

DRILL TARGETS CONFIRMED AT THE BENMARA BATTERY METALS PROJECT, NT

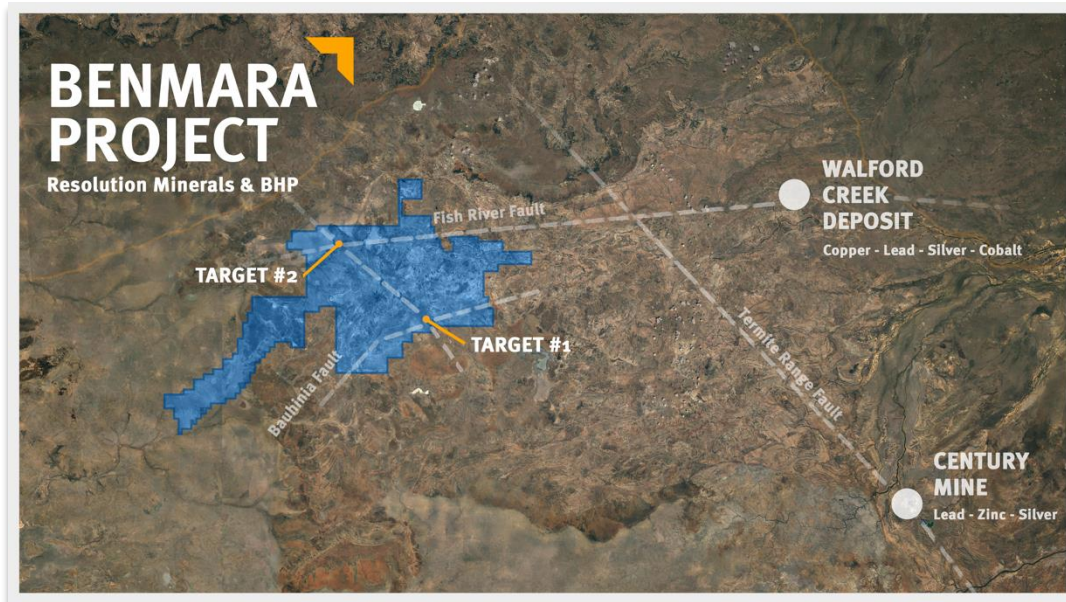


Figure 1. The Benmara Battery Metals Project and the drill targets

HIGHLIGHTS:

- Resolution Minerals has finalised drill targeting for two 1,000m deep stratigraphic diamond core drill holes at the Benmara Battery Metals Project in the Northern Territory
- **Drilling is scheduled to commence in early August and will take 2.5 months to complete**
- The drill holes have been designed to identify prospective age host rocks and test for battery metals mineralisation and will improve RML's understanding of this underexplored region
- The drill program is fully funded via a 10-year Farm-in & JV Agreement with BHP Group for the expenditure of up to \$4m in stages over five years for BHP Group to earn an initial 51% interest
- \$150,000 was recently awarded to the program costs through the Geophysics and Drilling Collaborations program by the Northern Territory Government

"We're excited to have finalised our drill targeting and have commenced earthworks, ahead of the drill rig arriving on site shortly. The drill targets have been developed, based on our knowledge of other battery metal occurrences across the QLD border, including the Century Mine and the Walford Creek Deposit. The open-source NW Mineral Province Deposit 3D Atlas, developed by The University Of Queensland, has proved to be a valuable comparative resource, for assessing the structural controls on potential mineralisation within RML's tenements."

- **Christine Lawley**, Exploration Manager, Resolution Minerals

CAPITAL STRUCTURE

Ordinary Shares
Issued 1,257 M

Options and rights
Listed options 74 M @ 12c
Listed options 625 M @ 1.5c
Unlisted options 79 M @ 3c
Unlisted options 83 M @ 0.8c
Unlisted performance rights 44 M

Last Capital Raise
Apr-23 - Placement
\$0.8M @ 0.5c

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BOARD

Duncan Chessell - Chairman
Chris McFadden - Managing Director
Dr Paul Kitto - Technical Director
Jarek Kopias - Co Sec, CFO

OVERVIEW:

Resolution Minerals Ltd (ASX: **RML**, **Resolution**, or the **Company**) is pleased to announce that it has finalised drill targeting at the Benmara Battery Metals Project, and a drill rig has been secured to undertake the exploration program. The two-hole, 2,000m diamond drilling program is scheduled to commence in early August.

The drill targets have been designed to test the Fish River and Bauhinia Faults. These fault zones provide an ideal location for mineralised fluids to focus and precipitate metals in reductive trap sites. This is evidenced by the formation of the nearby Walford Creek Deposit (Cu-Pb-Zn-Ag-Co) and the Century Mine (Pb-Zn-Ag) in Queensland, which share equivalent host rocks and similar structural settings.

While the design of the drill holes has been optimised for intersecting mineralisation, the 1,000m deep holes are stratigraphic in nature and have been positioned to give a better understanding of the rock units present at depth. This new data will contribute to the RML and BHP Exploration Teams' comprehension of the underlying geology and regional prospectivity of the Benmara Project.

The Benmara Project is situated on the northern portion of the underexplored South Nicholson Basin and is, in many respects, a new geological frontier. Until recently, the Benmara Group was thought to be much younger. In 2020, geochronology published by *Geoscience Australia* demonstrated that this belief was incorrect and, more importantly, that the Benmara Group is Paleoproterozoic rather than Mesoproterozoic. This means the rocks are stratigraphically and temporally equivalent to the prospective Fickling Group (Walford Creek Deposit) and the McNamara Group (Century Mine). The *Exploring for the Future* initiative also found evidence of a regional shallow-marine hydrothermal circulatory system and the potential for associated base metal mineral systems coinciding with the Benmara Project. The hydrothermal system shares its age with the base metal mineralisation in the resource-rich Mount Isa Province and further supports the prospectivity of the Benmara Project.



Figure 2. Drilling on the underexplored Benmara Project (2021)

Resolution was an early mover in this relatively unexplored basin and has secured a commanding ground position of over 3,000 km². This drilling program is the first phase of a multi-year program designed in collaboration between the RML and BHP Group Exploration Teams to discover a Tier 1 battery metals deposit.

The drilling program is fully funded via a farm-in agreement with our JV partner, BHP, and has been supplemented by a \$150,000 grant from the *Resourcing the Territory* initiative.

DRILL TARGETS IN DETAIL:

The planned drilling will include two stratigraphic diamond drill holes;

Hole#1 will target battery metal mineralisation associated with a splay fault off the major Bauhinia Fault Zone within the South Nicholson Basin. Although there is only limited outcrop at the surface, these structures are evident on seismic line 17GA-SN1, which was acquired by Geoscience Australia in 2017 as part of the Exploring for the Future (EFTF) initiative.

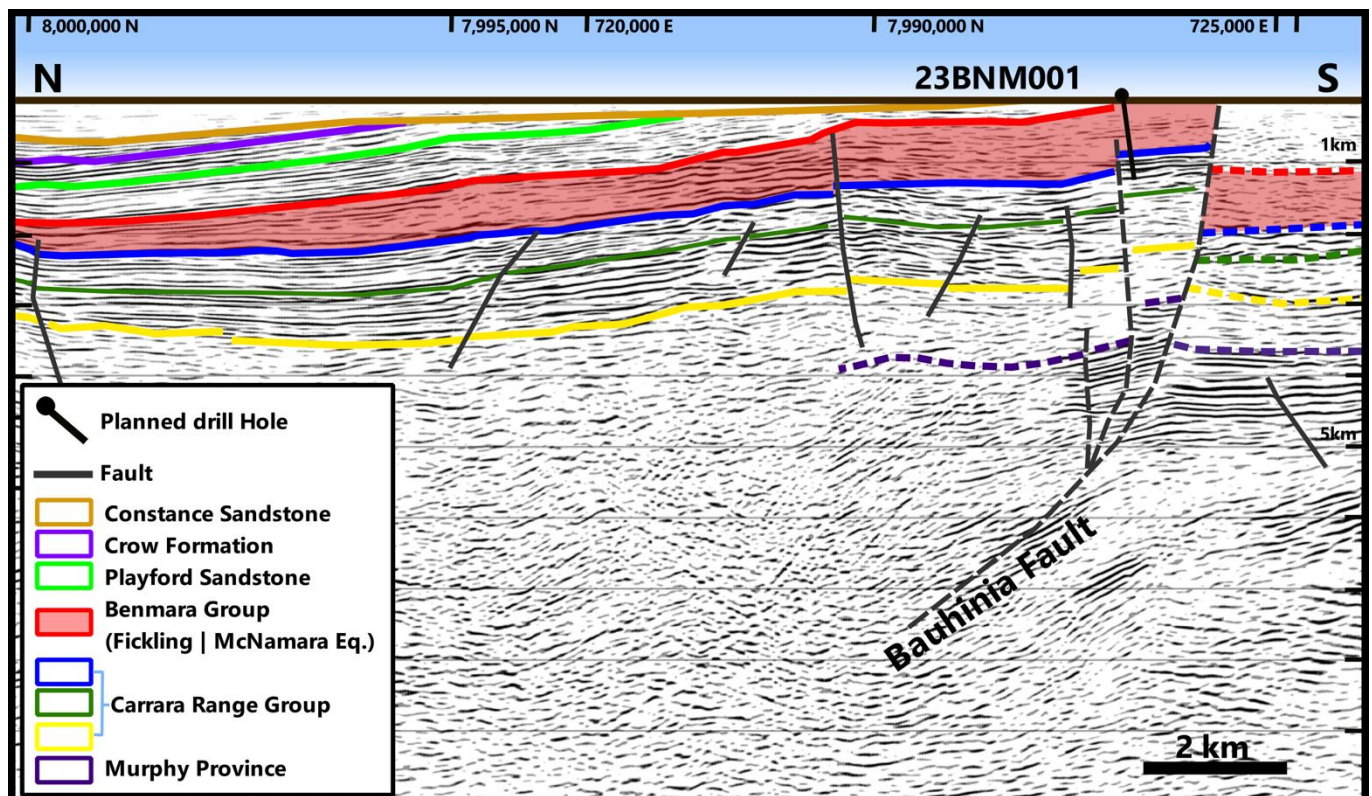


Figure 3. Cross Section of proposed Hole#1 with GA seismic line 17GA-SN5 background and geological interpretation. The Benmara Group is host to reductive units (carbonaceous shales) adjacent to the Bauhinia Fault, a potential fluid conduit for mineralising fluids.

The primary aim of the drill hole is to provide stratigraphic constraint for the Benmara Group (Fickling, McNamara and McArthur Group equivalent) interpreted from the seismic line. The Benmara Group hosts reductive carbonaceous siltstone units, which are potential trap sites for battery metal mineralisation. The Benmara Group is being targeted proximal to the Bauhinia Fault Zone, which potentially provided a fluid conduit for metal-bearing, oxidised hydrothermal fluids. Once the presence of the Benmara Group is validated, this opens up a large search space along the Bauhinia Fault Zone, including **35km of strike length** within RML’s ground. This interpretation is supported by 3D magnetic and gravity inversions completed by RML.

Stratigraphic and structural comparisons between RML’s planned **Hole#1** and the Century Mine positioned along the Termite Range Fault Zone across the QLD border can be made. At the Century Mine, mineralising fluids migrated up a splay off the Termite Range Fault and progressively precipitated battery metals laterally along reductive units positioned on either side of the splay fault. In the case of Century, the fault block between the splay and the main fault dropped down, whereas the fault block has been upthrown between the Bauhinia Fault and the associated splay, bringing it closer to the surface, within potentially economic depth.

Hole#2 will target battery metal mineralisation along the Fish River Fault Zone, where reductive carbonaceous siltstones of the Benmara Group overlap the northern margin of the South Nicholson Basin. The position of the Fish River Fault is evident in both 3D magnetic and gravity inversions, where it coincides with the southern margin of the Murphy Province Basement.

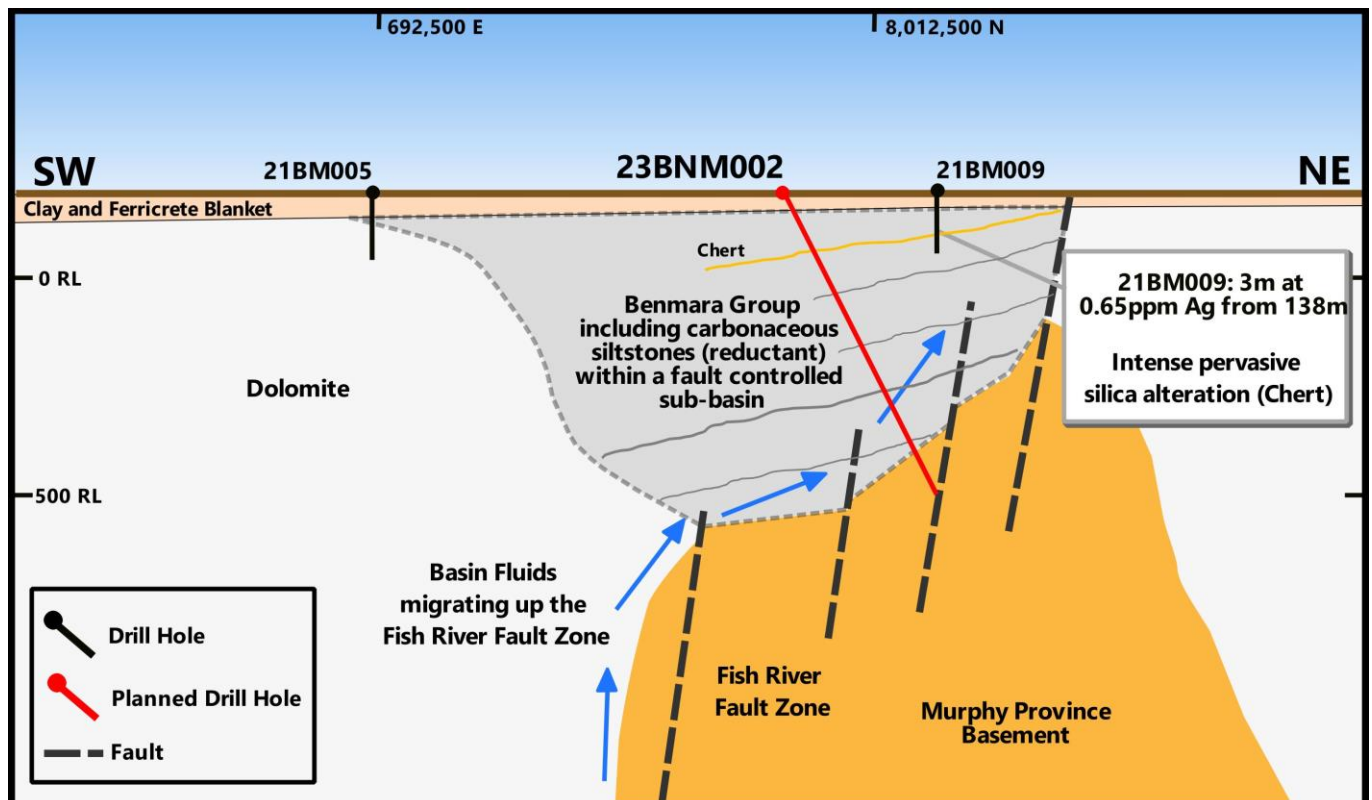


Figure 4. Cross Section of proposed Hole#2 with Murphy Province Basement interpreted from 3D magnetic and gravity inversions and the Fish River Fault, which provides a conduit for metal bearing fluids to intersect overlapping Benmara Group (reductants) within a sub-basin.

Stratigraphic and structural comparison can be made with the Walford Creek Deposit, positioned to the east on the Fish River Fault Zone, just across the QLD border. At Walford Creek, the basin fluids migrated up the Fish River Fault and progressively dropped out battery metals as they encountered reductive units. For this reason, the best battery metal occurrences are found in the lower (deeper) reductive units against the fault. The primary aim of **Hole#2** is to test deeper reductive rock units, adjacent to the Fish River Fault, beneath 21BM009, a 156m RC drill hole, which intersected intense, pervasively altered carbonaceous siltstone and a significant chert horizon in 2021. (RML ASX announcement 3/12/2021) This RC hole demonstrated the migration of hydrothermal fluids is occurring along the Fish River Fault at Benmara. Furthermore, chert horizons are present above mineralisation at Walford Creek, suggesting a deep hole could encounter battery metal mineralisation at Benmara. Unlike Walford Creek, the 3D magnetic and gravity inversions have defined a potential sub-basin along the Fish River Fault, which could provide a larger trap site and focus for mineralisation. Once the presence of mineralised Benmara Group is validated, this opens up a large search space along the Fish River Fault Zone, including **50km of strike length** within RML's ground.

Systematic battery metal exploration, including collection of detailed regional datasets, has not been completed over the South Nicholson Basin within the Northern Territory, thus presenting an exciting opportunity for Resolution to progress exploration with a stratigraphic diamond drilling program to inform the future regional exploration strategy. The RML team continues to utilise pre-competitive and open-source data, with the latest interpretation incorporating the NW Mineral Province Deposit 3D Atlas, developed by The University Of Queensland, which provides a valuable comparative resource for assessing the structural controls on potential mineralisation within RML's tenements.

EXPLORATION UPDATE:

DRILL TARGETING AT THE BENMARA PROJECT

With Exploration Manager Christine Lawley



***WATCH:** In this Exploration Update, Exploration Manager Christine Lawley discusses the drill targeting and current status of the drilling program.*

ABOUT THE PROJECT:

The Benmara Project is in the South Nicholson Basin, which has recently been identified as containing age-equivalent rocks to those that host several major deposits in the region and possess the potential for the discovery of battery metal deposits. The project covers ~50km of the prospective regional-scale Fish River Fault at the northern margin of the basin, where the sediments onlap the Murphy Inlier.

Previous exploration undertaken by RML to date includes an airborne VTEM Max survey (RML ASX Announcement 9/7/2021) that detected conductive zones consistent with a pyritic carbonaceous shale geophysical signature, an excellent trap site for copper or base metal mineralisation. Follow-up RC drilling in 2021 (RML ASX Announcement 3/12/2021) intersected a 3km long, 1km wide, and up to 194m thick (open at depth) package of highly prospective pyritic carbonaceous shales and siltstone rock units. These rocks are considered Benmara Group, equivalent to host rocks for world-class regional deposits, such as the McArthur River (HYC Deposit), Lady Loretta, Walford Creek and Century deposits. Assay results from the 2021 drilling program also revealed anomalous Fe-Mn carbonate alteration and elevated thallium (Tl) trace element within the Benmara Group that is increasing in tenor eastwards towards the Fish River Fault. There is a similar characteristic alteration halo around the HYC, Lady Loretta and Century deposits which is a strong indicator of proximity to base-metal mineralisation.

Terms of the binding Heads of Agreement – Farm-in and JV

The agreement was announced 13 May 2022 between RML and OZ Minerals and is binding on and funded by BHP Group subsequent to the takeover by BHP of OZL. Key terms are tabled below. *For the agreement's full material terms, see Resolution's ASX announcement on 13 May 2022.*

Key terms

Timeline – 10 years total		% RML ownership
90 days (Due diligence)	COMPLETED – Initial Period Commenced 14 December 2022	100%
2 Years Initial Period	\$1.0m Minimum spend Cash \$250k to begin Stage 1	100%
3 Years Stage 1	\$3.0m spend, then a JV is formed and RML has right to participate	49%
5 Years Stage 2	Minimum of \$1.0m/year until deliver positive final investment decision to mine, uncapped spend	25%

The Company is not aware of any new information or data that materially affects the information included in this announcement

Authorised by the Board of the Resolution Minerals Ltd

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