

**ASX RELEASE**

31 October 2023

**DIRECTORS /  
MANAGEMENT****Russell Davis**  
Chairman**Daniel Thomas**  
Managing Director**James Croser**  
Non-Executive Director**David Church**  
Non-Executive Director**Mark Pitts**  
Company Secretary**Mark Whittle**  
Chief Operating Officer**CAPITAL STRUCTURE****ASX Code: HMX**

Share Price (30/10/2023)	\$0.045
Shares on Issue	886m
Market Cap	\$40m
Options Unlisted	17.6m
Performance Rights	8m
Cash (30/09/2023)	\$3.4m

**HARDWAY GROWS, NEW  
INTERCEPTS INCLUDE 47m @ 1% Cu**

- Broad, shallow intercepts of copper & rare earth element (REE) mineralisation in all eight follow-up drill holes confirm the Hardway prospect as an extensive copper-bearing system. Significant assay results include:
  - **47m at 1% Cu from 14m** in HMHWRC017;
  - **43m at 0.90% Cu from 18m** within 88m at 0.62% Cu from surface in HMHWRC014 (**hole terminated in mineralisation**); including:
    - **5m at 2.78% Cu and 0.1g/t Au from 31m**;
  - **52m at 0.71% Cu from 78m** in HMHWRC019 including:
    - **3m at 3.9% Cu and 0.12g/t Au from 114m**;
  - **35m at 0.84% Cu from 46m** within 65m at 0.59% Cu from 20m in HMHWRC015; and
  - **19m at 1.02% Cu from 56m** within 77m at 0.42% Cu from surface in HMHWRC016.
- **The wide zones of alteration and oxide copper mineralisation intersected are extremely encouraging.** A deeper sulphide source is yet to be identified, with the data now being analysed to target deeper sulphide zones. The depth of weathering encountered so far is thought to relate to acid-related oxidation caused by the breakdown of sulphides.
- **Diamond drilling program** being considered to aid in structural interpretation and **to explore for a higher-grade sulphide system at depth.**
- **Assessment of Hardway's suitability for a copper oxide JORC Resource estimate underway**, targeted for Q1/Q2 2024.
- Drilling program now complete with assays awaited for the Tourist Zone, Pommern, Overlander, Kalman North, South Hope, Mascotte and Mascotte West.

**Hammer's Managing Director, Daniel Thomas said:**

*"Our follow-up drilling has delivered consistent copper intercepts and confirmed Hardway as a shallow copper oxide prospect extending over a strike length of more than 600m, with broad zones of strong copper mineralisation encountered from surface. The extent of the mineralisation and observed alteration at Hardway is unlike many of Hammer's recently drilled prospects in the Mount Isa region and indicates a potentially significant mineralisation event.*

*"This round of drilling has provided further valuable geological information outlining a southerly plunge to the copper system. Pleasingly, this provides the potential for a substantial sulphide target at depth which will likely be tested with a diamond drill rig. The associated mineralisation at Hardway is also intriguing with the combination of significant grades of cobalt and heavy rare earth elements. Many Iron Oxide Copper-Gold systems are associated with anomalous levels of rare earth mineralisation. Based on the intercepts to date, the potential to define an initial JORC compliant copper Mineral Resource at Hardway will be examined."*

*“Notwithstanding the recent frustration of assay laboratory delays, shareholders can look forward to further news from our recent drilling program with batches of the remaining drilling expected to be received over the next few weeks.”*

**Hammer Metals Ltd (ASX: HMX)** (“**Hammer**” or the “**Company**”) is pleased to advise that follow-up Reverse Circulation (RC) drilling at the Hardway Prospect, part of the Company’s Mt Isa portfolio in NW Queensland, has delivered further broad, shallow intercepts of significant copper and rare earth element (REE) mineralisation. The results have further elevated the potential of this discovery in Hammer’s portfolio.



**Figure 1.** Hardway North Pit, looking south.

### **Hardway**

The Hardway Prospect is situated within Hammer Metals’ 100%-owned EPM14022, located between Mount Isa and Cloncurry and 1km north of the Barkly Highway. The prospect is located on the margin of the Hardway Granite within the Corella Formation.

The Corella Formation also hosts mineralisation at the Mary Kathleen U-REE deposit and Hammer’s Kalman Cu-Au-Mo-Re deposit, Jubilee Cu-Au deposit, Elaine Cu-Au deposit, Overlander Cu deposit and the Lakeview Cu-Au deposit, in addition to other Hammer prospects such as Ajax, Trafalgar and Hammertime.

The most recent program comprised a further eight holes (952m) at the Hardway Project, focused on in-filling zones of mineralisation over approximately 600m of strike. The program intersected consistent zones of copper oxide mineralisation, confirming historical intersections and increasing confidence in the nature of the deposit.

Significant intersections from this round of drilling include:

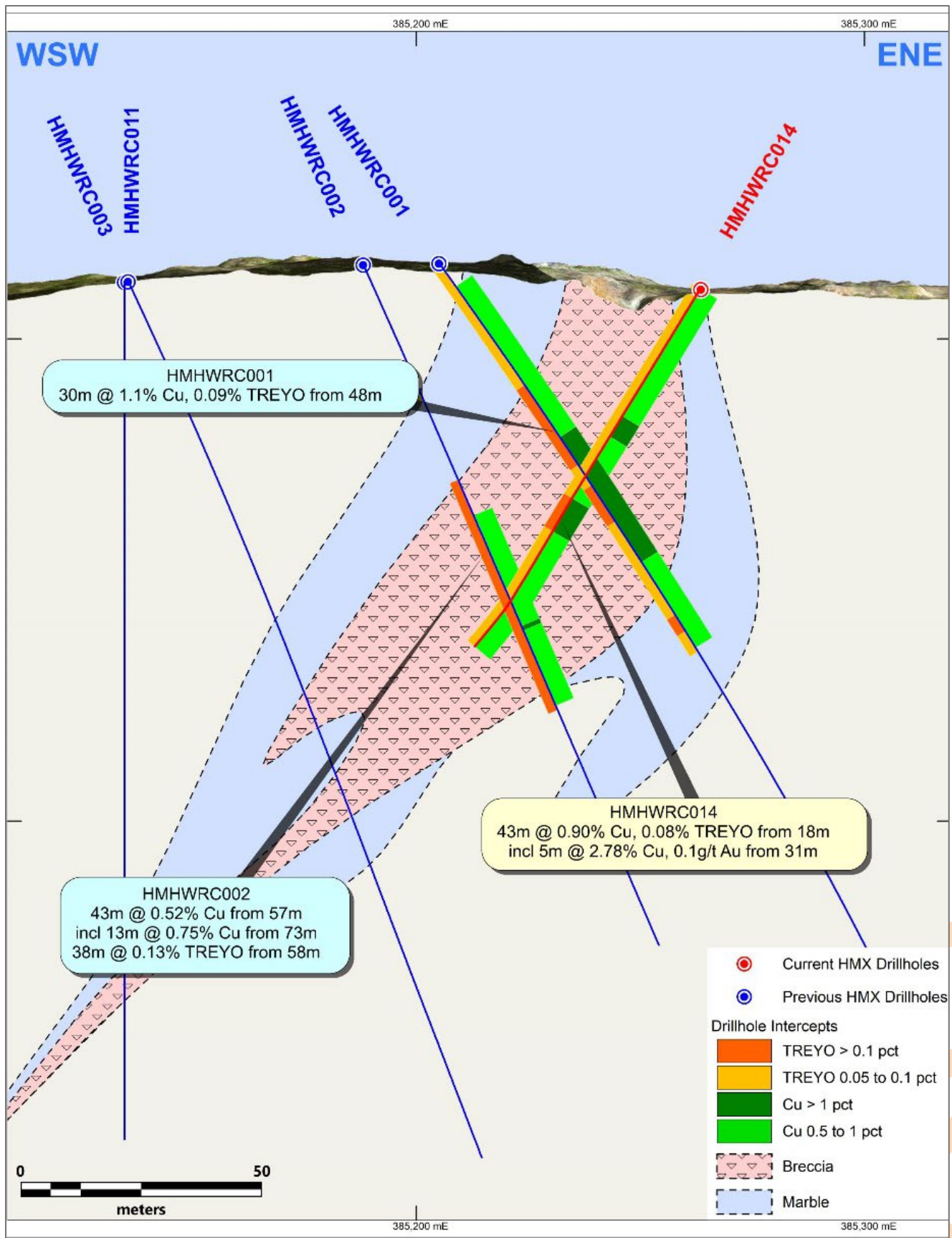
- **47m at 1% Cu from 14m** in HMHWRC017, including:
  - **21m at 1.21% Cu from 25m;**
- **43m at 0.9% Cu from 16m** within **88m at 0.62% Cu from surface** in HMHWRC014 (hole terminated in mineralisation); including
  - **5m at 2.78% Cu and 0.1g/t Au from 31m.**
- **52m at 0.71% Cu** from 78m in HMHWRC019 including
  - **3m at 3.9% Cu and 0.12g/t Au from 114m;**
- **35m at 0.84% Cu** from 46m within **65m at 0.59% Cu from 20m** in HMHWRC015; and
- **19m at 1.02% Cu** from 56m within 77m at 0.42% Cu from surface in HMHWRC016.



**Figure 2.** Copper oxide visible in drill chips from HMHWRC0014 (20-40m). A copper grade of 2.78% was reported between 31m and 36m (See Table 1).

Previous drilling at Hardway also intercepted broad zones of shallow copper and rare earth mineralisation. Previously reported significant intercepts (See ASX announcement 6 February 2023 and 24 May 2023) include:

- **57m at 1.0% Cu from surface** in HMHWRC012, including 10m at 2.87% Cu, 0.11g/t Au and 0.09% Total Rare Earth and Yttrium Oxides (TREYO) from 25m;
- **24m at 1.06% Cu and 0.20% TREYO from 14m** within 58m at 0.55% Cu from surface to the end of hole in HMHWRC006;
- 13m at 1.20% Cu from 35m within 38m at 0.66% Cu from 13m in HMHWRC010;
- 9m at 1.51% Cu and 0.18% TREYO from 67m within 43m at 0.54% Cu from 48m in HMHWRC005;
- 43m at 0.52% Cu and 0.12% TREYO from 57m in HMHWRC002; and
- **30m at 1.1% Cu from 48m** and 26m at 0.14% TREYO from 34m in HMHWRC001.



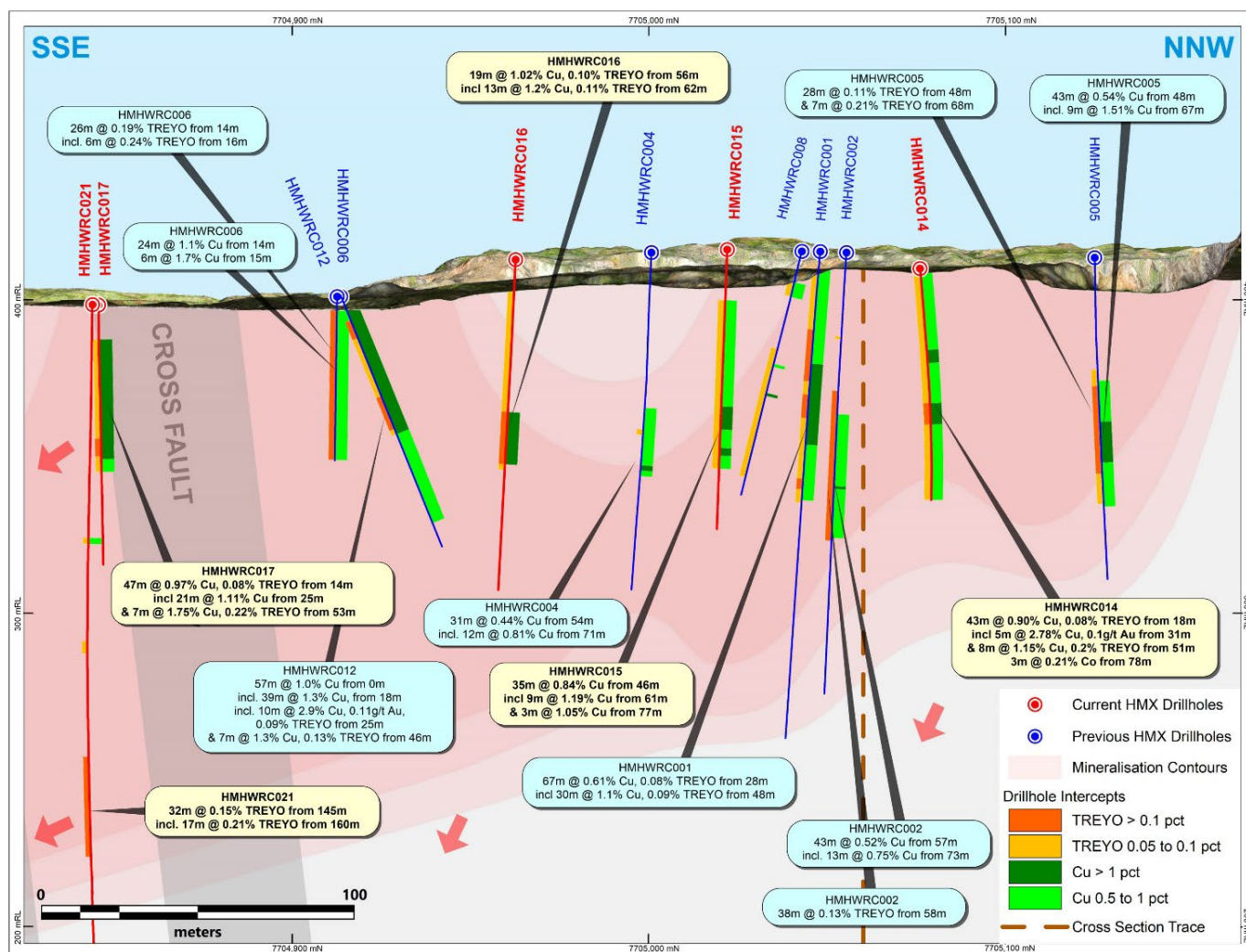
**Figure 3.** Hardway North - Cross Section looking north illustrating the relationship between marble and chert breccia alteration styles. The thickening of the breccia zone marks the position of the south plunging shoot. Section location is shown in Figure 4 (See ASX announcement 6 February 2023 and 24 May 2023).

Hardway is located on the western side of the Proterozoic Hardway Granite within metasediments of the Corella Formation. There are two element associations in the prospect: Cu-Au-Co; and a rare earth element assemblage dominated by heavy rare earths and in particular Yttrium (Y) in the mineral Xenotime.

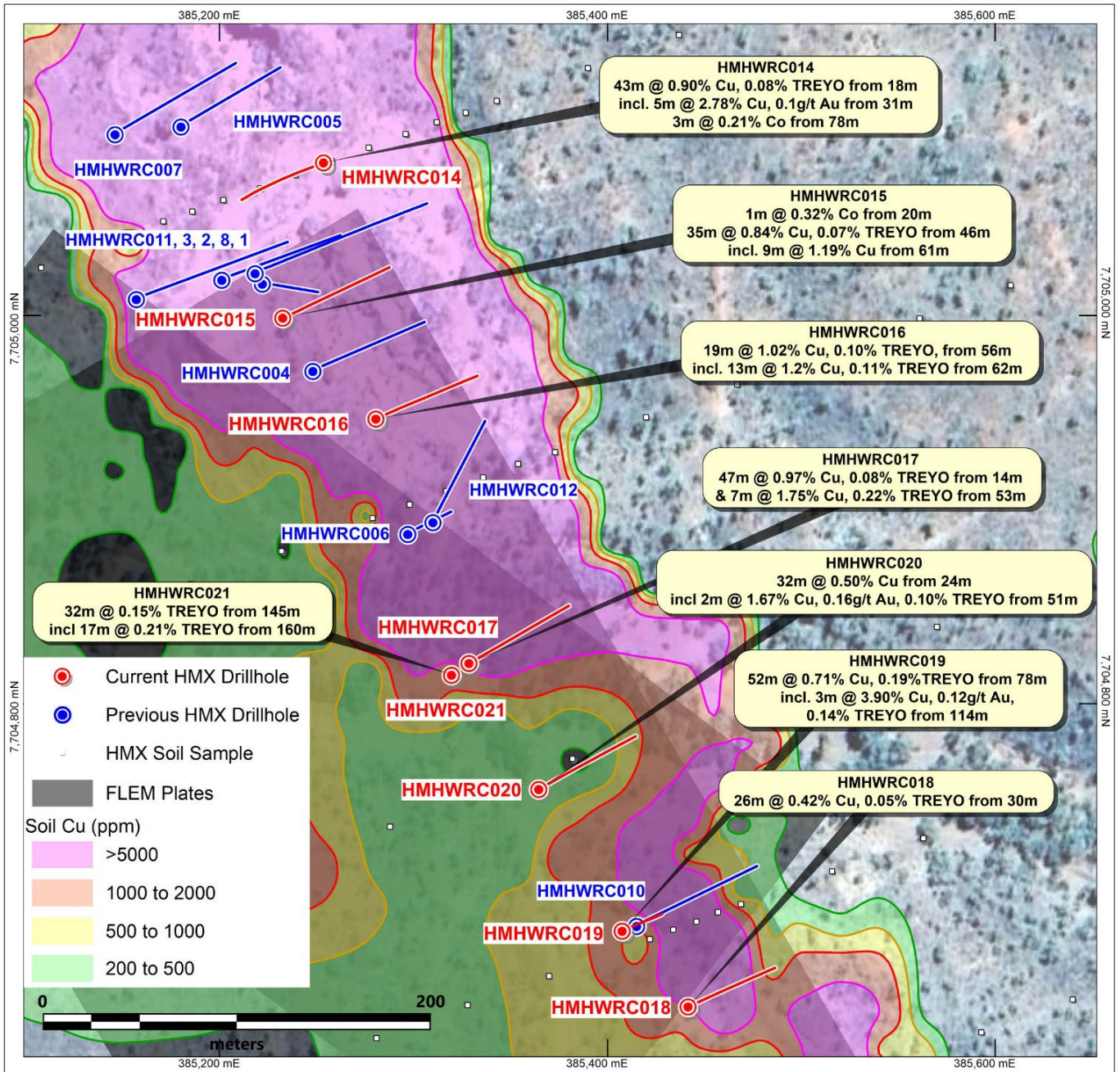
Mineralisation dips to the west-south-west at between 50 to 80 degrees and plunges moderately to the south. Two alteration styles are present and alteration character varies along the 1.5km currently tested in drilling:

- The northern portion of the prospect is typified by the presence of a clay zone (Figure 1), thought to represent acid induced weathering related to the breakdown of sulphide. Significant base metal mineralisation delineated in drilling to date has been exclusively oxide. Deep oxide profiles can occur over base metal deposits in the Mt Isa Inlier. An example is Mt Dore (117Mt at 0.57% Cu) which has an extensive oxide zone; and
- Significant jasperoidal silica is present along the tested strike and it is thought that the silica may be the weathered product of (semi) massive sulphide mineralisation at depth.

A deeper sulphide source is yet to be identified, with the data now being analysed to target deeper sulphide zones.



**Figure 4. Hardway – Long Section (looking west) along the Hardway North Zone. Hammer interprets a southerly plunge to mineralisation which would be towards the left in the long section. (refer ASX announcements 6 February 2023 and 24 May 2023).**



**Figure 5. Hardway North - Soil copper contours and current drilling.**  
(refer ASX announcements 6 February 2023 and 24 May 2023)

**Table 1. Hardway – HMMHWR014 through HMMHWR021. Significant intercepts derived from lab analyses. Cu intercepts calculated at a 0.1% Cu cut-off.**

Area	Hole	East	North	RL	Dip	Az_GDA	TD	From	To	Interval	Cu(%)	Au(g/t)	Co(ppm)	TREYO (%)	HREYO/TREYO (%)	Y(ppm)	Comment		
Hardway	HMMHWR014	385254	7705079	410.5	-59	249.8	88		0	88	88	0.62	0.04	280	0.06	62%	232	incl. 3m at 0.21% Co from 78m	
								incl.	18	61	43	0.90	0.05	159	0.08	67%	284		
								&	31	36	5	2.78	0.10	145	0.03	79%	120		
									51	59	8	1.15	0.04	177	0.20	68%	752	Hole terminated in mineralisation	
	HMMHWR015	385233	7704999	415	-55	65.1	108		6	9	3	0.28	0.01	127	0.03	60%	108		
									20	85	65	0.59	0.04	283	0.07	66%	260	incl. 1m at 0.32% Co from 20m	
								incl.	46	81	35	0.84	0.04	246	0.07	68%	251		
								&	61	70	9	1.19	0.06	208	0.04	77%	149		
	HMMHWR016	385281.2	7704947	414	-62	64.8	120		77	80	3	1.05	0.05	144	0.02	59%	62		
									0	77	77	0.42	0.02	219	0.07	66%	252	incl. 1m at 0.13% Co from 12m	
								incl.	56	75	19	1.02	0.04	174	0.10	67%	358	incl. 1m at 0.11% Co from 36m	
								&	62	75	13	1.20	0.05	162	0.11	67%	403		
	HMMHWR017	385329	7704821	397	-55	59.6	102		84	85	1	0.12	0.01	105	0.03	68%	109		
									120	122	2	1.33	0.05	179	0.11	74%	454	Hole terminated in mineralisation	
								incl.	6	9	3	0.12	0.01	118	0.02	66%	49		
								&	14	66	52	0.90	0.02	167	0.08	62%	256		
	HMMHWR018	385442	7704644	402.2	-55	64.8	84		25	46	21	1.11	0.01	155	0.03	69%	90		
								incl.	10	11	1	0.10	0.01	20	0.01	60%	14		
								&	18	19	1	0.10	0.03	66	0.01	60%	30		
									26	27	1	0.12	0.01	146	0.02	63%	39		
	HMMHWR019	385408	7704683	401	-80	64.6	138		30	56	26	0.42	0.04	312	0.05	66%	175		
								incl.	36	38	2	1.13	0.01	479	0.07	71%	263		
								&	41	42	1	1.13	0.02	647	0.07	84%	332		
									41	55	14	0.13	0.01	141	0.02	68%	36		
	HMMHWR020	385365	7704756	400	-55	65.4	96		78	130	52	0.71	0.03	268	0.19	65%	641		
								incl.	94	96	2	1.03	0.01	319	0.57	60%	1743		
								&	111	117	6	2.36	0.09	286	0.14	73%	559		
									114	117	3	3.90	0.12	390	0.14	78%	629		
	HMMHWR021	385320	7704815	397	-90	60.0	216		24	56	32	0.50	0.03	207	0.03	65%	116		
								incl.	51	53	2	1.67	0.16	275	0.10	74%	399		
									75	77	2	0.51	0.06	122	0.10	63%	316		
									108	112	4	0.15	0.01	414	0.05	64%	179		
	Tourist Zone	HMTZRC001	384574	7675159	385	-55	274.9	180		145	177	32	0.07	0.01	747	0.15	61%	507	
									incl.	160	177	17	0.06	0.01	451	0.21	62%	719	
									incl.	150	153	3	0.18	0.01	4066	0.07	61%	230	incl. 1m at 0.75% Co from 150m
									incl.	175	176	1	0.12	0.01	600	0.28	58%	892	
	Overlander	OVRRC037	386556	7672982	389	-55	104.6	210		209	210	1	0.12	0.01	201	0.06	56%	172	
									incl.	209	210	1	0.12	0.01	201	0.06	56%	172	
	Pommern	HMPORC001	400509	7685020	397	-55	286.6	192		Results Pending									
	Bulonga	HMPORC002	400525	7684942	391	-55	289.6	210		Results Pending									
	Kalman Dam	K-157	392707	7673455	392	-90	19.9	72		Results Pending									
	Mt Hope South	HMHSRC010	376583	7657705	461	-55	81.6	190		Results Pending									
	Mt Mascotte	HMMARCO09	381245	7657531	419	-55	297.6	150		Results Pending									
Mt Mascotte West	HMMARCO10	380803	7657604	419	-54	314.6	150		Results Pending										
	HMMARCO11	380962	7657747	421	-55	314.6	180		Results Pending										
	HMMARCO12	380869	7657686	419	-55	304.6	156		Results Pending										

**Note**

TREYO is the sum of LREO and HREYO

LREO is calculated by summing the element oxide responses of Ce, Eu, Gd, La, Nd, Pr and Sm.

HREYO is calculated by summing the element oxide responses of Dy, Er, Ho, Lu, Tb, Tm, Yb and Y

^^ - Partial or no full suite REE analyses conducted across intercept interval

Locations are relative to GDA94 Zone54

**Hardway REE's and Cobalt**

The Hardway Prospect is unique in the Mt Isa inlier due to the combination of copper and REE mineralisation, the heavy rare earth (HREE) dominated REE assemblage and its location near regional infrastructure. Drilling in the current program continued to intersect significant levels of REE mineralisation, including:

- 32m at 0.15% TREYO and 747ppm Co from 145m in HMMHWR021, including:
  - 17m at 0.21% TREYO and 451ppm from 160m; and
  - 3m at 0.4% Co from 150m.
- 52m at 0.19% TREYO from 78m in HMMHWR019; including:
  - 2m at 0.57% TREYO from 94m
- 8m at 0.20% TREYO from 51m in HMMHWR014
- 7m at 0.22% TREYO from 53m in HMMHWR017.

Heavy elements dominate the total rare earth suite, particularly Yttrium (with an individual maximum grade of 0.24% Y<sub>2</sub>O<sub>3</sub>). Other maximum grades of Heavy Rare Earth Oxides included:

- 854ppm Neodymium Oxide;
- 384ppm Dysprosium Oxide;
- 342 Gadolinium Oxide; and
- 279 ppm Samarium Oxide

Notably, the current program has highlighted zones of elevated cobalt associated with copper mineralisation (Table 1). Significant intersections include:

- 1m at 0.75% Co within 3m at 0.41% Co from 150m in HMHWRC021; and
- 3m at 0.21% Co from 78m in HMHWRC014.

### **Expected Newsflow**

- **November – Drilling Assays** – Tourist Zone, Pommern, Bulonga, Kalman North, South Hope, Mascotte and Mascotte West.
- **1 November** – IMARC Mines and Money Conference Presentation.
- **November** – Mount Isa East Joint Venture Drilling Program.
- **November/December** – Soil and Drone Survey – North Orelia Lithium.
- **Q1 2024** – Mount Isa Drilling Program – Hardway, South Hope and Mascotte.
- **TBD** – Yandal Lithium Project – air-core drilling program.



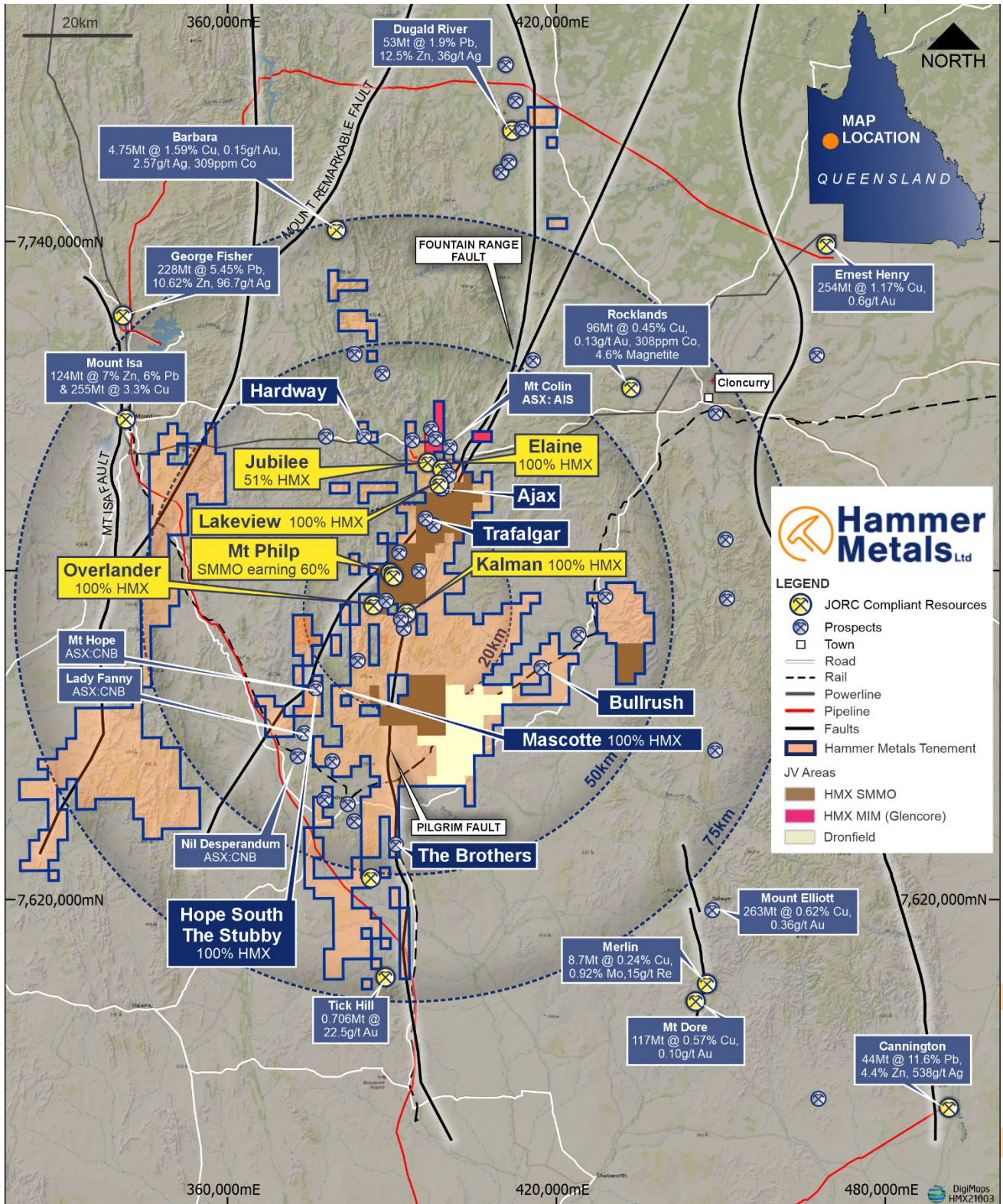


Figure 6. Mt Isa Project Area

*This announcement has been authorised for issue by the Board of Hammer Metals Limited in accordance with ASX Listing Rule 15.5.*

For further information please contact:

**Daniel Thomas**  
Managing Director

T +61 8 6369 1195  
E [info@hammermetals.com.au](mailto:info@hammermetals.com.au)

**Media Inquiries:**  
Nicholas Read – Read Corporate

T +61 9 9388 1474  
E [info@readcorporate.com.au](mailto:info@readcorporate.com.au)

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### **About Hammer Metals**

Hammer Metals Limited (ASX: HMX) holds a strategic tenement position covering approximately 3,000km<sup>2</sup> within the Mount Isa mining district, with 100% interests in the Kalman (Cu-Au-Mo-Re) deposit, the Overlander North and Overlander South (Cu-Co) deposits, the Lakeview (Cu-Au) deposit and the Elaine (Cu-Au) deposit. Hammer also has a 51% interest in the Jubilee (Cu-Au) deposit. Hammer is an active mineral explorer, focused on discovering large copper-gold deposits of Ernest Henry style and has a range of prospective targets at various stages of testing.

Hammer holds a 100% interest in the Bronzewing South Gold Project located adjacent to the 2.3 million-ounce Bronzewing gold deposit in the highly endowed Yandal Belt of Western Australia

### **Competent Person Statements**

The information in this report as it relates to exploration results and geology was compiled by Mr. Mark Whittle, who is a Fellow of the AusIMM and an employee of the Company. Mr. Whittle, who is a shareholder and option-holder, has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Whittle consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to previous exploration results was prepared and first disclosed under a pre-2012 edition of the JORC code. The data has been compiled and validated. It is the opinion of Hammer Metals that the exploration data is reliable. Nothing has come to the attention of Hammer Metals that causes it to question the accuracy or reliability of the historic exploration results. In the case of the pre-2012 JORC Code exploration results, they have not been updated to comply with 2012 JORC Code on the basis that the information has not materially changed since it was last reported.

Where the Company references Mineral Resource Estimates previously announced, it confirms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the resource estimates with those announcements continue to apply and have not materially changed.

## JORC Table 1 report – Mount Isa Project Exploration Update

This table is to accompany an ASX release updating the market with drill results from the Hardway prospect. Hardway is located within 100% Hammer Metals controlled tenement EPM14022.

Historic exploration data noted in this, and previous releases has been compiled and validated. It is the opinion of Hammer Metals that the exploration data are reliable.

Note that this announcement discusses partially reported results. As more results are released by the analytical laboratory this information will be updated.

This release reports gold and base metal results from HMHWRC014 through HMHWRC021 (8 holes, 952m).

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<p><i>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).</i></p> <p><i>These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>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.</i></p>	<p>The drilling was conducted using reverse circulation.</p> <p><b>Drilling</b> Drill chip samples were taken at dominantly 1m intervals. When multiple metre intervals were sampled, a riffle split of each metre interval was conducted with the split portions then being combined to produce a composite sample. Where mineralisation was anticipated or encountered, the sample length was reduced to 1m with lab submission of the 1m samples.</p> <p>The samples reported in this release relate to HMHWRC014 through HMHWRC021 (8 holes, 952m). For these samples, the average interval was 1.52m and the average sample weight submitted to the lab was 2.26kg.</p> <p><b>Drilling Analysis</b> All samples reported underwent fine crush with 1kg riffled off for pulverising to 75 microns.</p> <p>Samples were submitted to ALS for:</p> <ul style="list-style-type: none"> <li>• Fire assay with AAS finish for gold.</li> <li>• 4 acid digest followed by ICP-MS for a comprehensive element suite.</li> </ul> <p>Portable XRF analysis was conducted in the field on each 1m interval to provide guidance on sampling. Re-analyses will be conducted as required to investigate element repeatability.</p>
<b>Drilling techniques</b>	<p><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond</i></p>	<p><b>Drilling</b> Holes were drilled by Remote drilling using a Hydco 70 drilling rig using the reverse circulation drilling method.</p>

Criteria	JORC Code explanation	Commentary
	<i>tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	
<b>Drill sample recovery</b>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>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.</i></p>	<p><b>Drilling</b></p> <p>Sample recoveries were generally in excess of 80%. Recoveries are typically low in the first 5m of each hole and in areas of strong water inflow.</p> <p>In holes where recovery issues, excessive water, or significant sampling bias occurred, the hole was terminated.</p> <p>No sample recovery bias has been noted.</p>
<b>Logging</b>	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p><b>Drilling</b></p> <p>All drilling was geologically logged by Hammer Metals Limited Geologists.</p> <p>Quantitative portable XRF analyses were conducted on metre intervals on site.</p> <p>All metres drilled were analysed by the lab methods listed above and lab assays are reported herein.</p>
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p><b>Drilling</b></p> <p>Samples consist of RC drill chips.</p> <p>Samples from the hole were collected by a three-way splitter with A and B duplicates taken for every sample.</p> <p>Samples were taken at dominantly one metre intervals however where 2 or 4 metre composites were created, samples were composited by riffle splitting material from each one metre sample bag.</p> <p>Where evidence of mineralisation was encountered or anticipated, the sample length was reduced to 1m.</p> <p><b>Drilling QA/QC</b></p> <p>Standard reference samples and blanks were each inserted into the laboratory submissions at a rate of 1 per 25 samples. Duplicate samples were taken at an interval of approximately 1 in 50 samples.</p>

Criteria	JORC Code explanation	Commentary
		<p><b>Sampling Comment</b></p> <p>The sample collection methodology and sample size are considered appropriate to the target-style and drill method, and appropriate laboratory analytical methods were employed.</p>
<p><b>Quality of assay data and laboratory tests</b></p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p> <p><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></p>	<p><b>Drilling Analysis</b></p> <p>All samples were analysed for gold by flame AAS using a 50gm charge in addition to 4-acid multielement ICP MS.</p> <p>In addition to the Hammer in-house certified reference materials, the assay laboratory maintains a comprehensive QAQC regime, including check samples, duplicates, standard reference samples, blanks, and calibration standards.</p>
<p><b>Verification of sampling and assaying</b></p>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.</i></p>	<p><b>Drilling and Rock Chip Sampling</b></p> <p>All lab analyses were verified by alternate company personnel.</p> <p>Assay files were received electronically from the laboratory.</p>
<p><b>Location of data points</b></p>	<p><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p><b>Drilling and Rock Chip Sampling</b></p> <p>Datum used is GDA 94 Zone 54.</p> <p>RL information was derived from a LIDAR DTM. Drillholes will also be surveyed by DGPS prior to rehabilitation.</p>
<p><b>Data spacing and distribution</b></p>	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>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.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p><b>Drilling</b></p> <p>This release documents results from the Hardway Prospect. The drill density is not sufficient to establish mineralisation continuity. Sample compositing has been applied to calculate intercepts.</p>
<p><b>Orientation of data in relation to geological structure</b></p>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p>	<p><b>Drilling</b></p> <p>Drill holes and sample sites are generally oriented as close to perpendicular as possible to the orientation of the targets based on interpretation of previous exploration.</p>

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	<b>Samples</b> Pre-numbered bags were used, and samples were transported to ALS by company personnel. Samples were packed within sealed polywoven sacks.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	<b>Drilling</b> The dataset associated with this reported exploration has been subject to data import validation. All assay data has been reviewed by two company personnel. No external audits have been conducted.

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<p><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <p><i>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.</i></p>	<p>The Mt Isa Project consists of 34 tenements.</p> <p>Drilling has been undertaken over multiple prospects although in this release only assays from Hardway have been reported.</p> <p>Hardway (EPM14022), Tourist Zone (EPM26776), Bulonga (EPM26775), Pommern (EPM26775), Overlander Central (EPM26776), South Hope (EPM26777), Mt Mascotte (EPM26777), and Mascotte West (EPM26777) targets.</p> <p>All tenements above with the exception of EPM14022 are held by Mt Dockerell Mining Pty Ltd. EPM14022 is held by Mulga Minerals Pty Ltd. Both Mt Dockerell Mining Pty Ltd and Mulga Minerals Pty Ltd are 100% held subsidiaries of Hammer Metals Limited.</p> <p>The areas reported herein are <b>not</b> part of the Mt Isa East Joint Venture with Sumitomo Metal Mining Oceania ("SMMO").</p> <p>See ASX announcement dated 25 November 2019, for details of the Joint Venture.</p>
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Previous holders held title either covering the tenement in part or entirely and previous results are contained in Mines Department records.

Criteria	JORC Code explanation	Commentary
<p><b>Geology</b></p>	<p><i>Deposit type, geological setting, and style of mineralisation.</i></p>	<p><b>Hardway (EPM14022)</b>  The Hardway Prospects are located on EPM14022. Mineralisation is structurally emplaced in a foliation sub parallel shear zone and appears to consist of two events dominated by Cu and rare earths respectively.</p> <p><b>Tourist Zone (EPM26776)</b>  Tourist Zone is located on the north-western side of the Overlander Granite within carbonate rich sediments of the Corella Formation. Mineralisation is associated with Jasper and carbonate rich zones.</p> <p><b>Bulonga &amp; Pommern (EPM26775)</b>  Bulonga and Pommern are located close to the contact between mafic volcanics of the Cone Creek Metabasalt and phyllites and schists of the Argylla Formation. The contact between these units appears to be folded around a north plunging synform. Mineralisation can be traced for over 2km along this contact and is visible as a carbonate zone up to 2m in thickness. Copper bearing quartz veins of up to 2m in thickness are often associated with this contact. A larger target possibility exists in the keel of the fold structure between Pommern and Bulonga. This mineralisation is effectively blind.</p> <p><b>Overlander Central (EPM26776)</b>  The Overlander Prosect, located on EPM26776. The prospect consists of three distinct mineralisation styles: A shear zone hosted Cu (+- Co) style of mineralisation (which hosts the Overlander North and South shear zone hosted resources; Mineralisation associated with IOCG skarn style alteration at the Overlander North IOCG target; and disseminated mineralisation associated with the Overlander Rhyolite (at Overlander Central).</p> <p><b>South Hope Prospect</b>  The current understanding of the style of mineralisation at Mt Hope is that it is shear zone hosted and located on the margins of the Magna Lyn Metabasalt and the Bushy Park Gneiss.</p> <p>Commonly in the Mt Isa region major lithological contacts become the focus of shearing and this can be accompanied to</p>

Criteria	JORC Code explanation	Commentary
		<p>varying extents by hydrothermal fluid flow.</p> <p>An example of this style of mineralisation is the Mt Colin Cu deposit currently being mined by Round Oak Limited.</p> <p>Mineralisation occurs in association with Quartz Vein Breccias and sulphide species identified were pyrrhotite, pyrite and chalcopyrite.</p> <p><b>The Mascotte Prospects</b> are located on EPM26777. Mineralisation is structurally emplaced in a foliation parallel shear zone and is associated with Quartz veining.</p> <p>At Mt Hope the style of mineralisation is similar to that of Mt Mascotte with mineralisation occurring in structurally controlled positions associated with Quartz and calcite gangue material.</p>
<p><b>Drill hole Information</b></p>	<p><i>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: 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.</i></p> <p><i>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.</i></p>	<p>See the attached tables.</p>
<p><b>Data aggregation methods</b></p>	<p><i>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.</i></p> <p><i>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.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p><b>Drilling</b></p> <p>Drillhole intercepts with a Cu focus are quoted at a 0.1% Cu cut-off with included intercepts quoted to highlight zones of increased width or grade.</p> <p>Rare earth intercepts are also quoted at a 500ppm TREOY cut-off.</p> <p>In addition, Co intercepts are highlighted with a cut-off of 1000ppm.</p> <p>The reader should assume that there are no other significant grades encountered in the hole apart from those quoted in the body of this report.</p> <p>TREYO is the sum of LREO and HREYO  LREO is calculated by summing the element oxide responses of Ce, Eu, Gd, La, Nd, Pm (not analysed), Pr and Sm.  HREOY is calculated by summing the element oxide responses of Dy, Er, Ho, Lu, Tb, Tm, Yb and Y</p>



Criteria	JORC Code explanation	Commentary
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	<p><b>Drilling</b></p> <p>The irregular nature of the marble alteration and the possibility of Karst weathering make true width determinations quite difficult to interpret. As a result, no true width determinations are quoted in this release.</p>
<b>Diagrams</b>	<p>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.</p>	<p>See attached figures.</p>
<b>Balanced reporting</b>	<p>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</p>	<p><b>Drilling</b></p> <p>Drillhole intercepts with a Cu focus are quoted at a 0.1% Cu cut-off with included intercepts quoted to highlight zones of increased width or grade.</p> <p>The reader should assume that there are no other grades encountered in the hole apart from those quoted in the body of this report.</p>
<b>Other substantive exploration data</b>	<p>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.</p>	<p>All relevant information is disclosed in the attached release and/or is set out in this JORC Table 1.</p>
<b>Further work</b>	<p>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Hardway will be subject to further drilling, during the 2023 field season. Hammer Metals aims to progress towards a Cu-Au-Co-REE resource on this prospect.</p>