

## VKA COMMENCES MAJOR GROWTH FOCUSED VANADIUM DRILL PROGRAMME AT THE CANEGRASS BATTERY MINERALS PROJECT

- Viking Mines has commenced a ~6,000m drilling programme at the Canegrass Battery Minerals Project, which is expected to take ~4-6 weeks to complete.
- Targeting extension, growth and discovery of new high-grade Mineral Resources outside of the JORC-2012 MRE of 79Mt at 0.64% Vanadium Pentoxide ( $V_2O_5$ ).<sup>1</sup>
- Drilling will follow up on previous high-grade hits, including the recently drilled 17m at 0.98%  $V_2O_5$ , including 12m at 1.06%  $V_2O_5$ .<sup>2</sup>
- Viking has engaged drilling contractor TopDrill to undertake the major drilling programme.<sup>3</sup>

Viking Mines Limited (ASX: VKA) ("Viking" or "the Company") is pleased to provide an update on exploration activities at the Company's flagship Canegrass Battery Minerals Project ("the Project" or "Canegrass"), located in the Murchison Region of Western Australia.

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

*"This is a major phase for the Company as we look to rapidly advance exploration activities at the Canegrass Project. This is the first substantial drill campaign to be completed at the Project in more than a decade, comprised of ~40 drill holes totalling ~6,000m.*

*"The focus of this drilling programme is to improve confidence in the current Vanadium Mineral Resource Estimate, while also assessing the potential of the >8km strike length of VTM mineralisation.*

*"Given what we have seen so far in the geology, I am confident that we have the opportunity to see substantial growth in what is already a significant resource at Canegrass.*

*"I am excited by the prospects of what we are going to discover with the drill bit and look forward to updating the market with results from this drill programme in the coming months."*

### 6,000M DRILLING PROGRAMME UNDERWAY

The Company has commenced a major drill programme at the Canegrass Battery Minerals Project, comprised of ~40 Reverse Circulation (RC) drillholes, totalling ~6,000m, using drilling contractor TopDrill.

The drill programme has two main objectives.

1. To improve the confidence in the current Mineral Resource Estimate (**MRE**) by drill testing within the existing Inferred (JORC 2012) MRE limits of **79Mt at 0.64%  $V_2O_5$** <sup>1</sup> to validate and improve the existing geological interpretation.
2. To grow the Resource base through discovery of new Vanadiferous Titanomagnetite (VTM) mineralisation by drill testing targets outside of the limits of the current MRE.

<sup>1</sup> VKA Announcement - 30 November 2022 - Viking to Farm into Substantial Battery Mineral Resources

<sup>2</sup> VKA Announcement - 18 April 2023 - Viking Drilling Hits 12m of High-Grade Vanadium at 1.06%  $V_2O_5$

<sup>3</sup> VKA Announcement - 4 May 2023 - Viking to Commence Drilling in May at Canegrass Vanadium Project



These objectives will be met by completing a comprehensive drilling programme along the extensive >8km long VTM horizon which has been modelled through field mapping, ground magnetic geophysical surveys and interpretation of the geology.

Drilling will provide valuable data for an MRE update later in the year and also additional samples for more comprehensive metallurgical testwork once the initial sighter testwork results are received from the metallurgical testwork programme currently underway.

The drilling programme is expected to take approximately 4-6 weeks to complete, with initial analytical results expected approximately one month after the completion of drilling.



*Figure 1; Drill rig commencing drilling at the Kinks Resource target area.*

### **Drill Target Areas**

The drilling programme is divided into six focus areas and summarised in Table 1 below with the location of the drilling targets shown on Figure 2.

The majority of the drilling is focussed on growth of the VTM Resource outside of the current MRE limits, with a specific strategy to discover higher grade mineralisation >0.8% V<sub>2</sub>O<sub>5</sub>.

This strategy has been adopted as it has been demonstrated by peers in the region to form the basis of positive economic studies. Through the discovery of high-grade mineralisation, the Company believes that this will provide the best foundation to undertake a Scoping Study on the Project at a later date.







Table 1; Drill target areas being tested by Vikings major drill programme at the Canegrass Battery Minerals Project.

Target	Holes	Metres	Objectives
Kinks Resource	7	1,032	Follow up on high grade historical results and extend mineralisation to grow the MRE.
Kinks South	12	2,018	Extend mineralisation from mapped outcrop to depth to assess the potential of this high-grade zone <b>OUTSIDE</b> the current MRE.
Kinks South to Fold Nose	4	489	Initial testing of the extensive 2.3km zone between Kinks South and Fold Nose with no prior drilling.
Fold Nose North Extension	7	1,191	Drill test the area <b>OUTSIDE</b> the Fold Nose MRE which lies between outcropping VTM to the east and historical drilling to the west.
Fold Nose	4	536	Infill drilling in the high-grade hinge part of the Fold Nose MRE to validate the geological model and improve MRE confidence.
Fold Nose South Extension	6	753	Drill test the area <b>OUTSIDE</b> the Fold Nose MRE which lies between outcropping VTM to the South and historical drilling to the North.

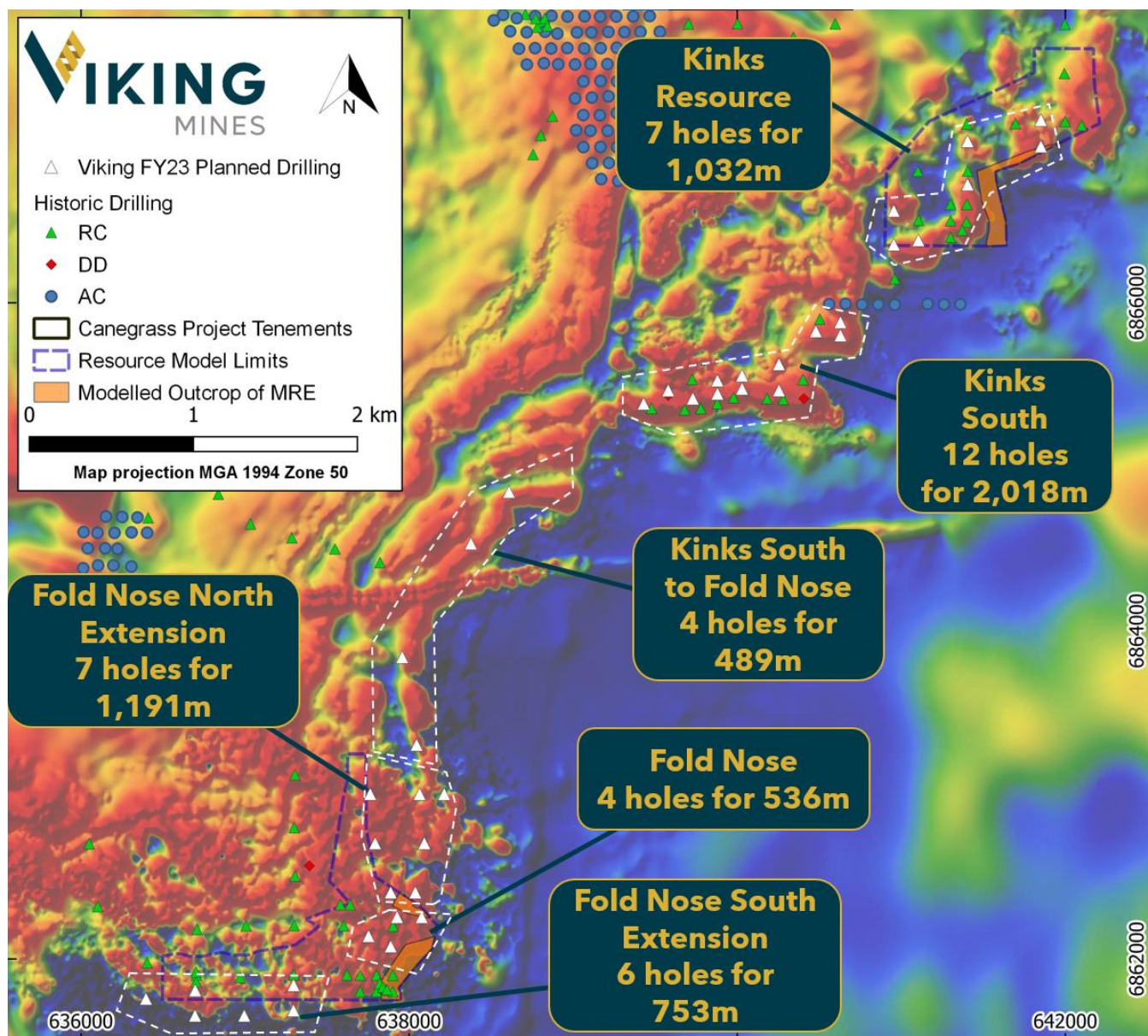


Figure 2; Map showing location of holes to be drilled and target areas with historical drill collars, overlain on magnetic TMI image RTP.





## NEXT STEPS

Results from the drilling programme are expected in late July, which will coincide with the first results from the metallurgical programme.

The following key announceables are expected over the coming months regarding the advancement of the Project:

- Completion of the 6,000m drill programme.
- Results from the drilling programme.
- Results from the metallurgical testwork programme.
- Planning of comprehensive follow up metallurgical and drilling programmes.

**END**

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

Julian Woodcock  
Managing Director and CEO  
**Viking Mines Limited**

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### Competent Persons Statement - Exploration Results

Information in this release that relates to Exploration Results 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 announcements. 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 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 ~95km<sup>2</sup> of exploration tenements with very limited follow up exploration targeting the growth potential of the vanadium pentoxide (V<sub>2</sub>O<sub>5</sub>) 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) MINERAL 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 Mineral Resource has subsequently been reported above a cut-off grade of 0.5% V<sub>2</sub>O<sub>5</sub> 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% V<sub>2</sub>O<sub>5</sub> 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 %	TiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	SiO <sub>2</sub> %	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
<b>TOTAL</b>		<b>79</b>	<b>0.64</b>	<b>29.7</b>	<b>6.0</b>	<b>12.2</b>	<b>0.007</b>	<b>23.6</b>	<b>3.0</b>

### 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.



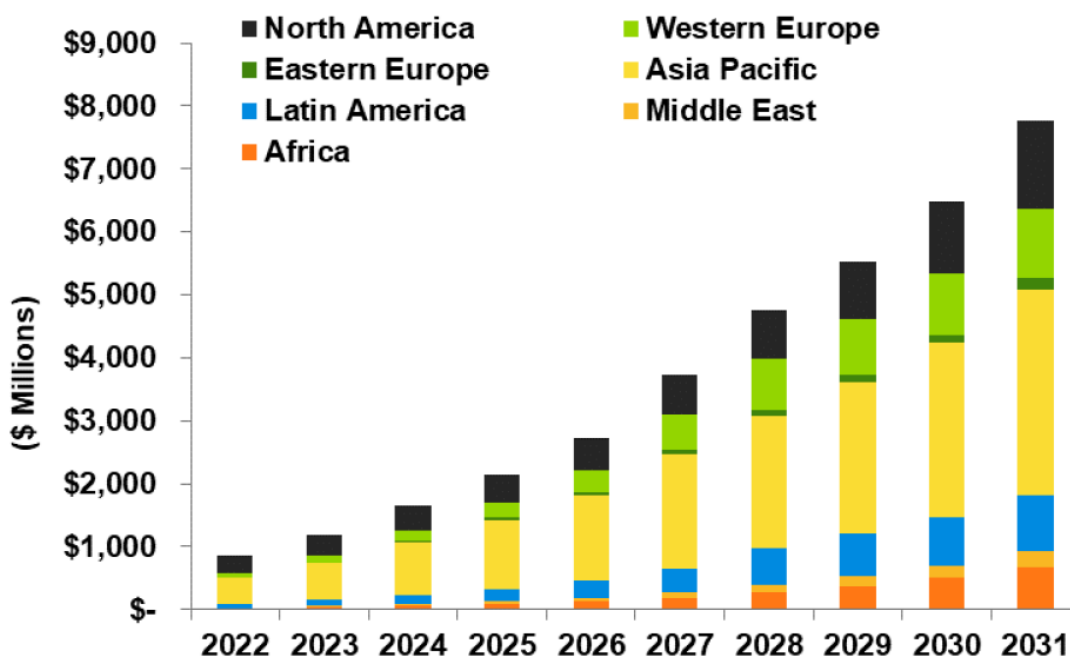


## VANADIUM REDOX FLOW BATTERIES - GREEN ENERGY FUTURE

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<sup>i</sup> published in 2Q 2022 forecasts the VRFB sector to grow >900% by 2031 through the installation of large, fixed storage facilities (Figure 3).

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



(Source: Guidehouse Insights)

Figure 3; Forecast growth of the VRFB Sector through to 2031 (source – Guidehouse Insights<sup>i</sup>)

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](https://vanitec.org/images/uploads/Guidehouse_Insights-Vanadium_Redox_Flow_Batteries.pdf)

