



16 January 2024 **ASX Announcement** 

# **Green Bay Copper-Gold Project, Canada**

# Spectacular grades up to 19% CuEq extend known mineralisation by 350m

Results such as 46m at 4.6% Cu, 1.2g/t Au pave way for Resource update; Drilling about to start from underground platform, accelerating Resource growth strategy

# **Key Points**

- First assays from drilling by FireFly at Green Bay contain high copper and gold grades over substantial widths
- The intersections extend the known limits of the VMS mineralisation by ~350m down plunge
- Significant results¹ received include:
  - 46.4m @ 4.6% Cu, 1.2 g/t Au, 7.5g/t Ag (5.6% CuEq) MUG23-006
  - 17.8m @ 4.4% Cu, 2.2 g/t Au, 18.8g/t Ag (6.6% CuEq) MUG23-003
  - 14.7m @ 2.6% Cu, 5.5 g/t Au, 24.2g/t Ag, 1.2% Zn (7.5% CuEq) MUG23-004
  - 11.2m @ 4.9% Cu, 2.3 g/t Au, 9.7g/t Ag (6.9% CuEq) MUG23-004
  - 2.7m @ 13.5%, 7.0 g/t Au, 33.0g/t Ag (19.4% CuEq) MUG23-006
- FireFly is set to accelerate the implementation of its resource growth strategy with first drilling from the new underground platform expected to start this month
  - Plus, a second drill rig has arrived at site to fast-track step-out resource drilling
- More assays expected in coming weeks
  - "To extend the known mineralisation by 350m with such wide, high-grade intersections in our first drilling program speaks volumes about the project's exceptional quality and immense upside." FireFly MD Steve Parsons

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<sup>&</sup>lt;sup>1</sup> All reported results are downhole widths.



FireFly Metals Ltd (ASX: FFM, formerly AuTECO Minerals Ltd) is pleased to announce outstanding high-grade copper and gold assays from its first drilling program at the Green Bay project in Canada.

As well as demonstrating high grades over significant widths, the results are considered particularly important because they extend the known VMS mineralisation by 350m, taking it well beyond the boundary of the current resource, which stands at 39.2Mt at 2.1% for 811,000t CuEq<sup>2</sup>.

Grades of up to 19.4% CuEq were returned, with notable intersections including 46.4m @ 5.6% CuEq (4.6% copper, 1.2g/t gold) and 17.8m @ 6.6% CuEq (4.4% copper, 2.2g/t gold).

Drilling also intersected a precious metals-enriched VMS zone at Ming South within Green Bay. This returned an intersection of 14.7m @ 2.6% copper, 5.5g/t gold and 24.2g/t silver.

First assays from drilling on the Lower Footwall zone stringer-style mineralisation are expected in coming weeks.

Assays and news flow will continue to accelerate, with drilling set to start from the underground platform later this month.

In addition, a second diamond drill rig has arrived at site and will immediately commence resource extension drilling.

FireFly Managing Director Steve Parsons said: "These assays strongly support our view that Green Bay is an exceptional asset with huge growth potential.

"To extend the known mineralisation by 350m with such wide, high-grade intersections in our first drilling program speaks volumes about the project's exceptional quality and immense upside.

"And we are set to accelerate our resource growth strategy with the start of underground drilling and a second diamond rig has arrived on site".

<sup>&</sup>lt;sup>2</sup> The Company first announced the foreign estimate for the Green Bay Project on 31 August 2023 as set out in Appendix A. The resource is a foreign estimate prepared in accordance with Canadian National Instrument 43-101 and has not been reported in accordance with JORC 2012. A competent person has not done sufficient work to classify the foreign estimates in accordance with the JORC Code and it is uncertain that following evaluation and/or further exploration that the foreign estimate will be able to be reported as Mineral Resources in accordance with the JORC Code.





# **About the Drill Results**

Drilling at the Ming underground copper-gold mine recommenced in October 2023 following the acquisition of the Green Bay copper-gold project by FireFly Metals.

In total, the Company has completed 11 drill holes for 2,450m of diamond core to date from existing underground development. The new results reported in this release are from the first 5 holes where complete multi-element assay results have been returned.

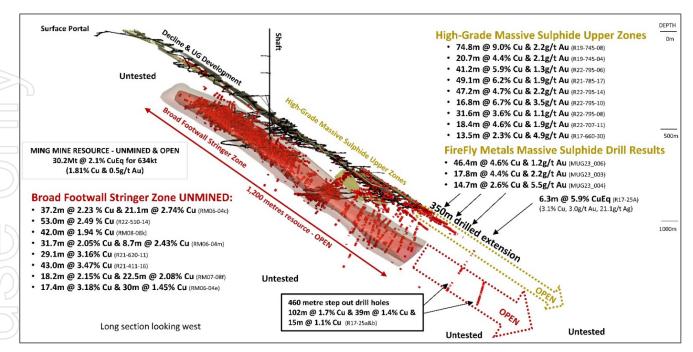
Initial drilling by FireFly focused on demonstrating down-plunge continuity of the high-grade VMS lenses proximal to the contact between mafic and felsic volcanic and volcaniclastic rocks. This drilling has successfully demonstrated that VMS mineralisation is present 350m down plunge from existing underground development and highlights the immense resource growth potential. All of the mineralisation reported is outside of the current resource.

#### Significant drill results include:

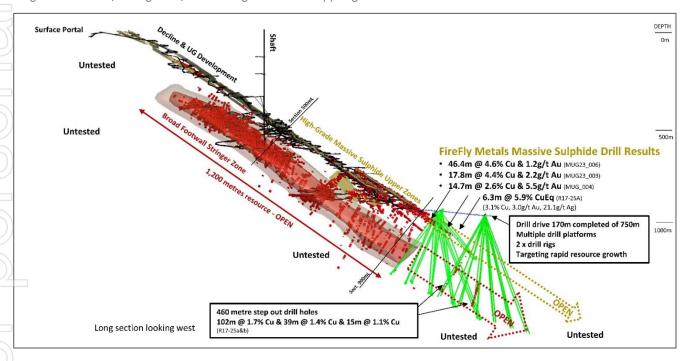
- 46.4m @ 4.57% Cu, 1.2g/t Au, 7.5g/t Ag (5.6% CuEq) from 227.3m in hole MUG23\_006
- 17.8m @ 4.43% Cu, 2.2g/t Au, 18.8g/t Ag (6.6% CuEq) from 137.6m in hole MUG23\_003
- 14.7m @ 2.63% Cu, 5.5g/t Au, 24.2g/t Ag, 1.2% Zn (7.5% CuEq) from 31.8m in hole MUG23\_004
- 11.2m @ 4.9% Cu, 2.3g/t Au, 9.7g/t Ag (6.9% CuEq) from 171.4m in hole MUG23\_004
- 4.8m @ 6.41% Cu, 3.4g/t Au, 29.2g/t Ag (9.5% CuEq) from 187.8m in hole MUG23\_004
- 27.5m @ 1.5% Cu, 1.6g/t Au, 22.5g/t Ag (3.1% CuEq) from 50.7m in hole MUG23\_006
- 14.8m @ 1.86% Cu, 2.5g/t Au, 11.0g/t Ag (3.9% CuEq) from 106.8m in hole MUG23\_006
- 10.4m @ 3.21% Cu, 2.0g/t Au, 17.4g/t Ag, 1.47% Zn (5.3% CuEq) from 159.5m in hole MUG23\_003
- 6.6m @ 2.67% Cu, 3.4g/t Au, 22.2g/t Ag, 2.19% Zn (6.2% CuEq) from 33.8m in hole MUG23\_003
- 8.9m @ 3.05% Cu, 0.3g/t Au, 3.4g/t Ag (3.3% CuEq) from 86.2m in hole MUG23\_004
- 5.0m @ 4.83% Cu, 0.3g/t Au, 6.1g/t Ag (5.1% CuEq) from 159.1m in hole MUG23\_004
- 8.0m @ 2.7% Cu, 1.3g/t Au, 13.3g/t Ag (3.8% CuEq) from 138m in hole MUG23\_005
- 8.0m @ 1.92% Cu, 0.96g/t Au, 7.41g/t Ag (2.8% CuEq) from 150m in hole MUG23\_005

With the down-dip continuity of the mineralised VMS horizons established, further drilling at more favourable orientations will be conducted during 2024 from the exploration drill drive currently being mined as part of FireFly Metals' accelerated resource growth strategy. Since commencement of development in late November 2023, 170m of the planned 750m of exploration development has been completed. The first drilling from the exploration drive is expected to commence before the end of January.



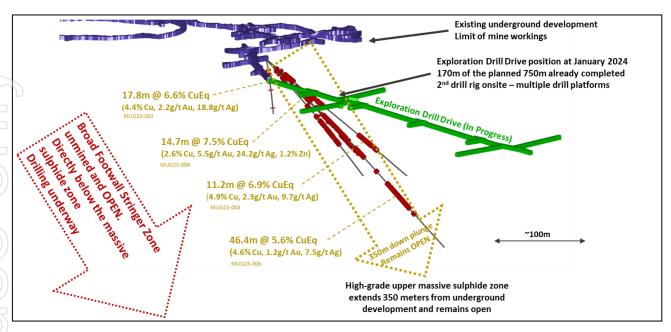


Long section view (looking west) of the Ming mine. Drill copper grades >0.5% are shown in red.



Long section view (looking west) of the Ming mine showing the position of the planned underground exploration drive (blue). To date 170m of the planned 750m development drive has been completed by FireFly Metals. Planned drill holes (green) will test both the upper high-grade Cu-Au VMS lodes in addition to the extensions of the broad Lower Footwall Zone.





Isometric view showing key drillhole intersections in this release. The FFM exploration decline design is shown in green.

This announcement has been authorised by the Board of Directors.

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#### **ABOUT FIREFLY METALS**

FireFly Metals Ltd (formerly AuTECO Minerals Ltd) (ASX:FFM) is an emerging copper-gold company focused on advancing the high-grade Green Bay Copper-Gold project in Newfoundland, Canada. The **Green Bay Copper-Gold Project** currently hosts a mineral resource prepared in accordance with Canadian NI 43-101 of **39.2Mt at 2.1% for 811,000t CuEq**. The Company has a clear strategy to rapidly grow the copper-gold resource to demonstrate a globally significant copper-gold asset. FireFly has commenced a 40,000m diamond drilling program.

FireFly holds a 70% interest in the high-grade **Pickle Crow Gold Project** in Ontario. The current Inferred Resource stands at **11.9Mt at 7.2g/t for 2.8Moz gold**, with exceptional discovery potential on the 500km<sup>2</sup> tenement holding.

The Company also holds a 90% interest in the **Limestone Well Vanadium-Titanium Project** in Western Australia.

For further information regarding FireFly Metals Ltd please visit the ASX platform (ASX:FFM) or the Company's website <a href="https://www.fireflymetals.com.au">www.fireflymetals.com.au</a>



#### COMPLIANCE STATEMENTS

The Company first announced the foreign estimate of mineralisation for the Green Bay Project on 31 August 2023. The Company confirms that the supporting information included in the announcement of 31 August 2023 continues to apply and has not materially changed.

Metal equivalents for the foreign estimate of mineralisation and drilling results at the Green Bay Project have been calculated at a copper price of US\$8,300/t, gold price of US\$2,000/oz, silver price of US\$25/oz and zinc price of \$2,500/t. Individual grades for the metals are set out at Appendix A of this announcement. Copper equivalent was calculated based on the formula CuEq (%) = Cu(%) + (Au (g/t) x 0.77472) + (Ag (g/t) x 0.00968) + (Zn (%) x 0.3012). No metallurgical recovery factors have been applied to the in-situ resource nor drill hole results. It is the Company's view that all elements in the copper equivalent calculation have a reasonable potential to be recovered and sold.

Previous historical and new exploration results at the Green Bay Project referred to in this announcement were first reported in accordance with ASX Listing Rule 5.7 in FireFly's ASX releases dated 31 August 2023 and 11 December 2023.

The Mineral Resource Estimate for the Pickle Crow Project referred to in this announcement was first reported in the Company's ASX release dated 4 May 2023, titled "High-Grade Inferred Gold Resource Grows to 2.8Moz at 7.2g/t".

FireFly confirms that it is not aware of any new information or data that materially affects the information included in the original announcements and that all material assumptions and technical parameters underpinning the estimates in the original announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

#### COMPETENT PERSONS STATEMENT

The information in this release that relates to new Exploration Results is based on information compiled by Mr Darren Cooke, a Competent Person who is a member of the Australasian Institute of Geoscientists. Mr Cooke is a full-time employee of FireFly Metals Ltd and holds securities in FireFly Metals Ltd. Mr Cooke has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cooke consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### FORWARD LOOKING INFORMATION

This announcement may contain certain forward-looking statements and projections, including statements regarding FireFly's plans, forecasts and projections with respect to its mineral properties and programs. Although the forward-looking statements contained in this release reflect management's current beliefs based upon information currently available to management and



based upon what management believes to be reasonable assumptions, such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. They are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors many of which are beyond the control of the Company. The forward-looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. For example, there can be no assurance that FireFly will be able to confirm the presence of Mineral Resources or Ore Reserves, that FireFly's plans for development of its mineral properties will proceed, that any mineralisation will prove to be economic, or that a mine will be successfully developed on any of FireFly's mineral properties. The performance of FireFly may be influenced by a number of factors which are outside the control of the Company, its directors, staff or contractors. The Company does not make any representations and provides no warranties concerning the accuracy of the projections, and disclaims any obligation to update or revise any forward looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws.



#### APPENDIX A – GREEN BAY COPPER-GOLD PROJECT MINERAL RESOURCES

#### **GREEN BAY COPPER-GOLD PROJECT MINERAL RESOURCES**

#### Ming Deposit as at 31 March 2022

	N	1EASURE	D	ı	INDICATED			INFERRED			TOTAL RESOURCE		
	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal	
Copper		1.71%	144kt		1.85%	284kt		1.86%	120kt		1.81%	547kt	
Gold	8.4Mt	0.5g/t	124koz	15.3Mt	0.3g/t	148koz	6.4Mt	0.4g/t	79koz	30.2Mt	0.4g/t	351koz	
Silver		3.6g/t	962koz		2.4g/t	1,164koz		2.6g/t	537koz		2.7g/t	2,664koz	

#### Little Deer Complex (Little Deer & Whalesback Mine) as at 31 December 2021

	MEASURED			INDICATED			INFERRED			TOTAL RESOURCE		
	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal
Copper	-	-	-		2.13%	62kt		1.78%	110kt		1.90%	172kt
Gold	-	-	-	2.9Mt	0.1g/t	9koz	6.2Mt	0.1g/t	10koz	9.1Mt	0.1	19koz
Silver	-	-	-		3.4g/t	318koz		2.2g/t	430koz		2.6	748koz

#### TOTAL MINERAL RESOURCES

		N	<b>IEASURE</b>	D	ı	INDICATE	D	ı	NFERRED	)	T	OTAL RES	OURCE
		Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Tonnes	Grade	Metal
ſ	Copper		1.71%	144kt		1.89%	345kt		1.82%	230kt		1.83%	718kt
1	Gold	8.4Mt	0.5g/t	124koz	18.2Mt	0.3g/t	157koz	12.6Mt	0.2g/t	88koz	39.2Mt	0.3	370koz
	Silver		3.6g/t	962koz		2.5g/t	1,482koz		2.4g/t	968koz		2.7	3,413koz

- 1. FireFly Metals Ltd cautions that mineral resources for the Green Bay Copper-Gold project, incorporating the Ming Deposit and Little Deer Complex, are not reported in accordance with the JORC Code (2012 Edition). A Competent Person has not yet completed sufficient work to classify the resources as mineral resources that satisfy the guidelines provided in the JORC Code (2012 Edition).
- 2. All resources have been prepared in accordance with Canadian National Instrument 43-101. Please refer to ASX announcement dated 31 August 2023 for additional technical information relating to the foreign estimate.
- 3. A competent person has not done sufficient work to classify the foreign estimates in accordance with the JORC Code and it is uncertain that following evaluation and or further exploration that a foreign estimate will be able to be reported in according with the JORC Code.
- 4. Mineral resources have been reported at a 1.0% copper cut-off grade.



# **APPENDIX B – Table 1: Significant Intersection Table**

Collar co-ordinates and orientation are listed in the local Ming Mine grid, which is rotated +35 degrees from NAD83 True North. Results are reported above a 1% copper cut-off and contain a maximum of 3 metres of internal waste. Please refer to the compliance statement for further details on parameters used in the copper equivalent calculation.

#### **FireFly Metals Drilling**

Hala Namahan	E	NI	DI	A -:	Dia.	<b>Drilled Length</b>	From	То	Width		As	say		CuE.
Hole Number	Easting	Northing	RL	Azi	Dip	(m)	(m)	(m)	(m)	Cu %	Au g/t	Ag g/t	Zn %	CuEq
MUG23_003	1,092	1,565	-805	22	-26	231	27.3	28.0	0.7	2.56	2.6	14.8	0.81	4.98
							33.8	40.3	6.6	2.67	3.4	22.2	2.19	6.18
							91.4	94.4	2.9	1.07	0.3	3.3	0.04	1.32
							97.5	100.5	3.0	2.38	0.5	7.7	0.04	2.82
							123.0	129.9	7.0	1.38	0.2	1.7	0.02	1.59
							137.6	155.4	17.8	4.43	2.2	18.8	0.92	6.58
							159.5	169.8	10.4	3.21	2.0	17.4	1.47	5.35
MUG23_004	1,091	1,566	-805	12	-24	246	29.6	30.7	1.1	1.21	1.2	13.9	5.45	3.93
							31.8	46.5	14.7	2.63	5.5	24.2	1.20	7.49
							69.7	83.0	13.4	1.33	0.2	1.9	0.02	1.53
							86.2	95.1	8.9	3.05	0.3	3.4	0.02	3.32
							99.7	100.8	1.1	1.81	0.4	2.5	0.05	2.18
							159.1	164.1	5.0	4.83	0.3	6.1	0.03	5.15
							171.4	182.6	11.2	4.90	2.3	9.7	0.43	6.94
							187.8	192.6	4.8	6.41	3.4	29.2	0.68	9.55
MUG23_005	1,090	1,566	-805	12	-29	174	99.3	99.9	0.6	1.95	0.5	10.5	0.07	2.45
							111.8	113.0	1.3	8.49	3.7	54.7	0.50	12.00
							138.0	146.0	8.0	2.65	1.3	13.3	0.12	3.83





Hala Niveshau	Fastina	No white in a	D.	Azi	Dia	<b>Drilled Length</b>	From	То	Width		Ass	say		CuEn
Hole Number	Easting	Northing	RL	AZI	Dip	(m)	(m)	(m)	(m)	Cu %	Au g/t	Ag g/t	Zn %	CuEq
							150.0	158.0	8.0	1.92	1.0	7.4	0.06	2.75
							164.7	166.6	1.9	2.23	0.7	7.0	0.07	2.86
MUG23_006	1,090	1,566	-805	12	-29	345	15.1	17.8	2.7	1.98	1.1	14.1	0.18	2.99
							34.5	36.7	2.2	3.38	1.5	21.0	0.62	4.92
							50.7	78.1	27.5	1.50	1.6	22.5	0.64	3.11
							88.1	89.3	1.2	1.85	1.5	14.8	0.25	3.26
							106.8	121.5	14.8	1.86	2.5	11.0	0.04	3.91
							134.5	146.5	12.0	1.38	0.4	3.4	0.05	1.76
							165.0	169.0	4.0	1.15	0.1	1.8	0.02	1.25
							177.0	181.0	4.0	1.44	0.2	1.8	0.02	1.62
							206.0	207.0	1.0	1.93	0.6	4.0	0.04	2.41
							227.3	273.7	46.4	4.57	1.2	7.5	0.12	5.63
							280.8	283.5	2.7	13.46	7.0	33.0	0.42	19.36
MUG23_008	1,093	1,565	-805	20	-73	60	10.6	11.6	1.0	1.16	0.2	2.4	0.33	1.47
							14.5	16.5	2.0	1.69	0.3	2.7	0.11	1.99
							53.1	53.9	0.8	1.73	0.2	2.9	0.14	1.97

ASX FFM

Page | 10



#### **Historical Drill Results**

'NSR' denotes 'No Significant Result' for the element analysed. 'NA' is shown in the table where analysis for the element has not been completed.

Hala Novakan	F	NI	D.	a -:	D:	Drilled Length	From	То	Width		As	say		CuE.
Hole Number	Easting	Northing	RL	Azi	Dip	(m)	(m)	(m)	(m)	Cu %	Au g/t	Ag g/t	Zn %	CuEq
R17-25A	1,435	2,330	171	208	-87	1,771	1336.9	1343.2	6.3	3.10	3.0	21.1	0.84	5.88
R21-411-16	1,030.8	723.0	-405.3	23	-55	379	165.0	230.0	65.0	3.40	NA	NA	NSR	3.40
							282.0	306.3	24.3	1.43	NA	NA	NSR	1.43
RMUG08-73	1,013.6	956.6	-443.1	121	-57	273	155.5	216.5	61.0	1.49	0.1	NSR	NSR	1.57
R22-510-16	1,084.2	803.5	-511.3	27	-44	341	100.0	120.2	20.2	2.95	NA	NA	NSR	2.95
							124.1	147.0	22.9	1.72	NA	NA	NSR	1.72
421C-2	645.3	1,007.1	-413.6	129	-52	4	0.0	4.0	4.0	7.85	1.4	21.2	NA	9.16
421C-7	625.7	1,030.8	-412.5	160	-47	4	0.0	2.5	2.5	20.37	2.8	37.4	1.73	23.43
MMUG12-62	680.8	897.4	-346.0	291	-47	42	46.2	55.3	9.1	5.99	1.9	11.0	0.68	7.80
RM06-04e	1,236.7	1,518.0	164.3	228	-90	1,265	1094.9	1135.4	40.5	2.24	0.1	2.0	NSR	2.36
							1156.0	1201.4	45.4	1.34	0.2	1.1	NSR	1.48
RM07-08e	1,247.6	1,738.5	160.9	187	-90	1,330	1175.0	1201.8	26.8	1.91	0.1	2.2	NSR	2.00
RM07-08f	1,247.6	1,738.5	160.9	187	-90	1,320	1222.0	1233.8	11.8	2.95	0.1	2.6	NSR	3.00
							1240.0	1281.6	41.6	1.56	0.1	1.5	NSR	1.65

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# APPENDIX C – JORC CODE, 2012 EDITION Table 1

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>All current and historical drilling conducted at the Ming Mine site was completed under the supervision of a registered professional geologist as a Qualified Person (QP) who is responsible and accountable for the planning, execution, and supervision of all exploration activity as well as the implementation of quality assurance programs and reporting.</li> <li>All reported historical Rambler diamond drilling include in this release is surface and underground diamond drilling a mix of BQ (36.5 mm diameter) mainly grade control and NQ (47.8 mm diameter) for exploration and infill drilling. All FireFly drilling reported is NQ.</li> <li>The following is a summary of the core sampling procedure: <ul> <li>All sample collection, core logging, and specific gravity determinations were completed by FireFly under the supervision of a professionally qualified registered geologist.</li> <li>NQ core was marked for splitting during logging and is sawn using a diamond core saw with a mounted jig to assure the core is cut lengthwise into equal halves. Whole core sampling was used for BQ grade control core.</li> <li>Half of the cut core is placed in clean individual plastic bags with the appropriate sample tag.</li> <li>QA/QC samples are inserted into the sample stream at prescribed intervals.</li> <li>The samples are then placed in rice bags for shipment to the offsite laboratories' facility.</li> <li>The remaining half of the core is retained and incorporated into Rambler's secure, core library located on the property.</li> </ul> </li> <li>All FireFly drill analysis was completed at ISO-certified Eastern Analytical laboratories. Historical samples were delivered to the in-house laboratory by Rambler staff or the Eastern Analytical independent accredited laboratory. The samples are crushed to approximately -10 mesh and split using a riffle splitter to approximately 300 g. A ring mill is used to pulverize the sample split to 98% passing -150 mesh. Sample pulps and rejects are picked up at Eastern by Rambler staff and ret</li></ul>



		WILTALS
Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Holes reported in this release were NQ (47.8 mm diameter).</li> <li>Historical drilling from 2005 to 2023, completed by Rambler was diamond drilling with two core sizes, a mix of BQ (36.5 mm diameter) mainly grade control and NQ (47.8 mm diameter) for exploration and infill drilling.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Recoveries are measured via measurement of the core between blocks.</li> <li>Core loss is measured as a percentage of recovered length.</li> <li>Historical holes reported demonstrate good recoveries (&gt;95% average).</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The following steps are completed during the core logging procedure:</li> <li>Sample security and chain of custody start with the removal of core from the core tube and boxing of drill core at the drill site.</li> <li>The boxed core remains under the custody of the drill contractor until it is transported from the drill to the secure onsite core facility.</li> <li>Core boxes are opened and inspected to ensure correct boxing and labelling of the core by the drill contractor.</li> <li>The drill core is geologically logged, photographed, and then marked and tagged for sampling and splitting.</li> <li>Core logging describes variations in lithology, alteration, and mineralization.</li> <li>Data associated with core logging and related assay results and other downhole information including orientation surveys are recorded in Fusion™ by Century System.</li> <li>Measured parameters include structural orientation with respect to core axis, lost core as a percentage of recovered length, and fracture density which are determined by the intensity and thickness of mineralization at specific intervals.</li> <li>Each core sample is assigned a tag with a unique identifying number. Sample lengths are typically one metre but can be depending on zone mineralogy and boundaries.</li> <li>Sample core that is not mineralized is marked in 1.5 metre lengths.</li> <li>Wing samples are marked at 0.5 metres and sampled at the extremities of mineralized intervals to ensure anomalous grades do not continue into the</li> </ul>



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Historical drilling completed by Rambler is in NQ diameter (47.6mm) drill and BQ (36.5 mm diameter). All FireFly drilling is NQ2.</li> <li>For NQ diameter the core was sawn in half following a sample cutting line determined by geologists during logging and submitted for analysis on nominal 1m intervals or defined by geological boundaries determined by the logging geologist.</li> <li>Each core sample is assigned a tag with a unique identifying number. Sample lengths are typically one metre but can be depending on zone mineralogy and boundaries.</li> <li>Sample core that is not mineralized is marked and sampled in 1.5 metre lengths.</li> <li>Wing samples are marked at 0.5 metres and sampled at the extremities of mineralized intervals to ensure anomalous grades do not continue into the surrounding wall rock.</li> <li>For BQ diameter same sampling practice was completed except that the whole core was crushed for the assays.</li> <li>This sampling technique is industry standard and deemed appropriate.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples are delivered to the in-house laboratory by Rambler staff or the Eastern Analytical independent accredited laboratory by bonded courier, where the samples are dried, crushed, and pulverized. Samples are crushed to approximately -10 mesh and split using a riffle splitter to approximately 300 g. A ring mill is used to pulverize the sample split to 98% passing -150 mesh. Sample pulps and rejects are picked up at Eastern Analytical by Rambler staff and returned directly to the Project site. During the period 2003 to 2009, sample pulps designated for Actlabs were checked, packed, and sent by bonded courier for final analyses.</li> <li>All results reported in this release were analysed by Eastern Analytical in Springdale, NL.</li> <li>34 elements were determined by Inductively Coupled Plasma (ICP). A 200mg subsample is totally dissolved in four acids and analysed by ICP-OES. Gold assays were determined by fire assay with atomic adsorption finish.</li> <li>As part of the QA/QC program duplicate, blank and Certified Reference Material (CRM) samples are inserted alternately, one per ten samples.</li> <li>In addition to the Company QAQC samples (described earlier) included within the batch the laboratory included its own CRM's (Certified Reference Materials), blanks and duplicates.</li> <li>Sample assay results continue to be evaluated through control charts, log sheets, sample logbook and signed assay actificates to determine the nature of any partitions and signed assay actificates to determine the nature of any partitions and signed assay actificates to determine the nature of any partitions and signed assay actificates to determine the nature of any partitions and signed assay actificates to determine the nature of any partitions and signed assay actificates to determine the nature of any partitions.</li> </ul>

assay certificates to determine the nature of any



Criteria	JORC Code explanation	Commentary
		anomalies or failures and failures were re-assayed at the laboratory.
		<ul> <li>Sample preparation, analytical procedures and QA/QC used on the property were reviewed by independent consultants WSP, stating in their report that sampling practices and QA/QC meet industry standards and display acceptable levels of accuracy and precision.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	<ul> <li>Where used, original copper assays from the on-site laboratory facility were compared to results received from Eastern Analytical. No material variance was noted.</li> </ul>
15	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul> <li>There are no purpose twinned holes in the dataset but a comparison of the results of different drilling generations showed that results were comparable.</li> </ul>
P	Discuss any adjustment to assay data.	<ul> <li>All logging data was completed, core marked up, logging and sampling data was entered directly into the MX deposit database.</li> </ul>
		<ul> <li>The logged data is stored on the site server directly.</li> </ul>
		<ul> <li>FireFly is not aware of any adjustments made by Rambler to the assay data. WSP completed an independent audit where a representative number of assay certificates were compared to digital assay database and no discrepancies were found.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole</li> </ul>	<ul> <li>Surface drill collars were surveyed by the FireFly mine survey crew upon completion of the drill program.</li> </ul>
	surveys), trenches, mine workings and other locations used in Mineral Resource estimation.  • Specification of the grid system used.  • Quality and adequacy of topographic	<ul> <li>The set-ups for the underground drill collars were marked by Rambler mine survey crew, and the drilling contractor were expected to set up properly on line. A Rambler geologist checked the underground drill set-up during the drilling program to ensure accuracy.</li> </ul>
	control.	<ul> <li>Downhole surveys are completed using a Reflex EZ-Shot® multi-shot instrument to provide azimuth and dip reading down the hole. Readings were collected on a time basis not distance, resulting in an almost continuous reading downhole. The Reflex EZ-Shot is calibrated at least once a year to ensure accuracy of results.</li> </ul>
		<ul> <li>The entire drill campaigns used Reflex EZ-Shot® single- shot electronic instrument with readings collected at intervals of approximately every 30 m downhole plus a reading at the bottom of the hole.</li> </ul>
		<ul> <li>Directional surface holes completed using Devico® technology.</li> </ul>
1		<ul> <li>Survey data was collected in mine gird and in UTM grid (NAD83 Zone 21).</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> </ul>	Due to the nature of mineralisation and a mix of underground and surface drilling the hole spacing is highly principle.
	<ul> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve</li> </ul>	<ul> <li>highly variable.</li> <li>Data spacing is considered sufficient to establish geological and grade continuities for mineral resource estimation at the Inferred and Indicated category.</li> </ul>



Criteria	JORC Code explanation	Commentary
	estimation procedure(s) and classifications applied.  • Whether sample compositing has been applied.	No sample compositing was applied.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Historical surface drill hole orientations were designed to test perpendicular or sub-perpendicular to the orientation of the intersected mineralisation. Drilling was typically oriented perpendicular to the trend of geophysical anomalism and the mapped strike and dip of observed mineralisation on surface and elsewhere in the project area.</li> <li>Underground drill hole orientation was sub-perpendicular to the mineralisation but variable in places where low angle drilling to the mineralisation has been completed in zones without suitable drilling platforms.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Core was placed in wooden core boxes close to the drilling by the drilling contractor. The core was collected daily by the drilling contractor and delivered to the secure core logging facility on the Ming Mine site.</li> <li>Access to the core logging facility is limited to Rambler employees or designates.</li> </ul>
		<ul> <li>In the historical drilling completed by Rambler once the core samples are cut, bagged and sealed with zip ties, ten samples are put into rice bags which are sealed and secured with numbered security tags. Once samples arrive at the laboratory the security tags and corresponding samples were verified against onsite logs. Prior to shipment samples are stored in a locked building onsite. For all other historical drillholes the measures taken to ensure sample security are unknown.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>An audit and review of sampling techniques and data was conducted as part of NI-43-101 resource estimation by independent consultants WSP in 2018. It is WSP's opinion that the drilling, sampling and logging procedures put in place by Rambler meet acceptable industry standards and that the information can be used for geological and resource modelling.</li> </ul>



### Section 2 Reporting of Exploration Results (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>FireFly owns a mineral land assembly consisting of one map-staked mineral license (023175M) and two mining leases (141L and 188L) totalling 955.4 ha and registered in the name of FireFly Metals Canada Limited, a wholly owned subsidiary of FireFly Metals Limited. All of these mineral lands are contiguous and, in some cases, overlapping and are located in the area of the former Ming and Ming West mines. In early 2015 the mineral license 023175M replaced the original license 014692M by claim reduction as requested by Rambler. All lands are in good standing with the Provincial Government, and FireFly is up to date with respect to lease payments (for leases) and required exploration expenditure (for licenses).</li> <li>FireFly holds all the permits required to operate the Ming Mine.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Ming Mine Early History: Auriferous sulphides and copper was found in the area in 1905 by Enos England.</li> </ul>
by other parties	exploration by other parties.	<ul> <li>The Main Mine sulphide zone was found in 1935 about 600ft north of the Enos England discovery. In 1940, the Newfoundland government drilled eighteen diamond drill holes totalling 5,000ft.</li> </ul>
		<ul> <li>An airborne electromagnetic survey was flown from 1955 to 1956.</li> </ul>
5		<ul> <li>The Ming Mine was discovered in 1970 by a helicopter borne AEM system. A large low grade stringer type copper deposit was later discovered in the footwall 300ft to 500ft below the Ming orebody during mining operations and delineated by thirty-six diamond drill holes. Mining ceased at the Ming Mine in 1982 because of low copper prices.</li> </ul>
		<ul> <li>In 1988, the property was awarded to the Rambler Joint Venture Group (a Consortium of Teck Exploration, Petromet Resources Ltd, and Newfoundland Exploration Company Ltd). Exploration consisted of ground geophysics and soil geochemistry, resulting in discovery of the Ming West deposit. Forty-eight diamond drill holes (25,534ft) were completed</li> </ul>
		<ul> <li>Altius Minerals Corporation: Under the terms of an option to purchase agreement with Ming Minerals, Altius conducted exploration on the Rambler property in 2001, 2003, and 2004. In 2001, a lithogeochemical program was initiated to chemically fingerprint rocks of the hanging wall and footwall to the sulphide deposits.</li> </ul>
		<ul> <li>Rambler Metals and Mining PLC: Rambler Metals and Mining is a UK-based company listed on London's Alternate Investment Market (AIM). Rambler holds a 100% interest in the Ming property and between 2005 and 2023 and conducted a multi-phase diamond drilling program consisting of surface drilling, directional drilling, and underground delineation drilling. A total of 220,704m from 1,365 diamond drill</li> </ul>



Criteria	JORC Code explanation	Commentary
Citeria	Jone code explanation	holes were completed by Rambler. Between 2012 and 2022 the Ming mine produced 3Mt at 1.86% Cu and 0.71 Au for total of 55Kt of copper and 68Koz of gold.  The Ming mine was placed on care and maintenance in
		<ul><li>February 2023.</li><li>In October 2023, AuTECO Minerals (FireFly Metals)</li></ul>
		<ul> <li>acquired the project from administration.</li> <li>FireFly Metals conducted drilling to test down plunge extent of VMS lodes (this release).</li> </ul>
		<ul> <li>An underground exploration drive is in progress to allow further drilling at more favorable drill angles.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	• The Green Bay project is a Noranda-type Volcanogenic Massive Sulfide (VMS) hosted by Cambrian-Ordovician metavolcanic and metasedimentary rocks of the Pacquet Harbour Group. The style of mineralization, alteration, host rock, and tectonism most closely resembles other VMS deposits throughout the world. The deposit consists of several individual massive sulphide lens and their underlying stockwork zones. It is thought that the stockwork zone represents the near surface channel ways of a submarine hydrothermal system and the massive sulphide lens represents the accumulation of sulphides precipitated from the hydrothermal solutions, on the sea floor, above and around the discharge vent. The Rambler deposits are polymetallic (Cu, Au, Ag ± Zn) massive sulphides that occur along the flank of a felsic dome. The Rambler deposits have undergone strong deformation and upper greenschist to amphibolite facies metamorphism. The massive sulphide bodies are now thin and elongate down the plunge of the regional lineation (30-35°NE). Typical aspect ratios of length down-plunge to width exceed 10:1, and the bodies exhibit mild boudinage along the plunge. The foot wall stock work comprises mainly of quartz-sericite-chlorite schist, which hosts disseminated and stringer pyrite and chalcopyrite with minor sphalerite, galena, and pyrrhotite with locally significant gold contents that could represent a discordant stockwork stringer feeder zone. The mineralization is crosscut by younger mafic
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> </ul>	<ul><li>dykes.</li><li>Refer to Appendix B in this release</li></ul>
	<ul> <li>easting and northing of the drill hole collar</li> </ul>	
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</li> </ul>	
	<ul><li>dip and azimuth of the hole</li><li>down hole length and interception depth</li></ul>	



Criteria	JORC Code explanation	Commentary
	o hole length.	
	<ul> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	<ul> <li>All drill hole intersections are reported above a lower cut-off grade of 1% copper. A maximum of 3m internal waste was allowed.</li> </ul>
	<ul> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul> <li>All intersections reported in the body of this release are down hole.</li> </ul>
mineralisation widths and intercept lengths		<ul> <li>The majority of the drill holes in the database are drilled as close to orthogonal to the plane of the mineralized lodes as possible. A number of drill holes have intersected the mineralisation at high angles.</li> </ul>
	<ul> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Only down hole lengths are reported.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Maps and sections are included in the body of this release as deemed appropriate by the competent person.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>All significant assays received from the current drill program have been reported in Appendix B.</li> </ul>
		<ul> <li>The total historic database contains a total of 233,186 meters of historic drilling in 1,399 holes. This release relates to 11 holes for 2,450m from the main identified mineralized lenses outside historical mined voids.</li> </ul>
		<ul> <li>No fixed cut-off grade or objective parameter was applied to the selection of appropriate historic drill holes. The selection was determined by the Company in attempting to select the most relevant information for assessing future drill targets and should not be taken to be representative of the available assay database.</li> </ul>



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	Appropriate plans are included in the body of this release.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of</li> </ul>	<ul> <li>FireFly Metals will be conducting drill testing of additional mineralisation as well as step out drilling of existing lodes to further enhance the resources quoted in this release. More information is presented in the body of this report.</li> </ul>
	possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	<ul> <li>Diagrams in the main body of this release show areas of possible resource extension on existing lodes. The company has commenced mining an exploration drive to enable effective drill testing of down plunge extensions.</li> </ul>