# **ASX ANNOUNCEMENT**

29 June 2023



# VIKING HITS MULTIPLE THICK ZONES OF MAGNETITE AT KINKS SOUTH

- Viking intersects thick zones of magnetite (mineral host to the Vanadium at Canegrass) at the Kinks South target area.
- 13 holes for 2,214m drilled at Kinks South along a >1.1km trend of targeted Vanadiferous Titanomagnetite (VTM) mineralisation.
- Multiple zones encountered in many drillholes and supported by magnetic susceptibility measurements taken on drill samples.
- All holes have encountered magnetic intervals and highlights include:
  - VCRC0012: 4 zones totalling 63m of strongly magnetic horizons containing 3 bands totalling 42m of logged massive magnetite, untested to the west and north.
  - VCRC0011: 3 zones totalling 61m of strongly magnetic horizons containing 4 bands totalling 35m of logged massive magnetite.
  - VCRC0018: 2 zones totalling 30m of strongly magnetic horizon containing 22m of logged massive magnetite.
- VCRC0012 & VCRC0018 are 1.3km apart and the most eastern and western holes drilled respectively at the Kinks South target area, with mineralisation remaining open and untested.
- These results represent only 1 of the 5 target areas being tested as part of the major ~6,000m drill programme still underway.

Viking Mines Ltd (ASX: VKA) ("Viking" or "the Company") is pleased to provide an update to market on the current drill programme underway at the Canegrass Battery Minerals Project ("the Project" or "Canegrass"), located in the Murchison region of Western Australia.

The Company is currently drilling across five exploration target areas focussed on extending and growing the already substantial Mineral Resource Estimate (MRE) of 79Mt at 0.64% V<sub>2</sub>O<sub>5</sub> estimated at the Fold Nose and Kinks deposits.<sup>1</sup>

Drilling at the Kinks South targets has returned multiple and consistent, thick zones of massive magnetite which is the known host to Vanadium mineralisation at the Canegrass Project.

## Viking Mines Managing Director & CEO Julian Woodcock said:

"The drilling underway at Canegrass is delivering positive indications ahead of receiving assays. Specifically, at the Kinks South target area we have intersected multiple, thick zones of magnetite in several drillholes testing a strike length of >1.1km.

"These newly drilled holes are expanding on the recent drilling completed by Viking in March 2023, which returned 17m at 0.98%  $V_2O_5$ , including 12m at 1.06%  $V_2O_5$  in hole VCRC0006.<sup>2</sup>

"The Kinks South target area has the scale and potential to deliver substantial resources towards the Company's strategic objective of defining a high-grade resource >30Mt >0.9%  $V_2O_5$ . This offers a major opportunity to add value for Vikings' shareholders by growing the Canegrass Mineral Resource base."

<sup>&</sup>lt;sup>1</sup> ASX Announcement Viking Mines (ASX:VKA) 30 November 2022 - VIKING TO FARM IN TO SUBSTANTIAL BATTERY MINERAL RESOURCE

<sup>&</sup>lt;sup>2</sup> ASX Announcement Viking Mines (ASX:VKA) 18 April 2023 - Viking Drilling Hits 12m of High-Grade Vanadium at 1.06% V<sub>2</sub>O<sub>5</sub>



#### KINKS SOUTH TARGET AREA

Drilling at the Kinks South target is outside the current MRE and represents an exploration target for additional high-grade Vanadium mineralisation. Viking has completed an Exploration Target Estimate ("**ETE**") for the Kinks South target area of:

#### 23.1Mt to 30.8Mt at 0.46% to 1.04% V2O5 for 0.24 to 0.71 Billion Pounds of $V_2O_5^3$

The potential quantity and grade of mineralisation of the ETE at the Canegrass Project is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will confirm the target ranges.

The Company is strategically targeting high-grade mineralisation with the objective of defining a high-grade resource >30Mt at >0.9%  $V_2O_5$ . The objective of defining a high-grade resource is based on other projects in the region producing positive economic studies on resources of this size and grade. The Company feels that defining a similar sized high-grade component of the global resource at the Canegrass Project will provide a solid basis to move forward with a scoping study in 2024.

Based on the ETE for Kinks South and the observations made in the drilling completed to date, the Kinks South target area has the potential to deliver the Company's strategic objective.

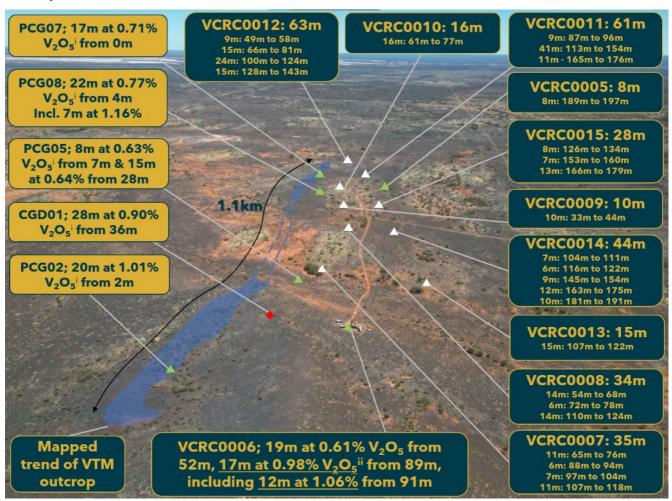


Figure 1; View looking West over the Kinks South target area with historical drillhole results and location of holes drilled as part of the major drilling programme underway. Callouts show the downhole intervals (true widths not known) of magnetic susceptibility zones >125 SI units x 10-3 and the combined thickness. These zones are interpreted to be related to magnetite mineralisation which has the potential to host Vanadium.

<sup>&</sup>lt;sup>3</sup> ASX Announcement Viking Mines (ASX:VKA) 14 June 2023 - VKA Defines Substantial Upside potential at Canagrass



# **Drillhole Intercepts**

13 holes (including 1 re-entry) for a total of 2,214 metres have been completed at the Kinks South target area during the current drilling campaign. Drilling is targeting the downdip and along strike continuity of the mineralisation observed in outcrop and supported by historical drilling completed in the 1980's (Figure 1) and Vikings recent drillhole VCRC0006 drilled in March which returned:

# 17m at 0.98% V<sub>2</sub>O<sub>5</sub> including 12m at 1.06%.<sup>2</sup>

Drilling completed to date has returned the intercepts reported in Figure 1, Figure 2 and Table 1 across the Kinks South target area. The drillhole intercepts have been identified through a process of geological logging and measurements of magnetic susceptibility (magsus), with the process used discussed in the following sections of this announcement.

Magnetic susceptibility is used to identify magnetite within the drillhole which is the known host to Vanadium mineralisation. No estimate of the quantity of Vanadium mineralisation has been made as it is not possible to determine without laboratory analysis. The reported intervals are not intended to confirm the presence of Vanadium mineralisation, however based on information collected to date on the Project, the Company believes that there is high potential for the reported intercepts to contain Vanadium based on evaluation of magsus vs vanadium grade observed in drillhole VCRC0006 (Figure 5).

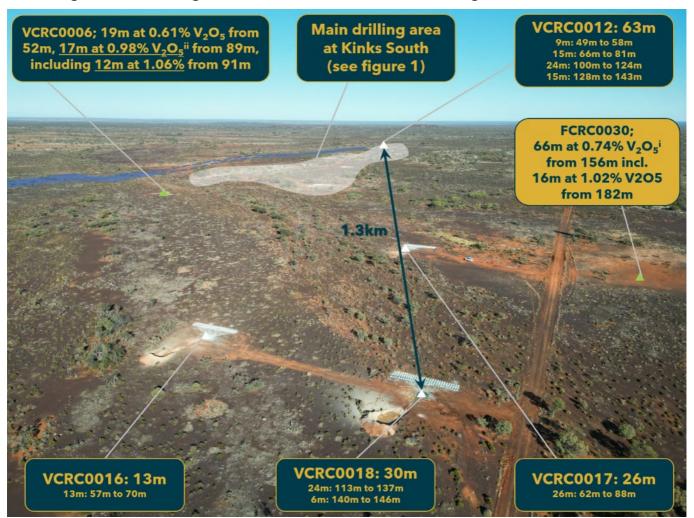


Figure 2; View to the Southwest of the Northern part of the Kinks South target area showing holes VCRC0016 to VCRC0018. Callouts show the downhole intervals (true widths not known) of magnetic susceptibility zones >125 SI units x 10<sup>-3</sup> and combined thickness. These zones are interpreted to be related to magnetite mineralisation which has the potential to host Vanadium. Note the location of the majority of the drilling at Kinks South as annotated (see Figure 1). The distance between hole VCRC0018 (the eastern most hole) to VCRC0012 (the western most hole) is 1.3km.



Table 1; Table of intercepts defined by magnetic susceptibility readings and visual logging of massive magnetite within drill chips at Kinks South target area. Intervals reported are downhole widths and true width is not known.

	Min 6m	and av	mag sus	>125	Logged	massive m	agnetite
Hole ID	MagSus Av						
Hole ID	SI Units x10-3	From (m)	To (m)	Interval (m)	Interval (m)	From (m)	To (m)
VCDCOOOE	411	189	197	8	8	189	197
VCRC0005	T	OTAL		8	8	-	-
	508	52	71	19	2	66	68
VCRC0006	993	88	107	19	16	90	106
		OTAL		38	18	-	-
	190	65	76	11	8	65	73
	928	88	94	6	6	88	94
VCRC0007	522	97	104	7	3	97	100
	186	107	118	11	6	107	113
		OTAL		35	23	-	-
	284	54	68	14	4	57	61
VCRC0008	388 856	72	78 124	6 14	2 12	73 110	75 122
		110 <b>OTAL</b>	124	34	18		
	1	JIAL		34	6	34	40
VCRC0009	126	34	44	10	4	42	46
Vencedou	T	OTAL		10	10	-	-
	906	61	77	16	12	61	73
VCRC0010		OTAL		16	12	-	-
	125	87	96	9	-	-	=
	491 113 15			5	117	122	
VCDC0011		113	154	41	10	124	134
VCRC0011					8	146	154
	732	165	176	11	12	165	177
		OTAL		61	35	-	-
	212	49	58	9	-	-	-
	586	66	81	15	8	69	77
VCRC0012	588	100	124	24	24	100	124
	414	128	143	15	10	132	142
		<b>107</b>	122	<b>63</b>	<b>42</b>	110	111
VCRC0013		OTAL	122	15	1	110	111
	327	104	111	7	7	104	111
	148	116	122	6	-	-	
	303	145	154	9	9	145	154
VCRC0014	467	163	175	12	9	164	173
					3	183	186
	414	181	191	10	1	190	191
	T	OTAL		44	29	-	-
	806	126	134	8	9	126	135
VCRC0015	523	153	160	7	6	154	160
VCICOUTS	683	166	179	13	20	160	180
		OTAL		28	35	-	-
VCRC0016	479	57	70	13	10	60	70
. 51.55510	T	OTAL		13	10	-	-
	284	62	88	26	10	73	83
VCRC0017					2	86	88
	T	OTAL		26	12	-	-
	485	113	137	24	15	113	128
VCRC0018	168	140	146	6	2 5	132 140	134 145
		OTAL	140	30	22	-	
	1	O I AL		30	22		-



All drillholes have intersected massive magnetite of varying degrees of thickness and all contain zones of highly magnetic material (Table 1). Figure 3 provides an example of the drill chips showing the occurrence of highly magnetic material as identified by magsus measurements >125 SI units x10<sup>-3</sup> and zones of massive magnetite as logged by Viking geologists.

The magsus zones encompass the massive magnetite as would be expected, with lower levels of disseminated magnetite present outside of the massive magnetite zones.



Figure 3; Drillhole chips from VCRC0012 showing the occurrence of highly magnetic material (red highlights) and zones of massive magnetite as logged by Viking geologists (pink highlights).



In relation to the disclosure of visual mineralisation, the Company cautions that estimates of magnetite mineral abundance (and assumed vanadium content) from drill chip logging should not be considered a proxy for quantitative analysis of a laboratory assay result. Assay results are required to determine the actual widths and grade of the visible mineralisation, the results of which are expected at the end of July/early August 2023.

#### **Drillhole Observations**

All drillholes have been geologically logged and had magnetic susceptibility (magsus) measurements taken on the samples. The magsus measurements indicate the degree of magnetisation of a material in response to an applied magnetic field. As vanadium mineralisation is hosted by the mineral magnetite (which has a high magsus response) the magsus measurements are used to support the definition of zones of high magnetite which, by proxy, are used to identify the potential zones of high-grade vanadium mineralisation.

This relationship can be seen in Figure 4 below. Zones of magnetic susceptibility are coloured on the drillhole trace and the geological logging of the drillholes are shown to the left side. The zones of magnetite (black bands) directly align with the zones of magsus >125 SI Units  $\times 10^{-3}$ .

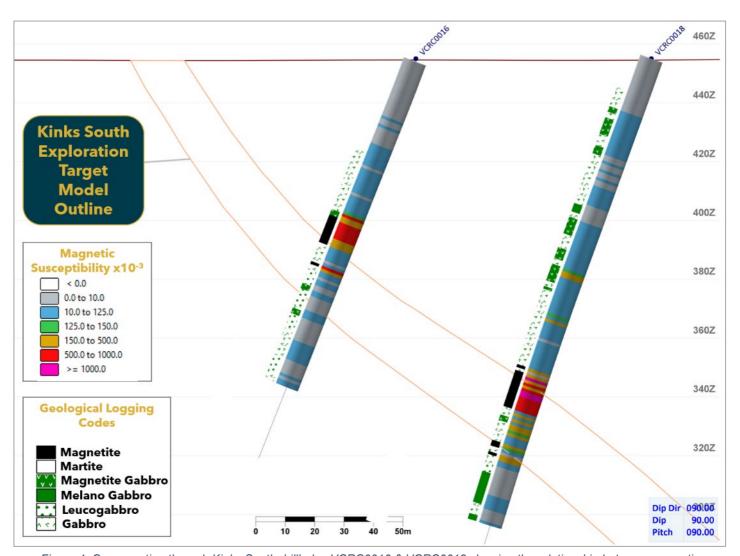


Figure 4; Cross section through Kinks South drillholes VCRC0016 & VCRC0018 showing the relationship between magnetic susceptibility values >125 SI units x10<sup>-3</sup> and geological logged magnetite intervals. The black bars show the geological logging aligning with the zones of elevated magsus readings (coloured bands).



This method of determining the zones of potential vanadium mineralisation is supported by the observations made in hole VCRC0006 which shows a correlation between magsus values and  $V_2O_5\%$  grade (Figure 5).

Evaluation of the data collected from drillhole VCRC0006 has identified a threshold magsus value of 125 SI units  $\times 10^{-3}$  above which >95% of results return vanadium grades above a cutoff of 0.3%  $V_2O_5$ . The cut-off of 0.3%  $V_2O_5$  has been determined from the evaluation of the drillhole intervals which contain the magnetite zones in the drillhole and represents the lower limit of mineralisation.

This method of assessment has in turn been used to further support the identification of potentially mineralised horizons which have been identified via geological logging of zones of massive magnetite in the drilling.

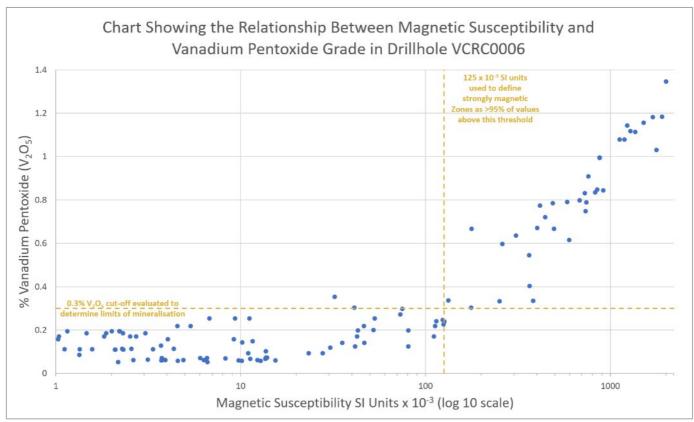


Figure 5; Chart showing the relationship between magnetic susceptibility and analysed V2O5% in drillhole VCRC0006. Note the positive correlation above a 0.3% V2O5 cut-off.

# **DRILL PROGRAMME UDPATE**

As of 28 June 2023, 34 holes have been completed (including one re-entry) for 5,408 drilled at the project as part of the 6,000m drill programme. Several holes have been extended whilst drilling has progressed and it is estimated that the programme will total ~6,500m.

Drilling has progressed well with a high level of productivity attained by TopDrill drilling contractors and the programme is expected to be completed early July.

Samples are being routinely despatched to the laboratory and results of the programme are expected to be received throughout July and into August.

The Company will continue to update the market with results as they are received and evaluated.



#### **NEXT STEPS**

The Company continues to make rapid advancements at the Project, with the focus on completing the drill programme safely and efficiently. Upcoming activities and priorities include:

- Complete the ~6,500m drill programme.
- Submit all samples to ALS Geochemistry laboratory for analysis.
- Complete logging of drill chips and assess the target areas.
- Assess results from the preliminary sighter metallurgical testwork programme once received (expected late July).
- Update the geological model once all analysis results have been received (results expected within 5-6 weeks of completion of drilling based on laboratory indicated turnaround times).

#### **END**

This announcement has been authorised for release by the Board of Directors.

Julian Wandanak

Julian Woodcock Managing Director and CEO **Viking Mines Limited**  For further information, please contact: **Viking Mines Limited**Sarah Wilson - Company Secretary
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#### **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Viking Mines Limited's planned exploration programme and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Viking Mines Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

#### **Competent Persons Statement - Exploration Results**

Information in this release that relates to Exploration Results and the Exploration Target is based on information compiled by Mr Julian Woodcock, who is a Member and of the Australian Institute of Mining and Metallurgy (MAusIMM(CP) - 305446). Mr Woodcock is a full-time employee of Viking Mines Ltd. Mr Woodcock has sufficient experience which 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Woodcock consents to the disclosure of the information in this report in the form and context in which it appears.

#### **Competent Persons Statement - Mineral Resources**

The information in this report that relates to Mineral Resources is based on, and fairly reflects, information compiled by Mr Aaron Meakin, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Meakin is a consultant to Flinders Mines Ltd and Viking Mines Ltd, employed by CSA Global Pty Ltd, independent mining industry consultants. Mr Meakin has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). The Company is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement on 30 November 2022.



## **CANEGRASS BATTERY MINERALS PROJECT**

The Canegrass Battery Minerals Project is located in the Murchison region, 620km north-east of Perth, Western Australia. It is accessed via sealed roads from the nearby township of Mt Magnet to within 22km of the existing Resources. The Project benefits from a large undeveloped Inferred Vanadium Resource hosted in vanadiferous titanomagnetite (VTM) Mineralisation as part of the Windimurra Layered Igneous Complex.

The Project benefits from  $\sim 95 \, \text{km}^2$  of exploration tenements with very limited follow up exploration targeting the growth potential of the vanadium pentoxide ( $V_2O_5$ ) Resources in the +10 years since the Resource was first calculated. Multiple drill ready targets are present which have the potential to significantly add to the already large Resource base, with high grade intercepts presenting an opportunity to substantially increase the average grade.

## **JORC (2012) RESOURCE**

The Canegrass Battery Minerals Resource has been calculated across two separate areas called the Fold Nose and Kinks deposits, each with eight and four separate mineralised domains modelled respectively. The Resource has subsequently been reported above a cutoff grade of  $0.5\%~V_2O_5$  and above the 210 RL (equivalent to a maximum depth of ~250m) (refer to ASX Announcement on 30 November 2022).

Canegrass Project Vanadium Mineral Resource estimate, 0.5% V2O5 cut-off grade, >210m RL (due to the effects of rounding, the total may not represent the sum of all components).

Deposit	JORC Classification	Tonnage (Mt)	V <sub>2</sub> O <sub>5</sub> %	Fe %	TiO₂ %	Al <sub>2</sub> O <sub>3</sub> %	P %	SiO₂ %	LOI %
Fold Nose	Inferred	59	0.66	30.5	6.5	11.9	0.006	22.9	2.9
Kinks	Inferred	20	0.57	27.4	5.5	13.0	0.009	25.9	3.1
TOTAL		79	0.64	29.7	6.0	12.2	0.007	23.6	3.0

#### **VIKING MINES FARM-IN AGREEMENT**

Viking, via its wholly owned subsidiary, Viking Critical Minerals Pty Ltd, commenced with a Farm-In arrangement with Flinders Mines Ltd (ASX:FMS) on 28 November 2022 to acquire an equity interest in the Canegrass Battery Minerals Project. Through the terms of the Farm-In, Viking can acquire up to 99% of the Project through completion of 4 stages via a combination of exploration expenditure of \$4M and staged payments totalling \$1.25M over a maximum period of 54 months. If Viking complete the Farm-In to 99% equity interest, Flinders may offer to sell to Viking the remaining 1% of the Project for future production and milestone related payments totalling \$850,000. If Flinders do not offer to sell within a prescribed timeframe their right lapses, they must offer Viking the right (but not the obligation) to buy the remaining 1% for the same terms. The Project has a legacy 2% Net Smelter Royalty over the project from when Flinders Mines acquired it from Maximus Resources in 2009.



### **VANADIUM REDOX FLOW BATTERIES - GREEN ENERGY FUTURE**

Viking Mines recognise the significant importance of Vanadium in decarbonisation through the growth of the Vanadium Redox Flow Battery ("**VRFB's**") sector.

VRFB's are a developing market as an alternate solution to lithium-ion ("**Li-ion**") in specific large energy storage applications. Guidehouse Insights Market Intelligence White Paper published in 2Q 2022 forecasts the VRFB sector to grow >900% by 2031 through the installation of large, fixed storage facilities (Figure 7).

# Annual Installed VRFB Utility-Scale and Commercial and Industrial Deployment Revenue by Region, All Application Segments, World Markets: 2022-2031

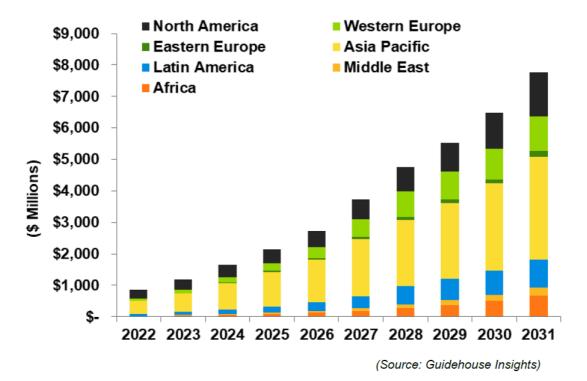


Figure 5; Forecast growth of the VRFB Sector through to 2031 (source - Guidehouse Insights)

The reason for this forecast growth is that VRFB's have unique qualities and advantages over Li-ion in the large energy storage sector to complement renewable energy sources to store the energy produced. They are durable, maintain a long lifespan with near unlimited charge/discharge cycles, have low operating costs, safe operation (no fire risk) and have a low environmental impact in both manufacturing and recycling. The Vanadium electrolyte used in these batteries is fully recyclable at the end of the battery's life.

Importantly, and unlike Li-ion, the battery storage capacity is only limited by the size of the electrolyte storage tanks. This means that with a VRFB installation, increasing energy storage capacity is only a matter of adding in additional electrolyte (via the installation of additional electrolyte storage tanks) without needing to expand the core system components. Increasing the energy storage directly reduces the levelized cost per kWh over the installation's lifetime. This is not an option with Li-ion batteries.

It is for these reasons that VRFB's are an ideal fit for many storage applications requiring longer duration discharge and more than 20 years of operation with minimal maintenance.

i) Guidehouse Insights White Paper Vanadium redox Flow Batteries Identifying Market Opportunities and Enablers Published 2Q 2022 https://vanitec.org/images/uploads/Guidehouse\_Insights-Vanadium\_Redox\_Flow\_Batteries.pdf



## **APPENDIX 1 - DRILLHOLE COLLAR INFORMATION AND LOCATION MAP**

Hole ID	Hole Type	East (m) MGA94	North (m) MGA94	RL	End of Hole (m)	Azi (°)	Dip (°)
VCRC0005	RC	639725	6865533	453	222	185	-71
VCRC0006	RC	640400	6865531	453	124	183	-71
VCRC0007	RC	640254	6865466	453	126	176	-70
VCRC0008	RC	640029	6865476	452	144	181	-70
VCRC0009	RC	639879	6865446	452	168	182	-69
VCRC0010	RC	639729	6865416	452	114	183	-70
VCRC0011	RC	639579	6865466	452	196	182	-70
VCRC0012	RC	639429	6865385	450	158	184	-70
VCRC0013	RC	640254	6865625	453	300	180	-70
VCRC0014	RC	640029	6865556	452	228	171	-70
VCRC0015	RC	639879	6865526	452	210	181	-71
VCRC0016	RC	640629	6865801	455	120	183	-70
VCRC0017	RC	640479	6865826	454	210	141	-71
VCRC0018	RC	640629	6865881	455	168	186	-70

All geologically logged intervals of massive magnetite and associated average magnetic susceptibility readings for the drillholes listed in the table above are reported on Table 1 found in the body of the release.

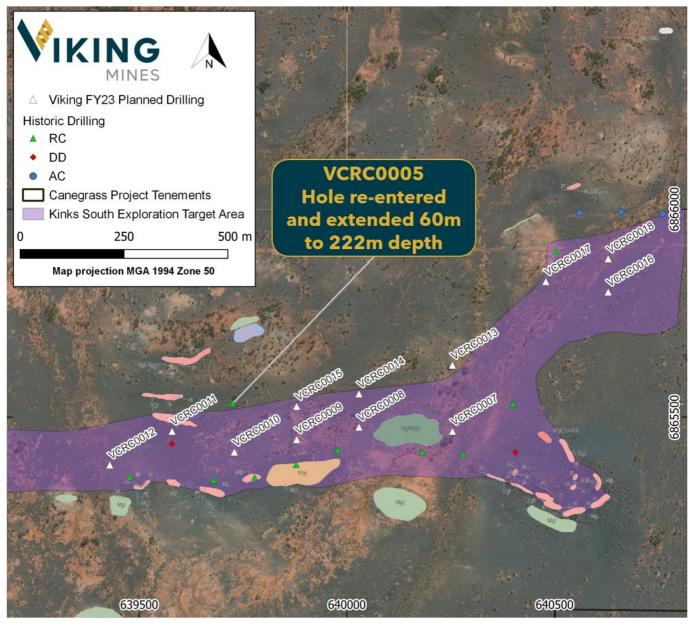


Figure 6; Map showing the location of the 13 holes completed as reported in this release.



# **APPENDIX 1 - JORC CODE, 2012 EDITION - TABLE 1**

**JORC Table 1, Section 1 - Sampling Techniques and Data** 

Criteria	JORC Code explanation	Commentary
	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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	RC drilling collected samples during the drilling process using industry standard techniques including face sampling drill bit and cone splitter. Chip samples are collected from the drill cuttings and sieved and put in to chip trays for geological logging.
Sampling	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Samples are representative of the interval drilled.
techniques	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	Reverse circulation drilling was used to obtain 1m samples which were collected from the cone splitter. Samples have been composited in some cases to either 2 or 4m composites by scooping from the calico bag collected from the cone splitter at the rig. Samples have been dispatched to ALS laboratories in Perth for analysis by XRF fused bead analysis.
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.).	Reverse circulation drilling using a 5 ½ inch bit and a face sampling hammer.
	Method of recording and assessing core and chip sample recoveries and results assessed.	Not recorded.
Drill sample recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Drilling recovery is assessed by observing sample size. Samples are collected from the cyclone using a cone splitter and monitored for size to determine that they are representative.
	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.	Not applicable as no grades are being reported.
	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.	All chip samples have been geologically logged to a sufficient level to support any future mineral resource estimation.
Logging	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging of samples is qualitative in nature. Chip photos are taken of the chip trays with an example provided in the body of this report.
	The total length and percentage of the relevant intersections logged.	All metres drilled have been geologically logged.
	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable.
Subsampling techniques and sample	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Samples were collected from the cyclone using a cone splitter for each metre drilled in to 2 calico bags. When composite samples were collected, a scoop is used to collect equal amounts from each metre interval used to make thee composite sample. Dry samples are collected.
preparation	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	For magnetic susceptibility measurements, the drill chips are directly measured in the calico bag. The crushed nature of the sample provides a homogenous material for assessment which is appropriate. The limiting factor is the air in the sample has the effect of reducing the



Criteria	JORC Code explanation	Commentary
		actual theoretical magnetic susceptibility of the tock, resulting in a lower reading to be expected from the crushed material vs solid rock.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	No QAQC procedures have been adopted for the magnetic susceptibility readings. The unit used has inbuilt processes to ensure a valid reading is taken, otherwise an error is given and no result 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.	For magnetic susceptibility readings, no duplicate samples are measured. Sampling is deemed representative due to the drilling method and size of sample being tested.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The nature and style of the mineralisation is relatively homogenous and as such the sample sizes collected are appropriate to the grain size of the material being sampled.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not applicable as no assay results are being reported.
Quality of assay data and 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.	Field tools were used to assist in identification of the VTM horizon for sampling. A KT-10 magnetic susceptibility meter has been used which measures the magnetic susceptibility of the sample. Unit specifications are:  Circular coil design Sensitivity: 10-6 SI units Measurement range: 0.001 x 10-3 to 1999.99 x 10-3 SI units No calibration factors are applied to the data. The duration for the measurement sequence is 7 seconds.
	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.	Not applicable as no results are being reported.
	The verification of significant intersections by either independent or alternative company personnel.	Not applicable as no results are being reported.
	The use of twinned holes.	Not applicable as no results are being reported.
Verification of sampling and assaying	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data is collected in the field in to digital devices and loaded in to the company database by the companies database manager. All records are collected and stored on the companies server and cloud based storage systems (sharepoint). Physical paper copies are also created as a part of the data collection process and are scanned and saved to sharepoint.
	Discuss any adjustment to assay data.	Not applicable as no results are being reported.
Location of data	Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Drillholes locations are collected using a handheld GPS instrument and recorded in the logging sheets. Downhole surveys are completed using a north seeking gyro instrument. Accuracy of the instruments used is determined acceptable for future use in mineral resource estimation.
points	Specification of the grid system used.	The adopted grid system is MGA94_50 and all data are reported in these coordinates.
	Quality and adequacy of topographic control.	Not applicable.



Criteria	JORC Code explanation	Commentary
	Data spacing for reporting of Exploration Results.	Drillholes reported in this report for the Kinks South target are on a variable grid ranging from 80-m x 150m to 80m x 300m.
Data spacing and distribution	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.	Not applicable as no results are being reported and no estimation is being made.
and distribution	Whether sample compositing has been applied.	Sample compositing has been used at the discretion of the field geologist. 4m, 2m and 1m composites have been selected during drilling for samples delivered to the laboratory for analysis.
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.	Drillholes have been designed to intersect perpendicular to the VTM mineralisation at the Kinks South target and drilled at -70 dip to mitigate any sampling bias effects. At this time it is not known if the true thickness has been determined.
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.	Given the nature and style of mineralisation, a sampling bias is not expected.
Sample security	The measures taken to ensure sample security.	Samples were collected from the rig in tied calico bags and packaged in to tied polyweave bags and stored in bulka bags at the freight companys laydown yard prior to shipment to the laboratory in Perth. The yard is locked at night and sample security is determined to be effective.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not applicable as no results are being reported.

# **JORC 2012 Table 1, Section 2 - Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary					
Mineral	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.	Tenements and location The Canegrass Battery Minerals Project tenements are located approximately 60 km east-south of the town of Mount Magnet, Western Australia. The tenements are situated in both the Mou Magnet and Sandstone Shires and cover parts of the Challa, Meeline and Windimurra pastoral Details of the tenements are presented in the table below:  Tenement Status Holder Area (Blocks)					
tenement and			E58/232-I	LIVE	Flinders Canegrass Pty Ltd	5	
land tenure			E58/236-I	LIVE	Flinders Canegrass Pty Ltd	4	
status			E58/282-I	LIVE	Flinders Canegrass Pty Ltd	8	
			E58/520	LIVE	Flinders Canegrass Pty Ltd	1	
			E58/521	LIVE	Flinders Canegrass Pty Ltd	5	
			E58/522	LIVE	Flinders Canegrass Pty Ltd	8	
		The Fold Nose Mineral Resource is located on tenement E58/232-I and the Kinks Mineral Resource is				al Resource is	
		located on te	nement E58/28	32-I			





Criteria	JORC Code explanation	Commentary
		Third Party Interests  Viking Mines Ltd subsidiary Viking Critical Minerals Pty. Ltd. has signed a binding term sheet to earn up to a 99% interest in the project tenements. Maximus Resources Ltd (ASX:MXR) retains a 2% NSR on all minerals recovered from tenements E58/232-I, E58/236-I & E58/282-I.  Native Title, Historical sites and Wilderness  There is no registered native title claim over the Project tenements. There are no registered sites recorded on the WA government Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Enquiry System (AHIS) on the tenements. There are 3 other heritage places recorded on AHIS, with 1 deemed not a site and 2 lodged waiting assessment. None of the other heritage places significantly impact or impede access to the tenements.
	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 tenements are held in good standing by Flinders Canegrass Pty. Ltd., a wholly owned subsidiary of Flinders Mines Ltd. There are no fatal flaws or impediments preventing the operation of the exploration licences.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Based on historical data searches completed to date by Viking, the Canegrass Battery Minerals Project exploration history for vanadium magnetite deposits dates back primarily to 1977 when WMC commenced exploration in the area. Exploration was completed through to 1984 and over this time they undertook mapping, rock chip sampling, soil sampling, geophysics (magnetics and induced polarisation) surveys, percussion drilling and diamond drilling. No resources were defined, but high grade Vanadium mineralisation was discovered as part of the exploration programme.  Viking have not completed searches for exploration data for the period 1984 to 2011 when Flinders Mines acquired the project and this work is ongoing.  Previous JORC table reports compiled by Flinders state the following:  The previous exploration across the Canegrass Project conducted by Flinders, and previous companies previously associated with the tenements such as Apex Minerals, Falconbridge Limited and Maximus Resources is significant, dating back to at least 2003. Activities primarily concentrated on four key commodity groupings:  Nickel-Cobalt-Copper massive sulphide in marginal facies of the Windimurra Igneous Complex (WIC) proper, or in cross-cutting later intrusive bodies that postdate and penetrate across the WIC;  PGE bearing internal layers within the WIC;  PGE bearing internal layers within the WIC;  Au hosted in later fault structures that cross cut the WIC and offset the WIC internal geology.  Flinders Mines have also provided detailed exploration history since 2017 in their most recent announcement dated 10 June 2022 – Canegrass Project Exploration Update. Further information can be obtained by reading this release.
Geology	Deposit type, geological setting and style of mineralisation	Regional Geology The geology is dominated by the Windimurra Igneous Complex (WIC). The WIC is a large differentiate layered ultramafic to mafic intrusion emplaced within the Yilgarn craton of Western Australia. It



Criteria	JORC Code explanation	Commentary
		outcrops over an area of approximately 2,500km2 and has an age of approximately 2,800Ma. The complex is dominantly comprised of rocks that can broadly be classified as gabbroic in composition. It is dissected by large scale, strike slip shear zones.  Deposit Geology Kinks & Fold Nose (30 January 2018 Canegrass Vanadium Mineral Resource  Estimate & Exploration Update Release by Flinders Mines)  The deposit represents part of a large layered intrusion. Mineralisation which comprises magnetite-titanium-vanadium horizons, with distinct vanadiferous titanomagnetitie (VTM) mineralisation occurring within the Windimurra Complex – a large differentiated layered ultramafic to mafic intrusion within the Murchison Province of the Yilgarn Craton.  Given the mode of formation, mineralisation displays excellent geological and grade continuity.
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:  • easting and northing of the drill hole collar  • elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar  • dip and azimuth of the hole  • down hole length and interception depth  • 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.	Drillholes reported in this release are shown on a map and have an associated table providing drillhole information in appendix 1. Downhole depths of mineralisation observed is reported in the body of the report.
Data aggregation methods	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.  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.	For reporting of magnetic susceptibility measurements, data has been collected on 1m intervals and results have been averaged over the interval being reported in table 1 in the body of the report. No cutting has been applied to the data and a weighted average reported (length x value). When determining the weighted average, a 125 SI unit x 10-13 threshold has been applied to delineate the magnetic zones of interest based on assessment of results seen in VCRC0006 as shown in Figure 4. Using this threshold, all intervals exceeding this value with a minimum 6m thickness and zones of no more than 2m internal 'waste' included between results above the threshold have been included.
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>	Drilling has been planned to intercept perpendicular to mineralisation however further data is required to confirm this and as such downhole length is reported and true width not know.
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	All appropriate maps and plans and sections are included in the body of the report. A significant discovery is not being reported, however drillholes referred to in this report are highlighted on the maps with collar locations.



Criteria	JORC Code explanation	Commentary		
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.	References to previous releases used to provide the information in this report have been made and those respective releases provide the disclosure of the drilling results. All appropriate information is included in the report. References to previous releases used to provide the information in this report have been made and those respective releases provide the disclosure of the drilling results.		
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	Identification of VTM mineralisation was determined in the field by visiting the location of mineralisation previously identified using GPS. Professional geologists assessed the geology of the outcrop to determine the rock types which are consistent with VTM mineralisation. A Magnetic Susceptibility meter and portable XRF analyser were used to provide further confidence that the VTM horizon had been correctly identified. The Magnetic Susceptibility of the rock is determined by type and amount of magnetic minerals contained within the rock. With magnetite being the primar		
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.	of this report.  The ongoing activity and further work is described in the report. The CP is of the opinion that no additional information for Further Work needs to be reported.		