27 October 2023

METALLURGICAL TEST WORK DELIVERS MANGANESE CONCENTRATE GRADES IN EXCESS OF 30% AT HENDEKA

Bulk metallurgical test work delivers manganese concentrate product with a significantly improved yield profile than historical data.

Highlights

- **Significant increase in manganese grades achieved with a feed grade of 15.83% Mn upgraded to a >30% Mn in concentrate, showing promise as suitable material for exporting to the steel market and/or feed into the manganese sulphate battery market.**
- **Beneficiation tests on the manganese feed resulted in significant grade improvements:**
  - **Dense Media Separation (DMS) achieved grades of up to 36.9% Mn, with the 150kg bulk test returning a combined concentrate grade of 30.04% Mn.**
  - **First-pass ore sorting achieved a grade of 29.86% Mn.**
- **Importantly, the yield was improved significantly from the historical test work, with an overall improvement of >200% in the 150kg bulk test from an average mass recovery of 14.41% historically to 37.52% currently. Contained manganese recovery also increased considerably from 35.29% to 70.95%.**
- **These results are considered highly promising given the early stage of the test work.**
- **Initial manganese concentrate leaching test work has commenced as part of an overall strategy to add value through downstream processing with the ambition to supply high-purity manganese sulphate (HPMSM) to the growing electric vehicle battery market.**

Trek Metals Limited (ASX: TKM) ("Trek" or "the Company") is pleased to advise that highly encouraging results have been received for metallurgical test work on diamond core from the 100%-owned **Hendeka Manganese Project** in the Pilbara region of Western Australia.

Trek is currently evaluating the opportunity to produce manganese concentrate for the steel industry, as well as investigating the potential to convert the feed into high-value High Purity Manganese Sulphate Monohydrate (HPMSM) that is used in the manufacture of lithium-ion batteries.

Trek's CEO Derek Marshall said: *"The results of this test work build and improve on the historical metallurgical data inherited with the project and show that the manganese mineralisation at Hendeka is capable of producing manganese concentrate with grades of >30% Mn validating the Company's test work approach. Importantly, the significant improvement in yield means that a higher proportion of the Resource can be converted into a saleable product, which ultimately has a significant impact on the economics of any future mining operation.*

"Excitingly, there are also numerous high-priority exploration targets on the table at Hendeka. Given the interpreted mineralisation model of hydrothermal 'Woodie Woodie' style mineralisation, Trek plans to target multiple small to medium hydrothermal pods of high-grade, high-value manganese.

"The mining operation at Woodie Woodie has historically operated across over more than 50 individual pits and we see Hendeka as an analogue that simply hasn't seen the intensive exploration that has been undertaken at Woodie Woodie.

"We are excited to have recently commenced our high-purity manganese sulphate (HPMSM) testwork. HPMSM is expected to see surging demand in the coming years as an increasingly desirable component of battery cathode composition. The raw material is significantly less expensive than alternative cathode materials – such as cobalt and nickel – while also offering batteries with reduced charging time, high energy density and enhanced safety performance."

Overview

Diagnostic and bulk metallurgical test work programs were designed to investigate size reduction and gravity separation to confirm the findings of a previous study from 2012 by Spitfire Materials and assess the suitability of the Hendeka ore to produce manganese concentrate suitable as feedstock into the steel manufacturing industry. Additionally, material generated during these tests was utilised as feed for further processing into high-purity manganese sulphate for the lithium-ion battery market.

One 361kg master composite, named HKT002-005, was generated from whole PQ3 diamond core from four holes (Appendix 1) drilled at the Contact Deposits at Hendeka. The targeted head assay for the program was 15% Mn to match the overall Resource grade of the deposits. The actual head analysis of the composite can be seen in Table 1.

Table 1. Head analysis from the HKT002-005 composite.

Mass	Mn	Fe	Al_2O_3	SiO_2	TiO_2	S	P	BaO	PbO	CaO	MgO	K_2O	LOI_{1100}
kg	%	%	%	%	%	%	%	%	%	%	%	%	%
361	15.83	14.79	4.19	42.27	0.167	0.012	0.024	0.032	0.003	0.31	0.49	0.768	8.61

Semi-quantitative XRD analysis was undertaken on a ground sub-split of the 75mm test feed material and returned the following mineral breakdown estimate for the Hendeka master composite.

Table 2 : XRD mineral quantification from the HKT002-005 composite

Crystalline Mineral Phase	Concentration %	ICDD Match Probability
Quartz, syn (SiO_2)	39	High
Goethite, syn ($FeO(OH)$)	18	High
Pyrolusite, syn (MnO_2)	15	Medium
Kaolinite 1A, ($Al_2SiO_5(OH)_4$)	11	Medium
Cryptomelane – M (K_2-x Mn_8O_{16}) (	11	Medium
Hematite, syn ($Fe_{1.766}O_3$)	6	Low

Diagnostic Test Work

A series of sighter tests were undertaken to determine the optimum crush size to be used in the bulk test. Three 15kg samples were prepared at various crush sizes: P_{100} 50mm, P_{100} 31.5mm and 25mm. These samples underwent scrubbing test work at identical conditions and were wet screened at 6.3mm and 1mm.

The results displayed below in Table 3 display the grade recovery data for the +6.3mm Ericsson Cone tests at the three (3) selected crush sizes.

Table 3 : +6.3mm Crush Variability Summary Data of 2.75 S.G. cut products

Crush Size (mm)	Mn Grade %	Mn Rec %	Fe Grade %	Fe Rec %	SiO_2 Grade %	SiO_2 Rec %
50	29.52	67.03	18.14	49.55	17.79	17.44
31.5	33.05	66.18	12.65	46.49	19.37	19.92
25	29.59	77.51	17.12	61.44	18.45	24.21

The diagnostic tests confirmed that a crush size of P_{100} 31.5mm was optimal for maximising manganese upgrade while achieving acceptable recovery. Crushing coarser than P_{100} 31.5mm resulted in decreased manganese grade due to a decrease liberation of the manganese minerals. Crushing finer than P_{100} 31.5mm the manganese recovery improved, but also significantly increased the recovery of iron and silica due to improved liberation of these minerals, thus diluting the final manganese grade achieved.

Bulk Test Work

Based on the results from the diagnostic test work 150kg of the master composite was crushed to P_{100} 31.5mm, scrubbed for 5 minutes and wet screened at 6.3mm and 1mm. The scrub and wet screen results were comparable to the diagnostic test work.

Table 4. Bulk test work

Fraction	Yield (%)	Mn		Fe		SiO_2		Al_2O_3	
		Grade (%)	Dist (%)	Grade (%)	Dist (%)	Grade (%)	Dist (%)	Grade (%)	Dist (%)
+6.3mm	53.45	19.58	65.65	12.78	52.81	40.32	48.40	3.26	41.33
-6.3+1mm	18.64	18.12	21.19	13.18	18.99	43.35	18.15	2.82	12.47
-1mm	27.91	7.52	13.16	13.07	28.20	53.38	33.46	6.98	46.20

The +6.3mm fraction then underwent Dense Media Separation at a 2.75 S.G. cut, the -6.3 +1 mm fraction was processed via dense media in a DMS cyclone at 2.95 S.G. cut, and the – 1mm fines processed over a Wilfley Table.

"S.G. refers to specific gravity."

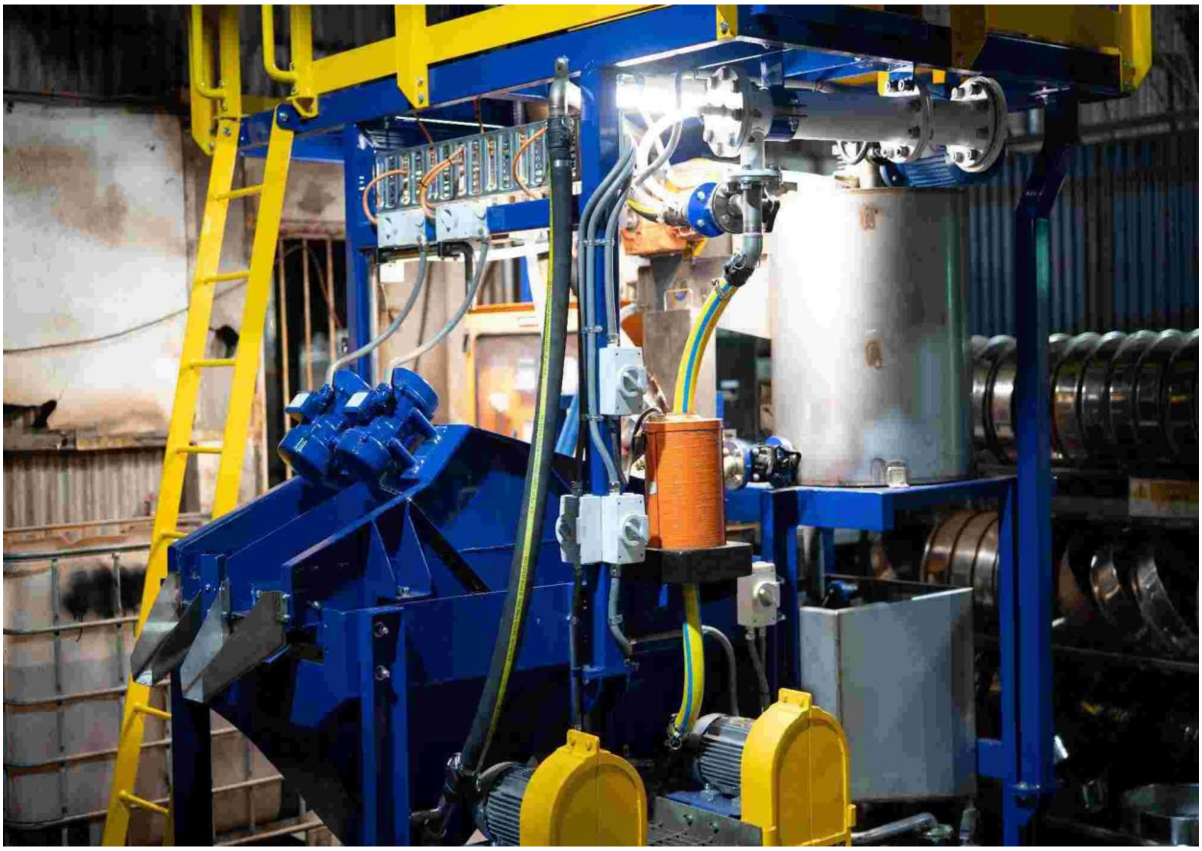

Figure 1: Dense Media Separation Unit

Table 5. The recovered metal and associated grade for each of the test size fractions from the bulk test.

Fraction	Feed					Underflow				
	Yield (%)	Mn		Fe		Yield (%)	Mn		Fe	
		Grade (%)	Dist (%)	Grade (%)	Dist (%)		Grade (%)	Dist (%)	Grade (%)	Dist (%)
Feed	-	15.83	-	14.79	-	-	-	-	-	-
+6.3mm	53.45	19.58	65.65	12.78	52.81	26.58	29.71	49.98	15.97	33.18
-6.3+1mm	18.64	18.12	21.19	13.18	18.99	9.02	31.53	17.64	16.69	11.46
-1mm	27.91	7.52	13.16	13.07	28.20	1.93	27.74	3.33	13.75	2.02
Product Total						37.52	30.04	70.95	16.03	46.66

A visual representation of the recovered coarse (+6.3mm) concentrate is displayed in Figure 2 below.

Figure 2: +6.3mm Ericsson Cone Concentrate

Ore Sorting Test Work

Trek submitted a scrubbed/washed coarse grained (+10mm) fraction from recombined material from the diagnostic test work to Steinert Australia in Perth for ore sorting test work. Prior to running the samples through the ore sorter, the material was characterised by Steinert to identify a sorting algorithm based on three sensor types – colour, shape, and density.

A coarser size fraction was selected on the basis that the Company was submitting a relatively small ~7.5kg sample through a full-scale ore sorter (Figure 1) at the Steinert facility and a coarser feed was more likely to replicate how the equipment may perform once in a production environment.

Figure 3. The Steinert ore sorter at Bibra Lake, Perth that was used to test +10mm samples from Hendeka (LHS) and the resultant material with Product top and Waste below (RHS).

The overall achieved grades are presented in Table 4. A recovery of 78.71% of the manganese reported to the product at a grade of 29.86% Mn in 52.00% of the mass. While this is a promising result, the material was screened at 10mm prior to ore sorting and the -10mm fraction has not been quantified in terms of mass and metal losses.

Table 6. Ore sorting results.

Fraction	Yield (%)	Mn		Fe		SiO_2		Al_2O_3	
		Grade (%)	Dist (%)	Grade (%)	Dist (%)	Grade (%)	Dist (%)	Grade (%)	Dist (%)
Product	52.00	29.86	78.71	15.81	60.64	18.93	25.03	3.23	51.24
Waste	48.00	8.75	21.29	11.12	39.36	61.44	74.97	3.33	48.76

Should the Company continue to investigate the application of ore sorting, it will use a much larger sample size (several tonnes) to properly assess the viability of this technology.

Conclusions

The Company believes that this body of work has yielded positive results in respect the quality and quantity of material that can be produced from the Hendeka Project.

The aims of these test work programs have been satisfied by which verification that the Hendeka ore can be upgraded to a potential product of >30% Mn contained, significant yield improvements are attainable over that reported in the previous study and sufficient information has been generated from this program to select a metallurgical process flowsheet to be tested and optimised.

The company has submitted material generated during this test work to ALS to undergo hydrometallurgical test work to assess the production of high-purity manganese sulphate monohydrate (HPMSM) with the aim to produce battery grade product that would be suitable for the lithium-ion battery market.

About the Hendeka Project

The Hendeka Project is located approximately 70km south of the prolific Woodie Woodie manganese mining centre in the Pilbara region of Western Australia (Figure 6).

Hendeka has a JORC (2012) Inferred Mineral Resource Estimate (MRE) of 11.3Mt grading 15.0% Mn for the Contact and Contact North deposits (refer ASX Release 6 June 2022 – Table 1, Appendix 1, 2 & 4 for additional information), with immediate drill targets for both Resource extensions and new discoveries.

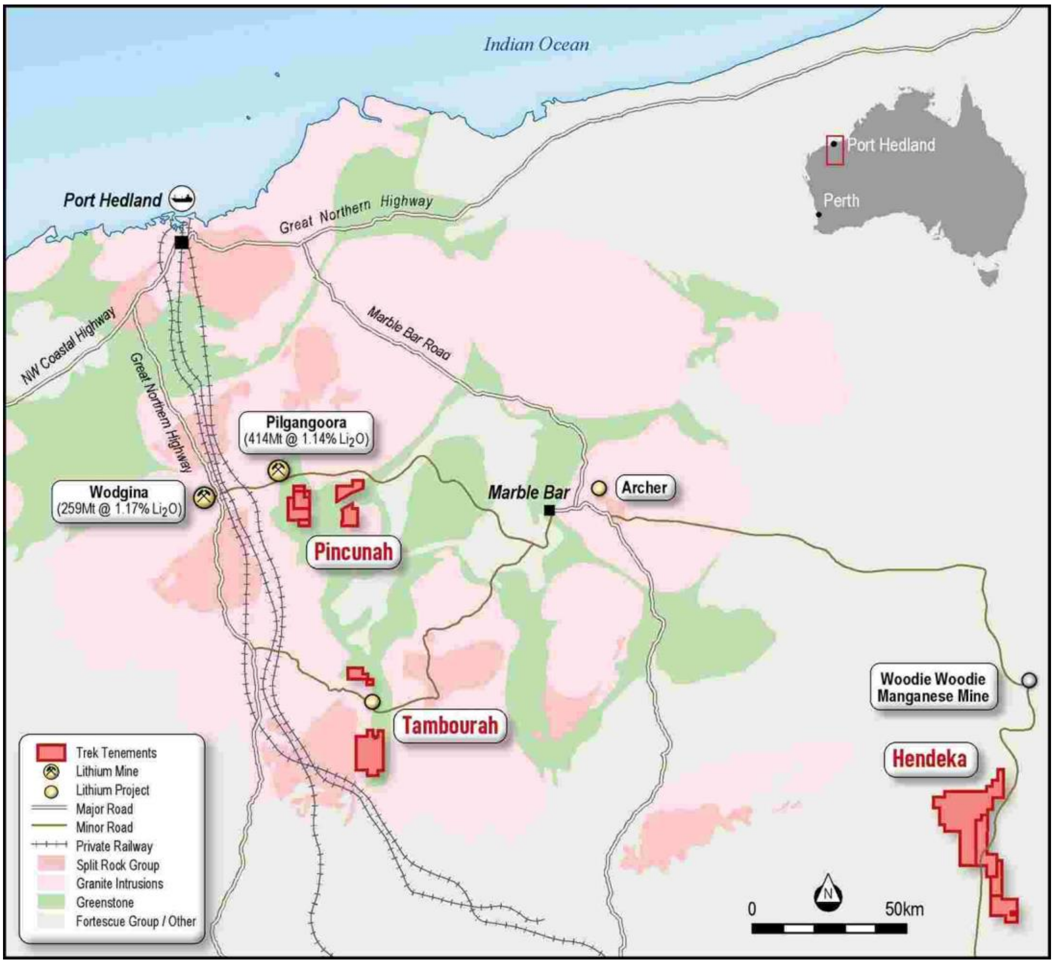

Figure 4: Location of the Hendeka Manganese Project situated approximately 70km south of the Woodie Woodie mine site in the Pilbara region of Western Australia.

Authorised by the Board.

ENDS

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DISCLAIMERS AND FORWARD-LOOKING STATEMENTS

This announcement contains forward looking statements. Forward looking statements are often, but not always, identified A words such as "seek", “target”, "anticipate", “forecast”, "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions.

The forward-looking statements in this announcement are based on current expectations, estimates, forecasts and projections about Trek and the industry in which it operates. They do, however, relate to future matters and are subject to various inherent risks and uncertainties. Actual events or results may differ materially from the events or results expressed or implied by any forward-looking statements. The past performance of Trek is no guarantee of future performance.

None of Trek’s directors, officers, employees, agents or contractors makes any representation or warranty (either express or implied) as to the accuracy or likelihood of fulfilment of any forward-looking statement, or any events or results expressed or implied in any forward-looking statement, except to the extent required by law. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

COMPETENT PERSONS STATEMENT

The information in this report relating to Exploration Results is based on information compiled by the Company’s Chief Executive Officer, Mr Derek Marshall, a competent person, and Member of the Australian Institute of Geoscientists (AIG). Mr Marshall has sufficient experience relevant to the style of mineralisation and to the type of activity described 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 Marshall has disclosed that he holds or controls Shares and Performance Rights in the Company. Mr Marshall consents to the inclusion in this announcement of the matters based on his information in the form and content in which it appears.

The information in this report relating to Metallurgical Results is based on information reviewed by Mr Steven Hoban, a competent person, and Member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Hoban is an employee of BHM Process Consultants and consultant to Trek Metals Limited. Mr Hoban has sufficient experience relevant to the mineralogy and to the type of activity described 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 Hoban consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Appendix 1. Hendeka metallurgical test work diamond drill collar information

Hole ID	Easting	Northing	RL	Depth (m)	Dip	Azi	Prospect	Lease
HKT002	311,153	7,537,248	362	61.2	-71	90	Contact North	E46/787
HKT003	311,201	7,537,856	356	108.2	-90	360	Contact North	E46/787
HKT004	311,501	7,536,848	362	39.7	-90	360	Contact	E46/787
HKT005	311,402	7,536,896	363	30.0	-90	360	Contact	E46/787

Appendix 2. Hendeka metallurgical test work sample log and gross mass information

Hole ID	Tray	From (m)	To (m)	Gross Mass (kg)
HKT002	13	32.10	34.68	21.92
HKT002	14	34.68	37.30	23.44
HKT003	23	60.61	63.30	26.74
HKT003	24	63.30	66.07	26.96
HKT003	25	66.07	71.94	19.34
HKT003	26	71.94	74.62	22.94
HKT003	27	74.62	77.49	26.68
HKT004	4	7.60	10.29	33.88
HKT004	5	10.29	14.70	26.02
HKT004	6	14.70	17.89	30.62
HKT004	7	17.89	20.70	29.42
HKT005	2	5.27	7.79	29.32
HKT005	3	7.79	10.25	32.06
HKT005	4	10.25	12.88	32.64
HKT005	5	12.88	15.62	28

Appendix 3. Hendeka PQ3 diamond core samples from hole HKT005 (trays 2-5 photographed below) were included in master composite HKT002-005.

JORC Table Section 1: Sampling Techniques and Data:

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 (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.*	• Metallurgical test work sample selection was conducted by Trek Metals in conjunction with the BHM team to ensure representivity of sample zones. • Geological logs of diamond drill core (made by the field geologist) were used in conjunction with photographs of the core and assay results from previous Reverse-Circulation exploration drilling were used to determine the most relevant intervals from the diamond drill holes completed. • The location of drill hole collars were located by handheld GPS.
Drilling techniques	• *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).*	• Standard diamond drilling by an independent contractor (DDH1) was used to complete the metallurgical test works programme, core samples were PQ (83.9mm) diameter. • An attempt was made to orientate the drill core for holes drilled non-vertically but due to the broken nature of the geology this was not possible. Majority of the drill holes were vertical. The drill core was not orientated.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Diamond drilling recoveries were deemed average, with core loss recorded by the drill team, re-evaluated by the geologist and then recorded in the geological logs and database by the supervising geologist. • There was no observed relationship between sample recovery and grade.
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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• The core was processed in the field, including meter marking and photography. • Geological logging descriptions are recorded by a Trek geologist once the core was marked up for every metre diamond drill core, validated and recorded in the database.
Sub-sampling techniques	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or*	• No diamond drill core samples were taken for assay. • A number of diamond drill core intervals were chosen by the Trek team in

Criteria	JORC Code explanation	Commentary
and sample preparation	*dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	collaboration with BHM for Metallurgical Test Work, Appendix 2. • Compositing of the samples into a master composite was completed under supervision of BHM once the samples arrived at Nagrom Laboratories.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• A master composite was prepared from the intervals selected for metallurgical test work at Nagrom Laboratories in collaboration with BHM in Perth, Western Australia. • Samples once received were logged and recorded into the Nagrom system. • Compositing, sample preparation, stage crushing, bulk test work & ore sorting was completed, refer to Tables 1-6.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• All company data has been verified and included in the company database.
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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Location of the diamond drill holes were recorded using a handheld GPS. • Down-hole surveys were conducted upon completion of each hole by the drilling company (DDH1). • Grid projection system is GDA20 MGA Zone 51.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Diamond drill holes were targeted within the Contact and Contact North Resource areas (refer ASX Release 6 June 2022 - Table 1, Appendix 1, 2 & 4 for additional information) with the aim of producing a composite sample that was representative of the deposit in terms of grade and geology. Table 1 in the body of this announcement summarises the head grade of the composite (15.83% Mn) which correlates well with the reported Inferred Resource grade (15.0% Mn).
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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*	• No orientation bias is considered to have an effect on the data.

Criteria	JORC Code explanation	Commentary
	assessed and reported if material.	
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by the Company. Samples are freighted directly to the laboratory with the appropriate documentation.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits of the techniques or data has been undertaken at this stage.

JORC Table Section 2: Reporting of Exploration Results:

(Criteria listed in the preceding section also apply to this section.)

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 license to operate in the area.*	• The Contact and Contact North Deposits sit wholly within Exploration licence E46/787 in the Wandanya locality in the East Pilbara. The registered owner of the tenement is Edge Minerals Ltd (a wholly owned subsidiary of Trek Metals LTD,). • There are no existing royalties or joint venture agreements in place for the licence. • The Project is located 100% on Determined Claim (Tribunal File No. WCD2018/008) Nyiyaparli and Nyiyaparli #3, represented by the Karlka-Nyiyaparli Aboriginal Corporation (KNAC). Edge Minerals Ltd (previously Spitfire Australia Pty Ltd) has an Aboriginal Agreement with KNAC for exploration licence E46/787 and has undertaken on-country heritage surveys.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• All exploration at Hendeka (previously South Woodie Woodie) was conducted by Spitfire Resource Limited during the period 2008 – 2017. • No known previous exploration for Manganese has been undertaken by other parties in this area.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The basement to the region is comprised of Archaean granites and gneisses. These are unconformably overlain by rocks of the Fortescue and Hamersley Groups including basalt, sandstones, shales, dolomites, cherts, and felsic volcanic. • The Hamersley Group is subdivided in to the lower 60m thick Marra Mamba Iron Formation (chert, shale, BIFs and jaspilite) and the upper 150m thick Carawine Dolomite (stromatolitic carbonate sequence with intercalated chert beds, veins and nodules). Secondary silicification of the Carawine Dolomite under subaerial conditions has led to the widespread formation of the Mesoproterozoic Pinjian Chert Breccia • The area is also overlain by the Neoproterozic Manganese group and Phanerozoic lithological units. • Manganese concentrations in the eastern Pilbara have been noted in the following stratigraphic units: o Carrawine Dolomite (Hamersley Group) o Marra Mamba Iron Formation (Hamersley Group) o Roy Hill Shale member of the Jeerinah Formation (Fortescue Group) o Balfour Formation (Bangemall group)

Criteria	JORC Code explanation	Commentary
		• The GSWA mapping available for the area indicates the presence of Quarternary sediments and Tertiary mixed siliceous caprock. Remapping on a more local scale by T.S. Blake of Micraster Geological Services, identified a siliceous chert unit, with a small outcrop of Carawine Dolomite. Manganese was found to be exposed within the siliceous material in an eroded cutting close to the Contact/Contact North Deposit. The area is unconformably overlain by a late-stagesandstone unit that can be seen to be manganese stained in places. • The geological model for the area is similar to the Woodie Woodie mineralisation model. That is, a series of hydrothermal events have been responsible for massive silica, iron and manganese alteration within the Carawine Dolomite. Typically, siliceous fluids have shattered and altered the dolomite to form dolomitic chert breccias and form large, sometimes circular, pipe structures. Bedding within the dolomite is often replaced during this process. Iron rich fluids have similarly replaced the silica, followed by manganese. Replacement and alteration is complex and has formed many rock types and forms. Incomplete manganese replacement is responsible for high silica and high iron areas. Generally, bedding replacement manganese mineralisation correlates with a nearby pipe structure.

Drill hole Information	• *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:*
	  o *easting and northing of the drill hole collar*
	  o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  o *dip and azimuth of the hole*
	  o *down hole length and interception depth*
	  o *hole length.*
	• *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.*
		• Data provided within body of the announcement, refer to Appendices 1 & 2.

Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• A master composite was prepared from the intervals selected for metallurgical test work by the Trek team in conjunction with BHM. • Compositing, sample preparation, stage crushing, bulk test work & ore sorting was completed, refer to Tables 1-6.
Relationship between mineralisation widths and	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its*	• The average width of the interpreted mineralised envelope for Contact and Contact North is 150m and 350m respectively. The mineralised envelope boundaries were snapped to ends of assay intervals on drill holes. Assay

Criteria	JORC Code explanation	Commentary
intercept lengths	*nature should be reported.* • *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').*	manganese grades determined whether material was inside or outside the interpreted mineralised envelope. It is highly probable that dilutionary effects are evident along mineralised envelope boundaries. This will have the effect of both underestimating the overall grade and overestimating the overall tonnage. These effects will become greater at areas with narrow interpreted mineralised zones. • A good level of correlation between the twinned (exploration) RC and Diamond holes assays results was observed. No downhole depth differences of more than 1m were evident which indicates that the two different drilling techniques produced comparable results.
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.*	• Exploration results are not being reported.
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.*	• Exploration intersection results are not being reported.
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.*	• Metallurgical test work including compositing, sample preparation, stage crushing, bulk test work & ore sorting was completed, refer to body of the announcement and Tables 1-6 within.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further planned work at the Project includes: ○ Hydrometallurgical test work to assess the potential to produce high purity manganese sulphate monohydrate (HPMSM) for the lithium-ion battery market.