

# TEM | Meleya Update - Drilling In Progress At Clover Target

## **Key Points**

- Drilling continuing at the Meleya Project
- Diamond hole WARDH75 completed
- Considerable alteration and minor sulphides intersected
- RC drilling commenced at Clover

## News Item

Tempest Minerals Ltd (TEM) is pleased to update the market on the progression of continued drilling at the Meleya Project. Drilling is currently focussed on the Clover target. A diamond hole (637.1m) WARDH75 has now been completed with thick sequences of highly altered mafic geology and minor sulphides observed throughout the hole.

A parallel RC program of up to 4,000m has commenced testing the multi kilometre thickness and structures present within a possibly demagnetised zone.

This program is anticipated to then transition into a regional aircore and RC program of up to 13,000m designed to penetrate zones of cover and laterite weathering across the newly identified belt.

# Meleya Project

## Background

The Meleya Project is part of Tempest Minerals' flagship Yalgoo Portfolio that extends over a footprint of more than 900km<sup>2</sup>. Earlier in 2022 drilled the first two <sup>1</sup> holes in conjunction with the state government co-funded (EIS)<sup>2</sup> program in order to establish stratigraphic controls at the Orion Both drill holes, totaling Target. some 1,730.5m, encountered multiple zones of strong alteration and visual mineralisation <sup>3</sup>. This discovery cemented (what Tempest have viewed for some time) the Meleya Project to be one of the most exciting greenfield projects in the industry and

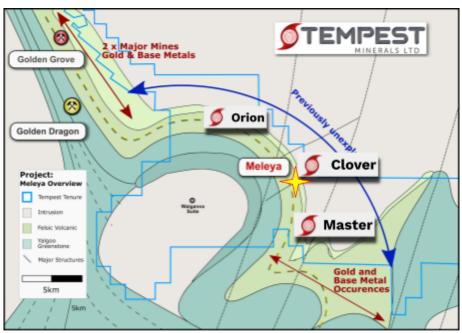


Figure 01: Schematic Map Of The Meleya Project

highlight potential for a major discovery across multiple geological settings within Tempest's projects.

TEM recently announced the first hole drilled at the Master prospect <sup>4</sup> where alteration and mineralisation was also encountered <sup>5</sup>. TEM has completed the first hole at the Clover target (WARDH75 and the commencement of a multihole  $\sim$ 4,000m RC program targeting the same geological zone.



#### **Clover Target**

#### Geology

The Clover Target is a magnetic low stratigraphic sequence 2.5km to the south east of the Orion target. TEM consider this to likely represent a previously unrecognised geological sequence within the mineralised Meleya Belt or potentially a strongly altered and 'demagnetised' zone such is typical of greenstone hosted hydrothermal gold mineralisation in Western Australia.

#### WARDH75

WARDH75 was drilled to 637.1m and was designed to intersect the western edge of the above-mentioned multi-km low magnetism zone.

The hole encountered a thick (~68m) laterite zone of weathered intrusives. Underlying the regolith profile was extensive highly sheared intermediate intrusives to 75m.

This is underlain by variably altered and mineralised fine grained mafic to ultramafic sequences to 422m. At least 3 dyke generations (aphanitic, fine grained and a medium grained dolerite with pyroxene phenocrysts) intrude upon the host rocks. These dyke swarms have zones of additional alteration including silicification, calcite veins and trace sulphide species.

At 422m a sharp change to greenstones followed, with significant silica and epidote overprinting until 569m downhole.



Figure 02: Silica and sulphide (pyrite and pyrrhotite) altered medium grained dolerite with coarse pyroxene phenocrysts at 580m.

Finally a continuation of the dyke swarm continued till the end of hole (637.1m). This interval showed significant skarn-like alteration from 588-593m surrounded by significant silica alteration and trace sulphides (<0.1%).

#### Clover RC Program

In conjunction with WARDH75, an RC program has now commenced to test the lateral thickness and several geological structures and geochemical anomalies at the Clover target. 22 collars have been designed to a nominal 200m depth, This will ensure that a continuous transect of the geology is revealed. Key structures to test are the extension of the Orion alteration zone, Clover felsic zone (mag low), granite contacts and a demagnetised North east trending fault within Big Bell Monzonite.



#### Meleya Exploration Progress Update

In the wake of the Orion mineralisation drilling earlier in 2022, TEM has been actively exploring at the Company's 100% Meleya Project where there are dozens of drill ready geological targets.

Orion target

\_

- 2 x diamond drillholes (1,730m)
- DHEM survey complete
- ≻ Ktulu
  - Large scale geochemical sampling program commenced
- ≻ Master target
  - initial 1 hole reconnaissance drilling program completed at the Master Target
- Clover target

\_

- First drillhole WARDH75 complete (637.1m diamond)
  - ~4000m RC program commenced

### Next Steps

- Complete Clover RC program
- Commence Regional AC program
- Ongoing data acquisition and assessment
- Ongoing fieldwork including soil sampling

The Board of the Company has authorised the release of this announcement to the market.



# About TEM

Tempest Minerals Ltd is an Australian based mineral exploration company with a diversified portfolio of projects in Western Australia considered highly prospective for precious, base and energy metals. The Company has an experienced board and management team with a history of exploration, operational and corporate success.

Tempest leverages the team's energy, technical and commercial acumen to execute the Company's mission - to maximise shareholder value through focussed, data-driven, risk-weighted exploration and development of our assets.

## **Investor Information**

### <u>Sinvestorhub.tempestminerals.com</u>

TEM welcomes direct engagement and encourages shareholders and interested parties to visit the TEM Investor hub which provides additional background information, videos and a forum for stakeholders to communicate with each other and with the company.

www.tempestminerals.com

LinkedIn

**Twitter** 

Instagram

Facebook

### Contact

For more information, please contact: Don Smith Managing Director

> Level 2, Suite 9 389 Oxford Street Mt Hawthorn, Western Australia 6016

+61 892000435

## Forward-looking statements

This document may contain certain forward-looking statements. Such statements are only predictions, based on certain assumptions and involve known and unknown risks, uncertainties and other factors, many of which are beyond the company's control. Actual events or results may differ materially from the events or results expected or implied in any forward-looking statement. The inclusion of such statements should not be regarded as a representation, warranty or prediction with respect to the accuracy of the underlying assumptions or that any forward-looking statements will be or are likely to be fulfilled. Tempest undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date of this document (subject to securities exchange disclosure requirements). The information in this document does not take into account the objectives, financial situation or particular needs of any person or organisation. Nothing contained in this document constitutes investment, legal, tax or other advice.

## **Competent Person Statement**

The information in this announcement that relates to Exploration Results and general project comments is based on information compiled by Don Smith who is the Managing Director of Tempest Minerals Ltd. Don is a Member of Ausimm, AIG and GSA and has sufficient experience relevant to the style of mineralisation under consideration and to the activities undertaken 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'. Don consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## **Appendix A: References**

- 1. TEM ASX Announcement dated 24 February 2022 "Meleya Project Update Drilling Commencement"
- TEM ASX Announcement dated 18 November 2021 "Meleya Exploration Update EIS Funding Granted"
- 3. TEM ASX Announcement dated 28 March 2022 "Meleya Update Significant Discovery At Orion Target"
- 4. TEM ASX Announcement dated 05 September 2022 "Meleya Update Drilling Commences At Master"
- 5. TEM ASX Announcement dated 11 October 2022 "Meleya Update Master Drilling Completed"



## Appendix B: JORC Table 1

#### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Diamond Drilling was used to obtain samples for geological logging and assaying</li> <li>The Drillhole was undertaken to test geochemical and geophysical anomalies as well as understanding the stratigraphy to enable further target testing.</li> <li>Drill core was measured, oriented and marked up in the field before being transported to the company's core processing facilities in Perth for sampling. Oriented core was placed in an orientation rack with a line drawn along the core. This also ensured representativeness of samples when cutting.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>A Sandvik 1200 Multipurpose truck mounted drill rig was used to drill Diamond core in HQ through the regolith, oriented HQ until the fresh rock contact and oriented NQ2 till the end of hole.</li> <li>All HQ and NQ diamond drill core were orientated using a Reflex ACT III Orientation Tool.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core measured using standard measuring tape. Length of core is then compared to the recorded interval drilled from core blocks placed in trays at end of runs.</li> <li>All care taken to obtain 100% core recovery (HQ &amp; NQ); core trays photographed wet and dry.</li> <li>No relationship between sample recovery and grade is known at this stage: more drilling is required to establish if there is any sample bias.</li> <li>Core recoveries were excellent and usually 98-100%. Rare core loss was present only in fracture zones.</li> </ul>
	Page 6   12	



Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Diamond drilling - All HQ/NQ drill core is photographed, core recovery calculated; core marked up along the orientation line, and logged by experienced geologists familiar with the style of deposit and stratigraphy.</li> <li>Magnetic susceptibility is measured as an average of each metre sample of core.</li> <li>The percentage of visible sulphide and the style of mineralisation (pyrrhotite, pyrite, chalcopyrite, bornite etc) is estimated for each significant geological unit.</li> <li>Specific gravity (S.G.) will be collected for representative samples of each rock type.</li> <li>Geological logging is both qualitative and quantitative. Lithology, alteration, mineralisation, veins and structural data is captured digitally and stored securely in the Tempest Minerals database.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Representative samples will be taken from WARDH00075. For intervals within the HQ zones a quarter of the core will be sampled. Core within the NQ zones will be sampled as half core. An industry standard Corewise Automatic Core Saw will be used to cut all diamond samples.</li> <li>The holes have not yet been sampled so there has been no statistical work to verify data quality at this stage.</li> <li>It is unknown whether the sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Field and laboratory duplicate, certified reference sampling and blank standards will be used regularly throughout the sampling process to ensure quality and appropriateness of the assay technique(s).</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>As the assays are from an initial drilling campaign, independent referee laboratory analyses or twinned holes are not yet applicable.</li> <li>Geological logging was completed using in-house logging data systems. All data entry is carried out by qualified personnel. Standard data entry is used on site, and is backed up directly to a cloud-based database.</li> </ul>
	Page 7   12	



Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole locations collected by handheld GPS (±3m horizontal, up to 12m vertical error - however error was consistently below 4m.</li> <li>Grid: Datum WGS84 UTM Zone 50S</li> <li>Down hole surveys have been carried out by DDH1 Drilling using a Reflex Multi Shot Survey Camera, and core orientation using Reflex ACT III Orientation Tool.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Not relevant to the current drilling.</li> <li>Drill holes were placed based on geological targeting and were spaced according to geology and historical gold intersects of each target.</li> <li>Sampling will be undertaken through all potential mineralisation zones and structural zones with contacts determined by geological contacts or sulphide density. Sampling usually at 1m intervals.</li> <li>No compositing applied</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The understanding of the structure and geology intersected in drilling is in progress and accurate true widths cannot be assumed at this time.</li> <li>At present it is not believed that the drilling orientation has introduced any sampling bias.</li> </ul>
Sample security	• The measures taken to ensure sample security.	• Core was collected onsite and moved on scheduled weekly or fortnightly collections to a processing facility in Perth where it is cut and transported directly to the laboratory in Perth by Tempest or contract personnel.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits have been completed at this time
L		

# Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> </ul>	<ul> <li>All drillhole information quoted is from (what is now) E5902375. This lease is owned 100% by Warrigal Mining Pty Ltd which is a subsidiary of Tempest Minerals Ltd.</li> <li>No overriding interests are present to the Company's knowledge.</li> <li>Tempest acknowledges the traditional owners of the land</li> </ul>



	• The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<ul> <li>The project is on managed land and has been approved by DBCA and DMIRS under Program of works</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• N/A
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>In 2020, wide-spaced mapping and surface sampling was conducted over the greater Meleya Project area which identified the presence of multiple gold and base metal anomalies . Further mapping of the project identified large scale outcrops of metamorphosed supracrustal mafic and felsic 'greenstone' units wrapped around a shallow intermediate intrusion known as the Walganna Suite. Additional whole rock geochemistry studies along the interpreted strike of the target zone confirmed the likely presence of the Golden Grove formation and the strong prospectivity of the project . This was followed up with reprocessing of geophysics (magnetic) datasets which assisted the field mapping to identify the presence of numerous large scale structures considered to be highly favourable for feeder zones for mineralisation. Ongoing field and interpretive work also identified the presence of multiple coincident geophysical and geochemical anomalies including the 'Clover' target.</li> <li>The Clover target is a coincidental geophysical (magnetic high and magnetic low) and geochemical (multi-elemental) anomaly. The maiden drilling program was an initial diamond hole testing the previously undrilled magnetic low at the Clover target which is coincident geochemical, geophysical and structural anomaly.</li> <li>Drilling has indicated several mineralisation styles and events as inferred in this announcement.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Drillhole information included included in Appendix B
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	<ul> <li>No aggregation has been used to the Company's knowledge, all results are percussion quoted in metres where simple averaging is utilised.</li> <li>No metal equivalents have been used.</li> </ul>



	<ul> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	• The geometry of the geology is not clearly defined at this stage of exploration. Much Tempest's current drilling program is designed to provide regional stratigraphic and structural understanding to further assist in vectoring mineralising events.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	See appended figure(s)
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	• Due to the greenfields nature there is no local historic drilling to report on.
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	• The extensive records of legacy geological, geophysical and geochemical work perfor by previous explorers is impractical to list in this format but is accessible publicly on t Western Australian State Government 'WAMEX' system.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>The planned program consisted of an initial diamond drill hole to test the interpreted geophysical and geochemical anomalies and provide stratigraphic controls on the ner geological province. Detailed observations have been taken of the core and will be use for future exploration programs.</li> <li>Exploration programs planned going forward include         <ul> <li>Detailed geological interpretations and modelling</li> <li>Downhole Electromagnetics</li> <li>Airborne and ground based EPR geophysical surveys</li> <li>RAB or Aircore drilling</li> <li>Further survey mapping and geochemical sampling</li> </ul> </li> </ul>



# Appendix C: Drillhole Data

#### Coordinates

Site ID	North (m)	East (m)	RL (m)	
WARDH00075	6797750	523160	278.00	

#### Geometry

Site ID	MD (m)	Dip (°)	True Azi (∘)
WARDH00075	0.00	-70.00	270.05
WARDH00075	30.00	-70.16	268.19
WARDH00075	60.00	-70.47	267.04
WARDH00075	90.00	-70.12	265.06
WARDH00075	120.00	-69.93	266.84
WARDH00075	150.00	-69.75	267.95
WARDH00075	180.00	-69.61	267.48
WARDH00075	210.00	-69.37	268.02
WARDH00075	240.00	-69.21	268.08
WARDH00075	270.00	-69.13	268.54
WARDH00075	300.00	-68.80	268.67
WARDH00075	330.00	-68.45	268.61
WARDH00075	360.00	-68.89	268.12
WARDH00075	390.00	-68.61	268.90
WARDH00075	420.00	-68.37	270.18
WARDH00075	450.00	-67.89	269.17
WARDH00075	480.00	-67.21	269.35
WARDH00075	510.00	-67.52	268.74
WARDH00075	540.00	-67.86	268.38



WARDH00075	570.00	-65.60	267.72
WARDH00075	600.00	-65.22	269.33
WARDH00075	630.00	-64.96	268.92

#### Simplified Geology

Site_ID	Depth_From	Depth_To	Interval	Simplified Lithology	Comments
WARDH00075	0	68	68	Cover and laterite	Zones of pisoliths and fe oxides
WARDH00075	68	75	7	Intrusive Intermediate	Highly sheared and brecciated intrusive
WARDH00075	75	422	347	Mafic	Trace sulphides <0.1%
WARDH00075	422	569	147	Sedimentary Volcaniclastics	Trace sulphides <0.1%
WARDH00075	569	580	11	Mafic	Trace sulphides <0.1%
WARDH00075	580	580.1	0.1	Mafic Dolerite	Minor sulphides 1%
WARDH00075	580.1	588	7.9	Mafic	Trace sulphides <0.1%)
WARDH00075	588	593	5	Skarn	Skarn like zone, trace sulphides <0.1%)
WARDH00075	593	637.1	44.1	Mafic	Trace sulphides <0.1%