POSITIVE VAT LEACH TEST RESULTS

KING RIVER RESOURCES LIMITED

Australian Securities Exchange Announcement 1 March 2019

Highlights

- Excellent results from heated flooded column leach using 20% sulphuric acid on 5.6mm lump magnetite gabbro reporting **90% V** and **47% Titanium (Ti)** extractions (dissolved) after 14 days.
- Comparative heated microleach test using 20% sulphuric acid on 106 micron magnetite-ilmenite concentrate has reported **97% Vanadium (V)** and **62% Titanium (Ti)** extractions after 3 days.
- Both lump and concentrate leaching show high metal extractions in the early stages.
- These new results support advancing the new specialty metals project development plan for Speewah to include designs for:
    - on-site sulphuric acid vat leaching and the processing of V_2O_5, TiO_2, iron oxide and other high purity products (vanadyl sulphate and high purity alumina).
    - the potential for on-site production of acid, which produces surplus heat that can be captured for electricity generation and for heating the vats and process evaporation.
    - potential for scalability and capital and operating cost savings, whilst increasing and diversifying product outputs and revenue opportunities.
- Laboratory testwork will now progressively shift towards more diagnostic vat leach tests as well as testwork to extract the metals back out from sulphuric acid leach solutions. Methods to be trialed include solvent extraction, ion exchange, thermal hydrolysis and chemical precipitation.

King River Resources Limited (ASX: KRR) is very pleased to provide this latest update on metallurgical results from the company's 100% owned Speewah Specialty Metals ("SSM") Project in the East Kimberley of Western Australia. KRR has been conducting sulphuric acid (H_2SO_4) bottle roll, diagnostic vat leach and flooded column leach tests on magnetite-ilmenite concentrate and coarse magnetite gabbro lumps, from the high and low grade zones of the Central Vanadium deposit (Figure 1). This testwork is to support a new development plan for the SSM project to produce vanadium, titanium and iron products, along with other potential high value specialty commodities (refer KRR ASX release 19 December 2018).

The Board is committed to examining this potentially lower capital and operating cost project development strategy and publish a Prefeasibility Study (PFS) towards the 3rd quarter of 2019.

Flooded column leach setup
P_{100} 5.6mm High Grade lumps in heated 20% H_2SO_4 solution at 20% pulp density and high upward flow rates

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Heated Flooded Column Leach Testwork

Nagrom have completed the first heated flooded column leach test on 4468.8g P_{100} 5.6mm lump magnetite gabbro sample. This sample is from the high grade zone of SDH11-9 located in the Central Vanadium deposit (Figure 1).

This test more closely simulates a vat leach setup.

Initially, pre-leach slump and water percolation tests were completed on the 5.6mm lump sample in the column. These reported an average flow rate of 162L/min/m^2 and a pre-leach slump of 2%.

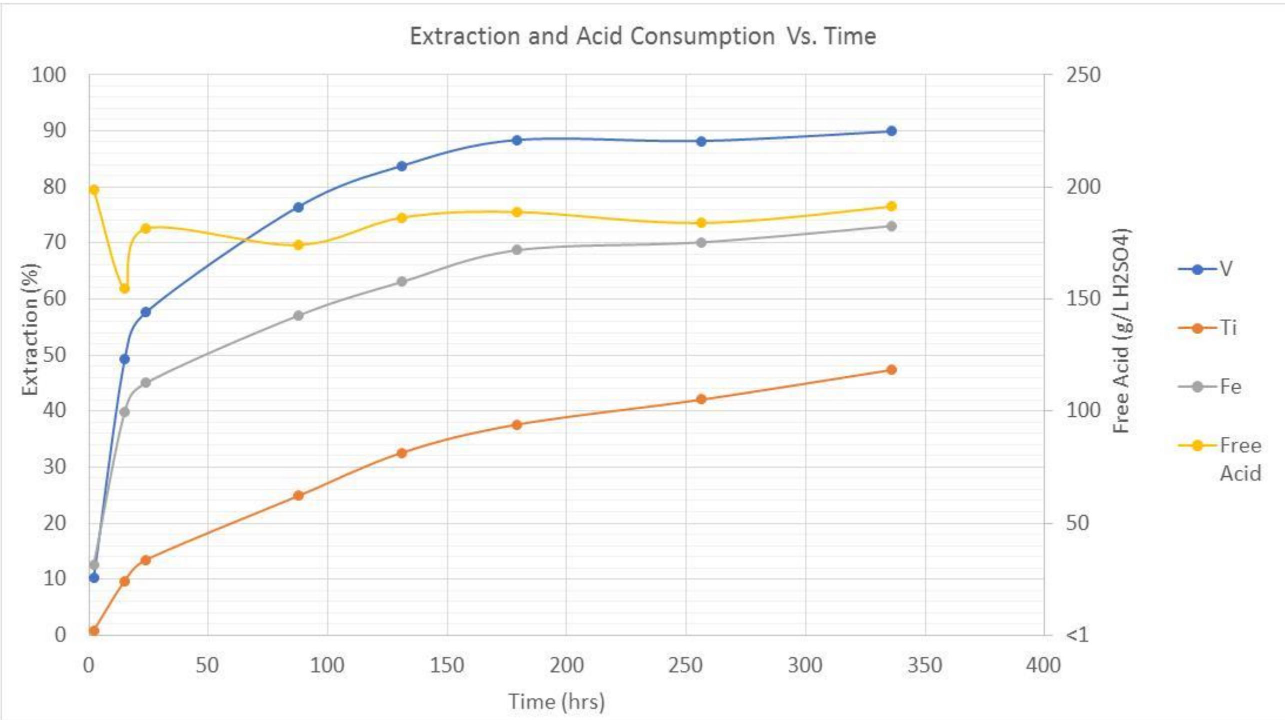
The final sulphuric acid leach results are summarised in the table below. The test conditions were leach temperature 70°C, leached in 20% H_2SO_4 acid at 20% pulp density. The acidity was maintained between 150-200 g/L free acid H_2SO_4 during the leach, at an upward flow rate of 37.4L/minute/m^2. The leach was run over 14 days with solution assays monitored regularly to determine completion of V leaching.

				Column Leach Extractions (%)							Mass Loss	Acid Consumption	Post Leach Slump	Flow Rate
Lump Sample Size	**Acid (%)**	**Time (hours)**	**Time (days)**	**V**	**Fe**	**Ti**	**Mg**	**Al**	**Ca**	**Si**	**%**	**kg/t**	**%**	**L/min/m^2**
HG P_{100} 5.6mm	**20**	336	14	**90**	73	47	54	43	3.2	0.05	21.94	668	0	37.4

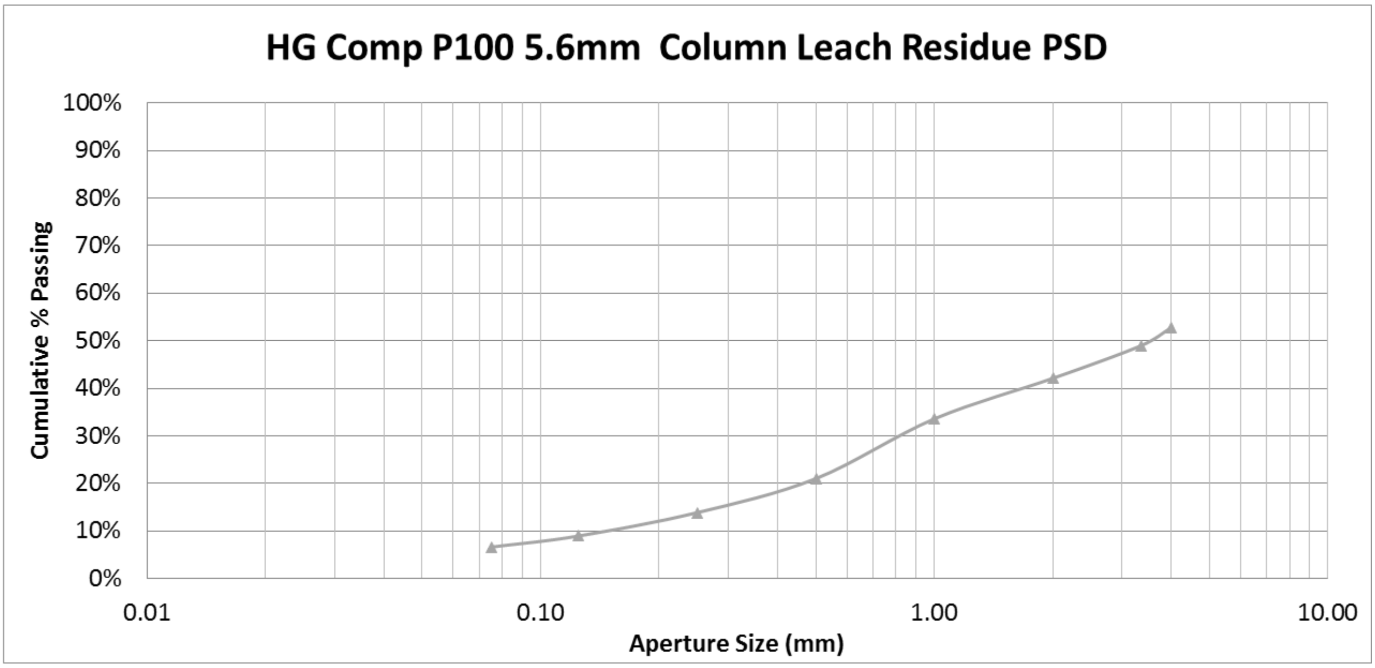
HG = high grade, head assay 0.36% V_2O_5, 3.65% TiO_2, 21.37% Fe_2O_3, 44.75% SiO_2, 12.74% Al_2O_3, 8.36% CaO, 4.33% MgO, 2.32% Na_2O and 1.12% K_2O.

These flooded column results are very encouraging and show:

- 90% V and 47% Ti leach extraction after 14 days. Ti leach curve is positive and still leaching.
- Most V, Fe and Ti extraction occurred in 7.5 days (see graph below).
- High flow rates and no slumping of the particles within the column have facilitated acid leaching.
- Particle size distribution (PSD) of the P_{100} 5.6mm lump grains after leaching show little breakdown of the original lumps to finer grained material (see final residue PSD graph on the next page). The leached grains are more brittle than the original material.



Flooded column leach lumps after 14 days leaching in 20% H_2SO_4 solution at 20% pulp density and 70°C



Nagrom Testwork Planned

- Further heated flooded column leach tests on 10mm lump sample (underway) and agglomerated 2mm concentrate (binding and dosing with sulphuric acid).
- Further Vat Leach tests on concentrates and magnetite gabbro lumps, to optimise grain size and leach conditions by heating to different temperatures (50, 60, 70°C) in different acid strengths (5, 10, 15 and 20% H_2SO_4) and flow rates.

TSW Microleach Testwork

TSW Analytical completed a sulphuric acid leach on a 30.11g 106 micron concentrate sample from the high grade zone of SDH08-6 (Figure 1). The leach was completed under the same test conditions as the flooded column leach tests (20% H_2SO_4 maintained at this level throughout the leach, 20% pulp density, plus agitation). The solution liquors were analysed at 6, 24, 30, 48 and 72 hours.

This test was completed to provide comparative data for engineering design of two vat leach scenarios – treating lump magnetite gabbro in static vats (the flooded column test above) and magnetite-ilmenite concentrate in agitated tanks.

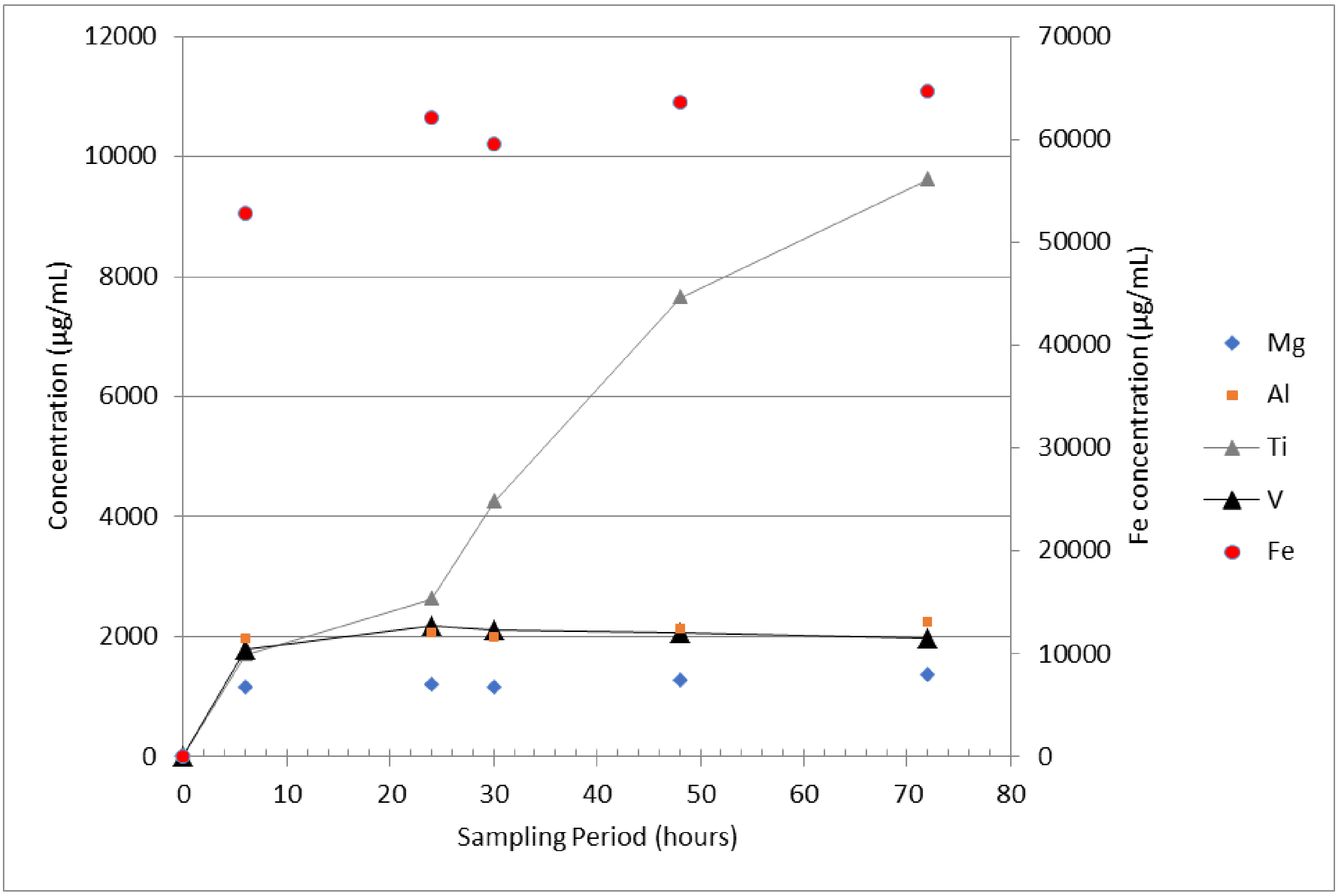
The results of the concentrate microleach is summarised in the table below:

				Leach Extractions (%)						Mass Loss	Acid Consumption
Concentrate Sample Size	**Acid (%)**	**Time (hours)**	**Time (days)**	**V**	**Fe**	**Ti**	**Mg**	**Al**	**Ca**	**%**	**kg/t**
HG P_{80} 106 um	**20**	72	3	**97**	89	62	62	70	39	63.9	990

HG = high grade, head assay 1.7% V_2O_5, 15.37% TiO_2, 60.04% Fe_2O_3, 14.49% SiO_2, 4.02% Al_2O_3, 3.77% CaO and 2.35% MgO.

These agitated microleach results on concentrate show:

- 97% V and 62% Ti leach extraction after 3 days, higher than the column test results.
- Most V, Fe, Mg and Al extraction occurred in less than 24 hours (see graph below).
- Ti extraction requires more time to leach and the positive Ti leach curve suggests higher extractions could be obtained by extending the leach time beyond 3 days.



Refining Processing of V, Ti and Fe Products

Now that the leach testwork has successfully demonstrated very good metal extractions from both lump and concentrates in sulphuric acid, the company's focus will shift more to precipitation testwork to recover the targeted metals from the leach solutions.

Precipitation testwork is underway, using leach liquors from vat lump material and 106 micron concentrates, to make vanadium pentoxide, titanium dioxide, iron oxide and vanadyl sulphate products, trialing solvent extraction (SX), ion exchange (IX), thermal hydrolysis and chemical precipitation methods. This work is ongoing and results will be reported separately.

Over the next month, the emphasis will be on the precipitation of iron (Fe) as ferrous sulphate and the oxidation of the ferrous sulphate to produce an iron oxide product and recover sulphur dioxide. Iron is the most abundant metal in the leach solution, and its initial removal from the solution should aid the extraction of vanadium, titanium and other metals oxides.

New SSM Project Plan

Metallurgical testwork and studies to be addressed in the new SSM Plan include:

- Complete Vat Flooded Column Leach testwork on the preferred lump and agglomerated concentrate sample sizes, to examine the effects of changes in the temperature, acid concentrations and flow rates, and other design modifications, on leach recoveries, leach times, acid consumption, mass loss and vat shrinkage (slump).
- Further Hydrometallurgical Process Flow Sheet development trialing solvent extraction, ion exchange, thermal hydrolysis and chemical precipitation methods. Recovery of sulphur values as sulphur dioxide (SO_2) from the iron product is an important part of the process as it has the potential to reduce the sulphuric acid requirement.
- Beneficiation Plant design and capital and processing cost estimates for lump, 2mm concentrate and 106 micron concentrate options.
- Capital and operating costs for Vat Leach operation, comparing lump and concentrate scenarios.
- Options analysis into the capital and operating costs for an on-site Sulphuric Acid Plant compared to importing acid and contract diesel power generation, including the supply, port access and transport of sulphur and sulphuric acid.
- Geotechnical studies on drill core to help finalise pit design.
- Environmental, heritage and marketing studies.

Once these items have been addressed, KRR will complete a Prefeasibility Study into the preliminary economics of the SSM project suitable for release to the market in accordance with the reporting requirements for production targets and forward looking statements. The modifying factors listed in the JORC 2012 Code will be considered to address the Material Assumptions for the Prefeasibility Study.

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<u>Directors Comments</u>

The Board is most encouraged by the new vat and column leach test results, particularly the flooded column result as it most closely resembles a vat leach operation. Successful conclusion of the tests will allow us to finalise the vat leach plant design and costings as soon as possible.

A trade off analysis into the optimum particle size will be undertaken. This will examine the merits of both a vat leach operation using lump magnetite gabbro compared to an agitated tank system using concentrate.

During 2019, KRR aims to present shareholders with the most prudent commercial strategy to develop the Speewah vanadium deposits and advance towards the production of a basket of Specialty products, including Vanadium, Titanium, Iron and other high value products at the lowest possible unit cost.

Anthony Barton
Chairman
King River Resources Limited

Statement by Competent Person

The information in this report that relates to Exploration Results, Mineral Resources, Metallurgy and Previous Studies is based on information compiled by Ken Rogers (BSc Hons) and fairly represents this information. Mr. Rogers is the Chief Geologist and an employee of King River Resources Ltd, and a Member of both the Australian Institute of Geoscientists (AIG) and The Institute of Materials Minerals and Mining (IMMM), and a Chartered Engineer of the IMMM. Mr. Rogers has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Rogers consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

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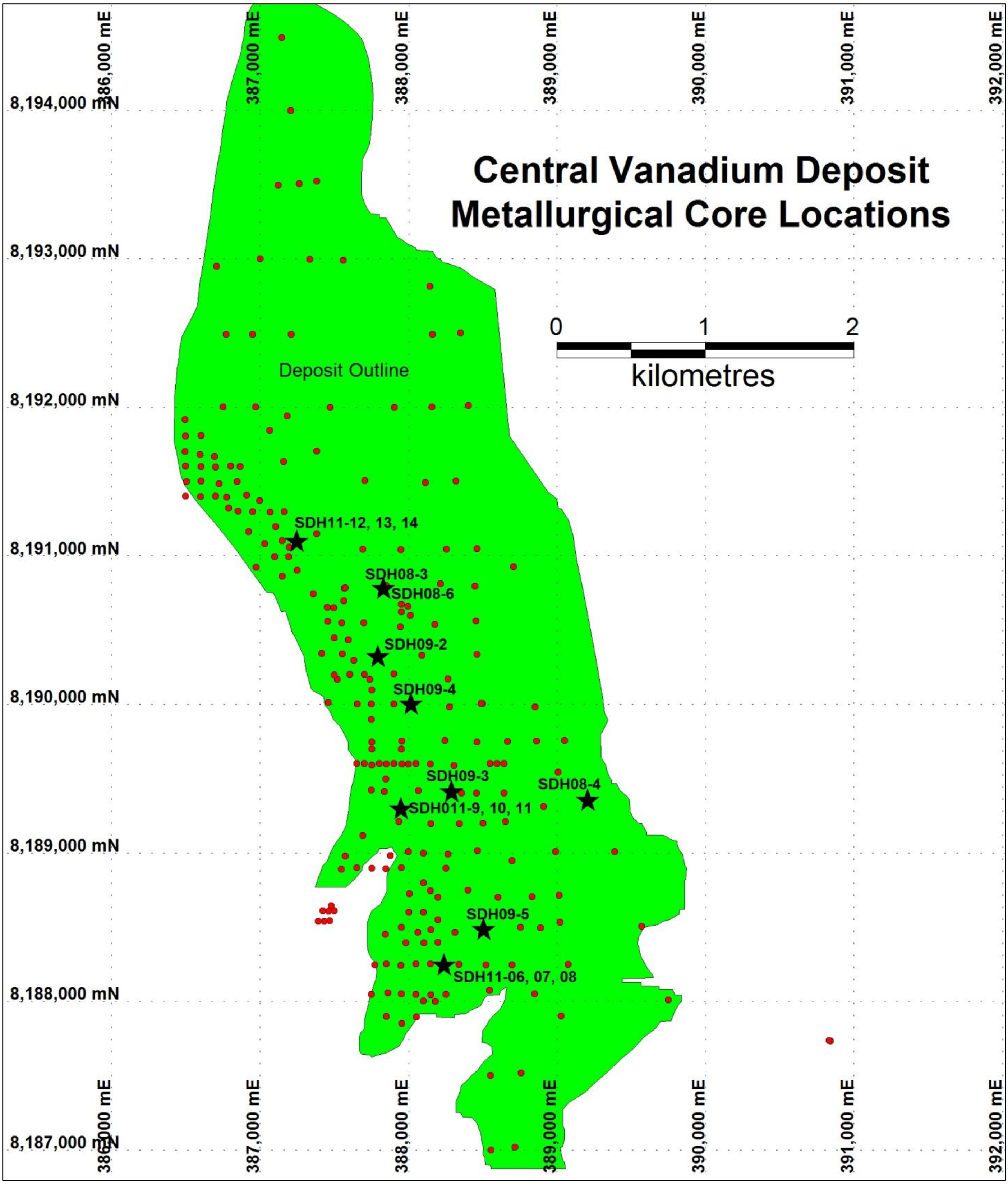

Figure 1: Diamond core hole locations (black stars) and Reverse Circulation drill holes (red dots) within the Central Vanadium Deposit, including metallurgical core holes SDH08-06 and SDH11-09 referred to in this announcement. Diamond core hole collar data is given in Table 1.

Table 1: Diamond core holes drilled in the Central deposit

Hole_id	Deposit	East_GDA	North_GDA	RL	Depth	Dip	Azimuth	Tenement
		m	m	m	m	degrees	degrees	
SDH08-3	Central	387830.42	8190778.6	197.037	80	-90	0	E80/2863
SDH08-4	Central	389203.71	8189358.8	190.014	75	-90	0	E80/2863
SDH08-6	Central	387831.84	8190783.9	197.187	450.5	-90	0	E80/2863
SDH09-2	Central	387793.53	8190327.7	196.267	50	-90	0	E80/2863
SDH09-3	Central	388287.08	8189417.5	189.987	70.5	-90	0	E80/2863
SDH09-4	Central	388016.74	8190007.5	194.698	42.1	-90	0	E80/2863
SDH09-5	Central	388502.3	8188487.8	186.4	57.1	-90	0	E80/2863
SDH11-06	Central	388234.08	8188240.6	188.018	39.4	-90	0	E80/2863
SDH11-07	Central	388234.04	8188243.7	187.999	41.6	-90	0	E80/2863
SDH11-08	Central	388234.08	8188246.9	187.941	40.9	-90	0	E80/2863
SDH11-09	Central	387946.28	8189294	191.676	40.9	-90	0	E80/2863
SDH11-10	Central	387945.75	8189295.9	191.643	39.4	-90	0	E80/2863
SDH11-11	Central	387945.33	8189297.8	191.706	40.9	-90	0	E80/2863
SDH11-12	Central	387243.47	8191101.7	212.529	41	-90	0	E80/2863
SDH11-13	Central	387242.63	8191101.2	212.467	41	-90	0	E80/2863
SDH11-14	Central	387241.65	8191100.6	212.457	40.1	-90	0	E80/2863

Appendix 1: King River Resources Limited Speewah Project JORC 2012 Table 1

SECTION 1 : SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling Techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* *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 (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.*	This ASX Release reports on further metallurgical testwork on samples from the Central Vanadium deposit at KRR's Speewah Project. *RC and Diamond Core Samples* 134 Reverse Circulation (RC) holes (5,268 metres) and 30 diamond (DD) core holes are within the modelled mineralisation envelopes of the Mineral Resource estimates. RC chip samples were used in previous beneficiation and variability metallurgical testwork completed in 2006-2011. A 28.42kg composite of 12 RC holes was used in the initial beneficiation and microleach tests reported in 2017 (KRR ASX announcement 21 August 2017). 16 HQ DD core holes were drilled in the Central Vanadium deposit (see Figure 1 and Table 1 for locations). Two of these core holes from the high grade zone (SDH08-06 - 42.66m-59.45m and SDH11-09 - 21-37.5m) have been used in the beneficiation and hydrometallurgical metallurgical tests reported in announcements to date. A 29.47kg composite magnetite gabbro sample of HQ ¼ core from the high grade zone of drillhole SDH08-06 at 42.66-59.45m downhole was used to make a 106um and 120um concentrates used in previous hydrometallurgical test work previously reported. The head assay of this sample is 0.393% V_2O_5, 3.561% TiO_2 and 21.225% Fe_2O_3. A 60kg composite magnetite gabbro sample of HQ ¼ core from the high grade zone of drillhole SDH11-09 – 21-37.5m downhole has been used in the beneficiation and bottle roll and vat leach metallurgical tests reported in this announcement. The head grade of this sample is 0.36% V_2O_5, 3.65% TiO_2, 21.37% Fe_2O_3, 12.74% Al_2O_3, 8.36% CaO, 4.33% MgO and 44.75% SiO_2. *Metallurgical Flooded Column Vat Samples* Nagrom flooded column tests used a 4468.8g subsample of a 60kg composite sample of ¼ core from the high grade zone interval of diamond core hole SDH11-09 21-37.5m, crushed to lump size of 5.6mm. The column internal diameter is 80mm. The column test used 4468.8g of lump material leached in 20% H_2SO_4 (maintained at 150-200g/L free acid during leach) at 70°C temperature, at 20% pulp density and upward flow rate of 37.4L/min/m2. Final results are reported in this announcement.

Sampling Techniques (continued)		*Metallurgical Concentrate Samples:* Nagrom magnetic separation test used a 10kg subsample of a 60kg sample of ¼ core from the high grade zone interval of diamond core hole SDH11-09 21-37.5m, crushed and ground to P100 2mm. Magnetic separation methods were 1200G LIMS, and 2000G and 3000G MIMS to produce a coarse grained concentrate. The 2000G MIMS concentrate was used in the bottle roll testwork. *Metallurgical Hydrometallurgical Samples:* Nagrom produced a magnetite concentrate from SDH08-6 42.66-59.45m drill core using a MIMS-cleaner MIMS-recleaner LIMS test circuit and produced a concentrate with a grain size of P_{80} 106 microns that assayed 1.7% V_2O_5, 15.37% TiO_2 and 60.04% Fe_2O_3, with 14.49% SiO_2, 4.02% Al_2O_3, 3.77% CaO and 2.35% MgO. TSW has leached a 30.11g subsample of this concentrate sample using 20% sulphuric acid (maintained at this level throughout the test), at 20% pulp density, heated to 70^{O}C and stirred for 72 hours (Microleach test LT54). The leach solution liquors were analysed at 6, 24, 30, 48 and 72 hours. This test, reported in this announcement, gave 97% V and 62% Ti leach efficiencies. The leachate from these leaches will be used for hydrometallurgical extraction testwork using solvent extraction, ion exchange and chemical precipitation methods to separate V_2O_5, TiO_2 and Fe_2O_3 products.
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.).*	RC using a 5.75" hammers and diamond (NQ and HQ3 size) drilling were completed to support the preparation of the Mineral Resource estimate. Holes drilled vertical. Metallurgical testwork completed on ¼ HQ3 core composite samples from two metallurgical diamond drill core holes (Figure 1 and Table 1): • SDH08-06 42.66m-59.45m (High Grade Zone), and • SDH11-09 6-16m (Low Grade Zone) and 21-37.5m (High Grade Zone).
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	No qualitative recovery data was recorded. Qualitative examination and photography suggested RC and diamond recoveries are very high. Good ground conditions exist which suggests recovery is likely to be very high.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	HQ3 (triple tube) drilling was used to maximise diamond sample recovery.
	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.	No relationship between grade and recovery has been identified.
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.*	DD core and RC chips were geologically logged, with descriptions of mineralogy and lithology noted.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging was generally qualitative in nature. DD core photographed wet.
	The total length and percentage of the relevant intersections logged.	SDH08-06 - 0-450.5m, 100% logged. SDH11-09 – 0-40.9m, 100% logged.
Sub-sampling techniques	*If core, whether cut or sawn and whether quarter, half or all core taken.*	DD core was cut in half with a core saw. Some half sections sawn in quarters. ¼ core used in testwork.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled	Not applicable as samples used in the reported testwork were DD core.

and sample preparation	*wet or dry.*	
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Whole continuous lengths of DD ¼ core samples collected, composited and used in testwork. These were collected to represent the composite intervals of both the High Grade and Low Grade Zones.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Subsampling is performed during the preparation stage according to the metallurgical laboratories' internal protocol.
	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.	Use of DD core in metallurgical testwork gives a continuous insitu sample. HQ3 triple tube ensures high recovery rates. DD core twinned previous RC drill holes. Whole sample interval used in testwork.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate to the grain size of the material being sampled.
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.*	TSW Testwork Testwork includes sulphuric acid leaches, evaporation under reflux conditions, chemical precipitation and solvent extraction and ion exchange tests. Assays are conducted on leach solutions and solid residues. Fe_2O_3, TiO_2 and V_2O_5 precipitation tests are underway and planned. TSW Analytical is a well-established analytical service provider that has developed a reputation for producing accurate analyses for complex samples. The company's expertise has assisted with the development of hydrometallurgical flow-sheets for multi-element ore concentrates. The titaniferous vanadiferous magnetite concentrate (supplied by the client) and leach residues have been assayed using ICP-AES and ICP-MS. Samples were fused in a lithium borate flux, the resultant glass bead was dissolved in hydrochloric acid and suitably diluted for either ICP-MS or ICP-AES analysis. Loss on Ignition (LOI) at 1000 ^{O}C was performed for completeness of the analytical data and to give a better indication of the total analytical percentage approximation to 100%. The leach solutions and wash liquors have been analysed using ICP-AES and ICP-MS. The samples were diluted suitably for the appropriate ICP based analysis. Dilutions are used to bring the analyte concentration into the optimum analytical range of the ICP instrument used and to reduce matrix interference complications during quantification. Leach efficiency has been determined using the mass of the total analyte in the leach residue divided by the mass of the total analyte in the initial titaniferous vanadiferous magnetite concentrate used. The resulting fraction is multiplied by 100 to give a percent leach efficiency. TSW Analytical uses in-house standards and Certified Reference Materials (CRMs) to ensure data are "Fit-For-Purpose". Nagrom Testwork Nagrom produced a magnetite-ilmenite concentrate by a combination of Medium Intensity Magnetic Separation (MIMS) and Low Intensity Magnetic Separation (LIMS) tests to be used for vat leach and hydrometallurgical tests. All solid samples have been analysed via XRF. The prepared sample is fused in a lithium borate flux with a lithium nitrate additive. The resultant glass bead is analysed by XRF. Loss on Ignition (LOI) is also conducted to allow for the determination of oxide totals.

		All solution samples are diluted and then analysed by ICP. Dilutions bring the concentration level to within the analytical range of the ICP instruments. Diluents are matched to sample matrix.
	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.	No geophysical data was collected.
	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.	TSW Analytical Concentrations are reported as micrograms per gram (µg/g) in the solid unless otherwise stated, Instrumental response is measured against AccuTrace High Purity multi-element standards (Choice Analytical) to achieve quantitation. Data are subjected to in-house QA and QC procedures where an independent analyst recalculates instrumental output and compares the newly generated data set with the original. Lack of equivalence between the two data sets triggers an internal review and if necessary re-analysis of the entire data set. Under these circumstances a third independent analyst will assess all generated data prior to sign off. Initial equivalence between the two data sets, generated by the analyst and reviewer, will clear data for remittance to the customer. All reports are reviewed by an independent analyst prior to submission to the customer and where necessary relevant changes, such as wording that may give rise to possible ambiguity of interpretation, will be modified prior to the final report being sent to the customer. Nagrom is certified to a minimum of ISO 9001:2008.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Significant intersections have been verified by alternative company personnel.
	The use of twinned holes.	All metallurgical DD core holes twinned previous RC holes. SDH08-06 was drilled twice. SDH11-09 has been twinned by SDH11-10 and SDH11-11 (see Figure 1 and Table 1) which is being used in current bottle roll and vat leach testwork.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Templates have been set up to facilitate geological logging. Prior to the import into the central database, logging data is validated for conformity and overall systematic compliance by the geologist. Assay results are received from the laboratory in digital format. Assays, survey data and geological logs incorporated into a database.
	Discuss any adjustment to assay data.	No adjustments or calibrations will be made to any primary assay data collected for the purpose of reporting assay grades and mineralised intervals.
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.*	Almost 90% of the collars used in the resource estimate have been surveyed using a differential global positioning system (DGPS) instrument, with the remaining surveyed using a hand-held GPS. Downhole deviations have been measured by downhole survey instruments on 3 holes only using a Globaltech Pathfinder digital downhole camera. All but four holes are vertical. All metallurgical holes are vertical. The vertical and shallow nature of the drilling means that the absence of downhole surveys is not considered a material risk.
	Specification of the grid system used.	The adopted grid system is GDA 94 Zone 52.
	Quality and adequacy of topographic control.	A topographic file provided by KRR was calibrated for use in the Mineral Resource

		estimate using DGPS and GPS collar data. The Competent Person considers that the topography file is accurate given the use of DGPS data in the Mineral Resource area.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	RC drill spacing is mostly 250 m by 250 m at the Central deposit, closing down to 100 m by 100 m in the western area (see Figure 1). Metallurgical DD core holes are spaced about 500 m apart (see Figure 1).
	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.	The Competent Person believes the mineralised domains have sufficient geological and grade continuity to support the classification applied to the Mineral Resources given the current drill pattern.
	Whether sample compositing has been applied.	Metallurgical samples were composited to represent the High Grade and Low Grade Zones within the magnetite gabbro and within the resource envelope. This was considered appropriate given the metallurgical testwork was designed to test the lower and high grade zones of the mineralisation and it provided for a bulk sample suitable for the testwork.
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.*	All metallurgical DD core holes are vertical. This allows the holes to intersect the mineralisation at a high-angle as the magnetite gabbro has a very shallow dip to the east.
	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.	The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.
Sample security	*The measures taken to ensure sample security.*	Chain of Custody is managed by the Company until samples pass to a duly certified metallurgical laboratory for subsampling, assaying, beneficiation and hydrometallurgical test work. The RC assay pulp bags are stored on secure sites and delivered to the metallurgical laboratory by the Company or a competent agent. The chain of custody passes upon delivery of the samples to the metallurgical laboratory.
Audits or Reviews	*The results of ay audits or reviews of sampling techniques and data.*	No external audits have been completed.

Section 2 : Reporting of Exploration Results

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 licence to operate in the area.*	The Speewah Project comprises 12 Exploration Licences, three Mining Leases and two Miscellaneous Licences. Details are listed in Table 1 Schedule of Tenements held at 30 September 2018 reported previously in the September Quarterly Report. The Speewah test work reported in this announcement are from samples collected entirely within E80/2863. The tenements are 100% owned by Speewah Mining Pty Ltd (a wholly owned subsidiary of King River Resources Limited), located over the Speewah Dome, 100km SW of Kununurra in the East Kimberley. The tenements are in good standing and no known impediments exist. No Native Title Claim covers the areas sampled and drilled. The northern part of the tenements (but not E80/2863) is in the Kimberley Heritage Area.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	No exploration completed by other parties is relevant for the metallurgical testwork reported herein.
Geology	*Deposit type, geological setting and style of mineralisation.*	The ferrovanadium titanium (Ti-V-Fe) deposits represent part of a large layered intrusion (the Hart Dolerite), which was intruded c1790 Ma into the Palaeo-Proterozoic sediments and minor volcanics of the 1814 Ma Speewah Group in the East Kimberley Region of Western Australia. The deposits occur within the Speewah Dome, which is an elongated antiform trending N-S. The dome is about 30 km long and attains a maximum width of about 15 km. The Hart Dolerite sill forms the core of the dome. Since the deposit discovery in 2006, at least two distinct types of felsic granophyres and three mafic gabbros have been identified in the Hart Dolerite as follows: • K felsic granophyre (youngest) • Mafic granophyre • Pegmatoidal gabbro • Magnetite gabbro (host unit) • Felsic gabbro (oldest). The vanadium-titanium mineralisation is hosted within a magnetite bearing gabbro unit of the Hart Dolerite, outcropping in places and forming a generally flat dipping body that extends over several kilometres of strike and width. The layered sill is up to 400m thick containing the magnetite gabbro unit which is up to 80m thick. Given the mode of formation, mineralisation displays excellent geological and grade continuity which was considered when classifying the Mineral Resource estimate. Exposure is limited and fresh rock either outcrops or is at a shallow depth of a few metres. Ti-V-Fe mineralisation occurs as disseminations of vanadiferous titano-magnetite and ilmenite. Within the tenements the vanadium deposits have been divided into three deposits – Central, Buckman and Red Hill. The test work reported in this announcement was sampled from the Central vanadium deposit (Figure 1).

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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.*	New exploration results are not being reported. Locations of diamond (DD) core holes, including metallurgical core holes used in this announcement, are shown on Figure 1 and Table 1.
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.*	Exploration results are not being reported.
	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.	Continuous lengths of ¼ core composited for metallurgical samples from the Low Grade and High Grade Zones.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used for reporting.
Relationship between mineralisation widths and intercept lengths	*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 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 (e.g. 'down hole length, true width not known').*	Due to the very shallow dip of the mineralisation, the vertical metallurgical DD core holes represent almost the true width of the mineralisation.
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.*	Figure 1 shows the location of diamond core holes within the Central Vanadium deposit referred to in this announcement.
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.*	Reports on previous metallurgical results can be found in ASX Releases that are available on our website, including announcements 1 April 2010, 15 July 2010, 9 November 2010, 8 February 2012, 21 April 2017, 21 August 2017, 9 October 2017, 4 December 2017, 30 January 2018, 27 February 2018, 21 March 2018, 25 June 2018, 23 July 2018, 15 October 2018,19 November 2018 and 18 January 2019.
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.*	Updated vanadium resource estimates in accordance with the JORC 2012 guidelines were reported in KRR ASX announcement 26 May 2017.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the*	Further metallurgical tests are planned to increase metal recoveries, shorten leach times and reduce acid consumption, and trialing selective chemical precipitation,

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	areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	thermal hydrolysis, ion exchange and solvent extraction methods to precipitate vanadium pentoxide and titanium dioxide, and make vanadium electrolyte.