

4 May 2023

# WEELARRANA PHASE 2 DRILLING COMPLETED

#### **HIGHLIGHTS**

- Phase 2 RC drilling at Weelarrana has been completed with a total of 90 holes for 2,184m across Mn Area 1, Mn Area 2, Mn Area 3 and Mn Area 4 in E5 2/3878
- A total of 817 samples were collected and have been dispatched for assay
- Assay results are expected within 6 weeks

#### Pantera CEO, Matt Hansen commented:

"The recently completed Phase 2 of drilling at Weelarrana is another positive step in subsurface exploration within the Weelarrana Project area, and we eagerly await the assay results."

Pantera Minerals Limited (**ASX:PFE**) ("**Pantera**" or the "**Company**") is pleased to announce the completion of Phase 2 Reverse Circulation ("**RC**") drilling at the Weelarrana Project<sup>1</sup> ("**Weelarrana**" or "**Project**"), located in the Collier Basin of Western Australia, with a total of 90 RC holes were drilled for 2184 metres (see **Error! Reference source not found.** to 4).

At Mn Area 1 a total of 27 holes for 714m was completed.

At Mn Area 2 a total of 10 holes for 240m was completed.

At Mn Area 3 a total of 32 holes for 801m was completed.

At Mn Area 4 a total of 21 holes for 429m was completed.

The average hole depth across all four area was 24m with depths ranging from 18m to 57m.

A total of 817 samples have been submitted for assay with results expected by the end of Quarter 3, 2023.

<sup>&</sup>lt;sup>1</sup> See ASX PFE Announcement '2,500m Phase 2 RC Drilling Campaign Underway at Weelarrana' dated 20 April 2023 for locations of Mn Areas 1 to 4.





Figure 1 - Photo of the RC drill rig at Mn Area 2

#### **NEXT STEPS**

Assay results are exected within 6 weeks, once received these will be reviewed and further drilling will be planned.

Field work programs including mapping, sampling, and drill planning for tenements E 52/4046, E 52/4071 and E 52/4072 will also be conducted in the next quarter.

Further heritage surveys to allow infill drill programs will be booked with surveys expected to be completed in the second half of 2023.

#### WEELARRANA PROJECT BACKGROUND

Located within the Proterozoic Collier Basin some 80 km south of Newman, Western Australia, the Weelarrana Project covers 958 km<sup>2</sup> of tenure considered prospective for manganese and precious metal mineralisation. All tenements cover either Ilgarari Formation manganiferous shales or Backdoor



Formation manganiferous shales which are known to host economic manganese mineralisation at Element 25's Butcherbird Deposit (ASX:E25) and Firebird Metals Hill 616 Deposit (ASX:FRB).

Despite the presence of two significant manganese deposits along strike and within the same stratigraphy, the area covered by Pantera tenements has been under explored for manganese. Pantera aims to systematically explore for manganese within the known stratigraphic hosts as well as assess and explore the tenure for structural hosted precious metal mineralisation.

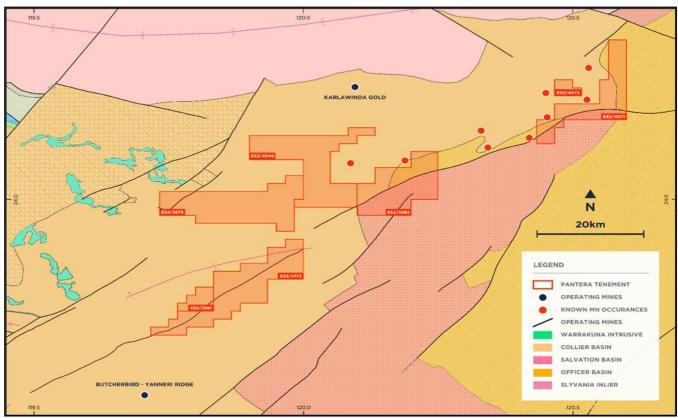


Figure 4 - Weelarrana Project - location plan

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This release is authorised by the Board of Directors of Pantera Minerals Limited.

For further information please contact:

Matthew Hansen

Chief Executive Officer

E: info@panteraminerals.com | P: +61 8 9467 2604

Jane Morgan

Investor and Media Relations

E: jm@janemorganmanagement.com.au I P: +61 (0) 405 555 618



#### **COMPETENT PERSON'S STATEMENT**

The information in this announcement that relates to geology and exploration results and planning was compiled by Mr. Nick Payne, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and is Head of Exploration for Pantera. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

All parties have consented to the inclusion of their work for the purposes of this announcement. The interpretations and conclusions reached in this announcement are based on current geological theory and the best evidence available to the author at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however might be, they make no claim for absolute certainty. Any economic decisions which might be taken on the basis of interpretations or conclusions contained in this presentation will therefore carry an element of risk.



Hole ID	Easting	Northing	Elevation	Zone	Dip	End of Hole (m)
WRC094	798891	7341071	644	MGA94_Z50	-90	24
WRC095	798993	7341172	644	MGA94_Z50	-90	24
WRC096	799128	7341253	644	MGA94_Z50	-90	24
WRC097	798929	7340813	636	MGA94_Z50	-90	24
WRC098	799179	7340719	628	MGA94_Z50	-90	24
WRC099	799158	7340736	630	MGA94_Z50	-90	24
WRC100	799136	7340771	630	MGA94_Z50	-90	24
WRC101	799110	7340809	627	MGA94_Z50	-90	24
WRC102	799066	7340834	630	MGA94_Z50	-90	24
WRC103	799025	7340872	630	MGA94_Z50	-90	24
WRC104	799071	7340952	630	MGA94_Z50	-90	24
WRC105	799305	7340864	633	MGA94_Z50	-90	24
WRC106	799290	7340876	630	MGA94_Z50	-90	24
WRC107	799266	7340904	630	MGA94_Z50	-90	24
WRC108	799222	7340937	618	MGA94_Z50	-90	24
WRC109	799189	7340979	623	MGA94_Z50	-90	24
WRC110	799158	7341011	621	MGA94_Z50	-90	24
WRC111	799198	7341086	628	MGA94_Z50	-90	24
WRC112	799434	7340990	617	MGA94_Z50	-90	24
WRC113	799421	7341007	621	MGA94_Z50	-90	24
WRC114	799402	7341044	620	MGA94_Z50	-90	24
WRC115	799625	7341086	630	MGA94_Z50	-90	24
WRC116	799568	7341133	626	MGA94_Z50	-90	24
WRC117	799687	7341154	621	MGA94_Z50	-90	24
WRC118	799604	7341196	629	MGA94_Z50	-90	24
WRC119	799417	7341299	626	MGA94_Z50	-90	57
WRC120	799353	7341244	627	MGA94_Z50	-90	57

**Table 1 - Mn Area 1 Drill Hole Locations** 



Hole ID	Easting	Northing	Elevation	Zone	Dip	End of Hole (m)
WRC084	796641	7339518	632	MGA94_Z50	-90	24
WRC085	796647	7339550	631	MGA94_Z50	-90	24
WRC086	796650	7339583	630	MGA94_Z50	-90	24
WRC087	796554	7339524	628	MGA94_Z50	-90	24
WRC088	796556	7339549	627	MGA94_Z50	-90	24
WRC089	796552	7339570	627	MGA94_Z50	-90	24
WRC090	796445	7339521	623	MGA94_Z50	-90	24
WRC091	796453	7339549	627	MGA94_Z50	-90	24
WRC092	796453	7339568	630	MGA94_Z50	-90	24
WRC093	796542	7339638	624	MGA94_Z50	-90	24

**Table 2 - Mn Area 2 Drill Hole Locations** 

Hole ID	Easting	Northing	Elevation	Zone	Dip	End of Hole (m)
WRC031	793333	7341585	619	MGA94_Z50	-90	24
WRC032	793330	7341627	619	MGA94_Z50	-90	24
WRC033	793333	7341683	619	MGA94_Z50	-90	24
WRC034	793335	7341731	620	MGA94_Z50	-90	24
WRC035	793338	7341781	620	MGA94_Z50	-90	24
WRC036	793342	7341823	620	MGA94_Z50	-90	24
WRC037	793342	7341883	620	MGA94_Z50	-90	24
WRC038	793347	7341935	620	MGA94_Z50	-90	24
WRC039	793348	7341980	620	MGA94_Z50	-90	24
WRC040	793442	7341828	620	MGA94_Z50	-90	30
WRC041	793570	7341815	621	MGA94_Z50	-90	30
WRC042	793672	7341910	621	MGA94_Z50	-90	30
WRC043	793681	7341832	622	MGA94_Z50	-90	24
WRC044	793686	7341779	621	MGA94_Z50	-90	24
WRC045	793763	7341792	622	MGA94_Z50	-90	24
WRC046	793861	7341768	623	MGA94_Z50	-90	24
WRC047	793953	7341845	621	MGA94_Z50	-90	24
WRC048	793947	7341799	621	MGA94_Z50	-90	24
WRC049	793946	7341755	621	MGA94_Z50	-90	24
WRC050	793949	7341701	621	MGA94_Z50	-90	24
WRC051	793950	7341651	619	MGA94_Z50	-90	27
WRC052	793954	7341605	620	MGA94_Z50	-90	27
WRC053	793954	7341557	618	MGA94_Z50	-90	30



WRC054	793688	7341717	618	MGA94_Z50	-90	24
WRC055	793690	7341656	618	MGA94_Z50	-90	24
WRC056	793693	7341603	617	MGA94_Z50	-90	24
WRC057	793694	7341557	618	MGA94_Z50	-90	24
WRC058	793692	7341499	618	MGA94_Z50	-90	27
WRC059	793689	7341453	618	MGA94_Z50	-90	24
WRC060	793685	7341405	617	MGA94_Z50	-90	24
WRC061	793604	7341343	617	MGA94_Z50	-90	24
WRC062	793507	7341253	616	MGA94_Z50	-90	24

**Table 3 - Mn Area 3 Drill Hole Locations** 

Hole ID	Easting	Northing	Elevation	Zone	Dip	End of Hole (m)
WRC063	793463	7340656	629	MGA94_Z50	-90	24
WRC064	793443	7340628	628	MGA94_Z50	-90	24
WRC065	793434	7340606	629	MGA94_Z50	-90	24
WRC066	793367	7340590	620	MGA94_Z50	-90	24
WRC067	793339	7340522	620	MGA94_Z50	-90	24
WRC068	793410	7340552	624	MGA94_Z50	-90	24
WRC069	793391	7340654	625	MGA94_Z50	-90	24
WRC070	793505	7340831	627	MGA94_Z50	-90	24
WRC071	793547	7340830	626	MGA94_Z50	-90	21
WRC072	793604	7340863	623	MGA94_Z50	-90	18
WRC073	793580	7340811	624	MGA94_Z50	-90	18
WRC074	793480	7340766	623	MGA94_Z50	-90	18
WRC075	793453	7340778	622	MGA94_Z50	-90	18
WRC076	793537	7340745	618	MGA94_Z50	-90	18
WRC077	793523	7340681	618	MGA94_Z50	-90	18
WRC078	793510	7340632	618	MGA94_Z50	-90	18
WRC079	793471	7340695	618	MGA94_Z50	-90	18
WRC080	793446	7340702	621	MGA94_Z50	-90	18
WRC081	793418	7340727	624	MGA94_Z50	-90	18
WRC082	793431	7340665	623	MGA94_Z50	-90	18
WRC083	793419	7340647	624	MGA94_Z50	-90	18

**Table 4 - Mn Area 4 Drill Hole Locations** 



## JORC Code Table 1 – Pantera Minerals Exploration Update

#### Section 1 Sampling Techniques and Data

Criteria in this section apply to all succeeding sections

Criteria	JORC Code explanation		Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	•	Every metre drilled was collected into a 1 to 2kg calico sample bag via a cone splitter with the remainder of the sample put into a sample pile for logging. The split between the calico bag sample and the sample pile is approximately 1:12.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	•	The samples taken are considered to appropriately represent the sub surface geology
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	•	No assay results are reported in this announcement.  The references to the intersected manganese mineralisation styles are described in the Cautionary Statement and are based on the visual estimate of the percentage of manganese minerals found in each metre sample by volume
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	•	Slim line Reverse Circulation drilling method was used using 3.5 inch diameter drill bit . A full sample of each metre drilled was taken.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	•	RC chip recovery was recorded for each metre and was based on the volume and weight of each sample recovered based on the theoretical volume and weight which should be recovered using the hole diameter that was drilled
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	•	Best practice sampling procedure was used which included use of dust suppression, suitable shroud, lifting of bottom between each metre, ensuring a dry sample and cleaning of the rig cyclone after each metre drilled
	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.	•	No assay results are reported and as such the relationship between sample recovery and grade is not yet known
Logging	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.	•	RC drill chips were logged on a metre by metre basis by a suitably qualified geologist with sufficient experience in the geology encountered using an industry standard geological logging system which could eventually be utilised within a Mineral Resource Estimation  RC drill chips were washed each metre and stored in chip trays for preservation and future



Criteria	JORC Code explanation		Commentary
			reference
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	•	Logging of RC samples is both qualitative and quantitative
	The total length and percentage of the relevant intersections logged.	•	All drilling intersections reported are based on the visual estimation of manganese mineralogy encountered on a 1 metre basis
Sub-sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	•	No drillcore was taken
and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	•	All samples were dry and all samples were taken from a rotary cone splitter mounted directly to the drill rig
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	•	No assay results are reported and sample preparation has not yet occurred.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	•	No assay results are reported
	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.	•	No assay results are reported
	Whether sample sizes are appropriate to the grain size of the material being sampled.	•	Sample size is considered appropriate to the grain size of the manganese mineralisation
Quality of assay data and	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	•	No assay results are reported
laboratory tests	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.	•	No geophysical or handheld tools were used
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	•	No assay results are reported
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	•	Senior Pantera personnel verified the visual manganese mineralisation intersections reported
	The use of twinned holes.	•	No twinned holes were drilled
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	•	All geological logging data was directly entered into MX Deposit geological logging software and the data was uploaded to the company database on a daily basis
	Discuss any adjustment to assay data.	•	No assay data is reported
Location of data points	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.	•	All drillholes were recorded by the field geologist using a Garmin 65s handheld GPS. Accuracy is assumed to be +/- 2m in x, y and z
	Specification of the grid system used.	•	GDA94 MGA Zone 50 as the grid system
	Quality and adequacy of topographic control.	•	No topographic control was used
Data spacing and	Data spacing for reporting of Exploration Results.	•	The data spacing is appropriate for Exploration Results
distribution	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity	•	No Resource Estimation has been conducted



Criteria	JORC Code explanation		Commentary
	appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied		
	Whether sample compositing has been applied.	•	No sample compositing has been applied
Orientation of data in relation to geological	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	•	The geology is flay lying or gently north dipping (5-10°) with drillholes being vertical. The orientation of the drillholes is perpendicular to the geology and is considered unbiased
structure	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.	•	The drilling orientation is considered to be optimal to the orientation of the mineralised horizon and as such no bias exists that is known
Sample security	The measures taken to ensure sample security.	•	The samples were hand carried by Pantera staff from Weelarrana to Newman and transported to Perth via a reputable transport company
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	•	The company has not performed an audit of sampling technique or data



### **Section 2 Reporting of Exploration Results**

Criteria in this section apply to all succeeding sections

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.  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.	• The Weelarrana tenements consist of two granted and five applications covering approximately 958 sq. km. All of these tenements fall on pastoral stations and have native title agreements in place. Two tenement applications fall partially within the Jigalong Aboriginal Reserve for which a Mine Entry Permit will need to be issued to access the portions of the tenement within the reserve. Beau Resources retains a 2% Gross Value Royalty for all minerals, metals and products recovered and sold from within the tenement boundary of E 52/3878.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Most of the past exploration work within the Weelarrana Project area including soil and rock chip sampling, Auger drilling and RAB drilling has been conducted by Pilbara Manganese, Laconia Resources, Shaw River Resources and Sipa Resources.</li> <li>The reports are available on the West Australian Mines Department WAMEX open file library.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Weelarrana Project covers a portion of the Mesoproterozoic Bangemall Basin with the project sitting entirely within the Bangemall Group including sandstone/quartzite/conglomerate of the Calyie Sandstone and shale/argillite units of the Ilgarari and Backdoor Formations which are known Mn mineralisation hosts.</li> <li>Manganese mineralisation within the area is strataform and primary in deposition with supergene enrichment and occurs within bedded argillite of the Ilgarari Formation which outcrops through the centre of the project area. Manganese mineralisation appears to be preferentially developed at the contact between the Calyie Formation and Ilgagari Siltstone within the project area.</li> <li>Silver-gold mineralisation has previously been reported within the area as being fault hosted and associated with chalcedony veining however to date no deposits of economic significance have been recorded</li> </ul>
Drillhole 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 drillholes:         <ul> <li>easting and northing of the drillhole collar</li> <li>elevation or RL (elevation above sea level in metres) of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth hole length.</li> </ul> </li> </ul>	<ul> <li>No drilling for manganese has been performed on the two granted tenements.</li> <li>No drilling for silver-gold has occurred within the area</li> </ul>



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	Rock chip samples are reported as whole rock percentages. No cut off grades have been applied. No drilling assays have been reported
Relationshi p between mineralisati on widths and intercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drillhole 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 (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>No drilling for manganese has been performed on the two granted tenements, prior to this drill program</li> <li>No drilling for silver-gold has occurred within the area</li> </ul>
Diagrams	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.	<ul> <li>A drill hole location map showing the location of drill holes with visual manganese mineralisation and the location of drill holes without visual manganese mineralisation</li> <li>A cross section of the interpreted geology is included. Note this cross section has a 4 x Vertical Exaggeration to aid in visualisation of the geology</li> </ul>
Balanced reporting	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.	The report has been prepared to highlight the main targets and positive drillhole observations and rock chip results based on current and past exploration within the project areas. Not all exploration results are shown for practical purposes.
Other substantive exploration data	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.	Exploration work to date within the Weelarrna Project and Ilgarari East area has largely been of a preliminary or reconnaissance nature. The company is aware of regional scale aeromagnetic surveys and geological mapping program, soil sampling and wide spaced RAB drilling undertaken by past explorers and has access to versions of the data that is available in reports and has assessed most of this data.
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> </ul>	Near future exploration plans for Weelarrana are discussed in the release.