

31 JULY 2024

DRILLING PROGRESS UPDATE

BARKLY COPPER-GOLD SUPER PROJECT

HIGHLIGHTS:

- First hole of 3-hole diamond drill ('DD') programme successfully completed.
- Designed to test part of the very large Pebbles IOCG target within the Georgina Project area.
- Intersected broad zones of haematite and magnetite altered 'basement' rocks consistent with the IOCG target concept with narrow intervals containing trace iron and copper sulphides.
- Narrow intercepts with minor lead, copper, iron and zinc(?) sulphides were also noted in fractured and brecciated carbonates and shales in the overlying cover sequence (new shallower target concept enlivened - MVT base metal).

Middle Island Resources Limited (ASX: MDI, "Middle Island or "the Company") is pleased to advise the completion of the first hole of the planned 2024 exploration drill programme at the Barkly Copper-Gold Super Project in the Northern Territory. The drill programme has been awarded funding from the Northern Territory Government as part of the *Resourcing the Territory* initiative.

Drilling has now commenced on the next planned hole at the separate Dino Prospect

MDI Chief Executive Officer, Roland Bartsch commented:

"The start to the drill program has progressed smoothly. While no visible economic mineralisation was intersected in the first hole, observed alteration and presence of minor copper sulphide is encouraging and a start from which to build as the first hole only tested a small part of the extensive Pebbles gravity anomaly that's has several km's extent.

The presence of observed base metal sulphides in the cover rocks is also an interesting development that opens new exploration possibilities in shallower target positions".

The first hole was designed to test part of the very large Pebbles IOCG target within the Georgina Project area (Appendix 1; Figures 2 and 3). The hole was drilled to 645.21m depth. Logging of the hole is in progress. Field reports indicate, while no visible economic mineralisation is evident, the hole intersected the cover sequence and target basement rocks (predominantly altered intrusives) close to the predicted depths (Figure 6). Broad zones of 'redrock' (haematite-feldspar) alteration and magnetite alteration consistent with the IOCG target concept were recorded with narrow intervals containing trace copper and iron sulphides (main intervals from 547 to 548m, 564 to 565m, and intermittently from 616.6 to 645.21m).

Narrow intervals with minor lead, copper, iron and possible zinc sulphides were also recorded in fractured and brecciated carbonates (including dissolution breccias) and black shales in the overlying

Georgina Basin cover sequence (main intervals from 227.5 to 231m, 270.4 to 271.4m, and 303.8 to 304.1m). The character and mineralogy of these is suggestive of Mississippi Valley Type (MVT) base metal style mineralisation.

Final results will be provided upon completion of the drilling, sampling and assaying, expected to take a minimum of 2.5 months.

Table 1: Summary Drillhole Details

Hole Id	Prospect	Easting (m)	Northing (m)	Azimuth (°)	Dip (°)	RC Precollar Depth (m)	DD Depth (End of Hole) (m)
24PBDD001	Pebbles	518398	7811096	225	-65	180.4	645.21

Note: coordinates are in GDA94/MGA Zone 53

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Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Middle Island, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

Competent Persons Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Roland Bartsch, BSc(Hons), MSc, MAIG. Mr Bartsch is a full-time employee of the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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'. Mr Bartsch consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Appendix 1

Project and Drilling Programme Outline

Barkly Copper-Gold Super Project

The Barkly Copper-Gold Super Project is prospective for large Iron Oxide Copper Gold (IOCG) and Sediment Hosted Cu-Zn-Pb-Ag (SedH) deposits at Tennant Creek and Barkly. The Company's exploration holdings in the region covers some 6,918 sq kms with a large pipeline of significant (quality and scale) targets (Figure 1).

The commenced drill programme comprises three 600-650m diamond drillholes and is the maiden test of a spread of IOCG targets at the Wilma, Pebbles and Dino prospects within the Georgina Project area (EL32109). The drilling is covered by one of the two co-funding grants awarded to MDI.

The drill targets are based on interpretations and modelling of detailed geophysical data (see ASX release dated 8 April 2024). The drillholes are designed to test well-defined density anomalies ('shoots') that are consistent with the densities, size, and geometries of known examples of the target deposit types. All drill targets are 'blind' beneath post-mineralisation cover. Each presents as a significant scale discovery opportunity.

Middle Island was the only entity awarded the maximum \$300,000 in aggregate under two co-funding grants under Round 17 of the Northern Territory Government's Geophysics and Drilling Collaborations ("GDC") program (see ASX release dated 12 June 2024). The GDC program is a competitive program funded by the Northern Territory Government as part of the *Resourcing the Territory* initiative, administered by the Northern Territory Geological Survey.

Planned drill programmes at Barkly are being conducted in stages; another round of drilling at the Bedrock Prospect (recipient of the second co-funding grant) is proposed for the later part of 2024.

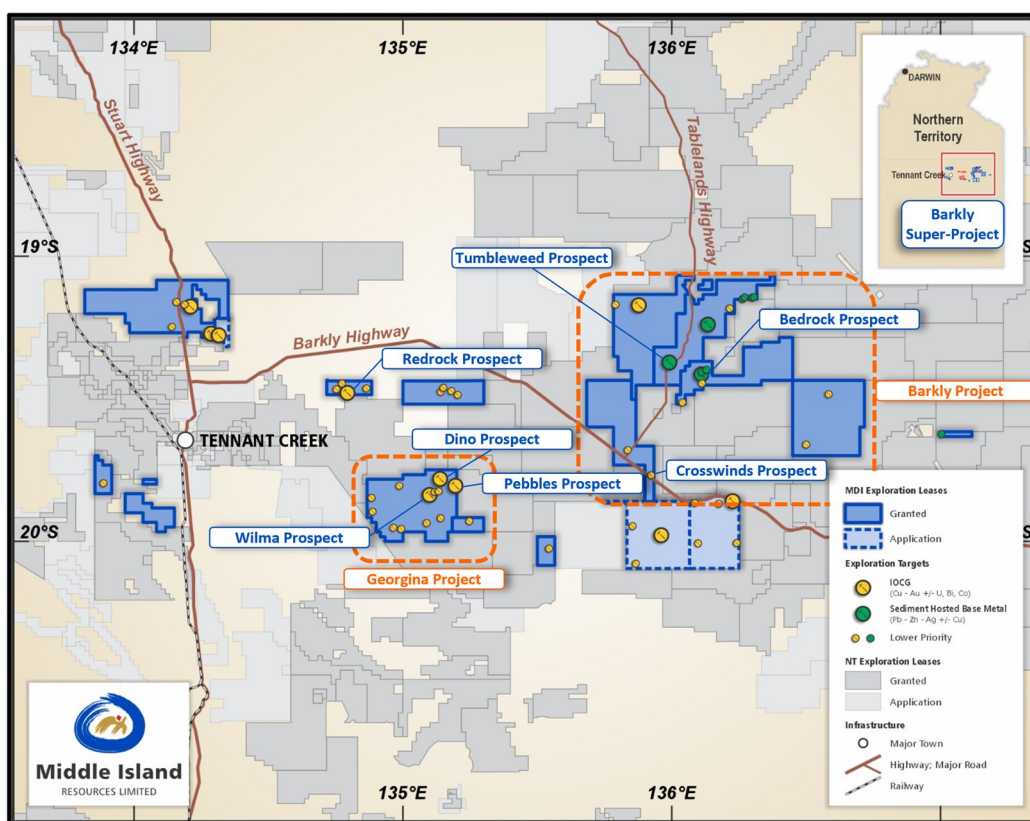


Figure 1. Barkly Copper-Gold Super Project, project areas, tenements and exploration prospect locations. First round drilling is within the Georgina Project area.

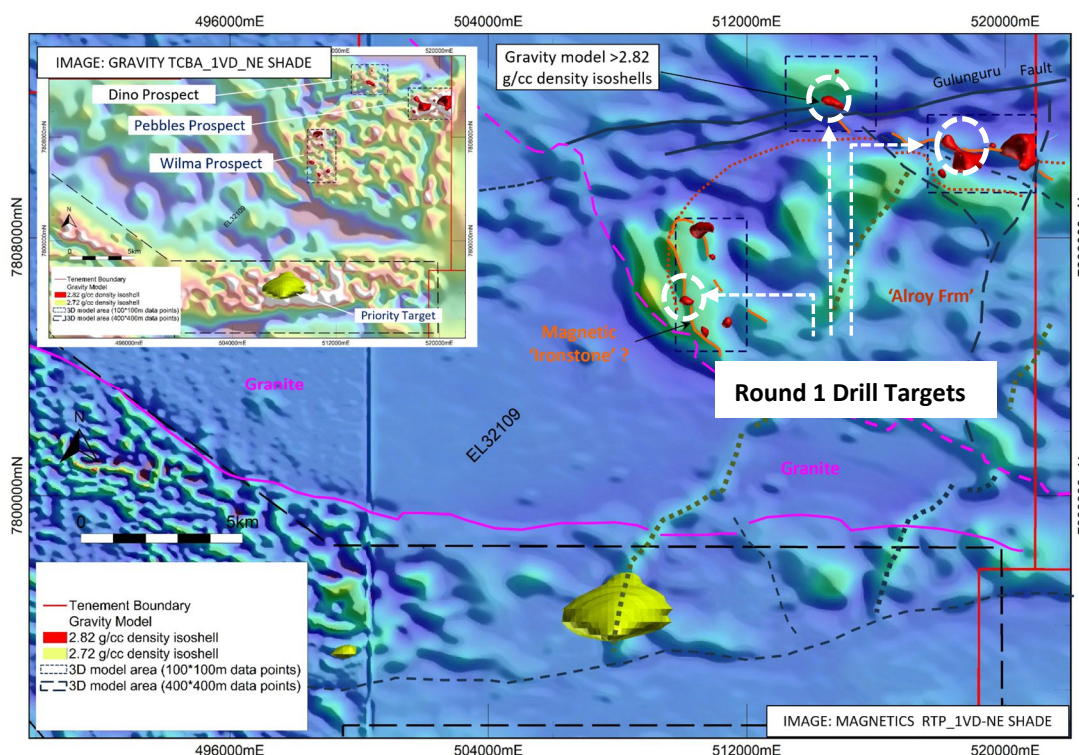


Figure 2. First-round drill programme targets - dense 'shoots' (red) from gravity 3D inversion models of detailed ground gravity survey data.

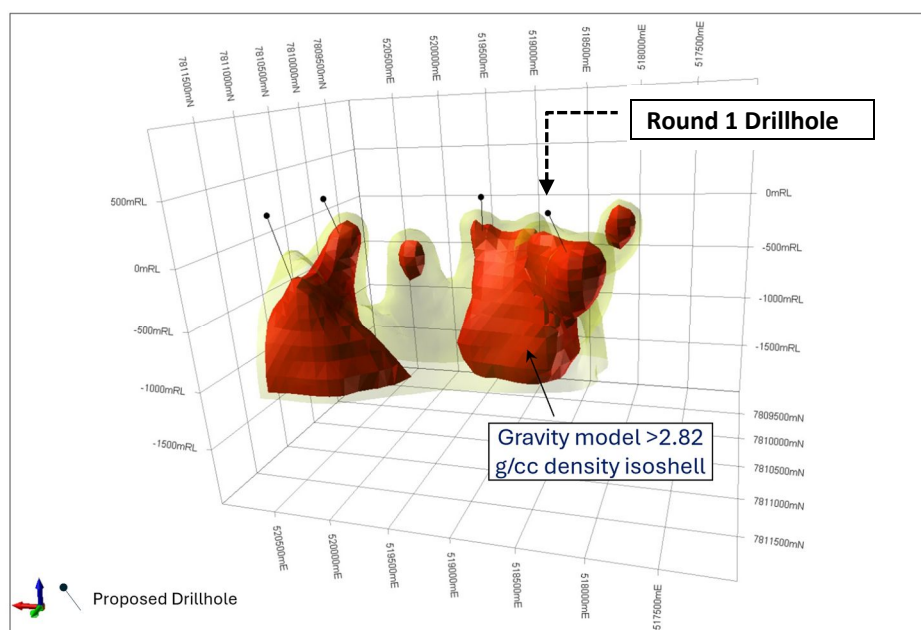


Figure 3. Pebbles Prospect - planned co-funded round one drillhole relative to the gravity 3-D density inversion model targets.

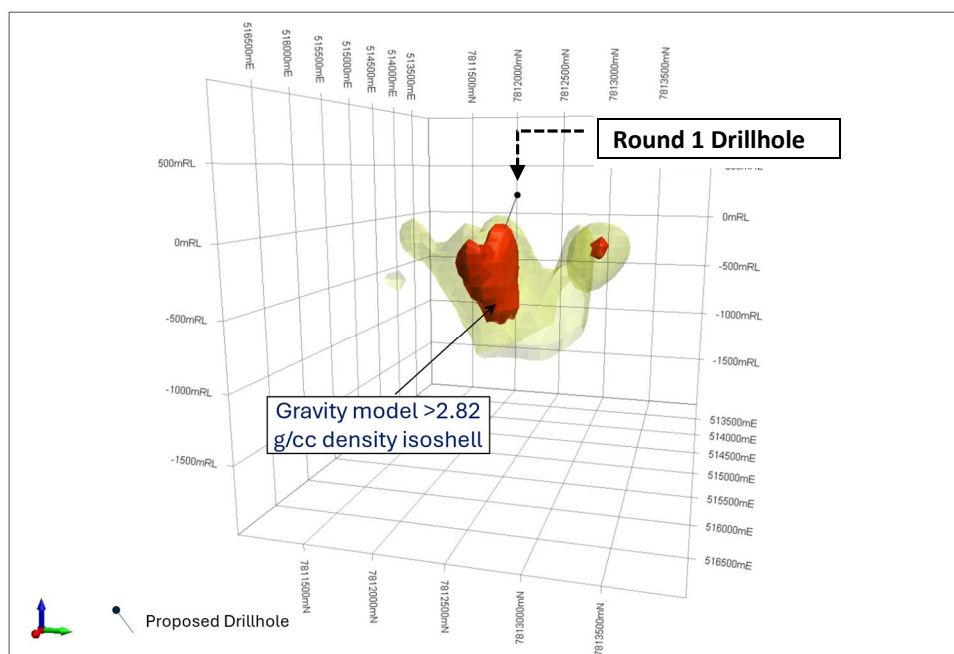


Figure 4. Dino Prospect - planned co-funded round one drillhole relative to the gravity 3-D density inversion model targets.

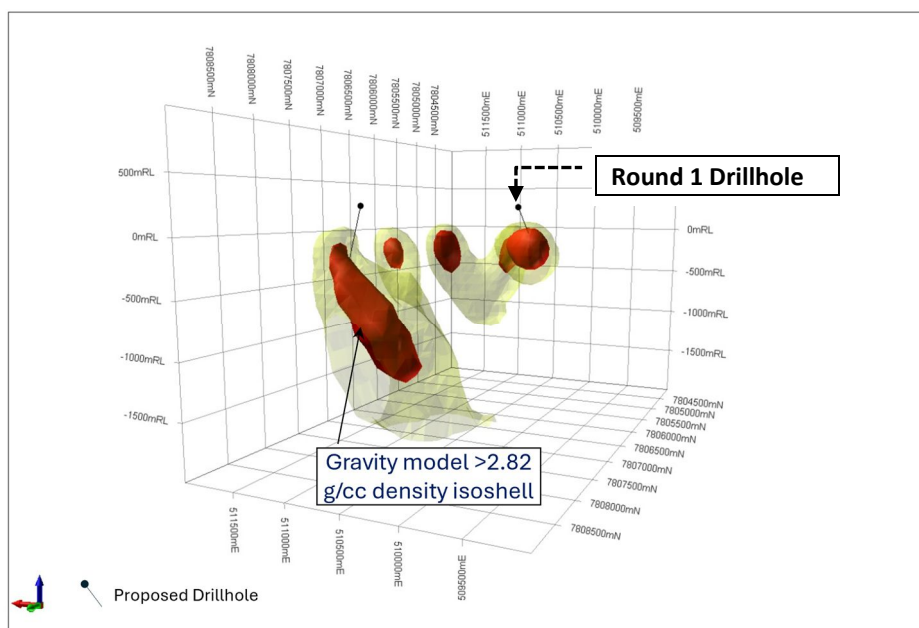


Figure 5. Wilma Prospect - planned co-funded round one drillhole relative to the gravity 3-D density inversion model targets.

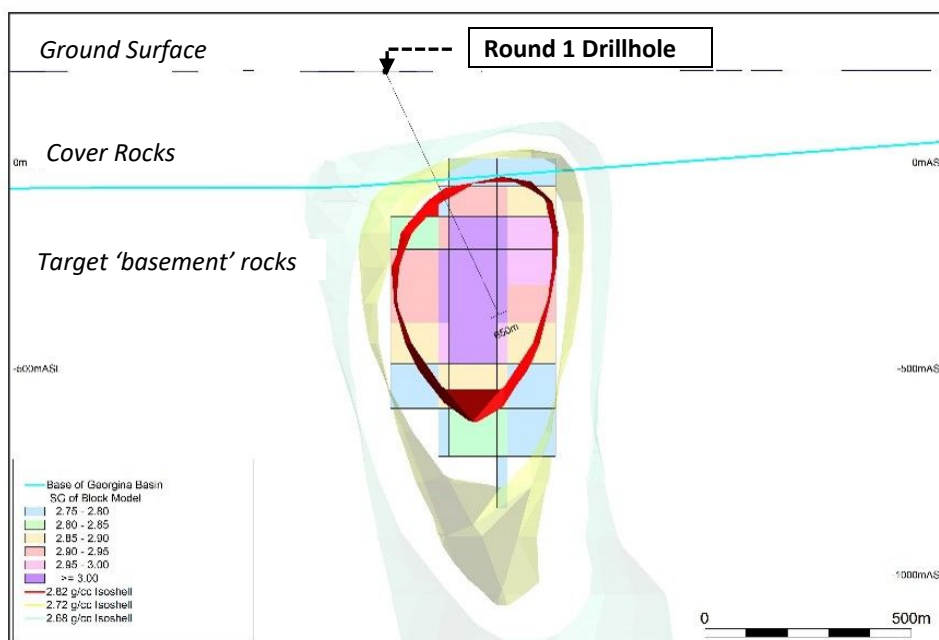


Figure 6. Example density model x-section, view looking east – first drillhole at the Pebbles Prospect (showing planned position of reported hole 24PBDD001; dip of actual hole dropped ~5° from ~150m due to cavities in limestone cover rocks).

APPENDIX 2:

TABLE 1 OF THE 2012 EDITION OF THE JORC CODE

The table below is a description of the assessment and reporting criteria used in reporting the Exploration Results that reflects those presented in Table 1 of The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	<u>Pebbles Prospect Drilling</u> RC chip precollar samples; and DD HQ and NQ core. RC samples were collected on 1m intervals using cone splitter to provide ~2kg samples.
Drilling techniques	<u>Pebbles Prospect Drilling</u> New hole completion reported; RC precollar using face sampling hammer; then diamond core drilling (DD) using HQ and then NQ core size.
Drill sample recovery	<u>Pebbles Prospect Drilling</u> RC chip and DD core sample recovery was good (typically >95%).
Logging	<u>Pebbles Prospect Drilling</u> Summary field logging only to date. Detailed logging in progress
Sub-sampling techniques and sample preparation	<i>not applicable, no new sampling or drilling reported</i>
Quality of assay data and laboratory tests	<i>not applicable, no new sampling or drilling reported</i>
Verification of sampling and assaying	<i>not applicable, no new sampling or drilling reported</i>
Location of data points	All data and surveys are presented in GDA94 / MGA Zone 53. <u>Pebbles Prospect Drilling</u> Drillhole collars were located using a handheld GPS approx. accuracy ±5m. <i>Gravity Surveys</i>

Criteria	Commentary
	For the new (2023) Daishsat gravity surveys, Leica GX1230 GNSS receivers were used for gravity station positional acquisition.
Data spacing and distribution	<u><i>Pebbles Prospect Drilling</i></u> <i>The reported drillhole 24PBDD001 is the first and only hole drilled to date at the Pebbles Prospect which has an approximate 2.5km strike extent.</i> <u><i>Gravity Surveys</i></u> Ground gravity survey station spacings vary. Wilma, Pebbles, Dino, Bedrock Prospects – 100 x 100m spaced infill survey stations (by Daishsat 2023 for MDI) Rockhead Prospect – 100 x 400m spaced infill survey stations (by Daishsat 2023 for MDI) Initial gravity surveys at Wilma, Pebbles, Dino Bedrock and Redrock prospects were collected at various spacings 800 x 800 and 400 x 400m by Daishsat commencing in 2020 for Strategic Energy Resources Limited). These data were integrated into the detailed infill grids for modelling. Tumbleweed Prospect – 100m x 400m spaced survey stations (by Daishsat 2023 for MDI) Redrock Prospect – 100m x 400m spaced survey stations (by Haines 2005 & 2008 for Red Metal Ltd)
Orientation of data in relation to geological structure	Gravity grid survey lines are orientated north – south across the dominant north-westerly and south-easterly regional structural grain. Detailed grids have been infilled to 100m x 100m spacing to remove any directional bias and provide detailed target resolution for drill planning.
Sample security	<u><i>Pebbles Prospect Drilling</i></u> <i>Drilling supervised and samples collected and delivered to MDI's secure exploration office in Tennant Creek for logging by MDI personnel.</i> <i>otherwise not applicable, no new sampling results reported</i>
Audits or reviews	Gravity data has been collected by independent contractors with recent (2023) detailed infill surveys by Daishsat Geodetic Surveyors. Gravity data processing and modelling was completed by independent experts Southern Geoscience Consultants. Interpretations of the data have been completed by MDI's technical team. No external audits or reviews of the data, models and interpretations have been completed.

Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and	Barkly Copper-Gold Super Project (Barkly Project) comprises 16 exploration licences (14 granted & 2 applications; Figure 1). All tenements are in good

Criteria	Commentary
land tenure status	standing. The granted tenements are predominantly in the 3rd to 5th years of their terms and are in good standing. The Exploration Licences are 100% owned by Middle Island. No joint ventures apply. There are no agreements in place with the native title holders. No significant historic sites or national parks are located within the reported exploration prospect or target areas.
Exploration done by other parties	<u>Barkly Project Area (EL33588 – Bedrock & Tumbleweed Prospects)</u> Limited previous work by previous explorers. MDI acquired the western portion of EL33588 from Strategic Energy Resources (SER) in 2023. SER had, commencing in 2020, completed coarsely spaced ground gravity surveys (400m x 400m). MDI identified initial targets for further assessment/infill surveys using the SER data. No previous exploration drilling has tested the target basement rocks in the area of the Bedrock Prospect. The closest drillhole to both the Bedrock and Tumbleweed Prospects is one stratigraphic hole NDIBK09, drilled as part of the MinEx CRC National Drilling Initiative East Tennant Campaign, that is located ~ 12km to the SW of the Bedrock target area in EL33588. <u>Georgina Project Area (EL32109 - Wilma, Pebbles & Dino Prospects)</u> Limited previous work by previous explorers. MDI acquired EL32109 from SER in 2023. SER had, commencing in 2020, completed coarsely spaced ground gravity surveys (800m x 800m and 400m x 400m). MDI identified initial targets for further assessment/infill surveys using the SER data. No drilling has occurred previously on EL32109. The closest drill hole was completed in late 2023 by Inca Minerals Limited at its Alpaca Prospect that's located ~3km to the east of Pebbles. Full results have not been reported by Inca; however significant alteration with pervasive disseminated sulphides that includes traces of copper sulphides have been reported (ICG ASX Announcement, 21 December 2023) <u>Other Project Areas (EL32760 - Redrock Prospect)</u> MDI acquired EL32109 from SER in 2023; no new surveys or drilling data were completed by SER. Previous exploration was conducted by Red Metal Limited with ground gravity surveys and drilling completed from 2005 to 2006 (NT NTDME Annual Reports CR2005-0402 and CR2006-0437). The ground gravity data was collected on a 100m x 400m grid that covered the target magnetics highs and fault zones. 5 RC/diamond holes (4 within the EL) were completed by Red Metal targeting observed magnetic and gravity highs (over an approximate 9km strike length) looking for Tennant Creek style IOCG deposits. The holes varied in depth from 174m to 255m. In four

Criteria	Commentary
	holes zones of trace iron and copper sulphides were logged (with the exception of the short RC precollars) no assays are available for the core intervals from the 2 ‘historical holes’ (hole RMTCK03 and RMTCK04) illustrated in Figure 7. The area was surrendered by Red Metal in 2010 having concluded that drilling had sufficiently tested the identified anomalies; MDI’s modelling (Figure 7) indicates the holes were too shallow and did not test the gravity targets.
Geology	<u>General</u> The Barkly tenements extend from outcropping areas near Tennant Creek and the interpreted eastward extensions of prospective Proterozoic stratigraphy that includes the East Tennant Ridge and Burnette Downs Rift corridor beneath shallow to moderate depth Georgina Basin cover. The Georgina Basin extends east from Tennant Creek across the border to Mt Isa and is sub-divided by several basement highs into sub-basins. The principal basement high, the East Tennant Ridge, runs through the Barkly Project area, where the interpreted depths of post-mineral Georgina Basin sedimentary cover range from 100m -250m along the ridge axis, increasing on the flanks of the ridge. The underlying basement and Paleoproterozoic are relatively unexplored as a result of the veneer of younger sedimentary rocks. The East Tennant corridor has gained recognition as a priority, largely unexplored, IOCG mineral province (Figure 2). IOCG deposits, which are MDI’s primary target to date, include large lower grade deposits to smaller high-grade variants. Australian deposit examples include Olympic Dam, Prominent Hill, and Carrapateena in South Australia; Ernest Henry in Queensland, and Warrego and Juno located to the west of the Barkly Project at Tennant Creek. IOCG deposits and alteration surrounding them have elevated levels of iron oxide minerals magnetite and hematite, which give rise to elevated magnetic and gravity (density) signatures that can be mapped readily with geophysical surveys (magnetics and gravity). The copper-gold mineralisation that makes up the deposits occurs as sulphide minerals with a more restricted areal extent that can commonly be mapped by other geophysical techniques (IP, EM, MT). The often-strong geophysical signatures of the alteration and mineralisation lends itself to effective explorations under cover, as is the case at Barkly. Significant examples of ‘blind’ IOCG deposits discovered beneath substantial sedimentary cover include BHP’s Olympic Dam and Oak Dam deposits in South Australia, which are respectively overlain by approximately 400m and 900m of post-mineralisation cover. The corridor is also considered to be prospective for other styles of mineralization including large sediment hosted Cu-Zn-Pb-Ag deposits like those found in the Mt Isa Inlier to the east and southern McArthur Basin to the north. Deposit examples include Cannington, Mount Isa, Hilton, George Fisher, Lady Loretta, Century, Walford Creek and McArthur (HYC). The East

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	Tennant Ridge is fault bound and marks the southern margin to the Burnette Downs rift corridor. Palaeoproterozoic sedimentary strata within the rift grabens and onlapping onto the basement highs include rocks interpreted to be extensions of the superbasins that host many of the listed deposits.																																																								
Drill hole Information	No new exploration drill data. All results are from Open File historical exploration annual reports CR2006-0437. No material information has been excluded.																																																								
Data aggregation methods	These exploration results are not from Mineral Resources. <u>Gravity 3D Density Inversion Modelling</u> Gravity density 3D inversion modelling was completed by Southern Geoscience Consultants. Geosoft Oasis Montaj VOXI Earth Modelling algorithm was used to perform standard density modelling on the data. In the standard gravity modelling, the inversion assigns density (SI) values to each cell in a user-defined 3D mesh that best fits the observed gravity data (g/cm3). The resultant models are then used to generate a range of density isosurfaces. Final products are delivered in a Micromine and MapInfo compatible format using a GDA94 MGA Zone 53 projection. Resulting 3D models are non-unique as there are many possible solutions which may fit the observed data. However, as a first pass result it would be the best estimate. Smooth model inversions are not always able to adequately represent geology with clear/sharp boundaries. These types of inversions often result in a smeared result. To reduce the “smearing” effect observed in the smooth model inversion, an iterative re-weighting (IRI) focus factor of three was used to provide a model with more defined boundaries between modelled high and low susceptibilities. In addition to sharpening these contacts, the IRI focussing can help to provide a more geological plausible inversion by improving the geometry, approximation of true dip of the target and the amplitudes of the recovered values. Gravity Density 3D Modelling Parameters <table><tr><th rowspan="2">Inv_Type</th><th rowspan="2">Block</th><th colspan="3">Cell Size (m)</th><th colspan="3">Volume Dimensions (cells)</th><th rowspan="2">IRI Focus</th><th rowspan="2">Data Fit Error (Absolute Error)</th></tr><tr><th>X</th><th>Y</th><th>Z</th><th>X</th><th>Y</th><th>Z</th></tr><tr><td>Density</td><td>A1</td><td>100</td><td>100</td><td>50</td><td>25</td><td>45</td><td>18</td><td>2</td><td>0.05</td></tr><tr><td>Density</td><td>A2</td><td>100</td><td>100</td><td>50</td><td>32</td><td>26</td><td>16</td><td>2</td><td>0.05</td></tr><tr><td>Density</td><td>A3</td><td>100</td><td>100</td><td>50</td><td>36</td><td>26</td><td>17</td><td>2</td><td>0.05</td></tr><tr><td>Density</td><td>~</td><td>200</td><td>200</td><td>50</td><td>67</td><td>62</td><td>18</td><td>2</td><td>0.05</td></tr></table> A1 -Wilma Prospect, A2 – Dino Prospect, A3 – Pebbles Prospect	Inv_Type	Block	Cell Size (m)			Volume Dimensions (cells)			IRI Focus	Data Fit Error (Absolute Error)	X	Y	Z	X	Y	Z	Density	A1	100	100	50	25	45	18	2	0.05	Density	A2	100	100	50	32	26	16	2	0.05	Density	A3	100	100	50	36	26	17	2	0.05	Density	~	200	200	50	67	62	18	2	0.05
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Density	200	200	100	59	36	14	2	0.05																																																																																							
Relationship between mineralisation widths and intercept lengths	Not applicable. No reported mineralisation. <u>Pebble Prospect Drilling</u> Narrow intervals with trace to minor base metal sulphides are at this stage reported to support exploration concepts as evidence of mineralising processes. The hole was collared to drill at the optimal most cost-effective angle of approach to cross the modelled anomaly, however due to the depth and steep dip of the target zone the hole was at low angle to the broader target zone, and in addition the hole dropped 5 degrees to follow fabrics in the rock.																																																																																														
Diagrams	Please refer to Figures 1 to 6.																																																																																														
Balanced reporting	<u>Pebble Prospect Drilling</u> Data provided is a generalised overview from summary field reports to provide shareholders drilling status information; final results/interpretations may vary on completion of detailed logging, sampling and assaying. <u>General</u> A full compilation of available data collected by MDI and compiled from previous explorers that are relevant to the prospects described has been referenced in this Table 1.																																																																																														
Other substantive	Exploration results are not for Mineral Resources.																																																																																														

Criteria	Commentary
exploration data	Newly reported gravity survey grids from 2023 were by Daishsat Geodetic Surveyors. Scintrex CG-5 Autograv gravity meters were used for gravity data acquisition and base station control. Survey information: technique employed -post processed DATV gravity; repeats – 3.6 to 5 %; height observations accuracy (SD) 0.019m to 0.045m; gravity observation accuracy (SD) 0.012 to 0.025 mGal.
Further work	<u>Pebble Prospect Drilling</u> Detailed logging, sampling and assaying expected to take a minimum of 2.5 months to complete. <u>General</u> Additional work will consist of prospect scale mapping, soil sampling and ground-based geophysics (such as gravity and IP) and RC and diamond exploration drilling.