TASMANIA MINES LIMITED

EXPLORATION PERMIT FOR MINERALS

EPM 19209 ULAN RANGE PROJECT

ANNUAL & FINAL REPORT FOR THE PERIOD

2ND OCTOBER 2019 TO 6TH AUGUST 2020

Tenement Holder:	Tasmania Mines Pty Ltd
Submitted by:	UTM Global Limited
Date:	31st August 2021
Prepared by:	Mark Biggs MAppSc; BAppSc(Geol) QUT; MAusIMM Mary Nowland ADGeoSc (Geophys) CQU; MAusIMM

ROM RESOURCES

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

EPM 19209 known as the Ulan Range Project, is held by Tasmania Mines Pty Ltd. The tenure is located approximately 40km west of the port of Gladstone and 50km southeast of Rockhampton, Central Queensland. The project area is located within the Capella and Rockhampton Sub-Provinces, within the Yarrol Province of the New England Orogeny and is predominantly focused on the Middle Devonian Raspberry Creek Formation.

The local geology has been interpreted as a meteorite impact crater model which is part of a double impact crater that occurs partially on EPM 19209. The impact event caused the flooding of the Cecilwood Quartz Diorite resulting in skarn-type mineralization along the catastrophically upturned marble and limestone beds found outcropping in southern portion of EPM 19209.

With the ongoing uncertainty of the COVID-19 pandemic Tasmania Mines Pty Ltd has consolidated three (3) contiguous tenures into one (1) new tenure; therefore EPM 19209 is being voluntarily surrendered. This report outlines exploration activities completed for Year 7 from 2nd October 2019 to 6th August 2020 and a summary of Years 1 to 6.

EPM 19209 has been explored by Tasmania Mines Pty Ltd for seven (7) years with desktop studies on open file geochemistry and geophysical data, ground reconnaissance mapping including field collection of radiometrics, soil and rock chip sampling and assay testing being completed. Approximately two hundred and seventy (270) samples were collected during the life of the tenement however no drilling occurred within the tenure.

INTRODUCTION

Exploration Permit for Minerals (EPM) 19209 Ulan Range is held by Tasmania Mines Pty Ltd (Tas Mines). The tenure is being voluntarily surrendered. This report outlines exploration activities completed for Year 7 from 2nd October 2019 to 6th August 2020 and all other exploration activities completed for the life of the tenure.

RESOURCE AUTHORITY INFORMATION

The Exploration Permit for Minerals (EPM) 19209 known as the Ulan Range Project, is held one hundred percent (100%) by Tasmania Mines Pty Ltd. The permit was granted on the 2nd October 2013 for the term of three (3) years and originally contained forty-three (43) sub-blocks. It was renewed in 2016 for a further three (3) years and seventeen (17) sub-blocks were relinquished. The tenure was renewed again in 2019 for another three (3) years and a further thirteen (13) sub-blocks were relinquished. The tenure contains thirteen (13) sub-blocks for a total area of 39km^2 and was due to expire on the 1st October 2022. However, on the 6th August, 2020 the tenure was voluntarily relinquished.

The permit allowed for mineral exploration activities and studies to be conducted in the tenement area within the limits of the environmental authority (EA) MIC202685811. EPM 19209 is located on the Queensland 1:250,000 scale geological series sheet SF56-13 Rockhampton, and on the Queensland 1:100,000 scale geological series sheet 9050 Bajool.

Tenement details for the Ulan Range Project can be seen in Table 1 and the current set of blocks and sub-blocks are listed in Table 2 as follows:

Table 1: Tenement Information for EPM 19209

EPM	Lodge Date	Grant Date	Expiry Date	Authorised Holder Name	Sub-block
19209	06/05/2011	2/10/2013	1/10/2022	Tasmania Mines Pty Ltd	13

Table 2: Blocks and Sub-blocks in EPM 19209

BIM	BLOCK	SUB-BLOCK																							SUB TOTAL
ROCK	3248																			U					Z	2
ROCK	3249																				V					1
ROCK	3320					E					K					P					U					4
ROCK	3321	A												M								V	W	X	Y	6
TOTAL																										13

GENERAL AREA INFORMATION

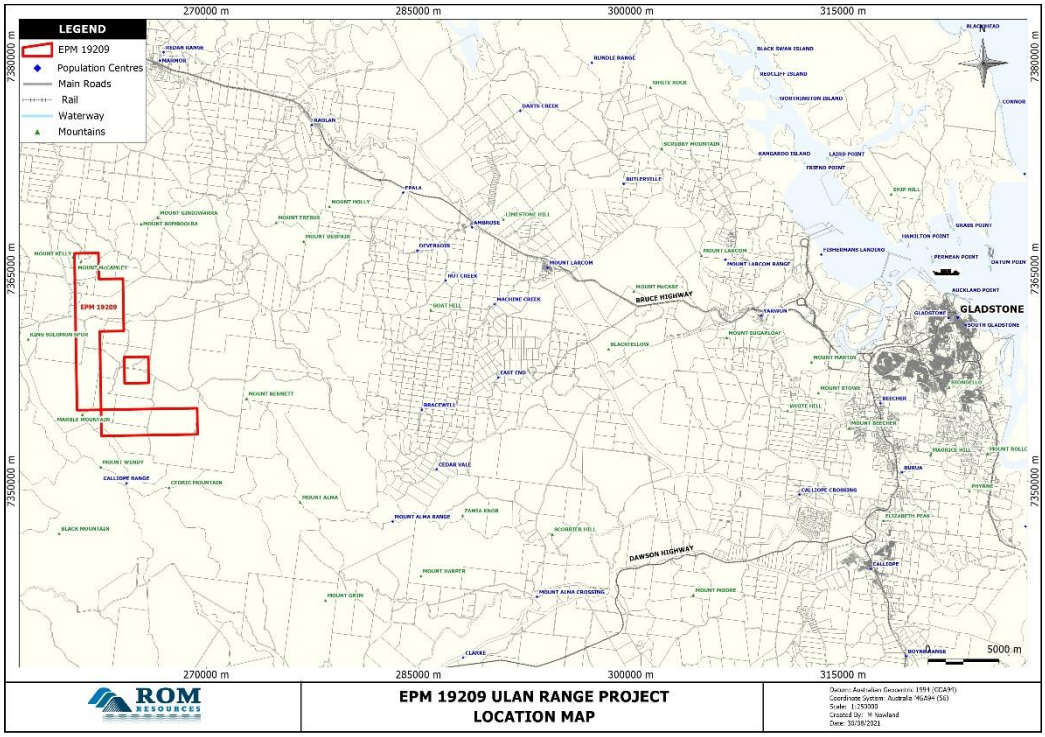
The Ulan Range project (EPM 19209) is located approximately 55km west of the port of Gladstone and 50km southeast of Rockhampton, Central Queensland (Figure 1). The South Ulam Road runs from north to south from the Bruce Highway at the township of Bajool approximately 12km to the north and connects with a number of sealed and unsealed council roads and property tracks within the tenure. Whilst the Dawson Highway passes approximately 25km to the south.

The North Coast rail system passes 12km to the north whilst the Moura rail system passes 25km to the south, linking the Ulan Range Project to the export shipping terminals at the Port of Gladstone. Tea Creek runs from northeast to southwest from middle of the tenure. Numerous smaller creeks and waterways are located throughout the tenure.

The climate for the area around the Ulan Range project is humid, subtropical, characterized by hot summers and mild dry winters. The region receives an average annual rainfall of approximately 820mm which falls mainly between November and February (Australian Government, 2021). The terrain within the project area is mainly flat to rolling grazing land with steep moderate sized hills flanking the south west and northern areas of the tenure. Mount McCamley with an elevation of approximately 304m is located within the north-western boundary of the tenure (Mapcarta, 2021) whilst Mount Kelly at a similar elevation is just outside the tenure. Cattle farming is the primary industry of the area along with marble and limestone quarrying operations. Most areas are readily accessible with moderate to no scrub cover and scattered stands of blue gums (Franko, 2018a).

LOCATION MAP

Figure 1: Ulan Range Project General Area Location



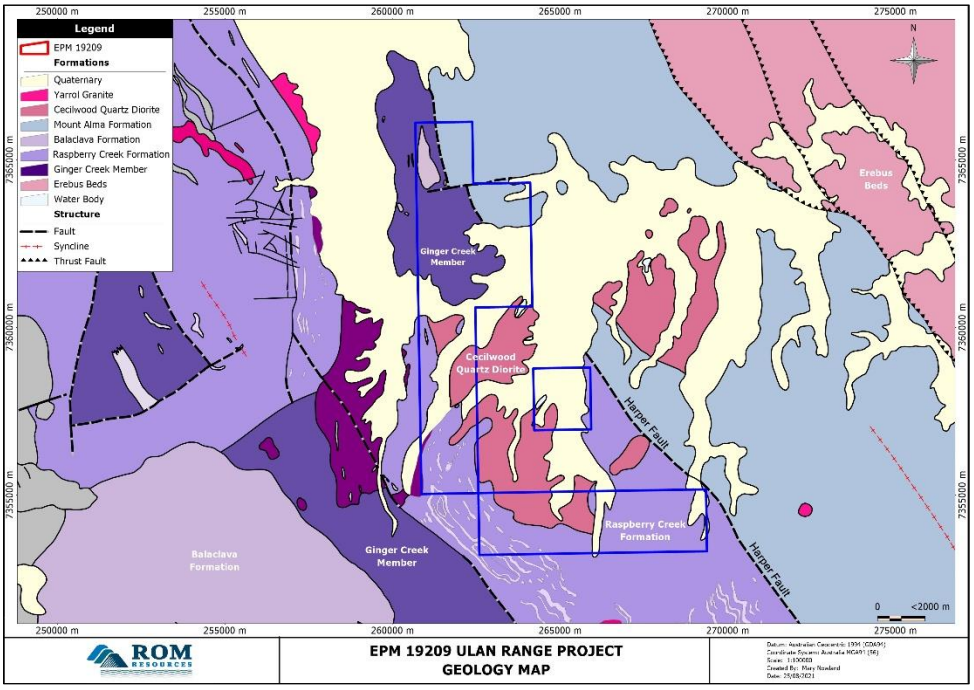
REGIONAL GEOLOGY

EPM 19209 is located on the east coast of Central Queensland within the northern part of the New England Fold Belt which formed at a convergent plate margin, with the Australian continental plate to the west and a west-dipping subduction zone to the east (Hayward, 2016). It is located within the Capella and Rockhampton Subprovince, within the Yarrol Province of the New England Orogeny.

The basement rocks within the region consist of the Early Devonian Erebus Beds (formerly Mount Holly Beds) and the Middle Devonian Capella Creek Group. The Erebus Beds and the middle Devonian Capella Creek Group were folded, faulted and intruded by the Middle Devonian Mount Morgan Tonalite.

The Capella Subprovince contains the Capella Creek Group which were deposited in a shallow marine environment comprising predominantly andesitic to dacitic extrusive and volcaniclastic rocks; overlain by acid and andesitic lavas and volcanolithic sediments, including minor limestones; and an upper, predominantly andesitic sequence with minor limestones (Geoscience Australia, 2021). Within the project area the Capella Creek Group comprises of the Raspberry Creek Formation and the Ginger Creek Member (Figure 2). The Yarrol Province of the New England Orogen contains a Late Devonian to Late Carboniferous sequence of forearc sedimentary and mafic to felsic volcanic rocks, followed by Late Carboniferous to mid-Permian backarc sedimentary and felsic volcanic rocks. These were overlain by Late Permian foreland sedimentary rocks. Granites intruded the province from the Early to Middle Permian (Geoscience Australia, 2012). The Rockhampton Subprovince is Late Devonian and contains the Mount Alma Formation which consists of thinly interbedded fine-grained sandstone and siltstone and thick beds of conglomerate with andesitic to dacitic clasts and siltstone rip-up-clasts (Geoscience Australia, 2019). The Mount Alma Formation is faulted against the Erebus Beds (Figure 2) which were deposited in a marine environment comprising rhyolitic and dacitic tuff, rhyolite, andesite, siltstone, chert, limestone and sandstone (Armstrong, 2014).

Figure 2: EPM 19209 Ulan Range Solid Geology

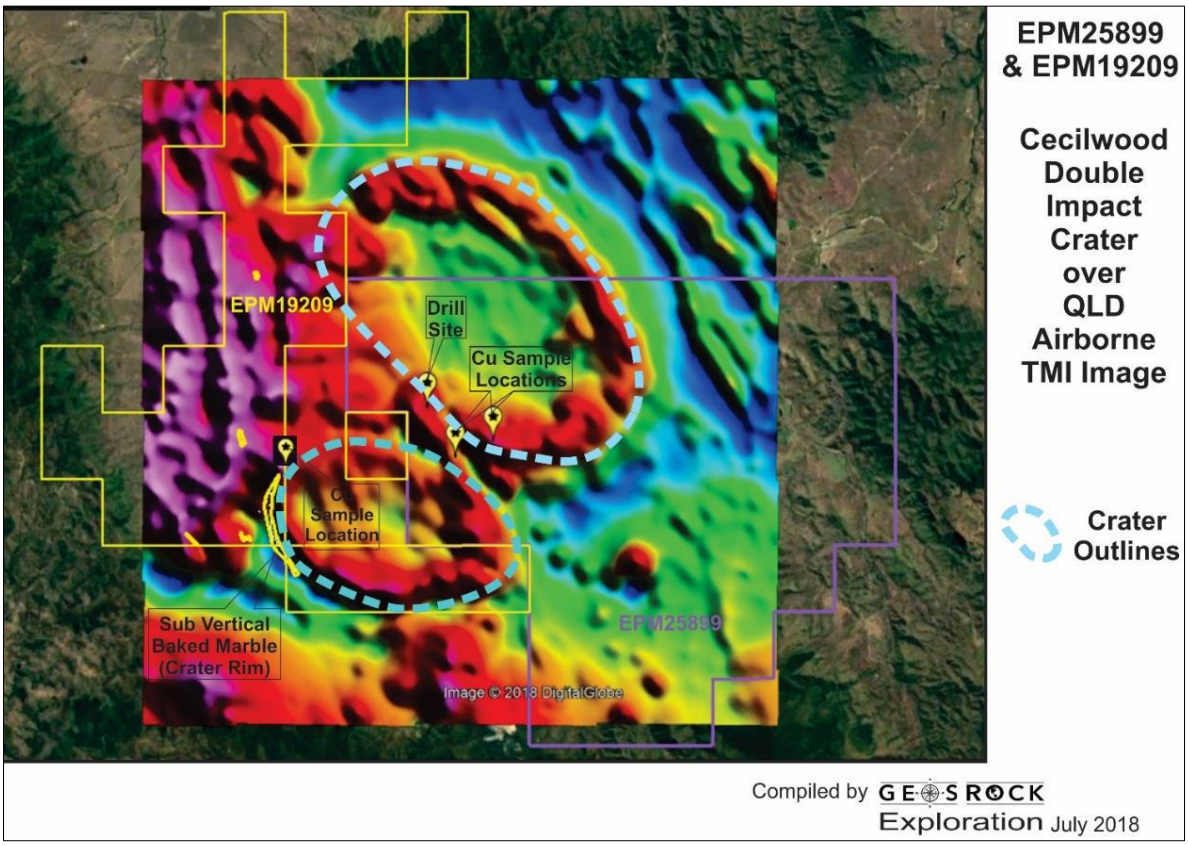


LOCAL GEOLOGY

The Middle Devonian Raspberry Creek Formation outcrops within the project area and consists mainly of quartz-rich sandstone, granule to pebble conglomerate and breccia, local basalt lava, minor siltstone and limestone, and rare accretionary lapilli tuff. Volcaniclastic rocks of basaltic and andesitic derivation predominate. The conglomerate and breccia also contain rare limestone and granitoid clasts (Jell, 2013). This unit has a rich Givetian coral fauna (Blake 2010) and conodonts (Taube, Mawson & Talent 2005), indicating latest Eifelian to middle Givetian (Jell, 2013). Corals, conodonts, brachiopods, minor oolitic limestone and herringbone cross-bedding indicate a shallow-marine environment and abundant coarse volcanic material suggests a proximal volcanic source. Basalt geochemistry is consistent with an oceanic island arc setting (Jell, 2013).

The Late Permian to Early Triassic aged Cecilwood Quartz Diorite (which primarily consists of hornblende, quartz, and diorite) is approximately 10 × 8km and intrudes the Raspberry Creek Formation, Ginger Creek Member, and the Mount Alma Formation with Th-rich skarns at contact on the southern side; magnetic images highlight hornfelsed rim and suggest two (2) lobes (Jell, 2013). It has been interpreted that the Cecilwood Diorite represents catastrophic infill caused by a meteorite impact event (Franko, 2018a). The two (2) lobes are recognized as centres of a double impact crater (Figure 3).

Figure 3: Qld Magnetics with Double Impact Crater



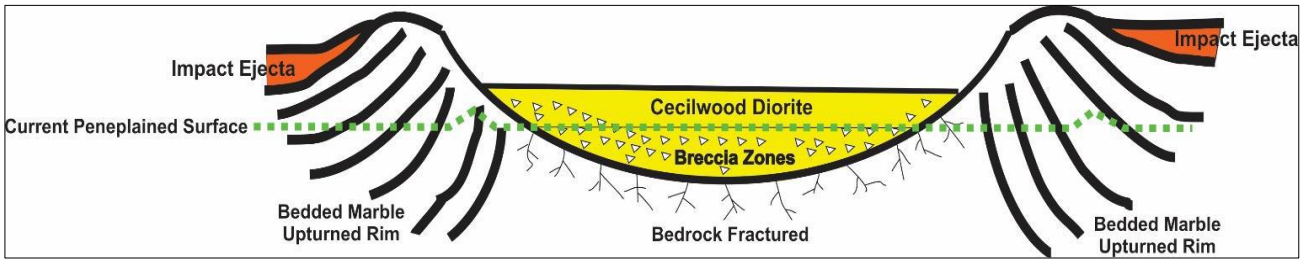
Source: (Franko, 2018a)

MINERALISATION

The local geology has been interpreted as a meteorite impact crater model (Figure 4) which is part of a double impact crater (Figure 3) that occurs on EPM 19209. The impact event caused the flooding of the Cecilwood Quartz Diorite resulting in skarn type mineralization along the catastrophically upturned marble and limestone beds found outcropping in southern portion of EPM 19209.

The hard baked steeply dipping beds of marble and limestone mapped in the Marble Mountain area were most likely horizontal beds before being disturbed by the impact event causing local metamorphism and the elastic rebound of strata (Franko, 2018b). For further details please refer to Year 1 to 6 Annual Reports.

Figure 4: Impact Crater Model



Source: Franko (2018a)

PREVIOUS WORK

In the first year of tenure (2014) historical reports and data were compiled and evaluated, twenty (20) grab samples were taken, with seventeen (17) samples assayed for magnetite potential whilst three (3) samples were aimed at other mineral potential. Open file magnetic data was acquired and profiles sections generated to ascertain the nature of potential magnetite deposits. Ground magnetic survey lines were performed over anomalous areas and the results also profiled on sections (Armstrong, 2014). In 2015 (Year 2) desktop studies reviewing open-file geochemistry data and geophysical surveys were completed. Detailed ground traverses and mapping, a twenty-one (21) float and outcrop rock chip samples and forty (40) C-horizon soil samples on a four (4) line grid were taken and assayed (Hayward, 2015), (Marinelli, 2015).

During 2016 (Year 3), ground reconnaissance mapping with field collection of radiometrics data including measurements of gamma ray (K, U, Th) emissions and soil geochemistry at semi-regularly distributed stations along the traverse were undertaken. Whole rock geochemistry (using a portable XRF) of potentially mineralised float and outcrop was also collected (Hayward, 2017a). Further desktop studies and data review was completed in 2017 (Year4) (Hayward, 2017b).

Year 5 (2018) saw five (5) reconnaissance trips over five (5) months of field mapping and rock chip sampling of limestone, marble and skarn mineralization. In total one hundred and seventy (170) samples were taken. Forty-seven (47) samples were for lithological identification and the rest were assay tested with different methodologies including ME-ICP86, ME-MS41, ME-XRF26 and XRD, and ICP (Franko, 2018b). Work completed in Year 6 (2019) included the collection and assay of thirteen (13) rock chip samples collected in the south and southwestern portions of the tenure (Franko,

2019). For further details please refer to Years 1 to 6 Annual Reports and 2016 and 2018 Partial Relinquishment Reports (Armstrong, 2014), (Hayward, 2015), (Hayward, 2016) (Hayward, 2017a & b), (Franko, 2018a & b), (Franko, 2019).

WORK PROGRAM

WORK COMPLETED

With the ongoing uncertainty of the COVID-19 pandemic Tasmania Mines Pty Ltd has had to re-assess their financial future and their tenures' viability. This has meant a review of all tenures held by Tasmania Mines. After further re-evaluation, it was decided that downsizing and consolidating three (3) contiguous tenues into one (1) new smaller tenure would allow the company to further delineate and focus resources on the highest priority targets.

No field exploration or land disturbance was undertaken during this reporting period (Year 7).

CONCLUSIONS

With the ongoing uncertainty of the COVID-19 pandemic Tasmania Mines Pty Ltd has consolidated three (3) contiguous tenures into one (1) new tenure therefore EPM 19209 is being voluntarily surrendered.

EPM 19209 has been explored by Tasmania Mines Pty Ltd for seven (7) years with desktop studies on open file geochemistry and geophysical data, ground reconnaissance mapping including field collection of radiometrics, soil and rock chip sampling and assay testing being completed. Approximately two hundred and seventy (270) samples were collected during the life of the tenement however no drilling occurred within the tenure.

POTENTIAL FOR DISCOVERY

EPM 19209 holds significant potential for marble resources with low silica content (<3%) as well as agricultural lime. There is also potential for copper, gold, silver, tellurium and tungsten (Franko, 2019).

REASON FOR RELINQUISHMENT OR SURRENDER

EPM 19209 Ulan Range Project is being voluntarily surrendered as part of a consolidation and downsizing of three (3) contiguous tenures (in which EPM 19209 is one of them) to better delineate and focus resources.

REFERENCES

Armstrong, T. (2014). *Tasmania Mines Limited. Exploration Permit for Minerals 19209 Ulan Range Project. Annual Report for the Period 2nd October 2013 to 1st October 2014.* Prepared for Tasmania Mines Pty Ltd.

Australian Government. (2021, August 16). *Bureau Home>Climate>Climate Data Online>Monthly Rainfall - Hazeldean*. Retrieved August 16, 2021, from Bureau of Meteorology: http://www.bom.gov.au/jsp/ncc/cdio/weatherData/av?p_nccObsCode=139&p_display_type=dataFile&p_startYear=&p_c=&p_stn_num=039334

Blake, P. R. (2010). Devonian Corals of the Yarrol Province, Eastern-central Queensland. (J. R. Laurie, Ed.) *Memoirs of the Association of Australasian Palaeontologists, 38*(ISSN:0810-8889), p1-191 .

Franko, S. (2018a). *EPM 19209 Partial Relinquishment Report of the period ending 01/09/2018.* Prepared by Geos Rock Eploration Pty Ltd for Tasmania Mines Pty Ltd.

Franko, S. (2018b). *EPM 19209 Annual Technical Exploration Report for the period ending 1/10/2018.* Prepared by Geos Rock Exploration Pty Ltd for Tasmania .

Franko, S. (2019). *EPM 19209 Annual Technical Exploration Report for the period ending 01/10/2019.* Prepared by Geos Rock Exploration Pty Ltd for Tasmania Mines Pty Ltd.

Geoscience Australia. (1996). *Australian Stratigraphic Units Database - Calliope Province.* Retrieved August 19, 2021, from Australian Government Geoscience Australia Web site: https://asud.ga.gov.au/search-stratigraphic-units/geological-province/40535

Geoscience Australia. (2012). *Australian Stratigraphic Units Database - Yarrol Province.* Retrieved August 19, 2021, from Australian Government Geoscience Australia Web site: https://asud.ga.gov.au/search-stratigraphic-units/geological-province/559209

Geoscience Australia. (2018). *Australian Stratigraphic Units Database - Ginger Creek Member.* Retrieved August 25, 2021, from Australian Government Geoscience Australia Web site: https://asud.ga.gov.au/search-stratigraphic-units/results/32035

Geoscience Australia. (2019). *Australian Stratigraphic Units Database - Balaclava Formation.* Retrieved August 25, 2021, from Australian Government Geoscience Australia Web site: https://asud.ga.gov.au/search-stratigraphic-units/results/32040

Geoscience Australia. (2019). *Australian Stratigraphic Units Database - Mount Alma Formation.* Retrieved August 19, 2021, from Australian Government Geoscience Australia Web site: https://asud.ga.gov.au/search-stratigraphic-units/results/32041

Geoscience Australia. (2019). *Australian Stratigraphic Units Database - Raspberry Creek Formation.* Retrieved August 25, 2021, from Australian Government Geoscience Australia Web site: https://asud.ga.gov.au/search-stratigraphic-units/results/32036

Geoscience Australia. (2021). *Australian Stratigraphic Units Database - Capella Subprovince.* Retrieved August 19, 2021, from Australian Government Geoscience Australia Web site: https://asud.ga.gov.au/search-stratigraphic-units/results/32037

Geoscience Australia. (2021). *Australian Stratigraphic Units Database - Cecilwood Quartz Diorite.* Retrieved August 25, 2021, from Australian Government Geoscience Australia Web site: https://asud.ga.gov.au/search-stratigraphic-units/results/33141

Hayward, S. (2015). *EPM 19209 Ulan Range Annual Report for the period 2nd Oct 2014 to 1st Oct 2015.* Prepared by 360 Geoscience Pty Ltd for Tasmania Mines Pty Ltd.

Hayward, S. (2016). *EPM 19209 Ulan Range Partial Relinquishment Report.* Prepared by 360 Geoscience for Tasmania Mines Pty Ltd.

Hayward, S. (2016). *EPM 19209 Ulan Range Partial Relinquishment Report.* Prepared by 360 Geoscience for Tasmania Mines Pty Ltd.

Hayward, S. (2017a). *EPM 19209 Ulan Range Annual Technical Report 2 October 2015 to 1 October 2016.* Prepared by 360 Geoscience Pty Ltd for Tasmania Mines Pty Ltd.

Hayward, S. (2017b). *EPM 19209 Ulan Range Annual Technical Report 2 October 2016 to 1 October 2017.* Prepared by 360 Geoscience Pty Ltd for Tasmania Mines Pty Ltd.

Jell, P. A. (2013). *Geology of Queensland.* (P. A. Jell, Ed.) Brisbane, Queensland: Geological Survey of Queensland.

Mapcarta. (2021). *Mount McCamley.* Retrieved August 30, 2021, from Mapcarta Website: https://mapcarta.com/16690930

Marinelli, J. (2015). *Report on Metals Target Generation within EPM 19209.* 17pp, Prepared for Tasmania Mines Pty Ltd.

Taube, A., Mawson, R., & Talent, J. A. (2005). Repetition of the Mount Morgan stratigraphy and mineralization in the Dee Range, northeastern Australia: Implications for exploration. *Economic Geology, vol. 100* (Issue 2), p375-384.