Further Excellent High-Grade Copper, Gold & Silver Results at Mt Chalmers

MT CHALMERS

Highlights

6 June 2022

Twelve Reverse Circulation (RC) drill holes completed for 2,162 metres drilled;

Assay results from the first three RC holes have now been received;

Results include multiple wide and high-grade intersections up to **4.7% Copper Equivalent (CuEq);**

Significant results include[1]:

- **8m @ 4.7% CuEq** from 119m, within **21m @ 2.6% CuEq** from 113m;
- **29m @ 1.6% CuEq** from 161m, including **2m @ 4.2% CuEq** from 161m;
- **2m @ 4.0% CuEq** from 173m, and **2m @ 3.6% CuEq** from 179m; and
- **16m @ 1.1% CuEq** from 132m, including **2m @ 4.3% CuEq** from 136m.

RC drilling performing well with samples now delivered weekly to ALS Laboratory; and

The balance of nine holes drilled to be reported shortly.

[1] Individual grades presented in table 2.

Overview

QMines Limited (**ASX:QML**) (**QMines** or **Company**) is pleased to provide the following results from the ongoing RC drilling program at its flagship Mt Chalmers Project, located 17 km north-east of Rockhampton in Queensland (Figure 1).

High-grade copper equivalent (CuEq) results have been intersected in the first three RC drill holes reported from the May drilling program including up to 4.7% CuEq in MCRC010 and 4.2% CuEq in MCRC009. Base and precious metal grades from the May drilling program can be seen in Table 2.

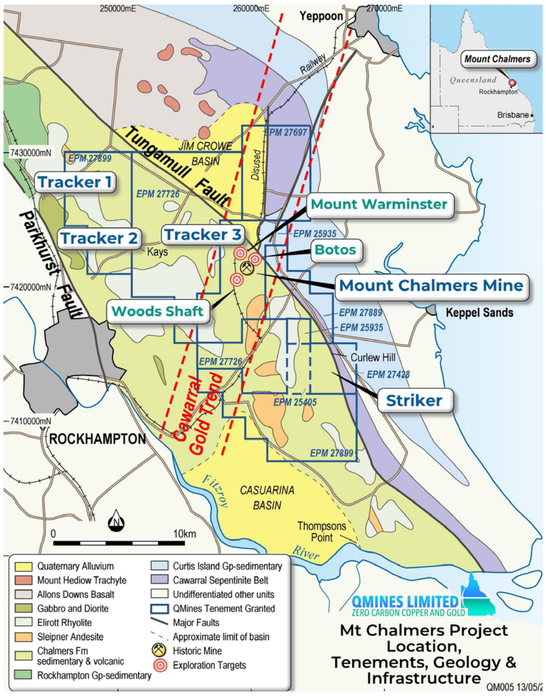

Figure 1: Mt Chalmers Project, tenure, geology and infrastructure.

Management Comment

QMines Executive Chairman, Andrew Sparke, comments:

"It is great to see the Mt Chalmers mine continue to deliver shallow, thick and high grade drilling results. Further step out drilling is continuing at Mt Chalmers where the deposit remains open in a number of directions. The RC rig and our drilling team are performing exceptionally well with significantly more meters being reported on more regular basis."

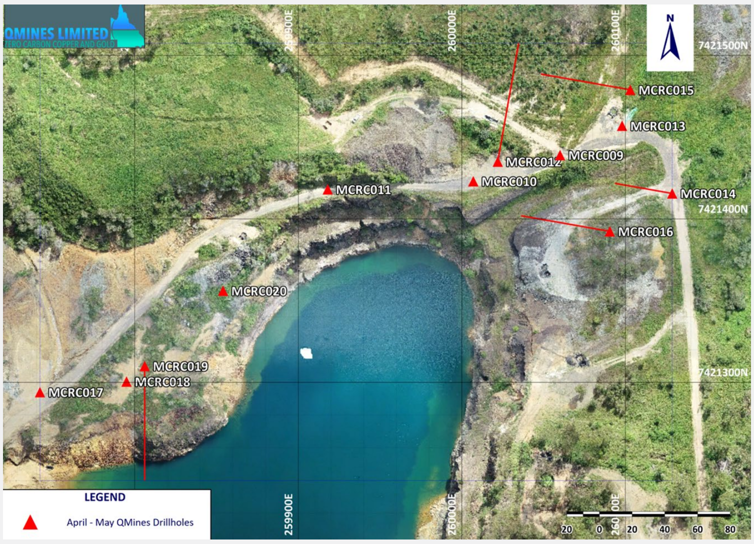

Figure 2: April - May 2022 RC drill hole collar locations, Mt Chalmers project.

The Company commenced RC drilling operations at Mt Chalmers in April 2022, completing twelve holes for 2,162 metres drilled. These holes represent the first stage of a planned 10,000 metre RC program. All drillholes were sampled at one metre intervals and samples showing visibly mineralised material were submitted to ALS Laboratories in Brisbane for assay. Holes and metres drilled from these drilling programs are summarised in Table 1. Completed drill hole locations are shown in Figure 2. Significant results from this recent Mt Chalmers drilling program are shown in Table 2.

PROJECT	DRILLING TYPE	HOLES	METERS	TENEMENT	STATUS
Mt Chalmers	RC	3	530	EPM 25935	Completed
Mt Chalmers	RC	9	1,632	EPM 25935	**Assays Pending**
TOTAL		**12**	**2,162**		

Table 1: Total RC holes drilled at Mt Chalmers April 2022..

The drilling programs will consist of infill holes to upgrade the current resource, step-out holes to expand the resource, exploration and infill holes at Wood Shaft (Exploration Target - JORC 2012) and early-stage exploration holes at the Tracker 3 soil anomaly. **RC drilling to date has already identified wider mineralisation intercepts than anticipated and provided some evidence of stacked mineralised zones.** The current program comprises approximately 50 RC holes and will improve the Company's understanding of the geological controls on mineralisation, whilst aiming to identify additional mineralisation.

Figure 3: QMines RC rig operating at the Mt Chalmers main pit, April 2022.

RC holes MCRC009 to MCRC020 were drilled across the northern and western ends of the Main Pit. Holes MCRC009 – MCRC011 results have been received and have returned high-grade results over broad intersections including 29 metres @ 1.58% CuEq from MCRC009 and 21 metres @ 2.62% CuEq from hole MCRC010. Recent drilling has identified two mineralised horizons with a second, underlying horizon having been identified below the main resource. This lower horizon has been observed in holes MCRC012, 013 and 015 where it has expanded in thickness.

Going forward, QMines will continue to deliver assayed results as CuEq with all results for base and precious metals that make up the CuEq also shown. The CuEq Formula uses the same Metal Price Assumptions and Metallurgical Recovery Grades used in the Company's recent resource upgrade delivered to the market in December 2021[1].

This RC drilling program is scheduled to continue throughout Q2 and into Q3 2022 for a total planned ~10,000 metres with results to be reported on a regular basis. The Company is expecting to deliver ~2,200 metres of RC drilling per month over the coming months, providing investors with consistent assay results and news flow from the Mt Chalmers project.

Examples of the recent mineralised intersections from the drilling program can be seen in plan-view in Figure 4 and Sections AA' and BB' (Figures 5-6), with several drillholes including MCRC009, MCRC010 and MCRC011 intersecting high-grade mineralisation.

[1] ASX Announcement - Mt Chalmers Resource Upgrade, 1 December 2021.

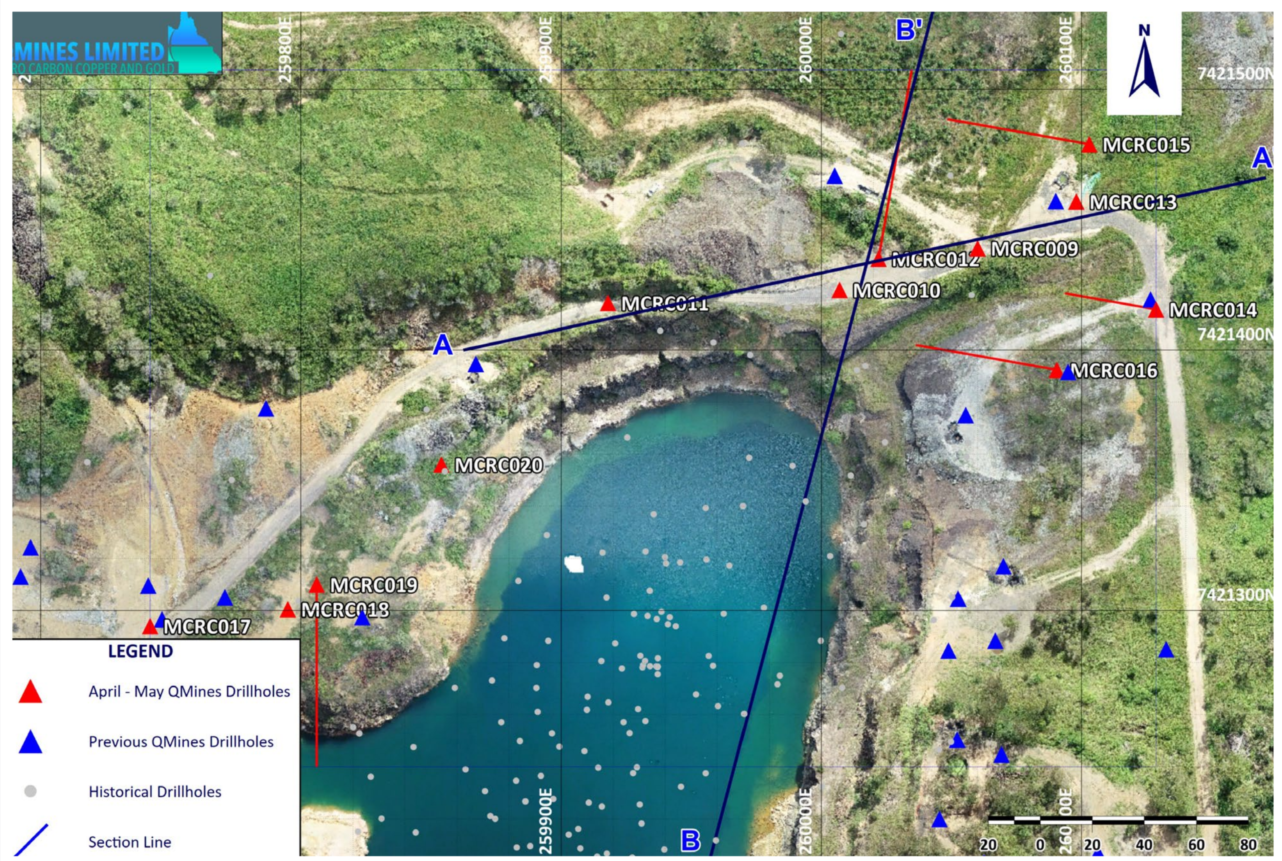

Figure 4: April-May RC drillhole collar locations and Sections AA and BB.

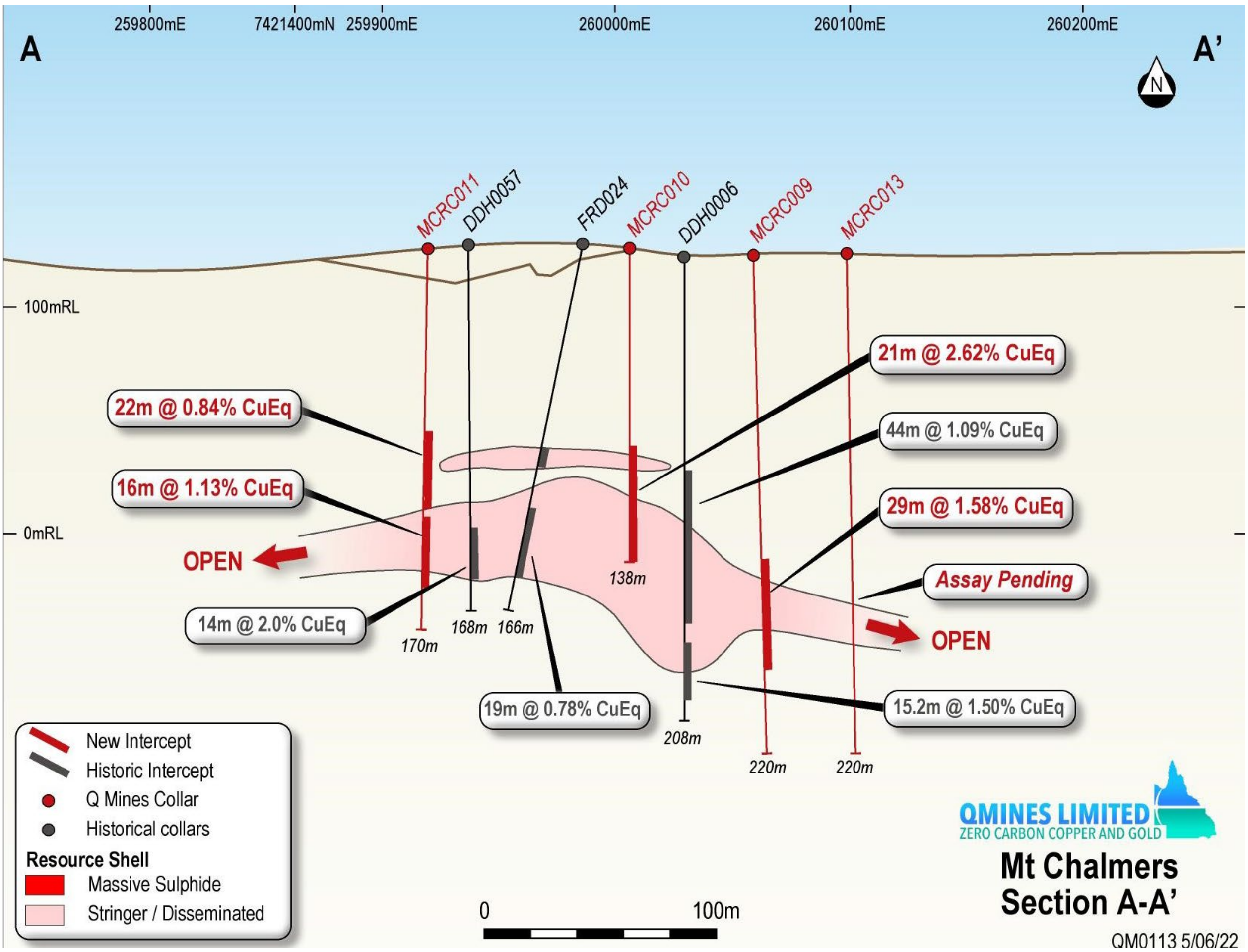

Figure 5: Section AA' mineralised intersections with resource wireframe from December 2021.

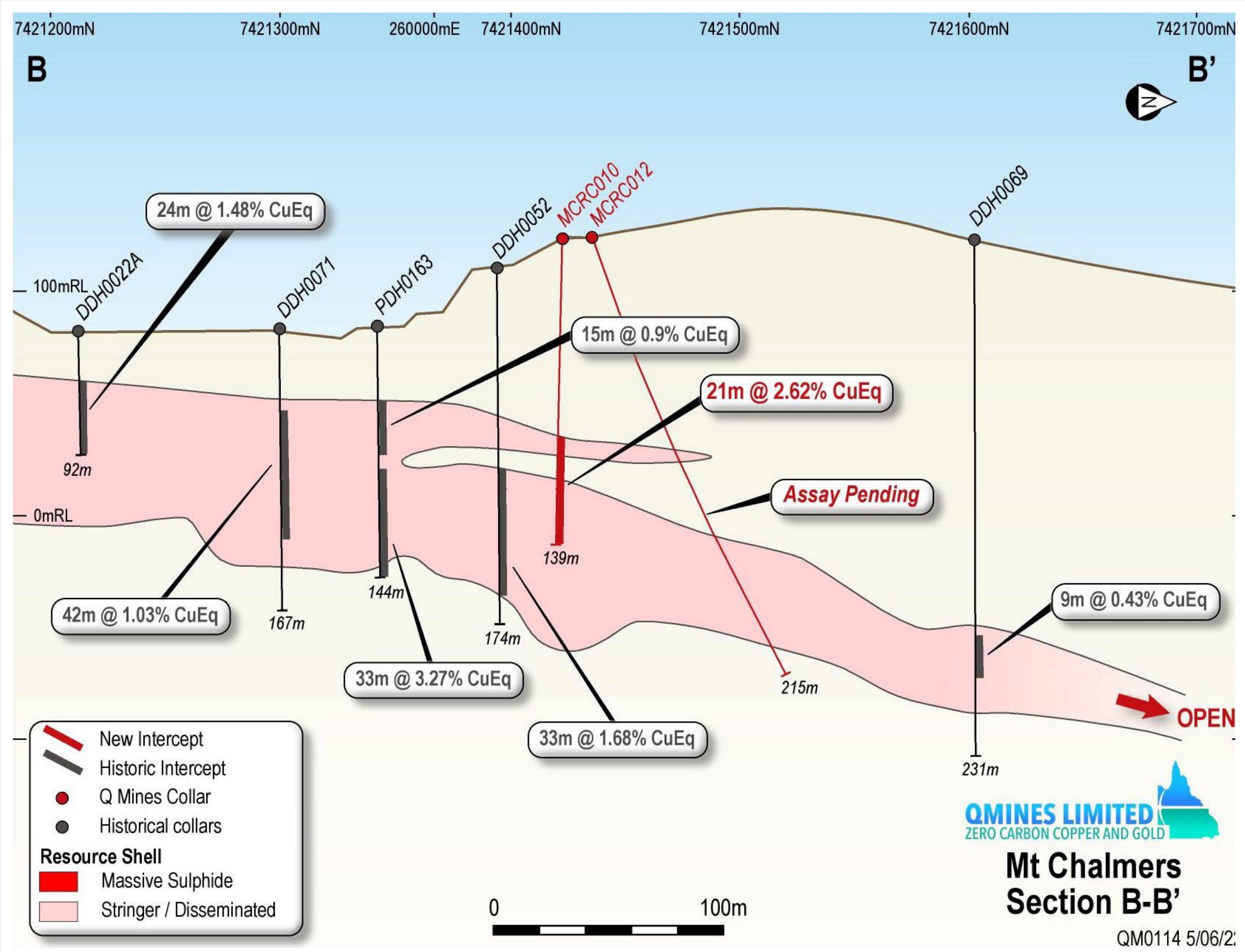

Figure 6: Section BB' mineralised intersections with resource wireframe from December 2021.

Discussion

Kuroko-style mineralisation usually occurs as clusters of mineralised zones, which appears to be the case for Mt Chalmers, which may be only one of several deposits. In addition, the interpreted structural dislocation for the mine area may have caused the break-up of larger mineral bodies, structurally dispersing lenses within the general Mt Chalmers area.

The geometry of the Mt Chalmers ore body indicates a relatively flat lying asymmetrical massive sulphide mound (Figure 7), with both historical and recent drilling results intersecting higher grade Cu-Au massive sulphides proximal to the centre of the deposit, and high grade Pb, Zn, Ag in the massive sulphide and exhalate ore body distal from the centre of the orebody. Similar metal zoning has also been observed in the stringer/disseminated zone beneath the Massive Sulphide Ore Body, where Cu-Au grades a typically higher in the centre and Pb, Zn, Ag grades typically higher distally and at greater depths.

A structural study of drill core from the eight holes drilled in early 2022 has found that the sulphide stringer zone (**SSZ**) is comprised of anastomosing and multidirectional sulphide veins, often present as breccia cement, with no clearly defined structural orientation. This is more typical of boiling zone architecture. Stringer sulphides are more concentrated at the top of the SSZ where they directly underlie the massive sulphide horizon. These findings suggest the massive sulphide horizon has, at least in part, resulted from the combined surface output of this widespread boiling zone, and possibly more so than a single feeder pipe.

Historical drilling is largely constrained in and around the existing Mt Chalmers mine. It appears that the Western Lode may have been transported downslope from the source and areas of low relief during seafloor sulphide deposition may be potential zones for transported high grade mineralisation. This theory is largely untested at Mt Chalmers, but is being tested by the current drilling program. A study of potential fault displacements and their effect on metal zoning is currently underway.

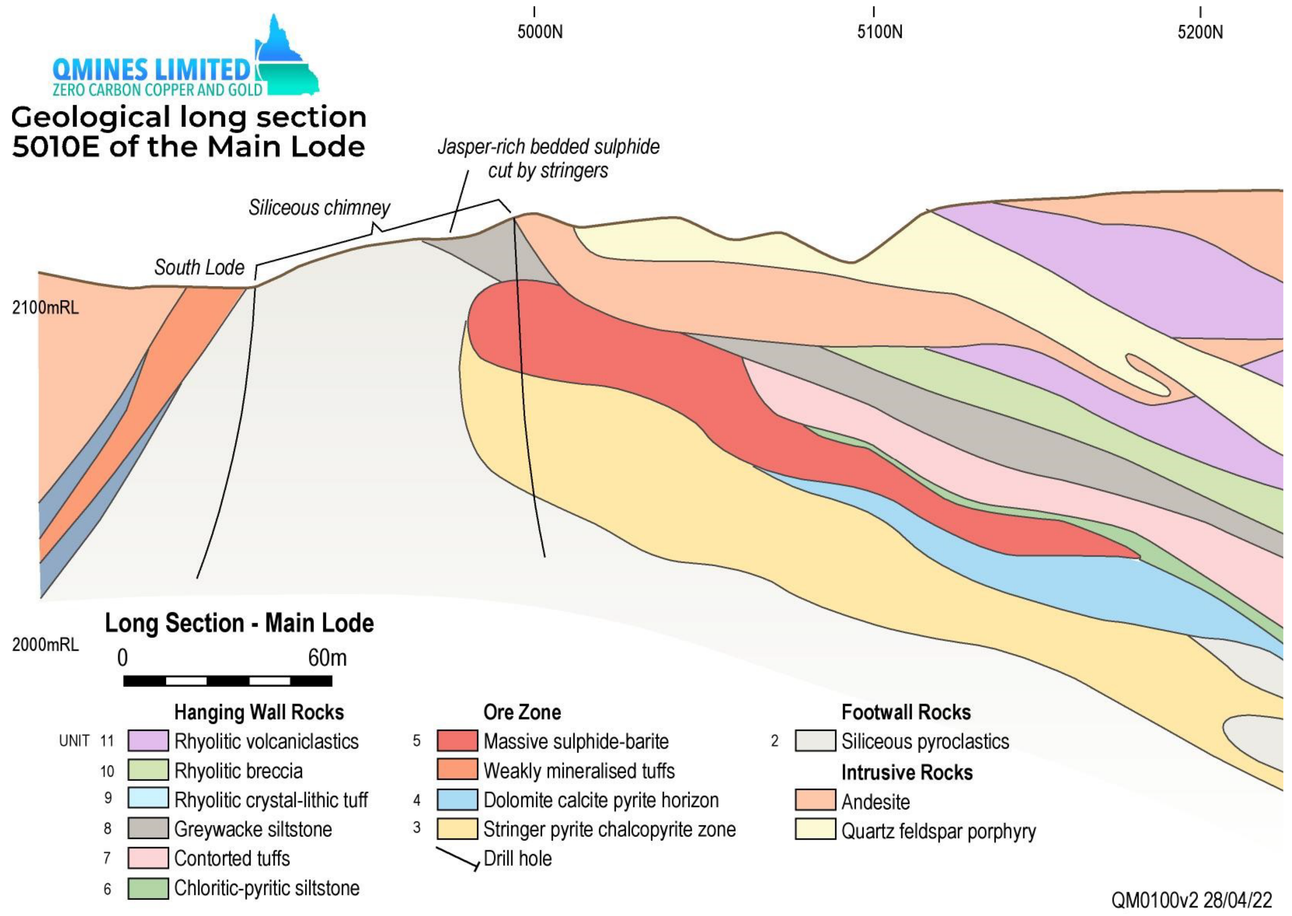

Figure 7: Geological Long Section 5010E of the Mt Chalmers Main Lode (pre-mining), (Large & Both, 1980).

Geology

The geology of the Mt Chalmers deposit is relatively well-known with the Mt Chalmers mineralisation being identified as a well-preserved, volcanic-hosted massive sulphide (“**VHMS**”) mineralised system containing copper, gold, zinc, lead and silver. Mineral deposits of this type are deemed syngenetic and formed contemporaneously on, or in close proximity to, the sea floor during the deposition of the host-rock units. The mineralisation is believed to have been deposited from hydrothermal fumaroles, or direct chemical sediments or sub-seafloor massive sulphide replacement zones and layers, together with footwall disseminated and stringer zones within the host volcanic and sedimentary rocks.

The mineralisation system at Mt Chalmers displays some similarities to Australian VHMS deposits of Cambro-Ordovician and Silurian age, however closer comparison can be made with the Kuroko-style of VHMS of Tertiary age in Japan (Taube 1990).

The Mt Chalmers mineralisation is situated in the early Permian Berserker Beds, which occur in the fault-bounded Berserker Graben, a structure 120km long and up to 15km wide. The graben is juxtaposed along its eastern margin with the Tungamull Fault and in the west with the Parkhurst Fault (Figure 1).

The Berserker Beds lithologies consist mainly of acid to intermediate volcanics, tuffaceous sandstone and mudstone (Kirkegaard and Murray 1970). The strata are generally flat lying, but locally folded. Most common lithotypes are rhyolitic and andesitic lavas, ignimbrites or ash flow tuffs with numerous breccia zones.

Rocks of the Berserker Beds are weakly metamorphosed and, for the most part, have not been subjected to major tectonic disturbance, except for normal faults and localised high strain zones that are interpreted to have developed during and after basin formation. Recent geological work by the Queensland Department of Natural Resources and Mines places volcanic and sedimentary units of the prospective Chalmers Formation, the host unit to the Mt Chalmers copper-gold mineralisation, at the base of the Berserker Beds.

The Ellrott Rhyolite and the Sleipner Member andesite were emplaced synchronously with the deposition of the Chalmers Formation. Late Permian to early Triassic gabbroic and dioritic intrusions occur parallel to the Parkhurst Fault. Smaller dolerite sills and dykes are common throughout the region and in the Berserker Beds.

Ongoing Exploration Activity

- Ongoing drill programs for the planned +30,000m of RC and Diamond drilling;
- Drilling to commence at the Woods Shaft prospect, the first of three Exploration Targets (JORC 2012);
- Preparations underway to drill Tracker 3, the first of four large copper and zinc soil anomilies;
- Planned 1,800-line kilometre Heli-EM survey to identify further drill targets; and
- **Third resource upgrade planned to be released in CY-2022.**

Copper Equivalent Calculations

All Copper Equivalent (CuEq) figures included in this announcement are calculated based on the following formula:

CuEq(%) = (Cu grade x Cu recovery) + ((Pb grade x Pb recovery x Pb price)/Cu Price) + (Zn grade x Zn price x Zn recovery)/Cu price) + ((Au grade x Au price x Au recovery)/Cu price) + ((Ag grade x Ag price x Ag recovery)/Cu price)

All grades are converted to % and prices converted to $/T prior to calculating CuEq.

Commodity price used: Au price of US$1,900/oz, Ag price of US$25/oz, Cu price of US$6,655/t, Pb price of US$2,450/t, and Zn price of US$3,450/t.

The following metallurgical recoveries have been applied: 87% Au, 70.5% Ag, 97.0% Cu, 85.0% Pb and 77.0% Zn.

It is the company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold. CuEq with all results for base and precious metals that make up the CuEq also shown. The CuEq Formula uses the same Metal Price Assumptions and Metallurgical Recovery Grades used in the Company's recent resource upgrade delivered to the market in December 2021[1].

[1] ASX Announcement - Mt Chalmers Resource Upgrade, 1 December 2021.

Significant Intercepts

Hole ID	MGA East*	MGA North*	mRL	Dip	MGA Azi*	Max Depth	M from	M to	Int (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	CuEq (%)
MCRC009	260060.0	7421439.0	124.0	-90	360	222	161	190	29	0.1	3.6	1.52	NSR	NSR	1.58
including							161	163	2	0.28	10.5	3.98	NSR	NSR	4.17
							173	175	2	0.15	8.5	3.88	NSR	NSR	3.96
							179	181	2	0.12	4.7	3.53	NSR	NSR	3.56
MCRC010	260007.0	7421423.0	125.0	-90	360	138	113	134	21	0.44	1.9	2.32	NSR	NSR	2.62
including							119	127	8	0.78	2.8	4.20	NSR	NSR	4.72
MCRC011	259918.0	7421418.0	126.0	-90	360	170	110	132	22	0.18	82	NSR	NSR	NSR	0.84
							120	125	5	0.28	254	NSR	NSR	NSR	2.39
and							132	148	16	0.21	7.3	0.09	0.61	1.55	1.13
including							136	138	2	0.52	16.1	0.28	2.25	6.82	4.25
MCRC012	260022.0	7421435.0	124.0	-70	10	215	Assays Pending								
MCRC013	260098.0	7421457.0	124.3	-90	360	205	Assays Pending								
MCRC014	260128.7	7421415.5	125.6	-80	280	205	Assays Pending								
MCRC015	260103.0	7421479.0	124.0	-75	280	214	Assays Pending								
MCRC016	260090.5	7421392.4	125.5	-72	280	178	Assays Pending								
MCRC017	259742.0	7421294.0	100.0	-90	360	150	Assays Pending								
MCRC018	259795.0	7421300.5	104.0	-90	360	155	Assays Pending								
MCRC019	259806.0	7421310.0	107.5	-60	180	140	Assays Pending								
MCRC020	259854.0	7421356.0	104	-90	145	170	Assays Pending								

Table 2: Significant intercepts Mt Chalmers RC program May 2022*

***Note MGA 94_56**

- In reported exploration results, length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average is (sum product of interval x corresponding interval assay grade), divided by sum of interval lengths and rounded to two decimal points.
- No top cuts have been considered in reporting of grade results, nor was it deemed necessary for the reporting of significant intersections.
- **NSR** = No Significant Result

* Downhole intersections contained in this announcement in the vertical drill holes reported, represent true widths of the assayed mineralised intersections contained in Table 1.

* Downhole intersections contained in the announcement in drill holes at ~60-degree dip represent approximately 87% true width of the assayed mineralised intersections contained in Table 1.

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning QMines Limited planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although QMines believes that its expectations reflected in these forward- looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that further exploration will result in the estimation of a Mineral Resource or a larger Mineral Resource.

Competent Person Statement

Exploration

The information in this document that relates to mineral exploration and exploration targets is based on work compiled under the supervision of Mr Glenn Whalan, a member of the Australian Institute of Geoscientists (AIG). Mr Whalan is QMines' principal geologist and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that 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' (JORC 2012 Mineral Code). Mr Whalan consents to the inclusion in this document of the exploration information in the form and context in which it appears.

About QMines

QMines Limited (**ASX:QML**) is a Queensland based copper and gold exploration and development company. **QMines vision is to become Australia's first zero carbon copper and gold developer**. The Company owns 100% of four advanced projects covering a total area of 1,096km². The Company's flagship project, Mt Chalmers, is located 17km North East of Rockhampton.

Mt Chalmers is a high-grade historic mine that produced 1.2Mt @ 2.0% Cu, 3.6g/t Au and 19g/t Ag between 1898-1982. Mt Chalmers has a Measured, Indicated and Inferred Resource (JORC 2012) of 5.8Mt @ 1.7% CuEq for 101,000t CuEq[1].

QMines' objective is to grow its Resource base, consolidate assets in the region and assess commercialisation options. The Company has commenced an aggressive exploration program (+30,000m) providing shareholders with significant leverage to a growing Resource and exploration success.

Projects & Ownership

Mt Chalmers (100%)

Silverwood (100%)

Warroo (100%)

Herries Range (100%)

QMines Limited

ACN 643 212 104

Directors & Management

ANDREW SPARKE
Executive Chairman

ELISSA HANSEN (Independent)
Non-Executive Director & Company Secretary

PETER CARISTO (Independent)
Non-Executive Director (Technical)

JAMES ANDERSON
General Manager Operations

GLENN WHALAN
Exploration Geologist
(Competent Person – Exploration)

Shares on Issue

113,672,748

Unlisted Options

4,200,000 ($0.375 strike, 3 year term)

Compliance Statement

With reference to previously reported Exploration results and mineral resources, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

This announcement has been approved and authorised by the Board of QMines Limited.

Contact

QMines Limited (ASX:QML)

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[1] ASX Announcement - Mt Chalmers Resource Upgrade, 1 December 2021.

Climate Active Carbon Neutral ORGANISATION

JORC Code, 2012 Edition – Table 1 Mt Chalmers Mineral Resources

Section 1 Sampling Techniques and Data

(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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 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.*	• QMINES continued drilling operations at Mt Chalmers, drilling 9 reverse circulation percussion (RC) holes for 1,632 metres. • RC samples were collected at 1m intervals from an on-rig cyclone cone splitter with 2-3kg, or approximately 10% of the split sample saved in calico bags with the exception of duplicate samples with each being 1-2kg, or approximately 5% of the total sample. • During the course of drilling, to avoid contamination, four individual calicos were placed in polyweave bags and sealed for delivery to the assay lab. Samples were sent by road to ALS Laboratories in Brisbane, crushed, pulverised and riffle split delivering 200g pulp for base metal and precious metal assay.
Drilling techniques	• *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 tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• RC drilling was completed by the company's KWLRC350 rig with booster and auxiliary compressor and using 5m, 102mm diameter RC rods and a 143mm percussion face sampling hammer.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Rock chips from each RC metre were collected in chip trays and logged. • Over 95% of RC samples were dry with the remaining samples being wet samples close to the end of hole MCRC010 below the water table. This hole was abandoned in mineralisation due to possible loss of sulfides from saturated samples. Drilling techniques have since improved to allow for almost entirely dry samples. • Drilling methods were consistent with current industry practices.
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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All drilling was competently logged by Company geologists with all logging data digitised electronically into a Panasonic Toughbook. • Logging codes were established prior to commencement of drilling operations by H & S Consultants and are a mixture of quantitative and qualitative data. • Geological information consists of lithology descriptions, alteration, mineralisation, veining, weathering etc. • All data is available in a digital format. • All chip trays have been digitally photographed and stored in the Company NAS drive.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of*	• RC samples were collected from a cyclone with a cone splitter delivering 10% representative sampling per linear metre drilled. Duplicate samples were collected every 25 m and 75 m drilled in the drilling sequence with duplicate samples being a 50-50% split sample from the same cone splitter. • ALS Laboratories dry the samples prior to crushing and pulverising. All sample material from each RC sample submission is crushed and pulverized to a nominal 90%

Criteria	JORC Code explanation	Commentary
	samples. • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	passing 75 µm giving a 200 g representative sample from which a sub-sample of 30 g is taken for base metal analysis and a 50 g charge for gold.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• All samples for assay were submitted to ALS Laboratories in Brisbane. • Ag, As, Ba, Cu, Pb, S and Zn were determined by ALS (ME-ICP61) by ICP-AES on a four-acid digest. Au was determined using ALS method AA25 (fire assay with AAS on a 30g pulp). Sample preparation and base metal analysis was undertaken in Brisbane and Fire Assay undertaken by ALS in Townsville. • The Company submits batches to ALS from drill programs as they come to hand. Reporting on QAQC results for all drillhole samples submitted between February 2021 and November 2021 has been undertaken by Lisa Orr of Orr and Associates, who found that QMines' QAQC is consistent with current industry practice for a drill program. • Duplicate samples of cone splits are inserted at 50m intervals and are utilised to monitor laboratory reproducibility. With coefficients of variation under 31% there is no significant bias in assayed results from duplicates assayed. • Certified Reference Materials (CRM) are supplied by OREAS and GEOSTATS Pty Ltd and are inserted at 20m intervals with suitable CRMs being used to monitor laboratory accuracy. With 252 out of 265 CRMs reporting within 3 standard deviations of certified values a success rate of 95.1% was achieved. • Blank samples of barren gravel are inserted at 33m intervals. • Internal laboratory QAQC reports are delivered by ALS with certification of assay method used and certified

Criteria	JORC Code explanation	Commentary
		assay results. These results are delivered to the principal geologist, database manager and the Company
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Since early 2021, all documentation and digitisation of data has been undertaken by the company database manager, Lisa Orr of Orr and Associates. The drill hole database is stored as an Access database and housed independently in an external NAS drive and backed up in a cloud storage system.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• QMines has implemented a complete conversion by local mine surveyors of all historical drill collar surveys and local gridding utilised by previous explorers. The local work has been validated by MINECOMP Surveying. • Conversion has been from local grids to GDA 94 MGA Zone 56. • All drill hole collars listed in this release were picked up by hand held GPS with accuracy of +/-3m and these will be later picked up by and validated by the site surveyors. • The Company has flown a Digital Terrain Model (DTM) using drone survey technology. • The quality and accuracy of the DTM has been validated and processed independently of the data capture by MINECOP Surveying.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• The drill programs have been designed to validate historical drill hole data, expand the resource envelope and make new discoveries • Line and drill hole spacing is not applicable • No composite sampling has been applied
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.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this*	• The deposit is generally flat-lying and most drillholes are vertical to give an optimal intersection angle with mineralisation. • Angled holes from the current program have been oriented to reach otherwise inaccessible targets. • Downhole intersections contained in this announcement in drill holes at for example ~60-degree dip represent

Criteria	JORC Code explanation	Commentary
	should be assessed and reported if material.	approximately 87% true width of the assayed mineralised intersections contained in Table 1 of this announcement. • There is no obvious sampling bias with the drilling orientation.
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected directly from the cone splitter into individual numbered calico sample bags, then 4 calico bags are inserted into polyweave bags, sealed and tied. Polyweave bags were numbered in sequence and placed in large bulka bags. • The bulka bags were then delivered by Company staff to a commercial freight depot in Rockhampton and shipped directly to the ALS Laboratory in Brisbane overnight.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling techniques were established by the Company geologist. Results were reviewed and validated by the Company database geology manager. • Exploration results are not audited independently.

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, native title interests, historical sites, wilderness or national park and environmental settings.* • *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.*	• QMines Pty Ltd has two 100% owned subsidiaries, Dynasty Gold Pty Ltd and Rocky Copper Pty Ltd, through which the Company has a 100% beneficial interest in the Mt Chalmers Project. The Mt Chalmers Project is held in EPM 25935 and EPM 27428 located 25 kilometres east of the City of Rockhampton in coastal central Queensland, Australia. The project covers an area of historic gold and copper mining, which comprises an area of 198 km2. • The Project is free and unencumbered by either joint ventures or any other equity participation of the tenement.

Criteria	JORC Code explanation	Commentary
		• QMines has yet to negotiate any landowner provisions or Government royalties or yet to commence environmental studies within the project area. Currently the Queensland Department of Natural Resources & Mines is conducting remediation works on minor acid mine waste draining from a mineralised mullock dump. • All the tenements are for "all minerals" excepting coal. • Note that the granted tenements allow QMines to carry out many of their planned drilling programs under relevant access procedures applying to each tenement. • All the EPMs are subject to the Native Title Protection Conditions with respect to Native Title. • Declared Irrigation Areas, Declared Catchment Areas, Declared Drainage Areas, Fossicking Areas and State Forest are all land classifications that restrict exploration activity. These do not affect QMines' main prospects but may have impacts on regional programs in places. • All annual rents and expenditure conditions have been paid and QMines has been fully compliant.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• INAL, CEC and Geopeko were generally recognized as highly competent exploration companies that used appropriate techniques for the time. Written logs and hardcopy sections of their work are considered good. • Federation was a small explorer that was entirely focussed on defining the Mt Chalmers resource. They used a very competent geologist, Alex Taube, for the drilling program. Alex Taube is widely respected for his knowledge about VHMS deposits in North Queensland.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Mt Chalmers mineralization is situated in the early Permian Berserker Beds, which occur in the fault-bounded Berserker Graben, a structure 120 km long and up to 15 km wide. The graben is juxtaposed along its eastern margin with the Tungamull Fault and in the west, with the Parkhurst Fault. • The Berserker Beds consist mainly of acid to intermediate volcanics, tuffaceous sandstone and mudstone (Kirkegaard

Criteria	JORC Code explanation	Commentary
		and Murray 1970). The strata are generally flat lying, but locally folded. Most common are rhyolitic and andesitic lavas, ignimbrites or ash flow tuffs with numerous breccia zones. Rocks of the Berserker Beds are weakly metamorphosed and, for the most part, have not been subjected to major tectonic disturbance, except for normal faults that are interpreted to have developed during and after basin formation. • Late Permian to early Triassic gabbroic and dioritic intrusions occur parallel to the Parkhurst Fault. Smaller dolerite sills and dykes are common throughout the region and the Berserker Beds. • Researchers have shown that the Mt Chalmers mineralization is a well-preserved, volcanic-hosted massive-sulphide ("VHMS – Kuroko style") mineralized system containing zinc, copper, lead, gold and silver. Mineral deposits of this type are syngenetic and formed contemporaneously on, or in close proximity to, the sea floor during the deposition of the host-rock units deposited from hydrothermal fumaroles, direct chemical sediments or replacements (massive sulphides), together with disseminated and stringer zones within these host rocks. • The oldest rocks in the area, the 'footwall sequence' of pyritic tuffs, are seen only in the Mt Chalmers open pit and in drill holes away from the mine. The rock is usually a light coloured eutaxitic tuff with coarse fragments, mainly of chert, porphyritic volcanics and chloritic fiamme (fiamme are aligned, "flame-like" lenses found in welded ignimbrite and other pyroclastic rocks and indicate subaerial deposition. Eutaxitic texture, the layered or banded texture in this unit, is commonly caused by the compaction and flattening of glass shards and pumice fragments around undeformed crystals). The alteration (silicification, sericitization and pyritization) of this basal unit becomes more intense close to mineralization.

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		• The 'mineralized sequence' overlying the 'footwall sequence' consists mainly of tuffs, siltstones and shales and contains stratiform massive sulphide mineralization and associated exhalites: thin barite beds, chert and occasionally jasper, hematitic shale and thin layers of bedded disseminated sulphides. Dolomite has been recorded in the mineralized sequence close to massive sulphides. This sequence represents a hiatus in volcanic activity and a period of water-lain deposition. • The 'hanging wall sequence' is a complex bedded series of unaltered crystal and lithic rhyolitic tuffs and sediments with breccia zones and occasional chert and jasper. • A mainly conformable body of andesite, ranging from 10 m to 250 m thick, intrudes the sequence; it usually occurs just above the 'mineralized sequence'. A quartz-feldspar porphyry body intrudes the volcanic sequence and in places intrudes the andesite. • The rocks in the mine area are gently dipping, about 20o to the north in the Main Lode mine area and similarly dipping south at the West Lode: the predominant structure is a broad syncline trending north-north-west. Slaty cleavage is strongly developed in some of the rocks, notably in sediments and along fold axes. Such cleavage is prominent in areas close to the mineralization. • Doming of the rocks close to the mineralization has been interpreted by detailed work in the open cut to be largely due to localized horst block-faulting (Taube 1990), but the doming might also be a primary feature in part. Steep dips are localized and usually the result of block faulting. The Main Lode outcrop and West Lode outcrop are variably silicified rocks which, by one interpretation, may have been pushed up through overlying rocks in the manner of a Mont Pelée spine (Taube 1990), but in any case, form a dome of rhyolite / high level intrusions of the Ellrott Rhyolite. The surrounding mineralized horizon is draped upon the flanks of domal structures.

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:*
	  o *easting and northing of the drill hole collar*
	  o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  o *dip and azimuth of the hole*
	  o *down hole length and interception depth*
	  o *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.*
		• Exploration Results are reported in the body of the relevant announcements in Table 2.

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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• In reported exploration results, length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average is (sum product of interval x corresponding interval assay grade), divided by sum of interval lengths and rounded to two decimal points. • No top cuts have been considered in reporting of grade results, nor was it deemed necessary for the reporting of significant intersections. • All Copper Equivalent (CuEq) figures included in this announcement are calculated based on the following formula: CuEq(%) = (Cu grade x Cu recovery) + ((Pb grade x Pb recovery x Pb price)/Cu Price) + (Zn grade x Zn price x Zn recovery)/Cu price) + ((Au grade x Au price x Au recovery)/Cu price) + ((Ag grade x Ag price x Ag recovery)/Cu price). All grades are converted to % and prices converted to $/T prior to calculating CuEq. Commodity price used: Au price of US$1,900/oz, Ag price of US$25/oz, Cu price of US$6,655/t, Pb price of US$2,450/t, and Zn price of US$3,450/t. The following metallurgical recoveries have been applied: 87% Au, 70.5% Ag, 97.0% Cu, 85.0% Pb and 77.0% Zn.

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		• Mt Chalmers VHMS is a polymetallic base and precious metal mineral system, cut off grades used by the Company in calculating mineralized intersections are 2,500 ppm Cu, 0.1 ppm Au and 1 ppm Ag, 0.5% Zn and 0.5% Pb. • Metal Price Assumptions and Recovery data used in calculating the Copper Equivalent has been reported to the market in December 2021 and is contained in the Mt Chalmers Resource Upgrade Report and can be seen on the Company Website; https://wcsecure.weblink.com.au/pdf/QML/02460632.pdf
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• At Mt Chalmers, the drilling has generally intersected the mineralization at high angles. • The majority of holes drilled at Mt Chalmers Copper Project are vertical in nature. • Holes drilled on other dips are reported in the Significant Intercepts table. True widths in e.g. 60-degree dipping holes are not reported. True width at 60 degrees is approximately 87% of the down hole intersection.
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.*	• Maps, sections, mineralized intersections, plans and drill collar locations are included in the body of the relevant announcement.
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.*	• Table 2 in the body of the announcement
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*	• CEC and Geopeko completed some brownfields exploration to assist with defining the resource including Induced Polarization surveys and Sirotem (electromagnetic method) surveys. • Federation concentrated on defining the resource estimates.

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	density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• No other exploration data is considered meaningful at this stage. • In 2021 QMines digitized the results of soil geochemical grids obtained from the Geological Survey of Queensland consisting of 19,000 samples collected by various workers for its use in ongoing target generation. • INAL completed greenfields exploration in the 1960's and 1970's. Exploration included geological mapping, soil and rock chip sampling, costeaning and rotary percussion drilling.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Infill and resource expansion drilling is being undertaken to upgrade and potentially expand the current resource estimates.