign Happy Creek submitted a suite of core samples to SGS for specific density measurements. This program was implemented to validate the in-house measurements collected throughout the years. AGP noted the SGS results compared very well with Happy Creek's measurements.
- Data verification was originally performed by Geoquest Consulting Ltd. and later by AGP through site visits in 2016 and 2017, collection of independent character samples, and a database audit. The drill database was found to be error free and suitable to be used for a resource estimate.

- Core handling, core storage, and chain of custody are consistent with industry best practice.
- At the current stage of the project, the preliminary first-pass metallurgical testing used a combination of flotation to separate sulphides, followed by Falcon concentrator and Tables (gravity) that produced an initial cleaner concentrate and an additional middling product which can be recycled back upstream for re-processing. Together these two products contain 70.8% of the tungsten.
- In 2015, another sample of approximately 400 kg was collected from the face of the RC Zone and submitted to SGS Laboratories of Vancouver, B.C. From this data, a mass balance was prepared with reference to standard practice at operating tungsten mines. This trial has returned 75.8% of the WO_3 within a 68% WO_3 concentrate.

Base on the above conclusions, and effective February 27, 2018, AGP completed an update of the January 26, 2017 estimate conducted by AGP Mining Consultants Inc. covering the RC Zone and BN Zone. The estimate also includes a first-time resource estimate for the BK Zone. The mineral resource presented herein is in conformance with the CIM Mineral Resource definitions (2014) referred to in NI 43-101 Standards of Disclosure for Mineral Projects.

The RC Zone model was interpolated with 80 core holes and 23 trenches completed by Happy Creek from 2010 through to 2017, totalling 5,711 m and containing 2,198 assays. The BN Zone model is supported by 52 drill holes completed by Happy Creek in 2012, 2016, and 2017 totalling 6,366 m of drilling and containing 1,213 assays. The BK Zone model is supported by 11 drill holes and 12 trenches completed by Happy Creek in 2012 and 2016 totalling 606 m and containing 226 assays. The estimate considers all data that was available prior to January 28, 2018.

The resource encompasses the RC, BN, and BK Zones of the Fox project. The estimate was completed based on the concept of a small scale open pit operation for the BK Zone, a combined open pit and underground room-and-pillar operation for the RC Zone, and a small scale underground room-and-pillar mining operation for the BN Zone.

Under CIM definitions, Mineral Resources should have a reasonable prospect of economic extraction. A tungsten price of US$230/MTU of WO_3 in concentrate was used for the cut-off estimation. To assess the Mineral Resources, an in-situ resource cut-off grade of 0.175% WO_3 has been applied for potential open pit resources, and 0.45% WO_3 for potential underground material.

To further assess reasonable prospects of economic extraction, Lerchs-Grossman optimized shells were generated to constrain the potential open pit material. Parameters used included:

- 50° slopes for the pit shell
- CDN$8/t mining, CDN$26/t milling, CDN$10/t G&A operating costs
- 75.8% WO_3 recovery to a 68% WO_3 concentrate
- CDN$285/MTU WO_3 price
- economics applied to Indicated and Inferred materials.

For the RC Zone, at the greater than 0.175% WO_3 cut-off selected, the updated model returns a total of 397,400 Indicated tonnes grading at 0.713% WO_3, containing 283,400 metric ton unit (MTU) of tungsten trioxide contained within the resource constraining shell. Below the constraining shell and reported at a greater than 0.45% WO_3 cut-off, the updated model returns 185,000 tonnes of Indicated resources grading at 1.067 WO_3, containing 197,100 MTU of tungsten trioxide.

Inferred resources within the resource constraining shell and reported at a greater than 0.175% WO_3 cut-off, amounted to 14,700 tonnes grading at 0.662% WO_3, containing 9,700 MTU of tungsten trioxide. Below the constraining shell and reported at a greater than 0.45% WO_3 cut-off, the updated model returned 76,800 tonnes of Inferred resources grading at 0.961 WO_3, containing 73,800 MTU of tungsten trioxide.

For the BN Zone, at the greater than 0.45% WO_3 cut-off selected, the new resource estimate deemed amendable to underground extraction, returned a total of 453,000 Inferred tonnes grading at 1.321% WO_3, containing 598,300 MTU of tungsten trioxide.

For the BK Zone, at the greater than 0.175% WO_3 cut-off selected, the new resource estimate deemed amendable to open pit extraction, returned a total of 20,900 Inferred tonnes grading at 0.672% WO_3, containing 14,000 MTU of tungsten trioxide.

The Fox project total Indicated resources for the RC Zone amounted to 582,400 tonnes grading at 0.826% WO_3, containing 480,500 MTU of tungsten trioxide. The Inferred resources for the RC, BN, and BK Zones combined amounted to 565,400 tonnes grading at 1.231% WO_3, containing 695,800 MTU of tungsten trioxide (Table 25-1).

TABLE 25-1: RESOURCE ESTIMATE OF THE FOX PROJECT FOR THE RC ZONE AND BN ZONE

Classification	Zone	WO_3 Cut-off (%)	Tonnage (T)	WO_3 (%)	WO_3 (MTU)
Indicated	RC Zone within resource constraining shell	> 0.175	397,400	0.713	283,400
	RC Zone below the resource constraining shell	> 0.450	185,000	1.067	197,100
Inferred	RC Zone within resource constraining shell	> 0.175	14,700	0.662	9,700
	RC Zone below the resource constraining shell	> 0.450	76,800	0.961	73,800
Inferred	BN Zone (amendable to UG extraction)	> 0.450	453,000	1.321	598,300
	BK Zone (within resource constraining shell)	> 0.175	20,900	0.672	14,000
Indicated	Total	Various	582,400	0.826	480,500
Inferred	Total	Various	565,400	1.231	695,800

Notes: ***Cut-off determined by using a WO_3 price of CDN$285/MTU WO_3 in concentrate***
Rounding of tonnes as required by reporting guidelines may result in apparent differences between tonnes, grade, and contained metal.

AGP is not aware of any information not already discussed in this report, which would affect their interpretation or conclusions regarding the subject property. AGP is required to inform the public that the quantity and grade of reported Inferred resources in this estimation must be regarded as conceptual in nature and are based on limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological grade or quality of continuity. For these reasons, an Inferred resource has a lower level of confidence than an Indicated resource. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. It is also noted that mineral resources, that are not Mineral Reserves, do not have demonstrated economic viability. Lastly, rounding of values as required by the reporting guidelines may result in apparent differences between tonnes, grade, and metal content.

In addition to the RC Zone, BN Zone, and BK Zone resources, the Nightcrawler and South Grid Zones have returned potentially economic grade and thickness of scheelite tungsten mineralization and remains open to further expansion. The North Zone has not been drill-tested. There is a reasonable likelihood that further drilling will increase the tungsten resources of the project.

26 RECOMMENDATIONS

Following the review of the project data, AGP recommends the following:

26.1 QA/QC Recommendation

- AGP recommends continued use of the SGS.
- It is also recommended continued resubmission of 5% of the high-grade pulps to ActLab as opposed to MS Analytical. A few control samples consisting of pulp blanks and standards should be included in the submission. Pulp blanks could be substituted with core sample pulps that assayed below detection limit.
- AGP favors inserting blanks preferentially following high-grade samples to monitor the cross contamination at the crushing stage of the sample preparation.
- AGP also recommends Happy Creek bias the insertion of ¼ core duplicate in the higher-grade zones of the deposits.
- Happy Creek should consider re-submitting a small portion of the 794 pulps assayed by Agat's Laboratory for samples within the mineralized zones prior to a Feasibility Study in order to evaluate if a bias is existing in the Agat's results. Cost is estimated at $2,000.

26.2 Drilling Recommendations

The Fox property contains new discoveries of tungsten skarn mineralization. Further work is recommended as outlined below:

- Trenching along strike between the BN, RC, and BK Zones as well as at South Grid to define the mineralized zone at surface and connect with drill holes. The goal of further drilling is to expand existing mineralized zones and bring more Inferred resources into the Indicated category using NQ size drill holes. Several holes are planned to test extensions of the BN and RC Zones to the north and northwest, respectively, beneath Deception Mountain, and require holes 300 m in length. In addition, it is recommended to collect representative bulk samples from the different deposits for metallurgy studies and conduct geotechnical studies in preparation for a Preliminary Economic Assessment (PEA). These last two items, will required HQ size core drilling at additional cost. Once the mineral resource is completed, a PEA study can be undertaken. Total cost of this work is estimated at $3.44m as shown in Table 26-1.

TABLE 26-1: PROPOSED WORK BUDGET

Zone	# of holes	Metres	Total Metres	Cost/m	Total
Trenching – BN, RC, BK and SG Zones	30	10	300	$125	$37,500
NQ drill holes – BN Zone	15	200	3000	$250	$750,000
NQ drill holes – RC Zone	15	250	3750	$250	$937,500
NQ drill holes – BK Zone	15	75	1125	$250	$281,250
NQ drill holes - South Grid	15	100	1500	$175	$262,500
HQ drill holes Geotech/Metallurgical Holes	10	150	1500	$300	$450,000
Sub-Total:	**100**		**11,175**		**$2,718,750**
Metallurgical Work					
Definitive Process Design & Plant Cost Estimate					$100,000
Engineering					
geotechnical, metallurgical, environmental					$250,000
Preliminary Economic Assessment or pre-feasibility					$100,000
Total Budget:					**$3,168,750**
10% Contingency					$271,875
				Total	**$3,440,625**

27 REFERENCES

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28 CERTIFICATE OF AUTHORS

28.1 Pierre Desautels, P. Geo.

I, Joseph Rosaire Pierre Desautels of Barrie, ON as one of the Qualified Person's of this technical report titled "NI 43-101 Resource update for the RC and BN Zones and Maiden Resource Estimate for the BK Zone of the Fox Tungsten Project British Columbia" dated April 9th, 2018 with an effective date of February 27th, 2017, (the "Technical Report"), do hereby certify the following statements:

- I am a Principal Resource Geologist with AGP Mining Consultants Inc. with a business address at 80 Richmond St. West, Suite 1502, Toronto, Ontario.
- I am a graduate of Ottawa University (B.Sc. Hons., 1978).
- I am a member in good standing of the Association of Professional Geoscientists of BC (APEGBC – License # 35860) and the Association of Professional Geoscientists of Ontario (Registration #1362).
- I have practiced my profession in the mining industry continuously since graduation.
- I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101 or the Instrument) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purpose of NI 43-101.
- My relevant experience with respect to resource modelling includes 37 years' experience in the mining sector covering database, mine geology, grade control, and resource modelling. This includes past experience with tungsten deposits (Grey River, Happy Creek and Risby).
- I visited the property on August 29 and 30, 2016 and again on July 31 and August 1, 2017
- I am a co-author responsible for all sections of this report except for Section 13.
- I was a co-author of the last two technical reports on the property.
- As of the effective date of the Technical Report, to my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- I am independent of the issuer as defined by Section 1.5 of the Instrument.
- I have read NI 43-101 and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

Signed and dated at Barrie, Ontario this 9th day of April 2018.

"electronic signature"

Pierre Desautels, P.Geo.

28.2 Paul Berndt, FAusIMM

I, Paul Berndt, FAusIMM, of Paralowie, Australia as one of the Qualified Person's of this technical report titled "NI 43-101 Resource update for the RC and BN Zones and Maiden Resource Estimate for the BK Zone of the Fox Tungsten Project British Columbia" dated April 9th, 2018 with an effective date of February 27th, 2017, (the "Technical Report"), do hereby certify the following statements:

- I am employed as Project Manager and Mineral Processing Consultant with an office at 1 Clancy Road, Paralowie, 5108, Australia.
- I am a graduate from the University of Adelaide [B. App. Sc. (Prim. Met.) 1971].
- I am a member in good standing as a Fellow of the Australasian Institute of Mining and Metallurgy with membership number 106069.
- I have practised my profession in the mining industry continuously since graduation.
- I have read the definition of "qualified person" set out in the National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with professional associations (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- My relevant experience with respect to this project is that I have worked extensively in the study, development and extraction of coal, precious, base, and specialty metal (tungsten) deposits and mines for 46 years' and am qualified to evaluate and report on these matters.
- I visited the Fox property on October 1st, 2015, and directed and supervised the mineral process test at the offices of SGS Laboratories in Burnaby, B.C.
- I am co-author responsible for Section 13.0 of this report.
- I was a co-author of the previous technical report titled "NI 43-101 Technical Report Resource Estimate of the Fox Property, Ridley Creek Zone", dated May 26, 2016.
- I am a Director of Happy Creek Minerals Ltd. and therefore not independent of the issuer.
- As of the effective date of the Technical Report, to my knowledge, information and belief, Section 13.0 of the report contains all the scientific and technical information that is required to be disclosed to make the section not misleading.
- I have read NI 43-101 and Form 43-101F1, and Section 13.0 has been prepared in compliance with that instrument and form.

Signed and dated at Sydney, Australia this 9th day of April 2018.

" electronic signature"

Paul Berndt, FAusIMM