

27 January 2021



Quarterly Report – December 2020

Meteoric Resources NL (**ASX: MEI**) ("**Meteoric**" or "**the Company**") provides shareholders with its Quarterly Report for the three-month period ending 31 December 2020.

The quarter was an extremely active one for the Company, with highlights including:

- A very successful maiden drilling campaign on the newly acquired Palm Springs Gold Project, with multiple wide high-grade gold intercepts extending the mineralised zones over 350m south of the Butchers Creek Open Pit
- The identification of a giant IP anomaly at the Juruena Project, providing an immediate high value drill target with potential for a major porphyry copper-gold discovery
- An exceptional gold drilling campaign at Juruena with further Bonanza Gold above 90g/t Au
- A \$4 million capital raising from existing cornerstone shareholders including \$1M from Tolga Kumova and \$2M from an investment syndicate led by legendary resources investor Keith Biggs, including \$1M from retail mogul Gerry Harvey, with funds raised to be used to accelerate MEI's exciting exploration programs in Western Australia and Brazil including:
 - Drilling in the current Quarter of the new giant IP chargeability anomaly beneath Juruena to test for potential major porphyry copper-gold discovery
 - Dewatering of Butchers Creek Historic Pit and drill testing ore zones in pit floor and beneath pit
 - Drilling to follow up on high grade intersections and further extend mineralisation to SW of Butchers Creek
 - IP surveys at Butchers Creek (new) and Juruena (extension)
 - Development studies at Juruena including an update of Resource Estimate in the current Quarter

Palm Springs Gold Project, WA

Meteoric acquired the high-grade Palm Springs Gold Project in the Kimberley Region of Western Australia in June 2020. The project covers more than 12,000 hectares including 3 MLS, 4 ELs and 6 PLs and contains more than 60 known gold occurrences over a 20km strike. Previous mining in the late 1990s at the Butchers Creek Open Pit Gold Mine saw 52,000oz @ 2.1g/t Au produced until the mine closure due to low gold prices in 1997.

Meteoric's initial drilling campaign at the Palm Springs Gold Project was designed to confirm and extend gold mineralisation to the south-west of the Butchers Creek Open Pit. The drill program was completed during the Quarter with a total of 26 holes for 2,278m of diamond drilling and 5,042m of RC drilling (Figures 1 & 2 & Table 1).

Results from the Company's 2020 drilling program spectacularly confirmed the extension of the orebody for over 350m to the southwest, and significantly remains open at depth, providing an exciting drill target for further exploration in 2021. Seven holes were awaiting assay at the end of the quarter, with remaining results expected in Q1 2021.

Best Drill Intercepts from the Quarter at Butchers Creek:

- 69m @ 4.4 g/t Au from 181m
 - Including 19m @ 7.2g/t Au from 204m
- 55m @ 3.2 g/t Au from 175m
 - Including 8m @ 7.6 g/t Au from 179m
 - And 10m @ 5.2 g/t Au from 190m
- 21m @ 6.1 g/t Au from 264m
 - Including 2m @ 47.8 g/t Au from 270m
- 56m @ 2.7g/t Au from 181m
 - Including 18m @ 4.8g/t Au from 203m
- 45m @ 2.3g/t Au from 259m
 - Including 5m @ 10.8g/t Au from 261m
- 8m @ 10.4 g/t Au from 156m
 - Includes 2m @ 34.4 Au from 160m

Interpretation of the historic drilling and new drilling completed by the Company at Butchers Creek Gold Mine shows gold mineralisation to be stratabound within a trachyte-rich volcanic unit. The best concentrations of gold mineralisation continue to occur within an anticlinal fold hinge, with mineralisation also intersected along the fold limbs (Figure 1 & 2). In detail, the volcanic trachyte unit is strongly silicified and albitised. Gold mineralisation is associated with abundant quartz + carbonate + chlorite veins and localized sulphide alteration haloes containing pyrite > pyrrhotite >> arsenopyrite.

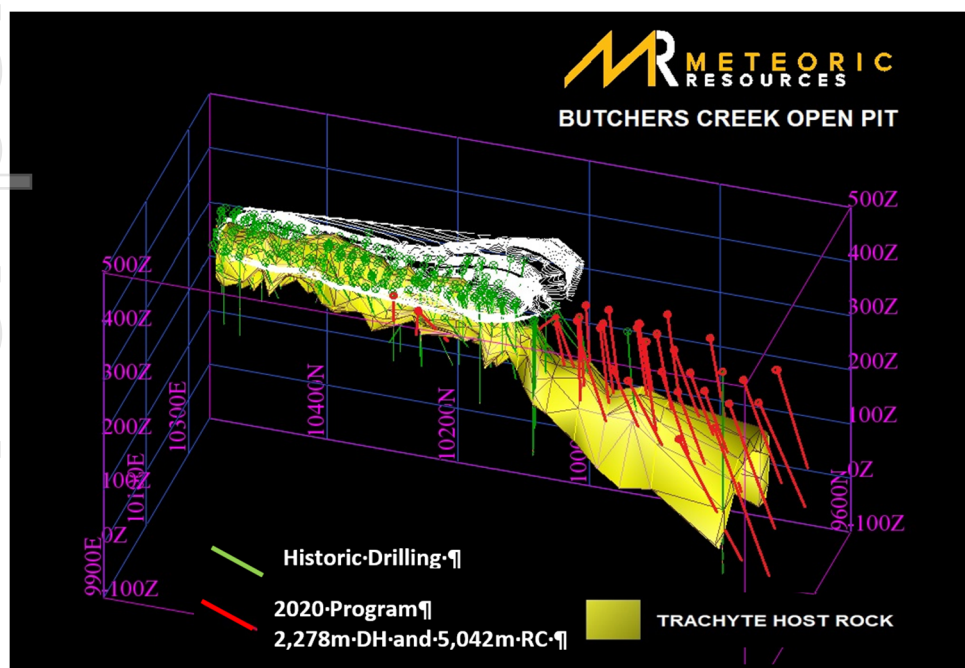


Figure 1. Butchers Creek Open Pit -Oblique 3D view with interpretation, historical & 2020 Meteoric drilling - Looking NE - Local Grid.

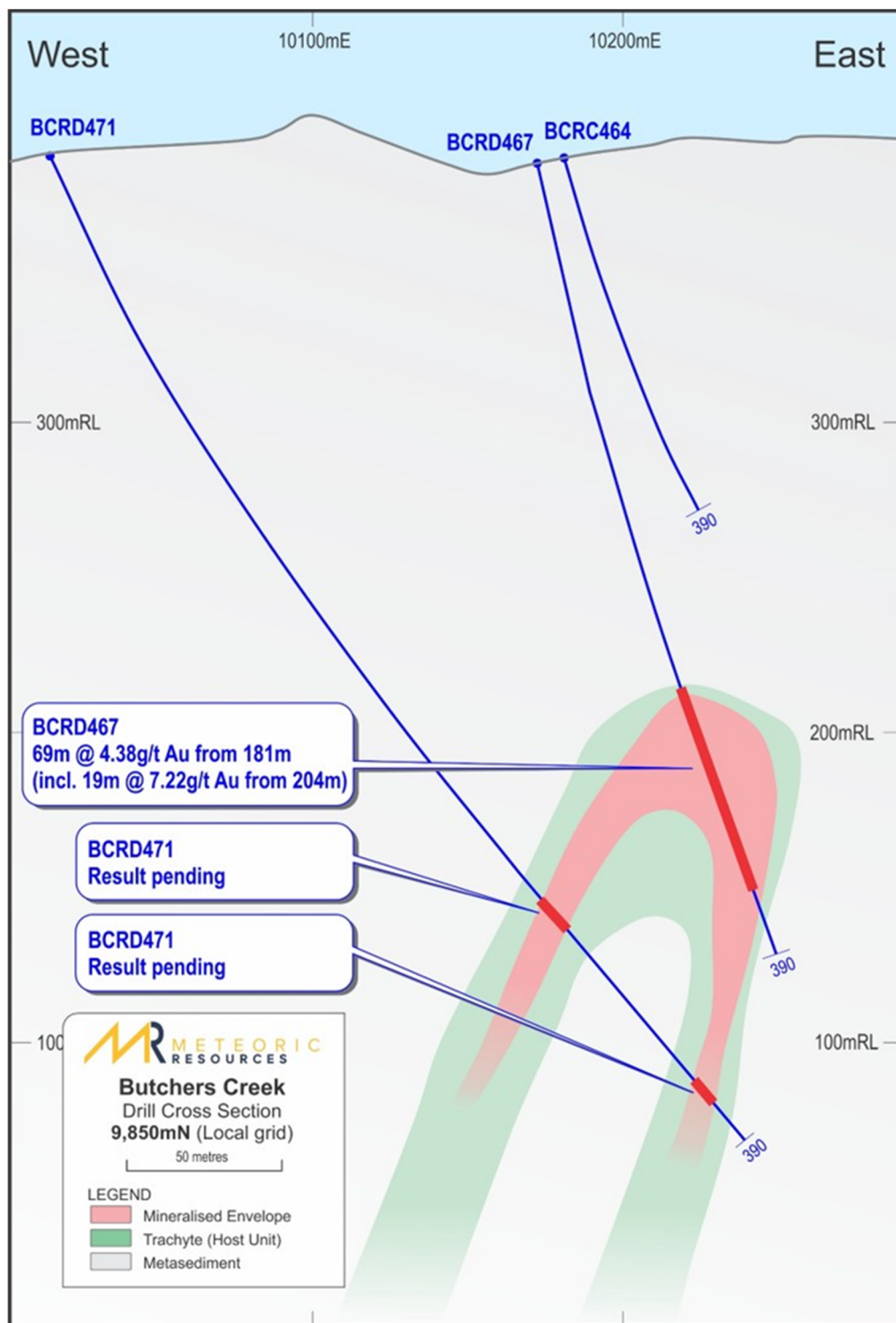


Figure 2. Section 9850mN – New Drilling – approximately 120m south of Butchers Creek Pit.
Results for BCRD471 will be available late January 2021.

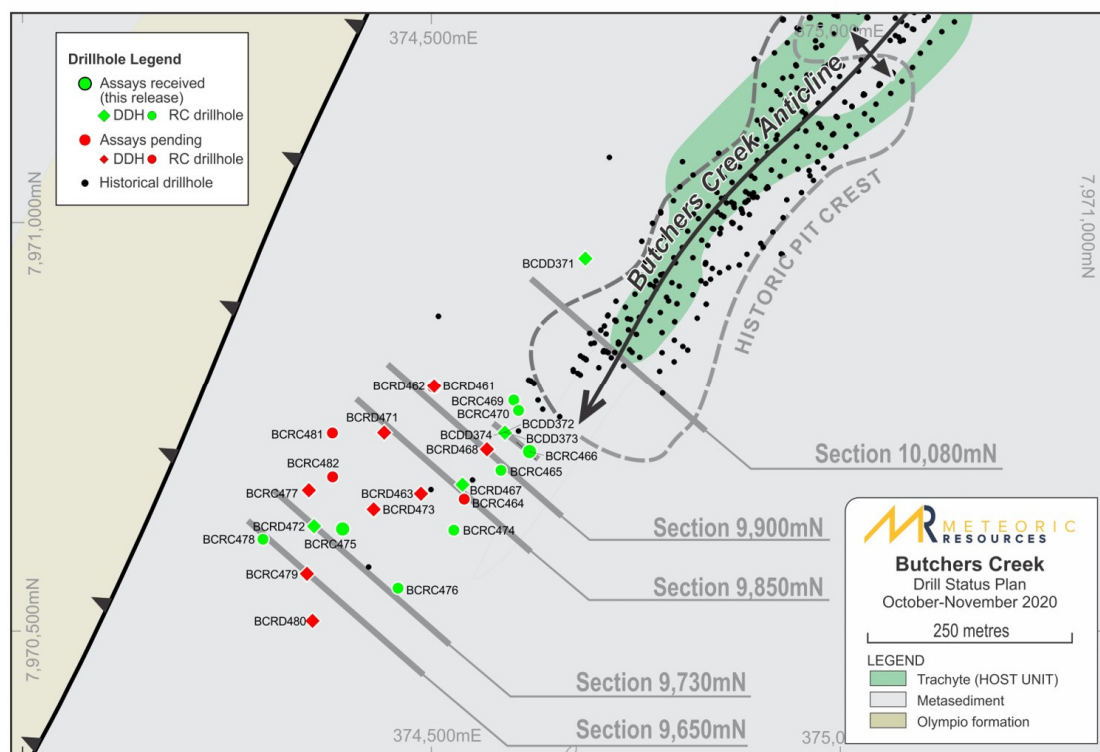


Figure 3. Project geology and collar plan showing all new holes drilled by MEI. Green – Assays received; Red – assays pending; historical drilling is shown as black points.

Palm Springs 2021 Exploration Plan

The 2021 exploration will see a focus on programs designed to rapidly advance the Palm Springs Gold Project towards production. The Company intends to implement additional programs, including gaining access into the open pit for dewatering and additional in-pit resource drilling. In addition, a further exploration drilling program including step-out and infill RC drilling is planned to test and extend the mineralisation further SW. A preliminary metallurgical testwork program is also planned. These programs are all designed to support any Prefeasibility/Feasibility Study Meteoric undertakes.

On a regional exploration level, the Company is preparing for the 2021 Kimberley field season with work comprising of soil and rock chipping program across the targets identified, with follow-up ground based geophysical surveys to generate drill targets. The Company already has approved PoWs across a number of obvious gold targets identified by historical workings and previous exploration.

Juruena Copper-Gold Porphyry Project, Brazil

The results of the Deep IP and MT survey carried out beneath the Juruena project were released in December 2020. A large high chargeability anomaly has been outlined and presents an immediate drill target (Figure 4).

The survey consisted of 6 lines, spaced 800m apart covering 4 km of strike over 26 line kms and was designed to cover an area of the project thought to exhibit the greatest prospectivity for porphyry (Cu-Au) mineralisation, namely the coincidence of:

- Strong Cu-Au-Mo anomalism in soil sample results
- Depth extensions of distinct hydrothermal alteration, distinctive veining and low level copper mineralisation logged in drill core at moderate-shallow levels
- Depth extensions to intermediate porphyry intrusives identified in drill core which display fertile Cu-Au geochemistry at moderate-shallow levels
- An area of structural complexity related to a fault wedge between the south dipping Juruena Fault and the north dipping Gleba and Jacares Faults

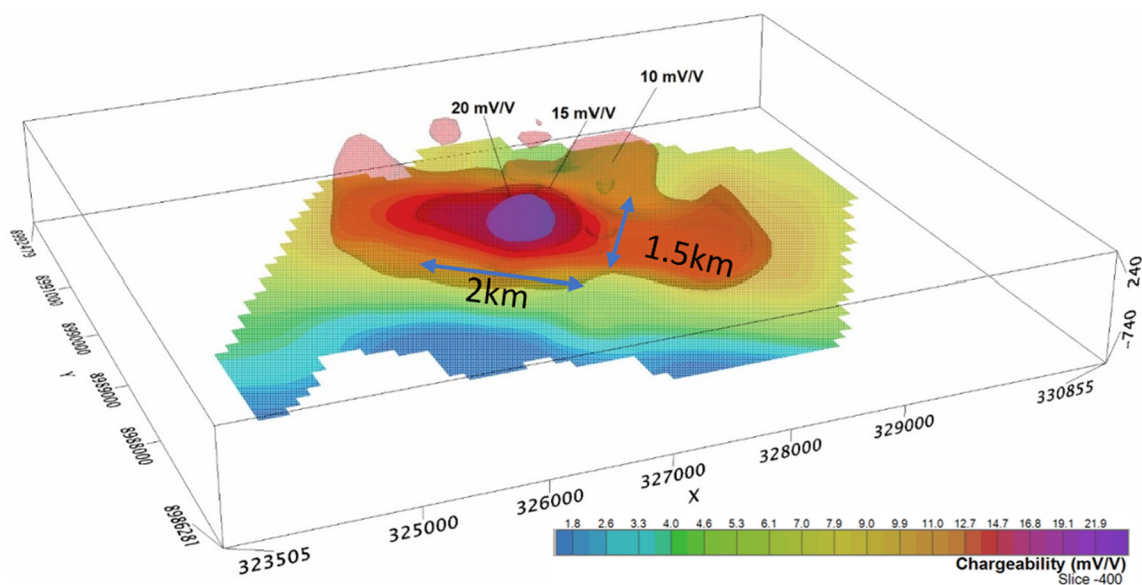


Figure 4: 3D image showing the 400m depth slice of the Juruena IP chargeability anomaly. The strongly anomalous zones with >15 & 20mv/V chargeability are interpreted to represent strong porphyry Cu-Au related sulphide alteration.

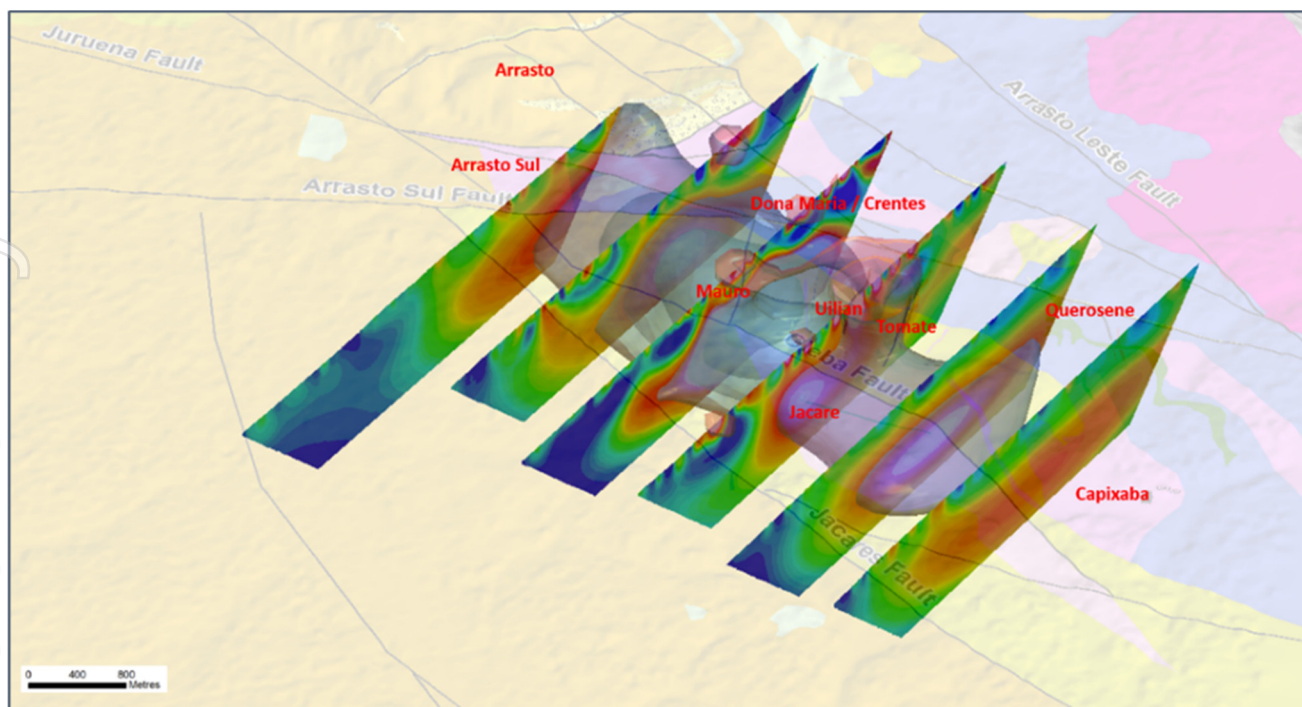


Figure 5: 2D sections showing chargeability (inversions) with 3D Voxel model overlaid. The 3D Voxel model in the diagram represents bodies with values $>10\text{mv/v}$ and $>15\text{mv/v}$ and signifies a major chargeability anomaly situated close to the Gleba Fault between the Juruena Fault to the North and the Jacares Fault to the south. The anomaly strengthens again and remains open to the north-west beneath the Arrasto Hills Volcanics.

The geophysical IP/MT ground survey results are currently being integrated with geological information, intrusive rock fertility studies, hydrothermal alteration and structural models related to Cu-Au mineralisation at the Juruena Project to best target potential porphyry style mineralisation at depth.

The intense chargeability anomaly (above 15 mv/v) is strongly indicative of disseminated sulphides and very large in size (2km in length and 1.5km wide). An intense core of high chargeability (above 20 mv/v) occurs within the centre of the anomaly and presents an obvious drill target approximately 1.5km long and 800m wide.

The top of the chargeability anomaly lies less than 400m below surface and is open at depth and to the NW where it approaches the Arrasto Hills Volcanic Center, thus defining an excellent drill target for 2021. In addition, the high chargeability anomaly correlates very well with the MVI magnetic anomaly obtained from the historical MAG survey conducted by Lago Dourado and re-interpreted by Southern Geoscience Australia.

Note that the major chargeability anomaly is situated under the Uilian/Mauro targets, where historic exploration drill holes by previous explorers intercepted porphyritic rocks but were too shallow to intersect the interpreted anomaly located closer to 400m in depth. Figure 5 similarly illustrates in detail a 3D view of the strongest chargeability anomaly, using a 15mv/v cut for the recent Deep IP survey data.

Once all the IP and MT data and final interpretations are available, Meteoric plans in the current quarter to conduct a deep drilling program with associated downhole geophysics to commence exploration on this exciting target.

Juruena Gold Project, Brazil

Meteoric commenced drilling for the 2020 Exploration Program at Juruena in June. As at the end of the December quarter, a total of 18 diamond holes for 5,052m had been completed. In October, assay results from diamond drill holes JUDD028-032 at Dona Maria confirmed that high-grade gold mineralisation continues below the base of the current resource and also confirms the continuation of mineralised gold grades and widths in poorly drilled areas of the existing resource at Dona Maria.

Hole JUDD031 intersected both the top of a potential porphyry gold-copper system (Crentes) and the Bonanza gold grades of Dona Maria below the 2016 resource estimate with results of:

- 11m @ 2.34 g/t Au & 0.28% Cu from 42m (26 g/t.m) - Crentes Au-Cu
- 14.3m @ 10.2g/t Au from 293m (145 g/t.m)
- JUDD028: 2.4m @ 37.9 g/t Au from 216.5m (91 g/t.m)
- JUDD030:4.6m @ 5.8g/t Au from 195m (27 g/t.m)

Following receipt of these results, Meteoric proposed additional holes below the resource to further assess widths and grades at depth (Figure 6). Results from the additional three holes will add to the nearly 10,000m of drilling completed by the Company since acquiring the project in mid 2019 and will be used to update the Juruena Gold Resource this Quarter, which will in turn form the basis of an updated scoping study.

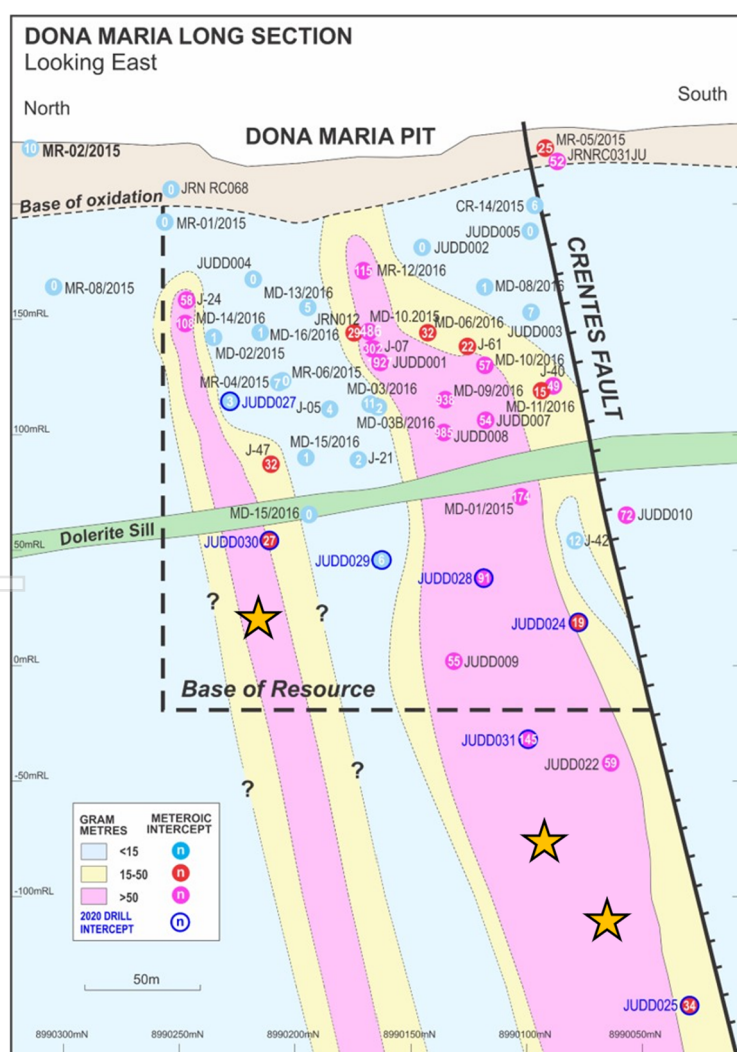


Figure 6: Dona Maria Long Projection
Gold stars indicate planned intersection points for additional drilling in the 2020 Program. The final three holes of the 2020 program JUDD039,040 & 041 are highlighted and will be reported in Q1 2021.

Disposal of Midrim and LaForce Projects, Canada

Meteoric Resources completed the sale of its Canadian Nickel-Copper projects, Midrim and LaForce, for consideration of 13,050,000 shares in ASX listed Raffaella Resources Limited (ASX:RFR or “Raffaella”) in November.

The Company considers that the sale, in addition to securing excellent value for Meteoric shareholders for what are non-core assets, provides the Company with upside exposure to not only Raffaella’s exploration successes at both Midrim and LaForce, but across the entire Raffaella portfolio.

Other Australian Projects

Webb Diamond JV (Ownership 16.5% MEI / 83% Geocrystal Pty Ltd [MEI 10.5% of E80/4506])

The Webb Diamond JV is focused on the evaluation of a large kimberlite field comprising 280 nulls-eye targets and covers an area of 400km². About 23% of the targets have been drill tested with 51 kimberlite bodies identified. There was no activity reported during the quarter.

Warrego North IOCG Project (Ownership 49% MEI / 51% Chalice Gold Mines Limited)

Located in the Northern Territory, the Warrego North Project is approximately 20km north west of the historical high-grade Warrego Copper-Gold Mine, the largest deposit mined in the area producing 1.3 Moz Au and 90,000 tonnes of copper.

Chalice Gold Mines Limited (ASX:CHN) can earn up to 70% interest in the Project by sole funding \$800,000. There was no activity reported during the quarter.

Corporate

Capital Raising

In December, Meteoric announced its intention to raise \$4 million via capital raising. The placement comprised the issue of 70,175,439 new shares to raise up to \$4 million before costs at an issue price of \$0.057 per share, to sophisticated and professional investors. The Placement included an attaching unlisted option exercisable at \$0.10, expiring three years from the date of issue on the basis of one option for every two placement shares issued.

Strong Cash Position

Meteoric maintains a strong cash position with A\$6.4 million cash in hand as at 31st December 2020 along with the 13,050,000 Raffaella shares.

Annual General Meeting

Meteoric held its 2020 Annual General Meeting of shareholders on 10th November 2020 at its Perth offices. A notice of meeting was lodged with the ASX on 5th October. All resolutions were carried.

ASX Additional Information

Meteoric provides the following information pursuant to ASX Listing Rule requirements:

1. ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure spend during the quarter was \$2,315,000. Full details of exploration activity during the December quarter are set out in this report.
2. ASX Listing Rule 5.3.2: There was no substantive mining production and development activities during the quarter.
3. ASX Listing Rule 5.3.5: Payment to related parties of the Company and their associates during the quarter was \$195,000 cash. The Company advises that this relates to remuneration of Directors only. Please see the Remuneration Report in the Annual Report for further details on Directors' Remuneration.

This release has been authorised by the Board of Meteoric Resources NL.

For further information, please contact:

Dr Andrew Tunks
Managing Director
Meteoric Resources
E: ajtunks@meteoric.com.au
T: +61 400 205 555

Victoria Humphries
Investor and Media Relations
NWR Communications
E: victoria@nwrcommunications.com.au
T: +61 431 151 676

The information in this announcement that relates to mineral resource estimates and exploration results is based on information reviewed, collated and fairly represented by Mr Peter Sheehan who is a Member of the Australasian Institute of Mining and Metallurgy and a consultant to Meteoric Resources NL. Mr Sheehan has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Sheehan consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

APPENDIX 1

TENEMENT HOLDINGS AS AT 31 DECEMBER 2020

Tenement	Status	Project	Ownership (%)	Change in Quarter
E80/4407	Granted	ANGAS HILL (Webb JV)	16.5%	-
E80/4815	Granted	LAKE MACKAY (Webb JV)	16.5%	-
E80/5121	Granted	WEBB DIAMONDS (Webb JV)	16.5%	-
E80/5471	Application	WEBB DIAMONDS (Webb JV)	16.5%	-
E80/5496	Application	WEBB DIAMONDS (Webb JV)	16.5%	-
E80/5499	Application	WEBB DIAMONDS (Webb JV)	16.5%	-
EL23764	Granted	WARREGO NORTH	49%	-
M80/0106	Granted	PALM SPRINGS	97%	-
M80/0315	Granted	PALM SPRINGS	97%	-
M80/0418	Granted	PALM SPRINGS	100%	-
P80/1766	Granted	PALM SPRINGS	100%	-
P80/1768	Granted	PALM SPRINGS	100%	-
P80/1769	Granted	PALM SPRINGS	100%	-
P80/1839	Granted	PALM SPRINGS	100%	-
P80/1854	Granted	PALM SPRINGS	100%	-
P80/1855	Granted	PALM SPRINGS	100%	-
E80/4856	Granted	PALM SPRINGS	100%	-
E80/4874	Granted	PALM SPRINGS	100%	-
E80/4976	Granted	PALM SPRINGS	100%	-
E80/5059	Granted	PALM SPRINGS	100%	-

BRAZIL

Claim No.	Status	City	Ownership %	Change in Quarter
Juruena Project				
866.079/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.081/2009	Granted Exploration Permit	COTRIGUAÇU/MT, NOVA BANDEIRANTES/ MT	100%	-
866.082/2009	Granted Exploration Permit	COTRIGUAÇU/MT, NOVA BANDEIRANTES/ MT	100%	-
866.084/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.778/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.531/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.532/2015	Granted Exploration Permit	COTRIGUAÇU/MT	100%	-
866.533/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.534/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.535/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.537/2015	Granted Exploration Permit	COLNIZA/MT, COTRIGUAÇU/MT	100%	-
866.538/2015	Granted Exploration Permit	COTRIGUAÇU/MT	100%	-
866.085/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.080/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.086/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.247/2011	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.578/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.105/2013	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-

866.934/2012	Granted Exploration Permit	COTRIGUAÇU/MT	100%	-
866.632/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.633/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.294/2013	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	-
866.513/2013	Granted Exploration Permit	COTRIGUAÇU/MT, NOVA BANDEIRANTES/ MT	100%	-
Novo Astro Project				
867.246/2005	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%	~%

CANADA

Claim No.	Province	Project	Ownership %	Change in Quarter
1131335 - 1131337	Quebec	MIDRIM/LAFORCE	100%	(100%)
1131339- 1131341	Quebec	MIDRIM/LAFORCE	100%	(100%)
1131345	Quebec	MIDRIM/LAFORCE	100%	(100%)
2499890 - 2499891	Quebec	MIDRIM/LAFORCE	100%	(100%)
2499895 - 2499896	Quebec	MIDRIM/LAFORCE	100%	(100%)
2499900 - 2499918	Quebec	MIDRIM/LAFORCE	100%	(100%)
2499921 - 2499922	Quebec	MIDRIM/LAFORCE	100%	(100%)
2499926 - 2499929	Quebec	MIDRIM/LAFORCE	100%	(100%)
2499933	Quebec	MIDRIM/LAFORCE	100%	(100%)
2412147 - 2412167	Quebec	MIDRIM/LAFORCE	100%	(100%)
2412167 - 2412193	Quebec	MIDRIM/LAFORCE	100%	(100%)
2412195 - 2412207	Quebec	MIDRIM/LAFORCE	100%	(100%)
Various	Ontario	IRON MASK	100%	-
Various	Ontario	MULLIGAN	100%	-
Various	Ontario	MULLIGAN EAST	100%	-
517797 - 517963	Ontario	BEAUCHAMP	100%	-