



March 2022

Site Visit Technical **Presentation**

Australia's First Zero Carbon Copper & Gold Developer...

ASX:QML

www.qmines.com.au



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COMPETENT PERSON (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.

COMPETENT PERSON (RESOURCE)

The information in this report that relates to mineral resource estimation is based on work completed by Mr. Stephen Hyland, a Competent Person and Fellow of the AusIMM. Mr. Hyland is Principal Consultant Geologist with Hyland Geological and Mining Consultants (HGMC), who is a Fellow of the Australian Institute of Mining and Metallurgy and holds relevant qualifications and experience as a qualified person for public reporting according to the JORC Code in Australia. Mr Hyland is also a Qualified Person under the rules and requirements of the Canadian Reporting Instrument NI 43-101. Mr Hyland consents to the inclusion in this report of the information in the form and context in which it appears.

COMPLIANCE STATEMENT

QMines confirms that it is not aware of any new information or data that materially affects the information included in the Mt Chalmers Resource Upgrade ASX announcement lodged on 1 December 2021 (Announcement) and that all material assumptions and technical parameters underpinning the estimates in the Announcement continue to apply and have not materially changed.

MT CHALMERS PROJECT

The historical exploration results in relation to the Mt Chalmers project contained in this document have been reported in accordance with the JORC 2012 Mineral Code and the Competent Person has undertaken sufficient work to disclose the historical exploration results in accordance with the JORC 2012 Mineral Code.

LIMITED HISTORY

The Company was incorporated on 4 August 2020 and has only limited operating history and limited historical financial performance. Exploration and production has previously been conducted on the area of land the subject of the tenements, however, the Company is yet to conduct sufficient exploration activities or had the opportunity to confirm the historical information in relation to these tenements.

FUTURE PERFORMANCE

This document contains references to certain targets and plans of QMines which may or may not be achieved. Any forward-looking statements are necessarily based upon a number of estimates and assumptions that, whilst considered reasonable by QMines and the Competent Person, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies, involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

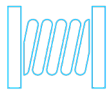
The performance of QMines may be influenced by a number of factors, risks and uncertainties, many of which are outside the control of QMines and its directors, officers, employees, advisers, agents and consultants.

Executive Summary



Right Deposit Style

- VHMS's are known to cluster; and
- High metal value.



Right Commodity Mix

- Copper to support the energy transition; and
- Precious metals to deal with market volatility.



Right Geology

- Similar rocks to world-class Mt Morgan Deposit (8.5Moz Au, 400,000t Cu and 1.2Moz Ag)¹.



Strong Growth Profile²

- Mineral Resource Estimate (101,000t CuEq); and
- Three Exploration Targets (JORC 2012).



Exploration Upside

- Four large soil anomalies identified; and
- Anomalies demonstrate significant SCALE potential.



Location Advantage

- Historic mine site;
- Close to infrastructure; and
- Proximity to end users.

¹ Carbine Resources, Investor Presentation, December 2017, https://carbineresources.com.au/wp-content/uploads/2017/12/171204_RRS_FINAL.pdf

² Mt Chalmers Resource Upgrade, <https://wcsecure.weblink.com.au/pdf/QML/02460632.pdf>, 1 December 2021. Metals price assumptions for copper equivalent estimates are US\$6,655/t Cu, US\$1,900/oz Au, US\$25/t Ag, US\$3,450/t Zn and US\$2,450/t Pb Exchange rate is AUD\$0.70. Assumed metallurgical recoveries of 97% for copper, 86.5% for gold, 70.5% for silver, 77.5% for zinc and 85% for lead. Exploration Targets are reported in accordance with the JORC 2012 Code & Guidelines.

Why Queensland?

Well Endowed District

- **Mt Chalmers** – Kuroko style VMS (277.1 Ma);
- **Mount Morgan** – World class VMS / Intrusion Related Au deposit (390 ± 5 Ma);
- **Cracow** – Low Sulphidation epithermal Au (291 ± 5 Ma); and
- **Mt Rawdon** – Late Triassic intrusion related gold system (233 Ma).

Mining Jurisdiction



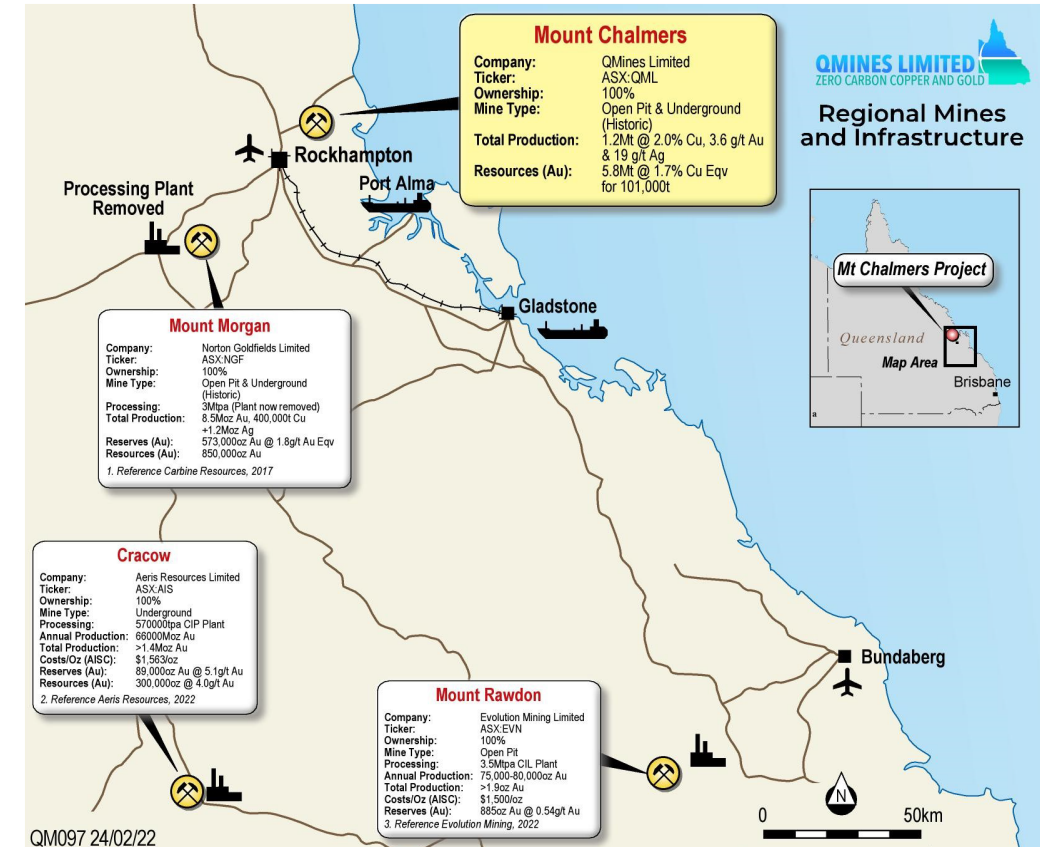
Power, deep-water ports, airport and rail infrastructure.



Significant number of active copper and gold mines in region



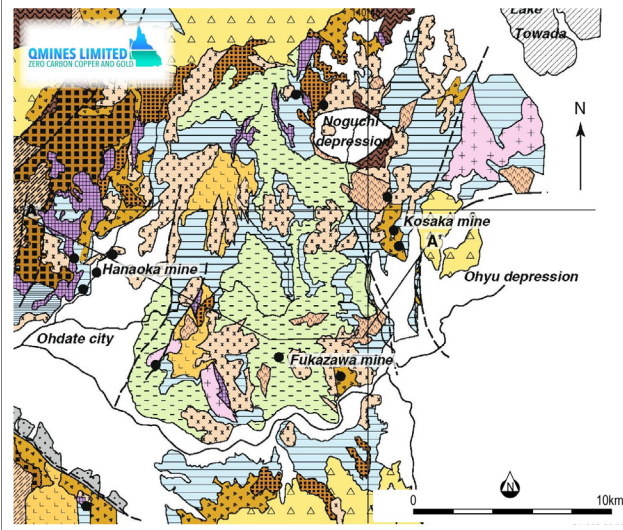
Skilled workforce – both metalliferous and coal mining, open cut and underground.



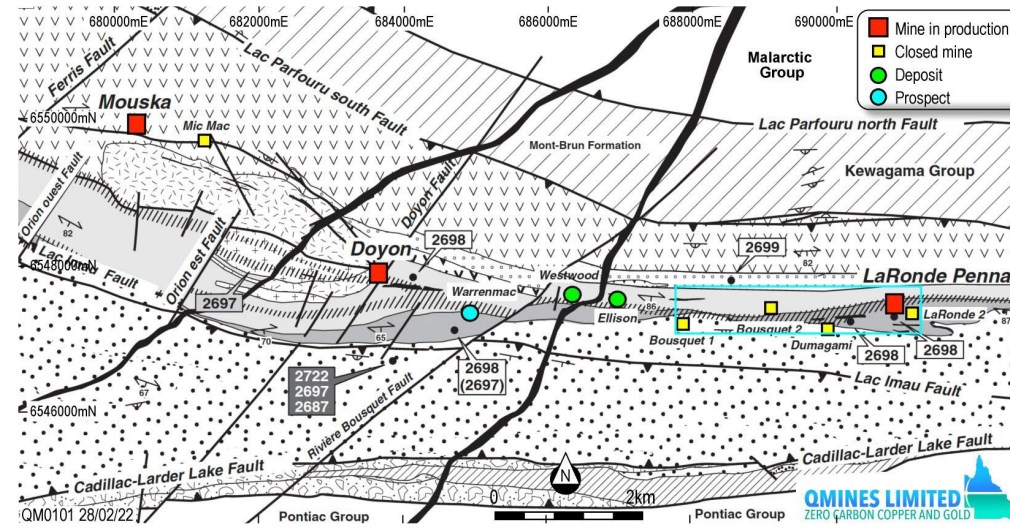
Regional Mines and Infrastructure near Mt Chalmers.

Why VHMS Deposits?

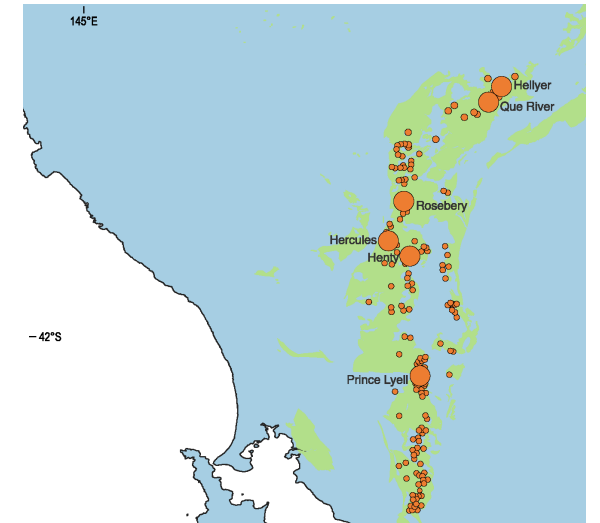
They Cluster...



Hokuroko District, Yamato Basin, Honshu, Japan. (mostly Middle to Late Miocene rift-related Kuroko style VHMS deposits)¹



Doyon-Bousquet-LaRonde Mining Camp, Abitibi Greenstone Belt, Quebec, Canada²



Combined magnetics and gravity showing VHMS and hybrid mineral deposits, Mt Reid Volcanics, Western Tasmania³

¹ Yamada & Yoshida, 2011.

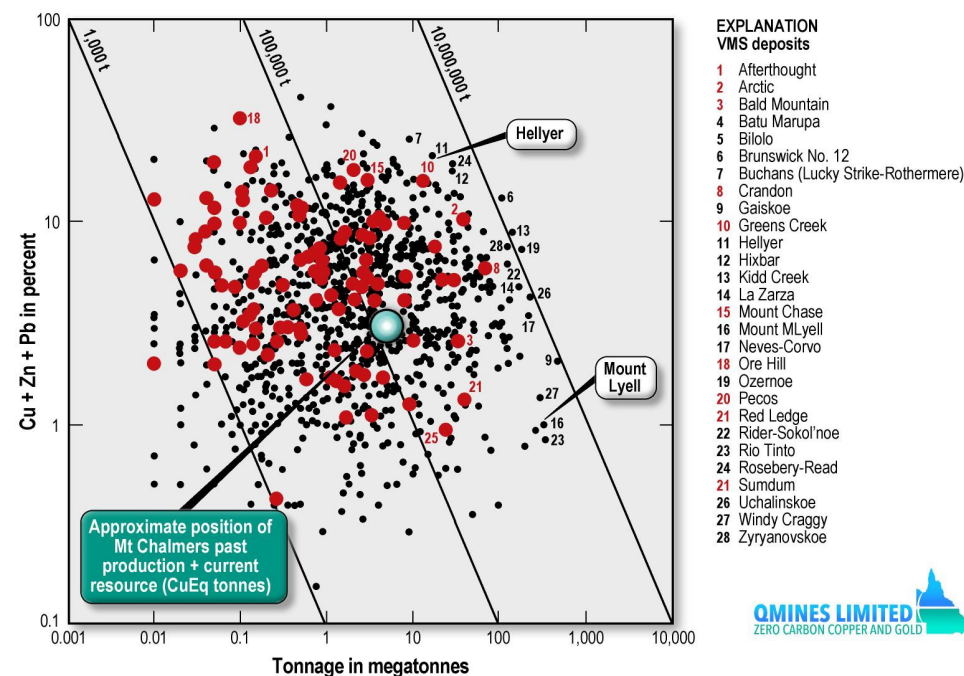
² Dubé, Mercier-Langevin, Hannington, Lafrance, and Gosselin, 2007.

³ Seymour, Green, & Calver, 2006.

Why VHMS Deposits?

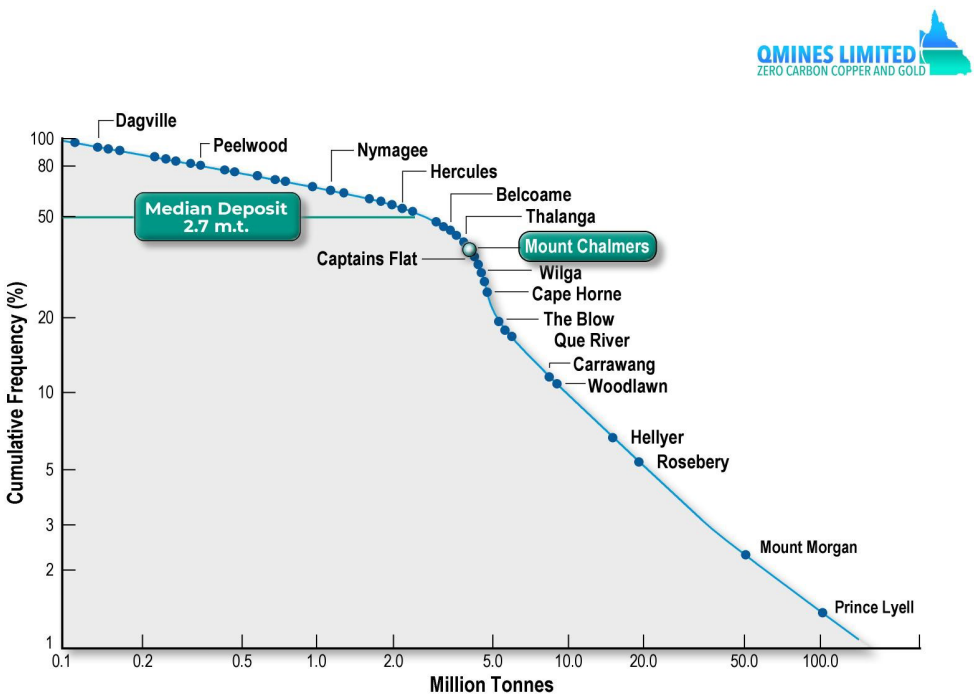
The Scale of Mt Chalmers

Mt Chalmers on an International Scale¹



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Mt Chalmers on a National Scale²

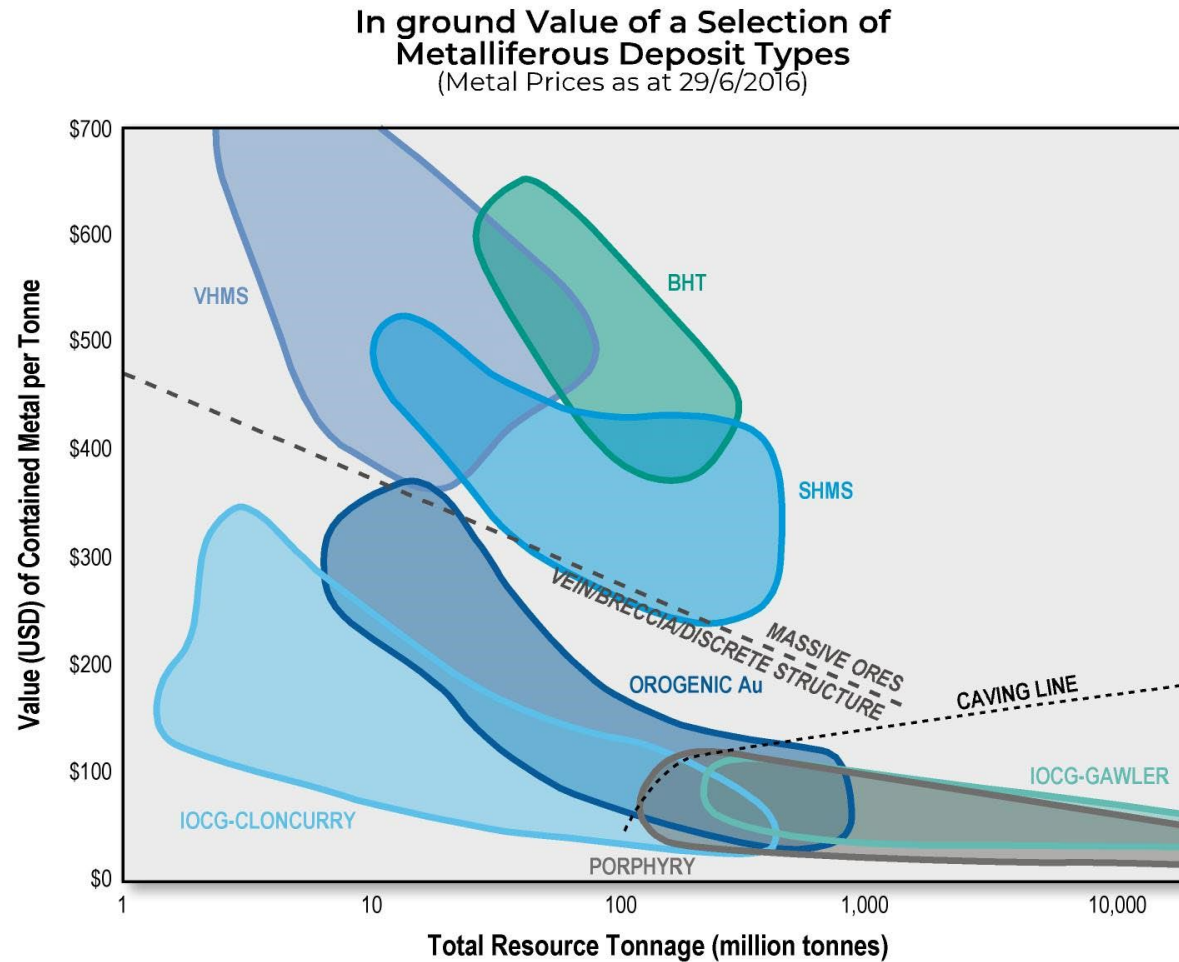


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¹ Koski & Mosier, 2010
² Large, Herrmann & Corbett, 1987

Why VHMS Deposits?¹

High Value



“VHMS Deposits are one of the **Highest Value Resources** per Tonne...”

¹ Murphy, Pratt, Hinman, Donohue, Pirolo & Jones, 2016

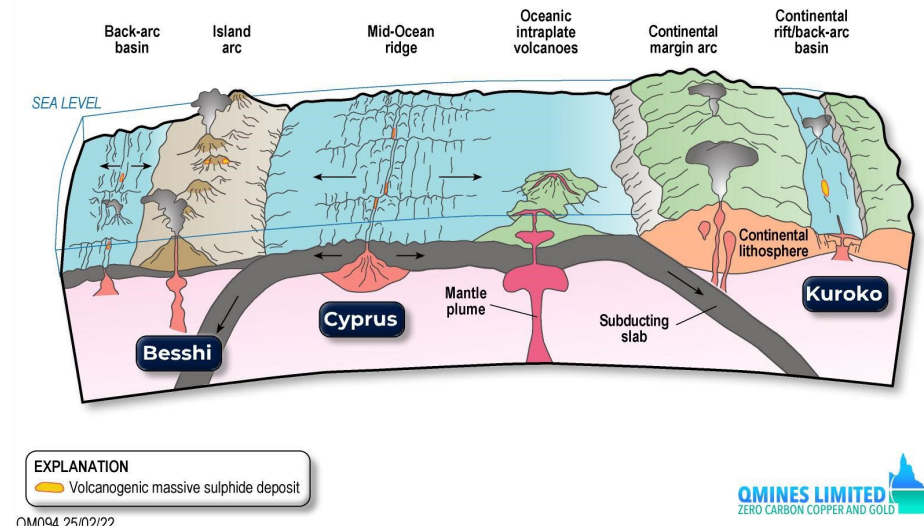
VHMS Deposits

Overview

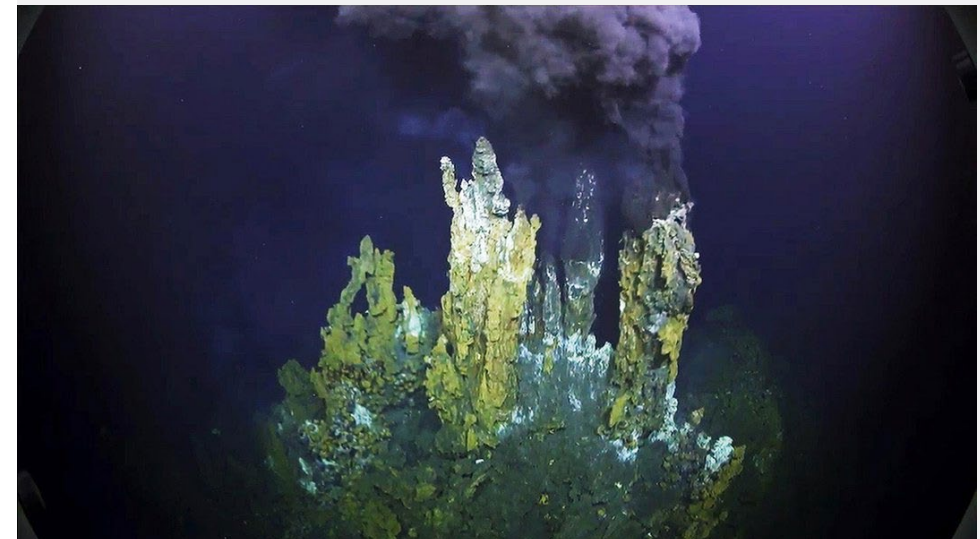
- Deposits recorded throughout earth's history from Archaean (Australia, Canada) through to current sea floor setting;
- Form in multiple settings related to rifting and other extensional events; and
- Traditionally divided into three categories – Kuroko (Mt Chalmers), Besshi (Tritton), and Cyprus (now five categories based on geology and setting).

Kuroko Style

- **Geology:** Continental margin arc and continental rift setting. Felsic volcanic (predominantly rhyolite) and siliciclastic rocks, some carbonate;
- **Structure:** Lenses and mounds, often deformed (Mt Chalmers is relatively undeformed); and
- **Geophysics:** No magnetic signature, Copper rich mineralisation has good EM response, Zinc-rich mineralisation has poor or no EM response.



Shanks III & Thurston, 2010.



Black smoker, Lau Basin between Fiji & Tonga. Photo credit: Smithsonian Magazine.

Regional Geology

New England Orogen

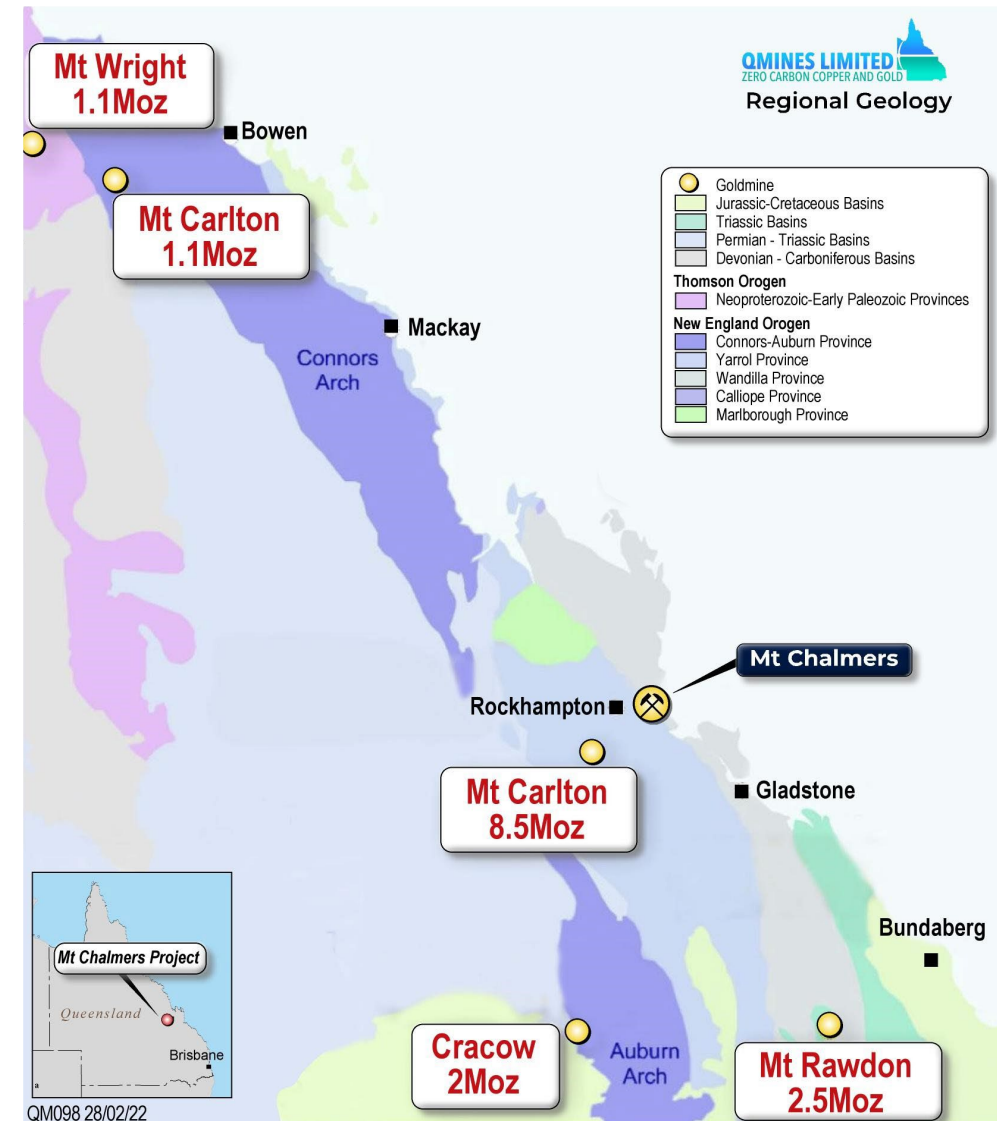
- Eastern part of the Tasman Orogenic Zone.

Yarrol Province

- Late Devonian to Early Permian forearc basin succession;
- Volcaniclastic and siliclastic sediments, limestone, calc-alkaline volcanic rocks; and
- Early Permian extensional basins developed at the same time as the Bowen Basin to the west (bulk of the coal deposits in Queensland).

Berserker Sub Province

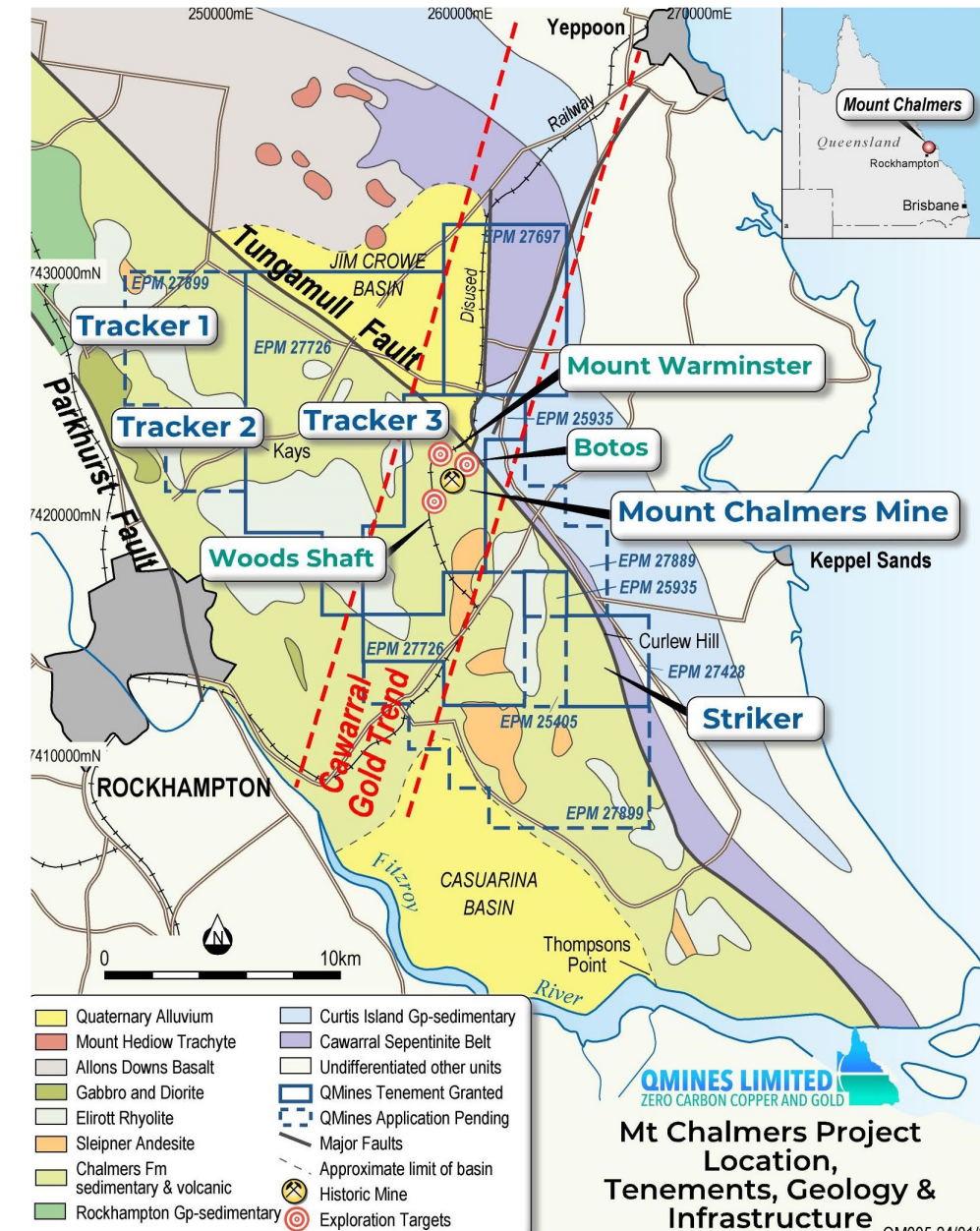
- Fault bounded 110 km long, 5-15 km wide;
- Various estimates of 600 m to 800 m thick basin;
- Sediments deposited in a back-arc environment, close to an active arc to the east;
- Mt Chalmers Formation forms the bottom of the basin; and
- Volcanics dated 268 – 277 Ma.



Regional Geology near Mt Chalmers.

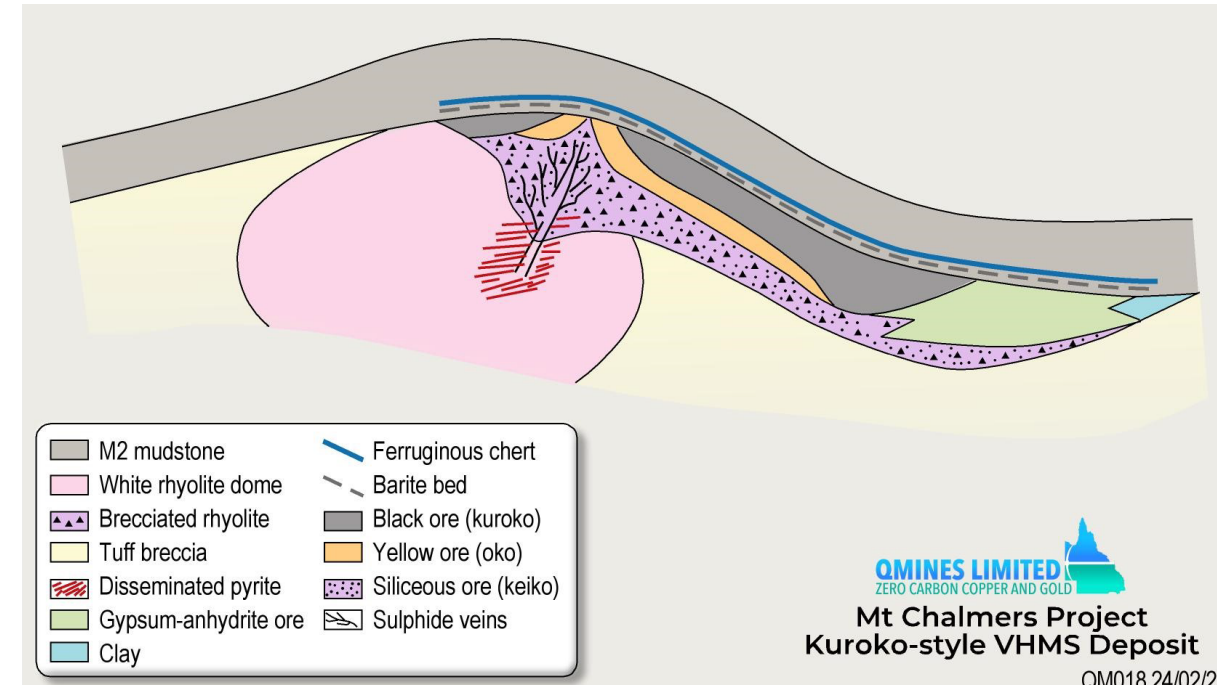
Local Geology

- Hosted within the Early Permian (268.2 – 277 Ma) Berserker Group Similar age to Mt Carlton (284.2 Ma);
- Mt Chalmers Fm (271.1 - 277 Ma): Siltstone, lithic sandstone, rhyolitic to andesitic volcanoclastic breccia, rhyolitic and dacitic tuff, minor andesitic tuff;
- Mine Sequence (top down):
 - **Hangingwall** - comprises pumiceous, polymictic lithic mass flow breccia, mass flow emplaced pumiceous breccia, peperite, bioturbated turbidites, andesitic flows and dykes, and quartz – feldspar porphyry;
 - **Mineralisation** - Massive Sulphides and sulphide stringer mineralisation hosted within volcanoclastic turbidites; and
 - **Footwall** - comprises polymictic lithic breccias, lithic and pumice rich breccias, massive to autobrecciated rhyolite intrusions and flows, dacitic-andesitic breccias.

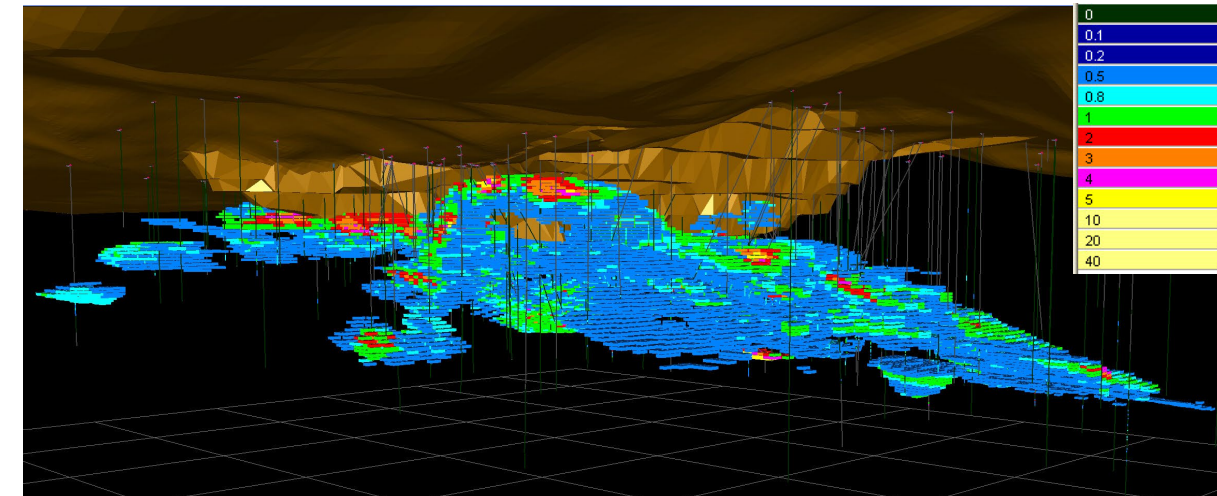


Mt Chalmers Mineralisation

- Typical metal association, alteration and zonation of a Cu – Au type VHMS deposit, comprising an **upper massive sulphide zone**, in part layered and fragmental, which is **underlain by a more extensive silicified alteration cut by stringer sulphide veins**;
- The stringer zone is dominated by pyrite and contains copper and gold with only traces of zinc, silver and lead; and
- Mineralised lenses are separated by a dolomite – sericite alteration zone and the orebody is overlain by an intensely sericitized horizon which extends well away from the orebody in the same stratigraphic horizon.



Kuroko-Style VHMS Deposit – Mt Chalmers Project.



Mt Chalmers MRE block model showing 0.5% CuEq or higher. Oblique view looking towards 315°, dip 05°.

Local Geology



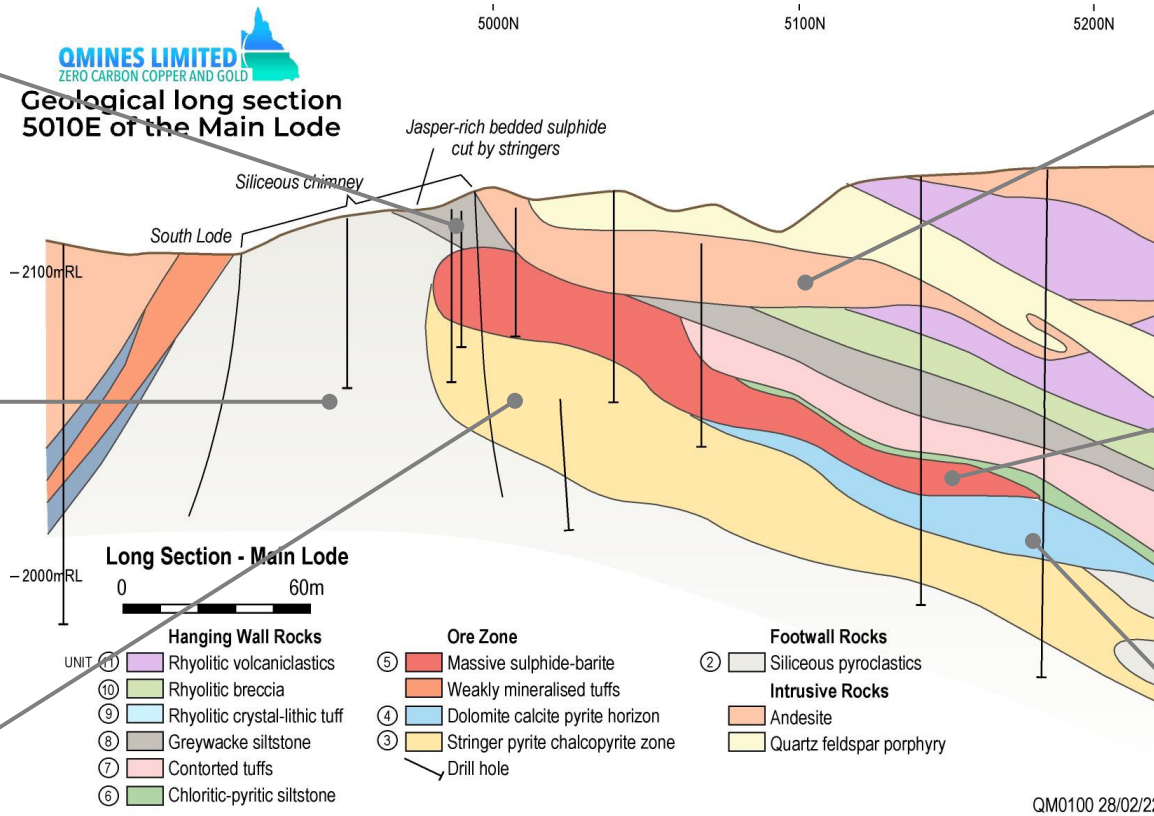
Siltstone



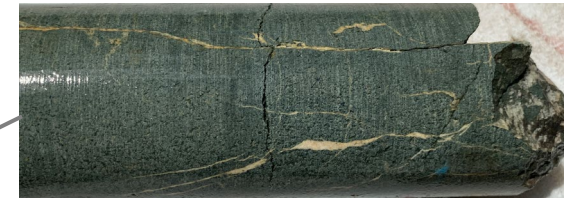
Silicious Pyroclastic



Stringer Zone



Geological Long Section 5010E of the Mt Chalmers Main Lode, (Large & Both, 1980).



Andesite



Massive Sulphide



Dolomite

Exploration Upside Potential

Mineralisation

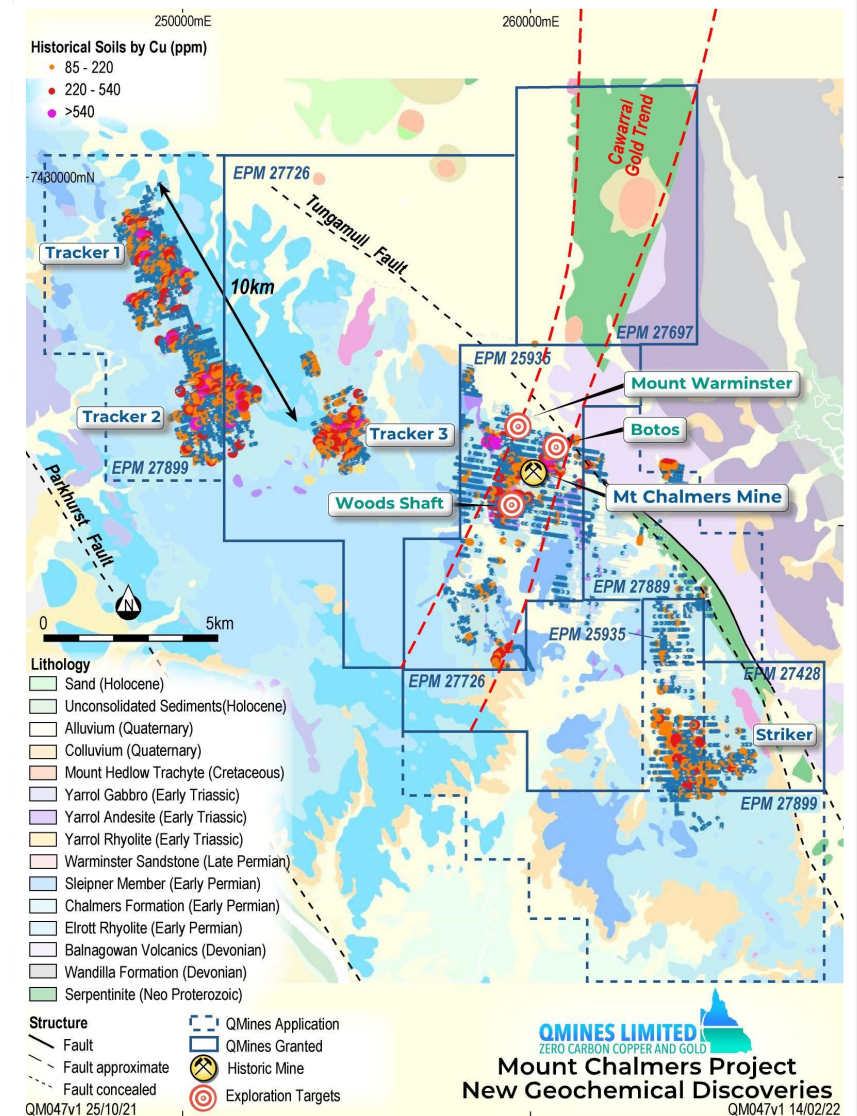
- The Mineral Resource at Mt Chalmers remains open in all directions;
- Down-dip extensions are expected; and
- Some gaps in the resource are to be infilled.

Exploration Targets

- Three Exploration targets defined:
 - Botos,
 - Mount Warminster; and
 - Woods Shaft.

Soil Anomalies

- Historic soil sampling data digitised for the first time;
- Anomalies include Tracker 1, Tracker 2, Tracker 3 and Striker;
- Multiple historic prospects and workings yet to be assessed.



Mt Chalmers Tenure, Exploration Targets and Soil Anomalies.

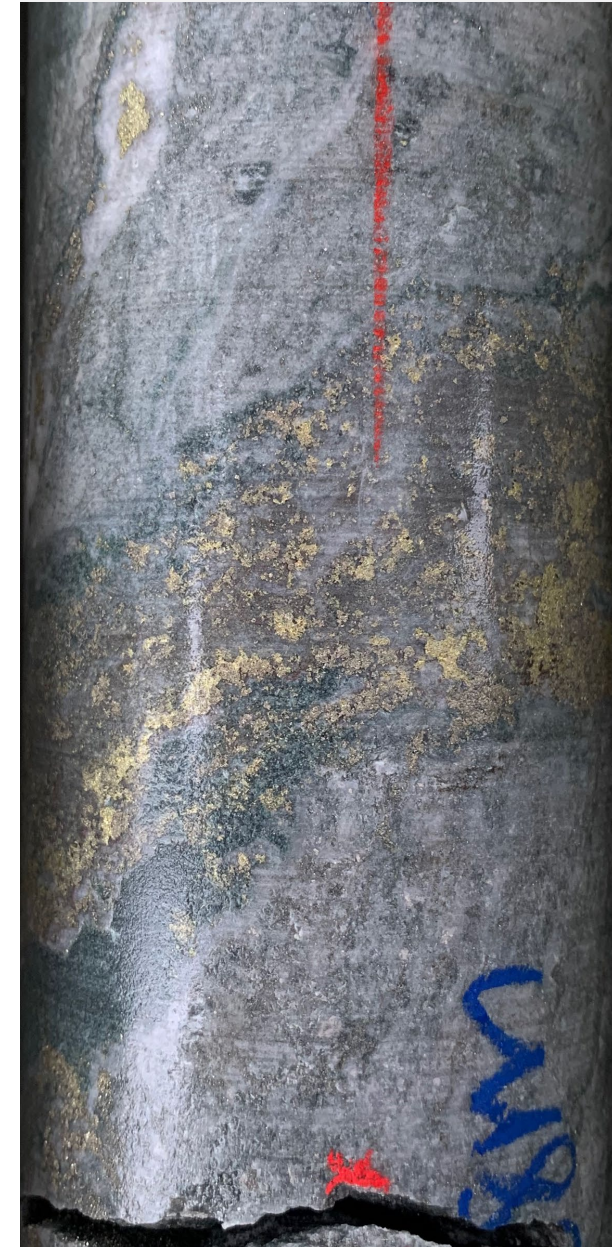
Metallurgical Test Work¹

Preliminary Metallurgical Results

- Copper 97.0%
- Gold 86.5%
- Zinc 77.5%
- Silver 70.5%
- Lead 85.0%

Discussion

- Results based on two mineralisation types: Cu-Au stringer mineralisation, and Cu-Pb-Zn exhalite mineralisation;
- Expected to be indicative of final recoveries; and
- Additional tests are being conducted.



¹ ASX Announcement – [Mt Chalmers Resource Upgrade](#), 1 December 2021.

Exploration Targets

- Planning EM survey and incorporating new structural model into targeting; and
- New work will assist in determining if Woods Shaft & Botos may be part of the Mt Chalmers deposit (structural off-set)/distal extensions or new centers.

Woods Shaft

(1-1.5Mt @ 0.6-1 g/t Au & 0.2-0.3% Cu)

- 48 drill holes (drilled in 1970's by Electrolytic Zinc and 1990's by Great Fitzroy Mines (5,213 m);
- Better intercepts include:
 - 36.17m @ 0.65g/t Au and 0.48% Cu from 8.83m (WSDDH04); and
 - 60m @ 0.79g/t Au and 0.28% Cu from 0m (WSPDH17).

Botos

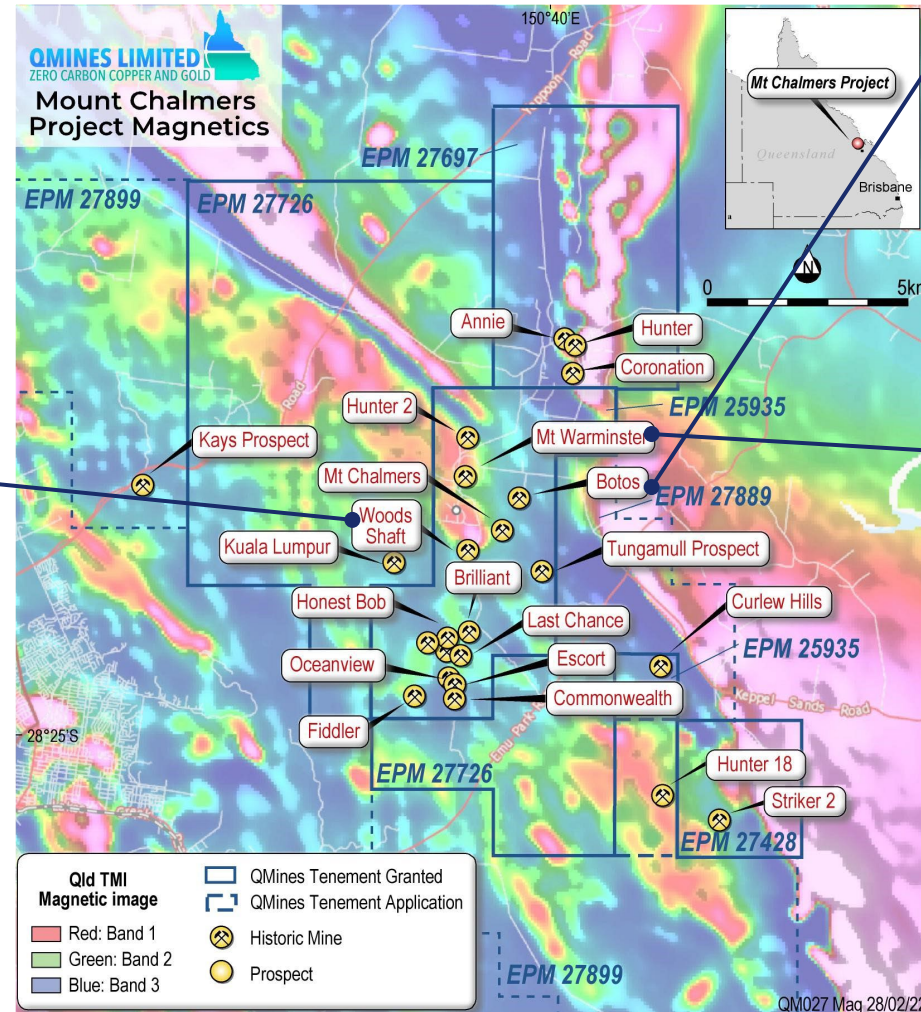
(1-2.5Mt @ 0.5-0.8g/t Au, 1.1-1.4% Zn, 0.5-0.7% Pb, 0.1-0.2% Cu and 30-50 ppm Ag)

- 42 holes (Geopeko) for 5,469m; and
- 27m @ 0.83g/t Au, 0.2% Cu, 2.22% Zn, 1.13% Pb, 51g/t Ag from 81m (BTDDH01).

Mt Warminster

(1.5-1.8Mt @ 0.5-0.7 Zn, 0.1-0.2% Cu, 0.25-0.35% Pb & 8 -12 ppm Ag)

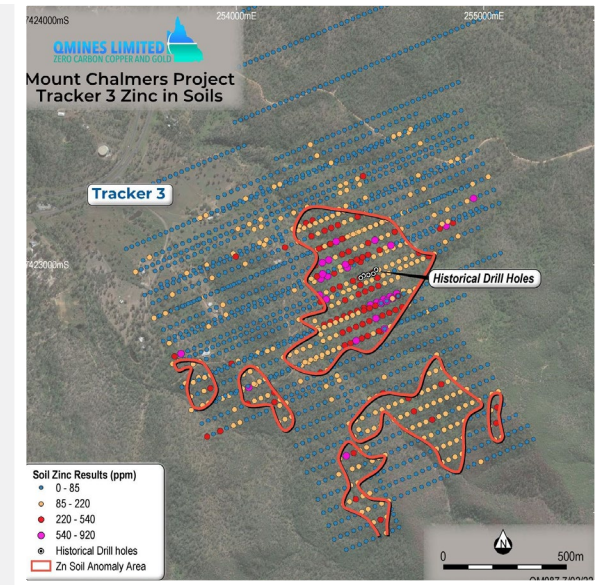
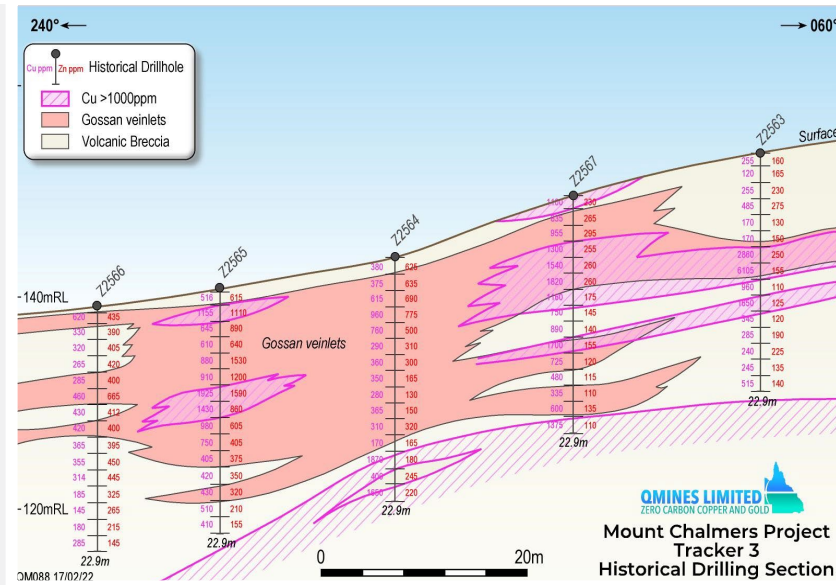
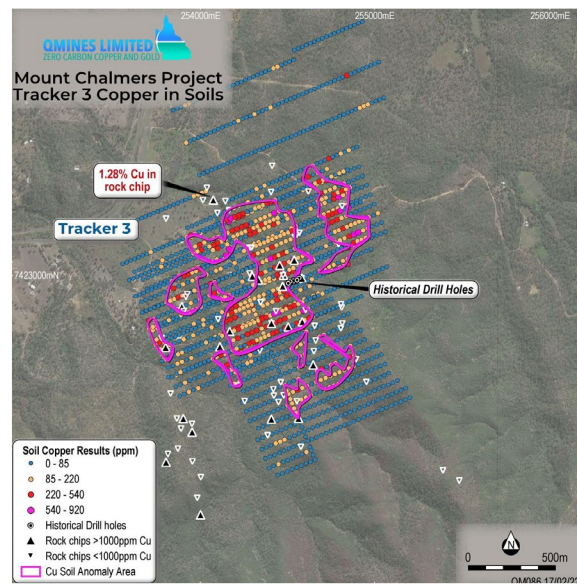
- 59 drill holes for 3,194m (Geopeko and Electrolytic Zinc);
- Better intercepts include:
 - 26.52m @ 0.45% Zn, 0.17% Cu, 0.46% Pb 7g/t Ag from 9.28m (MWPDH46); and
 - 27m @ 0.52% Zn, 0.52% Cu, 0.18% Pb 11g/t Ag from 0m (MWPDH58).



Mt Chalmers Magnetic Map over Mt Chalmers.

Tracker 3 Anomaly¹

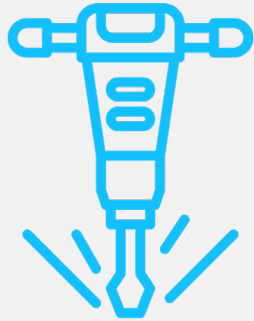
- Large (750 m by 750 m), coincident Cu and Zn in soil anomaly;
- Rock chip samples up to 1.28% Cu and 2.5% Zn;
- Historic drilling – Drilled in 1969. Five 75 ft (22.9 m) deep holes;
- Bounded by a set of NE trending structures (arc-normal control?) with N-S trending intrusions and magnetic feature; and
- Mt Chalmers Formation and intrusive andesite.



¹ ASX Announcement – [QMiner to Drill First of Four Large Soil Anomalies](#), 21 February 2022.

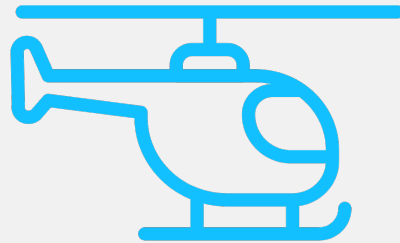
What's Next?

RC Drilling



- Test extremities of Mt Chalmers.
- Convert Woods Shaft to Resource.
- Drill test Tracker 3.

Airborne EM



- Scheduled for H1-2022.
- Covering the Mt Chalmers Project.

Diamond Drilling



- Infill and extensional drilling at Mt Chalmers.
- Further metallurgical test work drilling.

Updated Resource



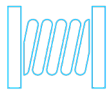
- Expected H1-2022.

Why Invest?



Right Deposit Style

- VHMS's are known to cluster; and
- High metal value.



Right Commodity Mix

- Copper to support the energy transition; and
- Precious metals to deal with market volatility.



Right Geology

- Similar rocks to world-class Mt Morgan Deposit (8.5Moz Au, 400,000t Cu and 1.2Moz Ag)¹.



Strong Growth Profile²

- Mineral Resource Estimate (101,000t CuEq); and
- Three Exploration Targets (JORC 2012).



Exploration Upside

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- Anomalies demonstrate significant SCALE potential.



Location Advantage

- Historic mine site;
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Appendix: Historic Production, Mineral Resource & Exploration Targets^{1 2 3}

Historic Production¹

Project	Tonnes (Mt)	Grade (% Cu)	Grade (g/t Au)	Grade (g/t Ag)
Mt Chalmers	1.24	2.0	3.6	19

Mineral Resource²

Project	Category	Tonnes (Mt)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	Pb (%)	Cut Off
Mt Chalmers	Measured, Indicated & Inferred	5.8	1.03	0.6	0.19	5.1	0.08	0.5% Cu

Exploration Targets³

Exploration Target	Tonnes (Mt)	Cu (%)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)
Woods Shaft	1.0 - 1.5	0.2 - 0.3	0.6 – 1.0	–	–	–
Botos	1.5 – 2.5	0.1 – 0.2	0.5 – 0.8	30 - 50	1.1 – 1.4	0.5 – 0.7
Mt Warminster	1.5 – 1.8	0.1 – 0.2	–	8 - 12	0.5 – 0.7	0.25 – 0.35
Silverwood	0.8 – 1.0	0.3 – 0.5	–	15 - 25	3.2 – 3.7	0.3 – 0.5

¹ ASX Announcement – [Prospectus](#), Pages 89 – 241, 4 May 2021.

² ASX Announcement – [Mt Chalmers Resource Upgrade](#), 1 December 2021.

³ ASX Announcement – [Prospectus](#), Annexure A Independent Geologists Report, 4 May 2021. Note: The potential quantity and grade of the exploration targets is conceptual in nature, as there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Notes: QMines confirms that it is not aware of any new information or data that materially affects the information included in the Mt Chalmers Resource Upgrade ASX announcement lodged on 1 December 2021 (**Announcement**) and that all material assumptions and technical parameters underpinning the estimates in the Announcement continue to apply and have not materially changed.

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



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