

1 August 2022

Level 2
10 Outram Street
West Perth WA 6005

Exploration Update - Weelarrana

HIGHLIGHTS

- **Laboratory assays of crushed and pulped Mn rock samples report up to 44.1% Mn.**
- **Cultural & Heritage survey covering Mn Area 1 to 3 confirmed for late August 2022.**
- **Tenement E 52/3981 granted and onground exploration for Manganese to commence shortly.**
- **RC drilling of Mn Area 1 expected in October 2022 with a 1500m drill program planned.**
- **Drill planning and permitting underway for Mn Areas 2 and 3 - drilling expected in Q3 2022.**
- **Tenement application made over prospective manganese areas south of Bootu Creek manganese mine in the Northern Territory.**

Pantera CEO, Matt Hansen, commented:

"We are delighted to have received confirmation of the previously reported manganese grades from our Weelarrana project.

We believe this area holds great potential for the discovery of high-grade manganese mineralisation.

It is very pleasing to quickly identify three areas of outcropping high grade manganese mineralisation with large parts of the tenement area yet to be assessed. The upcoming drill program will be the first time the manganese mineralisation within the tenement area has been drill tested, with the high grades reported in the rock chip samples, we look forward to the results of the maiden drill program."

Pantera Minerals Limited (ASX:PFE) ("**Pantera**" or the "**Company**") is pleased to announce that the Company has identified multiple high grade manganese targets at Weelarrana, located 70km south of Newman in West Australia's Pilbara region.

Weelarrana Manganese Project - E 52/3878

Laboratory Assay Results

- The 22 rock chip samples analysed by pXRF that were previously reported (see PFE ASX Announcement: *Multiple High Grade Manganese Targets Identified at Weelarrana- 3 May 2022*) were check assayed by a commercial laboratory and returned equivalent or improved manganese grades. Table 1 contains the updated laboratory assay Mn grades and Figure 1 shows the location and Mn grade of the laboratory sample results.
- Mn Area 1 now returns grades of **11.9% to 44.1% Mn from 9 samples** (previously 11.7% to 43.6% Mn from 8 samples).
- Mn Area 2 now returns grades of **18.6% to 30.1% Mn from 2 samples** (previously 16.1% to 25.6% Mn from 2 samples).
- Mn Area 3 now returns grades of **17.8% to 43.5% Mn from 6 samples** (previously 11.5% to 37.7% Mn from 6 samples) – see Figure 2.

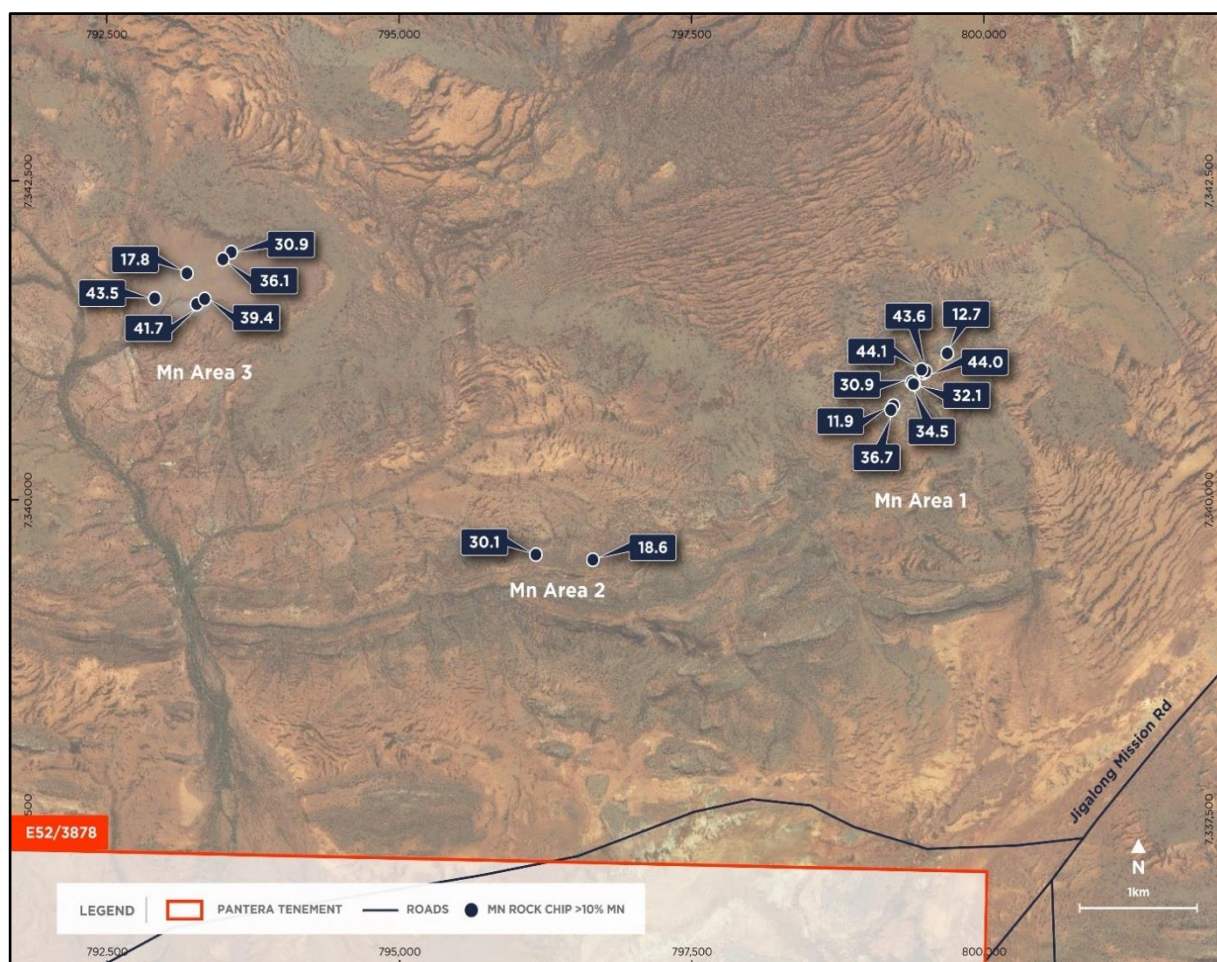


Figure 1- Weelarrana Manganese Project E 52/3878 showing location of outcropping high grade manganese mineralisation and rock sample locations with updated Mn assay results

- Check assays confirm that the use of a pXRF on crushed and pulped rock chip samples is a viable first pass exploration method for determining Manganese content for Weelarrana.

Heritage Survey

- The Cultural & Heritage survey originally scheduled for late May 2022 was significantly affected by unprecedented rainfall in the area at the time and needed to be rescheduled. The Cultural & Heritage survey is now scheduled for late August 2022, the delay has allowed for a wider area to be surveyed following the identification of additional target areas, with Mn Areas 1 to 3 to be surveyed. PFE is thankful for the assistance provided by the Traditional Owners to provide the earliest available date for the re-scheduling of the Cultural & Heritage survey.



Figure 2 - Manganese replacement of laminated shale at Manganese Area 3 - WR0018Mn - 36.1 % Mn from laboratory analysis (previously 26.2% Mn from pXRF)

Drilling

- Upon completion of the Cultural & Heritage Survey it is proposed that RC drilling of Mn Area 1 will commence in early October 2022 with a 1500m program planned.
- Drill planning and permitting is underway for Mn Areas 2 and 3 with RC drilling of these prospects anticipated for Q4 2022/Q1 2023. It is anticipated a further 3000m of RC drilling will be conducted over Mn Areas 2 and 3.

Tenement Grant - E 52/3981

- Tenement E 52/3981 has recently been granted and covers 30 km². Most of the tenement sits over the Backdoor Formation which is a known host for manganese mineralisation within the area.
- Tenement E 52/3981 is easily accessed from the Jigalong Mission Road and first pass exploration consisting of mapping, rock chip and auger drilling sampling is expected to commence shortly. The tenement area has not previously been explored for manganese. Figure 3 shows the location of E 52/3981

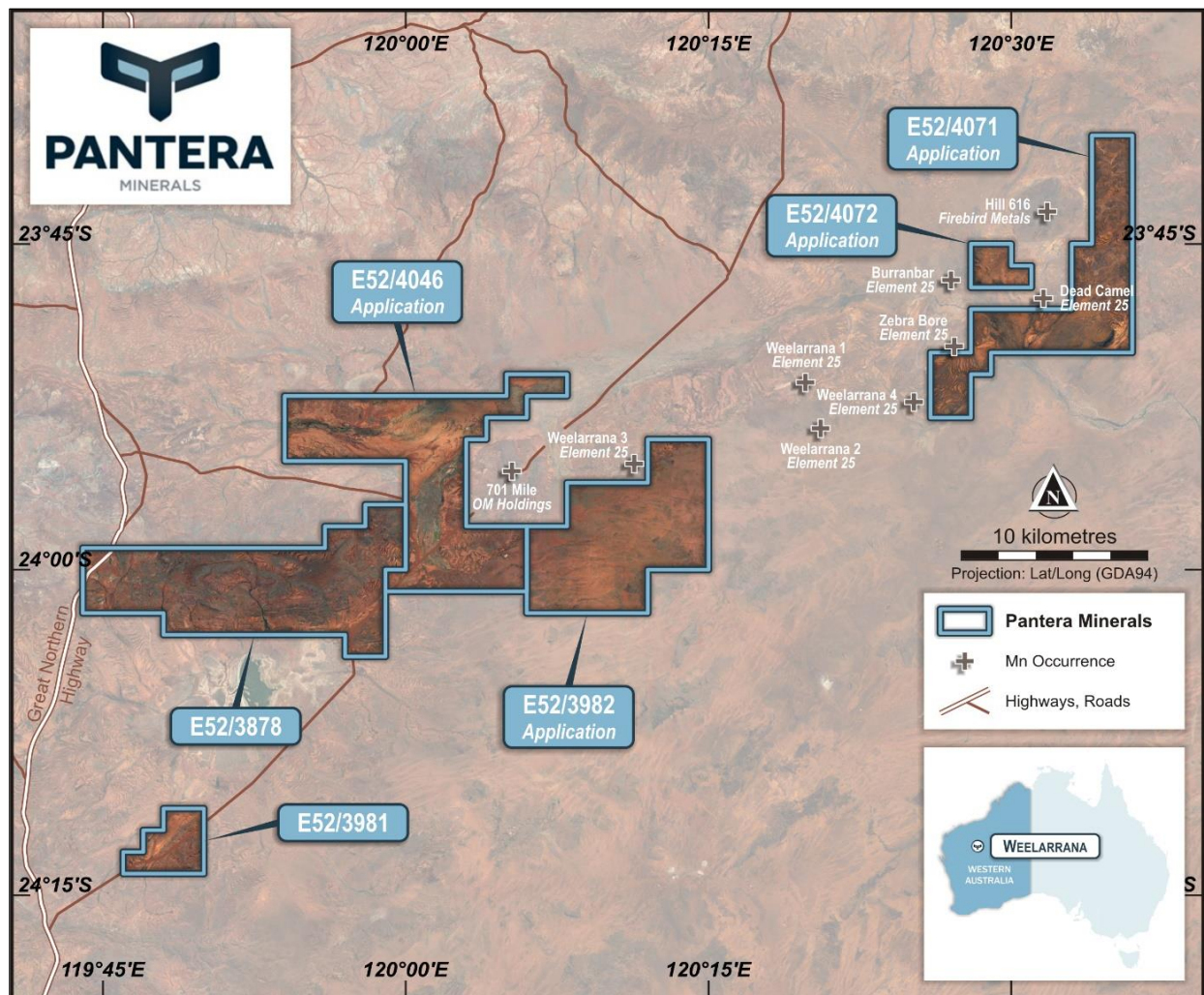


Figure 3 - Granted and tenement applications held by Pantera within the Weelarrana area - showing locations of known manganese occurrences

Northern Territory Tenement Application - EL33216 - Banka Banka

- Recent tenement application EL33216 (see Figure 4) covers 810 km² of ground directly south of OM Holdings Ltd Bootu Creek manganese mine in the Northern Territory. The tenement is 65 km north of Tennant Creek and is easily accessed via the Stuart Highway and is well situated close to existing mine and transport infrastructure.

- The tenement covers an extension and repetition of the manganese hosting stratigraphy at the Bootu Creek mine (Bootu Formation) and is prospective for strataform manganese and lateritic to pisolitic manganese mineralisation with a noted manganese occurrence in the south of the tenement application.
- Upon grant, Pantera expects to conduct mapping, rock chip sampling and an airborne electromagnetic (EM) survey to explore for manganese mineralisation.

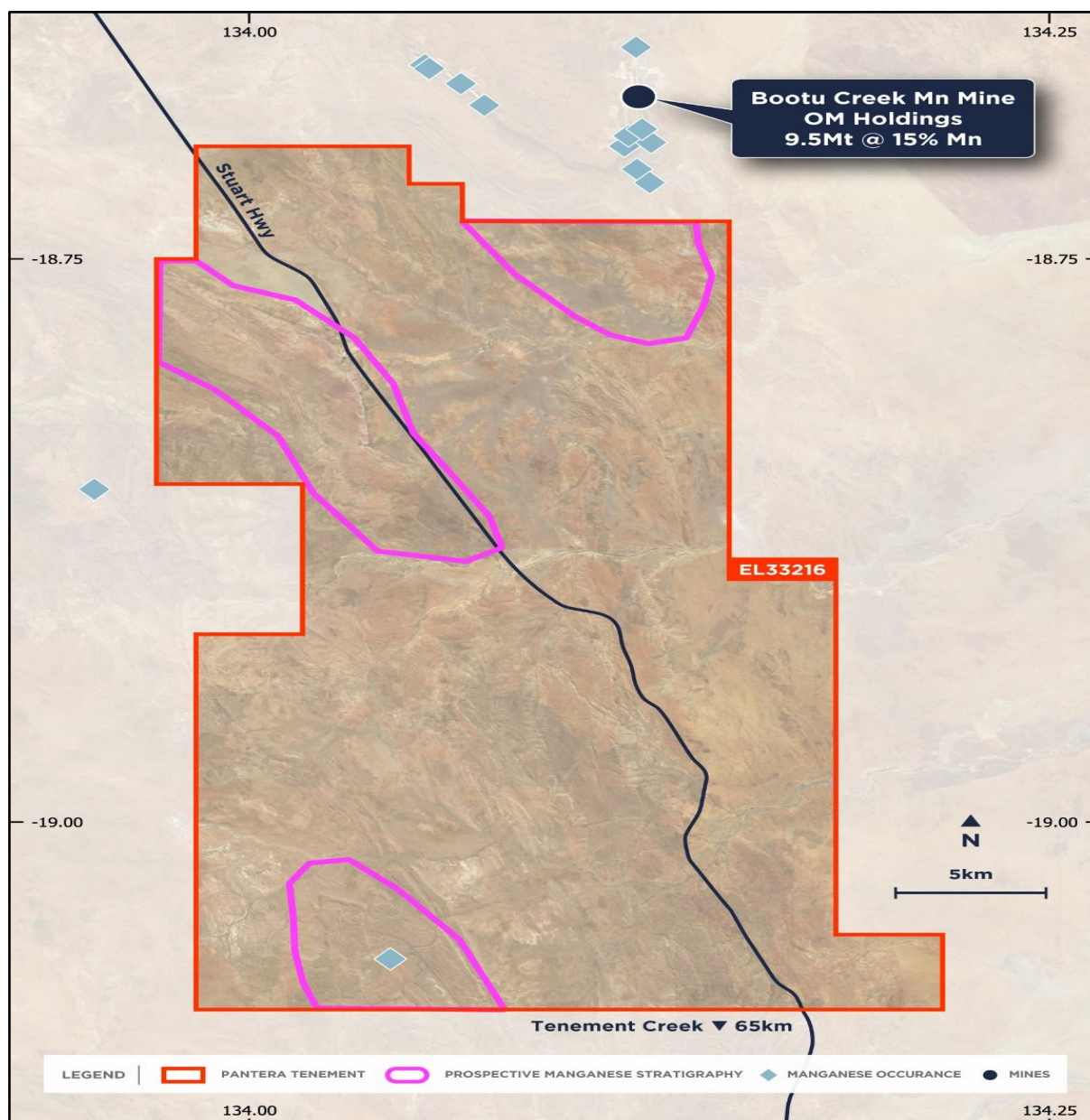


Figure 4 - Tenement application EL33216 (Banka Banka) in the Northern Territory showing location of known manganese occurrences and prospective stratigraphy for manganese
- END -

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

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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.

Sample ID	Easting	Northing	Mn %	Fe %	Al ₂ O ₃ %	P %
WR001Mn	799399	7340905	34.50	11.65	2.60	0.27
WR002Mn	799222	7340736	36.72	8.91	2.82	0.27
WR003Mn	799479	7340993	43.62	5.47	2.18	0.23
WR004Mn	799498	7341005	43.96	12.08	2.08	0.17
WR005Mn	799463	7341018	44.07	4.42	2.36	0.07
WR006Mn	799399	7340944	3.02	3.46	5.99	0.10
WR007Mn	799378	7340920	32.13	7.50	2.53	0.09
WR008Mn	799308	7340829	6.34	2.79	2.05	0.03
WR009Mn	799201	7340703	11.91	28.38	2.93	0.08
WR010Mn	799096	7340669	1.96	44.13	1.87	0.09
WR011Mn	798780	7340542	1.07	54.94	3.41	0.05
WR012Mn	799394	7340905	30.85	5.44	2.90	0.10
WR013Mn	799683	7341145	12.72	3.13	1.61	0.04
WR014Mn	796145	7339560	6.23	8.06	2.77	0.04
WR015Mn	796166	7339570	30.15	11.02	5.07	0.05
WR016Mn	796653	7339530	18.60	8.23	2.86	0.03
WR017Mn	793562	7341937	30.90	12.67	6.59	0.28
WR018Mn	793491	7341882	36.11	12.06	3.95	0.33
WR019Mn	793183	7341772	17.80	25.87	5.24	0.35
WR020Mn	792908	7341575	43.47	5.78	2.58	0.20
WR021Mn	793267	7341531	41.68	5.46	3.13	0.05
WR022Mn	793335	7341571	39.35	7.17	3.71	0.09

Table 1- Rock chip sample location and laboratory assay results (GDA94 MGAz50)

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	<i>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.</i>	<ul style="list-style-type: none"> All rock chip samples were collected from in-situ outcropping material Rock chip sample sizes varied from 0.5 kg and 2kg
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<ul style="list-style-type: none"> The samples taken are considered to appropriately represent the surface manganese mineralisation
	<i>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</i>	<ul style="list-style-type: none"> The rock chip samples were whole crushed and then pulped. The pulped samples were then submitted for standard 18 element XRF analysis for Mn at Intertek in Perth Elements assayed for are: Al₂O₃, BaO, CaO, Cr₂O₃, Cu, Fe₂O₃, K₂O, MgO, Mn, Na₂O, P₂O₅, Pb, SO₃, TiO₂, V₂O₅, Zn and LOI

Criteria	JORC Code explanation	Commentary
	<i>inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	
Drilling techniques	<i>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.).</i>	<ul style="list-style-type: none"> No drilling was performed
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<ul style="list-style-type: none"> No drilling was performed
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<ul style="list-style-type: none"> No drilling was performed
	<i>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.</i>	<ul style="list-style-type: none"> No drilling was performed
Logging	<i>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.</i>	<ul style="list-style-type: none"> Each rock chip sample was geologically described and recorded in a digital Rock Chip Register
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	<ul style="list-style-type: none"> Logging of rock chip samples is both qualitative and quantitative
	<i>The total length and percentage of the relevant intersections logged.</i>	<ul style="list-style-type: none"> No drilling intersections are reported
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<ul style="list-style-type: none"> No drillcore was taken
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	<ul style="list-style-type: none"> Each sample was whole crushed and pulverised with approx. 100g submitted for standard XRF analysis
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<ul style="list-style-type: none"> The sampling preparation technique of homogenising the entire rock chip sample is considered appropriate for the reporting of exploration results
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<ul style="list-style-type: none"> The entire rock chip sample was crushed, split then pulverised. The pulverised material was split and sub-sampled to produce a 100g sample for assay
	<i>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.</i>	<ul style="list-style-type: none"> Every 5th sample was split twice to produce a duplicate for assay
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<ul style="list-style-type: none"> Sample size is considered appropriate to the grain size of the manganese mineralisation
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<ul style="list-style-type: none"> The assaying method and laboratory procedures are considered appropriate for the reporting of manganese rock chip results The assay method is considered a total method given the sample was whole crushed and pulverised
	<i>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.</i>	<ul style="list-style-type: none"> No geophysical or handheld tools were used
	<i>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.</i>	<ul style="list-style-type: none"> After every 10th assay a standard of known grade was assayed. Also, each 9th sample was a field duplicate At the completion of the assaying the results of the standards and duplicates were assessed to

Criteria	JORC Code explanation	Commentary
		determine if any sample or assay bias could be detected
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	<ul style="list-style-type: none"> Senior Pantera personnel verified the assay results
	<i>The use of twinned holes.</i>	<ul style="list-style-type: none"> No drilling was performed
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	<ul style="list-style-type: none"> All the assay data was electronically transferred to the companies database
	<i>Discuss any adjustment to assay data.</i>	<ul style="list-style-type: none"> Assay data has not been adjusted
Location of data points	<i>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.</i>	<ul style="list-style-type: none"> All rock chip samples were recorded by the field geologist using a Garmin 65s handheld GPS. Accuracy is assumed to be +/- 2m in x, y and z
	<i>Specification of the grid system used.</i>	<ul style="list-style-type: none"> GDA94 MGA Zone 50 as the grid system
	<i>Quality and adequacy of topographic control.</i>	<ul style="list-style-type: none"> No topographic control was used
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	<ul style="list-style-type: none"> The data spacing is appropriate for Exploration Results
	<i>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</i>	<ul style="list-style-type: none"> No Resource Estimation has been conducted
	<i>Whether sample compositing has been applied.</i>	<ul style="list-style-type: none"> No sample compositing has been applied
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	<ul style="list-style-type: none"> It is not known if the orientation of rock chip sampling at Weelarrana has created a sampling bias. The results of the rock chip sampling should be considered indicative of the surface manganese mineralisation
	<i>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.</i>	<ul style="list-style-type: none"> No drilling was performed
Sample security	<i>The measures taken to ensure sample security.</i>	<ul style="list-style-type: none"> The samples were hand carried by Pantera staff from Weelarrana to Perth and then hand carried to the AXT assay facility for sample preparation. Pantera staff then hand delivered the pulped samples to Intertek for XRF analysis. There are no concerns with sample security
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none"> 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	<p><i>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.</i></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> The Weelarrana tenements consist of two granted and four applications covering approximately 758 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

Criteria	JORC Code explanation	Commentary
		<p>boundary of E 52/3878.</p> <ul style="list-style-type: none"> The Banka Banka tenement is in application and sits entirely upon the Banka Banka pastoral station. There are no known native title or environmental issues with the application area.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<ul style="list-style-type: none"> 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. The reports are available on the West Australian Mines Department WAMEX open file library. Previous exploration records for the area of the Banka Banka tenement application have been accessed via the NT GEMIS open file library.
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	<ul style="list-style-type: none"> 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. 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 Ilgarari Siltstone within the project area. Manganese mineralisation at Bootu Creek is hosted primarily within the Bootu Creek Formation and is predominantly strataform as the base of the Formation. Detrital manganese mineralisation in the form of secondary lateritic and pisolitic deposits have formed by the erosion and consolidation of the primary strataform mineralisation.
Drillhole Information	<ul style="list-style-type: none"> 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 style="list-style-type: none"> easting and northing of the drillhole collar elevation or RL (elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole down hole length and interception depth hole length. 	<ul style="list-style-type: none"> No drilling for manganese has been performed on the two granted tenements. No drilling for manganese at Banka Banka has been reported as part of this release.
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Rock chip samples are reported as whole rock percentages. No cut off grades have been applied. No exploration data has been reported for Banka Banka.
Relationship between mineralisation	<ul style="list-style-type: none"> If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the down hole lengths are 	<ul style="list-style-type: none"> No drilling for manganese has been performed on the two granted tenements. No drilling has been reported for Banka Banka.

Criteria	JORC Code explanation	Commentary
on widths and intercept lengths	<i>reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	
Diagrams	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Rock chip sample location and assay grades are shown. • Only known manganese occurrences as reported by the Northern Territory Geological Survey are shown for Banka Banka.
Balanced reporting	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Exploration work to date within the Weelarrna Project has largely been of a preliminary or reconnaissance nature. The company is aware of regional scale aeromagnetic surveys and geological mapping program and soil sampling undertaken by past explorers and has access to versions of the data that is available in reports and has assessed most of this data. • Very little exploration work for manganese or other commodities has been reported within the area of the Banka Banka tenement application. The southern area of the tenement application has been unsuccessfully explored for Tennant Creek style copper-gold mineralisation.
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> 	<ul style="list-style-type: none"> • Near future exploration plans for Weelarrana are discussed in the release. • Near future exploration plans for Banka Banka are discussed in the release.