

29th July 2021

#### **ACTIVITIES REPORT – JUNE QUARTER 2021**

#### **HIGHLIGHTS**

- ◆ PFS showed a substantial Post Tax NPV<sub>8%</sub> of US\$884M, based on VR8's attributable 73.95% ownership¹
- VR8 to acquire integrated ESG processing technology focusing on high-end green metal and hydrogen production potential by way of an earn-in JV
- ◆ Completion of \$2,000,000 capital raise
- ESG monitoring system adopted

Vanadium Resources Ltd (ASX: VR8) (the **Company** or **VR8**) is pleased to provide the following activities report that outlines the progress made during the June 2021 Quarter.

#### **COMPLETION OF PRE-FEASIBILITY STUDY**

As announced on 22 June 2021 the Company completed on time and within budget the Pre-feasibility Study ("PFS"). The completion of an Association for the Advancement of Cost Engineering ("AACE") class 4 PFS for the Steelpoortdrift Vanadium project located in Limpopo, South Africa. The PFS was completed with the aim to produce a high purity (>98% V2O5) vanadium product from primary Run of Mine ("ROM") mineralised material. The Steelpoortdrift Vanadium Project ("Steelpoortdrift Vanadium Project" or "SPD Project") is one of the world's larger and higher-grade primary vanadium deposits with a mining authorisation based on published Mineral Resources. Vanadium mineralisation is hosted in a titaniferous magnetite unit in the upper portion of the prolific Bushveld Geological Complex. The Company has the right to acquire 73.95% of the Project via acquisition of interest in Vanadium Resources (Pty) Ltd ("VanRes"), the holder of the Mining Right (refer ASX Announcements 22 March 2018 and 18 July 2018). The Company currently owns 50% of the Project, and will move to 73.95% (no additional consideration payable) upon receipt of approval for a change in control of VanRes from the Department of Mineral Resources under Section 11 ("s.11") of the Mineral and Petroleum Resources Development Act. The application in terms of s.11 is progressing well, and the directors are confident that this approval will be granted in due course.

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<sup>&</sup>lt;sup>1</sup> VR8 currently holds 50% ownership of the Steelportdrift project, which will be increased to 73.95% ownership pending final S11 governmental approval. There is no further consideration payable by VR8 for the additional 23.95%.



The PFS was completed by VR8's internal subject matter experts with contributions from various industry leading companies (details of contributing authors and reviewers are available in Appendix 3 of the announcement released 22 June 2021) which includes:

Sound Mining Solution Pty (Ltd) ("Sound Mining") -Mining and Geology

United Mining Service ("UMS") Concentrator processing plant Consulmet Pty (Ltd) ("Consulmet") Salt Roast and Leach plant Tailings storage facility

Nurizon Pty (Ltd) ("Nurizon")

Red Kite Consulting ("Red Kite") Environmental compliance

The project PFS was completed on the basis that each contributing subject matter expert company, developed standalone PFS compliant reports for their respective subsections as defined above. These individual reports were then combined into an overall project PFS, with the individual detailed reports included as appendices and financial evaluation done based on the outcomes of these individually supplied reports. It should be noted that, as is industry best practice, the PFS was developed on a total project basis and did not take into consideration shareholding or ownership in the project.

The project financial metrics of the study are tabled below:

| Study Outcomes                                 | Based on existing 50% ownership | Based on final 73.95% ownership | Total project as reported in PFS                |
|--|---------------------------------|---------------------------------|---|
| EBITDA LoM (US\$M)                             | N/A                             | N/A                             | US\$5 777m                                      |
| EBITDA per annum (US\$M)                       | N/A                             | N/A                             | US\$231m  |
| NPV <sub>8%</sub> (US\$M, post-tax)            | US\$598m                        | US\$884m                        | US\$1 196m                                      |
| IRR (US\$, post-tax, 100% equity)              | N/A                             | N/A                             | 45%   |
| Payback Period                                 | N/A                             | N/A                             | 25 months                                       |
| LoM (Mining schedule)                          | N/A                             | N/A                             | 25 years  |
| Pre-production CAPEX (US\$, incl. contingency) | N/A                             | N/A                             | US\$200m  |
| Expansion CAPEX (US\$, incl contingency)       | N/A                             | N/A                             | US\$147.2m                                      |
| Sustaining CAPEX LoM (US\$)                    | N/A                             | N/A                             | US\$99.4m                                       |
| Average cash operating costs (US\$/lb V2O5) 1  | N/A                             | N/A                             | US\$3.08/lb                                     |
| Annual V₂O₅ production over LoM (Mlbs)         | N/A                             | N/A                             | 39m lbs   |
| Vanadium Price (US\$/lb)                       | N/A                             | N/A                             | US\$9.03/lb                                     |
| Average LoM Strip Ratio                        | N/A                             | N/A                             | 1.92  |
| Processing Rate Mtpa                           | N/A                             | N/A                             | 1.6 (initial) - 3.2<br>(post expansion)<br>Mtpa |

Table 1 . Study outcomes for preferred base case option



## ACQUISITION OF INTEGRATED ESG PROCESSING TECHNOLOGY FOCUSING ON HIGH END GREEN METAL AND HYDROGEN PRODUCTION POTENTIAL BY WAY OF AN EARN-IN JV

During the quarter, as released on ASX on 1 April 2021, VR8 announced the intention to acquire a 74% interest in an ESG integrated extraction, processing, refining and manufacturing technology developed by TCM Research Limited ("TCM"). Feasibility studies initiated (including PFS & DFS) towards using the integrated ESG technology, will primarily focus on the extraction and production of both high-end green metals (including high grade vanadium pentoxide) and hydrogen (which could be used for energy to operate the plant and/or for sale to third parties).

#### **ESG MONITORING SYSTEM ADOPTED**

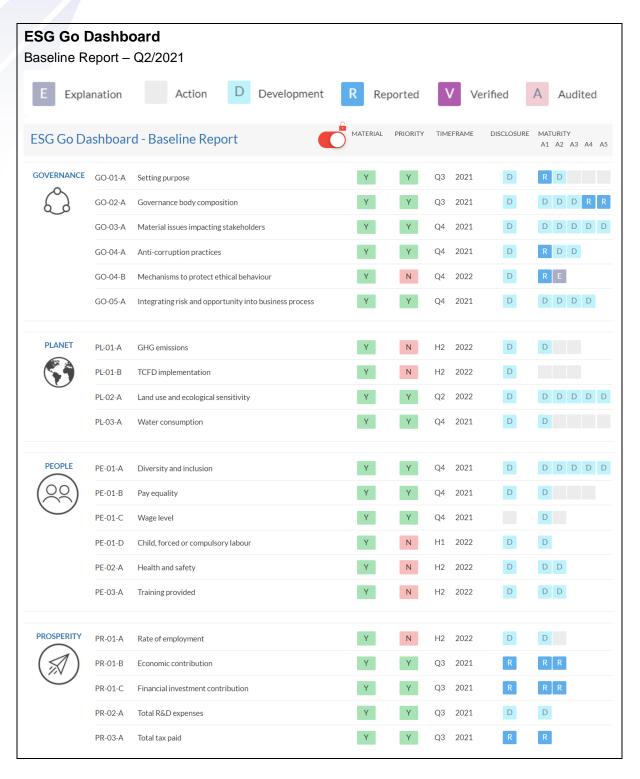
Even though it is not a regulatory requirement, the company has decided to adopt an Environmental, Social, and Governance ("ESG") reporting and disclosure system in line with its aim of being a responsible corporate citizen. The "ESG Go" reporting and disclosure system from Socialsuite was adopted during the quarter based on the World Economic Forum's universal ESG framework with 21 core indicators. The Company's baseline ESG assessment has been completed with disclosure targets set and progress will be reported on a quarterly basis.

#### **BASELINE ESG DASHBOARD**

Making a commitment to ESG reporting and disclosures is the first step in building robust ESG credentials. Beyond the initial commitment, companies have to regularly demonstrate their progress in making ESG disclosures. Following through on the ESG commitment and showing stakeholders your progress is essential to mitigate against possible 'greenwashing' claims as well as to ingrain ESG-inclusive thinking and operations across your entire business.

ESG is disclosed against the World Economic Forum universal ESG framework and reported on a quarterly basis using Socialsuite ESG Go. The most recent ESG Go Dashboard report is included with commentary addressing progress made toward the disclosures.







#### **DEFINITIONS**

Materiality depends on judgement and is crucial to prioritising relevant ESG information for external disclosure. The application of materiality ensures that important information is not obscured, and that information satisfies reporting requirements, the needs of the intended audience and management's reporting objectives.

**Priority** identifies if the company has committed to making progress on the indicator in the current or next quarter.

**Timeframe** provides insight into when the company aims to make progress toward disclosing the indicator and/or maturity actions.

**Disclosure** provides the status of publicly reporting the indicator (see Legend).

**Maturity** indicates the progress made on specific actions (A1 ... A5) that together fulfill the indicator disclosure requirements.

#### **LEGEND**

**Explanation** is a short clarification why a disclosure is not made: either used when an indicator is not deemed material; or when the indicator is deemed material but the company has decided not to make a disclosure (at this point in time).

**Development** is the stage in which a company is compiling and preparing the relevant information/data to make a public disclosure.

**Reported** is the stage when a company has selfreported making a public disclosure as per the requirements of the indicator.

**Verified** is the stage in which Socialsuite's ESG experts have confirmed that an indicator has been publicly disclosed and principally confirms with the indicator requirements.

**Audited** is the stage in which an independent thirdparty Auditor has checked and confirmed that the indicator has been fully, correctly and publicly disclosed.

#### **ESG Activity**

A summary of relevant ESG activity is summarised as follows:

- a. Acquired IP for zero carbon emission TCM process and established JV to develop process further;
- b. VR8 has introduced, commenced and implemented ESG values and guidelines and structuring at Board level;
- c. VR8 has introduced ESG KPI's to executive management; and
- d. The company has entered into a JDA with Senergy with regard to supplying renewable energy for the project.



#### **CORPORATE**

During the quarter, the Company completed a \$2 million placement through the issue of 41,666,667 shares at an issue price of \$0.048 per share (Placement). Funds raised from the placement will be used to fund studies following from the acquisition of the integrated ESG processing technology studies, immediate commencement of the Steelpoortdrift Vanadium Project DFS and to provide working capital. At the end of the quarter, the A\$500,000 of funding secured from Directors and major shareholders through a convertible unsecured non-recourse loan facility, as announced on the ASX releases on 27 August 2020 and 31 August 2020, remains undrawn.

#### **SUMMARY OF EXPENDITURE**

During the Quarter, a total of \$279,823 was spent on activities related to the exploration and development of the Steelpoortdrift Vanadium Project, which total amount is made up of \$264,853 spent by Vanadium Resources (Pty) Ltd and \$14,970 by the Company. The Company did not incur any expenditure for mining production activities during the Quarter.

Payments totalling approximately \$18,900 were made to related parties of the Company with respect to the Quarter, being director and consulting fees (see section 6.1 and 6.2 of the Accompanying 5B).

This announcement has been authorised for release by the directors of Vanadium Resources Limited.

#### For and on behalf of the board:

Kyla Garic

**Company Secretary** 



**Tenement Table: ASX Listing Rule 5.3.3** 

Mining tenement interests held at the end of the quarter and their location

| PERMIT<br>NAME                    | PERMIT<br>NUMBER | REGISTERED HOLDER /<br>APPLICANT | AREA IN km² | PERMIT<br>STATUS | PERMIT<br>EXPIRY | INTEREST /<br>CONTRACTUAL<br>RIGHT |
|-----------------------------------|------------------|----------------------------------|-------------|------------------|------------------|------------------------------------|
| Pilbara Region, Western Australia |                  |                                  |             |                  |                  |                                    |
| Quartz Bore                       | E47/3352         | VMS Resources Pty Ltd            | 15          | Granted          | 21/12/2021       | 100%                               |
| Limpopo Region, South Africa      |                  |                                  |             |                  |                  |                                    |
| Steelpoortdrift<br>KT365          | 10095MR          | Vanadium Resources<br>(Pty) Ltd  | 24.6        | Granted          | 04/09/2048       | Right to own<br>73.95%             |

The mining tenement interests relinquished during the quarter and their location

Nil.

The mining tenement interests acquired during the quarter and their location

Nil.

Beneficial percentage interests held in farm-in or farm-out agreements at the end of the quarter Not applicable.

Beneficial percentage interests in farm-in or farm-out agreements acquired or disposed of during the quarter Nil.



#### **Competent Persons Statement**

The Company confirms that all material assumptions and parameters underpinning the Mineral Resource Estimates and the Production Targets reported in the market announcements dated 29 April 2020 and 23 September 2020 continue to apply and have not materially changed, and that it is not aware of any new information or data that materially affects the information that has been included in this announcement. The Company confirms the geotechnical and mining engineering components of the PFS as reported in the market announcements dated 22 June 2021 continue to apply and have not materially changed.

#### Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which VR8 operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement. No forward looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside VR8's control.

VR8 does not undertake any obligation to update publicly or release any revisions to these forward looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of VR8, its Directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. 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.

This announcement is not an offer, invitation or recommendation to subscribe for, or purchase securities by VR8. Nor does this announcement constitute investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.

### Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

#### Name of entity

| Vanadium Resources Limited |                                   |
|----------------------------|-----------------------------------|
| ABN                        | Quarter ended ("current quarter") |
| 47 618 307 887             | 30 June 2021                      |

| Con | solidated statement of cash flows              | Current quarter<br>\$A'000 | Year to date<br>(12 months)<br>\$A'000 |
|-----|--|----------------------------|--|
| 1.  | Cash flows from operating activities           |                            |  |
| 1.1 | Receipts from customers                        | -                          | -                                      |
| 1.2 | Payments for                                   |                            |  |
|     | (a) exploration & evaluation (if expensed)     | -                          | -                                      |
|     | (b) development                                | -                          | -                                      |
|     | (c) production                                 | -                          | -                                      |
|     | (d) staff costs                                | (19)                       | (60)                                   |
|     | (e) administration and corporate costs         | (73)                       | (215)                                  |
| 1.3 | Dividends received (see note 3)                | -                          | -                                      |
| 1.4 | Interest received                              | -                          | -                                      |
| 1.5 | Interest and other costs of finance paid       | -                          | -                                      |
| 1.6 | Income taxes paid                              | -                          | -                                      |
| 1.7 | Government grants and tax incentives           | -                          | -                                      |
| 1.8 | Other (provide details if material)            | -                          | -                                      |
| 1.9 | Net cash from / (used in) operating activities | (92)                       | (275)                                  |

| 2.  | Ca  | sh flows from investing activities        |      |       |
|-----|-----|---|------|-------|
| 2.1 | Pay | yments to acquire:                        |      |       |
|     | (a) | entities                                  | -    | -     |
|     | (b) | tenements                                 | -    | -     |
|     | (c) | property, plant and equipment             | -    | -     |
|     | (d) | exploration & evaluation (if capitalised) | (14) | (106) |
|     | (e) | investments                               | -    | -     |
|     | (f) | other non-current assets                  | -    | -     |

ASX Listing Rules Appendix 5B (01/12/19)

| Con | solidated statement of cash flows              | Current quarter<br>\$A'000 | Year to date<br>(12 months)<br>\$A'000 |
|-----|--|----------------------------|--|
| 2.2 | Proceeds from the disposal of:                 |                            |  |
|     | (a) entities                                   | -                          | -                                      |
|     | (b) tenements                                  | -                          | -                                      |
|     | (c) property, plant and equipment              | -                          | -                                      |
|     | (d) investments                                | -                          | -                                      |
|     | (e) other non-current assets                   | -                          | -                                      |
| 2.3 | Cash flows from loans to other entities        | (200)                      | (53)                                   |
| 2.4 | Dividends received (see note 3)                | -                          | -                                      |
| 2.5 | Other (provide details if material)            | -                          | -                                      |
| 2.6 | Net cash from / (used in) investing activities | (215)                      | (159)                                  |

| 3.   | Cash flows from financing activities  |       |       |
|------|---|-------|-------|
| 3.1  | Proceeds from issues of equity securities (excluding convertible debt securities)       | 2,000 | 2,000 |
| 3.2  | Proceeds from issue of convertible debt securities                                      | -     | -     |
| 3.3  | Proceeds from exercise of options   | -     | -     |
| 3.4  | Transaction costs related to issues of equity securities or convertible debt securities | (12)  | (12)  |
| 3.5  | Proceeds from borrowings  | -     | -     |
| 3.6  | Repayment of borrowings   | -     | -     |
| 3.7  | Transaction costs related to loans and borrowings                                       | -     | -     |
| 3.8  | Dividends paid  | -     | -     |
| 3.9  | Other (provide details if material)   | -     | -     |
| 3.10 | Net cash from / (used in) financing activities  | 1,988 | 1,988 |

| 4.  | Net increase / (decrease) in cash and cash equivalents for the period |       |       |
|-----|---|-------|-------|
| 4.1 | Cash and cash equivalents at beginning of period                      | 121   | 249   |
| 4.2 | Net cash from / (used in) operating activities (item 1.9 above)       | (92)  | (275) |
| 4.3 | Net cash from / (used in) investing activities (item 2.6 above)       | (215) | (159) |
| 4.4 | Net cash from / (used in) financing activities (item 3.10 above)      | 1,988 | 1,988 |

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| Con | solidated statement of cash flows                 | Current quarter<br>\$A'000 | Year to date<br>(12 months)<br>\$A'000 |
|-----|---|----------------------------|--|
| 4.5 | Effect of movement in exchange rates on cash held | -                          | -                                      |
| 4.6 | Cash and cash equivalents at end of period        | 1,803                      | 1,803                                  |

| 5.  | Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts | Current quarter<br>\$A'000 | Previous quarter<br>\$A'000 |
|-----|---|----------------------------|-----------------------------|
| 5.1 | Bank balances   | 1,803                      | 121                         |
| 5.2 | Call deposits   | -                          | -                           |
| 5.3 | Bank overdrafts   | -                          | -                           |
| 5.4 | Other (provide details)   | -                          | -                           |
| 5.5 | Cash and cash equivalents at end of quarter (should equal item 4.6 above)   | 1,803                      | 121                         |

| 6.  | Payments to related parties of the entity and their associates                          | Current quarter<br>\$A'000 |
|-----|---|----------------------------|
| 6.1 | Aggregate amount of payments to related parties and their associates included in item 1 | (19)                       |
| 6.2 | Aggregate amount of payments to related parties and their associates included in item 2 | -                          |

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

6.1 Director and consulting fees to Directors of A\$18,900

6.2 n/a

| 7.  | Financing facilities  Note: the term "facility' includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity. | Total facility<br>amount at quarter<br>end<br>\$A'000 | Amount drawn at<br>quarter end<br>\$A'000 |
|-----|---|---|---|
| 7.1 | Loan facilities   | 500   | -   |
| 7.2 | Credit standby arrangements   | -   | -   |
| 7.3 | Other (please specify)  | -   | -   |
| 7.4 | Total financing facilities  | 500   | -   |
|     |   |   |   |

#### 7.5 Unused financing facilities available at quarter end

500

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

An announcement entitled "Additional Information – Funding secured to advance Company" on 31 August 2020 confirmed A\$500,000 of funding has been secured from Directors and Shareholders through an unsecured non-recourse loan facility. The loan will be either repaid or converted into stock at future election of the Company. Full details regarding the Company's plans, and the conditions and terms of the funding summarised above, can be found in the above referenced announcement.

| 8.  | Estimated cash available for future operating activities               | \$A'000 |
|-----|--|---------|
| 8.1 | Net cash from / (used in) operating activities (Item 1.9)              | (92)    |
| 8.2 | Capitalised exploration & evaluation (Item 2.1(d))                     | (14)    |
| 8.3 | Total relevant outgoings (Item 8.1 + Item 8.2)                         | (107)   |
| 8.4 | Cash and cash equivalents at quarter end (Item 4.6)                    | 1,803   |
| 8.5 | Unused finance facilities available at quarter end (Item 7.5)          | 500     |
| 8.6 | Total available funding (Item 8.4 + Item 8.5)                          | 2,303   |
| 8.7 | Estimated quarters of funding available (Item 8.6 divided by Item 8.3) | 22      |

- 8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:
  - Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

2. Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

3. Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

#### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

| Date:          | 29 July 2021   |
|----------------|--|
|                |  |
| Authorised by: | By the Board(Name of body or officer authorising release – see note 4) |

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.