

### ASX ANNOUNCEMENT

## 13 October 2020

# HIGH GRADE COPPER-GOLD SULPHIDE POTENTIAL AT NANADIE WELL

### HIGHLIGHTS

- Cyprium is analysing the potential of the sulphide copper-gold mineralisation at the Nanadie Well Copper-Gold Project
- Sulphide mineralisation has been intersected consistently over a strike length of 750 metres, remaining open along strike and at depth
- Typical sulphide intersections include:
  - o 7m @ 2.52% Cu, 0.60 g/t Au, 8.00 g/t Ag from 124m in drill hole NRC05019
  - o 18m @ 1.05% Cu, 0.22 g/t Au, 2.67 g/t Ag from 79m in drill hole NRC05018
  - 11m @ 1.39% Cu, 0.32 g/t Au, 2.00 g/t Ag from 41m and
     12m @ 1.34% Cu, 0.45 g/t Au, 1.92 g/t Ag from 60m in drill hole NRC05020
  - 5m @ 1.64% Cu, 0.20 g/t Au, 3.80 g/t Ag from 63m and
     7m @ 1.38% Cu, 0.27 g/t Au, 3.00 g/t Ag from 82m in drill hole NRC12037
- Initial interpretations demonstrate the potential for higher grade zones of copper rich material within the sulphide mineralised corridor
- The Nanadie Well Copper-Gold Project is 75km east-northeast of the Hollandaire deposit, which includes mineral resources and other high priority drill ready targets and will be included in the Murchison Copper-Gold scoping study

Executive Director Barry Cahill commented "We are pleased to announce further preliminary results of the geological interpretation that we have undertaken at the Nanadie Well Copper-Gold Project. There is significant potential for extensive sulphide mineralisation in high grade zones below the supergene mineralisation at the project.

The sulphide mineralisation has been sparsely drilled to date, which includes a number of drill holes that ended in copper rich mineralisation. It remains open at depth and along strike to the north and south.

*Cyprium will continue to define this sulphide mineralisation further by conducting geophysical and drilling programmes into both this and the supergene material.* 

The targeted work programmes of this high-grade mineralisation, are an exciting and significant addition to our regional mineral resource base, which forms part of the ongoing Murchison Copper-Gold Scoping Study."



Cyprium Metals Limited (**"CYM"**, **"Cyprium"** or **"the Company"**) is analysing the potential of the recently acquired Nanadie Well Copper-Gold Project, which is located ~75km east-northeast of our Cue Copper-Gold Project, as detailed in Figure 1.



Figure 1 | Location of Cue and Nanadie Well Copper-Gold Projects

Copper-gold sulphide mineralisation has been identified below the shallow broad supergene mineralisation at Nanadie Well, as detailed in Tables 1 and 2, Figure 2, Sections 1 to 4, and is open along strike and at depth.

The layered mafic magmatic hosted disseminated/stringer sulphide mineralisation consists of pyrrhotite, pyrite and chalcopyrite as the dominant copper sulphide. It has been drilled in a wide-spaced pattern of 1 diamond and 88 RC drillholes over a strike length of 750 metres to a maximum depth of 234 metres and an average depth of 100 metres, with numerous drill holes finishing in mineralisation.

Cyprium has observed that higher grade mineralisation occurs as fractionated layers in the host metagabbros and metanorites as is normally the case with magmatic copper deposits. Drilling to date has intersected disseminated/stringer sulphide layers only – a massive sulphide basal contact which may be a feature of magmatic copper deposits should it have remained in-situ is a high priority exploration target for Cyprium.

The orientation of the disseminated/stringer sulphide fractionated layers is flat lying to shallow east dipping in the northern section of the deposit up to 30° east dipping in the southern section of the deposit. While clearly defined by east and west dipping RC drillholes, Cyprium proposes to



conduct diamond drilling programmes to provide further information regarding the orientation and extent of the layered disseminated/stringer sulphide mineralisation.

The Nanadie Well Copper-Gold project will be included in the ongoing Murchison Copper-Gold scoping study and significantly increases the mineral resource base available to the study.



Figure 2 | Interpreted sulphide mineralisation outlines, mineralisation trend and highlighted drill intersection collar locations

The intersections as shown in the interpreted plan at Figure 2, represent significant widths of copper mineralisation along 750 metre strike of the mineralised corridor at the Nanadie Well copper-gold deposit. The intersections also contain notable gold and silver grades where assayed, which adds further value to the deposit. Many intercepts have not been assayed for other metals, such as nickel, cobalt and platinum group elements ("**PGEs**") which frequently occur in magmatic mineralisation.



The subsequent sections outline the sulphide mineralisation that has been drilled to date under the supergene material. The sulphide stringer zones demonstrate consistency at depth and along strike of the 750m mineralised corridor and remain open at depth and along strike. Each of the sections has broad intersections of copper mineralisation associated with gold and silver.

Cyprium work plans will include testing the quality and orientation of the disseminated/stringer sulphide layers with both RC and diamond drilling which will also provide information regarding any potential post mineralisation structural controls of the sulphide stringer zones.



Section 1 / 6994970N





Section 2 / 6994860N



Section 3 / 6994750N





Section 4 / 6994340N

Cyprium and an external consultant are reviewing the existing geophysical data at Nanadie Well to design suitable geophysical surveys to target higher grade zones and potential extensions to the already identified mineralised corridor that is open along strike and at depth.

Cyprium is also reviewing the drilling data to determine the outer limits of the corridor to the east and the west, considering there are several drill holes such as NRC2015 that are mineralised across the entire 150m length and numerous drill holes, such as NRC12037 which terminate in mineralisation.



Hole_ID	Section	m From	m To	Total m	Cu%	Au ppm	Ag ppm
1000		87	88	1	0.46	0.12	2.00
NRC05019		109	114	5	1.15	0.29	6.20
		124	131	7	2.52	0.60	8.00
		63	66	3	0.57	0.12	2.33
NDC12011	47500	92	96	4	0.40	0.13	0.50
NRC12011	4750N	112	116	4	1.33	0.37	4.25
		125	143	18	0.81	0.15	1.17
NDC11004		87	99	12	0.98	0.18	0.50
NRCII004		103	118	15	0.88	0.22	0.50
NRC12032		64	69	5	0.44	0.14	2.00
1000 second com		45	46	1	0.68	0.43	3.00
		88	107	19	0.61	0.19	1.26
		110	111	1	0.42	0.12	1.00
		118	119	1	0.93	0.10	2.00
		125	134	9	0.61	0.18	1.11
NRC05025		140	159	19	0.51	0.14	1.11
		175	176	1	0.98	0.20	3.00
		179	180	1	0.88	0.24	2.00
		182	183	1	0.44	0.16	1.00
		192	193	1	0.42	0.05	1.00
		195	197	2	0.61	0.15	1.50
		77	78	1	0.47	0.26	2.00
NIDCOLODA		91	103	12	0.93	0.26	2.33
NRC05024		110	111	1	1.03	0.23	3.00
	434UN	118	123	5	0.80	0.24	2.60
10.000.000		23	25	2	0.51	0.18	1.00
NWRB012		29	33	4	0.87	0.31	3.50
		35	36	1	0.53	0.17	1.00
		39	45	6	0.86	0.25	5.67
		50	52	2	1.64	0.43	10.50
		79	97	18	1.05	0.22	2.67
NRC05018		102	111	9	0.55	0.21	0.89
		116	117	1	0.49	0.26	1.00
		118	119	1	0.42	0.08	1.00
		120	127	7	0.61	0.15	1.28
NID CO1		48	52	4	0.59	0.14	2.00
NECUL		64	68	4	0.56	0.45	1.00
NWRB008		30	31	1	0.42	0.17	3.00

Table 1 / Nanadie Well sulphide intersection highlights for Sections 3 & 4.

(BDL =Below detection limit. NA = Not assayed)

Minimum interval 1m if Cu > 0.40%. Minimum interval grade 0.4% Cu unless lower grade to 0.20% Cu forms part of consistently mineralised zone >0.40%. No internal waste - break interval if result >2m and <0.2% Cu.



Hole_ID	Section	m From	m To	Total m	Cu%	Au ppm	Ag ppm
NRC12033	8 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 19	82	84	2	0.48	0.06	2.50
		94	96	2	0.40	0.05	2.50
		109	113	4	0.36	0.05	2.00
89.		39	43	4	0.72	0.20	2.25
NDC12027	40701	63	68	5	1.64	0.20	3.80
NRC12057	497014	82	89	7	1.38	0.27	3.00
		99	102 / EOH	3	1.29	0.25	3.00
NRC19013		44	56	12	0.46	NA	NA
		60	68	8	0.86	0.45	1.44
NRC19007		36	44	8	0.49	NA	NA
84	8	40	44	4	0.30	NA	NA
NRC19008		56	84	28	0.64	0.13	2.14
		94	96 / EOH	2	1.18	0.11	3.00
NRC19009		56	60	4	0.43	NA	NA
se a construir de la construir		41	52	11	1.39	0.32	2.00
		60	72	12	1.34	0.45	1.92
10001000000		81	86	5	0.55	0.25	0.80
NRC050020		95	96	1	0.40	0.06	1.00
1.1.1.1.1.1.1.1.1.1.1		106	113	7	0.92	0.23	1.57
		134	135	1	0.90	0.11	2.00
	4860N	144	145	1	0.65	0.02	2.00
29. J.		108	111	3	1.15	0.22	2.33
		115	118	3	0.34	0.09	0.00
		125	129	4	0.70	0.60	1.25
10/2010/01/2		139	140	1	0.35	0.05	0.00
NRC04013		150	155	5	0.86	0.07	2.00
		159	163	4	1.06	0.22	3.50
		179	181	2	0.75	0.15	1.50
		184	190	6	0.84	0.29	1.33
		194	206	12	0.53	0.24	2.75

Table 2 / Nanadie Well sulphide intersection highlights for Sections 1 & 2.

					MGA	94 Zone 50	D		
Hole ID	Section	Hole Type	Survey Type	East	North	RL m	Dip °	Azimuth °	Depth
NRC12033		RC	GPS	692,846.00	6,994,973.00	476.00	-60.0	090	114
NRC12037	40700	RC	DGPS	692,895.12	6,994,974.35	475.71	-60.0	090	102
NRC19013	49701	RC	DGPS	692,915.21	6,994,975.33	475.88	-60.3	086	90
NRC19007		RC	DGPS	692,965.21	6,994,975.39	475.94	-58.3	091	60
NRC19008		RC	DGPS	692,967.73	6,994,855.65	475.68	-54.4	087	96
NRC19009	49600	RC	DGPS	692,995.36	6,994,855.72	475.71	-52.1	089	66
NRC05020	4800N	RC	Surveyed	693,042.36	6,994,853.90	475.95	-60.0	271	154
NRC04013		RC	GPS	693,072.00	6,994,854.00	476.00	-64.8	275	216
NRC05019	4750N	RC	GPS	693,042.00	6,994,756.00	476.00	-60.3	273	176
NRC12011		RC	GPS	693,022.00	6,994,718.00	476.00	-60.0	090	138
NRC11004		RC	DGPS	693,041.41	6,994,750.05	475.71	-60.2	095	140
NRC12032		RC	GPS	693,073.00	6,994,749.00	476.00	-60.0	090	108
NRC05025		RC	GPS	692,953.00	6,994,350.00	475.00	-62.4	096	198
NRC05024		RC	Surveyed	692,998.29	6,994,353.16	475.22	-63.2	095	145
NWRB012	42400	RAB	GPS	693,049.00	6,994,348.00	480.00	-60.0	240	40
NRC05018	4340N	RC	GPS	693,066.00	6,994,354.00	475.00	-59.5	270	136
NRC01		RC	GPS	693,042.00	6,994,339.00	475.00	-60.0	060	80
NWRB008		RAB	GPS	693,072.00	6,994,351.00	480.00	-60.0	240	31

Table 3 / Nanadie Well sulphide drillhole collar locations

Cyprium intends to further define the Nanadie Well sulphide mineralisation for inclusion into the Murchison Copper Project scoping study and to investigate potential further mineralisation extensions along strike and at depth, or further mineralised zones that have not yet been identified. Geophysical and drilling programmes are being designed by Cyprium management in conjunction with external consultants.



### **About Cyprium Metals Limited**

Cyprium Metals Limited (ASX: CYM) is an ASX listed company with projects in Australia. The Company has a highly credentialed management team that is experienced in successfully developing sulphide heap leach copper projects in challenging locations. The Company's strategy is to acquire, develop and operate mineral resource projects in Australia which are optimised by innovative processing solutions to produce copper metal on-site to maximise value.

The Company has projects in the Murchison region of Western Australia, that is host to a number of base metals deposits with copper and gold mineralisation. The Cue and Nanadie Well Copper-Gold projects are included in an ongoing scoping study, to determine the parameters required to develop a copper project in the region, which provides direction for resource expansion work.

## **Cue Copper-Gold Project**

Cyprium has a joint venture with Musgrave Minerals Limited (ASX: MGV) at the Cue Copper-Gold Project, which is located ~20km to the east of Cue, in the Murchison region of Western Australia. Cyprium has an 80% attributable joint venture interest in the project's copper, gold and silver mineralisation however MGV has a 100% interest in primary gold deposits that are not associated with a copper-gold deposit.

The Cue Copper-Gold Project includes the Hollandaire Copper-Gold Mineral Resource (<u>https://cypriummetals.com/hollandaire-copper-gold-mineral-resource-estimate/</u>), which is open at depth. Metallurgical test-work has been undertaken to determine the optimal copper extraction methodology, which resulted in rapid leaching times (refer to 9 March 2020 CYM announcement, "*Copper Metal Plated*", <u>https://cypriummetals.com/copper-metal-plated/</u>).</u>

Resource category	Material type	Volume	Tonnes	Cu %	Cu Tonnes	Au g/t	Au Ounces	Ag g/t	Ag Ounces
	Oxide	5,000	10,000	1.20	100	0.09	0	4.16	1,300
Indicated	Transitional	95,000	275,000	1.80	5,000	0.24	2,100	5.06	44,700
	Fresh	638,000	1,894,000	2.00	37,100	0.31	18,900	6.64	404,400
Sub Total		738,000	2,179,000	2.00	42,200	0.30	21,000	6.43	450,400
Informed.	Transitional	4,000	12,000	0.40	0	0.02	0	0.98	400
Interred	Fresh	194,000	593,000	1.60	9,300	0.41	7,800	6.46	123,200
Sub Total		198,000	605,000	1.60	9,300	0.40	7,800	6.35	123,600
TOTAL		936,000	2,784,000	1.90	51,500	0.32	28,800	6.41	574,000

Hollandaire 2012 JORC Mineral Resource Estimate (values are rounded)

Differences in sum totals of tonnages and grades may occur due to rounding

Nominal cut-off at 0.3% Cu

Cyprium has an 80% attributable interest in the copper, gold and silver

Gold mineralisation not associated with the copper resource that is 100% attributable to MGV, has not been modelled or reported in the Hollandaire 2012 JORC Mineral Resource estimate

### Nanadie Well Copper-Gold Project

Notes:

The Nanadie Well Project is located ~650km north east of Perth and ~75 km south east of Meekatharra in the Murchison District of Western Australia, within mining lease M51/1040.

Nanadie Wells' basement geology consists of Meeline Suite layered igneous intrusive rocks and amphibolites which are part of the GSWA mapped Murchison Supergroup. Details of the Nanadie Well Copper-Gold Project are available in the announcement made on the Company's ASX platform (ASX: CYM) on 14 July 2020, ("Nanadie Well Copper Project Acquisition", <u>https://cypriummetals.com/nanadie-well-copper-project-acquisition/</u>).



This ASX announcement was approved and authorised by the Board.

### For further information:

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#### **Competent Persons**

The information in this report that relates to Exploration Targets, Exploration Results and the estimation and reporting of the Hollandaire Mineral Resource Estimate is an accurate representation of the available data and is based on information compiled by external consultants and Mr. Peter van Luyt who is a member of the Australian Institute of Geoscientists (2582). Mr. van Luyt is the Chief Geologist of Cyprium Metals Limited, in which he is also a shareholder. Mr. van Luyt has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person (CP). Mr. van Luyt consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



# JORC Code, 2012 Edition – Table 1 report

# Section 1 Sampling Techniques and Data – Nanadie Well and Stark

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	RC drilling undertaken by Intermin Resources over the period 2004 – 2005 and 2011 - 2012 was sampled as follows: 4m composite RC drill samples were taken by using a PVC spear (75mm diameter) being thrust to the bottom of the green plastic RC bag with 1 scoop per sample taken. Additionally, 1m single splits were taken off the rig mounted cyclone/splitter unit. These were placed on top of the green plastic RC drill bags and ultimately gathered and sent to the laboratory after the 4m composite results were known. Single samples deemed to have little Cu or Au were not assayed. The splitter/cyclone was routinely cleaned to avoid sample contamination.
		Mithril resampled Intermin's RC drill holes in 2013 using an aluminium scoop of drill cuttings from the original green plastic RC bags. Mithril believed that material stored in the plastic bags had maintained its integrity and that the resulting samples were representative and suitable for laboratory analysis.
		Mithril drilled a single NQ diamond drillhole in 2017. Half core samples were based on geological intervals varying from 0.25 to 1.0m.
		Horizon Minerals 2019 RC drilling was initially sampled by 4m composite samples taken with a metallic scoop being thrust through the chip pile. 1m single splits taken using cone splitter off rig. Average sample weights were 1.5 to 2.0 kg.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	For all RC drilling programmes regular air and manual cleaning of cyclone was carried out to remove wet material as and when they were present.
		The Horizon 2019 RC drilling programme utilised laboratory standards & replicate assays only. Statistical analysis of these results by Horizon Minerals indicates that the samples are representative and measurement systems are properly calibrated.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for	Intermin 2004 – 2005 and 2011 – 2012 RC drilling programmes obtained 1m samples from which approximately 1.5 to 2kg was pulverised by the analytical laboratory to produce a 50 g charge for fire assay or 4 acid digestion/ICP analysis. RC drill chips were geologically logged by Horizon Minerals and Intermin in 1m intervals.



Criteria	JORC Code explanation	Commentary
	fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has	The drilled material was initially sampled in 4m downhole composites and anomalous intervals were sampled at 1m lengths.
	inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	The Mithril 2017 NQ diamond drill programme obtained half core samples which were collected based on geological intervals from 0.25 to 1.0 metre. Samples of 1.0 to 3.0kg were collected for geochemical analysis by ALS Laboratories in Perth, WA.
		Intermin's 2011 – 2012 RC drill samples were submitted to Aurum Laboratories Pty Ltd in Perth for sample preparation and analysis.
		Following sample preparation, a representative 50g sub-sample was submitted for copper and gold analysis by Aqua Regia with an ICPMS finish. Detection limit for Cu was 5ppm, Au 0.01 ppm.
		Random 50g Fire Assays (with ICPMS finish) were also taken to check the initial Aqua Regia gold analytical results. Standards and Blanks were used with satisfactory results on all elements.
		For Mithril's 2013 resampling the following applies:
		In each case, a 500-1000g grab sample was collected for geochemical analysis. Samples were submitted to MinAnalytical Laboratory Services Pty Ltd in Perth for sample preparation and analysis.
		Samples were dried and pulverised (75µm) to produce a representative 25g or 50g sub-sample for analysis.
		Au, Pt and Pd were analysed by Fire Assay with an ICPMS finish (method - FA25MS3). All other elements were analysed using a Four Acid Digestion (hydrofluoric, nitric, perchloric and hydrochloric acids) with an ICPOES finish (method – MA4010).
		Horizon Minerals stated that 2019 assays were determined by 50g fire assay for Au and BM3AG 3 acid digest and hydrochloric acid solution for Cu, Pb, Zn, Ni, Co and As at Aurum laboratories Perth, with regular laboratory QA/QC checks.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotarv air blast.	RC drilling carried out with a 133 mm face sampling hammer bit. Drill rig details unknown.
,	auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core	Diamond drilling was 47.6mm/NQ diameter core completed by a Westcore Boart Longyear LF90D rig.
	is oriented and it so, by what method, etc).	RAB drilling parameters not available.



Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and	RC programme drill sample recovery details not recorded to 2012.
		2019 RC drill programme recovery was assessed by comparing drill chip volumes (piles) for individual meters. Estimates of sample recoveries were recorded by the Horizon field staff. Routine checks for correct sample depths are undertaken every RC rod (6m). RC sample recoveries were visually checked for recovery, moisture and contamination.
		Horizon stated that the 2019 RC programme drilling conditions were generally good and that sampled intervals were dry. Horizon believed that the samples were representative, though some bias may occur in areas of poor sample recovery which was logged where rarely encountered. At depth there were some wet samples and these were recorded as and when they occurred.
		2017 diamond drill programme core recoveries were recorded by the Westcore driller and checked by Mithril field staff.
	Measures taken to maximise sample recovery and ensure representative	RC programme drill sample recovery details not recorded to 2012.
	nature of the samples.	The 2017 diamond drill programme utilised HQ drilling and split sets to maximise core recovery in near surface weathered and broken ground.
		Horizon noted that the 2019 RC programme drilling conditions were good and sampled intervals were generally dry. Horizon believed that the samples were representative, though some bias may occur in areas of poor sample recovery which was logged where rarely encountered. At depth there were some wet samples, these were recorded as and when they occurred.
	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.	No sample bias has been identified by Intermin, Mithril or Horizon to date.
Logging	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.	2004-2005 RC drill programmes logging was completed by Intermin to a level of detail sufficient to support inferred resources only.
		2011-2012 RC drill programme detailed logging was completed by Mithril Resources geological staff.
		2017 diamond programme was logged in detail by Mithril geological staff for collar, drilling, lithology, sample, survey and magnetic susceptibility.
		2019 Drill chip logging was completed on one metre intervals at the rig by the Horizon Minerals



Criteria	JORC Code explanation	Commentary
		geologist. The log was made to standard logging sheets and then transferred to Micromine database files for storage and analysis.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	RC drilling programme logging was stated to be qualitative in nature by Intermin and Mithril. Mithril photographed 2011-2012 RC drill chips.
		2017 Diamond core logging was stated to be qualitative in nature by Mithril. All core was photographed by Mithril.
	The total length and percentage of the relevant intersections logged.	Intermin, Mithril and Horizon state that all RC and diamond drilling intervals were logged.
Sub- sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	2017 diamond drilling programme 0.25m to 1.0m NQ core samples cut by Mithril and despatched to ALS Perth for analysis.
preparation	If non-core, whether riffled, tube	Intermin RC drilling samples to 2012:
preparation	sampled, rotary split, etc and whether sampled wet or dry.	4m composite RC drill samples were taken by using a PVC spear (75mm diameter) being thrust to the bottom of the green plastic RC bag with 1 scoop per sample taken. 1m single splits were taken off the rig mounted cyclone/splitter unit. These were placed on top of the green plastic RC drill bags and ultimately gathered and sent to the laboratory after the 4m composite results were known. Single samples deemed to have little Cu or Au were not assayed. The splitter/cyclone was routinely cleaned to avoid sample contamination
		Horizon 2019 RC drilling programme:
		4m composite and 1m RC samples taken.
		RC samples were collected from the drill rig by scooping each 1m collection bag and compiling a 4m composite sample. Single splits were automatically taken off the rig cyclone splitter and despatched to the assay laboratory when anomalous grades were returned in 4m composites.
		No wet samples intersecting mineralisation were noted by Horizon.
	For all sample types, the nature, quality and appropriateness of the sample	Intermin RC drilling to 2012, Mithril 2013 resampling, Horizon 2019 RC drilling:
	preparation technique.	Sample preparation techniques were industry standard practice. Oven dried at 110°C before crushing and pulverizing 80% passing <75µm.
		Mithril diamond drilling 2017:



Criteria	JORC Code explanation	Commentary
		Sample preparation techniques were industry standard practice. Oven dried at 110°C before crushing and pulverizing 90% passing <75µm.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Intermin and Horizon RC drilling programmes was completed using professional drilling contractors under the supervision of Intermin and Horizon geological personnel to ensure that quality control procedures such as cleaning the drill rig splitter / cyclones and maintaining consistent sample weights was maintained. Mithril 2017 diamond drilling samples were industry standard ½ cores cut from the NQ diameter diamond core samples.
	Measures taken to ensure that the	Intermin RC drilling to 2012: unknown
	sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	Mithril 2013: No field duplicates taken. Samples were <1kg to ensure the full sample was crushed and pulverised.
		Mithril 2017 diamond programme: ½ NQ core retained and available for further analysis if required.
		Horizon 2019: No field duplicates. Laboratory duplicate testing results provided to Horizon.
	Whether sample sizes are appropriate to the grain size of the material being	Intermin RC drilling to 2012 and Mithril 2013 resampling: unknown
	sampied.	Mithril 2017 diamond drilling: Industry standard sample sizes considered appropriate by Mithril for the mineralisation style.
		Horizon 2019 RC drilling:
		Sample sizes were considered appropriate by Horizon for the exploration method and produce results to indicate degree and extent of mineralisation.
Quality of assay data	Quality of The nature, quality and ssay data appropriateness of the assaying and laboratory procedures used and aboratory whether the technique is considered partial or total.	Intermin RC drilling to 2012 and Mithril 2013 resampling:
and laboratory tests		Mithril considered that four acid digests, aqua regia digests and Fire Assay for selected elements was appropriate for the type of exploration undertaken. Four acid and aqua regia digests are considered partial techniques and Fire Assay is considered a total technique.
		Mithril 2017 diamond drilling:
		Fire Assay and a four-acid digest are considered near total digest and are appropriate for the type of exploration undertaken.
		Horizon 2019 RC drilling:
		1m RC samples were assayed for gold by Fire Assay (FA50) and base metals by BM3AG / AAS by Aurum Labs (Perth). The method is equivalent to a 4-acid digest industry standard total analysis.



Criteria	JORC Code explanation	Commentary
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the	No geophysical tools or methods were used by Intermin or Horizon in their RC drilling programmes.
	analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Mithril utilised a handheld XRF instrument (NITON) during the 2017 diamond drilling programme to assist with identifying anomalous base metal zones. Magnetic susceptibility readings were also taken of each sample prior to despatch to the assay laboratory.
	Nature of quality control procedures	Intermin RC drilling to 2012:
	adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of	Mithril 2013 stated that standards and Blanks were used with satisfactory results on all elements.
	accuracy (i.e. lack of bias) and	Mithril resampling 2013:
	precision have been established.	Mithril stated that 1 in 8 samples were repeated and regular standards and blanks were inserted. Results showed an acceptable level of accuracy, precision and repeatability.
		Horizon 2019:
		Laboratory QA/QC utilised only. QC results (blanks, duplicates, standards) were reported to Horizon who believed them to be acceptable.
Verification	The verification of significant intersections by either independent or alternative company personnel.	Intermin RC drilling to 2012:
of sampling and assaying		Mithril personnel reviewed Intermin's original results.
, .		Mithril resampling 2013:
		Resampling results were reviewed and verified by Mithril's Geology Manager. Where the same elements have been analysed for, Mithril's newly obtained results were compared to those originally obtained by Intermin.
		Horizon 2019:
		Not undertaken.
	The use of twinned holes.	Intermin RC drilling to 2012:
		None drilled.
		Mithril resampling 2013:
		None drilled.
		Horizon 2019:
		None drilled
	Documentation of primary data, data	Intermin RC drilling to 2012:
	storage (physical and electronic) protocols.	Primary data (i.e. geological description and location information) was entered into field note books by Intermin personnel and digitised in Microsoft Excel.



Criteria	JORC Code explanation	Commentary
		Mithril resampling 2013:
		Primary data (i.e. geological description and location information) was entered into field note books and digitised in Microsoft Excel.
		Horizon 2019:
		Field data was entered notebooks or Excel spreadsheets then transferred to Micromine database files.
	Discuss any adjustment to assay data.	All previous operators state that no data was adjusted.
Location of	Accuracy and quality of surveys used to	Intermin RC drilling to 2012:
data points	locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral	Collar locations recorded with a handheld GPS with an accuracy of +/- 5m.
	Resource estimation.	Mithril resampling 2013:
		Mithril confirmed the location of a number of drill holes within the Nanadie Well Deposit area with a DGPS, accuracy +/- 0.5m. These are noted in the collar location tables.
		Horizon 2019:
		Drillhole collars surveyed with an RTK-DGPS, accuracy +/-0.5m.
	Specification of the grid system used.	GDA94, zone 50.
	Quality and adequacy of topographic	Intermin RC drilling to 2012:
	control.	Not undertaken.
		Mithril resampling 2013:
		Not undertaken.
		Horizon 2019:
		Not undertaken – stated low relief topography would not materially affect the interpretation of mineralisation widths.
		Cyprium 2020:
		Digital terrain model constructed from existing drillhole surveys and adjusted where low accuracy GPS pickups created obvious anomalies in the low relief project area. Drone terrain survey proposed for late 2020/early 2021.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drillholes are evenly spaced as detailed on the plans and sections in the body of the announcement. They are suitable for 2004 JORC inferred resource estimation. Infill drilling is required to define a 2012 JORC compliant resource.



Criteria	JORC Code explanation	Commentary
	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 estimation procedure(s) and classifications applied.	Intermin considered the data spacing to be sufficient to define mineralisation to a 2004 JORC inferred standard.
	Whether sample compositing has been applied.	As detailed previously 4m RC drill sample composites were taken by Intermin for first pass assaying.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The strike of the Nanadie Well sulphide mineralisation is North to North-northwest and drilling is well aligned to achieve unbiased sampling along the strike of the deposit.
		The sulphide mineralisation orientation is not known and it is also not known at what angle the -60° dip, 090 and 270 azimuth drillholes will intersect it and whether the intersections would introduce sample bias. The orientation of the Nanadie Well mineralisation will be determined by diamond drilling programmes in due course.
	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.	Further diamond drilling required – to be determined.
Sample security	The measures taken to ensure sample security.	Samples were collected on site supervised by the responsible Intermin, Mithril or Horizon geologist. The project is remote and visitors require permission to visit site. Once collected samples were bagged and transported to Meekatharra and then Perth for analysis. Dispatch and consignment notes were delivered and checked for discrepancies, none were noted by the analytical labs, Intermin, Mithril or Horizon.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Mithril conducted a detailed review of the data returned from Intermin drilling programmes to 2012 and no discrepancies were noted.
		Mithril procedures and results to 2019 were reviewed by the Geology Manager and Managing Director and no discrepancies were noted.
		Horizon 2019 results have not been reviewed or audited.



# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and	Type, reference name/number, location and ownership including agreements or	E51/1040 and MLA 51/887, Cyprium Metals 100% ownership.
status	as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or	Royalties payable to a syndicate comprising of WS Hitch, KW Wolzak, PW Askins, Tyson Resources PL of:
	national park and environmental settings.	<ul> <li>0.735% of the revenue received from the sale of copper metal or concentrate from the tenement,</li> </ul>
		<ul> <li>0.49% for the revenue received from the sale of any other metal, mineral or ore from the tenement.</li> </ul>
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenement is in good standing.
Exploration done by other	Acknowledgment and appraisal of exploration by other parties.	1970 Kia Ora Gold Corporation – regional reconnaissance exploration.
parties		1976-1977 BHP Ltd. Mapping, surface sampling, 72 RAB drillholes and geophysical surveys.
		1987-1993 Dominion Mining Ltd. Mapping. Surface, rock chip and lag sampling, 126 RAB drillholes, 9 RC drillholes.
		1995-1996 Newcrest Mining Ltd. Lag sampling, 63 RAB drillholes.
		1999 Dominion Mining Ltd. 14 RAB drillholes.
		2004-2013 Intermin Resources Ltd. 185 RC drillholes. 2004 JORC inferred mineral resource estimate of 36.07Mt @ 0.42% Cu in September 2013.
		Mithril Ltd 2013-2019. Ground geophysical surveys. 36 RC drillholes. 1 diamond drillhole.
		Intermin Resources Ltd / Horizon Minerals Ltd 2019. 14 RC drillholes and mining lease application M/51/887
Geology	Deposit type, geological setting and style of mineralisation.	Magmatic Cu/Au/Ni/PGE deposit hosted in structurally deformed Archaean gabbros, norites and metagabbros with 1 to 25m of quaternary alluvial and aeolian barren cover.
		Sulphide mineralisation occurs as disseminated chalcopyrite/pyrrhotite/pentlandite horizons in a layered magmatic intrusion. The orientation of the disseminated sulphide horizons is not currently known and the basal contact of the Nanadie Well Magmatic Cu/Au/Ni/PGE deposit has not yet been discovered.



Criteria	JORC Code explanation	Commentary
Drill hole Information	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:	Refer to Tables 1 and 2 in the body of this announcement.
	easting and northing of the drill hole collar	
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	dip and azimuth of the hole	
	down hole length and interception depth	
	hole length.	
	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.	No information is excluded.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No weighting, averaging or cut-off calculations apply to this announcement.
	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.	All aggregate assay intervals reported in Table 1 are comprised of 1m split or 4m composite downhole intervals. Intercept selection is detailed in the notes accompanying Table 1 in the body of the announcement.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent calculations were applied.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	The sulphide mineralisation occurs as disseminated horizons in a layered igneous intrusion. The orientation of the disseminated sulphide mineralisation has not been determined and will be the subject of future diamond drilling programmes.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	As above.



Criteria	JORC Code explanation	Commentary
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Downhole lengths reported.
Diagrams	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.	Included in the body of the report.
Balanced reporting	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.	Included in Table 1 for the Nanadie Well sulphide mineralisation as interpreted by Cyprium Metals Ltd.
Other substantive exploration data	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	All previous material geological work pertaining to the Nanadie Well sulphide mineralisation is reported in this announcement.
		Other geological and geophysical work relating to Nanadie Well has been reported by previous operators - see ASX releases from Intermin Resources Limited (IRC), Mithril Ltd (MTH) and Horizon Minerals (HRZ). These can be accessed by their respective codes on the ASX web site, announcement section.
		Other modifying factors such as metallurgical, environmental, hydrological and geotechnical factors have not been investigated at Nanadie Well.
Further work	Further work The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale stepout drilling).	Further definition and extension drilling programmes are currently being planned.
		The applicability of geophysical programmes are currently being investigated.
		Proposed work programme details will be announced when complete.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Undergoing compilation and review – to be released when available.



# JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data – Hollandaire / Cue Copper Project

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling	Nature and quality of sampling (e.g.	Cue Copper Project
techniques	cut channels, random chips, or specific specialised industry standard	Cyprium Metals RC Drilling
	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.	67 holes of Reverse Circulation (RC) percussion drilling was used to obtain 1m bulk and reference samples from a rig mounted cyclone and static cone splitter. The cyclone and splitter were cleaned at each 6m rod change and between each drill hole. Bulk samples were chosen for assay analysis on the basis of visible mineralisation and alteration in sieved RC chips. The bulk sample was then subsampled or composited to 2-3 kg by PVC spear and submitted to Bureau Veritas Laboratories Canning Vale WA for assay analysis. 3kg reference samples have been retained and stored by Cyprium Metals at their field facility at Nallan Station, via Cue WA.
		Cyprium Metals Diamond Drilling - metallurgical
		3 HQ diamond core holes were drilled to test typical Hollandaire mineralised intersections and to obtain material for metallurgical testwork. The core was logged, photographed and intersections selected for analysis were submitted whole to the ALS metallurgical laboratory in Balcatta. Unmineralised material has been retained and stored by Cyprium Metals at their field facility at Nallan Station, via Cue.
		Cyprium Metals Diamond Drilling – twinned drillholes
		3 drillholes twinned previous Silver Lake Resources drilling at 12HORC019, 13HORC080 and 13HORC080. NQ2 core was logged, photographed and altered/mineralised sections were marked up by company geologists for sample preparation by cutting on the core long axis with an Almonte core saw.
		Musgrave Resources Limited
		6 RC drillholes completed in 2016. Sampling is undertaken using standard industry practices including the use of duplicates and standards at regular intervals. Reverse circulation (RC) samples were collected at 1m intervals with samples riffle split to 3- 5kg in weight.



Criteria	JORC Code explanation	Commentary
		Silver Lake Resources
		129 RC and 77 diamond drillholes completed between 2011 and 2013. RC samples are collected every 1m. DD holes are subsampled down to geological intervals up to 20cm
		Historic drilling
		8 diamond drillholes completed by Aquitane between 1976 and 1978.
		2 diamond drillholes and 6 percussion drillholes (unknown type) completed by Electrolytic Zinc in 1975 and 1976.
		1 diamond drillhole completed by Esso in 1980.
		No sampling details are available for these historic drillholes
	Include reference to measures taken to ensure sample representivity and the	Cue Copper Project Cyprium Metals RC and Diamond Drilling
	appropriate calibration of any measurement tools or systems used.	Sample representivity has been ensured by following company quality control (QC) sampling procedures.
		Quality Assurance has been addressed by inserting certified standards (CRMs) into the submitted assay batches. Excessive variance or inaccuracy of the CRMs are investigated by Cyprium Metals staff and consultants for causes and corrective actions if required.
		Musgrave Resources Limited
		All co-ordinates are in UTM grid (GDA94 Z50) and drill hole collars have been surveyed by differential GPS to an accuracy of 0.01m
		Silver Lake Resources and historic drilling No details available.
	Aspects of the determination of	Cue Copper Project
	mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m 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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Drill sampling techniques are considered to be industry standard for the Cyprium work programme.
		Cyprium Metals RC Drilling
		2kg RC samples have been submitted to Bureau Veritas Canning Vale WA for gold and base metal analysis.
		Samples are dried at 105°c, Boyd crushed to 3mm, pulverised to 90% passing 75µm then 40g subsampled for analysis. The pulp samples are then fire assayed with AAS finish (FA001) for gold, mixed acid digest (MA200) with ICP-AES finish (MA201) for Cu, Pb, Zn and S and ICP-MS finish (MA202) for silver.



Criteria	JORC Code explanation	Commentary
		Cyprium Metals Diamond Drilling - metallurgical Whole HQ diamond core drilling samples were submitted to ALS Balcatta WA for metallurgical analysis.
		Mineralised intervals were selected by Cyprium geological and metallurgical staff, crushed to passing 19mm mesh then 1 kg samples split from the crushed intervals for XRF assay analysis, then compositing for metallurgical testwork.
		<b>Cyprium Metals Diamond Drilling - twinned</b> NQ2 core was cut in half on the long axis to intervals defined by the geologist, minimum 0.3m, maximum 1.4m. Minimum sample weight 0.3 kg, maximum sample weight 2.0 kg.
		Samples are dried at 105°c, Jacques crushed to 10mm then Boyd crushed to 3mm, pulverised to 90% passing 75µm then 40g subsampled for analysis. The pulp samples are then fire assayed with AAS finish (FA001) for gold, mixed acid digest (MA200) with ICP-AES finish (MA201) for Cu, Pb, Zn and S and ICP-MS finish (MA202) for silver.
		<b>Musgrave Resources Limited</b> RC samples were collected as 6m composites for all drill holes in the current program. One metre individual samples are immediately submitted for analysis where a high probability of mineralisation occurs (e.g. quartz vein lode or massive sulphide). All one metre samples are split to 1-3kg in weight through a cyclone splitter which is air blasted clean at the end of each 6m rod. Individual samples weigh less than 3kg to ensure total preparation at the laboratory pulverization stage.
		The sample size is deemed appropriate for the grain size of the material being sampled. Samples are sent to the Genalysis – Intertek laboratory in Maddington. Samples are pulverized to 85% passing -75um and four metre composite samples are analysed using a 50g fire assay with ICP-MS (inductively coupled plasma - mass spectrometry) finish gold analysis (0.005ppm detection limit). Individual one metre gold samples are analysed using a 50g fire assay with ICP-MS finish for gold.
		Silver Lake Resources
		Assay methods were 40g charge Fire Assay at Ultratrace laboratories, Perth with base metals analysed with a 4-acid digest and finished with ICPOES or ICPMS depending on specific elements. This method has an Au detection limit of 0.01 ppm with an accuracy of +/- 10% for



Criteria	JORC Code explanation	Commentary
		assays of greater than 0.5 ppm Au; Cu detection limit of 5 ppm; and Ag detection limit of 0.5 ppm.
		Historic drilling
		No details available.
Drilling	Drill type (e.g. core, reverse circulation,	Cue Copper Project
techniques	open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details	Cyprium Metals RC Drilling
	(e.g. 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).	RC drilling at the Cue Copper Project utilised the Challenge Drilling Pty Ltd KWL 350 drill rig. The drill rig has an onboard 350/1,100 compressor and an Atlas Copco 1,000 cfm auxiliary compressor. 4" RC drill rods were with 5.75" face sampling drill bits.
		Cyprium Metals Diamond Drilling - metallurgical
		Diamond drilling for metallurgical samples was completed by Westralian Diamond Drillers Pty Ltd using a KL900 drill rig. HQ drill rods and bits with standard tubes were used to obtain 63.5mm diameter core for use in the first phase of Hollandaire metallurgical testing. Drillholes were vertical and not oriented.
		Cyprium Metals Diamond Drilling - twinned
		Diamond drilling for twinned samples was completed by Westralian Diamond Drillers Pty Ltd using a KL900 drill rig. NQ2 drill rods and bits and triple tube was used to obtain 50.6mm diameter core to twin Silver Lake Resources 12HORC019, 13HORC080 and 13HORC080 drillholes. Core was oriented with a Reflex ACT tool.
		Musgrave Resources Limited
		RC drilling utilised the Challenge Drilling Pty Ltd KWL 350 drill rig. The drill rig has an onboard 350/1,100 compressor and an Atlas Copco 1,000 cfm auxiliary compressor. 4" RC drill rods were with 5.75" face sampling drill bits.
		Silver Lake Resources
		2011 - 9 HQ2/NQ2 diamond holes drilled by West Core Drilling Pty Ltd using Rig 3.
		2012 - 26 RC holes by Total Drilling Services Pty Ltd (TDS Pty Ltd) using a KWL 350 RC drill rig. The drill rig had an onboard 350psi/1,100cfm compressor and an Atlas Copco 350psi/1,000 cfm auxiliary compressor and used 4.5" RC drill rods. 2 RCD holes (RC with diamond tail) (12HORC009; 018) 34 HQ2/NQ2 diamond holes drilled by West Core Drilling Pty Ltd using Rig 3. Some with RC precollars by TDS Pty Ltd.



Criteria	JORC Code explanation	Commentary
		2013 - 112 RC holes drilled by Total Drilling Services Pty Ltd (rig details unknown). 36 holes with precollars drilled by Challenge Drilling Pty Ltd and coring by West Core Drilling Pty Ltd. Core diameter HQ3 and NQ2.
		Historic drilling
		Electrolytic Zinc 1974 and 1975 - 2 diamond holes drilled by Westralian Diamond Drillers Pty Ltd. NQ and BQ core diameter.
		Aquitane 1976 - 6 HQ core holes. Phase 1 WME103-106 drilled by Durkin & Fisher for good quality core. Phase 2 WME107-108 drilled by Associated Diamond Drillers for poor quality samples (poor recovery).
		Aquitane 1978 - WME111 drilled by Westralian Diamond Drillers Pty Ltd using a Fox Mobile rig. NQ core diameter for WME111. WME112 drilled by Glindemann & Kitching using a Fox Mobile rig. Open hole HQ size precollar, NQ then BQ core diameter.
		Esso 1980 - WME112 re-entered and extended 114m to 453m eoh. Precollar and core drilling of unknown type. Drilling company unknown.
Drill sample	Method of recording and assessing	Cue Copper Project
recovery	results assessed.	Cyprium Metals RC Drilling
		No problems regarding RC sample recovery were noted during the programme. Booster air pressure was used to keep samples dry below the water table which varied from 40 to 50m below the ground surface. RC sample recovery was visually checked during drilling for moisture or contamination and none was noted.
		Cyprium Metals Diamond Drilling
		Core recoveries detailed in the geotechnical logging of the drillholes of each drillhole were as follows:
		<ul><li>19HODD002, 98.4%</li><li>19HODD003, 99.7%</li></ul>
		The geotechnical logs include measuring recovered core against the drillers core block measurements and run sheets to calculate the core recovered percentages.
		Musgrave Resources Limited
		RC bulk sample weights are observed and noted.



Criteria	JORC Code explanation	Commentary
		Silver Lake Resources
		Drill core recovery was > 90% for 82% of drillhole samples.
		Historic drilling
		No details available.
	Measures taken to maximise sample	Cue Copper Project
	recovery and ensure representative	Cyprium Metals RC Drilling
		The RC bulk samples are collected from the drill rig splitter 90% section in a 25l bucket and placed on the ground in rows of 10 for logging and if required sampling. The 3 to 5kg reference sample is collected directly from the drill rig cone splitter 10% section in a calico bag. No low sample return was observed by Cyprium geologists during the Hollandaire drilling campaigns.
		The drill cyclone/splitter and sample buckets were cleaned between rod changes and after each drill hole has been completed to minimise down-hole and cross-hole contamination.
		Cyprium Metals Diamond Drilling
		Diamond core was checked for recovery and depth, noted inconsistencies were reconciled against the core blocks and/or driller's run sheets if required.
		Musgrave Resources Limited
		RC bulk sample weights are observed and noted.
		Silver Lake Resources and historic drilling
		No details available
	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.	Cue Copper Project
		Cyprium Metals RC Drilling
		Sample recovery was observed to be excellent during the drilling campaign and it is believed that no preferential loss/gain of material is occurring in the samples by Cyprium technical staff.
		Cyprium Metals Diamond Drilling
		Core sample recovery was noted to be excellent, Cyprium does not believe any preferential loss or gain of sample or sample bias has occurred.
		Musgrave Resources Limited
		No significant sample loss or bias was noted.
		Silver Lake Resources
		None noted.
		Historic drilling
		No details available



Criteria	JORC Code explanation	Commentary
Logging	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.	Cue Copper Project
		Cyprium Metals RC and Diamond Drilling
		Logging to industry standards for resource, mining and metallurgical studies has been completed for lithology, mineralisation, alteration, veining and weathering. Geotechnical logging has also been completed for the diamond drillholes and oriented core structural logging for the diamond twinned drillholes.
		Musgrave Resources Limited
		All geological, structural and alteration related observations are stored in the database.
		Silver Lake Resources
		All drill holes were logged by company geologists. Features relating to lithology, alteration type, alteration intensity, vein type are captured and stored in an electronic database.
		Historic drilling
		No details available
	Whether logging is qualitative or	Cue Copper Project
	quantitative in nature. Core (or	Cyprium Metals RC Drilling
	costean, channel, etc) photography.	Qualitative lithology, mineralisation, alteration, veining and weathering logging has been completed and chip trays with 1m representative samples were collected, photographed and stored for future reference.
		Cyprium Metals Diamond Drilling
		Qualitative lithology, mineralisation, alteration, veining and weathering logging has been completed.
		Quantitative/qualitative geotechnical logging of metallurgical sample diamond core has been completed. All drillhole core has been photographed, non-mineralised zones have been retained at the Cyprium field facility for future reference.
		Musgrave Resources Limited
		Logging of lithology, structure, alteration, mineralisation, colour and other features of RC chips was undertaken on a routine 1m basis.
		Silver Lake Resources
		All drill holes were logged by company geologists. Features relating to lithology, alteration type, alteration intensity, vein type are captured and stored in an electronic database.
		Historic drilling
		No details available



Criteria	JORC Code explanation	Commentary
	The total length and percentage of the relevant intersections logged.	Cue Copper Project Cyprium Metals RC Drilling All RC chip samples have been logged to 1m intervals by Cyprium geologists into excel spreadsheets or Ocris logging software for loading into the Cyprium Cue Copper Project database.
		<b>Cyprium Metals Diamond Drilling</b> All diamond core has been logged in detail by Cyprium geologists at the Nallan Station field facility into excel spreadsheets or Ocris logging software.
		<b>Musgrave Resources Limited</b> All drill holes are logged in full on completion.
		<b>Silver Lake Resources</b> All drill holes were logged by company geologists. Features relating to lithology, alteration type, alteration intensity, vein type are captured and stored in an electronic database.
		Historic drilling No details available.
Sub-	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Cue Copper Project
sampling techniques		Cyprium Metals Diamond Drilling - metallurgical
and sample preparation		Whole core of mineralised sections despatched to ALS Balcatta for metallurgical test-work.
		Cyprium Metals Diamond Drilling - twinned
		Core was cut in half with an Almonte core saw, bagged and despatched to BV laboratories Canning Vale.
	If non-core, whether riffled, tube	Cue Copper Project
	sampled, rotary split, etc and whether sampled wet or dry	Cyprium Metals RC Drilling
		Samples were split by the drill rigs' static cone splitter. Two wet intervals were noted from the mineralised zone in 19HORC029, samples were taken when the intervals had dried.
	For all sample types, the nature,	Cue Copper Project
	quality and appropriateness of the sample preparation technique.	Cyprium Metals RC Drilling
		Samples were bagged and despatched to BV laboratories Canning Vale. Samples are dried at $105^{\circ}$ C, Jacques crushed to passing 10mm if required, then Boyd crushed to passing 3mm. Samples are then riffle split to 2.4 kg and LM5 pulverised to 90% passing µm. A 40 g charge is then split from the pulverised material for assay analysis



Criteria	JORC Code explanation	Commentary
		Cyprium Metals Diamond Drilling - metallurgical
		Whole core of mineralised sections despatched to ALS Balcatta for metallurgical test-work.
		Cyprium Metals Diamond Drilling - twinned
		Samples are dried at 105°C, Jacques crushed to passing 10mm if required, then Boyd crushed to passing 3mm. Samples are then riffle split to 2.4 kg and LM5 pulverised to 90% passing 75µm. A 40 g charge is then split from the pulverised material for assay analysis
		Musgrave Resources Limited
		Drill sample preparation and base metal and precious metal analysis is undertaken by a registered laboratory. Sample preparation by dry pulverisation to 90% passing 75 µm.
		Silver Lake Resources
		Stated to be standard sample preparation techniques by Ultratrace laboratory Perth.
		Historic drilling
		No details available.
	Quality control procedures adopted for	Cue Copper Project
	all sub-sampling stages to maximise representivity of samples.	Cyprium Metals RC Drilling
		Certified Reference Materials and blanks are submitted with the samples to the laboratory and analysed for their performance. Cyprium undertakes remedial action including re-assaying samples if required.
	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.	Cue Copper Project
		Cyprium Metals Drilling
		Field duplicate intervals have been taken and assayed and have been analysed by Cyprium staff for variability and inconsistencies.
		Musgrave Resources Limited
		Sampling is carried out using standard protocols and QAQC procedures as per industry best practice. Duplicate samples are inserted and routinely checked against originals.
		Silver Lake Resources and historic drilling
		Details not available



Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate	Cue Copper Project
	to the grain size of the material being sampled.	Cyprium Metals Drilling
	Sumpiou.	Sample sizes are industry standard and are considered by Cyprium to be appropriate to sample potential mineralisation in the Cue Copper Project.
		Musgrave Resources Limited
		Sample sizes are considered appropriate for grain size of sample material. Sample collected from full width of sample interval to ensure it is representative of samples lithology.
		Silver Lake Resources
		Sample sizes were industry standard and are considered by Cyprium to be appropriate to sample potential mineralisation in the Cue Copper Project.
		Historic drilling
		No details available.
Quality of	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Cue Copper Project
assay data and laboratory		Cyprium Metals RC and twinned diamond Drilling
laboratory tests		RC and half core samples were analysed by mixed acid digest with ICP-AES finish for Cu, Pb, Zn and S and ICP-MS finish for silver which is an industry standard total analysis technique and is considered by Cyprium to be appropriate for the Cue Copper Project metasediment/felsic schist hosted mineralisation.
		Gold was analysed by lead collection fire assay with AAS finish which is an industry standard total analysis technique considered by Cyprium to be suitable for the Cue Copper Project metasediment/felsic schist hosted mineralisation.
		Cyprium Metals Diamond Drilling - metallurgical
		The core samples were crushed and pulverised at ALS Balcatta. A 0.4g charge is split from the pulp which is fused with 9g of lithium metaborate and lithium tetraborate flux then analysed for copper and base metals by a Panalytical Axios X-ray Fluorescence machine which is an industry standard total analytical technique.
		Gold was analysed by 50g fire assay with ICP-MS finish which is an industry standard total analytical technique.
		Musgrave Resources Limited



Criteria	JORC Code explanation	Commentary
		Drill sample analysis is undertaken by a registered laboratory, multi element analysis by acid digest and ICP-OES and ICP-MS to acceptable detection limits. Standard 40g Fire Assay analysis is undertaken for gold. Aqua regia digestion was undertaken for gold with surface samples reported here. Internal certified laboratory QAQC is undertaken including check samples, blanks and internal standards.
		Silver Lake Resources
		Assay methods were 40g charge Fire Assay at Ultratrace laboratories, Perth with base metals analysed with a 4-acid digest and finished with ICPOES or ICPMS depending on specific elements. This method has an Au detection limit of 0.01 ppm with an accuracy of +/- 10% for assays of greater than 0.5 ppm Au; Cu detection limit of 5 ppm; and Ag detection limit of 0.5 ppm.
	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.	No geophysical tools were used to estimate mineral or element percentages by any companies at the Cue Copper Project.
	Nature of quality control procedures	Cue Copper Project
	adopted (e.g. standards, blanks, duplicates. external laboratory checks)	Cyprium Metals RC and Diamond Drilling
	and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified Reference Materials (CRM) were submitted with the laboratory samples at a rate of 1 CRM in 20. The CRM results have been analysed by Cyprium metals for their performance and remedial action is currently underway for noted discrepancies.
		Bureau Veritas also conducts their own quality control standards and blanks, the results of which are provided to Cyprium Metals.
		Musgrave Resources Limited
		Standards, duplicates, blanks, and repeats are utilised as a standard procedure. Certified reference materials that are relevant to the type and style of mineralisation targeted are inserted at regular intervals.
		Silver Lake Resources and Historic drilling
		No details available.
Verification	The verification of significant	Cue Copper Project
of sampling and	alternative company personnel.	Cyprium Metals RC and Diamond Drilling
assaying		The Cyprium Chief Geologist and Senior Project Geologist visually verify significant mineralisation



Criteria	JORC Code explanation	Commentary
		intersections in diamond core and RC chips at the Cue Copper Project.
		Musgrave Resources Limited
		Samples are verified by the geologist before importing into the main database.
		Silver Lake Resources
		Drillholes were logged by Silver Lake Resources geological staff then loaded into an electronic database.
		Historic drilling
		No details available.
	The use of twinned holes.	Cue Copper Project
		Cyprium Metals RC Drilling
		3 diamond and 2 RC twinned holes have been completed at Hollandaire and showed geology consistent with the original Silver Lake Resources drillholes.
		All previous operators
		No twinned drillholes completed.
	Documentation of primary data, data	Cue Copper Project
	data storage (physical and electronic) protocols.	Cyprium Metals RC and Diamond Drilling
		Data for the completed drillholes has been collected using spreadsheet templates prepared by WPData consultants and Ocris logging software on Panasonic Toughbook laptop computers utilising standardised library lookup tables. Data was sent to WPData consultants for validation and compilation into an SQL database hosted by WPData.
		Musgrave Resources Limited
		Primary data is collected using a standard set of templates. Geological sample logging is undertaken on one metre intervals for RC drilling with colour, structure, alteration and lithology recorded for each interval. Data is verified before loading to the database. Geological logging of all samples is undertaken.
		Silver Lake Resources
		Drillholes were logged by Silver Lake Resources geological staff then loaded into an electronic database.
		Historic drilling
		No details available.



Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	No adjustments or calibrations have been made to any assay data reported.
Location of	Accuracy and quality of surveys used	Cue Copper Project
data points	to locate drill holes (collar and down- hole surveys) trenches mine workings	Cyprium Metals RC and Diamond Drilling
	and other locations used in Mineral Resource estimation.	Drillhole collars were set out using a handheld Garmin GPS with an accuracy of +/- 3m.
		Actual drill hole collars have been picked up by Arvista Surveys on 21/8/2019 with a Hemisphere S321+ RTK GNSS equipment GPS system. Stated accuracies are 8mm horizontal and 15mm vertical and are rounded to the nearest 1m in the table above. Actual coordinates provided to 3 decimal places will be utilised in the Hollandaire SQL database.
		RC drillhole downhole surveys were completed with an Axis Champ north seeking gyro with an azimuth accuracy of +/- 0.75° and inclination accuracy of +/- 0.15°.
		Diamond drillhole downhole surveys were completed with a Reflex EZ-gyro with an azimuth accuracy of +/- 1° and inclination accuracy of +/- 0.3°.
		Musgrave Resources Limited
		All maps and locations are in UTM grid (GDA94 Z50) and have been surveyed or measured by hand-held GPS with an accuracy of $\pm$ 5 metres. Down hole surveys are undertaken at nominal 30m intervals using a digital down hole camera and spear.
		Silver Lake Resources
		The majority of drill collars have been accurately located by either a licensed surveyor using a total station or DGPS. The Hollandaire deposit is drilled on the National Grid system. The majority of drillholes were surveyed down hole using an Eastman camera, electronic multi-shot or gyroscopic device.
		Historic drilling
		No details available.
	Specification of the grid system used.	GDA94, zone 50.
	Quality and adequacy of topographic control.	The Hollandaire natural surface was aerial surveyed by Arvista Surveys on 21/8/2019. The survey was subsequently processed into a digital terrain model which was provided to Cyprium on which now comprises the topographical control at the prospect.



Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drillhole spacing is considered by Cyprium to be appropriate for the metasediment and felsic schist hosted copper mineralisation defined at the Hollandaire deposit.
	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 estimation procedure(s) and classifications applied.	Drillhole spacing varies from 20m x 20m to 40m x 40m over the deposit and is sufficient to support an indicated and inferred Mineral Resource Estimate at Hollandaire which is being reported in this announcement.
	Whether sample compositing has been	Cue Copper Project
	applied.	Cyprium Metals RC Drilling
		Samples outside of altered zones were combined into 2m and 6m 3kg composites. Each interval was equally weighted in the composite and re- assaying of material >0.10% Cu identified in the composites takes place on a single metre basis.
		Cyprium Metals Diamond Drilling - metallurgical
		Metallurgical composites were completed within the mineralised zones of the following metallurgical sample drillholes: • 19HOMET001: 52.70m to 85.48m. • 19HOMET002: 85.50m to 108.00m • 19HOMET003: 76.00m to 95.60m
		Cyprium Metals Diamond Drilling - twinned
		No sample compositing.
		Musgrave Resources Limited
		No drill sample compositing has been undertaken within ore zones.
		Silver Lake Resources
		No sample compositing noted in mineralised zones.
		Historic drilling
		No details available.
Orientation	Whether the orientation of sampling	Cue Copper Project
of data in relation to geological structure	achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Cyprium Metals RC and Twinned Diamond Drilling
		The RC and twinned diamond drillholes have been designed to intersect the potential mineralisation envelope at 90°. Minor adjustments in the order of 2 to 8m to drillhole collar locations were utilised to avoid vegetation at the drill sites however Cyprium does not believe that this would bias the sampling in the Cue Copper Project.



Criteria	JORC Code explanation	Commentary
		Cyprium Metals Diamond Drilling - metallurgical
		The metallurgical sample drillholes were designed to provide first pass samples of the Hollandaire prospect and have been drilled through well mineralised sections of the deposit. The drillholes are oriented at 90° to maximise sample return for metallurgical testing and while the drilling is not perpendicular to the overall mineralisation envelope no deviation of the drillholes was noted and no bias is expected in their sample return.
		Musgrave Resources Limited
		Drilling was designed to cross the mineralisation as close to perpendicular as possible. Drill holes were designed at a dip of approximately 60 degrees and the Hollandaire mineralisation dips at ~35 degrees
		Silver Lake Resources
		Drilling was completed with 60° to the north and intersects Hollandaire mineralisation at 90°.
		Historic drilling
		Drilling intersects Hollandaire mineralisation at 90°.
	If the relationship between the drilling	Cue Copper Project
	orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Cyprium believes that the orientation of the drillholes at the Hollandaire deposit achieves unbiased sampling of the mineralisation.
Sample	The measures taken to ensure sample	Cue Copper Project
security	security.	Cyprium Metals RC and Twinned Diamond Drilling
		Samples were delivered to the Cue depot of the McMahon Burnett Transport Company for delivery to Bureau Veritas Laboratories Canning Vale WA. The 3 kg calico lab samples are collected in groups of 6 to 10 in 600 mm x 900 mm green plastic bags and transported in 1.5t bulk bags on pallets. Bureau Veritas did not report any interference to the samples when they were delivered to the laboratory.
		Cyprium Metals Diamond Drilling - metallurgical
		Core was delivered in trays secured to pallets to the Cue depot of the McMahon Burnett Transport Company for delivery to ALS laboratories Balcatta WA. Company personnel inspected the core on arrival, no damage or interference with the samples was noted and assay determinations



Criteria	JORC Code explanation	Commentary
		reflect visual quantities of copper sulphides in the drill core.
		Musgrave Resources Limited
		Chain of custody is managed by internal staff. Drill samples are stored on site and transported by a licenced reputable transport company to a registered laboratory in Perth. When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis
		Silver Lake Resources
		Chain of custody was managed by Silver Lake staff. Drill samples were stored on site and despatched by a transport company to Ultratrace laboratory in Perth. Samples were stored in a locked yard or warehouse at the laboratory before being processed and tracked through preparation and analysis
		Historic drilling
		No details available.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	An internal review process was undertaken by suitably qualified and experienced personnel in September 2020 and did not find any material shortcomings in sampling techniques and data.



# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties,	<b>Cue Copper Project</b> Cyprium has an 80% interest in a joint venture for the non-gold rights of the Cue Copper project with Musgrave Resources Limited.
	native title interests, historical sites, wilderness or national park and environmental settings.	The Hollandaire deposit is on granted Mining Lease M20/526 100% owned by the Cyprium Metals / Musgrave Resources 80/20 joint venture,
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	Cue Copper Project tenements are current and in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Hollandaire, Colonel, Mt Eelya, Eelya South and Rapier prospects in the Cue Project were identified in the 1970's by their outcropping gossans (oxidised sulphide material) in field mapping campaigns by Western Mining Corporation.
		Some exploration and development work was completed on the Cue project prospects from the 1980's to 2007 by Westgold Resources NL and Tectonic Resources NL however this was generally focussed on potential gold resources.
		Silver Lake Resources acquired the Cue Project from Tectonic Resources in 2007 and commenced regional exploration which also focussed on gold but did include multi-element geochemical analytical work. This further defined the previously identified copper/gold/silver anomalism at Hollandaire.
		Silver Lake commenced aircore drilling at Hollandaire in 2011 and discovered the sulphide copper/gold mineralisation in the same year.
		Hollandaire was resource definition drilled in 2011 and 2012 with the first 2004 JORC mineral resource estimate completed by Silver Lake towards the end of 2012.
		Musgrave Minerals acquired the Cue project in November 2015 from Silver Lake Resources and commenced exploration planning that year with drilling and geophysical work on the Cue project beginning in 2016 and finishing in March 2019 when the Joint Venture agreement was completed with Cyprium Metals.
Geology	Deposit type, geological setting and	Hollandaire
	Style of mineralisation.	Metasediment and felsic schist hosted copper mineralisation possibly formed as a distal apron type Volcanigenically Hosted Massive Sulphide (VHMS) or as a Sedimentary Exhalative (SedEx) deposit.



Criteria	JORC Code explanation	Commentary
		Extensive post mineralisation metamorphism and structural activity has obscured the deposits protoliths and ore deposit processes, work continues to develop a formation model for the deposit.
Drill hole Information	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:	Refer to Appendix 1.
	easting and northing of the drill hole collar	
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	dip and azimuth of the hole	
	down hole length and interception depth	
	hole length.	
	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.	No material drill hole information has been excluded from this announcement.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Exploration results have not been reported in this announcement.
	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.	Not applicable.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable
Relationship between mineralisation	These relationships are particularly important in the reporting of Exploration Results.	No new drill hole assay data is reported in this release.



Criteria	JORC Code explanation	Commentary
widths and intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Not applicable
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Not applicable
Diagrams	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.	Not applicable
Balanced reporting	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.	Not applicable
Other substantive exploration data	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.	Not applicable
Further work	The nature and scale of planned	Cue Copper Project
	further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling)	Planning for further drilling and geophysical programmes is in progress.
		Scoping study work related to the Hollandaire deposit is in progress.
	Diagrams clearly highlighting the	Cue Copper Project
	including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	To be compiled when planning for further work has been completed.



# Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

#### Cyprium Metals Hollandaire September 2020 Mineral Resource Estimate.

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Data entry for Cyprium data is via Expedio software which restricts data input and transmission to valid data only.</li> <li>Data entry methodology for previous operators varied - errors occurred and are were corrected as found during database use for resource estimation and drill programme design.</li> <li>The database is administered by an independent database consultant who undertakes audits data as it is loaded either from Cyprium activities or previous operator's databases to prevent inclusion of poor-quality data.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The competent person visited site during each of the Cyprium drilling campaigns and has inspected previous operator's drill core and chips.</li> <li>The competent person has visited the Bureau Veritas laboratory used for the analysis of Cyprium drill samples.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The geology of the Hollandaire deposit is moderately well understood by Cyprium Metals and previous operators. The deposit appears to be a metamorphosed and altered VHMS or SedEx deposit where the copper sulphides occur as lenses of massive to stringer mineralisation parallel to the bedding layers and first phase of regional structural deformation at the deposit.</li> <li>Drilling data as detailed in the previous section.</li> <li>No alternative interpretations have been made of the Hollandaire deposit.</li> <li>The sulphide mineralisation is entirely hosted in metasedimentary rock and felsic schists with a hard chlorite schist footwall boundary. The hanging wall contact is gradational and related to decreasing sulphide abundance.</li> <li>Cyprium has observed strong grade and geological continuity in the Hollandaire deposit. Structural disruption appears to occur at the known margins of the mineralisation, work has commenced on building a structural model for the deposit.</li> </ul>
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along	• The Hollandaire deposit occurs as 2 distinct lodes. Hollandaire West has a maximum strike



Criteria	JORC Code explanation	Commentary
	strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	length of 230m, a maximum dip extent of 270m and varies in width from sub 1m to 45m. The top of mineralisation occurs 30m below the ground surface and deepest defined mineralisation is 180m below the ground surface. Hollandaire East has a maximum strike length of 130m, a maximum dip extent of 600m and varies in width from sub 1m to 15m. The top of mineralisation occurs 50m below the ground surface and deepest defined mineralisation is 300m below the ground surface
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>The Hollandaire mineralisation was modelled using Micromine and Surpac resources software. The mineralisation models were defined by lithological and copper grade boundaries and utilised a lower 0.30% Cu cutoff. Composite drill samples were extracted from the mineralisation models and used for Surpac software geostatistical analysis to output grade estimation parameters. A 10mY, 10mX, 5mZ block model with 2.5m x 2.5m x 2.5m sub blocks was built in Surpac software and Cu, Au, Ag grade estimates of the blocks were constrained by the mineralisation models using the geostatistical estimation parameters. Mineralisation is noted to be consistent and grades have low observed variability. A small amount of high-grade composites were grade top cut as detailed in the section below.</li> <li>Previous estimates were calculated by Silver Lake Resources in 2012 and 2013 and do not differ materially from the 2020 Hollandaire Mineral Resource Estimate given the extra mineralised material defined by drilling in 2019 and 2020. No mining activity has occurred at Hollandaire thus production and reconciliation records are not available for the deposit.</li> <li>No modelling of the selective mining units were made and the resource is a global estimate.</li> <li>Cu, Au and Ag were estimated individually. (Cu+Zn+Pb+Fe)% assays and (Cu+Fe)% were correlated against Silver Lake density measurements. This was utilised to estimate sample densities in the mineralisation models that did not have density measurements taken.</li> <li>The footwall is a distinct chlorite schist and has been consistently logged and was used in conjunction with copper grades to inform the mineralisation model. The upper contact is gradational and related to sulphide stringer occurrence in the metasedimentary rocks and felsic schists. 0.3% copper grade which is related to the sulphide stringer abundance was used to define the hanging wall contact of the mineralisation.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>Hollandaire East had top cuts applied of 26% Cu and 5.00 ppm Au. 3 composites were cut to 26% Cu and 2 composites were cut to 5.00 ppm Au. No top cut for Cu was applied to Hollandaire West. Au top cuts varied from 0.30 to 1.20 ppm with a total of 6 composites top cut. Ag top cuts were 7.26 ppm and 1.49 ppm, a total of 4 composites were top cut in this estimate</li> <li>The block model and drillholes were compared on screen in Surpac. It was noted that grades and trends visible in the drilling were reflected in the block model. Swath plots were generated to compare block grades with composite grades and showed good correlation between the 2 datasets. Global-estimate mean-grades for the larger mineralisation models were compared with the input top-cut composite mean-grades and it was noted that the composite mean grades correlated well with the block grades. Slight underestimation of copper grades was noted in the 2 of the Hollandaire East mineralisation models.</li> </ul>
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul> <li>No moisture content testwork has been conducted at Hollandaire. Tonnages are estimated on a dry basis.</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	• The mineral resource estimate uses a 0.30% Cu cut-off as this is approximately the break- even grade for mining and processing Hollandaire material as determined by Cyprium preliminary estimations.
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul> <li>Cyprium considers that the resource could be mined using conventional open cut techniques with minimum mining widths of 1m.</li> <li>Internal and external dilution factors were not used in the mineral resource estimate.</li> <li>Metallurgical inputs were derived from metallurgical testing.</li> <li>Preliminary analysis of conceptual studies using current input costs demonstrated reasonable prospects for eventual economic extraction.</li> <li>Costs were benchmarked from similar Australian projects and operations.</li> </ul>
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical	<ul> <li>Metallurgical testwork conducted by Cyprium in 2019/2020 as part of the Murchison Copper Project scoping study demonstrates that Hollandaire material can be processed by heap leach pads and SXEW. Recoveries of 95% from 3 master composites over 45 days was returned from the 2019/2020 metallurgical testwork – variability testwork is in the early stages of</li> </ul>



Criteria	JORC Code explanation	Commentary
	treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	planning.
Environmen- tal factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	<ul> <li>Waste rock will be conventionally stockpiled in a waste landform by the open pit mining equipment. Potentially acid forming material will be identified during feasibility studies and encapsulated as appropriate.</li> <li>Process waste will be encapsulated in the heap leach pads. The primary cost is incurred when building the pads and has been considered as has the costs of encapsulating and generating a self-sustaining landform for mine closure.</li> <li>Silver Lake conducted flora and fauna surveys in 2011 and 2012 and did not identify any endangered species or environmentally sensitive areas at the Hollandaire deposit. Further studies will be commissioned by Cyprium during feasibility studies.</li> </ul>
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>395 Bulk density determinations were made by Ultratrace laboratory for Silver Lake resources using the water immersion method. Where composites did not have a density determination and estimate was made using (Cu+Zn+Pb+Fe)% assays and (Cu+Fe)% which were correlated against Silver Lake density measurements and used in the mineralisation models in transitional and fresh material.</li> <li>Outside of the mineralisation models nominal densities of 1.8t/m<sup>3</sup>, 2.4t/m<sup>3</sup> and 2.7t/m<sup>3</sup> were used for oxide, transitional and fresh material respectively.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Indicated material was defined by drilling where spacing was consistently no greater than 25m.</li> <li>Inferred material has drillhole spacing greater than 25m or low numbers of intersections in the modelled mineralisation.</li> <li>Input data is of sufficient quality and density for the mineral resource classifications used. Review of the database has identified improvements to data collection and handling which are currently being implemented by Cyprium.</li> <li>The Mineral Resource Estimate appropriately reflects the competent person's view of the Hollandaire deposit.</li> </ul>



Criteria	JORC Code explanation	Commentary
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• An internal review by suitably qualified and experienced personnel in September 2020 did not identify any material shortcomings in the estimate.
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>The Hollandaire 2020 Mineral Resource Estimate has been completed with a reasonable degree of confidence that is reflected in the estimate classifications and is a global estimate only. Further work is planned to increase the data density and quality in the Hollandaire deposit and confidence in its estimate. It is envisaged that material will be reclassified to higher confidence categories once this work has been completed.</li> </ul>