

3 June 2019

## Vanadium Projects Update

### Highlights

- Metallurgical testing of 16 drill holes from the Airijoki project in northern Sweden is being conducted following earlier test results which showed vanadium magnetite concentrates could be produced containing greater than 2% vanadium pentoxide ( $V_2O_5$ ) and more than 65% iron (Fe), at mass recoveries of more than 20%<sup>1</sup>
- A number of magnetic bodies, which are potentially vanadium bearing intrusions, have been identified on the Airijoki Regional Exploration Tenements and prioritised for field investigation during the northern hemisphere summer
- An infill drill program is planned to commence at the Airijoki Project in September to upgrade the current Inferred Mineral Resource to Measured and Indicated status in accordance with JORC (2012). This will support the preparation of a Definitive Feasibility Study assessing the economics of producing high-grade vanadium magnetite concentrates from Airijoki
- Discussions have been undertaken with representatives of the Finnish government regarding the application submitted for an Exploration Licence at the Koitelainen Project in northern Finland, with a decision expected by the end of November 2019. The Licence is required to enable drilling to be undertaken.
- A review of the Simesvallen Project in Sweden has highlighted that two historical drill holes intersected vanadium mineralisation which produced high grade vanadium magnetite concentrates grading from 1.55% - 1.9%  $V_2O_5$  and as such are comparable to the Northeast Magnetic Zone on the Airijoki Project<sup>2</sup>
- Discussions are ongoing with potential strategic partners to assist in the assessment and potential development of the Airijoki and Koitelainen Projects

**Pursuit Minerals Limited (ASX: PUR)** intends to commence a drilling program at the Airijoki project in northern Sweden in September 2019.

The drill program is aimed at upgrading the current Inferred Mineral Resource to Measured and Indicated status to underpin a Definitive Feasibility Study (DFS) examining the economics of producing high-grade vanadium magnetite concentrates for sale to global markets. Following highly successful metallurgical test work at Airijoki conducted earlier this year, a second phase of test work on 16 drill holes is being prepared with the results to feed into the Airijoki DFS.

<sup>1</sup>See Pursuit Minerals ASX Announcement 21 May 2019    <sup>2</sup>See Pursuit Minerals ASX Announcement 29 October 2018  
The Company is not aware of any new information or data that materially affects the information contained in the above announcements, except as detailed in this announcement.

A number of highly prospective magnetite anomalies, whose source could be vanadium bearing magnetite bodies, have been prioritised for field follow up during the northern hemisphere summer.

Pursuit Minerals Managing Director Jeremy Read said that rapid progress had been made on the Airijoki and Koitelainen Projects, with completion of Scoping Studies on both projects achieved in less than 12 months since the start of the Company's vanadium strategy. The success of the Scoping Studies has provided even greater impetus to accelerate towards development of both projects.

"The Airijoki and Koitelainen Scoping Studies showed that Pursuit has two projects with the potential to be financially robust by initially producing high-grade vanadium magnetite concentrates.

"We are now moving to commence the DFS for Airijoki as soon as practicable with the infill drilling program to convert the Inferred Resource into a Measured and Indicated Resource.

"While we are planning for the Airijoki DFS and also a targeted regional exploration program at the project, we are continuing with discussions with the Finnish government to achieve grant of an Exploration Licence at Koitelainen later in the year," Mr Read said.

"In addition, our other vanadium projects in Central Sweden are showing promise, and we see potential at Simesvallen to define another Airijoki like Mineral Resource," he said.

"In comparison to our peer companies we have the advantage of access to quality nearby infrastructure and low-cost reliable power at all of our projects. We currently have two globally significant vanadium mineral resources, with the potential for more," Mr Read said.<sup>3,4</sup>

### **Airijoki Project (Sweden)**

The Airijoki Project hosts an Inferred Mineral Resource of 44.3 million tonnes, containing 5.9 million tonnes of magnetite @ 1.7% V<sub>2</sub>O<sub>5</sub> (in magnetite concentrate), for 100,800 tonnes of V<sub>2</sub>O<sub>5</sub> based on 13.3% mass recovery of magnetite concentrate and a cut-off of 0.7% V, defined in accordance with JORC (2012)<sup>3</sup> (Figures 1 and 2).

Three representative drill holes from the Airijoki Project underwent metallurgical test work investigating the effect of grind size and magnetic field strength on the mass recovery and overall recovery of vanadium into a vanadium magnetite concentrate. The test work indicated that vanadium magnetite concentrates grading over 2% V<sub>2</sub>O<sub>5</sub> and more than 65% Fe, at mass recoveries over 20%, could be produced.<sup>5</sup> Overall, vanadium recoveries up to and over 70% can be achieved using a relatively coarse grind size of 355 microns and utilising the simple LIMS process without the need for further treatment.

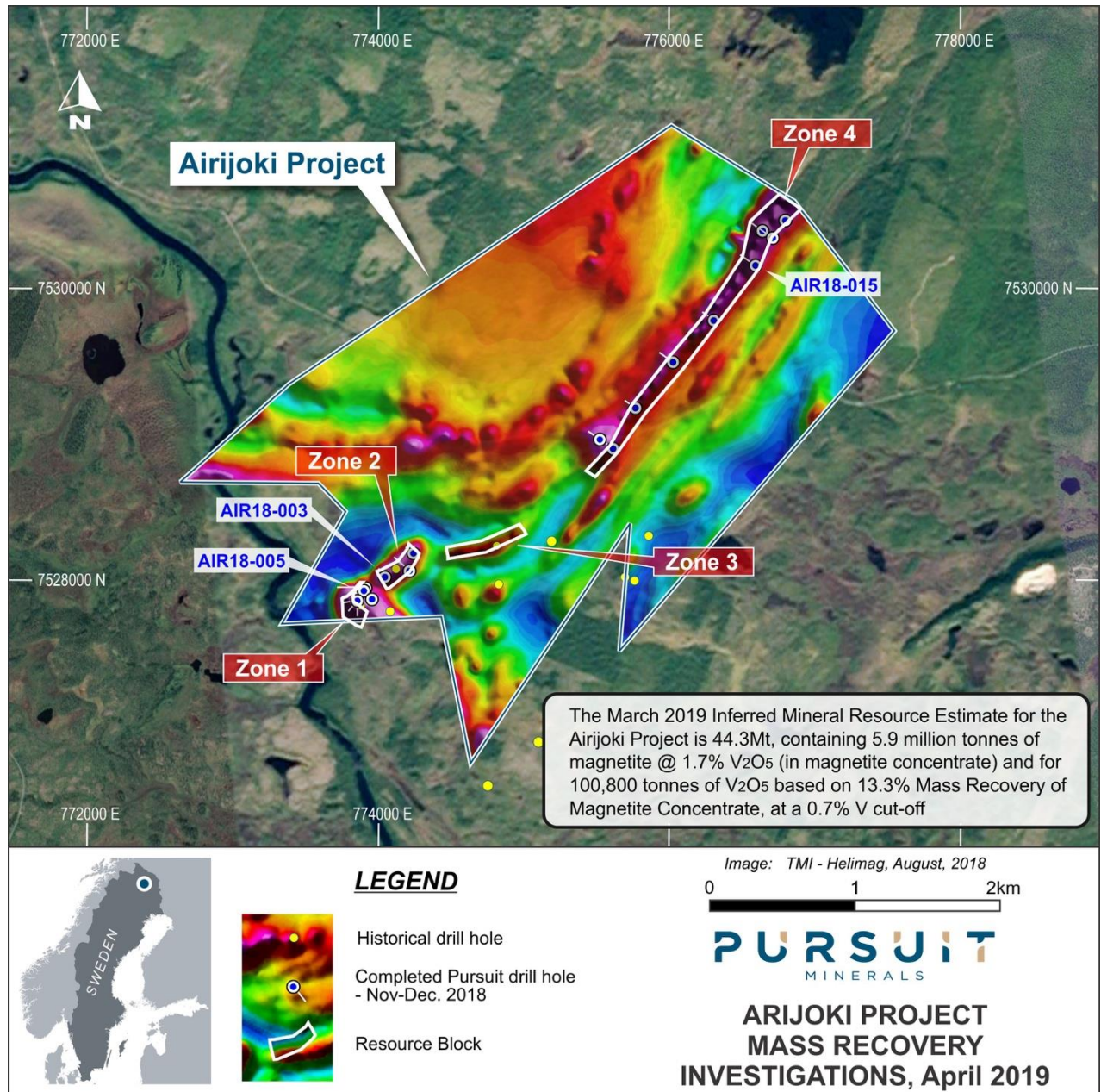
<sup>3</sup>See Pursuit Minerals ASX Announcement 9 March 2019. <sup>4</sup>See Pursuit Minerals ASX Announcement 6 February 2019. <sup>5</sup>See Pursuit Minerals ASX Announcement 21 May 2019. The Company is not aware of any new information or data that materially affects the information included in the referenced ASX announcements and confirms that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

**Figure 1 – Project Locations**





**Figure 2 – Drill Holes Used for Metallurgical Test Work Program  
on the Airijoki Project**



Given the highly successful initial test results, a second phase of metallurgical test work is being prepared involving a further 16 holes. The results of the program will feed into the Airijoki DFS.

Interpretation of regional aeromagnetic data has identified a number of magnetic bodies, which are potentially vanadium bearing intrusions, of similar type to the bodies hosting the main Inferred Mineral Resource at Airijoki. Prioritisation of these targets, on the Airijoki Regional Exploration Tenements, is ongoing and planning has commenced for field investigations during the northern hemisphere summer field season. Rock chip and soil sampling, which has proven to be successful at Airijoki to determine vanadium bearing magnetic bodies from non-vanadium magnetic bodies, will be used to select magnetic bodies for drill testing.

An infill drill program has been designed to convert the Airijoki Inferred Mineral Resource into Measured and Indicated in accordance with JORC (2012), which will enable a Definitive Feasibility Study to be undertaken to assess the economics of producing high-grade vanadium magnetite concentrates from Airijoki. Field checking of drill hole locations will be completed in June prior to the planned commencement of the infill drilling program in September 2019.

### **Koitelainen Project (Finland)**

At the Koitelainen Vosa Prospect an Inferred Mineral Resource has been defined of 116.4Mt, containing 5.8 million tonnes of magnetite @ 2.3%  $V_2O_5$  (in magnetite concentrate), for 131,000 tonnes of  $V_2O_5$  based on 5.0% mass recovery of magnetite concentrate at a 0.5% V cut-off, and reported in accordance with JORC (2012) (Figure 3)<sup>6</sup>. Based upon this Inferred Mineral Resource, Pursuit undertook a Scoping Study and determined that the Koitelainen Vosa Prospect had the potential to be financially robust producing a high-grade vanadium magnetite concentrate<sup>7</sup>.

Metallurgical test work has been completed on three representative holes from the Koitelainen Vosa prospect. This test work showed mass recoveries increased significantly by simply increasing the crushing size of the vanadium mineralisation to 355 microns from 106 microns. For the three holes tested, the average mass recovery was increased from 5.3% to 8.8%<sup>8</sup>. Further metallurgical test work will be completed across the Koitelainen Vosa Inferred Mineral Resource. To undertake this test work Pursuit must undertake its own drilling program. To date, Pursuit has undertaken its metallurgical test work on samples obtained from historical drill core and there is now insufficient material to complete further metallurgical testing. For drilling to be undertaken, Pursuit must be granted an Exploration Licence within the overall Koitelainen Mineral Reservation held by the Company. Pursuit currently holds Project Reservations in Finland.

On 26<sup>th</sup> October 2018 the Company applied for an Exploration Licence over the Koitelainen Vosa Prospect.

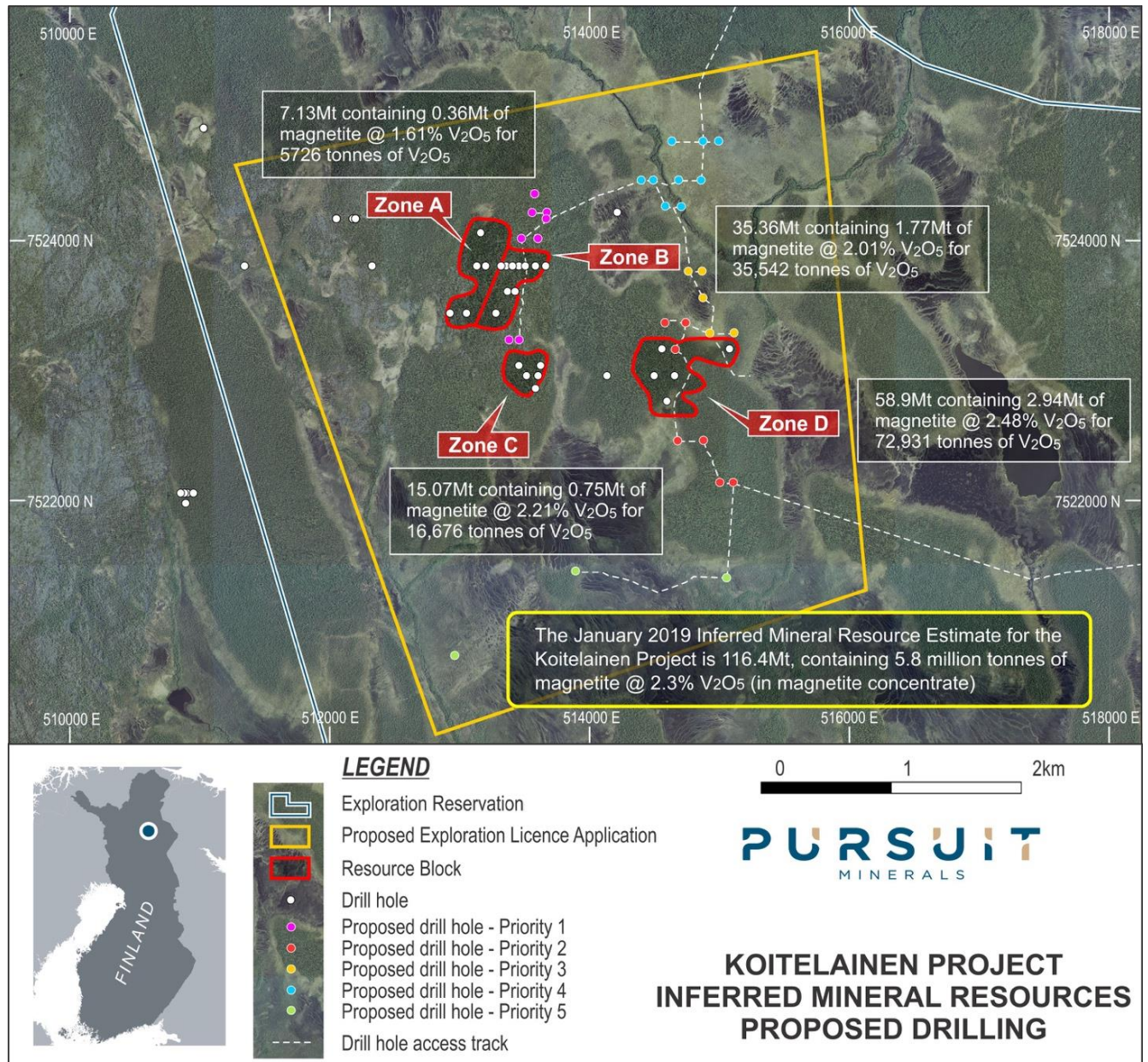
On 1 April 2019, Pursuit submitted a Natura2000 Environmental Report in support of the Exploration Licence Application. The Finnish government authorities have six months to assess the Natura2000 report. Pursuit maintains a regular dialog with the Finnish authorities with the goal

<sup>6</sup>See Pursuit Minerals ASX Announcement 6 February 2019. <sup>7</sup>See Pursuit Minerals ASX Announcement 8 May 2019. <sup>8</sup>See Pursuit Minerals ASX Announcement 9 April 2019. The Company is not aware of any new information or data that materially affects the information included in the referenced ASX announcements and confirms that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.



of having the Koitelainen Exploration Licence granted in 2019 to allow drilling to be completed during the northern hemisphere winter field season.

**Figure 3 – Koitelainen Project Inferred Mineral Resource and Planned Drilling**



## **Simesvallen Project**

Pursuit has re-examined two historical drill holes from the Simesvallen Project (Figure 4) in central Sweden which previously returned encouraging widths and grades of vanadium mineralisation<sup>9</sup>.

Historical drill hole SIM82003 returned a highly encouraging result of;

- 24m @ 0.4% V<sub>2</sub>O<sub>5</sub> (whole rock), 1.63% V<sub>2</sub>O<sub>5</sub> (magnetite concentrate) from 22m, including;
- 9m @ 0.43% V<sub>2</sub>O<sub>5</sub> (whole rock), 1.90% V<sub>2</sub>O<sub>5</sub> (magnetite concentrate) from 37m

Historical drill hole SIM82001 also delivered an encouraging intersection of;

- 10.9m @ 0.4% V<sub>2</sub>O<sub>5</sub> (whole rock), 1.63% V<sub>2</sub>O<sub>5</sub> (magnetite concentrate) from 39m; and
- 7m @ 0.24% V<sub>2</sub>O<sub>5</sub> (whole rock), 1.55% V<sub>2</sub>O<sub>5</sub> (magnetite concentrate) from 23m

Drill holes SIM82001 and SIM82003 intersect the source of a large, high amplitude aeromagnetic anomaly, directly associated with the vanadium mineralisation, which is approximately 1.5km in strike length. The highest-grade vanadium mineralisation was intersected in hole SIM82003 with the mineralisation being open to the east.

The widths and grades and vanadium mineralisation intersected at Simesvallen are similar in grade and thickness to the Northeast Magnetic Zone on the Airijoki Project in northern Sweden. Consequently, Pursuit is reconsidering its plans for the Simesvallen Project and will potentially undertake ground magnetic surveys to define targets for drill testing.

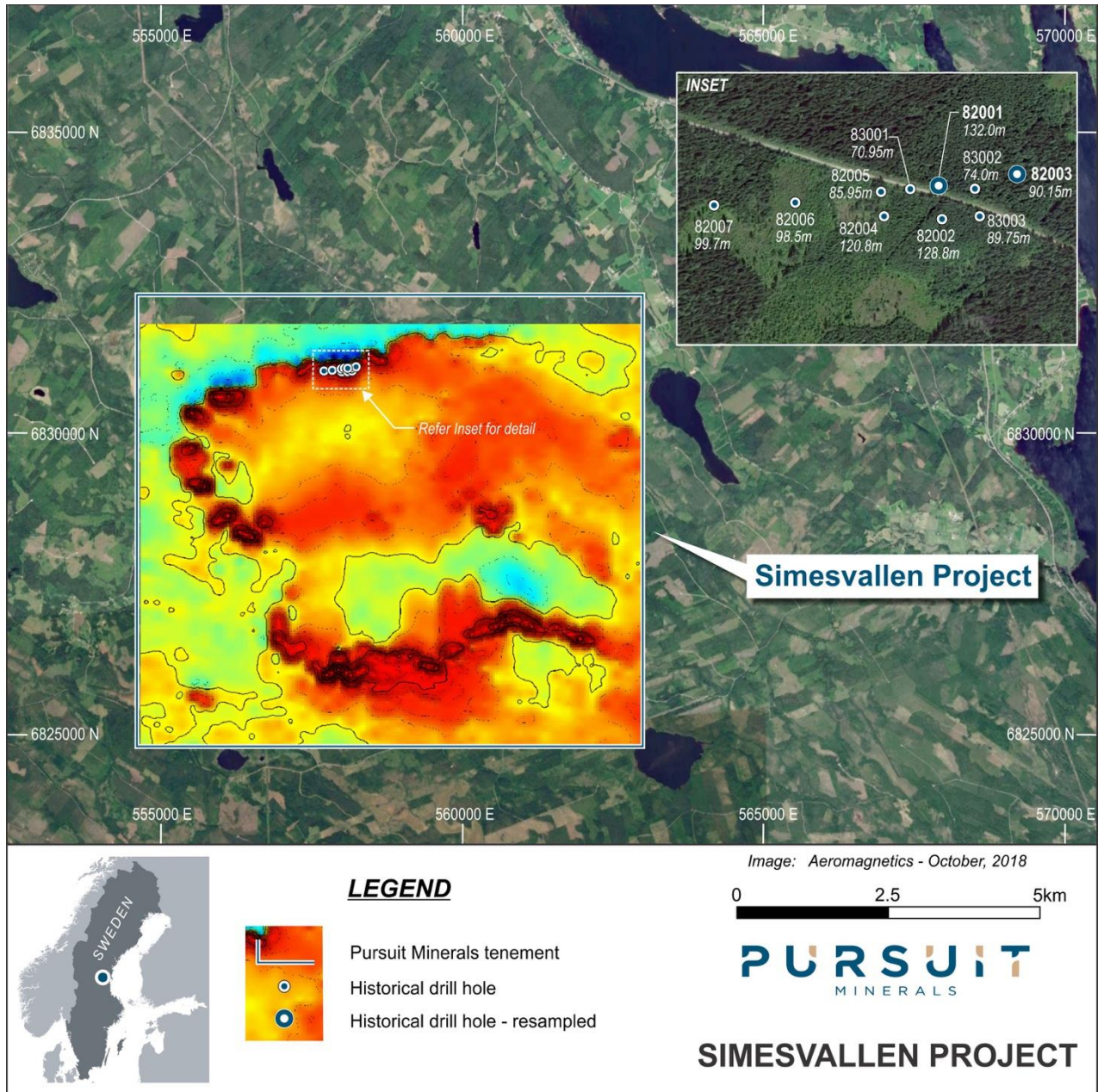
## **Strategic Partners**

With the completion of the Scoping Studies for the Airijoki and Koitelainen Projects, Pursuit has the information required to commence discussions with potential partners to assist in development of the Airijoki and Koitelainen Projects. Pursuit is currently in discussion with several companies which have the technical and financial capabilities required. Pursuit will update the market in due course if agreements are entered into.

<sup>9</sup>See Pursuit Minerals ASX Announcement 29 October 2018. The Company is not aware of any new information or data that materially affects the information included in the referenced ASX announcements and confirms that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.



**Figure 4 – Sampling of Historical Drill Holes on the Simesvallen Project**







## **Pursuit Minerals**

Pursuit Minerals (ASX:PUR) listed on the ASX in August 2017 following the completion of acquisition of a portfolio of projects from Teck Australia Pty Ltd, which remains Pursuit's largest shareholder. Led by a Board and Management team with a wealth of experience from all sides of minerals transactions, Pursuit Minerals understands how to generate and capture the full value of minerals resource projects. From local issues to global dynamics, Pursuit Minerals knows how to navigate project development and deliver returns to shareholders and broader stakeholders.

Pursuit's project portfolio is focussed on the emerging Energy Metal, vanadium. In 2018, through compilation and interpretation of historical data, Pursuit applied for and was subsequently granted Exploration Tenements in Sweden and Project Reservations in Finland, covering projects with historical deposits of vanadium and extensive confirmed areas of vanadium mineralisation. Finland has in the past produced up to 10% of the world's vanadium and is currently rated the number one jurisdiction globally for developing mineral projects. Sweden has a long mining history and culture and was the second country in the world where vanadium was recognised as a metal. With its Sweden and Finland projects very well positioned to take advantage of Scandinavia's world-class infrastructure, cost effective power and stable legislative frameworks, Pursuit is looking to accelerate assessment and potential development of its quality vanadium project portfolio.

With Europe rapidly transforming its energy grid to renewable energy, which will require large increases in battery storage, Pursuit's projects are well placed to participate in the energy revolution underway in the region.

For more information about Pursuit Minerals and its projects, visit:

[www.pursuitminerals.com.au](http://www.pursuitminerals.com.au)

## **Competent Person's Statement**

Statements contained in this announcement relating to historical exploration results, exploration results produced by Pursuit Minerals and historical estimates of mineralisation are based on, and fairly represents, information and supporting documentation prepared by Mr. Jeremy Read, who is a member of the Australian Institute of Mining & Metallurgy (AusIMM), Member No 224610. Mr Read is a full-time employee of the Company and has sufficient relevant experience in relation to the mineralisation styles being reported on to qualify as a Competent Person as defined in the *Australian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC) Code 2012*. Mr Read consents to the use of this information in this announcement in the form and context in which it appears.

Statements contained in this announcement relating to the Airijoki Project Inferred Mineral Resource and the Koitelainen Inferred Mineral Resource, are based on, and fairly represents,

information and supporting documentation prepared by Mr. Chris Grove, who is a member of the Australian Institute of Mining & Metallurgy (AusIMM), Member No 310106. Mr Grove is a full-time employee of the mineral resource consulting company "Measured Group", who were contracted by Pursuit Minerals Limited to prepare estimates of the Inferred Mineral Resources at Airijoki and Koitelainen. Mr Grove has sufficient relevant experience in relation to the mineralisation styles being reported on to qualify as a Competent Person as defined in the Australian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC) Code 2012. Mr Grove consents to the use of this information in this announcement in the form and context in which it appears.

### **Forward Looking Statements**

Disclaimer: Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events