

30 July 2021

## **Quarterly Activities Report for the period ended 30 June 2021**

Advanced battery materials development company, Australian Mines Limited (“Australian Mines” or “the Company”) (Australia ASX: AUZ; USA OTCQB: AMSLF; Germany FSX: MJH) is pleased to provide its Quarterly Activities Report for the period ending 30 June 2021.

Australian Mines’ primary focus during the June quarter continued to be on progressing the development of its world class, 100%-owned, Sconi Nickel-Cobalt-Scandium Project in North Queensland.

During the reporting period, Australian Mines continued to advance Sconi offtake agreement negotiations with a number of potential customers and partners, including global car and battery manufacturers<sup>1</sup>.

In conjunction with the ongoing offtake negotiations, the Company is exploring enhancements to the Sconi production circuit, to facilitate capturing more value from producing Nickel-Cobalt-Manganese (NCM) Precursor Cathode Active Material (P-CAM) battery chemistries and improving the project’s already attractive economic profile<sup>2</sup>.

In-house production tests of a lithiated P-CAM, known as Cathode Active Material (CAM; being the final phase of battery cathode manufacturing), also remains on schedule to commence next month, with the final CAM product available for delivery to interested potential offtake (or joint venture) partners from November 2021.

Additionally, during this reporting period, Australian Mines continued to advance several key exploration and development projects within its broader portfolio<sup>3</sup>.

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<sup>1</sup> Australian Mines Limited, Update on Sconi Project Offtake Discussions, released 23 April 2021

<sup>2</sup> Australian Mines Limited, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed.

<sup>3</sup> For example:

Australian Mines Limited, Geophysical survey identifies porphyry copper-gold target at Flemington Project, New South Wales, released 7 June 2021

Australian Mines Limited, Gold returned from rock chip sampling over copper-gold target at Flemington Project, New South Wales, released 24 June 2021

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## Key activities & achievements during the quarter included:

- **Advancing negotiations with potential Sconi offtake partners and financiers<sup>4</sup>**
- **Scoping Study indicating P-CAM production will improve Sconi's already attractive economic profile<sup>5</sup>**
- **Sconi's pilot P-CAM production plant entered construction phase<sup>6</sup>**
- **Geophysical survey identified porphyry copper-gold target at Flemington Project<sup>7</sup>**

Commenting on the June 2021 quarter, Australian Mines' Managing Director, Mr Benjamin Bell, said: "In parallel with advancing offtake discussions, we continued to refine the process technology at Sconi to maximise the output value of our product stream; improve the projected economics at Sconi and add more long-term value for shareholders.

"Our potential offtake partners appear acutely aware that Sconi, when fully developed, will be a lowest cost-quartile producer of electric vehicle battery materials in the world<sup>8</sup>, with a project life in excess of 30 years<sup>9</sup>. Additionally, Sconi's characteristics of having operations in the Tier 1 jurisdiction of Australia; a demonstrated production capability<sup>10</sup>; a track record of creating quality battery materials, including P-CAM<sup>11</sup>, and a fully auditable and ethical supply chain make the project even more attractive to our potential offtake partners.

"In addition, during the quarter we were cost-effectively active and targeted across our diverse portfolio of exploration assets, pursuing base metal and gold targets<sup>12</sup> and also adding the new and highly prospective Lennard nickel-copper-PGE project in Western Australia<sup>13</sup>."

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<sup>4</sup> Australian Mines Limited, Update on Sconi Project Offtake Discussions, released 23 April 2021

<sup>5</sup> Australian Mines Limited, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021. Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed.

<sup>6</sup> Australian Mines Limited, Sconi Project's pilot P-CAM production plant enters construction phase, released 3 June 2021

<sup>7</sup> Australian Mines Limited, Geophysical survey identifies porphyry copper-gold target at Flemington Project, New South Wales, released 7 June 2021

<sup>8</sup> Australian Mines Limited, Study places Sconi as low-cost cobalt and nickel producer, released 12 February 2019.

<sup>9</sup> Australian Mines Limited, Sconi to produce \$5 billion in free cashflow, released 13 June 2019.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed

<sup>10</sup> Australian Mines Limited, Precursor cathode active material production from a single source continues to be demonstrated at Sconi Project, North Queensland, released 29 January 2021

<sup>11</sup> Australian Mines Limited, Precursor cathode active material production from a single source continues to be demonstrated at Sconi Project, North Queensland, released 29 January 2021

<sup>12</sup> For example:

Australian Mines Limited, Geophysical survey identifies porphyry copper-gold target at Flemington Project, New South Wales, released 7 June 2021

Australian Mines Limited, Gold returned from rock chip sampling over copper-gold target at Flemington Project, New South Wales, released 24 June 2021

<sup>13</sup> Australian Mines Limited, Advanced machine learning identifies nickel sulphide exploration targets at new Lennard Project, Western Australia, released 28 June 2021

## Advancing Sconi offtake discussions

Bringing the ongoing Sconi offtake negotiations to a successful conclusion will be a key step in the process to develop Sconi into a world class source of advanced battery minerals, potentially including high value-added P-CAM. These are essential commodities used by electric vehicle battery makers, automotive manufacturers (also called 'OEMs', or original equipment manufacturers) and in the storage and delivery of clean, sustainable energy sources.

In the June quarter, Australian Mines continued to progress these offtake negotiations with a range of potential partners<sup>14</sup>. These negotiations are the subject of standard Non-Disclosure (NDA) or Confidentiality Agreements (CA), which prohibit either party from disclosing information that may identify a potential counterparty. The NDAs/CAs also include clauses preventing commentary on the status of incomplete negotiations. Encouragingly, Australian Mines can confirm the offtake discussions have covered key terms such as pricing, volumes and indicative timelines<sup>15</sup>.

In parallel, Australian Mines is working to satisfy the due diligence requirements required for these ongoing offtake discussions to progress towards formal contracts. The Company reconfirms its expectation of entering into an offtake agreement in relation to the Sconi Project during calendar year 2021<sup>16</sup>.

These expectations are supported by the broader industry supply and demand dynamics being highlighted by potential offtake partners in discussions with Australian Mines. The demand for battery minerals is expected to significantly outstrip supply over the medium term<sup>17</sup> as sulphide nickel deposits are exhausted, driving the need for new laterite assets like Sconi to be developed.

To address this projected supply and demand imbalance, potential offtake partners for Sconi will need to lock in new sources of battery minerals well in advance of an expected pinch point in the supply of battery materials between 2023 and 2025.

These anecdotal observations from the Company's ongoing offtake discussions support the case for the development of the Sconi Project. However, it is important shareholders are aware that global car and battery manufacturers, with whom the Company is in dialogue, have their own internal targets and timeframes. In this context, Australian Mines is pleased with the pace of its offtake discussions and the progress achieved to date.

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<sup>14</sup> Australian Mines Limited, Update on Sconi Project Offtake Discussions, released 23 April 2021

<sup>15</sup> Australian Mines Limited, Update on Sconi Project Offtake Discussions, released 23 April 2021

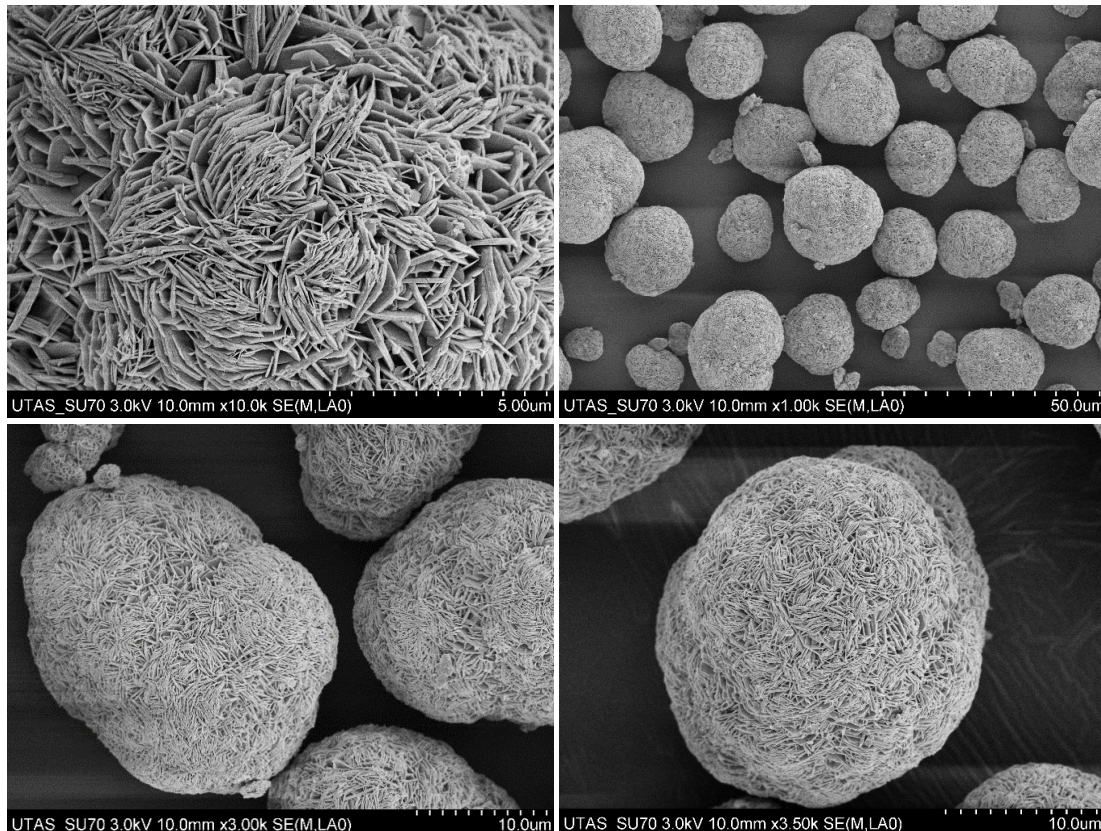
<sup>16</sup> Australian Mines Limited, Quarterly Activities Report for the period ended 31 December 2020, released 29 January 2021.

<sup>17</sup> Benchmark Mineral Intelligence forecasts market nickel sulphate shortfalls of 100 thousand tonnes in 2024, 500 thousand tonnes in 2027 and 1.1 million tonnes in 2030. Benchmarks Nickel Day 2021, 31 March 2021.

## P-CAM Scoping Study & pilot plant construction

During the June quarter, the results of a Scoping Study into the economics of upgrading the production capabilities at Sconi to allow high value-add P-CAM for NCM batteries were released<sup>18</sup>.

The study follows Australian Mines' successful test production<sup>19</sup> of P-CAM for NCM 523, NCM 622 and NCM 811 battery chemistries used across the electric vehicle industry.



**Figure 1:** Electron Microscope imagery of Australian Mines' Nickel-Cobalt-Manganese (NCM) precursor cathode active material (P-CAM) produced at the Sconi demonstration scale processing plant. The comprehensive suite of analyses undertaken by independent laboratories confirmed that Australian Mines' P-CAM products meet the exacting specifications of the electric vehicle battery industry.

<sup>18</sup> Australian Mines Limited, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed.

<sup>19</sup> Australian Mines Limited, Precursor cathode active material production from a single source continues to be demonstrated at Sconi Project, North Queensland, released 29 January 2021

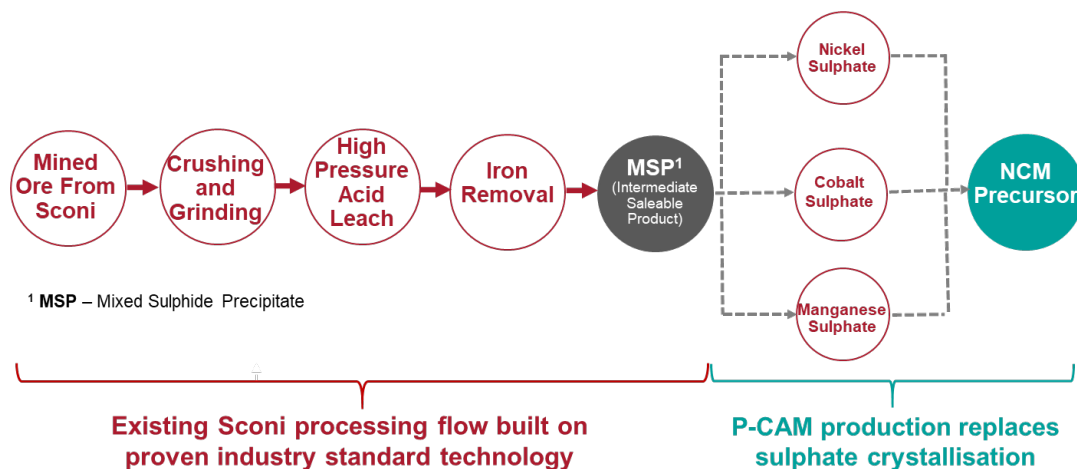


The Study was conducted by Ausenco and covered, at a concept level, incorporating P-CAM production facilities as an alternative to the nickel and cobalt sulphate crystallisation process included in the Sconi Bankable Feasibility Study (BFS) (see Figures 2 and 3 of this report).

## Scoping Study Highlights

- **Ausenco considered a proposed production rate<sup>20</sup> for the Sconi P-CAM plant of:**
  - 25,708 tonnes per year of NCM 811 P-CAM, plus
  - 4,778 tonnes per year of NCM 622 P-CAM
- **CRU Consulting’s independent pricing forecasts<sup>21</sup> for P-CAM products are:**
  - US\$16,500 per tonne for NCM 811
  - US\$18,800 per tonne for NCM 622
- **P-CAM production at the Sconi Project has the potential to deliver a significant revenue boost over the life of the project for an incremental capital and operating cost<sup>22</sup>**

The study noted that the P-CAM production facility could replace part, or all, of the nickel and cobalt sulphate circuit, given that Australian Mines has been successfully producing P-CAM material directly from its intermediate mixed sulphide precipitate (MSP) product without the requirement to go through the sulphate phase.



**Figure 2:** Australian Mines Sconi Project processing flowsheet, substituting precursor cathode active material (P-CAM) production for the sulphate crystallisation stage.

<sup>20</sup> Australian Mines, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021.

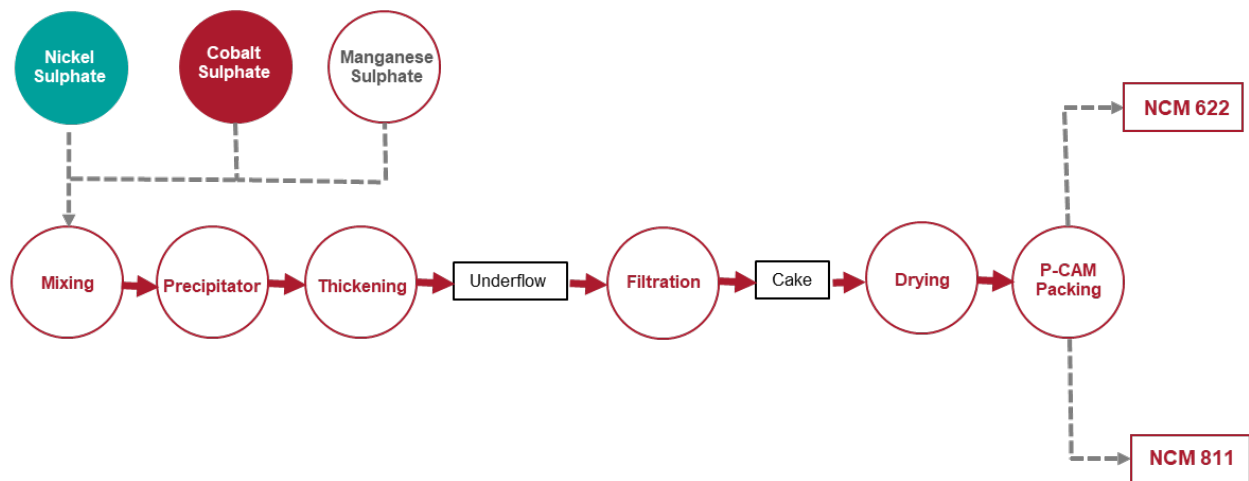
Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed.

<sup>21</sup> Australian Mines, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021

<sup>22</sup> Australian Mines, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021.

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**Figure 3:** Australian Mines processing flow chart for precursor cathode active material (PCAM) production from nickel, cobalt and manganese sulphates sourced from Sconi ore.

Following the highly encouraging results from the Sconi P-CAM Scoping Study<sup>23</sup>, Australian Mines commissioned construction of a pilot P-CAM production plant in the June quarter. The pilot P-CAM production plant will go through wet commissioning during July 2021 before an optimisation process in August 2021 and complete P-CAM production runs expected in October 2021.

The pilot P-CAM production plant will be a fully integrated extension to Australian Mines' existing demonstration-scale high pressure acid leach plant in Perth and will allow potential offtake partners to assess the full production circuit proposed for Sconi, from raw Sconi feedstock through to battery-grade NCM P-CAM.

### **Economic advantages of producing P-CAM materials for the battery sector**

The Sconi Project's Bankable Feasibility Study (BFS) was based on producing separate nickel sulphate and cobalt sulphate crystals as the final saleable product from the processing plant<sup>24</sup>. These products sell at lower price points (albeit still at a material premium to LME nickel metal) than the value-added P-CAM products assessed by the P-CAM Scoping Study<sup>25</sup>.

There has been a rapid and material price escalation of precursor chemicals in comparison to the sulphates that would be applicable to NCM P-CAM produced at Sconi.

<sup>23</sup> Australian Mines, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed.

<sup>24</sup> Australian Mines Limited, Sconi to produce \$5 billion in free cashflow, released 13 June 2019.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed

<sup>25</sup> Australian Mines Limited, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021.

The improved economics of selling P-CAM over sulphates<sup>26</sup> is currently driving the direction of our offtake discussions. The margins on the P-CAMs, be it NCM 523, 622 or 811, are very attractive (compared to selling sulphates, or an intermediate mixed hydroxide precipitate [MHP] or mixed sulphide precipitate [MSP]) for an incremental increase to capex and operating costs as outlined in the Sconi P-CAM Scoping study<sup>27</sup>.

### **Leadership on ESG**

The Company is the first mineral resources company in the world to be certified a Carbon Neutral Organisation under the Australian Government's Climate Action Program<sup>28</sup>.

Climate Active is the only Australian Government recognised certification, and it is awarded to organisations who have already reached the state of achieving net zero emissions (such as Australian Mines).

This certification followed the Company having its application for membership to the Initiative for Responsible Mining Assurance (IRMA) approved. The IRMA is an independent third-party organisation that verifies and certifies socially and environmentally responsible mining.

Australian Mines' commitment to leadership on ESG arises from the Board's and Senior management's view that it is the right way to operate the business, while also emerging as a key consideration for our potential offtake partners.

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<sup>26</sup> Australian Mines Limited, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021.

<sup>27</sup> Australian Mines, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed.

<sup>28</sup> Australian Mines Limited, Australian Mines achieves industry first carbon neutral certification, released 18 August 2020

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## Sconi Project, Queensland

Destined to be one of the lowest cost, cobalt-producing, nickel operations globally<sup>29</sup>.

Australian Mines continues to deliver against its multi-year plan to develop and enhance Sconi in preparation for full production.

### Key outcomes to date include:

- **Operating its own fully-integrated pilot production plant in Australia since 2017**<sup>30</sup>
- **Positive Bankable Feasibility Study (BFS) released in 2018**<sup>31</sup>
- **Producing battery grade nickel sulphate and cobalt sulphate since 2018**<sup>32</sup>
- **Enhanced Bankable Feasibility Study (BFS) released in 2019**<sup>33</sup>
- **30 year mine life plan reported in 2019**<sup>34</sup>
- **Awarded 'Prescribed Project' status by Queensland Government in 2019**<sup>35</sup>
- **Producing battery grade manganese sulphate since 2020**<sup>36</sup>
- **Manufacturing on-spec NCM 523 and 622 P-CAM since 2020**<sup>37</sup>
- **Progressed to successfully manufacturing on-spec NCM 811 in 2020/21**<sup>38</sup>
- **Expanding to NCM 90/05/05 production in 2021**<sup>39</sup>
- **Independent P-CAM Scoping Study completed in June 2021 quarter**<sup>40</sup>
- **P-CAM pilot plant began construction in June 2021 quarter**<sup>41</sup>

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<sup>29</sup> **Once in production** (see Australian Mines Limited, Independent market study places Sconi in the 1<sup>st</sup> quartile of cost curve for global cobalt sulphate and nickel sulphate production, released 12 February 2019).

<sup>30</sup> Australian Mines Limited, Quarterly Activities Report, released 31 October 2017

<sup>31</sup> Australian Mines Limited, Bankable Feasibility Study supports strong commercial case for developing Sconi Cobalt-Nickel Scandium Project, located in North Queensland, released 20 November 2018

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed

<sup>32</sup> Australian Mines Limited, Australian Mines to set benchmark with largest sample of battery-grade cobalt and nickel sulphate ever exported from Australia, released 2 July 2018

<sup>33</sup> Australian Mines Limited, Sconi to produce \$5 billion in free cashflow, released 13 June 2019.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed

<sup>34</sup> Australian Mines Limited, Sconi to produce \$5 billion in free cashflow, released 13 June 2019.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed

<sup>35</sup> Australian Mines Limited, Queensland Government provides Sconi *Prescribed Project* status, released 25 January 2019

<sup>36</sup> Australian Mines Limited, Quarterly Activities Report, released 20 October 2019

<sup>37</sup> Australian Mines Limited, Australian Mines demonstrates ability to produce NCM battery materials, released 13 August 2020

<sup>38</sup> Australian Mines Limited, Precursor cathode active material production from a single source continues to be demonstrated at Sconi Project, North Queensland, released 29 January 2021

<sup>39</sup> Australian Mines Limited, Quarterly Activities Report, released 29 April 2021

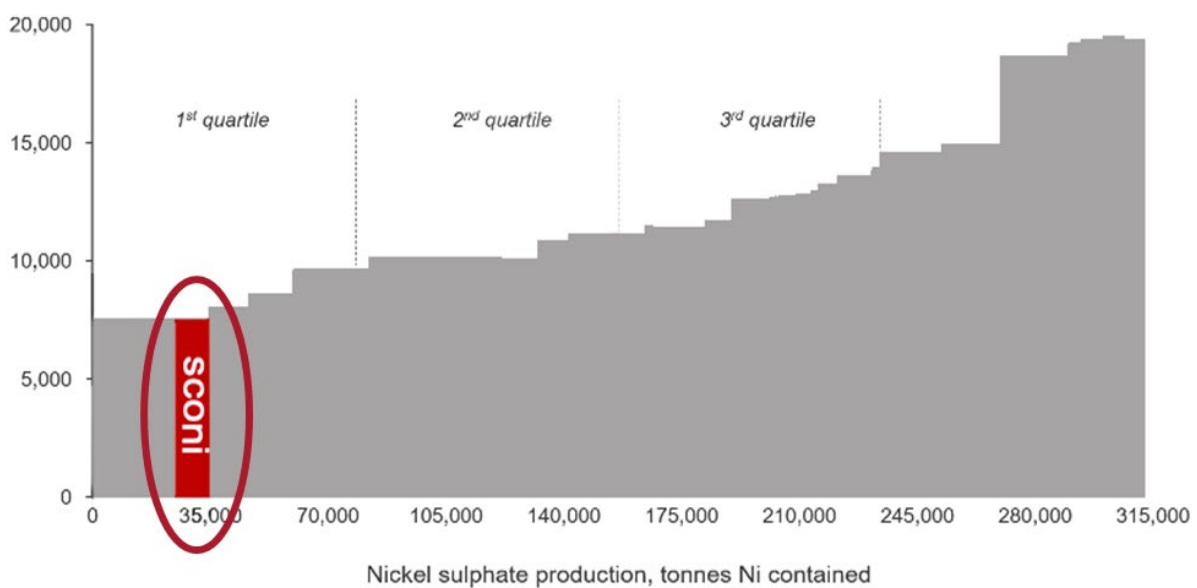
<sup>40</sup> Australian Mines, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project, released 2 June 2021.

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<sup>41</sup> Australian Mines Limited, Sconi Project's pilot P-CAM production plant enters construction phase, released 3 June 2021

- Updated design of front-end processing (to materially decrease capex) advancing
- The first resource company certified Carbon Neutral by the Australian Government<sup>42</sup>
- Supply and demand imbalances creating competitive tension in the EV sector<sup>43</sup>
- Continuing to progress 'downstream' to meet EV makers at their assembly floor
- Offtake discussions progressing with a number of parties<sup>44</sup>

Located about 250 kilometres inland from Townsville in North Queensland, Australian Mines' 100%-owned Sconi Project, once developed, is forecast to be one of the most cost-competitive cobalt-producing nickel operations in the world<sup>45</sup> and places the Sconi Project in the lowest cost-quartile compared to other existing and proposed analogous operations globally<sup>46,47</sup> (see Figures 4 and 5 of this report).



**Figure 4:** Nickel sulphate cost curve 2025, nominal USD per tonne of nickel contained.<sup>48</sup>

<sup>42</sup> Australian Mines Limited, Australian Mines achieves industry first carbon neutral certification, released 18 August 2020

<sup>43</sup> Australian Mines believes that the Company, and other pre-production battery metal companies with good projects, is operating in an environment in which there are likely to be multiple "winners" that sign binding offtake agreements. Emerging global supply and demand imbalances for these critical battery metals indicates that many resource companies with a completed and publicly released positive Bankable Feasibility (or Definitive Feasibility) Study can potentially secure a binding offtake for their product/s.

<sup>44</sup> Australian Mines Limited, Update on Sconi Project Offtake Discussions, released 23 April 2021

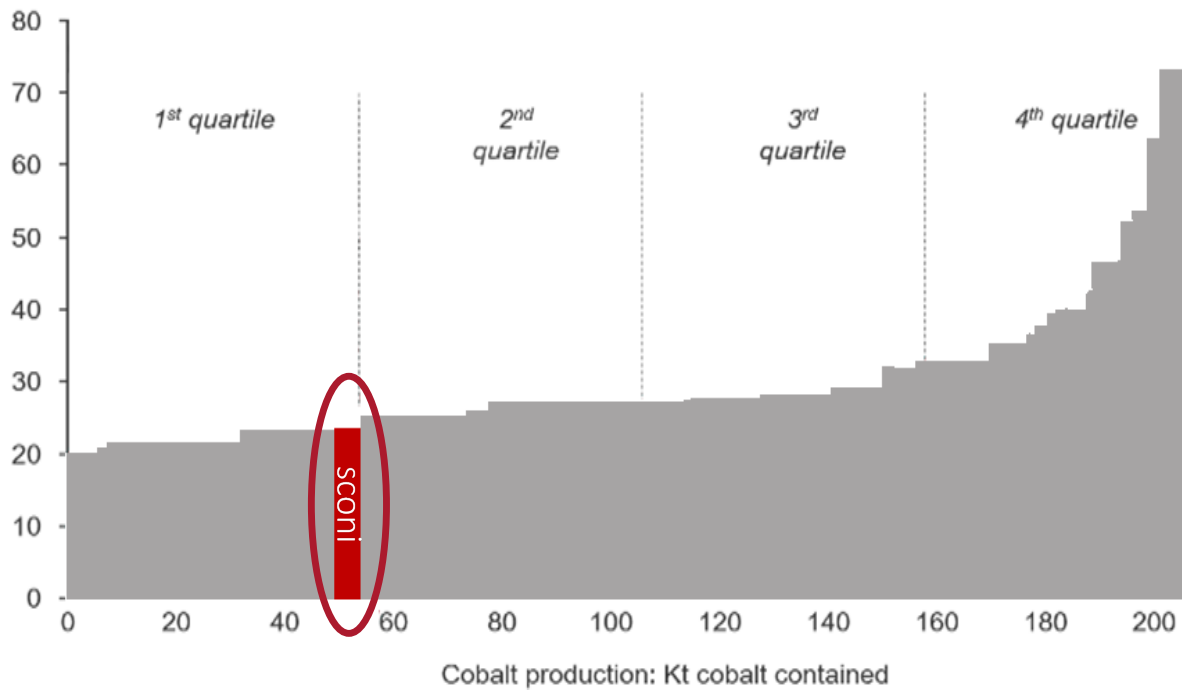
<sup>45</sup> Australian Mines Limited, Independent market study places Sconi in the 1<sup>st</sup> quartile of cost curve for global cobalt sulphate and nickel sulphate production, released 12 February 2019.

<sup>46</sup> Australian Mines Limited, Independent market study places Sconi in the 1<sup>st</sup> quartile of cost curve for global cobalt sulphate and nickel sulphate production, released 12 February 2019.

<sup>47</sup> Based on the outcomes of the financial modelling that was released in Australian Mines' base case Bankable Feasibility Study (BFS) – see Australian Mines' announcement titled BFS supports strong commercial case for developing Sconi, which was released via the ASX on 20 November 2018.

<sup>48</sup> Australian Mines Limited, Independent market study places Sconi in the 1<sup>st</sup> quartile of cost curve for global cobalt sulphate and nickel sulphate production, released 12 February 2019.





**Figure 5:** Pro rata cost curve of cobalt producers 2025, nominal USD per lb of cobalt.<sup>49</sup>

### Leadership in Technology Metals

Australian Mines recognised, early on, an acceleration of the global macro trend to transition from fossil fuels to renewable energy and the subsequent rapid growth of the electric vehicle (EV) and energy storage sectors.

In 2016, the Company commissioned researchers to undertake a detailed review of every significant nickel-cobalt project in the world and rank them against a range of parameters including: sovereign risk, size of resource, scale of potential operation, access to existing infrastructure and quality of the ore. Based on these parameters, the Sconi Project was ranked amongst the best in the world.

In 2017, Australian Mines made a strategic decision to purchase the Sconi Project from Metallica Minerals Limited<sup>50</sup>. The Sconi Project was acquired for \$10 million, and subsequent exploration and development work included a Bankable Feasibility Study (BFS), which projected a Net Present Value (NPV) of \$1.47 billion<sup>51</sup>.

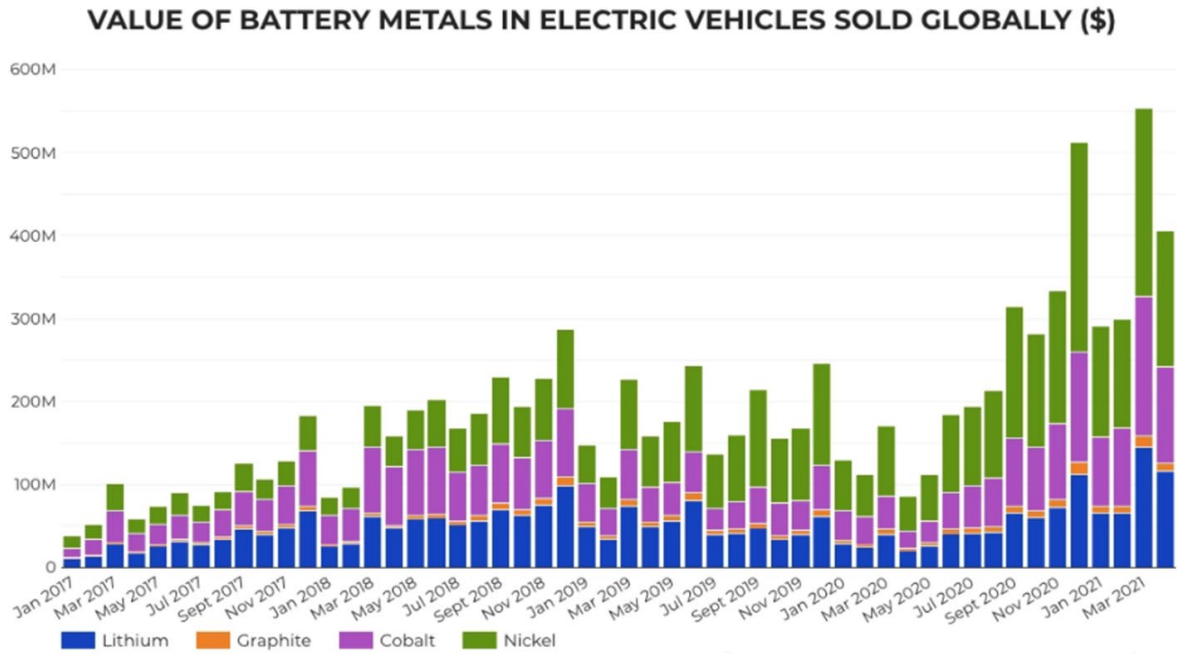
<sup>49</sup> Australian Mines Limited, Independent market study places Sconi in the 1<sup>st</sup> quartile of cost curve for global cobalt sulphate and nickel sulphate production, released 12 February 2019.

<sup>50</sup> Australian Mines Limited, Australian Mines completes Sconi Project transaction for 100% ownership, released 8 December 2017.

<sup>51</sup> Australian Mines Limited, Sconi to generate \$5 billion in free cashflow, released 13 June 2019

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed.

The Sconi project's profile as a cobalt-producing nickel operation means it is well positioned to capture significant value from supplying battery metals for use in electric vehicle batteries (see Figure 6 of this report).



**Figure 6:** Breakdown of the value of the metals contained within an electric vehicle battery. Note that values of the nickel and cobalt metal within a battery dwarf that of graphite and usually also exceed that of lithium (source: <https://www.mining.com/cobalt-price-rally-lifts-ev-metal-index-to-fresh-record-high/>).

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## Positive Bankable Feasibility Study supports Sconi's development

The Sconi Project's Bankable Feasibility Study (BFS), completed in 2018 and updated in 2019<sup>52</sup>, verified the nickel, cobalt (and scandium) ore body<sup>53</sup> at Sconi could be extracted and processed on commercially attractive terms through the development of open pit mining operations and an on-site processing plant.

### Key Findings<sup>54</sup> from the BFS, include:

- **Expected mine life of 30+ years**<sup>55</sup>
- **Mineral Resource tonnage exceeds 115 million tonnes**<sup>56</sup>
- **Contained metal quantities:**
  - **738,359 tonnes of nickel and 71,757 tonnes of cobalt**<sup>57</sup>
- **Life-of-Mine total revenue; A\$13.27 billion**<sup>58</sup>
- **Total free cash flow: A\$5 billion**<sup>59</sup>
- **NPV<sub>(8%)</sub>: A\$1.47 billion**<sup>60</sup>
- **Forecasted to be one of the most cost-competitive cobalt-producing nickel operations globally**<sup>61</sup>

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<sup>52</sup> Australian Mines Limited, Sconi to generate \$5 billion in free cashflow, released 13 June 2019.

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<sup>53</sup> See Appendix 2 of this report for full details of the Ore Reserve for the Sconi Project.

There has been no Material Change or Re-estimation of the Ore Reserve since this 13 June 2019 announcement by Australian Mines.

<sup>54</sup> Australian Mines Limited, Sconi to generate \$5 billion in free cashflow, released 13 June 2019.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed.

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<sup>56</sup> Australian Mines Limited, Australian Mines' Mineral Resource tonnage in Queensland exceeds 115 million tonnes, released 29 April 2019.

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<sup>57</sup> Australian Mines Limited, Australian Mines' Mineral Resource tonnage in Queensland exceeds 115 million tonnes, released 29 April 2019.

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<sup>61</sup> Australian Mines Limited, Study places Sconi as low-cost cobalt and nickel producer, released 12 February 2019.

Importantly, the Project's Mineral Resource<sup>62</sup> still remains open and there are at least 19 potential additional nickel/cobalt targets that require further drill testing to fully evaluate<sup>63</sup>.

However, with a current mine life of more than 30 years<sup>64</sup>, based on already defined resources, there would be minimal immediate benefit to spending additional capital to simply drill out the targets and expand the resource further.

Indicative conversations with potential offtake partners suggest that they are seeking agreements with terms up to 10 - 15 years, so a life of mine of 30 + years more than satisfies their criteria.

### **Track record of on-spec battery precursor material supply**

Australian Mines' proposed Sconi processing plant will utilise proven, industry-standard technology, which has been comprehensively tested over a number of years via the Company's demonstration-scale pilot plant in Perth, Western Australia.

Sample nickel sulphate and cobalt sulphate crystals produced from Sconi ore using the Company's pilot plant have been independently assessed by a range of potential offtake partners and found to meet their exacting standards<sup>65</sup> (see Figure 7 of this report).

Australian Mines, through its negotiations with potential offtake partners, gains insights into the requirements of the electric vehicle battery industry. As a result, the Company has built flexibility into the design of the proposed Sconi processing plant to ensure its output continues to meet the current requirements of our potential offtake partners and can be adapted to meet future evolutions in electric vehicle battery chemistry.

A clear example of the company's pilot plant design versatility is that the plant is now being used successfully to produce high value-add P-CAM<sup>66</sup> for NCM lithium-ion batteries as Australian Mines seeks to extract maximum value from the Sconi Project.

This move into P-CAM production is at the request of a number of potential industry partners and the results to date have been highly positive.

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<sup>62</sup> See Appendix 3 of this report for full details of the Mineral Resource for the Sconi Project.

There has been no Material Change or Re-estimation of the Ore Reserve since this 21 October 2019 announcement by Australian Mines.

<sup>63</sup> Australian Mines Limited, Additional nickel and cobalt targets identified at Sconi Project, North Queensland, released 15 May 2020.

<sup>64</sup> Australian Mines Limited, Sconi to generate \$5 billion in free cashflow, released 13 June 2019.

Australian Mines confirms in the subsequent public report that all the material assumptions underpinning the forecast financial information derived from a production target, in the initial public report referred to in rule 5.17 continues to apply and have not materially changed.

<sup>65</sup> Based on internal company correspondence from a range of battery chemical manufacturers, EV battery makers and automotive companies who have received (and subsequently analysed) samples from Australian Mines. Australian Mines currently has NDAs with each of these parties.

<sup>66</sup> Australian Mines Limited, Precursor cathode active material production from a single source continues to be demonstrated at Sconi Project, North Queensland, released 29 January 2021

Australian Mines successfully produced P-CAM for NCM523 and NCM622 lithium-ion batteries during 2020<sup>67</sup> and has completed a successful a series of production runs of P-CAM for NCM811 lithium-ion batteries in 2021<sup>68</sup>.

Further production of P-CAM is currently underway, including the production of cutting-edge NCM 90/05/05 P-CAM and a lithiated NCM CAM (cathode active material) as the Company seeks to finalise its offtake discussions with interested partners.



**Figure 7:** Collage of photographs taken of Australian Mines' demonstration scale processing plant in Western Australia, including images of the final cobalt sulphate (pink) and nickel sulphate (blue/green) and the intermediate mixed sulphide precipitate (MSP; black), which are routinely being produced.

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<sup>67</sup> Australian Mines Limited, Precursor cathode active material production from a single source continues to be demonstrated at Sconi Project, North Queensland, released 29 January 2021

<sup>68</sup> Australian Mines Limited, Precursor cathode active material production from a single source continues to be demonstrated at Sconi Project, North Queensland, released 29 January 2021

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## Offtake negotiations advancing

As reported by Australian Mines on 23 April 2021<sup>69</sup>, Australian Mines confirms that it continues to progress offtake negotiations for the Sconi Project with a range of potential partners, including global car and battery manufacturers. These discussions remain incomplete and confidential. As such, Australian Mines will only be in a position to make an announcement to the market upon conclusion of the ongoing offtake discussions, when it is expected the Company will have entered into a binding offtake agreement.

The Company can, however, reconfirm its expectation of entering into an offtake agreement in relation to the Sconi Project during calendar year 2021, as outlined in Australian Mines' Quarterly Activities Report for the period ended 31 December 2020.

## Project financing discussions continuing

As previously outlined by the Company via its December 2020 Quarterly Activities Report<sup>70</sup>, Australian Mines continues to engage with a range of project financiers including various credit export agencies, green energy funds, commercial banks, mezzanine financiers and international banks (for both debt and equity).

These engagements are covered by Non-Disclosure Agreements and any advancement of those discussions will be disclosed via the ASX's Market Announcements Platform in line with Australian Mines' continuous disclosure obligations.

The Company reiterates that interest in financing the Sconi Project has been maintained since the publication of the Bankable Feasibility Study in 2018-19<sup>71,72</sup> and that any project finance package is contingent on Australian Mines entering into binding offtake agreement/s for the supply of nickel and/or cobalt products.

## Unlocking new potential value drivers at Sconi

During the quarter, Australian Mines continued to advance its scandium-aluminium alloys research and development program with Deakin University's *Institute for Frontier Materials*<sup>73</sup>.

This program, known as the *Optimising of Scandium Containing Aluminum Alloys Project*, is designed to develop new alloys, which may have the potential to improve the performance of industrial processes within the energy and materials industries.

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<sup>69</sup> Australian Mines Limited, Update on Sconi Project Offtake Discussions, released 23 April 2021.

<sup>70</sup> Australian Mines Limited, Quarterly Activities Report for the period ended 31 December 2020, released 29 January 2021.

<sup>71</sup> Australian Mines Limited, Bankable Feasibility Study Announcement, released 20 November 2019.

<sup>72</sup> Australian Mines Limited, Sconi to generate \$5 billion in free cashflow over 30-year mine life, released 13 June 2019.

<sup>73</sup> Australian Mines Limited, Australian Mines' scandium-aluminum project with Deakin University moves to commercial trials, released 25 June 2021

The positive results from this research project warranted the project progressing to the second phase during the June quarter, which includes commercial trials<sup>74</sup>.

The objective of the second phase is to secure patent protection on any successful trial alloys, where Australian Mines will retain 100% ownership of any, and all, resulting intellectual property.

This second phase of the research is expected to run for nine months and is supported by a \$50,000 Grant through the Department of Industry, Science, Energy and Resources' Entrepreneurs' Programme – Innovation Connections<sup>75</sup> and \$56,000 in funding through Australian Mines.

If successful, this project will further enhance the commercial potential of Australian Mines' Sconi Project given that the current Bankable Feasibility Study for the Sconi Project does not factor in any revenue from scandium sales<sup>76</sup>.

The Australian and USA Governments as well as the European Union recently classified scandium as a 'critical commodity', which has highlighted the Sconi Project as a potential source of high purity scandium.

Australian Mines has been selling scandium oxide to interested parties since 2018 and the Company will continue to offer scandium oxide for sale in 2021 at highly competitive prices<sup>77</sup>.

### **AML Advanced Materials Limited**

Australian Mines established the AML Advanced Materials Limited subsidiary (amlam) to focus on leading edge research and development for the electric vehicle and broader energy sector.

The early-stage, preliminary results of amlam's research are highly encouraging and more detailed information on will be made available when the appropriate patent protections are in place.

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<sup>74</sup> Australian Mines Limited, Australian Mines' scandium-aluminium project with Deakin University moves to commercial trials, released 25 June 2021

<sup>75</sup> Australian Mines' scandium-aluminium project with Deakin University moves to commercial trials, released 25 June 2021

<sup>76</sup> Australian Mines Limited, Sconi to generate \$5 billion in free cashflow, released 13 June 2019.

<sup>77</sup> As stated in Australian Mines' Quarterly Activities Report for the period ended 31 December 2020 (released 29 January 2021), in order to protect the Company's emerging customer base for scandium oxide and given that the value of the individual sales to date is below the Company's reporting threshold, Australian Mines does not intend to make public the names of its scandium oxide customers or the exact selling price of its scandium oxide. However, we reiterate that the sales price of its scandium oxide is less than half the US\$1500 per kilogram that the Company has observed being quoted in the economic models of others seeking to operate in this space.

## Flemington Project, New South Wales

Australian Mines' 100%-owned Flemington Project is located approximately 370 kilometres west of Sydney in New South Wales, Australia (see Figure 8 of this report).

This project hosts a Mineral Resource of 2.5 million tonnes at 0.103% cobalt and 403ppm scandium in the Measured category and 0.2 million tonnes at 0.076% cobalt and 408ppm scandium in the Indicated category<sup>78</sup>.

### Highlights

- **Up to 3.90 g/t gold returned from rock chips at copper-gold target<sup>79</sup>**
- **Drill testing of new porphyry copper-gold target scheduled for August 2021**
- **Cobalt-scandium-nickel mineralisation remains open along strike of existing resource**

Australian Mines initiated plans to undertake a reverse circulation (RC) drill program over new porphyry copper-gold target at Flemington, Target 1, in the September 2021 quarter (see Figure 12 of this report).

Preparations for this drill program commenced in the quarter under review and included a field reconnaissance team collecting rock chip samples with assays that had strong gold values of up to 3.9g/t<sup>80</sup>.

Assay results from the rock chips also returned weakly anomalous copper and molybdenum from three composite samples of vein quartz from the old northern workings<sup>81</sup> (see Figure 12 of this report).

In addition, one sample of vein quartz from the southern working (see Figure 12 of this report) over Target 1 recorded weakly elevated copper as well as low-order gold (0.41g/t) assay results<sup>82</sup> (see Table 4 of this report).

The positive assay results give additional support to the potential for copper-gold mineralisation in this area.

The drill testing program at Flemington has been delayed by six weeks and will commence in late August 2021 (see Figure 8 of this report) due to a delay in accessing the drill rig caused by an extension of the exploration program it is currently working on.

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<sup>78</sup> The Company is not aware of any new information or data that materially affects the information included in the market announcement released by the Company on 31 October 2017 in respect of the Flemington Project and all material assumptions and technical parameters underpinning the Mineral Resource estimates in that announcement continue to apply and have not materially changed.

<sup>79</sup> Australian Mines Limited, Gold returned from rock chip sampling over copper-gold target at Flemington Project, New South Wales, released 24 June 2021.

<sup>80</sup> Australian Mines Limited, Gold returned from rock chip sampling over copper-gold target at Flemington Project, New South Wales, released 24 June 2021.

<sup>81</sup> Australian Mines Limited, Gold returned from rock chip sampling over copper-gold target at Flemington Project, New South Wales, released 24 June 2021.

<sup>82</sup> Australian Mines Limited, Gold returned from rock chip sampling over copper-gold target at Flemington Project, New South Wales, released 24 June 2021.

The drill program is estimated to take two weeks to complete, with assay results anticipated to take a further 10 weeks. The results of the program are, therefore, expected to be available by early December 2021.

The Company is also currently undertaking a machine learning study incorporating ground truthing and surface sampling programs over the greater Flemington project area. The expectation is this study will confirm the presence of additional copper-gold exploration targets at Flemington.

The drill testing of the new porphyry copper-gold target at Flemington during the September 2021 quarter follows a ground-based Induced Polarisation (IP) geophysical survey at the project<sup>83</sup> during the reporting period (see Figure 10 of this report). This survey returned a distinct chargeability anomaly<sup>84</sup> in the north-east of the survey area, labelled Target 1 (see Figure 11 and Figure 12 of this report).

Modelling of this IP anomaly suggests that the source extends from near surface to depth and may represent potential sulphide mineralisation<sup>85</sup>.

IP surveys are one of the preferred geophysical methods used by companies operating across the Lachlan Transverse Zone because of their efficacy in highlighting potential mineralisation as well as any alteration envelopes surrounding copper-gold deposits.

IP was successfully used to delineate initial targets in several Lachlan Transverse Zone mining projects, including Cadia East.<sup>86</sup> (see Table 1 of this report).

Target 1 appears analogous to copper-gold discoveries across the Lachlan Transverse Zone of New South Wales<sup>87</sup>, which contains the geological terrain that hosts Australian Mines' Flemington Project (see Figure 9 of this report). The Lachlan Transverse Zone hosts some of New South Wales' largest producing copper and gold mines including Newcrest's Cadia Mine and the Northparkes mine.

Australian Mines, therefore, considers Target 1 to be highly significant, particularly given that this anomaly appears to coincide with a large quartz hornblende monzonite outcrop. For reference the host geology of CMOC's Northparkes copper-gold deposit is a quartz hornblende monzonite.<sup>88</sup> (see Table 2 of this report)

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<sup>83</sup> Australian Mines Limited, Geophysical survey commenced over porphyry copper-gold target at Flemington Project, New South Wales, released 6 April 2021.

<sup>84</sup> Australian Mines Limited, Geophysical survey identifies porphyry copper-gold target at Flemington Project, New South Wales, released 7 June 2021

<sup>85</sup> Australian Mines Limited, Geophysical survey identifies porphyry copper-gold target at Flemington Project, New South Wales, released 7 June 2021

<sup>86</sup> <https://link.springer.com/article/10.1007/s00126-001-0233-8>

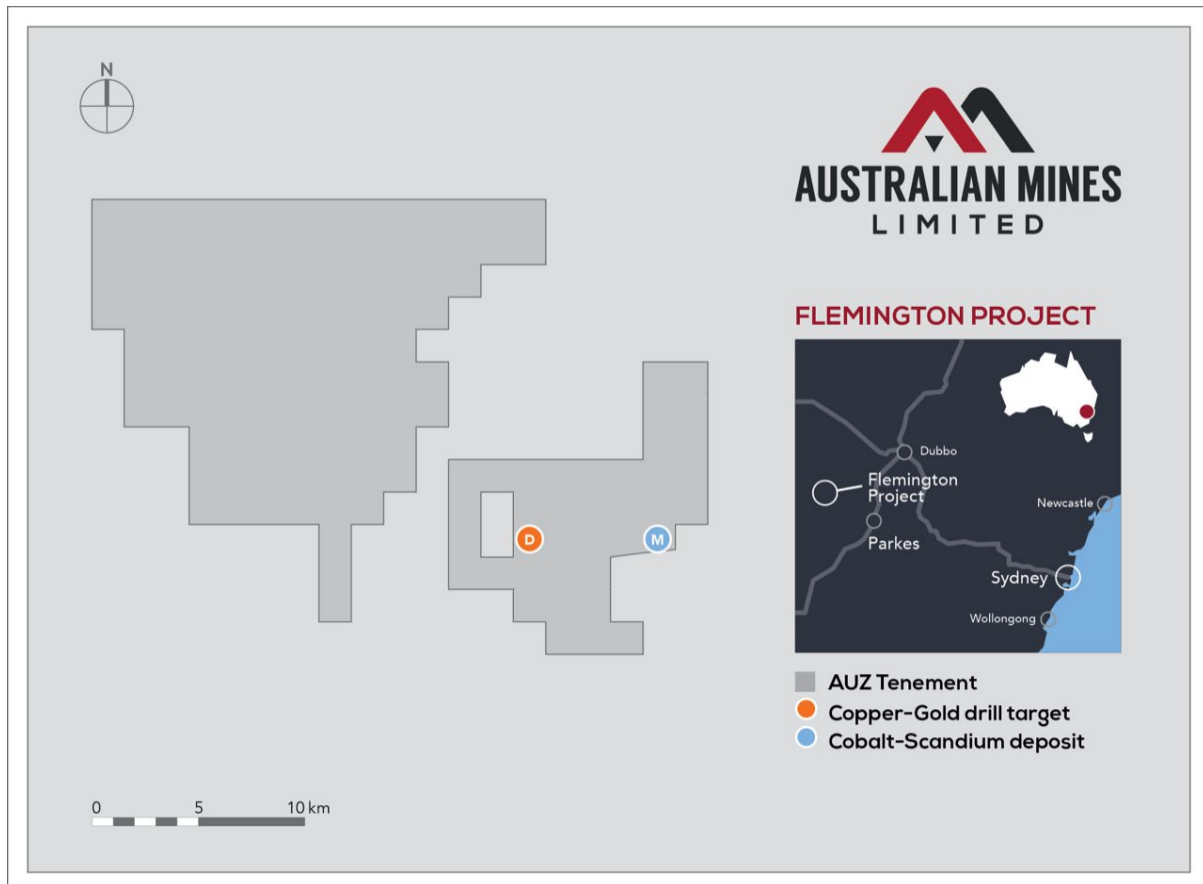
<sup>87</sup> Alkane Resources Gold-Copper Mineralisation at Boda Prospect

[http://investors.alkane.com.au/site/PDF/2491\\_0/DiscoverSignificantPorphyryAuCuMineralisationatBoda](http://investors.alkane.com.au/site/PDF/2491_0/DiscoverSignificantPorphyryAuCuMineralisationatBoda)

<sup>88</sup> <https://smedg.org.au/wp-content/uploads/2015/05/Lyeab.pdf>

The independent review of the Flemington Project that identified new gold and copper targets for follow-up exploration<sup>89</sup> (see Figure 8 of this report) was prompted by the resource expansion drilling program at Flemington<sup>90</sup> in late 2019.

The resulting assays<sup>91</sup> from the resource expansion program indicated the cobalt-scandium-nickel mineralisation at Flemington potentially remains open to the west and north of the existing cobalt-scandium deposit (see Figure 8 of this report) and in addition Australian Mines' exploration team also observed copper mineralisation<sup>92</sup>.



**Figure 8:** Australian Mines' 100%-owned Flemington Project is located approximately 370 kilometres west of Sydney in New South Wales, Australia. A drill testing program over the porphyry copper-gold target (labelled D in this figure) is scheduled for August 2021<sup>93</sup>.

<sup>89</sup> Australian Mines Limited, Additional targets identified at Flemington Project, NSW, released 23 June 2020.

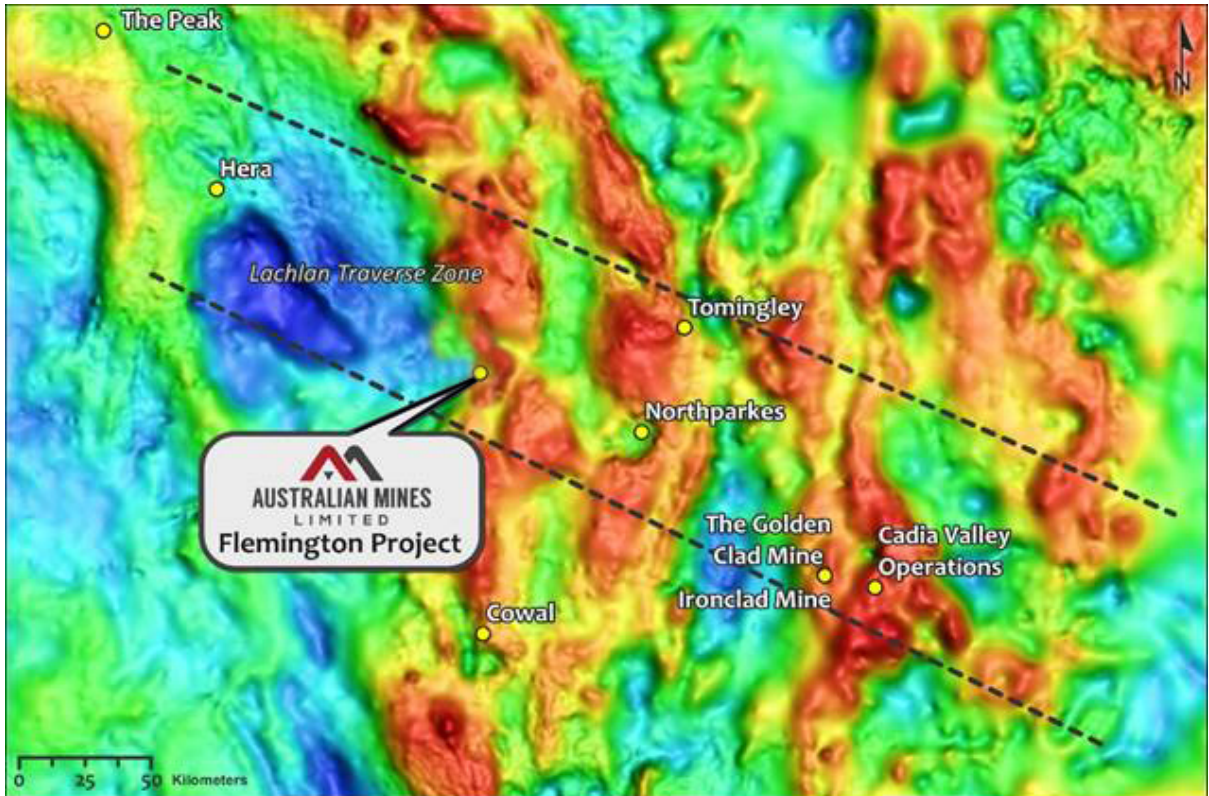
<sup>90</sup> Australian Mines Limited, Resource extension drilling commences at Flemington project, released 2 October 2019.

<sup>91</sup> Australian Mines Limited, Additional targets identified at Flemington Project, NSW, released 23 June 2020.

<sup>92</sup> Australian Mines Limited, Quarterly Activities Report for period ended 30 September 2019, released 23 October 2019.

<sup>93</sup> Mineral Resource of 2.5 million tonnes at 0.103% cobalt and 403ppm scandium in the Measured category and 0.2 million tonnes at 0.076% cobalt and 408ppm scandium in the Indicated category. The Company is not aware of any new information or data that materially affects the information included in the market announcement released by the Company on 31 October 2017 in respect of the Flemington Project and all material assumptions and technical parameters underpinning the Mineral Resource estimates in that announcement continue to apply and have not materially changed.



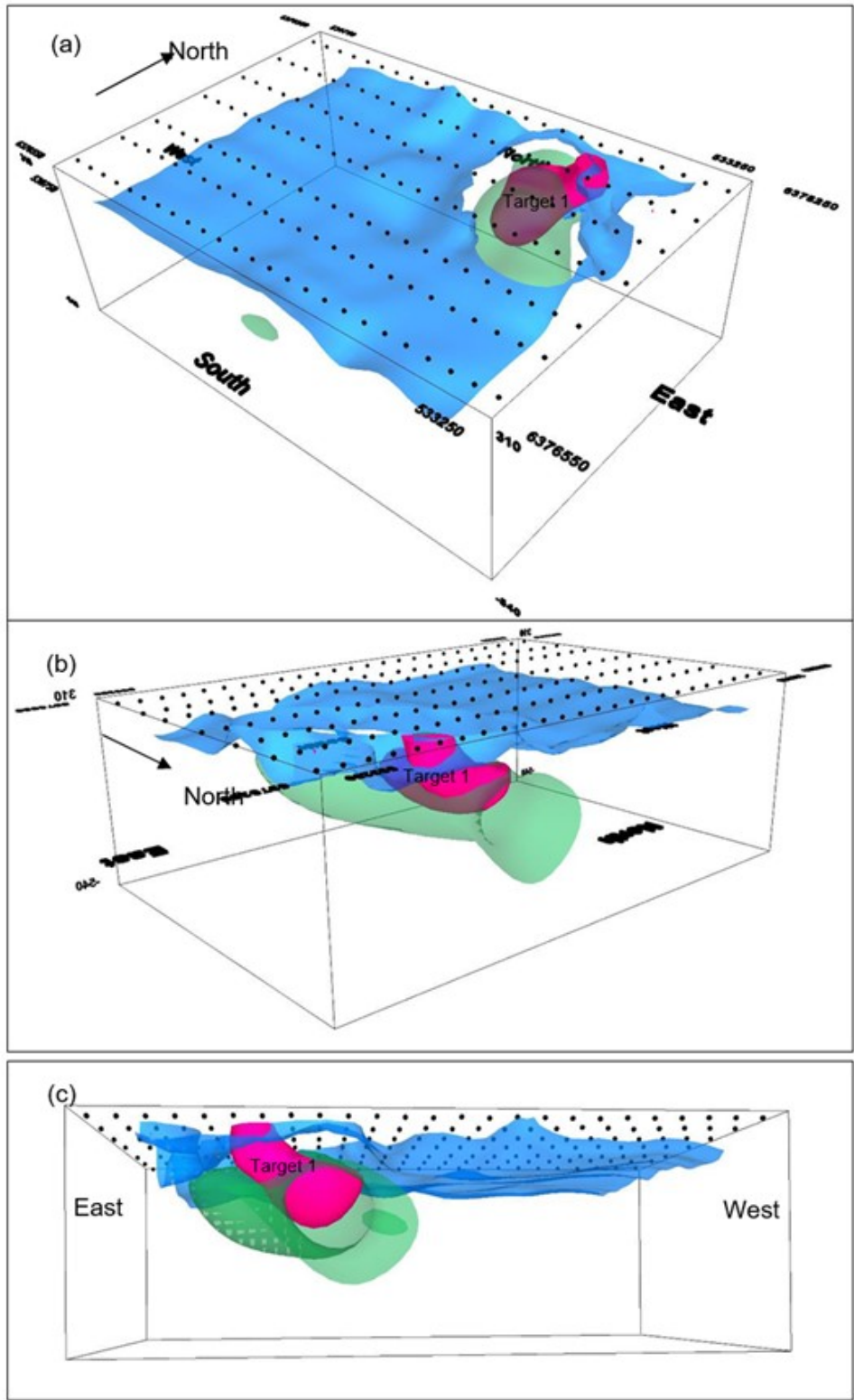


**Figure 9:** Australian Mines' 100%-owned Flemington Project is located within the Lachlan Traverse Zone (as bounded by the black dashed lines in this figure), which hosts a number of world-class copper-gold deposits.



**Figure 10:** Survey lines of Australian Mines' Induced Polarisation (IP) survey overlain on aerial photo with outline of main drainage channels shown.

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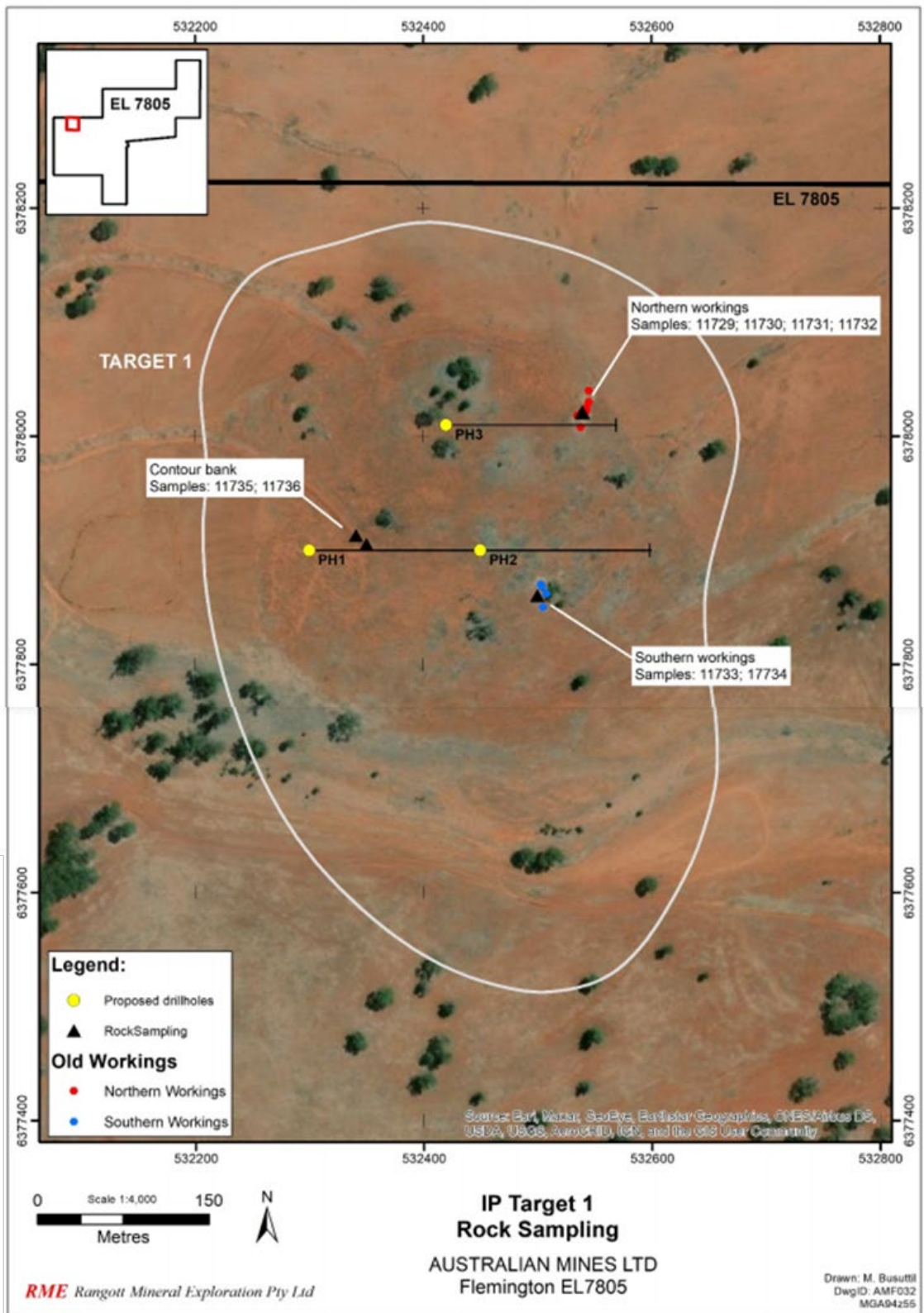


**Figure 11:** Perspective views of iso-shells created from the Flemington Induced Polarisation (IP) 3D inversion models. Chargeability shell (14 mV/V) shown in pink. Low resistivity (100 Ωm) surface layer shown in blue and higher resistivity (2000 Ohm.m) zone in green. Views are from (a) the south-east, (b) the north-east, and (c) from the north and below surface<sup>94</sup>.

<sup>94</sup> Australian Mines Limited, Geophysical survey identifies porphyry copper-gold target at Flemington Project, New South Wales, released 7 June 2021



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**Figure 12:** Rock chip sampling location map and induced polarisation (IP) chargeability anomaly (outlined in white) at Australian Mines 100%-owned Flemington Project in New South Wales<sup>95</sup>.

<sup>95</sup> Australian Mines Limited, Gold returned from rock chip sampling over copper-gold target at Flemington Project, New South Wales, released 24 June 2021.

**Table 1:** A summary of important geophysical methods used on projects in the Lachlan Orogen.<sup>96</sup>

Company	Deposit	Critical Methods Used
Alkane Resources	Northern Molong Porphyry Project (Boda Prospect)	Induced Polarisation
Newcrest Mining	Cadia East Mine	Magnetics, Induced Polarisation
CMOC-Northparkes Mines	Northparkes Mine	Magnetics, Induced Polarisation
Regis Resources	McPhillamys Project	Induced Polarisation

**Table 2:** Age and intrusion rock types at various Lachlan Transverse Zone porphyries.<sup>97</sup>

Name	Age	Rock Type
Northparkes	Mid-Late Ordovician	Monzonite, volcanic conglomerate, distinctly shoshonic
Ridgeway	Late Ordovician	Monzodiorite, monzonite, volcanics
Cadia	Late Ordovician	Shoshonic intrusions, monzonites
Cadia Extended	Late Ordovician	Monzonite
Endeavour 41 West	Mid-Late Ordovician	Monzonite, diorite, volcanics
Cowal	Ordovician	Shoshonic volcanics, intruded by diorites and granodiorites

<sup>96</sup> Apex Geoscience Australia Pty Ltd, Flemington Project Area Porphyry-Style Potential, dated 7 May 2020 (internal report commissioned by Australian Mines Limited).

<sup>97</sup> Apex Geoscience Australia Pty Ltd, Flemington Project Area Porphyry-Style Potential, dated 7 May 2020 (internal report commissioned by Australian Mines Limited).

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## Lennard Project, Western Australia

Australian Mines' Lennard tenement is a prospective nickel-copper-platinum group elements (PGE) project located within Western Australia's Kimberley region.

### Highlights

- **Native title and land access agreement signed**<sup>98</sup>
- **Machine learning, artificial intelligence (AI) study completed**<sup>99</sup>
- **Areas of higher mineral prospectivity identified for future exploration**<sup>100</sup>
- **Airborne electromagnetic (AEM) survey scheduled for September 2021**

Australian Mines advised during the quarter that the native title process has now successfully completed in relation to the Company's 100%-owned Lennard Project in Western Australia's Kimberley region<sup>101</sup> (see Figure 13 of this report).

In addition, an Australian Mines machine learning, artificial intelligence (AI) study over Lennard; utilising publicly available remote sensing (Landsat), magnetic and radiometric data; has identified areas with higher mineral prospectively<sup>102</sup>.

These areas will be the focus of an Airborne electromagnetic (AEM) survey targeting bedrock-hosted conductors that may represent nickel-copper sulphide mineralisation, due to commence in September 2021.

The data acquisition phase of the AEM survey is estimated to take two weeks to complete, subject to favourable weather conditions.

It is then expected to take six weeks for final AEM dataset to be available for modelling and interpretation and a further four weeks for the results of the AEM to be made available.

The final results of the AEM are expected in December 2021.

The AEM survey results will be overlaid with detailed geological mapping and surface geochemical sampling programs and any resulting anomalies will be scheduled for drill testing.

The Lennard Project immediately adjoins Chalice Mining's Hawkstone Project<sup>103</sup> and Independence Group's (IGO) West Kimberley Joint Venture<sup>104</sup>.

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<sup>98</sup> Australian Mines Limited, Advanced machine learning identifies nickel sulphide exploration targets at new Lennard Project, Western Australia, released 28 June 2021.

<sup>99</sup> Australian Mines Limited, Advanced machine learning identifies nickel sulphide exploration targets at new Lennard Project, Western Australia, released 28 June 2021.

<sup>100</sup> Australian Mines Limited, Advanced machine learning identifies nickel sulphide exploration targets at new Lennard Project, Western Australia, released 28 June 2021.

<sup>101</sup> Australian Mines Limited, Advanced machine learning identifies nickel sulphide exploration targets at new Lennard Project, Western Australia, released 28 June 2021.

<sup>102</sup> Australian Mines Limited, Advanced machine learning identifies nickel sulphide exploration targets at new Lennard Project, Western Australia, released 28 June 2021.

<sup>103</sup> <https://chalicemining.com/project/hawkstone-nickel-copper-cobalt-project>

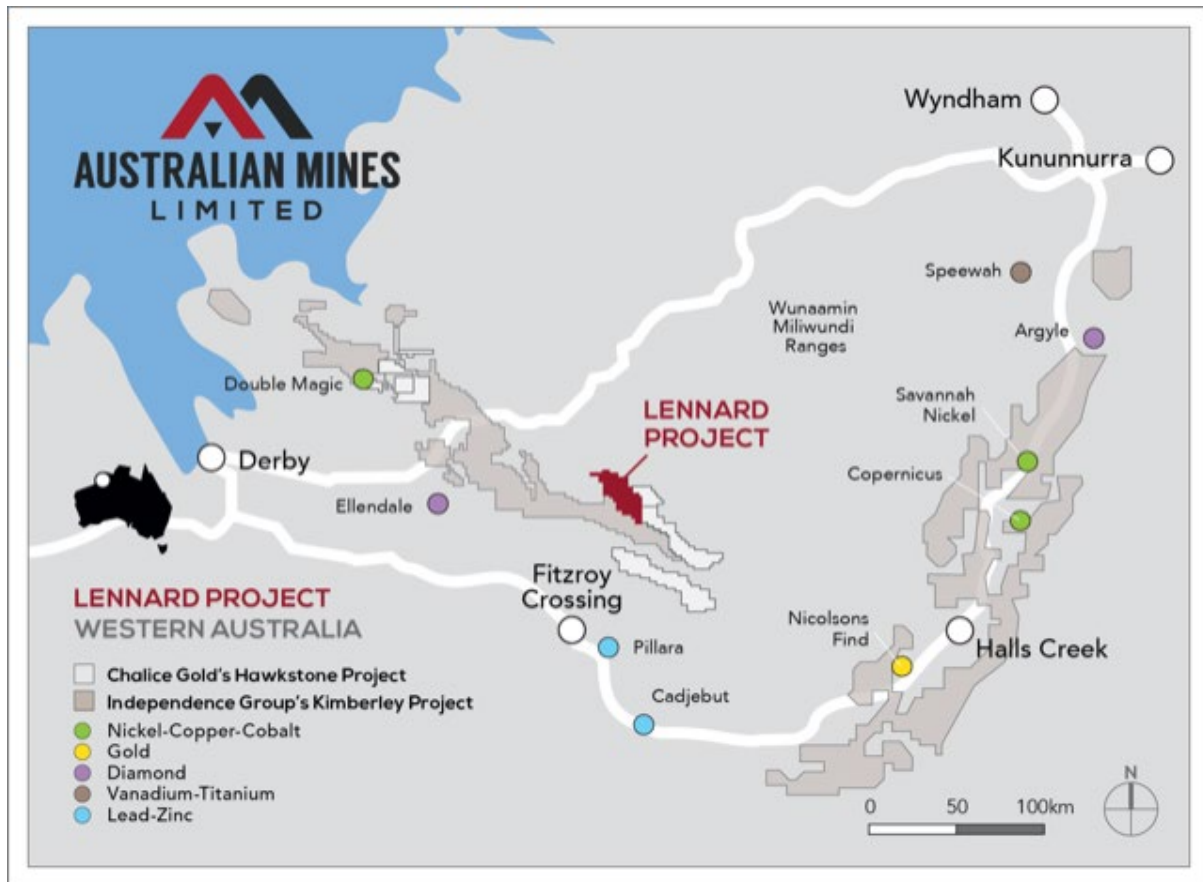
<sup>104</sup> <https://www.igo.com.au/site/exploration/strategy>;

<https://www.asx.com.au/asxpdf/20200128/pdf/44dkdbt7v02438.pdf>



Chalice and IGO are both targeting intrusive nickel-copper sulphide mineralisation.

The geological setting at the Company's Lennard Project is similar to Independence Group's Nova Nickel-Cobalt-Copper operation in the Fraser Range of Western Australia and the more recent Julimar Nickel-Copper-Platinum discovery operated by Chalice, northeast of Perth<sup>105</sup>.



**Figure 13:** Australian Mines Lennard Project in Western Australia's Kimberley region adjoins Independence Group's West Kimberly Joint Venture and Chalice Mining's Hawkstone Project who (like Australian Mines) are targeting magmatic nickel-copper sulphide mineralisation across this emerging nickel belt.<sup>106</sup>

### Broken Hill Project, New South Wales

Australian Mines' Broken Hill Project is located along strike of, and has the same interpreted geology as, the supergiant lead-zinc-silver orebody at Broken Hill (See Figure 14).

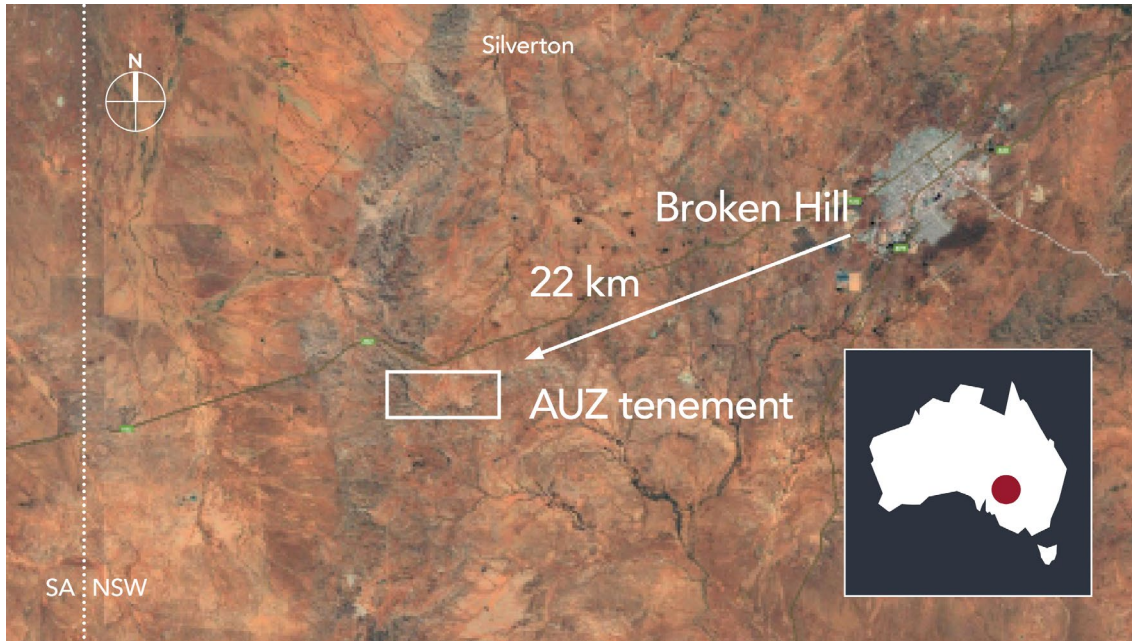
During the June 2021 Quarter Australian Mines completed its early-stage exploration program at Broken Hill with a five-hole follow-up reverse circulation (RC) drilling program covering the Alpha 1 and Alpha 5 targets. (See Figure 15 of this report). The Company has now received

<sup>105</sup> Australian Mines Limited, Advanced machine learning identifies nickel sulphide exploration targets at new Lennard Project, Western Australia, released 28 June 2021.

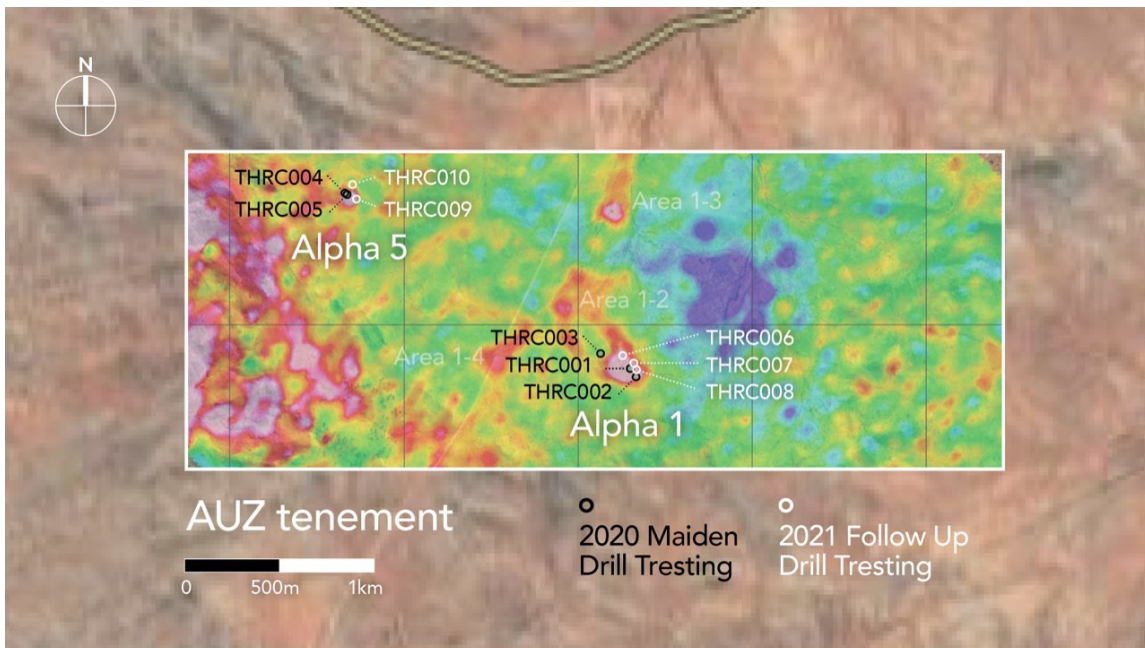
<sup>106</sup> <https://chalicemining.com/project/hawkstone-nickel-copper-cobalt-project> ; <https://www.igo.com.au/site/exploration/kimberley-project>

the results of the follow up drill program, which are discussed in detail in Appendix 8 of this report.

Now that the early-stage exploration program at Broken Hill has concluded, additional exploration work is not being planned for this project at this time as Australian Mines focusses on progressing the current exploration programs at the Flemington and Lennard projects to a successful conclusion.



**Figure 14:** Australian Mines' Broken Hill Project is located along strike of, and has the same interpreted geology as, the nearby supergiant Broken Hill lead-zinc-silver deposit.



**Figure 15:** Drill testing collar locations at the Broken Hill project relative to the anomalies interpreted from the Company's airborne electromagnetic survey data.

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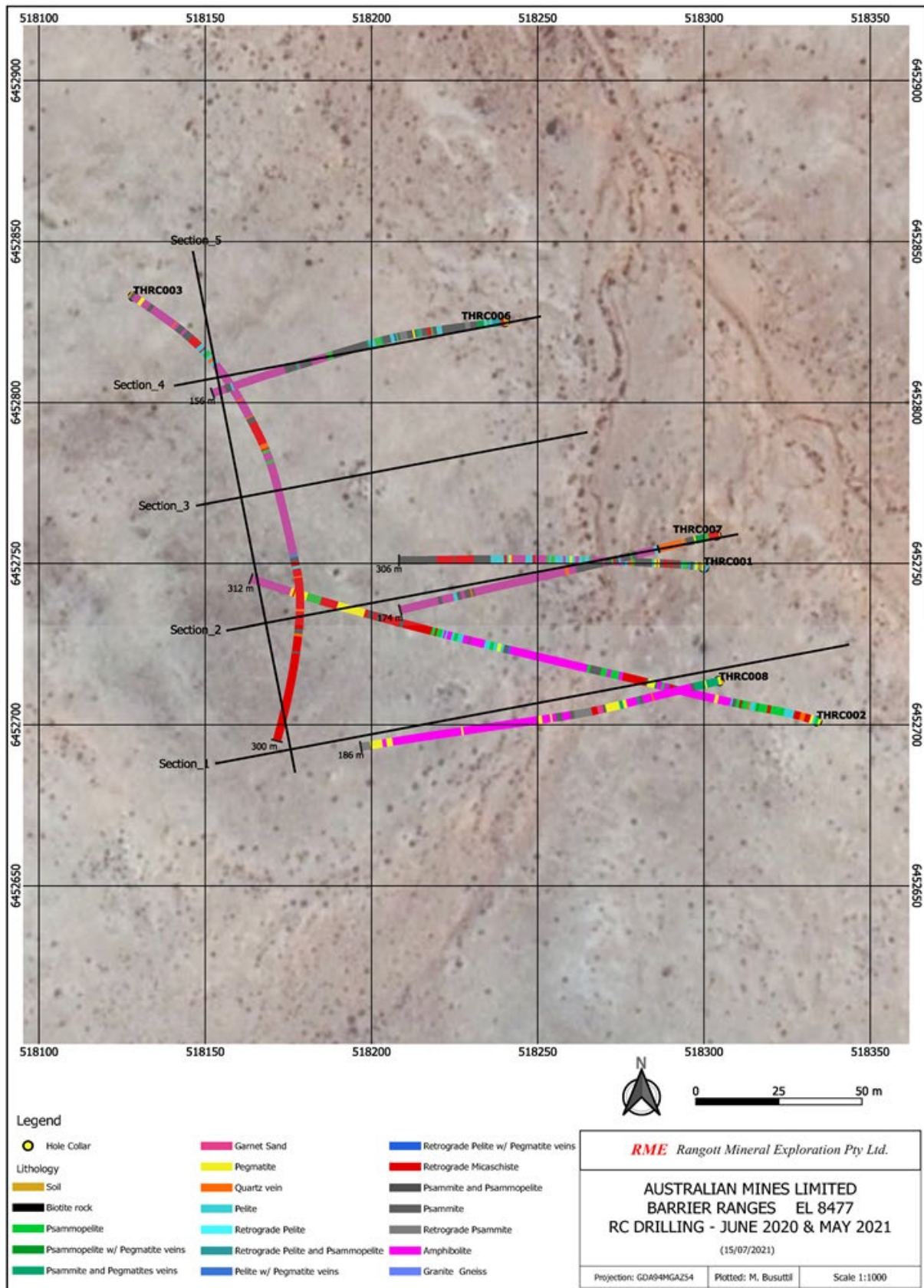
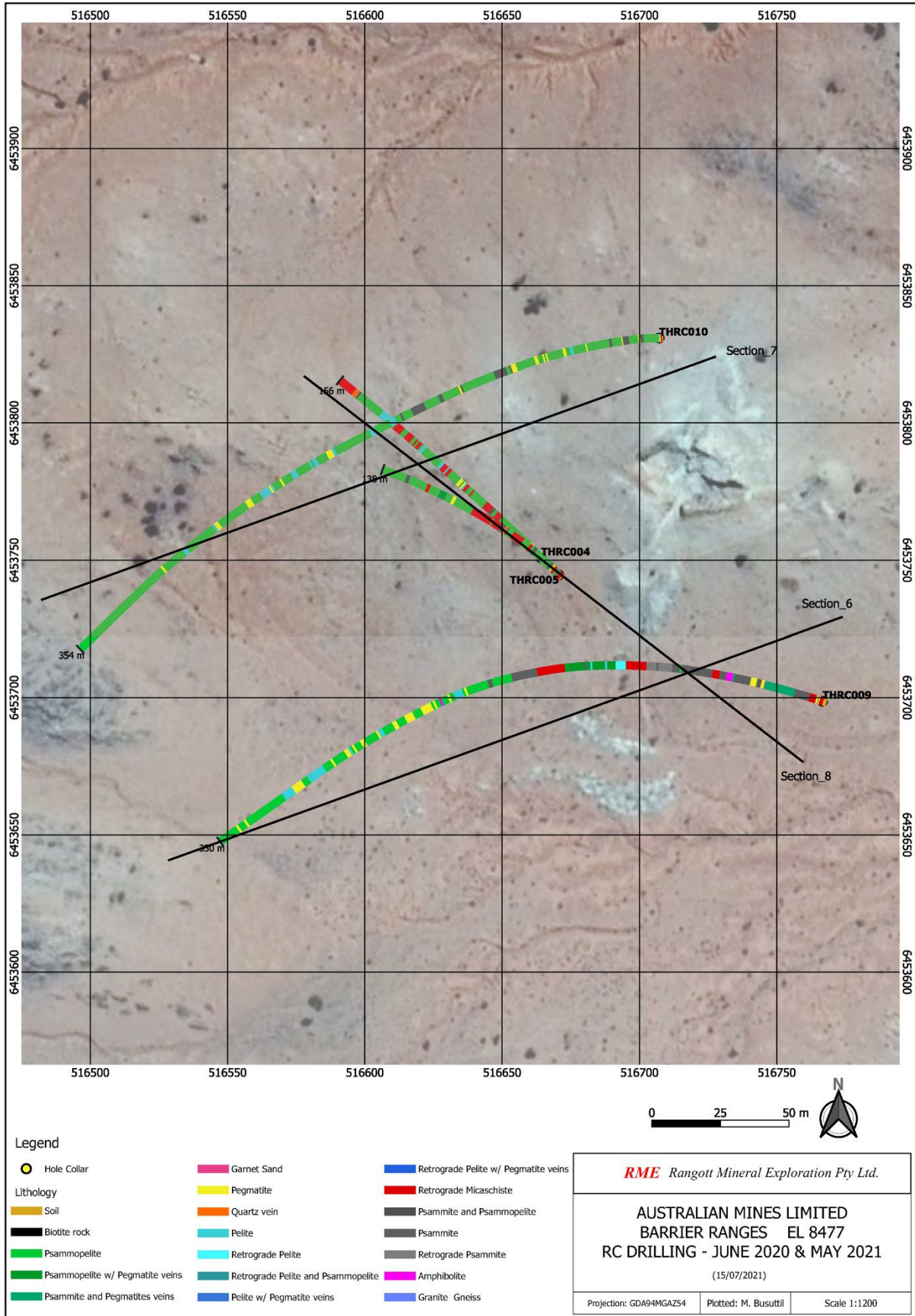


Figure 16: Drill trace images and lithology from the maiden and follow-up drill testing programs at the Alpha 1 anomaly at the Broken Hill Project.

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**Figure 17:** Drill trace images and lithology from the maiden and follow-up drill testing programs at the Alpha 5 anomaly at the Broken Hill Project.

## Distribution of Norwest Minerals Limited Shares

### Completed on 6 April 2021

At the Company's General Meeting on 23 March 2021, shareholders approved<sup>107</sup> a capital return via an in-specie distribution of its remaining shareholding in Norwest Minerals Limited (ASX: NWM).

The distribution of Norwest Minerals shares to eligible Australian Mines shareholders was completed in April 2021<sup>108</sup>.

The Company was unable to distribute Norwest Minerals shares to ineligible Australian Mines shareholders where an unmarketable parcel would have been created. As set out in the General Meeting documentation, the Company pooled the unmarketable parcel shares for sale.

The sales process was completed during the quarter at an average price of \$0.085 per Norwest Minerals share. Australian Mines is now finalising the process of distributing the net proceeds of the sale to those ineligible shareholders.

ENDS

For more information, please contact:

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*Authorised for release by the Managing Director & Chief Executive Officer*



Australian Mines is a member of IRMA, the Initiative for Responsible Mining Assurance. This means we are participating in, and supporting, credible independent third-party verification and certification against a comprehensive best-practice standard that addresses the range of environmental and social issues related to industrial-scale mines.

Additionally, Australian Mines supports the vision of a world where the mining industry respects the human rights and aspirations of affected communities, provides safe, healthy and supportive workplaces, minimises harm to the environment, and leaves positive legacies.

<sup>107</sup> Australian Mines Limited, Distribution of Norwest Minerals Limited shares, released 7 April 2021.

<sup>108</sup> Australian Mines Limited, Distribution of Norwest Minerals Limited shares, released 7 April 2021.



## Appendix 1: Summary of Expenditure

	Total as per Cashflow Appendix 5B	Sconi Project	Flemington Project	Broken Hill Project	Australian Mines
Exploration & Evaluation	300,327	102,941	22,621	174,765	0
Development	449,409	0	0	0	449,409
<b>Total</b>	<b>749,736</b>	<b>102,941</b>	<b>22,621</b>	<b>174,765</b>	<b>449,409</b>

**Table A1-1:** Project development, exploration and evaluation expenditure (in Australian dollars) by Australian Mines for the period ended 30 June 2021.

The aggregate payments to related parties and their associates for the reporting period under item 6.1 of the Company's accompanying Appendix 5B (Quarterly Cashflow Report) was \$254,000 which constitutes director fees, salaries and superannuation. This figure is slightly higher than the previous quarter due to the Company's Managing Director cashing out some leave entitlements during the reporting period.

An amount of \$32,000 is also shown in item 6.2 of the Company's accompanying Appendix 5B for this period. This figure does not reflect a payment to any related party and their associates but is, instead, simply a partial allocation of an executive director's salary to "exploration & evaluation" within Australian Mines' accounts for working closely on some specific exploration activities during the reporting period.

No consulting fees were paid to any related parties or their associates during the quarter.

Similarly, no payments in any form (except for the standard director fees, salaries, and superannuation) were paid to any related party of Australian Mines or their associates during this reporting period.

The administration and corporate costs shown in item 1.2 of Australian Mines' accompanying Appendix 5B for the period ended 31 March 2021 represent the general costs associated with operating a publicly listed entity, including (but not limited to): ASX listing and share settlement fees; share registry fees and charges; legal and accounting fees; preparation and distribution of the Company's March 2021 Notice of General Meeting to shareholders, and the undertaking of the Meeting thereof; and office rents and services.

As indicated by its accompanying Appendix 5B, Australian Mines' operations (ex. Sconi plant construction) are fully funded into the 2023 calendar year, thus enabling the Company to continue to advance its projects and research at levels consistent with preceding years.

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## Appendix 2: Sconi Project Ore Reserve Estimate

Classification	Pit	Ore (Million tonnes)	Nickel (%)	Cobalt (%)	Scandium (ppm)
Proved	Greenvale	4.49	0.83	0.07	36
	Kokomo	1.52	0.72	0.15	58
	Lucknow	2.07	0.47	0.09	51
	<b>Sub-total</b>	<b>8.08</b>	<b>0.72</b>	<b>0.09</b>	<b>44</b>
Probable	Greenvale	13.08	0.73	0.05	29
	Kokomo	17.43	0.57	0.09	31
	Lucknow	18.71	0.42	0.08	38
	<b>Sub-total</b>	<b>49.22</b>	<b>0.55</b>	<b>0.08</b>	<b>33</b>
<b>Total</b>	Greenvale	17.57	0.76	0.06	31
	Kokomo	18.96	0.58	0.10	33
	Lucknow	20.77	0.42	0.08	39
	<b>TOTAL</b>	<b>57.30</b>	<b>0.58</b>	<b>0.08</b>	<b>35</b>

**Table A2-1:** Sconi Project Ore Reserve summary based on variable nickel equivalent cut-off between 0.40% and 0.45%.

Ore Reserve as per Australian Mines' announcement released via the ASX platform on 13 June 2019. Prepared by specialist mine planning consultants, Orelogy, in accordance with the current 2012 JORC Code.

There has been no Material Change or Re-estimation of the Ore Reserve since this 13 June 2019 announcement by Australian Mines.

The Mineral Resource figures in Tables A3-1 to A3-3 of Appendix 3 are inclusive of the Ore Reserve figures above. Approximately 14% of the Ore Reserves (outlined in the table above) are classified as Proved and 86% are classified as Probable. It should be noted that the Proved and Probable Reserves are inclusive of allowance for mining dilution and ore loss.



## Appendix 3: Mineral Resource Estimates

### Sconi Project, Queensland, Australia

(Effective 14 February 2019)<sup>109</sup>

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	5.05	1.06	0.83	0.07
Indicated	17.24	0.90	0.73	0.05
Inferred	10.34	0.63	0.54	0.04
<b>Total</b>	<b>32.63</b>	<b>0.84</b>	<b>0.69</b>	<b>0.05</b>

**Table A3-1:** Greenvale Mineral Resource

(Lower cut-off grade: Nickel equivalent 0.40%)

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	1.60	0.91	0.53	0.11
Indicated	12.63	0.83	0.47	0.11
Inferred	0.38	0.66	0.55	0.03
<b>Total</b>	<b>14.62</b>	<b>0.83</b>	<b>0.48</b>	<b>0.11</b>

**Table A3-2:** Lucknow Mineral Resource

(Lower cut-off grade: Nickel equivalent 0.55%)

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	1.62	1.17	0.73	0.15
Indicated	19.37	0.83	0.57	0.09
Inferred	7.48	0.70	0.53	0.07
<b>Total</b>	<b>28.47</b>	<b>0.81</b>	<b>0.57</b>	<b>0.09</b>

**Table A3-3:** Kokomo Mineral Resource

(Lower cut-off grade: Nickel equivalent 0.45%)

<sup>109</sup> The Mineral Resource Estimates for the Greenvale, Lucknow and Kokomo deposits are reported under JORC 2012 Guidelines and were reported by Australian Mines on 14 February 2019. There has been no Material Change or Re-estimation of the Mineral Resource since this 14 February 2019 announcement by Australian Mines.

Nickel equivalent (NiEq) calculations are described in detail in Appendix 6 of this report.

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	11.4	1.02	0.84	0.05
Indicated	12.7	0.74	0.64	0.03
Inferred	1.7	0.66	0.55	0.03
<b>Total</b>	<b>25.8</b>	<b>0.86</b>	<b>0.72</b>	<b>0.04</b>

**Table A3-4:** Bell Creek Mineral Resource<sup>110</sup>

(Lower cut-off grade: Nickel equivalent 0.45%).

Classification	Tonnes (million tonnes)	Nickel (%)	Cobalt (%)
Indicated	11.9	0.67	0.03
Inferred	2.4	0.60	0.02
<b>Total</b>	<b>14.3</b>	<b>0.66</b>	<b>0.03</b>

**Table A3-5:** Minnamoolka Mineral Resource<sup>111</sup>

(Lower cut-off grade: Nickel 0.45%)

### Flemington Project, New South Wales, Australia

(Effective 31 October 2017)<sup>112</sup>

Classification	Tonnes (million tonnes)	Cobalt (%)	Scandium (ppm)
Measured	2.5	0.103	403
Indicated	0.2	0.076	408
<b>Total</b>	<b>2.7</b>	<b>0.101</b>	<b>403</b>

**Table A3-6:** Flemington Mineral Resource

(Lower cut-off grade: Cobalt 0.03%)

<sup>110</sup> The Mineral Resource Estimate for the Bell Creek deposit is reported under JORC 2012 Guidelines and was reported by Australian Mines on 29 April 2019. There has been no Material Change or Re-estimation of the Mineral Resource since this 29 April 2019 announcement by Australian Mines.

<sup>111</sup> The Mineral Resource Estimate for the Minnamoolka deposit is reported under JORC 2012 Guidelines and was reported by Australian Mines on 21 October 2019. There has been no Material Change or Re-estimation of the Mineral Resource since this 21 October 2019 announcement by Australian Mines.

**Nickel equivalent (NiEq) calculations are described in detail in Appendix 6 of this report.**

<sup>112</sup> The Mineral Resource Estimates for the Flemington deposit is reported under JORC 2012 Guidelines and were reported by Australian Mines on 31 October 2017. There has been no Material Change or Re-estimation of the Mineral Resource since this 31 October 2017 announcement by Australian Mines.

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## Appendix 4: Competent Persons' Statements

### Sconi Project, Queensland, Australia

The Mineral Resource for the Sconi Project contained within this document is reported under JORC 2012 Guidelines. This Mineral Resource for the Greenvale, Lucknow and Kokomo deposits within the Sconi Project were first reported by Australian Mines on 14 February 2019. There has been no Material Change or Re-estimation of the Mineral Resource since this 14 February 2019 announcement by Australian Mines.

The information in this report that relates to Sconi Project's Greenvale, Lucknow and Kokomo Mineral Resources is based on, and fairly reflects, information compiled by Mr David Williams, a Competent Person, who is an employee of CSA Global Pty Ltd and a Member of the Australian Institute of Geoscientists (#4176). Mr Williams has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves" (JORC Code). Mr Williams consents to the disclosure of information in this report in the form and context in which it appears.

The Ore Reserve for the Sconi Project contained within this document is reported under JORC 2012 Guidelines. This Ore Reserve was first reported by Australian Mines on 13 June 2019. There has been no Material Change or Re-estimation of the Ore Reserve since this 13 June 2019 announcement by Australian Mines.

The information in this report that relates to Ore Reserves is based on, and fairly reflects, information compiled by Mr Jake Fitzsimons, a Competent Person, who is an employee of Orelogy Consulting Pty Ltd and a Member of the Australian Institute of Mining and Metallurgy (MAusIMM #110318). Mr Fitzsimons has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves" (JORC Code). Mr Fitzsimons consents to the disclosure of information in this report in the form and context in which it appears.

The Mineral Resource for the Bell Creek deposit, located within the Sconi Project, contained within this document is reported under JORC 2012 Guidelines. This Mineral Resource was first reported by Australian Mines on 29 April 2019. There has been no Material Change or Re-estimation of the Mineral Resource since this 29 April 2019 announcement by Australian Mines.

The information in this report that relates to the Sconi Project's Bell Creek Mineral Resource is based on, and fairly reflects, information compiled by Mr David Williams, a Competent Person, who is an employee of CSA Global Pty Ltd and a Member of the Australian Institute of Geoscientists (#4176). Mr Williams has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves" (JORC Code). Mr Williams consents to the disclosure of information in this report in the form and context in which it appears.

The Mineral Resource for the Minnamoolka deposit, located within the Sconi Project, contained within this document is reported under JORC 2012 Guidelines. This Mineral Resource was first reported by Australian Mines on 21 October 2019. There has been no Material Change or Re-estimation of the Mineral Resource since this 21 October 2019 announcement by Australian Mines.

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The information in this report that relates to the Sconi Project's Minnamoolka Mineral Resources is based on, and fairly reflects, information compiled by Mr David Williams, a Competent Person, who is an employee of CSA Global Pty Ltd and a Member of the Australian Institute of Geoscientists (#4176). Mr Williams has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves" (JORC Code). Mr Williams consents to the disclosure of information in this report in the form and context in which it appears.

### **Flemington Project, New South Wales, Australia**

The Mineral Resource for the Flemington Project contained within this document is reported under JORC 2012 Guidelines. This Mineral Resource was first reported by Australian Mines on 31 October 2017. There has been no Material Change or Re-estimation of the Mineral Resource since this 31 October 2017 announcement by Australian Mines.

Information in this report that relates to Flemington Project's Exploration Results is based on information compiled by Mr Mick Elias, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Elias is a director of Australian Mines. Mr Elias has sufficient experience relevant to this style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Elias consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

### **Lennard Project, Western Australia, Australia**

The information in this report that relates to the Lennard Project's Exploration Results is based on information compiled by Benjamin Bell who is a member of the Australian Institute of Geoscientists. Mr Bell is a full-time employee and Managing Director of Australian Mines. Mr Bell has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Bell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Broken Hill Project, New South Wales, Australia**

The information in this report that relates to the Broken Hill Project's Exploration Results is based on information compiled by Benjamin Bell who is a member of the Australian Institute of Geoscientists. Mr Bell is a full-time employee and Managing Director of Australian Mines. Mr Bell has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Bell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## Appendix 5: Forward Looking Statements

This announcement contains forward looking statements. Forward looking statements can generally be identified by the use of forward looking words such as, 'expect', 'anticipate', 'likely', 'intend', 'should', 'could', 'may', 'predict', 'plan', 'propose', 'will', 'believe', 'forecast', 'estimate', 'target', 'outlook', 'guidance', 'potential' and other similar expressions within the meaning of securities laws of applicable jurisdictions.

There are forward looking statements in this document relating to the outcomes of the Sconi Project Bankable Feasibility Study and ongoing refinement work as outlined in this report. Actual results and developments of projects and the market development may differ materially from those expressed or implied by these forward looking statements. These, and all other forward looking statements contained in this announcement are subject to uncertainties, risks and contingencies and other factors, including risk factors associated with exploration, mining and production businesses. It is believed that the expectations represented in the forward looking statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and productions results, resource estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

Any forward looking statement is included as a general guide only and speak only as of the date of this document. No reliance can be placed for any purpose whatsoever on the information contained in this document or its completeness. No representation or warranty, express or implied, is made as to the accuracy, likelihood or achievement or reasonableness of any forecasts, prospects, returns or statements in relation to future matters contained in this document. Australian Mines does not undertake to update or revised forward looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by applicable law and stock exchange listing requirements. To the maximum extent permitted by law, Australian Mines and its Associates disclaim all responsibility and liability for the forward looking statements, including, without limitation, any liability arising from negligence. Recipients of this document must make their own investigations and inquiries regarding all assumptions, risks, uncertainties and contingencies which may affect the future operations of Australian Mines or Australian Mines' securities.

## Appendix 6: Nickel Equivalent Calculation – Sconi Project, Queensland

Nickel equivalent (NiEq) grades referenced in this report were calculated according to the following formula:

$$\text{NiEq} = \frac{[(\text{nickel grade} \times \text{nickel price} \times \text{nickel recovery}) + (\text{cobalt grade} \times \text{cobalt price} \times \text{cobalt recovery})]}{(\text{nickel price} \times \text{nickel recovery})}$$

The formula was derived using the following commodity prices and recoveries:

Foreign exchange rate – AUD/USD: 0.71,

Nickel – A\$27,946/t and 94.8% recovery,

Cobalt – A\$93,153/t and 95.7% recovery.

Prices and recoveries effective as at 10th February 2019.

Metal recovery data was determined by variability test work of nickel and cobalt solvent extraction during the inhouse pilot plant test work program. Results typically achieved between 90% and 99% from samples with nickel and cobalt grades aligned with expected mine grades as reported from the Mineral Resource model. Lower recoveries of between 85% and 90% were achieved from some lower-grade samples to determine economic cut off grades.

It is the opinion of Australian Mines that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.

The Competent Person and Australian Mines believe there are reasonable prospects for eventual economic extraction of the Mineral Resources from the Sconi Project. Consideration was given to the relatively shallow depth of the mineralisation, existing infrastructure near to the project including sealed road access, power, labour and water, and positive results from the 2018 Feasibility Study.

The Competent Person and Australian Mines also believe there are reasonable prospects for eventual economic extraction of the Mineral Resources from the Bell Creek and Minnamoolka deposits. Consideration was given to the relatively shallow depth of the mineralisation, and positive results from the 2018 Feasibility Study for the Greenvale and Lucknow deposits located to the south of Bell Creek and Minnamoolka deposits, which share similar geological characteristics to the Bell Creek and Minnamoolka deposits.

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## Appendix 7: Tenement Information

### Mining tenements held at end of the quarter

Location	Project	Tenement	Status	Interest
<b>AUSTRALIA</b>				
Queensland	Sconi	ML 10366	Granted	100%
Queensland	Sconi	ML 10342	Granted	100%
Queensland	Sconi	ML 10324	Granted	100%
Queensland	Sconi	ML 10332	Granted	100%
Queensland	Sconi	ML 20549	Granted	100%
Queensland	Sconi	MDL 515	Granted	100%
Queensland	Sconi	MDL 387	Granted	100%
Queensland	Sconi	EPM 25834	Granted	100%
Queensland	Sconi	EPM 25865	Granted	100%
Queensland	Sconi	EPM 25833	Granted	100%
Queensland	Sconi	EPM 26575	Granted	100%
Queensland	Sconi	EPM 26577	Granted	100%
Queensland	Sconi	EPM 26578	Granted	100%
Queensland	Sconi	EPM 26579	Granted	100%
Queensland	Sconi	EPM 26559	Granted	100%
Queensland	Sconi	EPM 26853	Granted	100%
Queensland	Sconi	EPM 26857	Granted	100%
Queensland	Sconi	EPM 26918	Granted	100%
Queensland	Sconi	EPM 27529	Granted	100%
New South Wales	Flemington	EL 7805	Granted	100%
New South Wales	Flemington	EL 8546	Granted	100%
New South Wales	Flemington	EL 8478	Granted	100%
New South Wales	Flemington	EL 8855	Granted	100%
New South Wales	Flemington	ELA 6321	Pending	0% <sup>113</sup>
New South Wales	Broken Hill	EL 8477	Granted	100%
Western Australia	Lennard	E04/2529	Pending	0% <sup>114</sup>

### Mining tenements acquired and disposed of during the quarter

Location	Project	Tenement	Status	Interest	Comments
-	-	-	-	-	-

<sup>113</sup> 100% when granted

<sup>114</sup> 100% when granted

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**Beneficial percentage interests held in farm-in or farm-out agreements at end of the quarter**

<b>Location</b>	<b>Project</b>	<b>Agreement</b>	<b>Parties</b>	<b>Interest</b>	<b>Comments</b>
-	-	-	-	-	-

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

<b>Location</b>	<b>Project</b>	<b>Agreement</b>	<b>Parties</b>	<b>Interest</b>	<b>Comments</b>
-	-	-	-	-	-

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Appendix 8: Broken Hill Project - Comments on assay results from holes  
THRC006-010

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## Drillhole THRC006

(ppm)	U	Th	Ag	Au	Cu	Pb	Zn
Pegmatite	<b>6.7</b>	<b>18</b>	<b>0.090</b>	<b>0.007</b>	<b>4.0</b>	<b>105.5</b>	<b>159</b>
Min	0.200	0.370	<0.010	<0.001	0.80	19.9	45
Max	8.800	31.000	0.860	0.269	891	441	3440
Average	3.401	12.423	0.150	0.010	79.193	86.445	316.5
Q1	0.400	0.820	0.060	0.002	6.6	32.85	114.25
Q2 (median)	3.550	14.950	0.100	0.004	35.3	44.8	214.5
Q3	5.600	20.850	0.208	0.007	108	102.5	433.5

(ppm)	Li	Be	Ta	Cs	Rb	Zr	Nb	V
Pegmatite	<b>21.2</b>	<b>2.39</b>	<b>0.83</b>	<b>3.42</b>	<b>93.2</b>	<b>150</b>	<b>7.8</b>	<b>58</b>
Min	5.800	0.430	0.270	0.50	11.3	10.9	3.8	24
Max	71.700	4.640	2.300	33.2	259	300	27.3	434
Average	22.777	1.798	0.976	4.784	108.95	117.23	11.94	179
Q1	14.775	0.883	0.360	2.518	54.9	20.85	5.02	62
Q2 (median)	21.000	1.725	0.935	4.165	96.05	139.75	11	97
Q3	28.500	2.473	1.505	5.640	153.50	181.75	17.5	324

(ppm)	Ce	La	Sc	Y
Pegmatite	<b>96.2</b>	<b>47.9</b>	<b>13.5</b>	<b>32.2</b>
Min	11.40	4.60	4.00	10.20
Max	239.00	123.50	47.00	67.60
Average	64.09	29.84	24.33	27.13
Q1	15.39	6.83	13.73	20.95
Q2 (median)	70.75	31.80	19.85	24.00
Q3	96.58	45.30	38.00	32.05

With only 1 pegmatite intersected, establishing any correlation between pegmatite and metal values is not possible. Values in the pegmatite are following the global distribution.

Within THRC006 is found the highest gold value: 0.269 g/t at 87-88m. This value comes up in a high metal values area of the hole where: Ag ranges up to 0.67 g/t, Cu up to 670 ppm, Pb up to 398 ppm.

Also, THRC006 hosts the highest value of Zirconium: 300ppm at 102-103m. This value is associated with the highest Cs value (33.3ppm) and with some other high values of Zn, Y, U, Ta, Sr, S, P, Na, Hf, Cd and Be.

## Drillhole THRC007

(ppm)	U	Th	Ag	Au	Cu	Pb	Zn
Pegmatite	<b>5.3</b>	<b>4.69</b>	<b>1.78</b>	<b>0.036</b>	<b>1065</b>	<b>99.8</b>	<b>579</b>
Min	0.1	0.29	0.02	<0.001	1.5	10.6	42
Max	20.2	<b>48.3</b>	<b>10.9</b>	0.123	<b>8410</b>	1150	<b>13600</b>
Average	2.78	9.86	0.49	0.01	268.99	109.43	483.32
Q1	0.7	1.1925	0.12	0.00275	25.15	28.3	158
Q2 (median)	2.1	6.315	0.21	0.004	71.3	60.05	229
Q3	4.3	18.4625	0.3625	0.006	160.25	114.375	372

(ppm)	Li	Be	Ta	Cs	Rb	Zr	Nb	V
Pegmatite	<b>34.1</b>	<b>1.91</b>	<b>1.07</b>	<b>14.65</b>	<b>197</b>	<b>94.2</b>	<b>9.8</b>	<b>209</b>
Min	1.1	0.35	<0.05	0.19	2.4	4.4	0.6	7
Max	75	7.57	2.23	24.4	363	265	26.4	551
Average	20.16	1.60	0.81	4.59	95.78	89.99	10.21	190.7
Q1	11.35	0.74	0.41	1.6575	44.425	19.4	5.175	59
Q2 (median)	16.65	1.28	0.725	3.69	75.3	63.4	8.4	106.5
Q3	26	2.1025	1.1225	6.0225	137	163.5	14.45	334.7

(ppm)	Ce	La	Sc	Y
Pegmatite	<b>41.3</b>	<b>20.7</b>	<b>30.2</b>	<b>28.9</b>
Min	10.30	4.00	1.60	4.4
Max	<b>&gt;500</b>	<b>810</b>	<b>53.7</b>	<b>100</b>
Average	62.58	34.00	26.60	31.4
Q1	17.58	6.80	13.05	22.4
Q2 (median)	46.90	24.00	30.20	28.8
Q3	97.15	45.10	39.20	39.68

Anomalous values in THRC007 from 84m to 94m: Ag ranges from 0.35 to 10.9 g/t. Within those 10 metres, other high values are found such as Ce (>500 at 89m), Cu (8410ppm at 85m), La (810ppm at 89m), Y (100ppm at 89m), Zn (1.36% at 91m) and Au up to 0.123ppm at 84m and 93m. Within this area is also found higher values for other elements such as Be, Bi, Cd, Ge, In, La, Mn, Mo, Re, S, Sn, Te and W.

Those 10 metres (84-94 metres) gave **highly anomalous Tungsten** which ranges from 12.6 ppm to 3000 ppm (91-92m where scheelite has been found with an UV lamp) and with an average of 1082ppm (0.11%).

This area matches with logged pyrite up to 10% and magnetite up to 1%.

This area also matches with high magnetic susceptibility values: from 1.76 to 11.40 x10<sup>-3</sup> SI.

All this information combined allows us to establish that the DHEM Target 3 was indeed intersected by THRC007.

## Drillhole THRC008

List of pegmatite intervals within THRC008

HoleID	From (m)	To (m)	Interval (m)
THRC008	1.5	3	1.5
THRC008	10	11	1
THRC008	56	58	2
THRC008	60	67.5	7.5
THRC008	95	96	1
THRC008	100	101	1
THRC008	101	102	1
THRC008	139	140	1
THRC008	174	177	3
THRC008	179	185	6

(ppm)	U	Th	Ag	Au	Cu	Pb	Zn
Pegmatite av.	<b>3.69</b>	<b>12.23</b>	<b>0.12</b>	<b>0.0025</b>	<b>42</b>	<b>176.8</b>	<b>124</b>
Min	0.10	0.28	0.020	<0.001	0.70	16.3	15.0
Max	10.30	35.30	5.110	0.017	1290.00	2100.0	2000.0
Average	2.41	9.05	0.35	0	125.19	125.8	278.9
Q1	0.50	1.12	0.090	0	20.20	35.9	163.0
Q2 (median)	1.70	3.23	0.210	0.001	62.50	60.9	215.0
Q3	3.60	16.10	0.390	0.003	155.00	129.5	311.0

(ppm)	Li	Be	Ta	Cs	Rb	Zr	Nb	V
Pegmatite av.	<b>21.4</b>	<b>2.46</b>	<b>0.79</b>	<b>6.57</b>	<b>161.6</b>	<b>109.6</b>	<b>9.26</b>	<b>74.2</b>
Min	2.40	0.32	0.07	0.70	22.10	10.80	1.00	2.0
Max	74.10	7.33	4.26	25	330	246	26.70	693
Average	22.14	1.62	0.82	7.59	124.47	93.15	10.46	228.4
Q1	16.70	0.78	0.40	3.48	71.10	28.2	5.60	73
Q2 (median)	21.40	1.31	0.68	7.19	108.0	68.7	7.90	259
Q3	25.40	2.09	1.18	10.40	165.5	161	14.90	353

(ppm)	Ce	La	Sc	Y
Pegmatite av.	63	29.46	13.5	23.3
Min	6.0	3.5	0.7	2.4
Max	166.5	85.3	46.7	63.2
Average	54.9	25.4	29.3	30.9
Q1	16.9	6.5	17.7	24.4
Q2 (median)	31.7	14.5	34.3	27.4
Q3	86.0	40.3	39.3	36.9

The highest Pb (2100ppm) value from this program is in THRC008 at 76-77m and is associated with high values of Ag (3.76 g/t), Bi, Cd, Ce, Cu, In, K, La, Mo, S, Te, Th, U and Zn. This interval lies within a broader anomalous interval from 72 to 85m and is delineated by higher values of Ce (up to 166 ppm), La (up to 85 ppm), K (up to 5.73 %), Rb (up to 330ppm), Th (up to 33.8 ppm) and U (up to 10.3 ppm).

From 166 to 168m, the highest values of Vanadium (maximum 693ppm) are found and from 166 to 167m, it is associated with higher copper values (up to 652 ppm), Ag (up to 0.83 g/t), Bi (1.39 ppm), Nb (25.3 ppm), Ta (4.26 ppm) and W (4.7 ppm).

From 177 to 178m: high value of Li (74.1 ppm) is associated with elevated Be (7.33ppm), Cr (124 ppm), Cs (16.5ppm), Hf (7.1ppm), K (3.6 %), Nb (22.8ppm), Rb (296ppm), Sb (0.21ppm), Ta (1.84ppm), Th (31.4ppm) and Tl (2.27ppm).

This highest Li value lies within an anomalous zone of Lithium (range from 33.8 to 74.1 ppm) and is found within pegmatite from 173 to 186m. It is one of the only pegmatite zones where a positive correlation can be made with lithium values. This pegmatite correlates with elevated U (2.2 to 6.7 ppm) and Th (1.32 to 35.3 ppm) values.

The pegmatite from 10 to 11m also correlates with U (3.5ppm) and Th (24.2ppm), so does the one at 56-67m where U ranges from 1.4 to 6.7ppm and Th ranges from 0.52 to 27.5ppm

An anomalous zone for Be is from 177 to 186m within the pegmatite where values range from 3.88 ppm to 7.33 ppm. Within this zone, from 180 to 182m, Be high values are associated with higher values for Ce, Ka, La, Rb, Th, U and W.

## Drillhole THRC009

Below are a list of pegmatite intervals within THRC009

HoleID	From (m)	To (m)	Interval (m)
THRC009	8	9	1
THRC009	10	12	2
THRC009	56	58	2
THRC009	61	64	3
THRC009	64	65	1
THRC009	208	209	1
THRC009	216	217	1
THRC009	223	224	1
THRC009	225	229	4
THRC009	229	230	1
THRC009	234	236	2

HoleID	From (m)	To (m)	Interval (m)
THRC009	236	238	2
THRC009	242	244	2
THRC009	251	252	1
THRC009	258	259	1
THRC009	259	260	1
THRC009	263	264	1
THRC009	266	268	2
THRC009	274	275	1
THRC009	290	295	5
THRC009	319	320	1
THRC009	323	324	1

(ppm)	U	Th	Ag	Au	Cu	Pb	Zn
Pegmatite av.	<b>7.91</b>	<b>22.18</b>	<b>0.261</b>	<b>0.003</b>	<b>61.61</b>	<b>41.20</b>	<b>86</b>
Min	1.70	5.13	<0.01	<0.001	1.80	11.1	31
Max	33.40	41.60	4.1500	0.0360	828.00	344.0	1030
Average	7.45	24.28	0.1066	0.0040	68.91	28.8	89
Q1	5.40	21.23	0.0200	0.0020	13.65	20.9	59
Q2 (median)	6.50	24.55	0.0300	0.0030	30.20	24.2	79
Q3	8.40	26.98	0.0800	0.0040	81.38	28.1	100

(ppm)	Li	Be	Ta	Cs	Rb	Zr	Nb	V
Pegmatite av.	<b>15.79</b>	<b>3.57</b>	<b>1.16</b>	<b>4.35</b>	<b>194.3</b>	<b>149.15</b>	<b>15.1</b>	<b>59.31</b>
Min	6.00	0.83	0.47	0.96	94.60	49	5.00	19
Max	64.50	<b>21.50</b>	2.38	17.85	351.00	276	<b>30.50</b>	257
Average	21.91	3.57	1.34	5.60	220.20	171	18.05	78
Q1	17.03	1.59	1.12	4.27	190.50	150	15.70	59
Q2 (median)	21.45	2.59	1.29	5.18	225.00	167	17.55	73
Q3	25.48	4.72	1.52	6.38	247.00	192	20.30	90

(ppm)	Ce	La	Sc	Y
Pegmatite av.	<b>103.09</b>	<b>51.28</b>	<b>10.14</b>	<b>19.06</b>
Min	35.60	17.10	3.40	7.2
Max	221.00	111.00	29.40	59.3
Average	116.56	57.58	13.58	24.0
Q1	104.13	52.00	11.40	15.8
Q2 (median)	116.00	57.60	13.20	23.5
Q3	128.88	62.88	15.78	30.3



Silver anomalous zones:

**61-62m:** Highest silver value in this hole (4.15g/t) with Cu (310ppm), Pb (159ppm)

**36-38m:** Ag (0.96 g/t), As (66ppm), Bi (3.07ppm), Cd (5.26ppm), Cu (182ppm), Mo (9.45ppm), Pb (344ppm), S(1.37%), Sb (0.4ppm), Te (0.27ppm), U (16.2ppm) and Zn (1030ppm).

**59-60m:** highest Be value (21.5ppm) associated with elevated of Ag (0.95 g/t), Bi, Cu, Pb, S and Sb.

**152-153m:** elevated Ag (0.18 g/t), Bi, Ca, Cu, Sr, Te.

**319-320m:** Pegmatite associated with elevated Ag (0.17 g/t), Cd (1.22ppm), Pb (179ppm), Sb (0.1ppm) and Zn(340ppm).

Four Ni-Co moderately anomalous zones:

**76-78m:** anomaly in Cobalt (up to 63.9ppm), associated with Pd, As, Ag, Bi, Ca, Cd, Cr, Fe, In, Mg, Ni (up to 255ppm), Sc, Ti, V and Zn anomalous values.

**124-125m:** anomaly in Cobalt (83ppm), associated with As, Ag, Pd, Cu, La, Mo, Ni, S, Te and W anomalous values.

**149-150m:** anomalous Ag (0.17 g/t), Ca (1.47%), Co (37.8ppm), Cr (326ppm), Cs (17.85ppm), Fe (8.22%), Li (46.7ppm), Mg (3.31%), Ni (130ppm), Ti (0.67%), Tl (2.01ppm) and V (157ppm).

**196-197m:** anomalous Cobalt (33.1ppm) and Nickel (123ppm) with high values of Ca (3.14ppm), Cr (272ppm), Cs(13.85ppm), Mg (2.92ppm), Sr (188ppm) and Ti (0.65ppm).

Other observations:

**51-52m:** Highest copper value in this hole (828ppm) associated with logged pyrite up to 10%. Comes up in a broader high pyrite interval (36-55m) where S is up to 1.22%.

**140-146m:** elevated Ca (1.86%), Mn (1830ppm), Na (1.92%), Sr (244ppm) and Y (up to 59.3ppm).

**237-242m:** anomalous P (from 1220 to 2030ppm)

**267-296m:** anomalous Sn (from 5.2 to 8.3 ppm)

## Drillhole THRC010

Below is a list of pegmatite intervals within THRC010

HoleID	From (m)	To (m)	Interval (m)
THRC010	3	4	1
THRC010	23	25	2
THRC010	38	39	1
THRC010	66	67	1
THRC010	81	83	2
THRC010	93	94	1
THRC010	95	96	1
THRC010	99	101	2
THRC010	112	115	3

HoleID	From (m)	To (m)	Interval (m)
THRC010	144	145	1
THRC010	214	218	4
THRC010	242	243	1
THRC010	248	249	1
THRC010	259	262	3
THRC010	277	279	2
THRC010	308	309	1

(ppm)	U	Th	Ag	Au	Cu	Pb	Zn
Pegmatite av.	7.0	19.8	0.0346	0.0029	30.3	27.1	55.6
Min	1.6	1.5	<0.010	<0.001	0.8	6.3	20
Max	65.2	41.9	3.110	0.111	2410.0	103.5	238
Average	6.6	24.5	0.045	0.004	46.1	23.2	73
Q1	4.6	21.4	0.010	0.001	5.9	18.3	54
Q2 (median)	6.0	24.1	0.020	0.002	16.1	22.2	67
Q3	7.5	27.8	0.040	0.004	41.8	25.8	84

(ppm)	Li	Be	Ta	Cs	Rb	Zr	Nb	V
Pegmatite av.	17.0	3.42	1.29	5.28	185.8	142.9	15.0	54.5
Min	7.5	0.59	0.23	2.23	60.3	28.4	3.0	17
Max	85.2	14.90	3.25	31.40	511.0	252.0	27.8	243
Average	21.6	2.88	1.47	6.94	213.6	178.0	18.5	71
Q1	16.9	1.51	1.25	5.19	185.4	161.5	15.7	57
Q2 (median)	20.6	2.79	1.48	6.18	212.0	179.3	18.5	67
Q3	24.6	3.84	1.67	7.98	242.0	195.5	21.2	81

(ppm)	Ce	La	Sc	Y
Pegmatite av.	95.7	46.9	12.4	26.0
Min	9.6	4.7	4.2	9.0
Max	463.0	255.0	27.5	76.6
Average	116.9	57.6	14.4	27.6
Q1	98.6	48.5	11.7	22.3
Q2 (median)	113.0	55.9	14.2	26.9
Q3	130.5	64.2	16.8	31.9

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Anomalous zones are:

**9-10m:** elevated silver value (0.16 g/t) with high As, Bi, Co (26.7ppm), Cu (182.5ppm), Mo (6.01ppm), Sb (0.17ppm) and Te (0.21ppm).

**15-16m:** elevated silver value (0.13 g/t) with high Co (31.8ppm), Cu (278ppm) and Te (0.3ppm).

**20-22m:** elevated silver value (0.21 g/t) with high Cu (361ppm), Mo (up to 12.8ppm), S (up to 0.4%), Te (0.34ppm) and U (up to 13.6ppm).

**58-59m:** Highest value of gold (0.111 g/t), silver (3.11 g/t), copper (2410ppm), uranium (65.2ppm), tellurium (2.06ppm), sulfur (1.28%), lanthanum (255ppm), germanium (0.58ppm), cerium (463ppm) for this hole associated with high Bi (4.42ppm), Cd (0.56ppm), Co (43.6ppm), Ni (62.2ppm), P (860ppm), Pb (43.8ppm)

**65-71m:** elevated Ag (up to 0.19 g/t) and Cu (up to 201ppm) and Sb (up to 0.14ppm) with the highest values at 69-70m.

**76-78m:** highest Vanadium value (243ppm) with high values for most elements

**119-120m:** elevated Ag with high U, W, Zn, Ca (2.44%)

**125-127m:** elevated silver (0.7 g/t) with high Cu (up to 353ppm), Bi (4.81ppm), La (108ppm), Mo (5.38ppm), Pb (130.5ppm) and Zn (238ppm).

**143-144m:** High Mn value (4830ppm) with high Ca (1.47%), Fe (11%) and Y (76.6ppm).

**162-164m:** Highest Cobalt value of this program (200ppm) with high W values (up to 2760ppm), with high Sr (up to 238ppm), high Mo (up to 8.25ppm), high Mn (up to 2680ppm), Co (up to 200ppm),

**212-213m:** elevated Ni (123ppm) and Co (32.4ppm) values with Cu (149ppm), Cr (240ppm), Mg, Na, V (127ppm), Zn (159ppm), Cs (16.45ppm), Ca (2.39%) and Ag (0.13g/t)

**247-255m:** Highest values of this hole at 251-252m for: Ni (228ppm), Mg (5.24%), Fe (11.9%), Cs (31.4ppm), In (0.262ppm); and the highest values of this program for: Rb (511ppm), Li (85.2ppm), Cr (608ppm). Area with also high values for Ca (up to 3.74%), Cu (up to 278ppm), Ge (up to 0.49ppm), Mg (up to 5.24%), Ti (up to 0.972%), Tl (up to 3.96ppm), Zn (up to 176ppm).

**264-270m:** Anomalous P (up to 2300ppm - highest value of this hole)



## Summary

Within **THRC006** is found the highest gold value: 0.269 g/t, at 87-88m. This value comes up in a high metal values interval of the hole where: Ag ranges up to 0.67 g/t, Cu up to 670 ppm, Pb up to 398 ppm. This anomalous area lies just uphole of a 15 meters wide pyrite logged interval associated with up to 30% vein quartz, and which probably represents the VTEM anomaly.

Within **THRC007** is found the highest silver value: 10.9 g/t at 91-92m. This value comes up in a high metal values interval from 84m to 94m (Cu up to 8410ppm, Zn up to 13600ppm, Au up to 0.123ppm and W up to 3000ppm) associated with high magnetic susceptibility response. Within this 10 metres interval, pyrite has been logged up to 10% as vein filling, associated with some magnetite and chlorite. With these assay results and with the DHEM data, it is possible to affirm that DHEM plate 3 has been intersected. THRC007 was the only drillhole which intersected a DHEMplate, and it is likely that it also fully tested the strong VTEM anomaly.

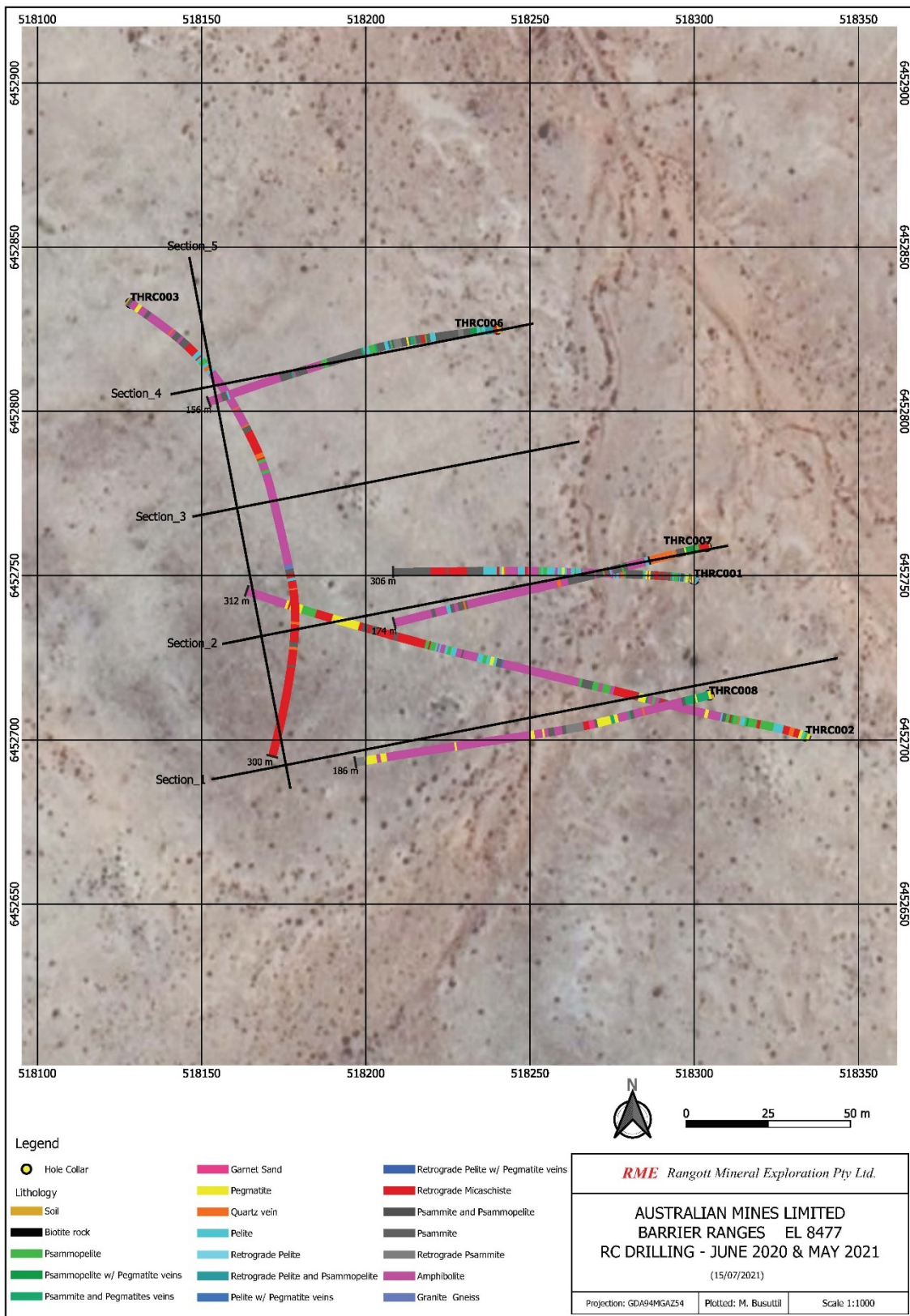
Within **THRC008** is found the highest lead value: 2100ppm at 76-77m, where some disseminated pyrite has been found(1%). This value comes up in high metal values interval from 72m to 85m (Ag up to 3.76 g/t, Cu up to 273ppm, Zn up to 2000ppm, Th up to 33.8ppm, U up to 10.3ppm). Within this hole is also found the highest Li value which lies within an anomalous zone of Lithium (range from 33.8 to 74.1 ppm) and is found within pegmatite from 173 to 186m. It is one of the only pegmatite zones where a positive correlation can be made with lithium values. This pegmatite correlates with elevated U (2.2 to 6.7 ppm) and Th (1.32 to 35.3 ppm).

Within **THRC009** is found a wide interval of high sulfides from 36 to 55m: pyrite logged up to 10% and sulfur value upto 1.22% associated with moderately anomalous copper values (up to 828ppm). This may be the source of the discrete VTEM conductor.

Within **THRC010** is found a high copper value (2410ppm) at 58-59m where pyrite has been logged. This metre shows the highest assays results for this hole for Au (0.111g/t), Ag (3.11g/t), S (1.28%). Within this hole is also found the highest cobalt value of this program (200ppm) associated with high tungsten (up to 2760ppm) from 162 to 164m. From 247 to 255m, pyrite has been logged up to 2% and at 251-252m is found the highest values of this hole for: Ni (228ppm), Mg (5.24%), Fe (11.9%), Cs (31.4ppm), In (0.262ppm); and the highest values of this program for: Rb (511ppm), Li (85.2ppm), Cr (608ppm).

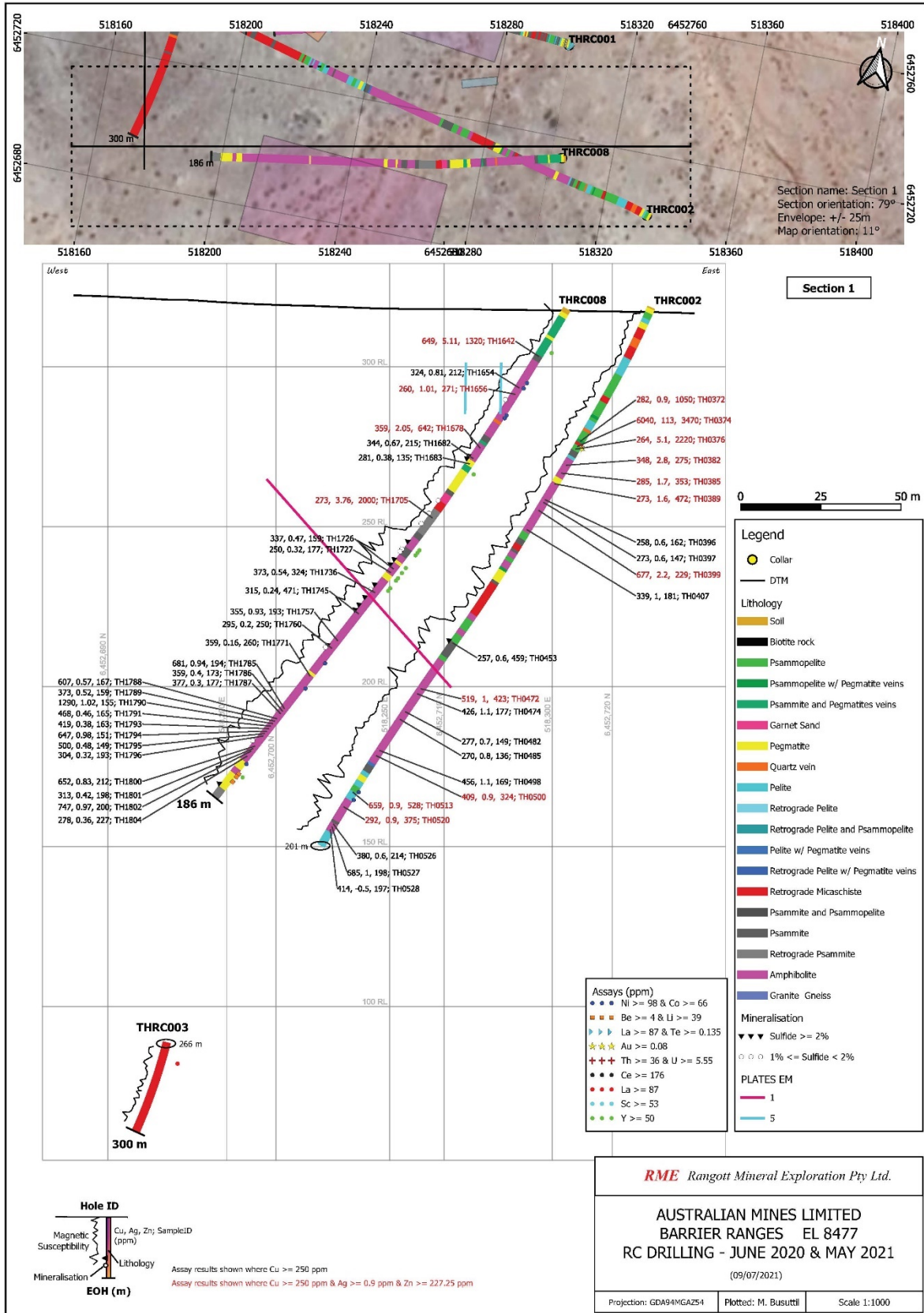


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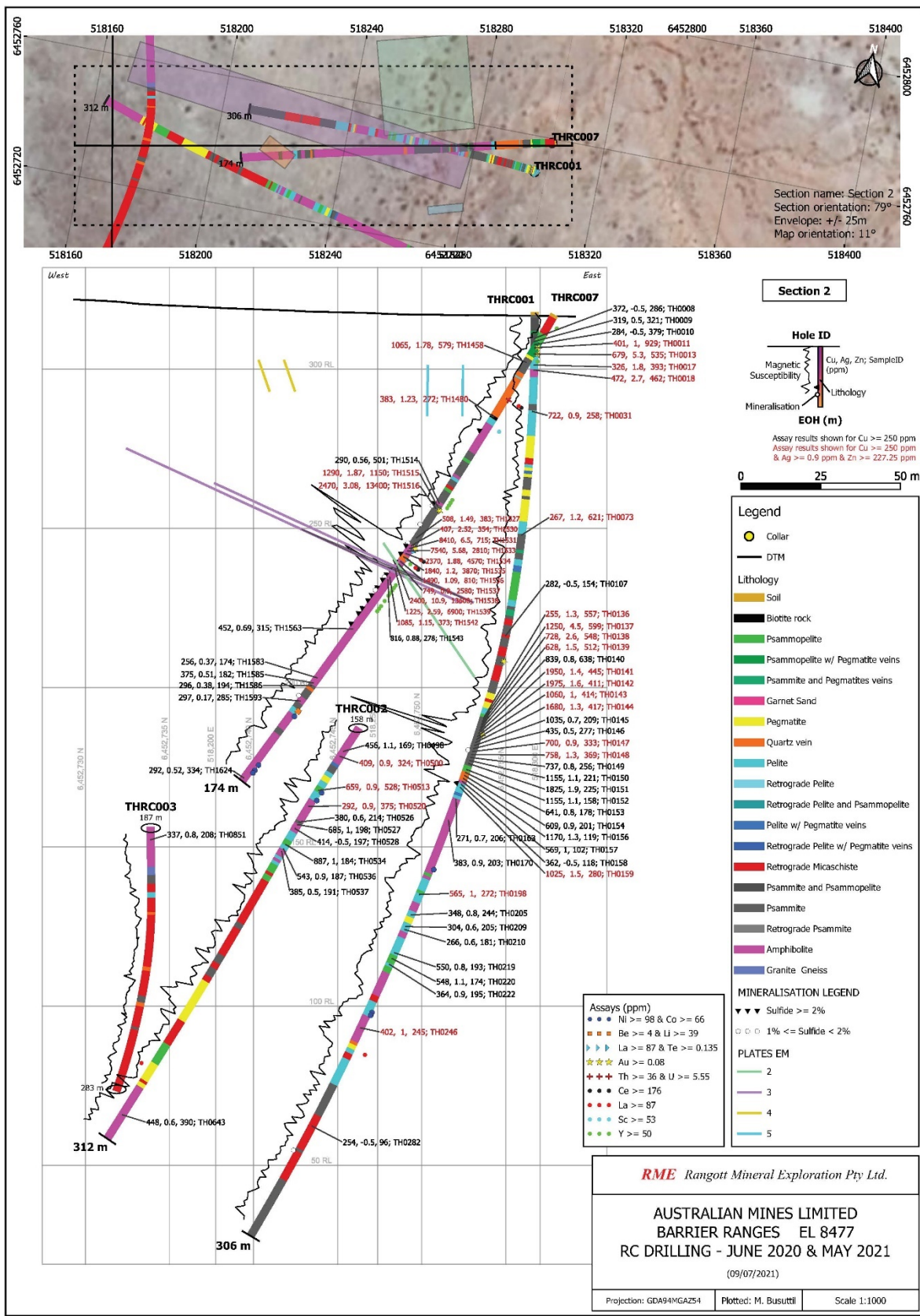




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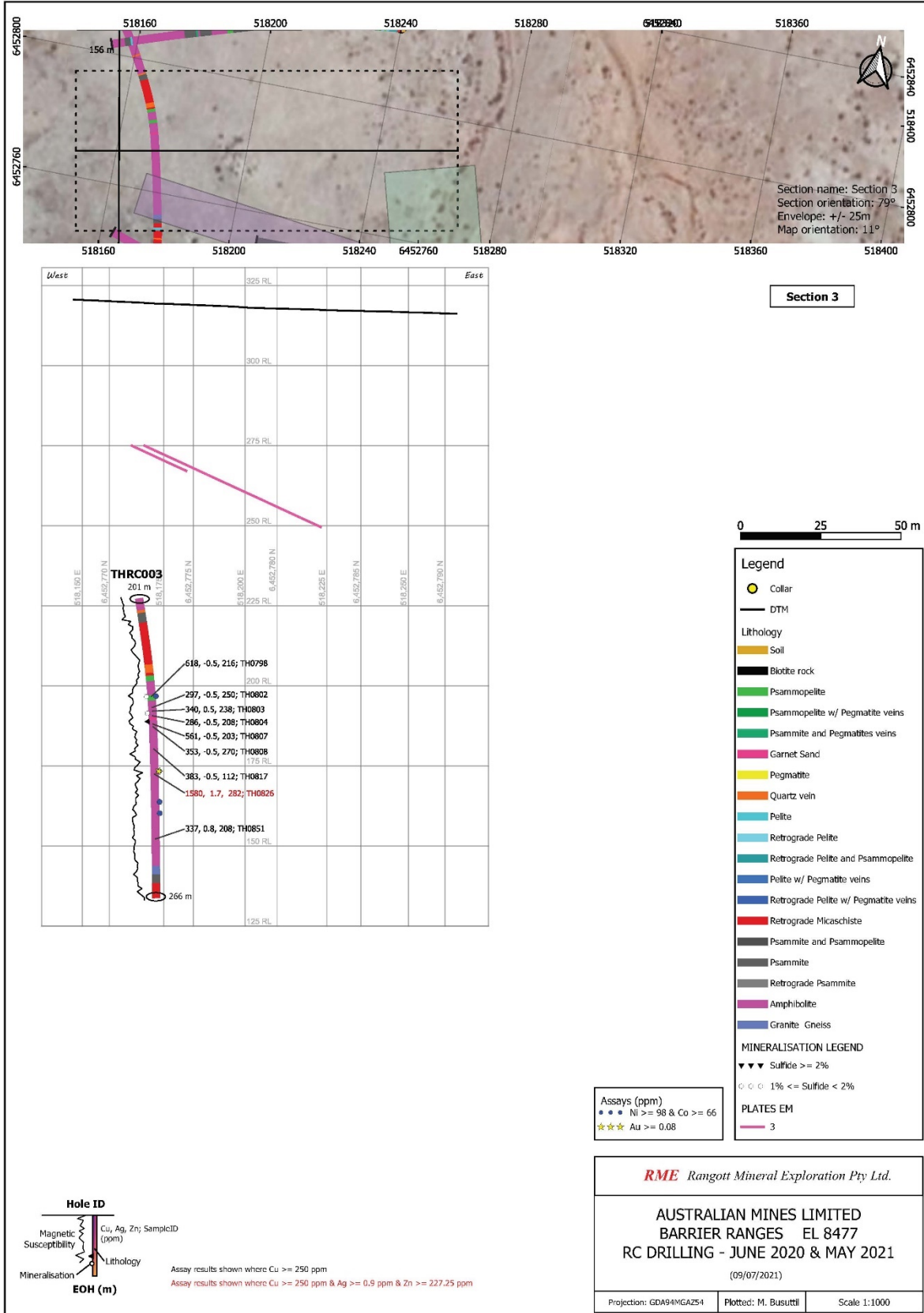


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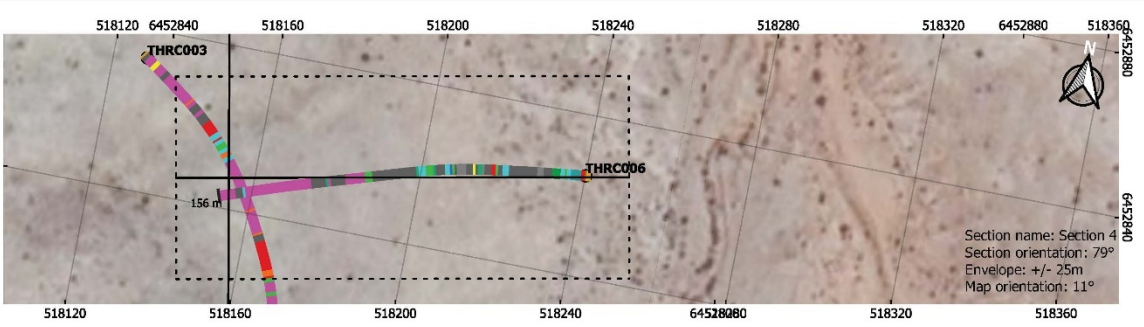


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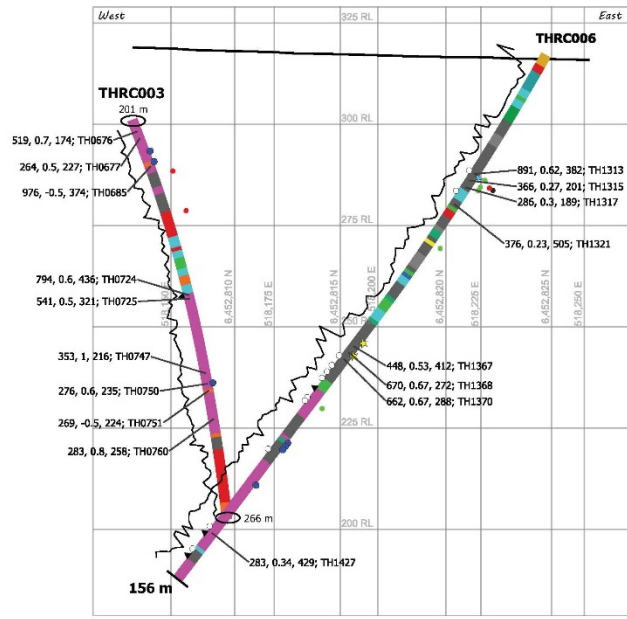
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 (09/07/2021)

Projection: GDA94MGAZ54 Plotted: M. Busuttill Scale 1:1000

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 Section orientation: 79°  
 Envelope: +/- 25m  
 Map orientation: 11°



Section 4

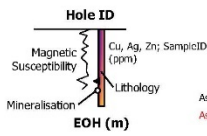


**Legend**

- Collar
- DTM
- Lithology**
- Soil
- Biotite rock
- Psammopelite
- Psammopelite w/ Pegmatite veins
- Psammite and Pegmatites veins
- Garnet Sand
- Pegmatite
- Quartz vein
- Pelite
- Retrograde Pelite
- Retrograde Pelite and Psammopelite
- Pelite w/ Pegmatite veins
- Retrograde Pelite w/ Pegmatite veins
- Retrograde Micaschiste
- Psammite and Psammopelite
- Psammite
- Retrograde Psammite
- Amphibolite
- Granite Gneiss
- Mineralisation**
- ▼ Sulfide >= 2%
- 1% <= Sulfide < 2%

**Assays (ppm)**

- Ni >= 98 & Co >= 66
- Be >= 4 & Li >= 39
- ▶ La >= 87 & Te >= 0.135
- ★ Au >= 0.08
- ✦ Th >= 36 & U >= 5.55
- Ce >= 176
- La >= 87
- Sc >= 53
- Y >= 50

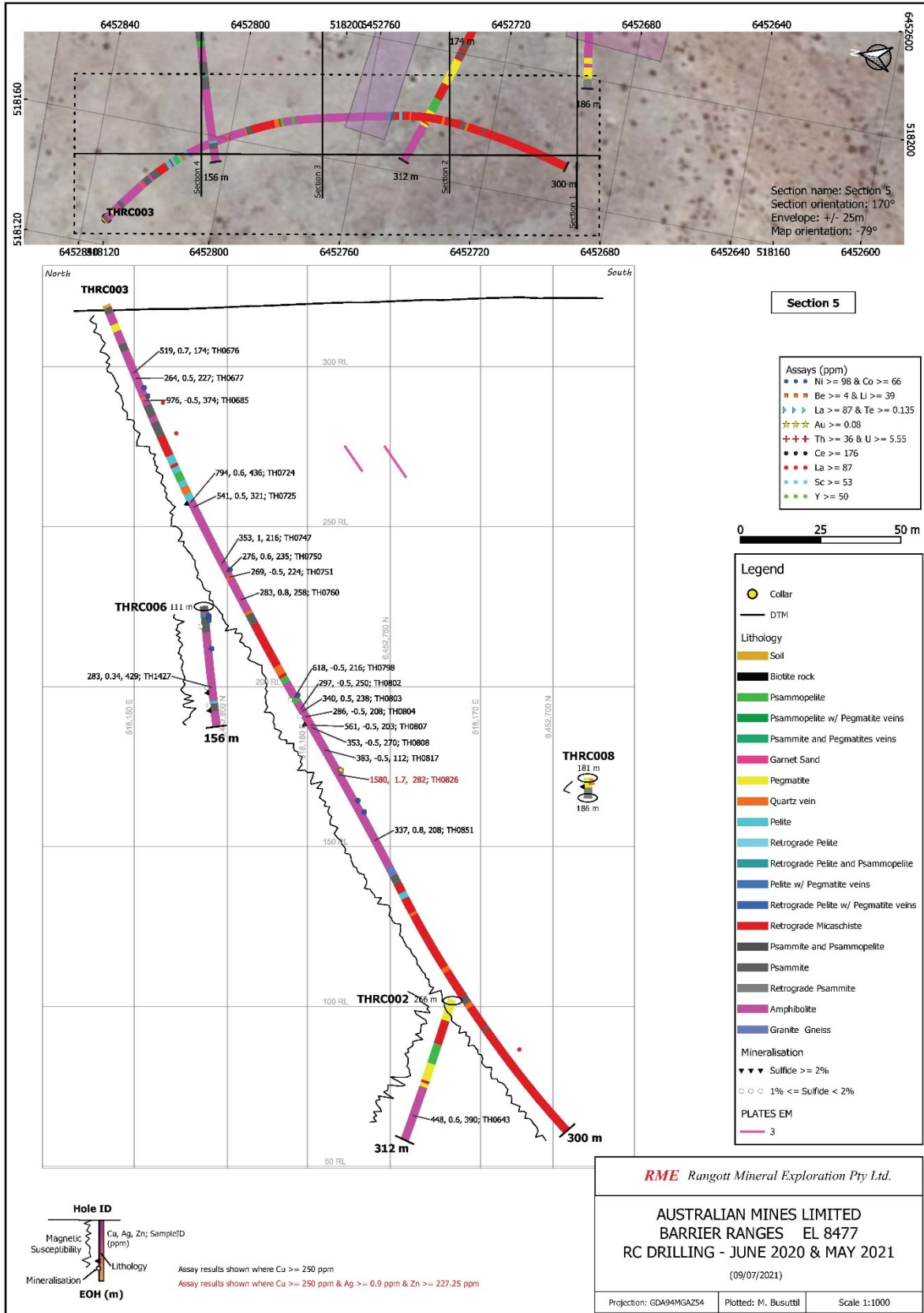


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 (09/07/2021)

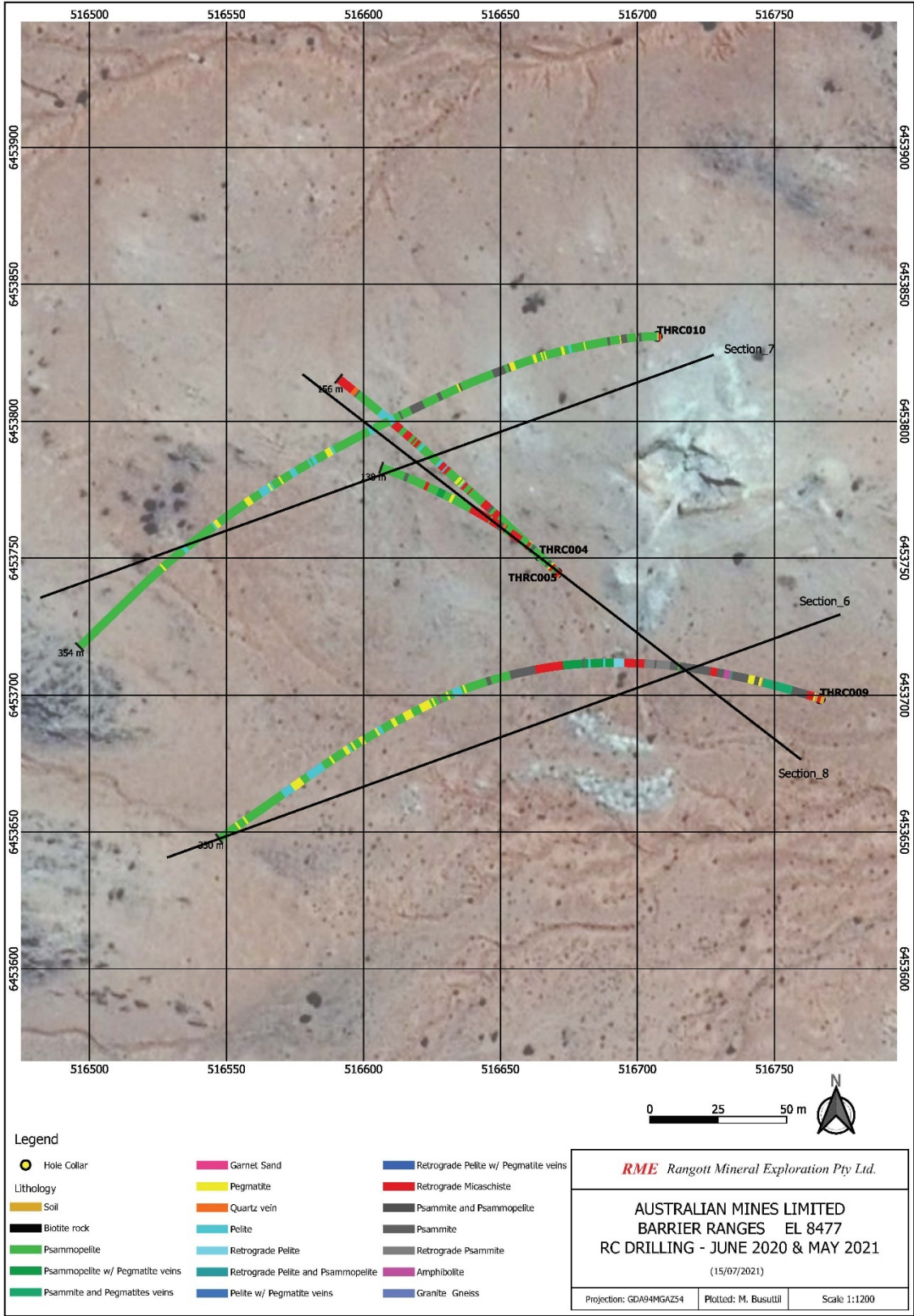
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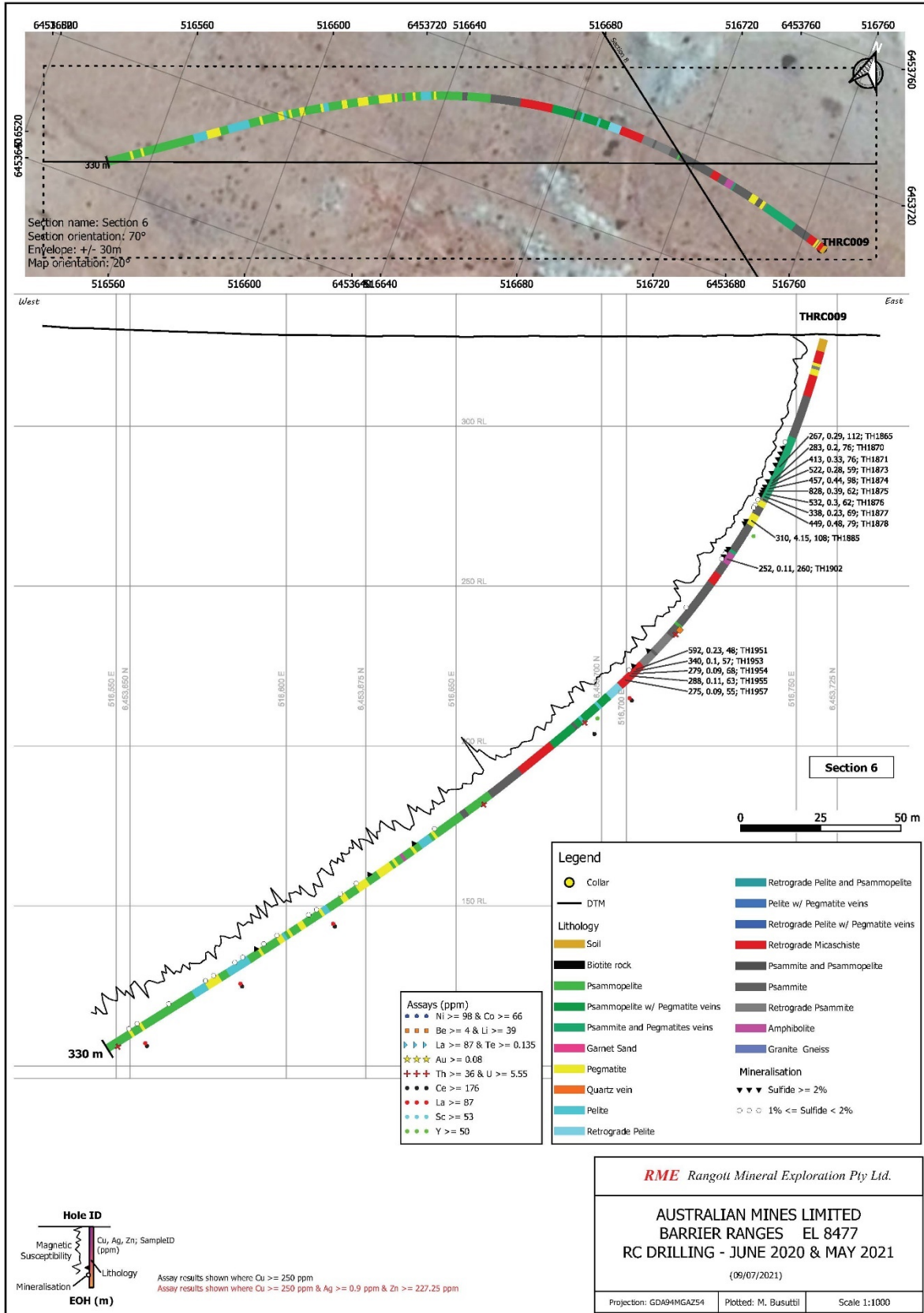




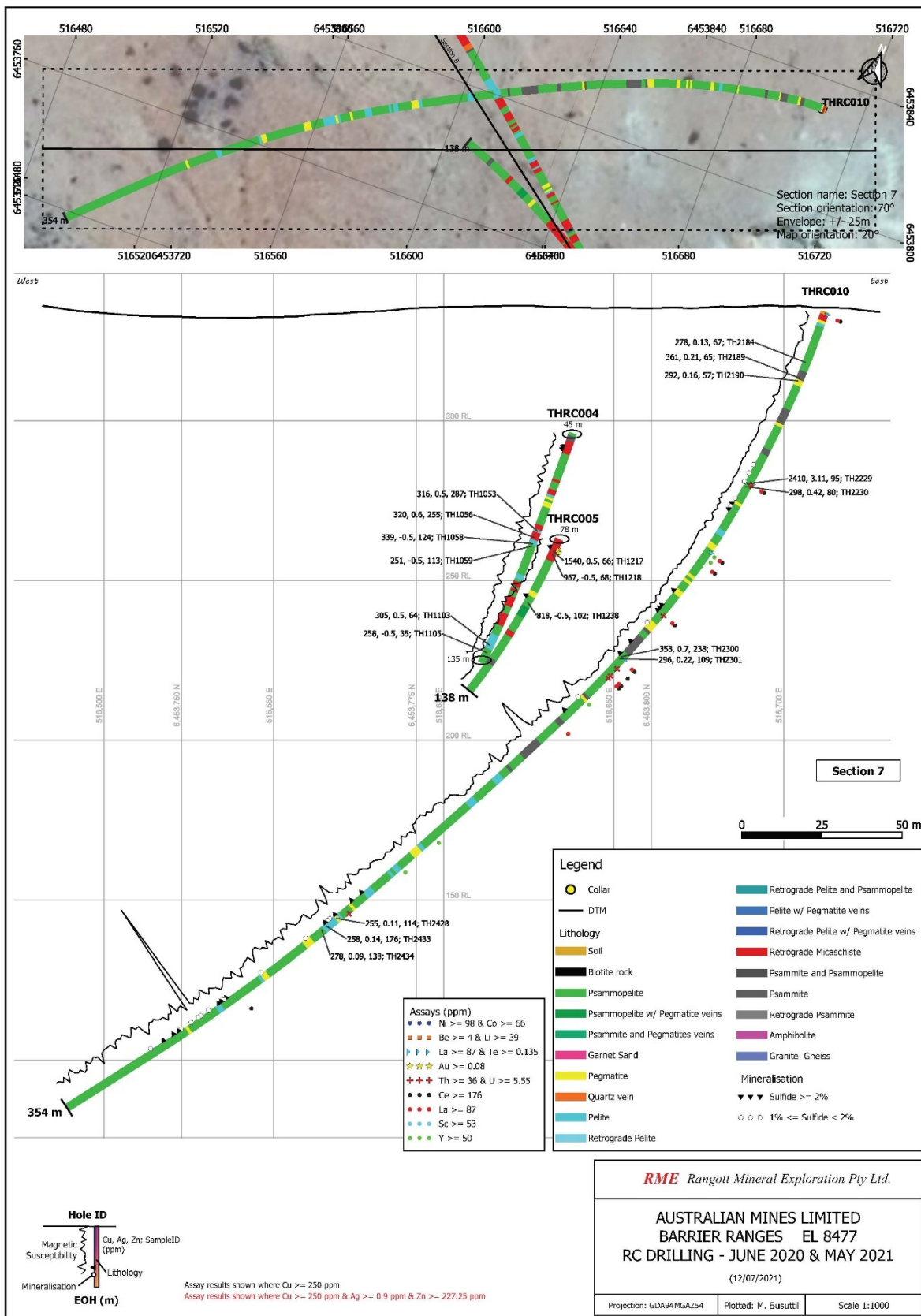
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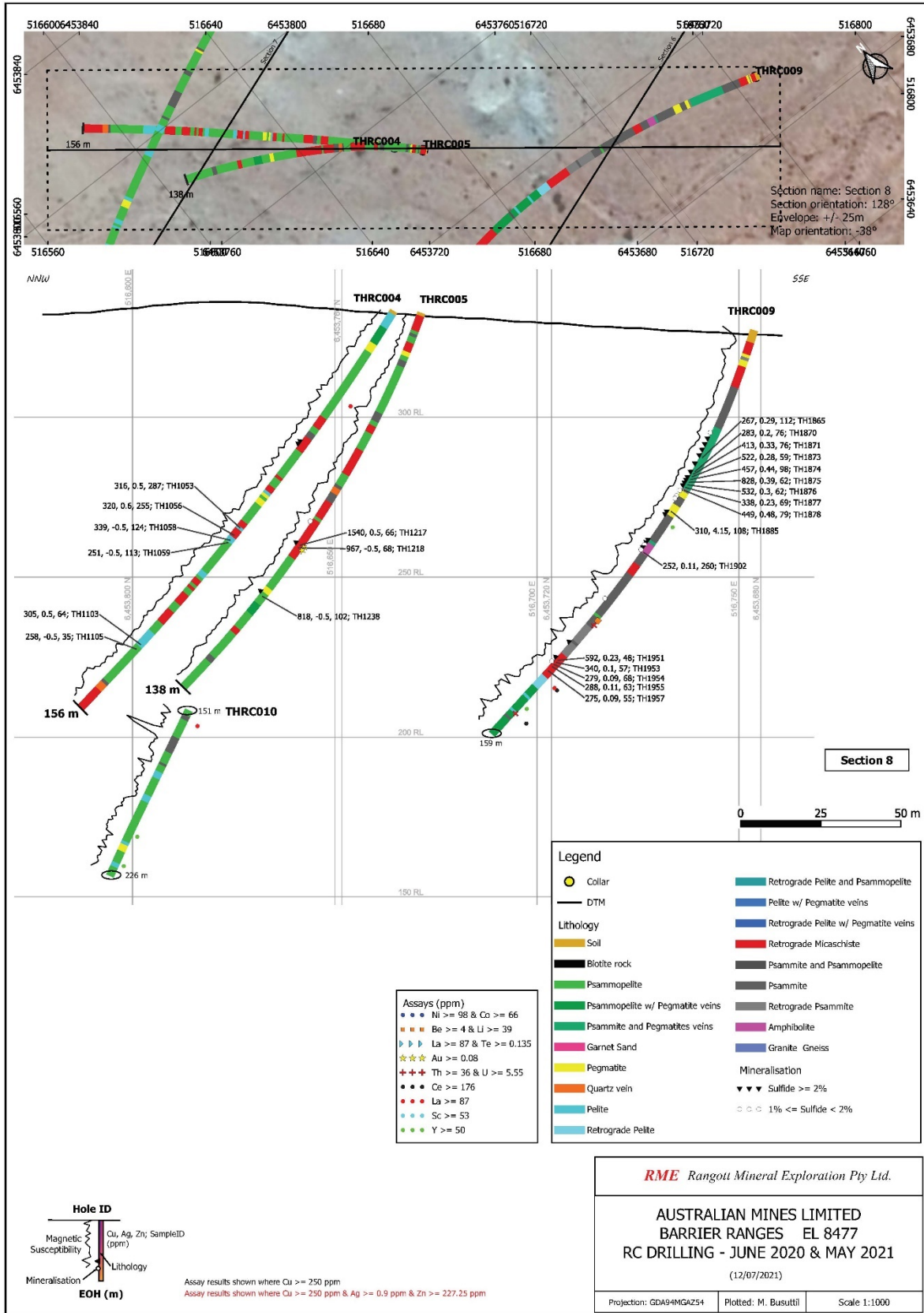


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## Appendix 9: Broken Hill Project, JORC Code, 2012 Edition

1.1 Table 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	<p>Reverse circulation drilling was used to obtain 1 metre samples from which 3 to 4 kilograms samples were rotary split for assay.</p> <p>Assay samples were completely pulverised before subsamples were split for fire assay and multi-element assay.</p> <p>Field duplicate samples were collected every 40 samples to test reproducibility of results.</p> <p>Careful drill operation allowed ground water to be controlled and dry samples collected. Over 99% of samples were recovered dry.</p> <p>Regular cleaning of drill rig sampling equipment undertaken to minimise contamination.</p>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <i>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 oriented and if so, by what method, etc).</i></li> </ul>	<p>Reverse circulation drilling using a track mounted UDR1200 rig with auxiliary and booster compressors. Nominal 140mm hole size.</p>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<p>Recovery considered good with between 30 and 35 kilograms per metre recovered.</p> <p>Careful drill operation allowed ground water to be controlled and dry samples collected. Over 99% of samples were recovered dry.</p>

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Criteria	JORC Code explanation	Commentary
<p><b>Logging</b></p>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <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>Systematic logging of all intervals at the rig as drilled.</p> <p>Logging includes lithology, grainsize, textures, vein quartz %, and ore mineralogy. No structural data was recorded due to the nature of RC drilling.</p> <p>Magnetic susceptibility recorded on one metre intervals.</p> <p>Reverse circulation drilling was used to obtain 1 metre samples from which 3 to 4 kilogram samples were rotary split for assay.</p> <p>Assay samples were completely pulverised before subsamples were split for fire assay and multi-element assay.</p> <p>Field duplicate samples were collected every 40 samples to test reproducibility of results.</p> <p>Careful drill operation allowed ground water to be controlled and dry samples collected. Over 99% of samples were recovered dry.</p> <p>Regular cleaning of drill rig sampling equipment undertaken to minimise contamination.</p> <p>Sample sizes are considered appropriate to the grain size of the material being sampled.</p>
<p><b>Sub-sampling techniques and sample preparation</b></p>	<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</i></li> </ul>	<p>Reverse circulation drilling was used to obtain 1 metre samples from which 3 to 4 kilogram samples were rotary split for assay.</p> <p>Assay samples were completely pulverised before subsamples were split for fire assay and multi-element assay.</p>

Criteria	JORC Code explanation	Commentary
	<p><i>sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>Field duplicate samples were collected every 40 samples to test reproducibility of results.</p> <p>Careful drill operation allowed ground water to be controlled and dry samples collected. Over 99% of samples were recovered dry.</p> <p>Regular cleaning of drill rig sampling equipment undertaken to minimise contamination.</p> <p>Sample sizes are considered appropriate to the grain size of the material being sampled.</p>
<p><b>Quality of assay data and laboratory tests</b></p>	<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>	<p>Assay performed by reputable laboratory, (ALS Chemex Orange and Brisbane).</p> <p>Assay samples were completely pulverised before subsamples were split for fire assay and multi-element assay.</p> <p>A 30 gram subsample was assayed by fire assay for gold, platinum and palladium (method PGM-ICP27).</p> <p>A 0.25g subsample was assayed for 33 elements after four-acid digestion (method ME-ICP61).</p> <p>Certified reference materials inserted every 40 samples. Field duplicates inserted every 40 samples.</p> <p>Acceptable levels of accuracy and precision have been established.</p>
<p><b>Verification of sampling and assaying</b></p>	<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> </ul>	<p>From drilling, data entry directly into spreadsheets. Initial validation by field staff. Data passed on to data management group (Expedio), for validation and storage in a relational database.</p> <p>No twinned holes drilled.</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	No adjustment of assay data.
<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>	<p>The MGA94 UTM zone 54 coordinate system was used for all undertakings.</p> <p>Drill hole locations obtained using post-processed differential GPS to ±0.1m metre</p> <p>Down hole path established using “Proshot” electromagnetic survey tool with magnetic interference assessed and considered minimal.</p> <p>All drilling data is presented in GDA94 / MGA zone 54.</p>
<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>	<p>Data spacing and distribution is insufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource.</p> <p>Sample compositing has not been applied.</p>
<b>Orientation of data in relation to geological structure</b>	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>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.</p>	<p>Due to the initial nature of the drilling and the multiply deformed geology present orientation sampling bias is unclear.</p> <p>Holes were orientated to cross modelled EM conductors at a high angle.</p>
<b>Sample security</b>	The measures taken to ensure sample security.	Samples delivered directly from drill rig to reputable courier company for transport to Rangott Mineral Exploration Orange where samples were checked prior to delivery to ALS Chemex Orange
<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>	No audits or reviews have been carried out.



**Table 2: Reporting of Exploration Results**

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>	<p>Australian Mines' Broken Hill Project is located 22 kilometres southwest of the township of Broken Hill in New South Wales (Australia) and comprises Exploration Licence number (EL) 8477</p> <p>Australian Mines is the registered owner of EL8477 and holds 100% interest in this tenement.</p> <p>There are no third-party agreements, royalties or similar associated with this tenement.</p> <p>EL8477 is in 'good standing' with recent historic minimum expenditure met or exceeded.</p>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p>1970s – MacPhar Frequency Domain Induced Polarisation (IP) Suvey</p> <p>1984 – Geoterrex Fixed Loop Electromagnetic Survey</p> <p>1996 – BHP Geotem (electromagnetic) survey</p> <p>2000 – NSW Government aeromagnetic survey</p>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<p>Australian Mines' Broken Hill tenement EL8477 lies 22 kilometres southwest of the township of Broken Hill.</p> <p>The tenement is considered prospective for Broken Hill-type lead-zinc-silver mineralisation.</p> <p>The area consists of the highly metamorphosed packages of the Willyama SuperGroup.</p>

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Criteria	JORC Code explanation	Commentary
<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>	<p>See Appendix 8 of this report.</p>
<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 (eg cutting of high grades) and cut-off 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>	<p>Samples reported on a distance weighted method with up to 1 metre of internal dilution.</p> <p>No cutting of high grades has been undertaken</p>
<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>	<p>Due to the preliminary nature of this drilling and the complex highly deformed nature of the area, the geometry of any mineralisation is not known.</p> <p>Holes were orientated to cross modelled EM conductors at a high angle.</p> <p>Only down hole lengths are reported.</p>
<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</li> </ul>	<p>Appropriate maps and sections are included in Appendix 8 of this report.</p>

Criteria	JORC Code explanation	Commentary
	<i>should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
<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>	All significantly anomalous results reported in detail in tables in Appendix 8 of this report.
<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>	<p>Other exploration data collected by the Company is not considered as material to this report at this stage.</p> <p>Further data collection will be reviewed and reported when considered material.</p>
<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>	No further work is proposed for the Broken Hill Project at this time.

