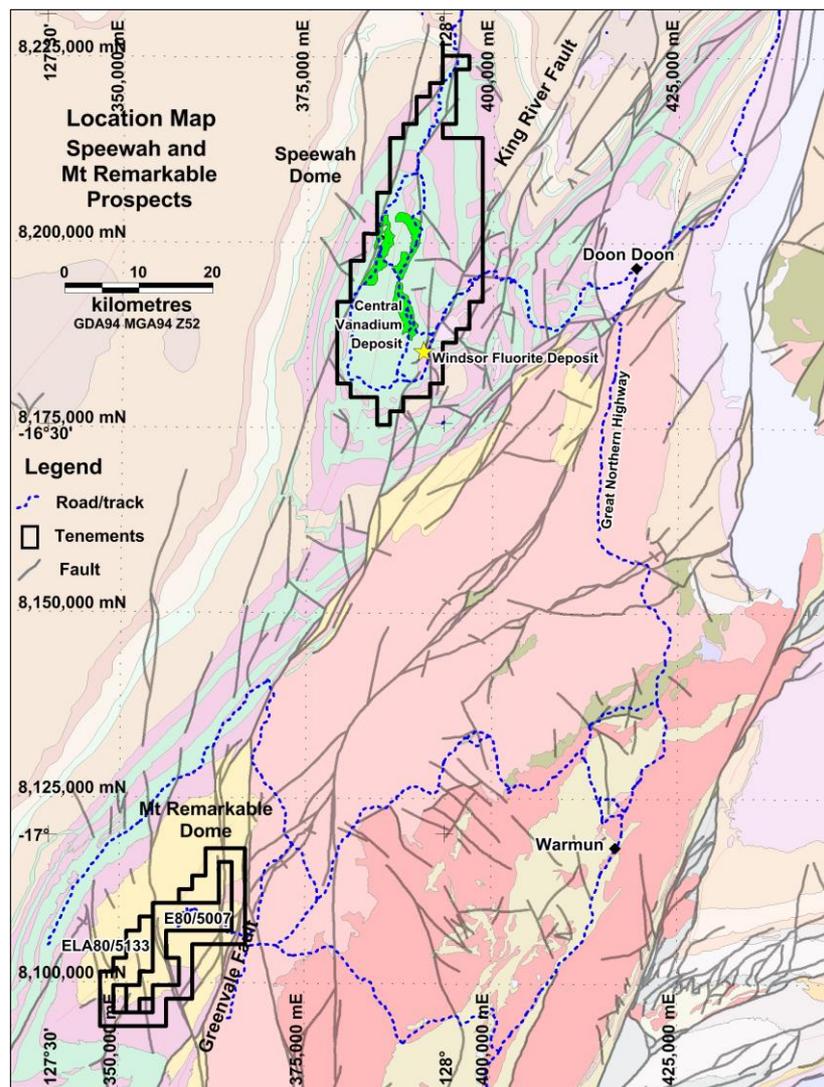


**Australian Securities Exchange Announcement**

**24 October 2018**

**SUMMARY OF HIGHLIGHTS**

- ❖ The Speewah Vanadium-Titanium-Iron Scoping Study has progressed with:
  - Primero finalised the design and opex and capex estimates for a beneficiation process plant to produce a magnetite-ilmenite concentrate
  - CSA Global completing the Scoping Study for release in October 2018
- ❖ TSW Analytical produced high purity Vanadium Pentoxide (99.51% V<sub>2</sub>O<sub>5</sub>)
- ❖ Gold exploration continued at Mt Remarkable with more high grade gold intersections including:
  - 2m @ 16.78g/t Au including 1m @ 31.80g/t Au from 15m in KMRC115
  - 4m @ 36.77g/t Au including 1m @ 70.9g/t Au from 7m in KMRC127,
  - 3m @ 29.53g/t Au including 1m @ 87.30g/t Au from 9m in KMRC129,
  - 5m @ 9.03g/t Au including 1m @ 28.10g/t Au from 8m in KMRC126.
- ❖ CSA Global finalised a Scoping Study on the Company's Fluorspar Project released in October 2018.
- ❖ Tenements totalling 2907 km<sup>2</sup> were granted over the Tennant Creek application areas.



**Figure 1: Location of the Mt Remarkable and Speewah projects on a regional geological map**

During the September quarter 2018 King River Copper Ltd (ASX:KRC) reported on the Speewah Vanadium and Fluorite Project studies and reported further high grade gold intersections at the Mt Remarkable Gold project, both located in the East Kimberley of Western Australia and 100% owned by KRC (Figure 1).

### **Vanadium-Titanium-Iron Scoping Study Update**

KRC has appointed CSA Global Pty Ltd (“CSA Global”) to complete a Scoping Study on its Vanadium Project at Speewah in the East Kimberley of Western Australia. The Study will build on the following key elements of the Project:

- ❖ Producing diversified co-products (KRC ASX release 20 June 2018):
  - high purity Vanadium Pentoxide powder and flake  $\geq 99.5\%$   $V_2O_5$  (chemical, master alloy, battery grades);
  - standard grade Vanadium Pentoxide flake ( $>98\%$   $V_2O_5$ );
  - Titanium Dioxide products (pigment and high purity  $>99\%$   $TiO_2$ ), and
  - iron oxide Hematite.
- ❖ The Vanadium Project has the largest vanadium-in-magnetite deposit in Australia with a total global Measured, Indicated and Inferred Mineral Resource of 4,712 million tonnes at 0.3%  $V_2O_5$ , 2% Ti and 14.7% Fe (reported at a 0.23%  $V_2O_5$  cut-off grade from the Central, Buckman and Red Hill deposits). This combined resource total comprises Measured Resources of 322 million tonnes at 0.32%  $V_2O_5$ , 2% Ti and 14.9% Fe, Indicated Resources of 1,054 million tonnes at 0.33%  $V_2O_5$ , 2% Ti and 14.9% Fe, and Inferred Resources of 3,335 million tonnes at 0.29%  $V_2O_5$ , 2% Ti and 14.6% Fe (Refer to KRC ASX announcement 26 May 2017 for the full resource statement details).
- ❖ Conventional magnetic separation methods produce the highest vanadium grade in the magnetite concentrate. An improved beneficiation flowsheet on high grade core has now produced a 2.11%  $V_2O_5$  magnetite-ilmenite concentrate, at higher mass yield of 16.5% at a coarser grain size (120 micron), and with more waste rejection (refer KRC ASX announcement 21 March 2018), compared with concentrates used in previous studies.
- ❖ KRC envisages an open cut mining operation based on the Central Vanadium deposit which outcrops and has shallow dipping geometry. The flat lying nature of the Speewah mineralisation gives the opportunity to mine very large volumes of material with minimum waste (0.4 tonne waste to 1.0 tonne mineralised material) (refer KRC ASX announcement 20 June 2018 for an initial conceptual pit modelling study).
- ❖ Several different hydrometallurgical processes have been successful in producing the targeted products. Initially a magnetite concentrate grading 2.11-2.15% vanadium pentoxide ( $V_2O_5$ ) is produced by crushing, grinding and magnetic separation methods (KRC ASX announcements 21 August 2017 and 21 March 2018). The vanadium and titanium enriched concentrate is then leached in hydrochloric acid to release the V, Ti and Fe metals into solution for separation by hydrothermal and chemical precipitation methods followed by purification steps to produce high purity vanadium pentoxide ( $V_2O_5$ ) and titanium dioxide ( $TiO_2$ ) products (KRC ASX announcements 30 January 2018, 27 February 2018, 25 June 2018 and 23 July 2018).

## Hydrometallurgical Testwork by TSW Analytical

TSW Analytical Pty Ltd (TSW Analytical) is investigating a new direct hydrochloric acid leaching-precipitation method to produce the vanadium, titanium and iron oxide products using the magnetite-ilmenite concentrate previously produced by Nagrom (KRC ASX announcement 21 August 2017 and 21 March 2018). This process is different from conventional salt roast technology or solvent extraction (SX) methods. The SX process route had previously been adopted by KRC in the Scoping Study of 2012.

TSW Analytical is working on two hydrometallurgical process routes to make vanadium pentoxide:

- direct hydrous vanadium oxide route produced a high grade vanadium pentoxide (99.48%  $V_2O_5$ ) (KRC ASX 27 February 2018).
- ammonium metavanadate (AMV) route produced a high purity vanadium pentoxide (99.51%  $V_2O_5$ ) (KRC ASX 23 July 2018).



**High purity Vanadium Pentoxide**  
99.51%  $V_2O_5$

TSW Analytical has also produced high purity titanium dioxide (KRC ASX 30 January 2018).

Testwork is underway to optimise the vanadium, titanium and iron processes and recover hydrochloric acid.

## Testwork by Nagrom

Nagrom has commenced bottle roll sulphuric acid leach tests on a magnetite-ilmenite concentrate sample, designed to produce a leach solution for preliminary vanadium electrolyte testwork, and also provide data on V, Ti and Fe recoveries, acid consumption and mass reduction prior to column leach tests on Speewah lump magnetite gabbro and concentrate types (KRC ASX 10 September 2018).

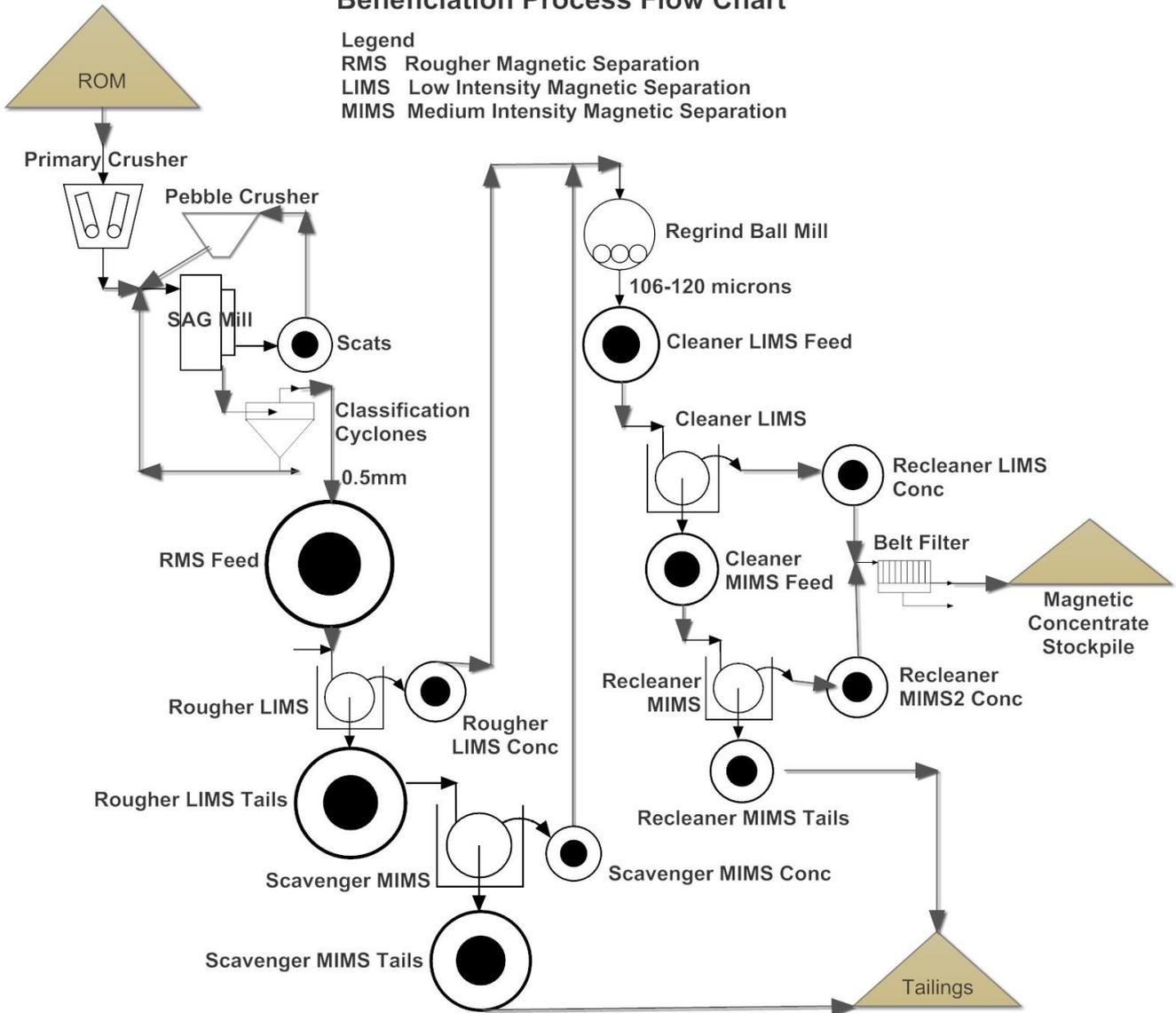
Nagrom are producing additional magnetite-ilmenite concentrate from new core samples for additional hydrometallurgical testwork at different specifications (KRC ASX 10 September 2018).

## Beneficiation Plant Design and Costings by Primero

Primero Group Ltd (“Primero”), an engineering consultant group, has finalised the initial detailed process flow sheets for each stage of the beneficiation circuit, and provided operating and capital cost estimates for a beneficiation plant, at a larger scale than the operation modelled in the Scoping Study reported in 2012 (KRC ASX 23 April 2012). The results from this beneficiation study will be incorporated into the Vanadium Scoping Study.

The beneficiation circuit (illustrated on the next page) has been designed to maximise V and Ti recovery into the magnetite-ilmenite concentrate and reject a high proportion of the ROM feed at a 0.5mm grain size using magnetic separation methods. A simplified process flow chart of the beneficiation process is shown below (refer KRC ASX 20 June 2018).

**Speewah Vanadium Project  
Beneficiation Process Flow Chart**



**Animal Plant Mineral Environmental Study**

Environmental consultants Animal Plant Mineral (APM) completed their review the environmental aspects at Speewah (commenced by APM in 2010-2012) and provided an overview of environmental approvals, and outlined future work required. This study will be incorporated in the Vanadium Scoping Study.

## Fluorspar Scoping Study

CSA Global had previously updated the Windsor fluorite resource and reported in accordance with the JORC Code (2012 Edition) (refer to KRC ASX announcement 23 February 2018 for the full resource statement details). The updated combined Indicated and Inferred Mineral Resource, reported at a 2% CaF<sub>2</sub> cut-off grade from the A, B, C and E fluorite veins at Windsor totals 27.2 million tonnes at 9.5% CaF<sub>2</sub>. Within this Mineral Resource there is a high grade Indicated and Inferred Mineral Resource of 6.7 million tonnes at 24.6% CaF<sub>2</sub> at a 10% CaF<sub>2</sub> cut-off grade. The Mineral Resource estimate is shown in Table 1 reported above a cut-off grade of 2% CaF<sub>2</sub>.

**Table 1: Windsor deposit fluorite Mineral Resource estimate**

Zone	JORC Classification	Tonnage (Mt)	CaF <sub>2</sub> (%)
High Grade	Indicated	4.1	25.3
	Inferred	2.6	23.6
Total High Grade		<b>6.7</b>	<b>24.6</b>
Low Grade	Indicated	8.9	5.0
	Inferred	11.6	4.3
Total Low Grade		20.4	4.6
Combined	Indicated	13.0	11.4
	Inferred	14.2	7.8
<b>Grand Total</b>		<b>27.2</b>	<b>9.5</b>

In September 2018, CSA Global completed an initial concept mining pit study on the Windsor fluorite deposit at Speewah to ascertain whether the recent price increase for acid grade fluorspar had improved the financial metrics based on an earlier pit study completed in 2004. This encouraged KRC to appointed CSA Global to finalise of the Windsor Fluorite Scoping Study which was released on 4 October 2018.

## Mt Remarkable Gold Drilling and Regional Exploration

Reverse Circulation (“RC”) drilling, which commenced early May 2018, has continued through the September quarter after a short break in July. A total of 91 RC holes for 5734 metres were completed during the September quarter. One Diamond Core (“DC”) drill hole commenced on 26 June 2018 and was completed in July 2018 for a total of 27 metres.

Drilling focused on extending the high grade mineralisation at the Trudi Vein, including close spaced grid drilling (5m grid) near previous high grade intersections and also to identify other nearby high-grade shoots. In addition, deeper wider spaced extensional drilling at depth and to the east in an undrilled area was undertaken. A few holes have also explored for new high grade mineralized zones on other veins within the granted licence E80/5007.

Several high grade gold intersections, some with visible gold, were reported in the quarter within the grid drilling zone of the Trudi Vein (refer KRC ASX announcements 7 August 2018 and 10 September 2018):

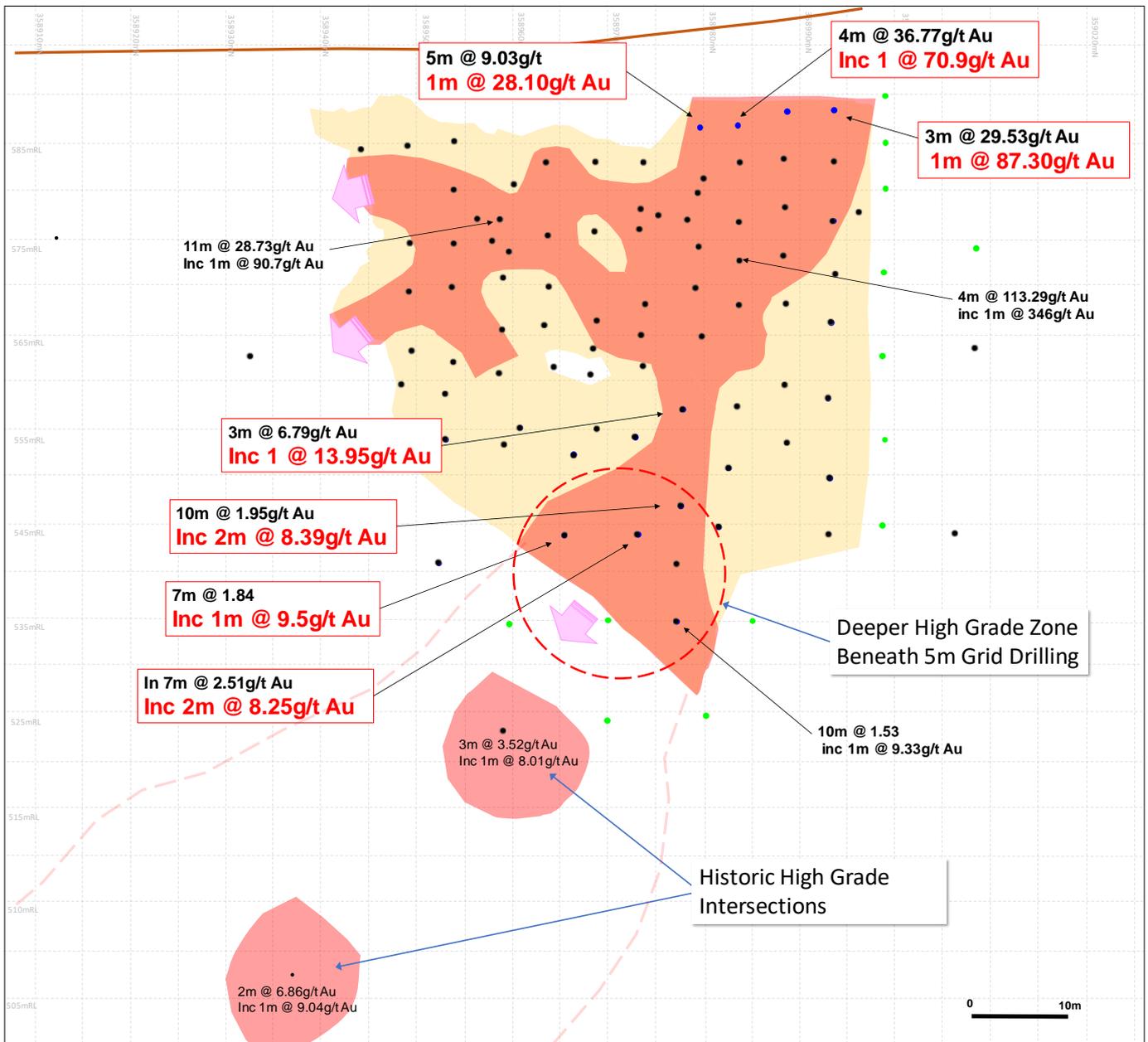
- **4m @ 36.77g/t Au** from 7m including **1m @ 70.9g/t Au** in KMRC127,
- **3m @ 29.53g/t Au** from 9m including **1m @ 87.30g/t Au** in KMRC129,
- **5m @ 9.03g/t Au** from 8m including **1m @ 28.10g/t Au** in KMRC126.
- **6m @ 60g/t Au** from 24m including **2.8m @ 108g/t Au** including **0.3m @ 354g/t Au** in KMDD1.

KMDD01 was drilled to test the eastern part of the high-grade zone near KMRC78 which intersected 4m @ 113g/t Au (with visible gold and grades up to 346g/t Au, KRC ASX 4 June 2018). DC hole KMDD01 has returned an intersection of **6m @ 60g/t Au** including 2.8m @ 108g/t Au, with highest grade of 0.3m @ 354g/t Au (KRC ASX 10 September 2018).

High-grade results were reported from four adjacent holes drilled beneath the main 5m grid drilling:

- 3m @ 6.79g/t Au including **1m @ 13.95g/t Au** in KMRC112
- 7m @ 1.84g/t Au including **1m @ 9.5g/t Au** in KMRC109
- 7m @ 2.51 including **2m @ 8.25g/t Au** in KMRC111, and
- 10m @ 1.95g/t Au including **1m 8.39g/t Au** in KMRC113 (refer KRC ASX 7 August 2018).

These results are around previously reported deeper grid hole intersection of 10m @ 1.53g/t Au including **1m @ 9.33g/t Au** in KMRC114 (reported in KRC ASX 28 June 2018). The location of these results including KMDD1 is shown in Figure 2 below.

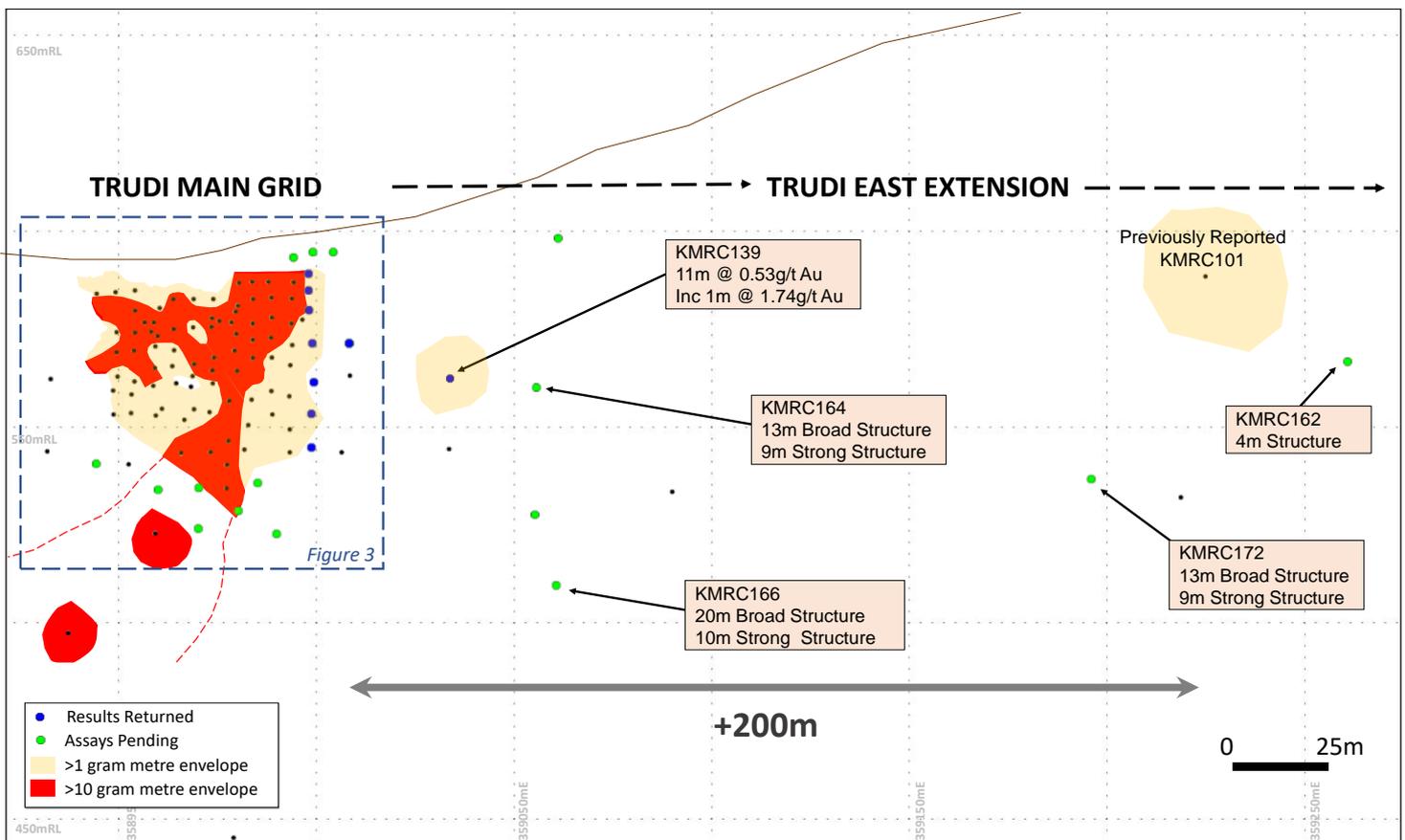


**Figure 2: Long Projection, looking north, of Trudi high grade area targeted by close spaced drilling: new results (blue dots), holes with assays pending (green dots), > 10 gram metre of gold (red polygon), yellow – 1gram metre.**

Step out drilling along strike and east of the Trudi Main Grid area intersected broad, strong quartz adularia veining and structure within alteration and fracture zones up to 20m wide down hole (Figure 3):

- KMRC139, drilled about 60m east of the main Trudi grid, returned 11m @ 0.53g/t Au down hole including 1m @ 1.74g/t Au. The strength and width of the structure being intersected east of the main Trudi grid area is very promising and further extensional drilling is planned.
- Two RC holes, located over 200m east of the main Trudi grid prospect and either side of the previously announced intersection of 38m structure (Figure 3) intersected significant quartz adularia structure confirming the continued east-west strike of the Trudi vein.
- A third hole has been drilled another 200m east of this drilling which has also intersected significant quartz adularia structure.

These exploration holes have confirmed the strike of the Trudi vein to the east and will allow targeting of the prospective area where the Trudi vein intersects with the Grahame vein.



**Figure 3: Long Projection, looking north, of the portion of the Trudi vein from the main grid area to the 39m down hole intersection in KMRC101: > 10 gram metre of gold (red polygon), yellow – 1gram metre.**

Exploration for new mineralized veins within E80/5007 has been very successful with two main areas currently being targeted:

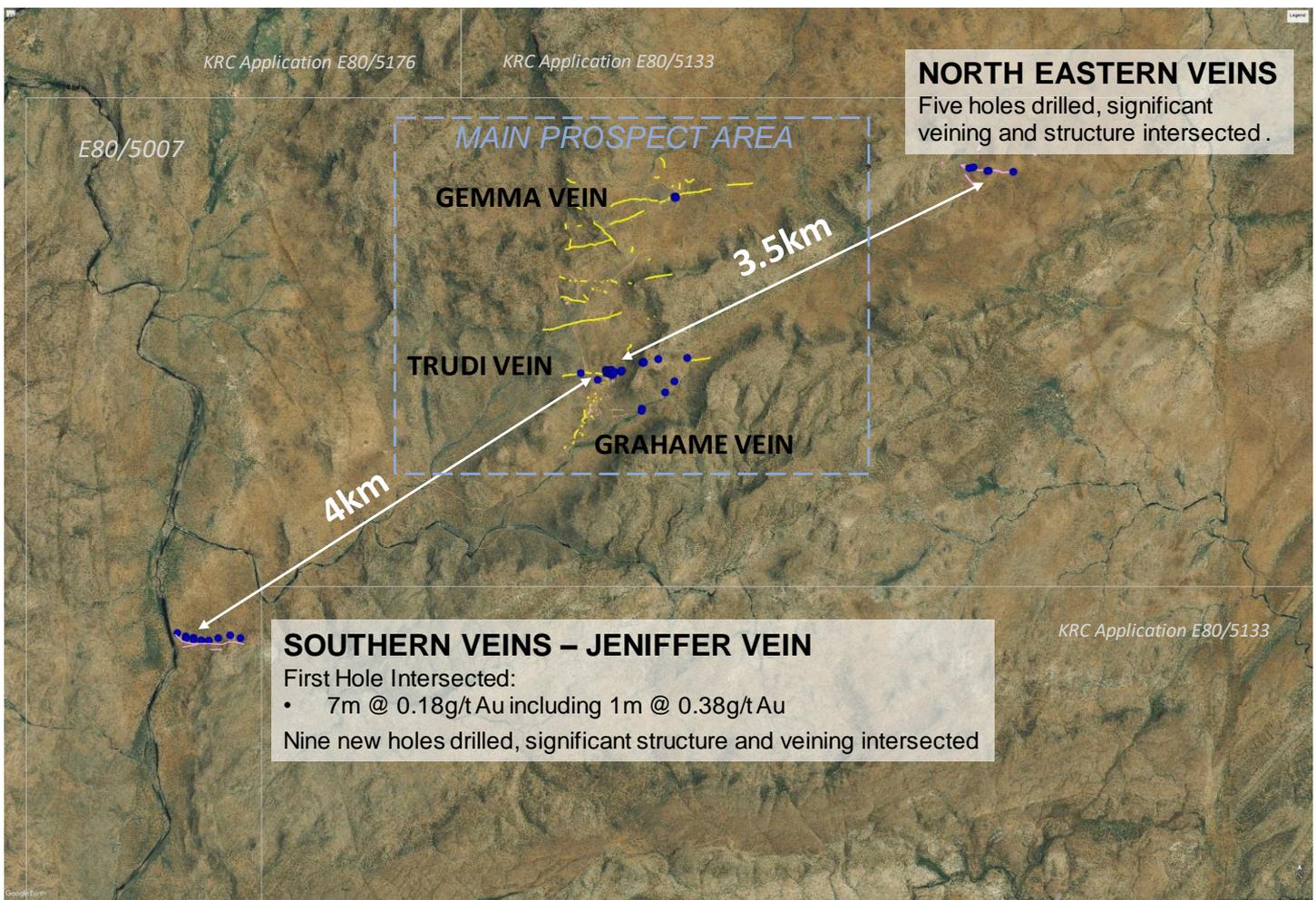
*Southern Veins – Jeniffer Vein*

Nine RC holes were drilled in the quarter following the discovery of the new Jeniffer quartz-adularia vein 4km south west of Trudi where RC hole KMRC123 intersected 7m @ 0.18g/t Au including 1m @ 0.38g/t Au from 29m and 4m @ 1% Cu from 44m in (refer KRC ASX 7 August 2018). This new vein has been traced over a strike length of 500m (Figure 4). All holes intersected significant structure with four holes intersecting strong structure with downhole widths over 5m.

*Northeastern Veins*

Five RC holes have been drilled at the newly discovered vein set over a strike length of 300m, where recent rock chip sampling returned anomalous gold values (Figure 4). All holes intersected significant quartz adularia structure. Assays are pending.

Reconnaissance exploration and soil sampling is underway to identify more mineralized quartz adularia veins.



**Figure 4: Plan showing location of North Eastern veins and Southern veins in relation to Trudi.**

Further assay results from the Trudi, Jeniffer and North Eastern veins have recently been reported (KRC ASX announcement 12 October 2018).



*Figure 5: View of the drilling operation along the Trudi Vein*

KRC believes continued close spaced drilling of the Trudi main grid area to the east and at depth, and extensional drilling along strike, will identify additional new high-grade gold shoots.

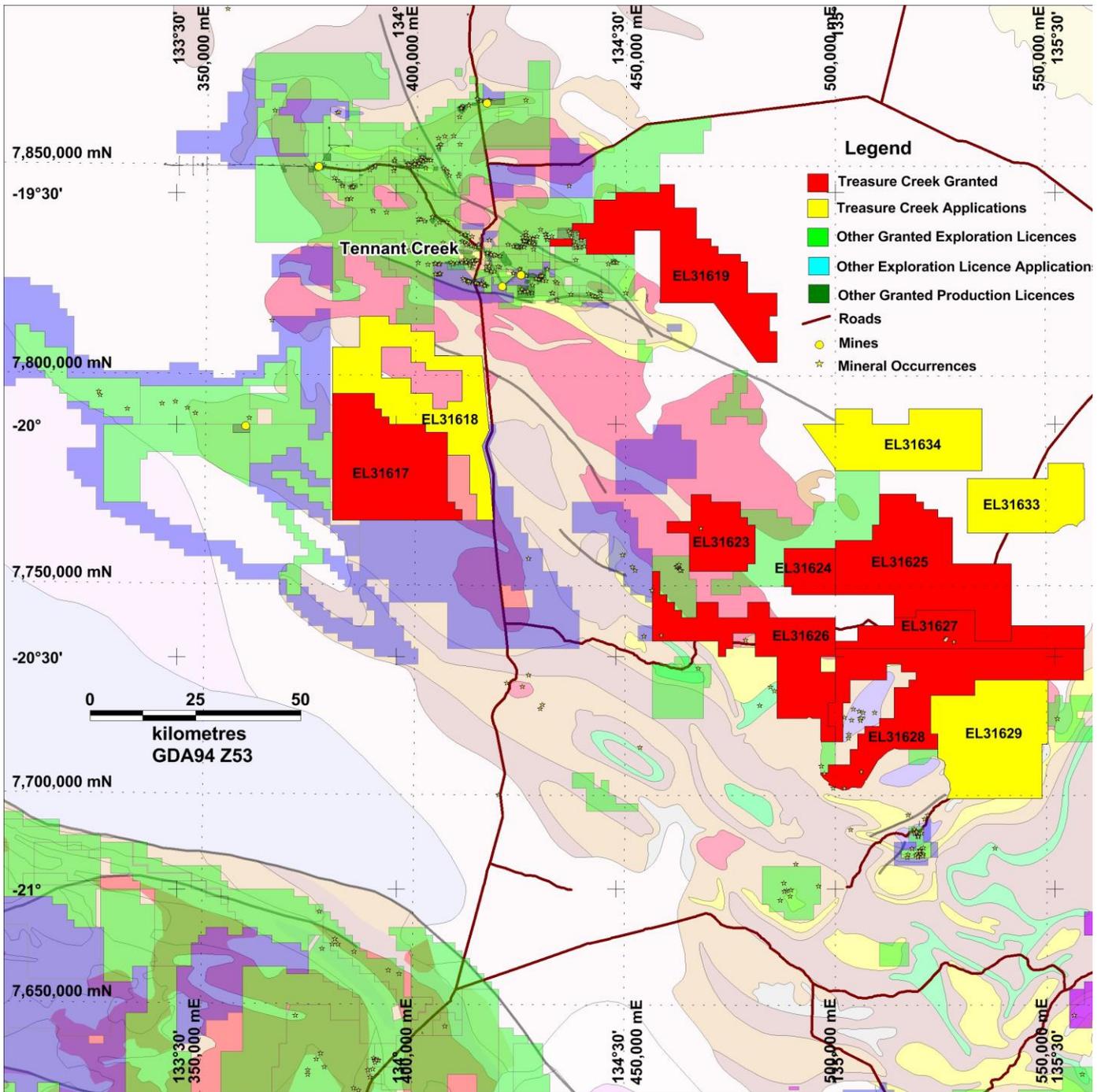
Regional exploration drilling results has been encouraging and there are numerous other epithermal veins that have yet to be drill tested.

### **Tennant Creek Exploration**

During the September quarter, six Exploration Licences EL31623 to EL31628 were granted, totalling 2907 square kilometres in area. These are located in the Tennant Creek copper-gold belt of the Northern Territory (Figure 6).

A total of 12 licences were applied for by Treasure Creek Pty Ltd, a wholly owned subsidiary of KRC (refer to ASX announcement 8 August 2017 and Table 2) covering an area of 6,633.97 square kilometres. The remaining four tenements are pending.

KRC intention is to drill the most mature targets that have been generated in 2019.



**Figure 6: Treasure Creek Exploration Licences granted (red) and applications (yellow) on 1:2500k geology map outlining the Tennant Creek Gold Field, together with tenements held by other parties.**

## **Directors Comment**

The evaluation of the best processing path to be taking to develop and/or market the Speewah vanadium deposits relies on the detailed process routes and studies currently being undertaken. Development planning may include the option to export portions of concentrate production.

While bottle roll sulphuric acid leaching testwork is at a very early stage, KRC plans to examine the opportunity to heap or vat leach lump material, or a coarse grained magnetite-ilmenite concentrate, to extract  $V_2O_5$ ,  $Fe_2O_3$  and  $TiO_2$ . Other potential co-products include processing the dumps to extract the residual ilmenite to produce  $TiO_2$ , and possibly extract the Al and Mg from the leach solutions to make High Purity Alumina (HPA) and Magnesium products.

The Board is very focussed on maximising the key strategic variables of the Speewah deposits, namely, their massive size, the outcropping flat lying geometry, the overall consistency of grades amenable to large scale mining methods and the unique tenor of the magnetite that enables the generation of a higher  $V_2O_5$  grade concentrate compared to most peers.

## **Competent Persons Statement**

The information in this report that relates to Exploration Results, Mineral Resources and Metallurgical Results is based on information compiled by Ken Rogers and Andrew Chapman and fairly represents this information. Mr. Rogers is the Chief Geologist and an employee of King River Copper Ltd and a Member of the Australian Institute of Geoscientists (AIG) and a Member of The Institute of Materials Minerals and Mining (IMMM), and a Chartered Engineer of the IMMM. Mr. Chapman is a Consulting Geologist contracted with the Company. 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 and Mr. Chapman consent to the inclusion in this report of the matters based on information in the form and context in which it appears.

**TABLE 2: SCHEDULE OF TENEMENTS HELD AT 30 SEPTEMBER 2018**  
**SPEEWAH MINING PTY LTD and WHITEWATER MINERALS PTY LTD**  
 (wholly-owned subsidiaries of King River Copper Limited)

Tenement	Project	Ownership	Change During Quarter
E80/2863	Speewah (held by Speewah Mining Pty Ltd)	100%	
E80/3657		100%	
E80/4468		100%	
E80/4741		100%	
E80/4829		100%	
E80/4830		100%	
E80/4831		100%	
E80/4832		100%	
E80/4961		100%	
E80/4962		100%	
E80/4972		100%	
E80/4973		100%	
L80/43		100%	
L80/47		100%	
M80/267		100%	
M80/268		100%	
M80/269		100%	
E80/5007		Mt Remarkable (held by Whitewater Minerals Pty Ltd)	100%
ELA80/5133	100%		
ELA80/5176	100%		
ELA80/5177	100%		
ELA80/5178	100%		
ELA80/5192	100%		
ELA80/5193	100%		
ELA80/5194	100%		
ELA80/5195	100%		
ELA80/5196	100%		

Note:

E = Exploration Licence (granted)    ELA = Exploration Licence (application)

M = Mining Lease (granted)         L = Miscellaneous Licence (granted)

**TREASURE CREEK PTY LTD**  
**(wholly-owned subsidiary of King River Copper Limited)**

<b>Tenement</b>	<b>Project</b>	<b>Ownership</b>	<b>Change During Quarter</b>
EL31617 (granted)	Tennant Creek	100%	
EL31618 (application)		100%	
EL31619 (granted)		100%	
EL31623 (granted)		100%	Granted
EL31624 (granted)		100%	Granted
EL31625 (granted)		100%	Granted
EL31626 (granted)		100%	Granted
EL31627 (granted)		100%	Granted
EL31628 (granted)		100%	Granted
EL31629 (application)		100%	
EL31633 (application)		100%	
EL31634 (application)		100%	

Note:

EL = Exploration Licence