

## VITAL METALS LTD ENTERS AGREEMENT TO ACQUIRE HEAVY RARE EARTH PROJECTS

### HIGHLIGHTS

- Vital to acquire Quebec Precious Metals Corporation's 68% interest in Kipawa and 100% of Zeus heavy rare earth projects in Quebec, Canada, for C\$8 million staged over 5 years
- Kipawa and Zeus are heavy rare earth projects which complement Vital's light rare earths operations at Nechalacho
- Acquisition has potential to transform Vital into the only producer of both light and heavy rare earths in North America
- Utilising similar alternate development and processing methodologies as implemented at its Nechalacho REE mine in NWT, Vital will optimise the 2013 Definitive Feasibility Study completed for Kipawa project to minimise capital and operating expenditure and reduce development timelines
- The Kipawa Project was previously held in a Joint Venture with Toyotsu Rare Earth Canada, Inc. ("Toyotsu"), a subsidiary of Toyota Tsushu, which included off-take provisions. Toyotsu's interest was converted into a 10% Net Profit Interest ("NPI").
- NI 43-101 defined Mineral Resource Estimate as well as Proven and Probable Reserve Estimate on the Kipawa Project highlighting a mine life of 15 years
- Vital intends to duplicate the strong Indigenous and community employment and procurement model that it has demonstrated at its Nechalacho REE mine in the NWT

**Vital Metals Limited** (ASX: **VML**) ("**VML**", "**Vital**", "**Vital Metals**" or "**the Company**") and Quebec Precious Metals Corporation (TSX.V: **QPM**, OTCQB: **CJCFF**, FSE: **YXEP**) ("**QPM**") are pleased to announce that they have signed a binding term sheet (the "Term Sheet") for the acquisition by VML of QPM's 68% interest in the Kipawa exploration project and 100% interest in the Zeus exploration project (the "Projects"). Joint Venture partner *Investissement Québec* ("IQ") holds the remaining 32% of the Kipawa project on a contributing basis.

Kipawa is a heavy rare earths project, located 50km from Temiscaming in Quebec, with a Mineral Resource Estimate of 15.5Mt of eudialyte at 0.434% TREO and 0.873 ZrO<sub>2</sub>, 6.3Mt of mosandrite at 0.391% TREO, 1.018% ZrO<sub>2</sub>, 5.1Mt of britholite at 0.286% TREO, 0.944% ZrO<sub>2</sub>, and with a Proven and Probable Reserve Estimate of 19.8Mt at 0.411% TREO.

Investors should note that the terms "Mineral Resource", "Mineral Reserve" and, "Proven and Probable Reserve" are as defined by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM council. These estimates are foreign estimates and are not reported in accordance with the Joint Ore Reserves Committee's Australasian Code for Reporting of Mineral Resources and Ore



Reserves (the “JORC Code”). A competent person has not done sufficient work to classify these estimates as a mineral resource or ore reserve in accordance with the JORC Code and it is uncertain that following further exploration or evaluation work that the foreign estimates will be able to be reported as a mineral resource or ore reserve in accordance with the JORC Code.

Vital Metals’ Managing Director Geoff Atkins said: *“The acquisition of the Projects provides Vital with a unique opportunity to become a producer of both heavy and light rare earths. Having commenced operations of Canada’s first rare earths mine at our Nechalacho project in Northwest Territories, Canada, the potential to develop the Kipawa project will allow us to produce a full suite of rare earths. It has potential to increase Vital Metals’ position as a strategic player in the North American critical minerals supply chain at a time where demand continues to grow.”*

*“Part of Vital’s corporate DNA is our ability to identify the most efficient and effective way to develop rare earth projects. Similar to Nechalacho where we have applied an alternative development strategy to greatly reduce capital costs and development timelines, we see similar opportunities for improvements to the existing development strategy at Kipawa and we look forward to defining our development strategy over the coming months.”*

*“Further, we see the acquisition of this project as an ideal opportunity to cement Vital’s place as a leading rare earths producer not just in North America but globally. The introduction of heavy rare earths into our product suite will increase the value of the rest of our offering as we will be a single supply source for both heavy and light rare earths.”*

*“In addition, Kipawa is the only rare earth project in the world in which Toyota directly invested, with an initial stake of 49% which was converted to a 10% NPI in 2014.”*

*“A key element of our success to date at Nechalacho has been the minimization of environmental impacts by introducing sensor based ore sorting and the contributions made by the Indigenous and other nearby communities, not only through the overall support provided, but also in achieving high levels of Indigenous and local employment and contracting opportunities. Vital looks forward to establishing similar partnerships and relationships with the Indigenous and local communities of the Kipawa and Zeus projects and using the low impact processing technology that has been successfully demonstrated at the Nechalacho project.”*

## **Projects Overview**

The Projects total 73 claims over 43km<sup>2</sup> and lie in the Grenville geological province, approximately 55km south of the geological contact with the Superior geological province. The lithologies consist mainly of gneiss with a grade of metamorphism ranging from the greenschist facies to the amphibolite-granulite facies.

The Kipawa deposit is defined by three enriched horizons within the “Syenite Complex”, which contains some light rare earth oxides but primarily heavy rare earth oxides. Drilling since 2011 totals 293 drill holes (24,571m) and was used to prepare a feasibility study which was completed by Matamec Explorations Inc. in 2013.

Twelve heavy rare earth showings have been identified on the Zeus project, some of which contain niobium and tantalum.

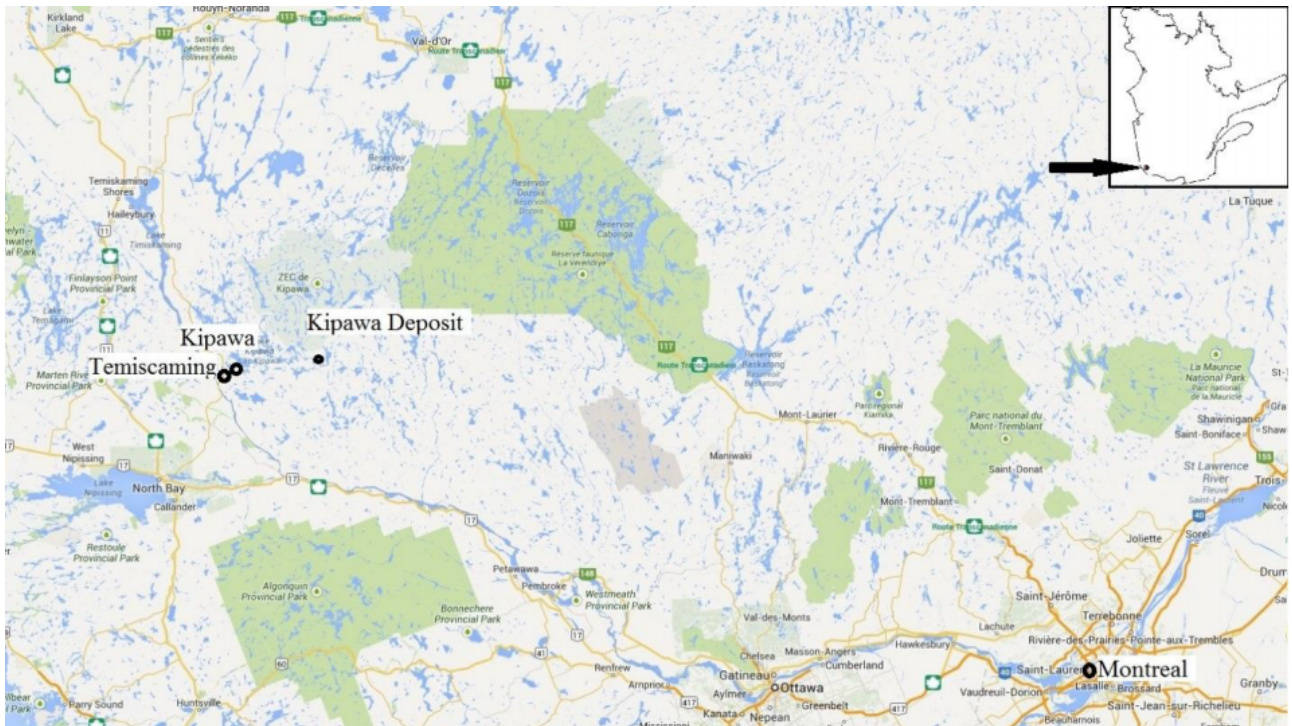


Figure 1 - Location of Kipawa project in Quebec, Canada

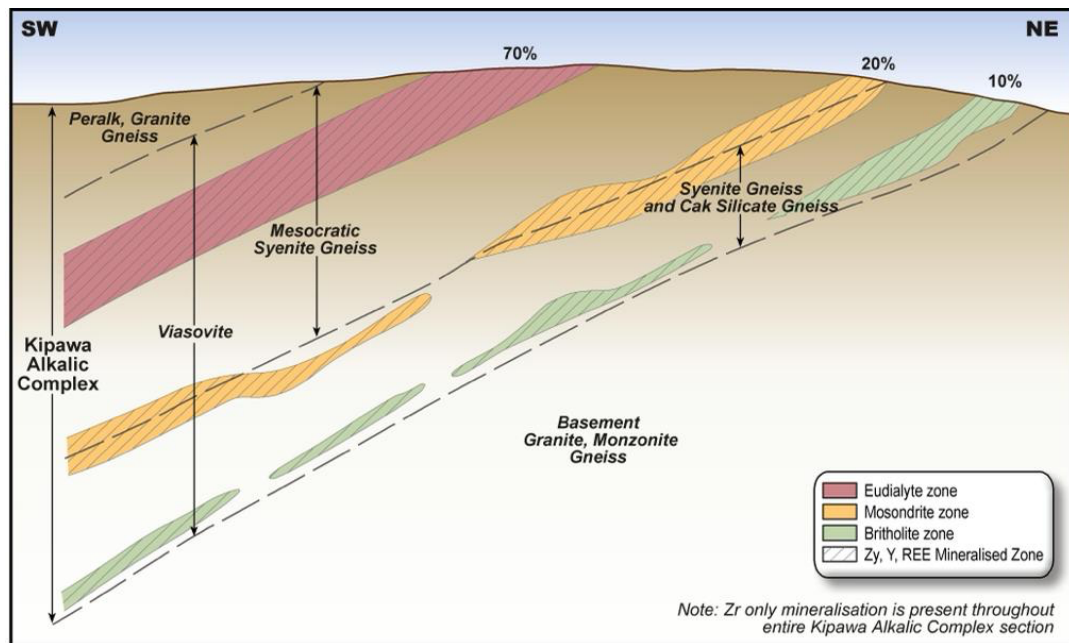
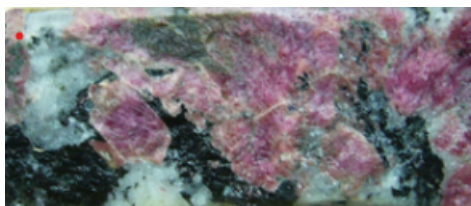


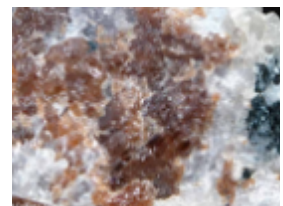
Figure 2 - Schematic cross section of the Kipawa deposit, demonstrating the zones of heavy rare earth mineralisation.



Eudialyte: Y-Fe-Zr  
Source of HREE and Zr



Yttrium-Titanite/Mosandrite: Na-Ca-Ti silicate  
Source of HREE



Britholite: Ca-Y-Fe silico-phosphate  
Source of HREE

Table 1 - Kipawa project Mineral Resources

ZONE	Classification	Tones	TREO (%)	ZrO <sub>2</sub>
Eudialyte	Measured	6,024,000	0.529	0.959
	Indicated	7,790,000	0.387	0.842
	Inferred	1,678,000	0.312	0.710
	<b>Total</b>	<b>15,492,000</b>	<b>0.434</b>	<b>0.873</b>
Mosandrite	Measured	3,135,000	0.396	1.019
	Indicated	2,790,000	0.379	1.029
	Inferred	409,000	0.431	0.940
	<b>Total</b>	<b>6,334,000</b>	<b>0.391</b>	<b>1.018</b>
Britholite	Measured	1,278,000	0.309	0.940
	Indicated	2,725,000	0.284	0.957
	Inferred	1,088,000	0.264	0.915
	<b>Total</b>	<b>5,091,000</b>	<b>0.286</b>	<b>0.944</b>

Table 2 - Kipawa project Mineral Reserve

Classification	Tones	TREO (%)
Proven	10,218,867	0.440
Probable	9,550,047	0.379
<b>Total</b>	<b>19,768,914</b>	<b>0.411</b>

Table 3 - Kipawa project rare earth distribution

Investors should note that the terms “Mineral Resource”, “Mineral Reserve” and, “Proven and Probable Reserve” are as defined by the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM council. These estimates are foreign estimates and are not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify these estimates as a mineral resource or ore reserve in accordance with the JORC Code and it is uncertain that following further exploration or evaluation work that the foreign estimates will be able to be reported as a mineral resource or ore reserves in accordance with the JORC Code.



	\$ /kg (8 July 2021) <sup>3</sup>	North T <sup>1</sup>		Tardiff <sup>1</sup>		Kipawa <sup>2</sup>	
		% REO	\$ /kg	% REO	\$ /kg	% REO	\$ /kg
<b>La<sub>2</sub>O<sub>3</sub></b>	\$1.31	23.95%	\$0.31	23.19%	\$0.30	14.32%	\$0.19
<b>Ce<sub>2</sub>O<sub>3</sub></b>	\$1.36	49.62%	\$0.67	44.7%	\$0.61	29.10%	\$0.40
<b>Pr<sub>6</sub>O<sub>11</sub></b>	\$82.68	5.42%	\$4.48	5.1%	\$4.22	3.56%	\$2.94
<b>Nd<sub>2</sub>O<sub>3</sub></b>	\$83.76	18.1%	\$15.16	18.7%	\$15.66	13.40%	\$11.22
<b>Sm<sub>2</sub>O<sub>3</sub></b>	\$1.70	1.88%	\$0.03	2.83%	\$0.05	3.00%	\$0.05
<b>Eu<sub>2</sub>O<sub>3</sub></b>	\$29.36	0.15%	\$0.04	0.26%	\$0.08	0.37%	\$0.11
<b>Gd<sub>2</sub>O<sub>3</sub></b>	\$34.77	0.64%	\$0.22	1.97%	\$0.68	2.90%	\$1.01
<b>Tb<sub>4</sub>O<sub>7</sub></b>	\$1,027.74	0.05%	\$0.51	0.2%	\$2.06	0.54%	\$5.51
<b>Dy<sub>2</sub>O<sub>3</sub></b>	\$378.64	0.1%	\$0.38	0.64%	\$2.42	3.58%	\$13.56
<b>Ho<sub>2</sub>O<sub>3</sub></b>	\$108.18	0.01%	\$0.01	0.08%	\$0.09	0.78%	\$0.84
<b>Er<sub>2</sub>O<sub>3</sub></b>	\$29.83	0.01%	\$0.00	0.12%	\$0.04	2.46%	\$0.73
<b>Tm<sub>2</sub>O<sub>3</sub></b>			0		\$0.00	0.39%	\$0.00
<b>Yb<sub>2</sub>O<sub>3</sub></b>	\$13.91		\$0.00	0.04%	\$0.01	2.34%	\$0.33
<b>Lu<sub>2</sub>O<sub>3</sub></b>	\$803.65		\$0.00	0.01%	\$0.08	0.32%	\$2.54
<b>Y<sub>2</sub>O<sub>3</sub></b>	\$4.64	0.06%	\$0.00	2.19%	\$0.10	22.97%	\$1.07
<b>TREO</b>			\$21.84		\$26.39		\$40.48

**Table 1: Rare Earth Oxide distribution at Current Prices**

<sup>1</sup>Rare earth distribution of North T and Tardiff zones as determined under the Vital's 2012 JORC Report (refer 15 April 2020) and as detailed in announcement 2<sup>nd</sup> February 2021.

<sup>2</sup>Rare earth distribution of Kipawa 2013 Feasibility Study (refer <https://www.qpmcorp.ca/en/projects/kipawa/>)

<sup>3</sup>Rare earth prices sourced from Shanghai Metals Market ([www.metal.com](http://www.metal.com)) as at 8 July 2021



### Term Sheet Conditions

The Term Sheet contemplates the acquisition by VML of a 68% legal and beneficial interest in the Kipawa project, and all of QPM's rights, title and interest in the Joint Venture Agreement with IQ, and 100% legal and beneficial interest in Zeus project. Key terms of the Term Sheet are as follows:

- QPM agrees to sell to VML or an affiliate of VML (the "Purchaser") the Projects for a total purchase price of C\$8m payable as follows:
  - C\$150,000 deposit on signing the Term Sheet;
  - C\$2.35m on acquisition of the Projects;
  - C\$2.5m on the first anniversary of acquisition;
  - C\$1m on the second anniversary of acquisition;
  - C\$1m on the third anniversary of acquisition; and
  - C\$1m on the fourth anniversary of acquisition.

Purchaser will grant security over the Projects to QPM until the consideration is paid in full.

- Acquisition of the interests in the Projects is to occur at the completion of the sale and purchase by Purchaser when all conditions precedent have been satisfied or waived.
- Following the execution of the Term Sheet on August 10 (the "Execution Date"), VML shall conduct due diligence within one of the following periods, whichever is applicable:
  - 3 months following the Execution Date, provided that VML's nominated personnel visit the Projects within a period of 2 months following the Execution Date; or
  - In the event VML's nominated personnel are unable to visit the Projects within a period of 2 months following the Execution Date, on the earlier of: (i) 1 month following the date of arrival of VML's nominated personnel on either the Kipawa and Zeus Projects, and (ii) 6 months following the Execution Date.
- Conditions precedent include:
  - VML due diligence;
  - QPM shall have delivered to VML executed releases as to the discharge of all encumbrances over the Projects, other than permitted encumbrances;
  - VML shall have obtained from the ASX confirmation that ASX Listing Rule 11.1.3 does not apply to the transactions as contemplated by this term sheet, and if ASX determine that ASX Listing Rule 11.1.2 applies to the transactions, the shareholders of VML approving the transactions for the purposes of ASX Listing Rule 11.1.2. ASX has confirmed that neither Listing Rule 11.1.3 or Listing Rule 11.1.2 apply to this transaction;
  - QPM shall have delivered to VML all consents or agreements required to assign the existing royalties (being the 10% NPI with Toyotsu Rare Earth Canada, Inc.) from QPM to VML and as required to grant the security over the Projects to QPM;
  - In respect of the joint venture agreement ("JV Agreement") with IQ:
    - IQ shall have waived its right of first refusal under the JV Agreement;



- IQ shall have consented to the sale of QPM's rights and interests in the Kipawa project and the JV Agreement to VML; and
  - VML shall have delivered to IQ a written notice in accordance with the JV Agreement accepting to be bound by the terms and conditions of the JV Agreement.
- Other customary conditions of closing, including various third party approvals.

The Term Sheet contains other terms and conditions considered standard for an agreement of its nature including representations and warranties given by the parties.

Consideration will be paid from VML's existing cash reserves. Dependent upon access for due diligence as set out above, the acquisition will complete by 28 February 2022.

Vital will provide more updates on the planned acquisition as it progresses.

**- ENDS-**

**Contacts:**

Mr Geoff Atkins  
Managing Director  
Vital Metals Limited  
Phone: +61 2 8823 3100  
Email: [vital@vitalmetals.com.au](mailto:vital@vitalmetals.com.au)

*This announcement has been authorised for release by the Board of Vital Metals*



### **Qualified/Competent Persons Statement**

Information and statement relating to the Mineral Resource Estimate for the Kipawa Rare Earth Project is based on, and fairly represents, information and supporting documentation prepared by Matamec Explorations Inc and the “Qualified Person” under NI 43-101 is Mr Yann Camus, Eng from SGS Canada Inc. The data in this press release has been reviewed by Mr Brendan Shand. Mr Shand is a Competent Person and a member of the Australasian Institute of Mining and Metallurgy and an employee of the Company. Mr Shand has sufficient experience that 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 ‘Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Shand confirms that the information is an accurate representation of the available data and studies including the Technical Report and Resource estimation obtained from a NI43-101 Compliant Feasibility Study for the Kipawa Project submitted by Matamec Explorations Inc (Effective Date: September 3 2013, Issue Date: October 17, 2013).

### **ABOUT QUEBEC PRECIOUS METALS CORPORATION**

QPM is a gold explorer with a large land position in the highly-prospective Eeyou Istchee James Bay territory, Quebec, near Newmont Corporation’s Éléonore gold mine. QPM’s flagship project is the Sakami project with significant grades and well-defined drill-ready targets. QPM’s goal is to rapidly explore the project to advance it to the mineral resource estimate stage.

### **ABOUT VITAL**

Vital Metals Limited (ASX: VML) is Canada’s rare earths producer following commencement of operations at its Nechalacho rare earths project in Canada in June 2021. It holds a portfolio of rare earths, technology metals and gold projects located in Canada, Africa and Germany.

### **Nechalacho Rare Earth Project - Canada**

The Nechalacho project is a high grade, light rare earth (bastnaesite) project located at Nechalacho in the Northwest Territories of Canada and has potential for a start-up operation exploiting high-grade, easily accessible near surface mineralisation. The Nechalacho Rare Earth Project hosts within the Upper Zone, a JORC Resource of **94.7MT at 1.46% TREO** comprised of a Measured Resource of 2.9MT at 1.47% TREO, an Indicated Resource of 14.7MT at 1.5% TREO, and an Inferred Resource of 77.1MT at 1.46% TREO.

### **Compliance Statements**

This announcement contains information relating to Mineral Resource Estimates in respect of the Nechalacho Project extracted from ASX market announcements reported previously and published on the ASX platform on 13 December 2019 and 15 April 2020. The Company confirms that it 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 original market announcements continue to apply and have not materially changed.

### **Forward-Looking Statements**

This release includes forward-looking statements. Often, but not always, forward-looking statements can generally be identified by the use of forward-looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production output.

Forward-looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of resources or reserves, political and social risks, changes to the regulatory framework within which the entity operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward-looking statements are based on the entity and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect business and operations in the future. There are no assurances that the assumptions on which forward-looking statements are based will prove to be correct, or that the business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the entity or management or beyond the entity’s control.

Although there have been attempts to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward-looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be anticipated, estimated or intended, and many events are beyond the reasonable control of the entity. Accordingly, readers are cautioned not to place undue reliance on forward-looking statements.

Forward-looking statements in this release are given as at the date of issue only. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the entity does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.



## **Listing Rule 5.12 Foreign Resource Estimate information**

The information in this announcement relating to the Mineral Resource Estimate and Ore Reserve for the Kipawa Project is reported in accordance with the requirements applying to foreign estimates in the ASX Listing Rules (the "Foreign Estimates") and, as such are not reported in accordance with the 2012 edition of the JORC Code. As such, the following information is provided in accordance with ASX Listing Rules 5.10 & 5.12:

### *1. The source and date of the foreign estimate (LR 5.12.1)*

The source of the foreign estimate is taken from public documents released by Matamec Explorations Inc. on October 21, 2013. Further information on these releases may be found on SEDAR website ([www.sedar.com](http://www.sedar.com)).

### *2. Whether the foreign estimates use categories of mineralisation other than those defined in JORC Code 2012 and if so, an explanation of the differences (LR 5.12.2)*

Categories described are the same as those defined in JORC Code 2012, whereby resources were classified as Inferred, Indicated or Measured

### *3. The relevance and materiality of the foreign estimates to the entity (LR 5.12.3)*

VML considers the foreign estimates to be both material and relevant to the Kipawa project as it provides an indication of the size and scale of the project.

### *4. The reliability of the foreign estimates, including reference to any criteria in Table 1 of JORC Code 2012 which are relevant to understanding of the reliability of the foreign estimates (LR 5.12.4)*

It is the opinion of VML that these estimates are reliable and represent the results of work done to very high standards, using high quality sampling, testing and geological and geostatistical modelling. The foreign estimates represent best practice work at the time. Further details of the foreign estimates, referenced to the criteria in Table 1 of JORC Code 2012 are as attached to this announcement.

### *5. To the extent known, a summary of the work programs on which the foreign estimates are based and a summary of the key assumptions, mining and processing parameters and methods used to prepare foreign estimates (LR 5.12.5)*

The Technical Report includes key assumptions for commodity prices, mining and processing costs. The Technical Report in its current form is considered to be a comprehensive compilation of all available data applicable to the estimation of mineral resources. A summary of key assumptions and methods used to prepare the Foreign Estimate include:

- The resource is reported according to CIM Definition Standards (2010)
- By using SGS Geostat model, the mineral reserve for the Feasibility Study was prepared, estimated and supervised by Roche using a cut-off value of \$48.96/t with 5% dilution and a mining recovery of 95.2%. The Kipawa open-pit design utilized a marginal (or milling) cut-off value of \$48.96/t and a break-even cutoff value of \$60.70/t. Included in the reserves are 632,000 tonnes of low-grade material lying between these 2 cut-off values. This material will be sent on a low-grade stockpile, close to the mine site, and will be processed at the end of the operation after mine depletion.
- The Foreign Estimate and current Technical Report is based on a total of 293 drill holes totalling 24,571m and 13 trenches totalling 631m. Historical Unocal holes are not in the count and were not used for the estimates. The mineralised zones were interpreted on vertical sections and meshed into volumes as per industry standard. Ordinary kriging was used to estimate the block model with block size set at 10m x 5m x 5m. The measured and indicated resources required drill grids 25m and 50m respectively. Resources extrapolated beyond 30m of those drill grids are considered inferred.

Further details of the foreign estimate are set out in Table 1 of JORC Code 2012 as attached to this announcement.



6. *Any more recent estimates or data relevant to the reported mineralisation available to the entity (LR 5.12.6)*  
No further resource estimates or data relevant to the resource estimation are available.

7. *The evaluation and/or exploration work that needs to be completed to verify the foreign estimates as mineral resources or reserves in accordance with JORC Code 2012 (LR 5.12.7)*

A revision of the historical drilling information will be completed, to further ensure the integrity of the data, followed by another estimation of the resource, with updated classification based on the level of information available. In addition, VML intends to conduct further drilling, bulk sampling, geotechnical and hydrological testing.

8. *The proposed timing of any evaluation and/or exploration work that the entity intends to undertake and a comment on how the entity intends to fund that work (LR 5.12.8)*

VML intends to conduct drilling, bulk sampling, geotechnical and hydrological testing and will embark on this work as access permits are granted and intend to complete this work within several months. The work will be funded from existing working capital.

#### Cautionary Note for Australian Investors

Investors should note that the information in this announcement relating to Mineral Resource Estimates and Ore Reserve are foreign estimates and are not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify this foreign estimate as a mineral resource or ore reserve in accordance with the JORC Code and it is uncertain that following further exploration or evaluation work that this foreign estimate will be able to be reported as a mineral resource or ore reserves in accordance with the JORC Code.

## JORC Code, 2012 Edition – Table 1 and 2 – Kipawa rare earth Project

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>A total of 293 diamond drill holes totalling 24,581 metres were used in the Matamec feasibility study.</li> <li>Sampling of the diamond drill core were half splits of drill core using a core splitter.</li> <li>Samples were collected from REO mineralisation zones with lengths ranging from 0.5 to 1.5 metres. End intervals correlated with changes in lithologies.</li> <li>Each sample was crushed to 70% passing 2mm. a 250g sub-spilt was extracted using a riffle splitter and then pulverised to 85% passing 75microns and sent to ALS laboratory in Vancouver. At the laboratory the sample was assayed for rare earth and other elements using induced coupled plasma-mass spectrometry. Over-limits for were reanalysed using XRF.</li> <li>A total of 360 density measurements were carried out using the immersion method. Two standards and one blank was submitted for every 25 core samples for QA/QC purposes.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>All the drill holes are diamond core. A total of 271 holes were NQ holes and 22 holes were HQ holes. No information is currently available on whether the holes were orientated and by what method they were orientated.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>RQD was measured on all the core by a geologist. No data is available to Vital Metals for the results of the RQD logging.</li> <li>No mention of measures taken to maximise recoveries in the Matamec feasibility study.</li> <li>No mention of relationships between recoveries and grade in the Matamec feasibility study.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support</li> </ul>	<ul style="list-style-type: none"> <li>All core was logged in the required detail by a geologist.</li> <li>The geologists wrote detailed logs of the</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>lithology, structures, mineralisation and alteration. Photos of the core were taken.</p> <ul style="list-style-type: none"> <li>• No information is available at present to Vital Metals on the total length logged. The feasibility study notes that all holes were logged and hence it is assumed 100% of the relevant intersections were logged.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All core was halved using a core splitter.</li> <li>• Half core is appropriate for sampling core.</li> <li>• The reduction from half core to &lt;2mm then to &lt;75microns and the reduction weights at these particle sizes is considered appropriate for this material.</li> <li>• No mention of QA/QC for sub-sampling stages in the feasibility study. Standards of known grades and blanks were submitted to verify the QA/QC of the whole process.</li> <li>• Re-analysis of reject pulps were carried out at external laboratories.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The assay methods for the REE include lithium borate fusion followed by ICP-MS and are thus considered total. Over-limits were re-assayed using XRF analysis methods. This is considered industry standard for REE.</li> <li>• A combination of standards of different grades, blanks and external laboratory checks were carried out. The data presented in the Matamec feasibility study indicates acceptable accuracy and precision was established.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• SGS Geostat carried out a verification of the data before estimating the Mineral Resource.</li> <li>• No twinned holes have been drilled to verify the Matamec data.</li> <li>• No documentation of data entry procedures, data verification and data storage protocols were mentioned in the Matamec feasibility study.</li> <li>• The rare earth element data was converted to rare earth oxide data. This is normal industry practice.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>The Matamec feasibility study states the hole locations were surveyed to centimetric precision. This indicates the topographic control in the drill locations are adequate.</li> <li>The grid system used for the area is NAD83 UTM Zone 17N.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The spacing of the drilling of 25 to 50 metres with assays 0.5-1.5 metres was sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimations.</li> <li>Sample compositing was applied.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The orientation of the drill holes at close to perpendicular to the dip and strike of the mineralisation has achieved unbiased sampling of the deposit.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>The core was managed by the Matamec employees from the drill rigs to the ALS laboratory.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No reviews or audits were mentioned in the Matamec feasibility study.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Kipawa and Zeus projects are located 50km east of Temiscaming in southwestern Quebec</li> <li>The Kipawa Project consists of 22 claims (13 km<sup>2</sup>) with Quebec Precious Metals having a 68% interest, with Joint Venture partner Investissement Quebec holding the remaining 32% of the Kipawa Project</li> <li>The Zeus project consists of 51 claims (30 km<sup>2</sup>) with Quebec Precious Metals having a 100% interest.</li> <li>In 2014, Matamec Explorations Inc and Toyotsu Rare Earth Canada Inc ("TRECAn") signed a termination agreement for the Kipawa project, pursuant to which Matamec paid TRECAn \$280,000 and TRECAn</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>converted its undivided 49% interest in the project into a 10% interest on net profits from future production</p> <ul style="list-style-type: none"> <li>There are no known environmental impediments or protection zones that would prevent mining development</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The company CP has determined the quality and integrity of the historic work completed by Matamec is adequate for inclusion, consideration and interpretation with any new work carried out by Vital Metals.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The association of radioactive mineralization with rare elements in the vicinity of the Kipawa Complex is likely to represent a polymetallic deposit type of rare elements (Zr, Y, Nb, Be, U, Th, Ta, REE and Ga) associated with a peralkaline syenite</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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:               <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Vital Metals does not have access to the drill hole data. All the information Vital Metals has is sourced from the Matamec feasibility study and the feasibility study does not give details of individual drill holes. For this reason, Vital Metals is unable to give the details of the material drill holes.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cutoff grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>The Matamec feasibility study does not have this information except for cut-off grades. No cut-off grades were used.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>• All drill holes have intersected the mineralisation at approximately 90 degrees. Therefore, all intervals will be close to true width of the mineralisation.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• These are not available in the Matamec feasibility study.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• This information is not available to Vital Metals.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Matamec has carried out a feasibility study in 2013 on the Kipawa Deposit outlining all the other meaningful data.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>• Update the 2013 feasibility study.</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>No mention of measures taken to ensure the data was not corrupted during data entry was mentioned in the Matamec feasibility study. SGS Geostat checked the database for errors and discrepancies before carrying out the resource estimation. SGS Geostat also re-assayed 50 drill hole intersections to validate the original Matamec data.</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>No site visit has been carried out by the competent person. The competent person was not involved in the foreign Mineral Resource estimation and with Covid travel restrictions has been unable to travel to the site.</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The close drill spacing has allowed for a lot of confidence in the geological interpretation.</li> <li>Both the assay data and geological logs have been used to interpret the geology.</li> <li>The 3 different rare earth mineral zones have been used to develop different zones in the Mineral Resource.</li> <li>Each of the 3 zones of rare earth mineralization have demonstrated strong continuity.</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation is approximately 1.45km in length and 200m in width. The thickness of the mineralization is approximately 100m extending from the surface to a depth of approximately 165m.</li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> </ul>	<ul style="list-style-type: none"> <li>The kriging method was used to estimate the REO resource estimations. Envelopes around the 3 types of RE mineralisation were used constrain the data searches to each of the zones. No high-grade cuts were used. Areas with 25m drill hole spacing were assigned as Measured Resources and areas with 50m drill hole spacing were assigned indicated Resources. Areas with wider spaced drilling were assigned as Inferred Resources. The type of the kriging method used was not stated in the feasibility study and the competent person is unable to make a call on the appropriateness of the kriging method used to estimate the foreign resource estimation.</li> <li>There is no check estimates or mine data available to check the resource estimation with.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<ul style="list-style-type: none"> <li>Inverse distance estimations were also carried out for U, Th and Zr. U and Th were assayed as they add extra cost to the processing. Zr has potential to add value to the project.</li> <li>The block size was 10mx5mx5m with the drill spacing varying between 25 and 50 metres.</li> <li>The envelopes around the 3 types of mineralisation were used to constrain data searches to each individual zone.</li> <li>No high grade cutting was used as the grades were reasonably uniform across each zone.</li> <li>No mention was made in the Matamec feasibility study on any validation or checking of the model data. No reconciliation data is available.</li> </ul>
<i>Moisture</i>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>The tonnage is estimated on a dry basis.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>A cut-off grade of 0.2%TREO was used in the Matamec feasibility study. The cut-off grade is the minimum grade above which material was estimated to be economical to mine.</li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Matamec feasibility study used an open pit mining method for the Kipawa deposit. The design is approximately 1000m long, 200m wide and 165m deep. A rigorous feasibility study demonstrated in 2013 mining of the resource had strong potential to be economically extracted.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Matamec developed a detailed metallurgical flowsheet to extract the rare earth oxides using a combination of magnetic separation, leaching and solvent extraction.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>At the time of writing the Matamec feasibility study, work had begun on getting the required environmental approvals. Vital Metals has no information on the current status of these approvals. The feasibility study gave no indication of any environmental factors that would stop the project from going ahead.</li> </ul>
<i>Bulk density</i>	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>A total of 360 density measurements were carried out using the immersion method of core pieces with representative bulk density sampling of all 3 zones of REO mineralisation. There is very little porosity of the mineralisation and hence bulk density estimations were considered quite robust.</li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>The areas with 25m spaced drillholes were classified as Measured Resources. Areas with 50 spaced drillholes were classified as Indicated Resources and minor areas with wider spaced drilling were classified as Inferred Resources. SGS Geostat carried out statistical analysis of the data to demonstrate these classifications were reasonable.</li> <li>Without access to the database the competent person is unable to form a view on whether the foreign Mineral Resource estimation appropriately reflects the deposit.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews of the foreign Mineral Resource estimation is known by the competent person.</li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of</li> </ul>	<ul style="list-style-type: none"> <li>The competent person has no access to the database or block model and is unable to make a statement on the accuracy of the foreign Resource Estimation</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <li><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	

## Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<ul style="list-style-type: none"> <li><i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i></li> <li><i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimation used in the Foreign Ore Reserve estimation was generated by SGS Geodata and has been reported in the 2013 Matamec feasibility study.</li> <li>The foreign Ore Reserves stated in the Matamec feasibility study are inclusive of the Mineral Resources stated in the Matamec feasibility study.</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li><i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>No site visit has been carried out by the competent person. The competent person was not involved in the foreign resource estimation and with Covid travel restrictions has been unable to travel to the site.</li> </ul>
<i>Study status</i>	<ul style="list-style-type: none"> <li><i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i></li> <li><i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i></li> </ul>	<ul style="list-style-type: none"> <li>Matamec conducted a definitive feasibility study to convert the foreign Mineral Resources to the foreign Ore Reserves.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li><i>The basis of the cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>A cut-off grade of 0.2%TREO was used in the Matamec feasibility study. The cut-off grade is the minimum grade above which material was estimated to be economical</li> </ul>

Criteria	JORC Code explanation	Commentary
		to mine.
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul style="list-style-type: none"> <li>The resource model had a monetary value assigned to each block calculated using the value of the 15 REOs, the metallurgical recovery and the grade of the 15 REOs. The model was then imported into Gemcom pit optimization software. Costs were assigned in the pit optimization software to be used to generate an optimized pit shell that gave the highest profit. A pit design was generated using the pit shell to guide the design.</li> <li>The mineralisation is at or near surface and open pit mining is the most appropriate mining method.</li> <li>Detailed geotechnical studies were carried out to determine the pit slopes.</li> <li>The mining dilution factor used was 95.24% and the dilution factor used was 5%.</li> <li>No minimum mining widths were mentioned in the Matamec feasibility study. Bulk mining methods were planned for the deposit.</li> <li>No Inferred Resources were included in the foreign Ore Reserve estimation.</li> <li>The main infrastructure identified in the Matamec feasibility study was mine and access roads and a garage.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	<ul style="list-style-type: none"> <li>Matamec developed a detailed metallurgical flowsheet to extract the rare earth oxides using a combination of magnetic separation, leaching and solvent extraction. These methods are industry standard in the REO industry.</li> <li>Significant bench test work was carried out followed by pilot plant test-work to determine a final metallurgical flowsheet. Recoveries range from 57.6% for Ce<sub>2</sub>O<sub>3</sub> to 77.7% for Dy<sub>2</sub>O<sub>3</sub>.</li> <li>The process flowsheet included removal of U and Th.</li> <li>The bulk samples used for metallurgical test-work was collected by a combination of blasting trenches at the surface and HQ core samples in the lower parts of the mineralisation. The Matamec feasibility study states these samples were representative of the mineral zones.</li> </ul>
<i>Environmental</i>	<ul style="list-style-type: none"> <li>The status of studies of potential environmental impacts of the mining and</li> </ul>	<ul style="list-style-type: none"> <li>Rock characterization test work shows none of the material in the mine plan is</li> </ul>

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	<i>processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i>	going to cause any environmental issues. When the feasibility study was issued both province and federal environmental approvals were required. Vital Metals has no further information on the environmental approvals since the feasibility study was issued in 2013.
<i>Infrastructure</i>	<ul style="list-style-type: none"> <li>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</li> </ul>	<ul style="list-style-type: none"> <li>The project is in an area with land available for infrastructure. The Matamec feasibility study had plans in it locating all the infrastructure.</li> </ul>
<i>Costs</i>	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<ul style="list-style-type: none"> <li>The capital costs in the Matamec feasibility study were estimated in 2013. Vital Metals has not evaluated how these costs fall in 2021. Where possible Matamec used a detailed unit cost approach.</li> <li>Matamec included removal of the U and Th in the processing costs.</li> <li>In the feasibility study exchange rates used were 1CAD=1USD, 1CAD=0.75EUR and 1CAD=0.65GBP.</li> <li>The Matamec feasibility study made no mention of how transport costs were derived.</li> <li>The Matamec feasibility study stated no royalties applied to the Kipawa Project.</li> </ul>
<i>Revenue factors</i>	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<ul style="list-style-type: none"> <li>The Rare Earth oxide prices used in the Feasibility Study were based on a contracted market survey by Asian Metals in conjunction with discussions with key industry end users</li> <li>The refining costs were not evaluated in the Feasibility Study however a payability factor of 30% was applied to forecast separated rare earth prices to account for refining costs</li> <li>Vital Metals has not reviewed the forecast rare earth prices</li> </ul>
<i>Market assessment</i>	<ul style="list-style-type: none"> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	<ul style="list-style-type: none"> <li>The feasibility study was based on a market assessment undertaken by Asian Metals in Jun 2013. This included an evaluation of supply demand assessment, customer and competitor analysis and price and volume forecasts</li> <li>Vital Metals has not reviewed the market assessment</li> </ul>

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<i>Economic</i>	<ul style="list-style-type: none"> <li><i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i></li> <li><i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Feasibility Study economic/financial analysis of the Kipawa project was based on price projections from the second quarter of 2013 and cost estimates in Canadian currency.</li> <li>No provisions were made for the effects of inflation.</li> <li>An at-par exchange rate was assumed to convert the USD price projections into CAD.</li> <li>The evaluation was carried out on a 100% equity basis.</li> <li>2013 Canadian tax regulations were applied to assess corporate tax liabilities</li> <li>A sensitivity was carried out to assess the impact of changes in market prices, total pre-production expenditure and operating costs on the project's NPV @10% and IRR. Each variable was examined one-at-a-time. Sensitivities of +/-30% with increments of 10% were used for all three variables.</li> </ul>
<i>Social</i>	<ul style="list-style-type: none"> <li><i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i></li> </ul>	<ul style="list-style-type: none"> <li>At the time of completing the feasibility study negotiations with local First Nations communities were yet to be finalised</li> </ul>
<i>Other</i>	<ul style="list-style-type: none"> <li><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></li> <li><i>Any identified material naturally occurring risks.</i></li> <li><i>The status of material legal agreements and marketing arrangements.</i></li> <li><i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></li> </ul>	<ul style="list-style-type: none"> <li>An assessment of potential risks and factors which may impact the project and/or on the estimation and classification of the Ore Reserves will be undertaken during due diligence.</li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> <li><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></li> </ul>	<ul style="list-style-type: none"> <li>Foreign Measured Mineral Resources that were economical to mine were converted to foreign Proved Ore Reserves and foreign Indicated Mineral Resources that were economical to mine were converted to foreign Probable Ore Reserves.</li> <li>Without access to the database the competent person is unable to form a view on whether the foreign Mineral Resource estimation appropriately reflects</li> </ul>

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		the deposit.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	<ul style="list-style-type: none"> <li>No audit or review of the foreign Ore Reserve in the Matamec feasibility study is known to Vital Metals.</li> </ul>
<i>Discussion of relative accuracy/confidence</i>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>The competent person has no access to the database or block model and is unable to make a statement on the accuracy of the foreign Ore Reserve estimation. Further to this the Competent Person does not have recent cost information to determine if the costs used in 2013 are still relevant in 2021.</li> </ul>