ASX:QML 6 October 2021

QMINES LIMITED

Queensland's Next Copper & Gold Developer…

MULTIPLE WIDE HIGH-GRADE INTERSECTIONS OUTSIDE KNOWN RESOURCE

HIGHLIGHTS

- Several drill holes outside current resource intersect high-grade copper, gold and zinc mineralisation;
- Results include multiple wide and high-grade intersections of up to **11.65% Cu**, **41.51g/t Au**, **224g/t Ag**, **33.9% Zn** and **6.18% Pb**;
- Significant intersections include:
  - 60.8m @ 2.59g/t Au, 0.74% Cu, 11.1g/t Ag, 1.81% Zn and 0.71% Pb from 6.2m; including
    - 12.6m @ 12.01g/t Au, 0.79% Cu, 43.0g/t Ag, 8.42% Zn and 3.25% Pb from 21.2m.
  - 38.5m @ 1.22g/t Au, 0.76% Cu and 2.3g/t Ag from 63m; including
    - 10.5m @ 1.30g/t Au, 1.93% Cu and 5.2g/t Ag from 91m.
  - 16.0m @ 0.57g/t Au and 2.18% Cu from 104m; including
    - 7.2m @ 1.11g/t Au, 4.15% Cu and 2g/t Ag from 111.6m.
  - 7.0m @ 2.90g/t Au, 0.1% Cu, 119g/t Ag, 13.69% Zn and 3.29% Pb from 107m.
- Results confirm significant resource growth potential with upgrade planned in Q4-2021; and
- Drilling continues unabated (+30,000m) with two rigs onsite and further results awaited.

Figure 1: Drill Hole MCDD015 Showing Chalcopyrite Stringer Veins.

OVERVIEW

QMines Limited (**ASX:QML**)(**QMines** or **Company**) is pleased to provide results from its current RC and diamond drilling program at its flagship Mt Chalmers Project, located 17km north-east of Rockhampton in Queensland (Figure 7).

High grades have been intersected in multiple drill holes from the recent drilling program including **41.51g/t Au and 7.16% Cu** from hole MCDD017, **17.4g/t Au and 5.13% Cu** from hole MCDD018, **2.45g/t Au and 11.65% Cu** from hole MCDD015 and **7.2g/t Au, 224g/t Ag, 6.18% Pb and 33.9% Zn** from hole MCRC001 which all occurred within broader mineralised intersections.

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MANAGEMENT COMMENT

Commenting on the results, QMines Executive Chairman Andrew Sparke, said:

"The results from the current drilling program are very exciting. They demonstrate that this deposit has strong grade and width and is growing rapidly which bodes well for shareholder value. The current drilling program continues to intersect new mineralisation outside the current resource. Mineralisation remains open in all directions which gives us confidence that this deposit will continue to grow. With two drill rigs onsite, multiple assays in the labs and a resource update expected shortly, we expect this quarter to be a very exciting period for our shareholders."

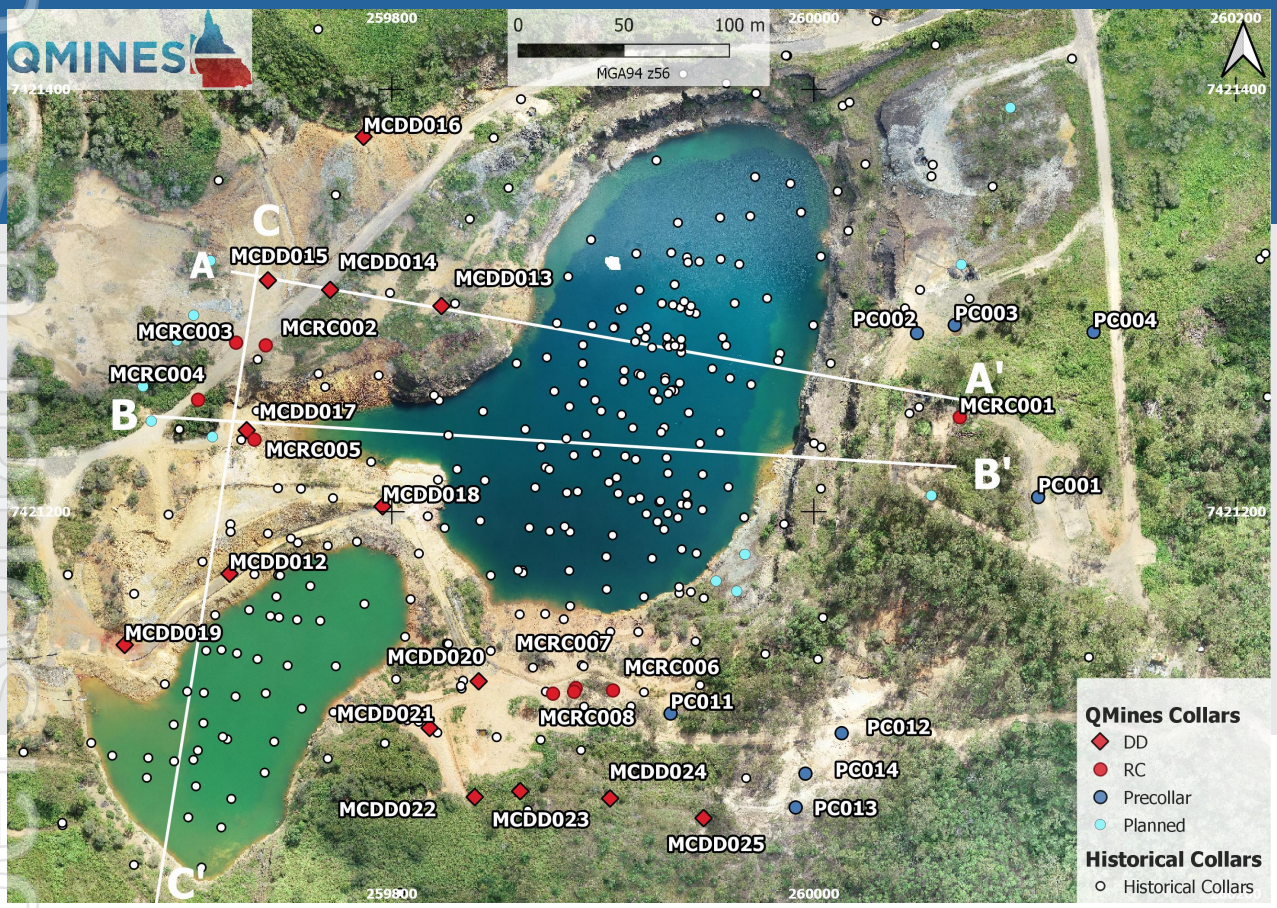

Figure 2: Mt Chalmers Diamond, RC and RC pre-collar drill hole locations, including Sections AA', BB' and CC', August-September 2021.

QMines has completed a total of 35 holes for 3,498m comprising fourteen diamond holes for 1,587 metres, seven RC holes for 602 metres and fourteen RC pre-collars for 1,309 metres. Diamond, RC, RC pre-collar and planned step out drill hole locations are shown in Figure 2.

Significant results from the recent drilling programs can be seen in Table 1. Several additional diamond tails have been completed and delivered to the ALS laboratory in Brisbane with assays pending. QMines personnel are cutting core onsite daily with samples being despatched to ALS weekly.

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The recent RC and diamond drilling programs were designed to expand the resource model with several step out holes drilled on the western, southern and eastern sides of the pits outside of the current resource wireframes, with multiple pre-collars drilled ready to complete diamond tails. Examples of the recent mineralised intersections can be seen in Sections AA, BB and CC (Figures 3-5), with several drillholes including MCDD014, MCDD015, MCD017 and MCRC001 intersecting high-grade mineralisation.

Importantly, QMines has drilled several holes in previously untested areas on the western side of the main pit and to the north of the west load. The Company has focused on these areas due to the lack of historical drilling by previous explorers. Drill holes MCDD014, MCDD015 on the west side of the main pit and MCRC001 on the east side of the main pit, shown in Section AA (Figure 3), illustrate the mineralised intersections outside the current resource wireframe.

Drill hole MRC001 (Figure 3) did not reach target depth and ended in mineralisation at 140 metres down hole. MCRC001 also intersected peak bonanza grades of **7.2g/t Au, 224g/t Ag, 6.18% Pb** and **33.9% Zn** within a broader intersection of **7.0m @ 2.90g/t Au, 0.1% Cu, 119g/t Ag, 13.69% Zn** and **3.29% Pb** from 107 metres. The drill hole was planned as an infill hole targeting the footwall stringer zone, designed to end at 185 metres. Additional step out holes have now been planned to further test the ore zone on the eastern side of the main pit.

A 3D interpretation of the wireframes over the digital terrain model showing the recent drill holes outside the resource envelope in an area of the project where little historical drilling has been undertaken can be seen in Figure 6.

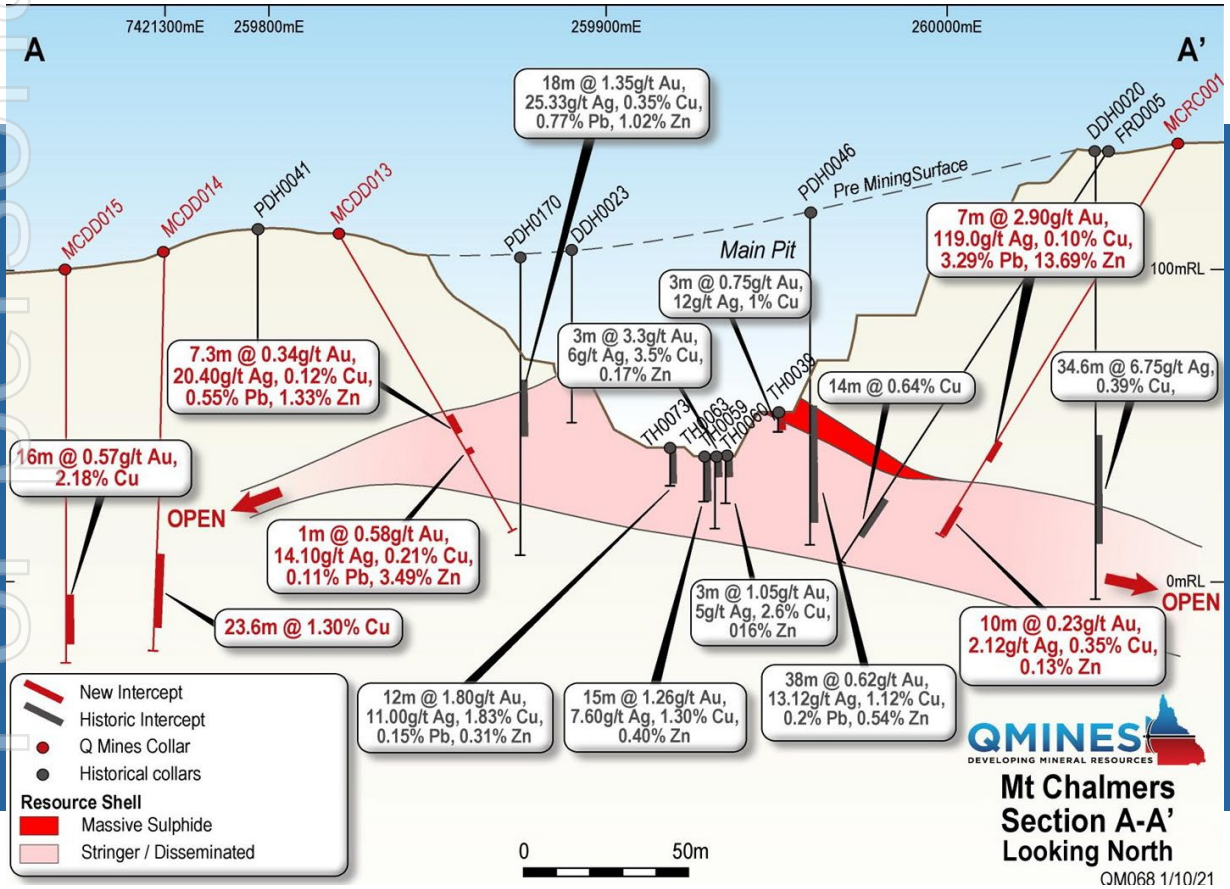

Figure 3. Section "AA' showing MCDD013-015 and MCRC001 mineralised intersections and resource wireframe, August-September 2021.

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Drill hole MCDD017, drilled to the south of MCDD0015, can be seen in Section BB' (Figure 4) and in plan view in Figure 2, with historical drill hole PDH0021 drilled behind MCDD017 not intersecting mineralisation. The results from MCD014 and MCDD015 seen in Section AA' indicate the ore body is dipping to the west and the historical hole PDH0021 ended too early and may have missed the mineralised envelope. Step out drilling will now be extended to the west of holes MCDD015 and MCDD017 to test down dip extensions of the mineralisation outside the current resource and in areas of minimal historical drilling.

Section CC '(Figure 5) is a long section along the West Lode indicating that mineralisation remains open downplunge to the north and south and illustrates potential to increase resource tonnage with further drilling.

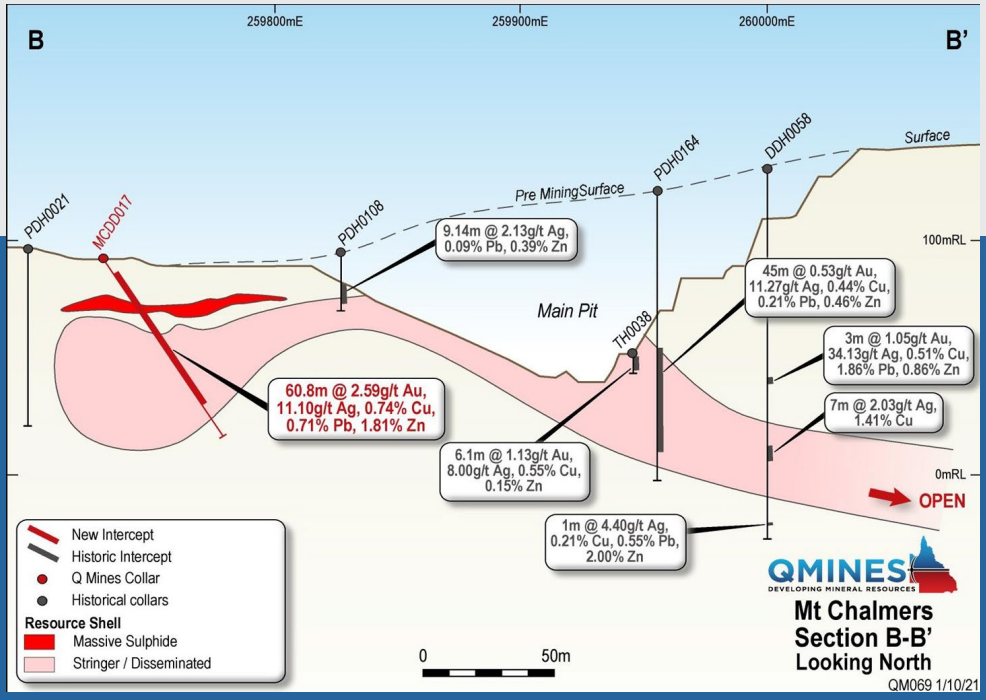

Figure 4. Section "BB" showing MCDD017 mineralised intersection and resource wireframe, August-September 2021.

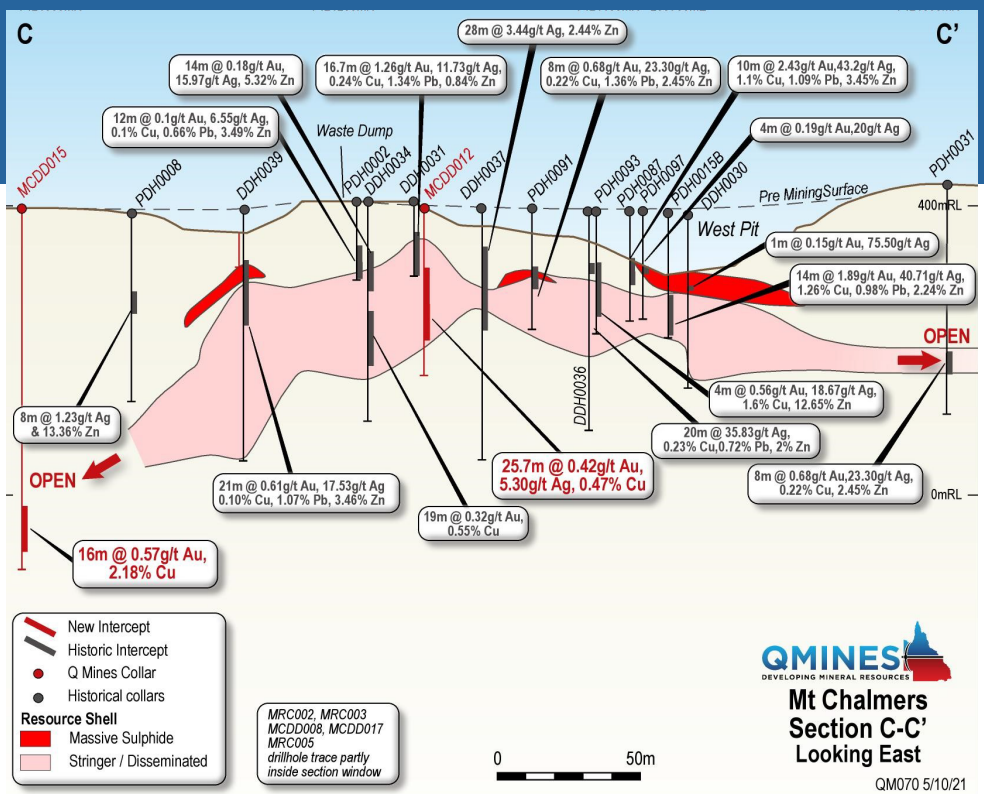

Figure 5. Section "CC" long section showing mineralised intersections and resource wireframe, August-September 2021.

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All results are now digitised into the Company's drill hole data base and have been sent to the resource geologist, including the earlier validation drill holes, for resource modelling. QMines is on schedule to deliver a resource upgrade in Q4-2021 and, based on historical holes twinned and recent drill holes, is expecting to deliver a new resource in the Measured, Indicated and Inferred JORC categories.

The Company has completed multiple RC pre-collars ready for diamond tails and has a number of new holes planned to continue to test relatively undrilled areas of interest outside the existing resource. Further results will be reported as they come to hand.

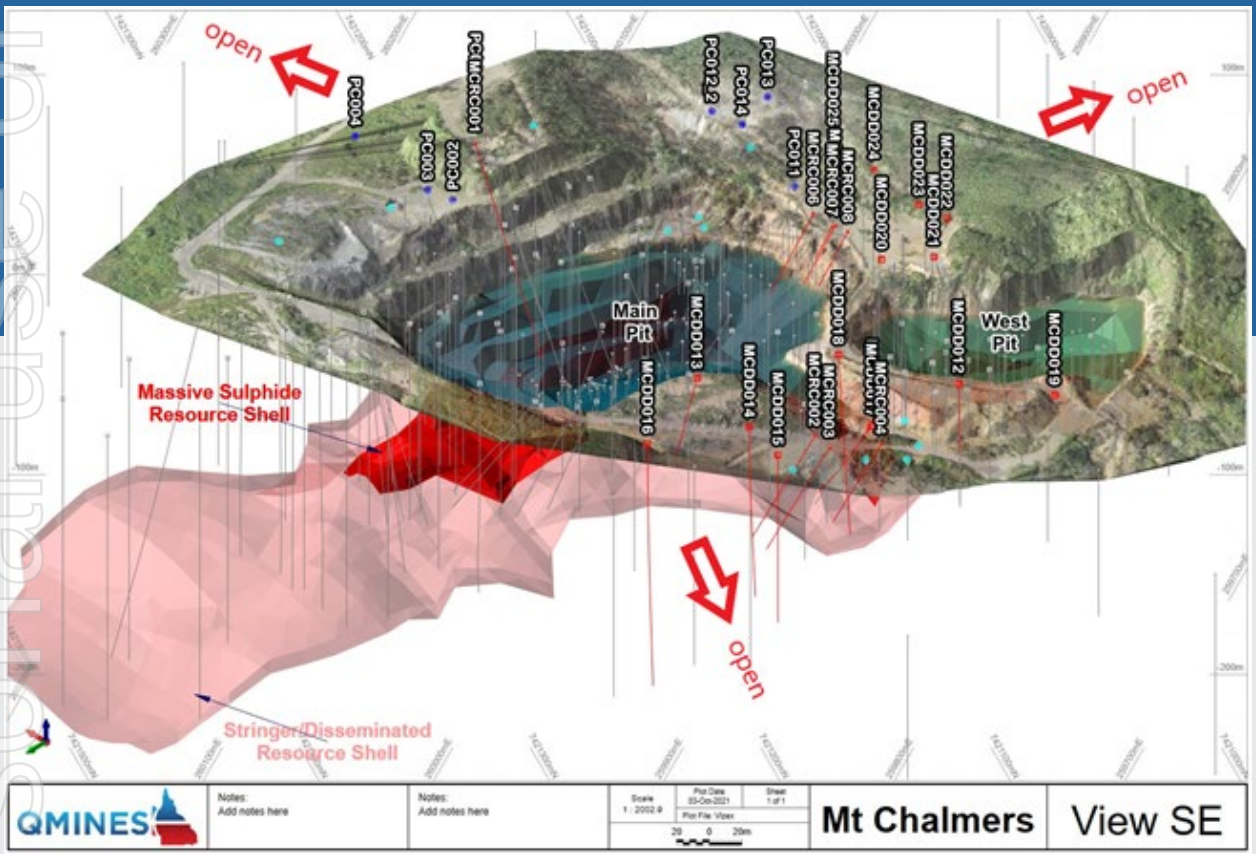

Figure 6: 3D image of Mt Chalmers incorporating the recent digital terrain model, pit shell, RC and diamond drill collar locations and resource model.

GEOLOGY

The geology of the Mt Chalmers area 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).

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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 7). 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.

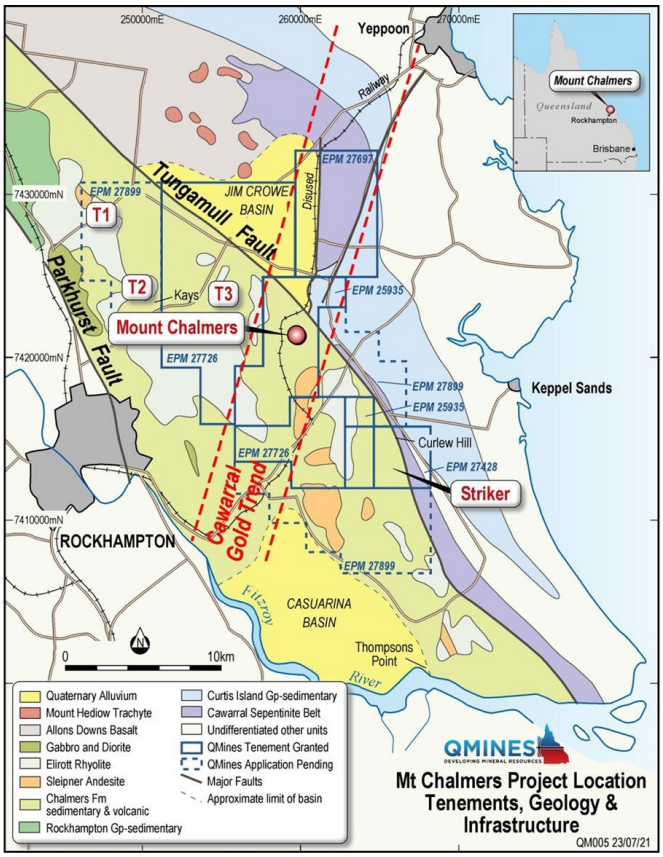

Figure 7: Location of the Mt Chalmers Project, tenure, geology and related infrastructure.

DISCUSSION

Kuroko style VHMS deposits often cluster. This appears to be the case at Mt Chalmers where there are indications other deposits may be present. In addition, the interpreted structural dislocation of the mine area may have caused the break-up of larger mineral bodies structurally dispersing lenses within the general Mt Chalmers area.

The recent drilling program has demonstrated the potential to upgrade and increase the resource at Mt Chalmers with drill targeting focussed mainly on peripheral footwall stringer zones with an example of chalcopyrite stringer in drill hole MCDD015 (Figure 9 and 10). Extensional drilling will continue based on the recent results testing areas previously undrilled. The alteration halo appears to extend beyond the massive sulphide mound of the ore body and historical drilling at Mt Chalmers does not appear to have fully tested the extensive stratabound stringer zones in the footwall below and extending form the historically mined sulphide mound.

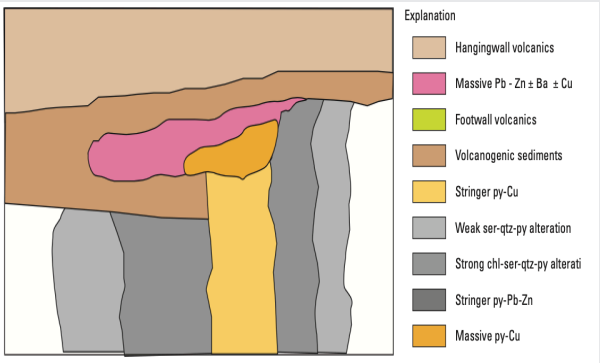

Figure 8: Mt Chalmers example VHMS asymmetric mound (Slack, USGS 2010).

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The geometry of the Mt Chalmers ore body indicates a relatively flat lying asymmetrical massive sulphide mound (Figure 8) with both historical and recent drilling results intersecting higher grade copper and gold massive sulphides proximal to the interpreted source rhyolite dome and high grade lead, zinc and silver in the massive sulphide and exhalate ore body distal from the interpreted source rhyolite dome. Similar metal zoning has also been observed in the stringer/disseminated zone beneath the massive sulphide ore body where copper and gold grades are typically higher proximal to the dome and lead, zinc and silver grades typically higher distal from the dome.

Historical drilling is largely constrained in and around the existing Mt Chalmers mine. It appears that the West Lode may have been transported downslope from the source and areas of low relief during seafloor sulphide deposition and may be potential zones for transported high-grade mineralisation. This theory is largely untested at Mt Chalmers.

Figure 9: MCDD015 Tray 19 (110.85m to 114.50m) showing mineralised stringer zone chalcopyrite veining in felsic pyroclastic footwall breccia.

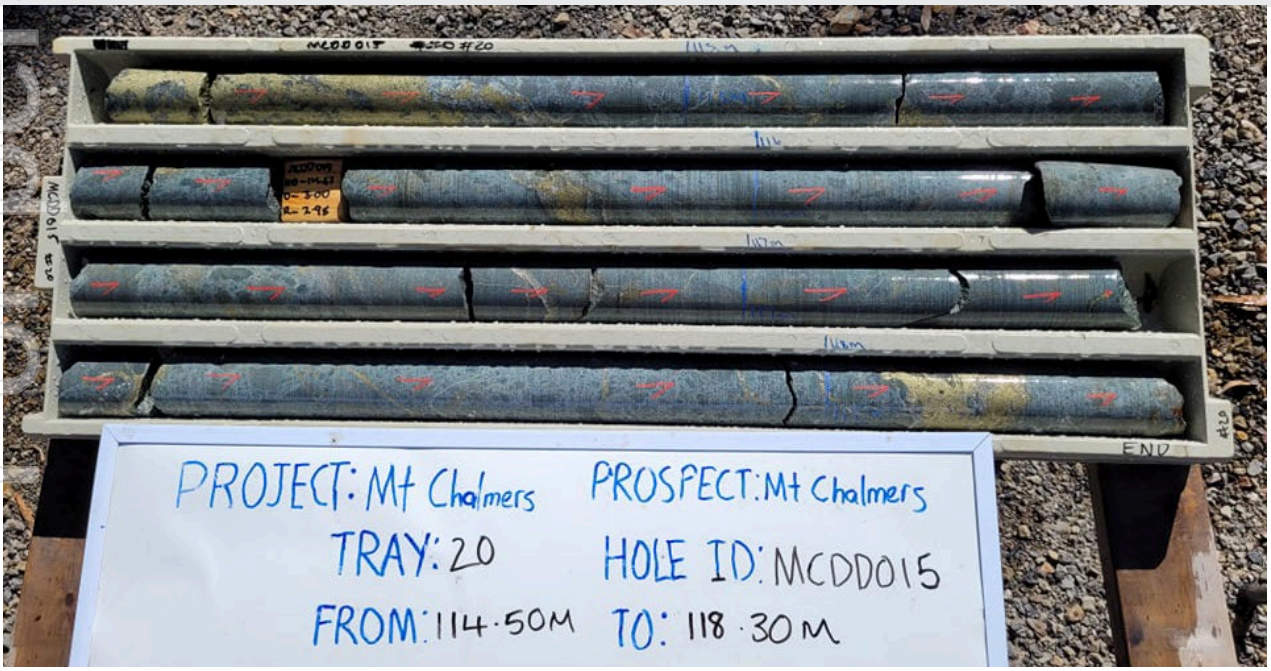

Figure 10: MCDD015 Tray 20 (114.50m to 118.30m) showing mineralised stringer zone chalcopyrite veining in felsic pyroclastic footwall breccia.

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WHAT'S NEXT?

- Ongoing drilling results from the planned 30,000m drilling program with two rigs currently in operation;
- Downhole EM on several holes already drilled and prepared for survey tools with results to be released upon completion;
- Expanded soil testing utilising Niton Portable PAS XRF delivering real-time soil geochemical data for future drill targeting;
- Planned 1,800-line kilometer Heli-EM survey expected to commence in H1-2022 to identify further drill targets; and
- Resource upgrade planned to be released to market in Q4-2021.

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Figure 11: Pictures taken on site showing two rigs in operation.

SIGNIFICANT INTERCEPTS – Diamond Drilling

Table 1: Mt Chalmers significant intercepts RC and diamond core program, August-September 2021 *

Hole ID Diamond	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 (%)
MCDD012	259723	7421171	94	-90	Vertical	51.3	14.3	40	25.7	0.42	5	0.47		
Including							14.3	17	2.7	1.13	20	1.92		
Including							23	24.4	1.4	1.48	23	0.96		
Including							28.7	30	1.3	0.90	7	1.75		
MCDD013	259824	7421297	111	-60	112	108.8	69.9	77.2	7.3	0.34	20	0.12	0.55	1.33
And							80	81	1	0.58	14	0.21	0.11	3.49
MCDD014	259771	7421305	104	-90	Vertical	126.3	95	118.6	23.6	0.09	2	1.3		
Including							96.5	101	4.5	0.23	5	3.11		
Including							114.1	118.6	4.5	0.11	4	3.13		
MCDD015	259741	7421310	100	-90	Vertical	125.8	104	120	16	0.57	1	2.18		
Including							111.6	118.2	7.2	1.11	2	4.15		
Including							114	116	2	2.41	4	10.1		
MCDD016	259787	7421378	120	-90	Vertical	180.9				Assays Pending				
MCDD017	259731	7421239	91	-56	94	93.1	6.2	33.8	27.6	0.86	21.4	0.48	1.53	3.93
Including							21.2	33.8	12.6	12.01	43.0	0.79	3.25	8.42
Including							48.4	49.2	0.8	41.51	6.0	5.85		
Including							53.5	55.5	2	22.92	4.7	2.65		
Including							58.67	60	1.33	26.60	7.2	6.10		
Including							48.4	67	18.6	6.84	2.6	1.69		
Within							6.2	67	60.8	2.59	11.1	0.74	0.71	1.81
MCDD018	259796	7421203	95	-53	308	110.3	35	36	1	0.37	2.5	1.85		
Including							48	49	1	0.38	3.6	1.26		
Including							63	64	1	7.21	1.8	1.41		
Including							71	72	2	10.69	1.8	4.67		
Including							91	101.5	10.5	1.30	5.2	1.93		
Within							63	101.5	38.5	1.22	2.3	0.76		
Within							35	101.5	66.5	0.80	2.0	0.54		
MCDD019	259673.4	7421136.9	92.9	-60	105	60.1				Assays Pending				
MCDD020	259841.2	7421119.7	102	-55	115	72.0				Assays Pending				
MCDD021	259817.9	7421097.6	105	-55	330	78.7				Assays Pending				
MCDD022	259839.3	7421064.9	107	-90	Vertical	129.4				Assays Pending				
MCDD023	259860.8	7421067.6	107	-90	Vertical	165.5				Assays Pending				
MCDD024	259903.5	7421064.2	111	-90	Vertical	141.0				Assays Pending				
MCDD025	259947.8	7421054.9	110	-90	Vertical	144.4				Assays Pending				

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SIGNIFICANT INTERCEPTS – RC Drilling

Table 1 (Continued): Mt Chalmers significant intercepts from RC and diamond core program, August-September 2021 *

Hole ID RC	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 (%)
MCRC001	260069	7421245	138	-60	138	142	107	114	7	2.90	119	0.10	3.29	13.7
MCRC002	259740	7421279	99	-60	99	131	39	51	12	0.46	15	0.30	0.45	1.36
And							77	80	3	0.18	4.2	1.32		
And							120	121	1	0.14	4.1	2.07		
MCRC003	259726	7421280	98	-60	98	131	72	75	3	0.63	5.6	1.97		
MCRC004	259708	7421253	97	-60	97	101	67	69	2	0.13	1.0	1.68		
And							86	97	11	0.21	2.0	1.04		
MCRC005	259735	7421234	91	-60	91	15				Hole Abandoned				
MCRC006	259905	7421115	102	-60	102	59	16	34	18	1.33	29.0	0.35		
Including							16	20	4	4.92	100.3	0.76	1.73	0.56
MCRC007	259887	7421116	102	-60	102	23	18	22	4	5.9	85	0.24	2.02	
Within							18	37	19	1.61	28	0.16	0.7	0.45
MCRC008							22	40	6	0.26	5	0.19	0.51	0.46
Pre-Collar 001	260106	7421207	140	-90	Vertical	115				Completed				
Pre-Collar 002	260049	7421285	126	-90	Vertical	90				Completed				
Pre-Collar 003	260067	7421288	126	-90	Vertical	95				Completed				
Pre-Collar 004	260132.6	7421285.1	132	-90	Vertical	120				Completed				
Pre-Collar 005	259841.2	7421119.7	102	-90	Vertical	18				Completed				
Pre-Collar 006	259817.9	7421097.6	105	-90	Vertical	37				Completed				
Pre-Collar 007	259839.3	7421064.9	107	-90	Vertical	109				Completed				
Pre-Collar 008	259947.8	7421054.9	110	-90	Vertical	117				Completed				
Pre-Collar 009	259860.8	7421067.6	107	-90	Vertical	114				Completed				
Pre-Collar 010	259903.5	7421064.2	111	-90	Vertical	109				Completed				
Pre-Collar 011	259932.1	7421104.4	104	-90	Vertical	31				Completed				
Pre-Collar 012_2	260013.2	7421095.1	115	-90	Vertical	106				Completed				
Pre-Collar 013	260000	7421060	115	-90	Vertical	103				Completed				
Pre-Collar 014	260002.2	7421079.8	103	-90	Vertical	145				Completed				

* Note Collar Locations in 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.
- No metal equivalent values have been reported.

* 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.

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COMPETENT PERSON'S STATEMENT

The information in this announcement that relates to exploration results is based on information compiled by Hamish Grant, a competent person who is a member of the Australian Institute of Geoscientists (AIG). Hamish Grant is contracted by QMines Limited as Project Geologist. Hamish has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Hamish Grant consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.

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ABOUT QMINES

QMines Limited (**ASX:QML**) (**FSE:81V**) is a Queensland based copper and gold exploration and development company. **QMines is seeking 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.

[1]The Project is a high-grade historic mine that produced 1.2Mt @ 3.6g/t Au, 2.0% Cu and 19g/t Ag between 1898-1982. Mt Chalmers has an Inferred Resource (JORC 2012) of 3.9Mt @ 1.15% Cu, 0.81g/t Au and 8.4g/t Ag.

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.

DIRECTORS AND MANAGEMENT

ANDREW SPARKE
Executive Chairman

JAMES ANDERSON
General Manager Operations

ELISSA HANSEN
Non-Executive Director & Company Secretary

HAMISH GRANT
Project Geologist

PETER CARISTO
Non-Executive Director (Technical)

PROJECTS

MT CHALMERS (100%)

SILVERWOOD (100%)

WARROO (100%)

HERRIES RANGE (100%)

QMINES LIMITED

ACN 643 212 104

SHARES ON ISSUE

111,372,748

UNLISTED OPTIONS

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

ASX CODE

QML

FSE CODE

81V

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

CONTACT

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[1] Refer to the Independent Geologist Report commencing on page 84 of the Prospectus dated 16 March 2021 available at https://qmines.com.au/prospectus-2/. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Prospectus dated 16 March 2021 and that all material assumptions and technical parameters underpinning the resources estimates in the Prospectus dated 16 March 2021 continue to apply and have not materially changed.

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.*	• The Mt Chalmers deposit has been drilled with a combination of percussion drilling ("PDH" or reverse circulation drilling ("RC")) and diamond core holes ("DD") amounting to 382 drill holes for 15,818 metres.

HOLE TYPE	OPERATOR	PERIOD	HOLE NUMBER SEQUENCE	NUMBER OF HOLES	METRES Percussion	Diamond	Total
DIAMOND	Mines Dept.	1936/37	DDH0001 - DDH0007	7	0	728.9	728.9
	CEC	1963/74	DDH0008 - DDH0023	16	0	2209.5	2209.5
	Peko	1976/81	DDH0024 - DDH0075	53	2657.6	3045.9	5703.5
	Federation	1995	FRD001 - FRD026 (2)	28	1449.7	1303.9	2753.6
	TOTAL			104	4107.3	7288.2	11395.5
PERCUSSION (1)	Peko	1976/81	PDH0001 - PDH0190	200	10827.8	0	10827.8
OPEN PIT TEST HOLES	Peko	1980/82	TH0001 - TH0078	78	883.2	0	883.2
ALL HOLES				382	15818.3	7288.2	23106.5

- *Percussion drill hole metres exclude diamond drill hole precollars.*
- *Federation drilling included 5 abandoned precollars totalling 98.0 m*
- *Federation used RC precollars*

- Sampling consists of either 1 m intervals of chip material sub-sampled to 2 kg for RC samples or 1 m sawn or split half core samples yielding approximately a 3-5 kg sample.
- Samples are then crushed and pulverized to give a 200 g sample from which a sub-sample of 1-5 g is taken for base metal analysis and a 50 g charge for gold.
- There is no documentation concerning the analytical method used by Peko, but the work was completed at the Mt Morgan ("MML") minesite laboratory and presumably the analysis was to industry standard for

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Criteria	JORC Code explanation	Commentary

		the time. The Federation sample prep and analysis was completed by a commercial laboratory using a mixture of ICP and 50 g charge fire assay with atomic absorption spectroscopy ("AAS") for base metals and gold, respectively.
		• The mineralisation is considered a classic example of a Kuroko-style volcanogenic massive sulphide deposit. The stratabound Cu and Au (Pb, Zn, Ag) mineralisation is strongly related to a combination of pyrite-rich host lithologies and spatial positioning relative to a central rhyolite dome.
		• The deposit was mined in three phases: 1890 – 1912; during World War 2 and 1979-1981 by MML
		• **Between February - October 2021 QMINES** has undertaken drilling operations at Mt Chalmers drilling 11 diamond core holes for 1575 metres, 685 of RC, 157 metres of pre-collars and 407 metres diamond core tails
		
		  • The company drilled PQ triple tube with diamond core sampling consisting of between 300 mm and 1.5 metre intervals of core.
		  • Samples were cut with a Sandvik wet core saw yielding 1-5 kg core samples into calico sampling bags. 4 individual calicos are placed in polyweave bags and sealed for delivery to the assay lab.
		  • Samples are sent by road to ALS Laboratories in Brisbane, crushed, pulverised and riffle split delivering 200 gm 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*	• Percussion drilling was with a Mayhew 1000 or a Mayhew 1500 rig with 114.5 mm down hole hammer bit. • For the Peko diamond drilling core sizes ranged from NQ to BQ

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	of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	whereas for Federation diamond drilling was mostly HQ size with some NQ where needed. • Many holes were initially drilled using a percussion or RC drilling method and tailed with a DD hole. • The vast majority of drillholes were vertical. • No core orientation data is available. • **QMINES Feb – October 2021** drilling was undertaken using a multi-purpose UDR 650 track mounted rig, Hydco 1000 Dual purpose truck mounted rig operating RC operating 114.5 mm diameter RC rods and 140 mm percussion face hammer and auxiliary air packs with onboard air with diamond tails being drilled by a track mounted Hyundai Dasco 7000 diamond core rig. • Coring was HQ triple tube with the core sample being orientated using REFLECX ACT111 core orientation tool.
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.*	• No historic sample recovery data is available for either the DD or the RC drilling. Historical reports indicate 90% recovery from the Peko drilling except for weathered and oxide zones (these zones have been mined out). • No documentation of RC sampling procedures is available • Peko investigated the risk of sample bias due to loss of fines. Only a small number of samples were collected, too few for anything conclusive, but there were indications of a small preferential concentration of sulphides in the samples of retained drill cuttings with an associated increase in Cu, Ag and possibly Au grade (results for Au were reported as erratic). • The drilling methods are considered to be of industry standard at the time of drilling and would normally have been expected to give reliable results suitable for resource estimation. • With a lack of recovery data it is not possible to establish if there is a

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Criteria	JORC Code explanation	Commentary
		relationship between sample recovery and metal grade. • **QMINES Feb – October 2021** diamond drilling core recovery was excellent with between 93 - 95% of all core recovered. RC sampling recovered dry samples every metre drilled with each metre rock chipped logged and collected in chip trays. • Drilling method is consistent with current industry standards with no sample bias and is representative in nature.
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 with the production of hardcopy logs and cross sections. All hardcopies had appropriate levels of information for a resource estimate to be completed. • McDonald Speijers Pty Ltd ("MS"), consultant resource geologists, built the current digital database in 1995 from sighting the original drill logs and kept records. John Macdonald, Principal Geologist with MS, transcribed and compiled some of the hardcopy data including visual verification into digital data. • Logging consisted of a series of codes that were a mixture of quantitative and qualitative data. • Geological information originally consisted of lithology descriptions, alteration, mineralisation and oxidation levels. Not all of this data is available in a digital format. • **QMINES Feb – October 2021** drilling programs have been competently logged by Company geologists with all logging data digitised electronically into Panansonic Toughbook. • Logging codes were established prior to commencement of drilling operations by H & S Consultants and were a mixture of quantitative and qualitative data. • Geological information originally consisted of lithology descriptions, alteration, mineralisation and oxidation levels. All data is available in a digital format. • All core trays have been digitally photographed and store in the

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Criteria	JORC Code explanation	Commentary
		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 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.*	• Peko diamond core was sampled under geological control, but generally averaged about 1 m in sample length. Most of it was sampled using a mechanical core splitter with 50% taken for sample prep and assay. Some mineralised intervals were cut with a diamond saw with 50% of the interval sent to the MML laboratory at the Mt Morgan mine site for preparation and assay. No information is available about sample prep procedures used for this work. • Peko percussion drilling involved dry cuttings being collected via cyclones and riffled to give a sample of about 2 kg for submission to the laboratory. The RC samples were submitted to the MML laboratory at the Mt Morgan mine site for preparation and assay. No information is available about sample prep procedures used for this work. • Wet samples were collected in 2 ways. In the West Lode area samples were collected in a fine gauze catcher and mixed on a groundsheet before being coned and quartered. Sample intervals ranged from 1-2m. This sample collection method would have led to large losses of fines. In the Main Lode area wet samples were collected in half 44-gallon drums and transferred to hessian bags. When dry they were riffle split. This was a better method, but fines would still have been lost when water flows were high and the collecting drum overflowed. • The larger core from the 1995 Federation diamond holes was logged and mineralised intervals were selected on the basis of visual assessment. Quarter core samples (HQ core size) were collected using a diamond saw with the samples sent for sample prep and assay. • The Federation core samples were submitted to Australian Laboratory Services P/L for preparation at their Rockhampton facility and assay at their Townsville laboratory. The sample preparation scheme involved jaw crushing to an unknown size followed by pulverisation of the total

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		sample in a Labtechnics LM5 mill to a nominal 90% passing -75um. • A barren quartz flush was used after each set of sulphide-rich samples at an unknown insertion ratio. • **QMINES Feb – October 2021** recovered diamond core was cut using a Sandvik core cutting wet saw. • Core was cut in half for submission with duplicates cut in quarters • ALS Laboratories dry core, crush and grind to 200 g pulp sample to a nominal 90% passing 75µ. • The ground sample is riffle split to an appropriate representative sample size. • RC sampling was collected using an OX engineering cyclone with a cone splitter delivering 10% representative sampling per lineal metre drilled. Duplicate samples were taken every 25 and 75 metre drilled in the drilling sequence. • RC sampling recovery was dry with pre collars being completed at the water table.
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.*	• Peko samples were submitted to the MML laboratory at the Mt Morgan mine site for analysis. No technical details have been located regarding sample preparation procedures or assaying methods. The Mt Morgan operation has since shut down and the laboratory no longer operates. • **Federation** initially used an ICP method (1C587) for Cu, Pb, Zn, S, Ag, As, Ba, Fe and Mn. After about the first 3-4 batches of samples the laboratory introduced an AAS method (A101) to check Cu, Pb, Zn and Ag assays for higher grade samples. Fire assaying of a 50g charge with an AAS finish (PM209) was used for gold. • Peko submitted 352 samples for check assaying to Australian Laboratory Services (ALS) in Brisbane on a regular basis during their drilling programmes, although results for Au, Ag and Pb in particular were not always available. The drill logs recorded the results for these "duplicates" and MS were able to compile and analyse. They concluded

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		there was no significant bias for Cu, Au, Ag and Zn. However, there was a significant positive bias with the check laboratory for Pb but this was not significant for the resource as Pb is not treated as an economic commodity. The MML silver results were adjudged to have poor precision but for relatively low silver values. • **Federation undertook check** assaying at an independent laboratory but the results are not available. • **There are no reports from any of the drilling campaigns of any standards being used to assess the accuracy of the analysis.** • Despite the lack of documentation describing the analytical methods and the lack of QAQC it is reasonable to assume that the analysis was to an industry standard for the time and that the results would be reasonable, especially for the level of classification of the resource estimate. • **QMINES Feb – October 2021** samples for assay were submitted to ALS Laboratories in Brisbane. • ALS base metal suite MEICP 61 four acid digest assay method for Ag, As, Ba, Cu, Pb, S and Zn was used with AA25 fire assay method with a 30 g pulp for Au with the sample prep and base metal suites being undertaken in Brisbane and Fire Assay being shipped to ALS in Townsville. • The Company submits batches to ALS from drill programs as they come to hand • There is no significant bias in assayed results from duplicates assayed • Standards and blanks are inserted at regular intervals with suitable standards being supplied by GEOSTATS, duplicates are cut at acceptable industry standard establishing suitable levels of accuracy. • QAQC reports are delivered by ALS with certification of assay method used and certified assay results. These results are delivered to the project Geologist, Drill hole data base manager and the Company.

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Criteria	JORC Code explanation	Commentary
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.*	• No drillhole intersections have been viewed by QMines or H&SC. • QMines has cross checked selected data, while building a new geological database, based on scanned open files held by the Queensland Dept of Mines, all drillhole collars were checked and random drill logs checked. No issues were noted. • No twin holes have been drilled • QMines state that all available data was compiled and verified by John Macdonald, Principal Geologist with McDonald Speijers Pty Ltd and documented in "MOUNT CHALMERS DEPOSIT UPDATED MINERAL RESOURCE ESTIMATE & REVIEW OF ASSOCIATED DATA COLLECTION PROCEDURES" • John Macdonald used a complete set of original drill logs, plus mine records which at the time were available at the MML mine site offices. • There is no documentation of any adjustment to the data that has included inserting half lower detection limit values into the database, insertions of blank values where no sample recorded etc. • **QMINES Feb – October 2021** significant intersections have been validated by the Company's project geologist. • A number of historical holes have been twinned as part of the validation process of historical data. • Documentation and digitisation of historical data has been undertaken by Lisa Orr of Orr and Associates the Company geological data base manager with all historical data verified. Drill hole data base is stored in 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.*	• The earliest grid shown on plans was an exploration grid established by CEC which originated at the North Shaft, which was assigned coordinates of zero for both easting and northing. • Peko subsequently established a mine grid, again using the North Shaft

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Criteria	JORC Code explanation	Commentary
	• *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	as the origin, which was assigned coordinates of 5000mE & 5000mN. A network of local control stations was set out by MML staff surveyors. • All previous data (such as drill collar locations) were converted by Peko to mine grid which appears to have been used consistently for both exploration and production work. • Control points for the Peko mine grid survive and this grid was also used for all Federation and MS work. A Rockhampton based surveyor (R E Harris) who previously worked as a mine surveyor on the project with MML conducted all surface surveys for Federation. • Local mine control survey points are still in existence, and these have been re-surveyed by QMines using a Differential Global Positioning System. • QMines has converted the Local Grid to GDA94 zone 56 grid using ArcGIS software, using a combination of local mine control survey points and landmarks. • The current topography was defined using a photogrammetric survey conducted by Capricorn Survey Consultants Pty Ltd on behalf of Federation in May-June 1995. This was based on photography flown in November 1992 and used ground controls established by MML in the 1970's to provide a tie in between AMG and mine grid coordinates. • Pre-open pit topography was available as photogrammetric contour plans dated November 1978, generated by Geo-Spectrum (Aust) for MML. These were presented at 1:500 and 1:1000 scale over the mine area with contour intervals of 1m and 2m, respectively. They were apparently based on photography flown in 1973. • MS digitised the 1:1000 scale plan over the area of the resource model to allow volumes to be estimated for the Peko pit and for subsequent excavations at the south end of the pit, pit backfill and surface dumps • Percussion holes, which make up 73% of the total number of holes available, were not surveyed downhole. However, it should be noted

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		that virtually all of them were vertical and are considered by QMines to have had very limited deviation. • For pre-Federation diamond drill holes, logs and sections only showed evidence of down hole surveying for 1 hole but the survey details are not recorded in the log. The remainder of the diamond drill holes are assumed not to have been surveyed downhole. • Federation drill holes were surveyed at intervals of approximately 50m using an Eastman single shot borehole survey camera supplied by the drilling contractors. • QMines have assumed that all pre-1995 holes were straight, simply using the recorded collar bearings and dips for downhole surveys. This will no doubt result in some errors in the 3D location of samples, but since hole depths are typically about 50-150m and most holes are vertical into flat-dipping rocks, serious hole deviations are not expected to have been common. • **QMINES Feb - October 2021** have implemented a complete conversion of all historical drill collar surveys and local gridding utilised be previous explorers with local mine surveyors undertaking the conversion with the local work being validated by MINECOMP Surveying. • Conversion from local grid to GDA 94 MGA Zone 56. • All drill hole collars are picked up by and validated the site surveyors. • The Company has flown a new Digital Terrain Model (DTM) using drone survey technology to deliver the survey. • 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*	• The Peko drilling was initially on a nominal pattern of 40m x 40m which was subsequently infilled to a nominal 20m x 20m over most of the deposit, but with considerable local variation in hole spacings. • Federation locally infilled or extended the 40m x 40m pattern, but on an

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Criteria	JORC Code explanation	Commentary
	estimation procedure(s) and classifications applied. • *Whether sample compositing has been applied.*	irregular basis because of the access difficulties presented by the water-filled open pit. • At the northern end of the stringer zone where the mineralisation becomes deeper the pattern ranges from about 40m x 40m to 40m x 80m. • Downhole sampling was at 1m intervals. • The data point spacing is appropriate for the use in generating Mineral Resources at the appropriate levels of confidence. • No sample compositing has been undertaken. • **QMINES Feb – October 2021** 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 should be assessed and reported if material.*	• The deposit is generally flat-lying and virtually all drillholes are vertical thus giving a good intersection angle with the mineralisation. • There is no obvious sampling bias with the drilling orientation.
Sample security	• *The measures taken to ensure sample security.*	• There is no documentation describing the process of securing samples at site and their transportation to the laboratory. • **QMINES Feb – October 2021** samples are cut onsite by Company workers, inserted into individual numbered calico sample bags then 4 calico bags are inserted into polyweave bags. Polyweave bags are numbered in sequence. • Samples are then delivered by Company staff to Centurion Freight Rockhampton, loaded into bulka bags and shipped directly to ALS Laboratory Brisbane overnight.

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Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• MS essentially completed an audit of the sampling techniques with the 2005 Mineral Resources. The audit concluded that "After extensive validation and editing MS are satisfied that the drill hole database files used for resource estimation are reasonably complete and free of serious errors, within the practical limitations imposed by the age of some of the data". • **QMINES Feb – October 2021** sampling techniques have been established by the Company Project Geologist. Results are 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 km^2. • The Project is free and unencumbered by either joint ventures or any other equity participation of the tenement. • 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.

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		• 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 are not affecting QMines' main prospects but may have impact on regional programs in places. • All annual rents and expenditure conditions have been paid and fully compliant
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• CEC and Peko are generally recognised as competent companies using appropriate techniques for the time. Written logs and hardcopy sections 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 programme. 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 mineralisation 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 lithology consists 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 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.

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		• Researchers have shown that the Mt Chalmers mineralisation is a well-preserved, volcanic-hosted massive-sulphide ("VHMS – Kuroko style") mineralised 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, sericitisation and pyritisation) of this basal unit becomes more intense close to mineralisation. • The 'mineralised sequence' overlying the 'footwall sequence' consists mainly of tuffs, siltstones and shales and contains stratiform massive sulphide mineralisation 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 mineralised 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 'mineralised sequence'. A quartz-feldspar porphyry body intrudes the volcanic sequence and in places

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Criteria	JORC Code explanation	Commentary
		intrudes the andesite. • The rocks in the mine area are gently dipping, about 20° 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 mineralisation. • Doming of the rocks close to the mineralisation has been interpreted by detailed work in the open cut to be largely due to localised horst block-faulting (Taube 1990), but the doming might also be a primary feature in part. Steep dips are localised 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 mineralised horizon is draped upon the flanks of domal structures.
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:* ○ *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.*	• Exploration Results are reported in the body of the relevant announcements in Table 1
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.*	• **QMINES Feb – October 2021** • In reported exploration results, length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average is (sum

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Criteria	JORC Code explanation	Commentary
	• *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.*	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. • No metal equivalent values have been reported. • Mt Chalmers VHMS is a polymetallic base and precious metal mineral system, cut off grades used by the Company in calculating mineralized intersections are 2500 ppm Cu, 0.1 ppm Au and 1 ppm Ag, 0.5% Zn and 0.5% Pb
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').*	• **QMINES Feb – October 2021** • At Mt Chalmers, the drilling has generally intersected the mineralisation at high angles. • The majority of holes drilled at Mt Chalmers Copper Project are vertical in nature. • Holes drilled on 60 degree dip are reported in the Significant intercept table. True widths in 60 degree dip are not reported. True Width 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, mineralised 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 1 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 density, groundwater, geotechnical and rock characteristics; potential deleterious*	• CEC and Peko completed some brownfields exploration to assist with defining the resource including Induced Polarisation surveys and Sirotem (electromagnetic method) surveys. • Federation concentrated on defining the resource estimates. • No other exploration data is considered meaningful at this stage. • **QMines Feb – October 2021** the company delivered soil geochemical grids

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	or contaminating substances.	obtained from the Geological Survey of Queensland consisting of 19,000 samples collected by various workers and digitized by the Company during 2021.
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.

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