**ASX ANNOUNCEMENT** **25TH OCTOBER 2021**

# QUARTERLY ACTIVITIES REPORT

***Period ending 30th September 2021***

## HIGHLIGHTS

### Corporate

- Completion of successful $8.7M placement with institutional and sophisticated investors.
- In July, as detailed in the June quarterly report, AVL was awarded a $3.69M Australian Government Modern Manufacturing Initiatives (MMI) Grant in a competitive process for downstream vanadium processing, including:
    - High-purity vanadium pentoxide processing circuit
    - Building and operating a commercial vanadium electrolyte plant in WA
    - Manufacture of residential and stand-alone power systems in WA
- $1,622,806 received as an initial payment for the MMI Grant.
- Structured finance specialist HCF International appointed, in partnership with Grant Thornton Australia, to secure funding to support the development of the Australian Vanadium Project.
- Successful completion of ESG gap analysis by global consultancy Advisian, demonstrating that AVL is performing well relative to its stage of development.

### Australian Vanadium Project, Meekatharra, WA

- Globally significant combined roast/leach overall vanadium extraction of 92% confirmed.
- New test data has identified potential for increased vanadium resources and higher FeTi coproduct grades in southern blocks.
- Licence signed with U.S. Vanadium LLC for high purity vanadium oxide supply and vanadium electrolyte manufacturing technology.
- Primero appointed to undertake Early Contractor Involvement for the building of AVL's vanadium electrolyte manufacturing plant.
- Nickel, copper, gold, PGE and additional critical metals collaborative drilling exploration commenced at Gabanintha.
- Bankable Feasibility Study nearing completion.

### Coates Ni PGE Project, Northam District, WA

- Nickel, chrome, copper and PGE soil anomalies confirm prospectivity.
- Significant airborne electromagnetic conductor identified at Coates for follow up drilling using pre-approved EIS funding.

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## Management comment

AVL is progressing towards new vanadium production at a key time in global markets for the metal. Through the necessary, highly detailed work the team is undertaking, the Company is moving towards project validation, funding and development.

The Company is finalising its Bankable Feasibility Study with its consultants for the Australian Vanadium Project mine and concentrator at Gabanintha and strategically located Tenindewa vanadium processing plant. Estimates for detailed mining; crushing, milling and beneficiation (CMB); transport and infrastructure have been completed. Processing plant capital and operating estimates are well underway, with requests for quotes out to key equipment suppliers. Minesite water supply and drawdown modelling is complete. A greenhouse gas management plan has been submitted to the Environmental Protection Authority (EPA), a key requirement from AVL's EPA Referral.

An updated Mineral Resource Estimate is being prepared for the Project, as this is required for the detailed mine schedule, study feed modelling and financial modelling. The Company has also undertaken additional drilling for sterilisation work and to gain a full understanding of the characteristics of the mining and waste storage facility areas.

AVL has developed a strong Environmental, Social and Corporate Governance (ESG) approach to its work. Global consultancy Advisian, part of the Worley Group, has completed an ESG gap analysis on the Company and concluded that AVL is currently 'ahead of the curve' in relation to ESG performance when compared to its peers. This area of the Company's business will grow in importance as it attracts project investors from around the world.

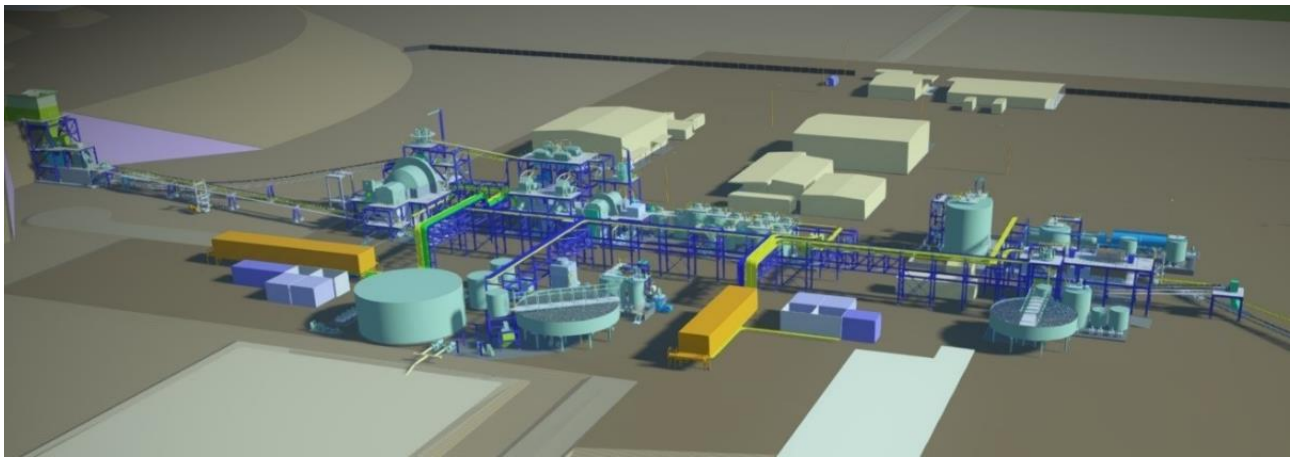

***Figure 1 3D Rendering of AVL's CMB Plant***

## ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE

The Company's ESG practises and plans are a key area of focus as the Project is advanced towards production. Global consultancy Advisian has finalised an ESG review of the Company, with AVL in a strong position as it moves into the next phase of project development.

A number of recommendations have been identified for action over the next 6-12 months, in anticipation of the commencement of procurement and production.

Areas that were identified as particularly positive for AVL included product lifecycle innovations that the Company has undertaken, including:

- Vanadium pelletisation roast patent application
- Turning tailings product into a saleable commodity
- Collaborative use of water
- Reusing process ammonia
- VSUN Energy as a vanadium redox flow battery subsidiary
- Vanadium electrolyte recycling for use in the battery or steel markets
- Innovative use of planned new green hydrogen production in the Mid-West region to reduce carbon dioxide emissions
- Planned use of renewable energy including vanadium based long duration energy storage on the Project to reduce fossil fuel consumption and energy cost

AVL plans to further develop its ESG credentials as a framework to ensure that its mine is developed with the International Council on Mining & Metals' Mining with Principles[1] (Figure 2) underpinning the process.


***Figure 2 International Council on Mining & Metals - Mining with Principles***

[1] https://miningwithprinciples.com/

## THE AUSTRALIAN VANADIUM PROJECT

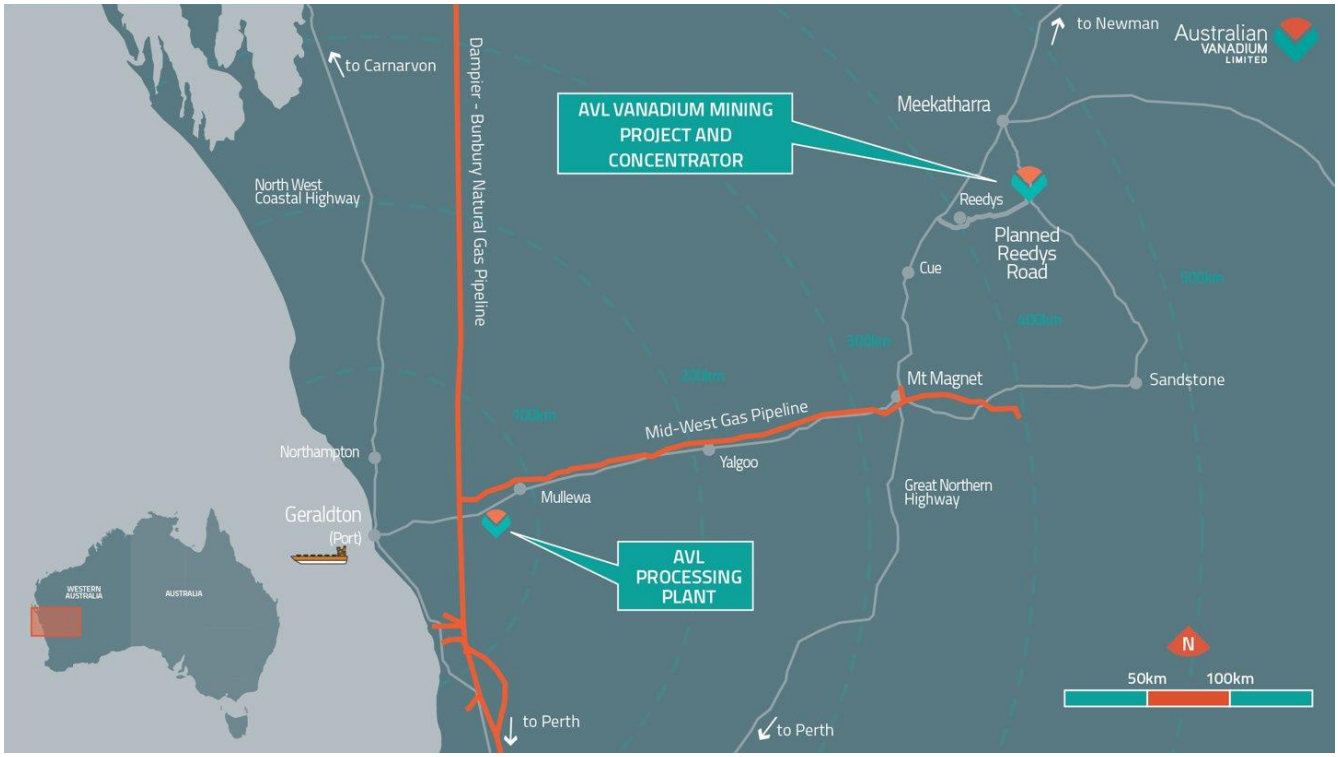


***Figure 3 Project Location Map in Western Australia***

The Australian Vanadium Project ("the Project") is an open pit mining and mineral processing project on a high-grade vanadium titanium iron (V-Ti-Fe) deposit in Western Australia. The Project is located in the Murchison Province, approximately 43kms south of the mining town of Meekatharra in Western Australia and 740km north-east of Perth, where the minesite and associated crushing, milling and beneficiation plant will be located. The processing plant will be located west of Mullewa in the City of Greater Geraldton and east of Geraldton Port, with beneficiated ore transported by road to the plant to be processed to final vanadium products.

The Project consists of 11 tenements covering approximately 260 sq km and is held 100% by Australian Vanadium Limited. Mining Lease M51/878 has been granted for a period of 21 years and covers approximately 70% of the Mineral Resource, with the balance of the Inferred Mineral Resource located on E51/843, owned 100% by AVL.

Activities for the quarter ended 30th June 2021 for Australian Vanadium Limited ("AVL" or "the Company") are as follows:

**Second stage leaching testwork supports targeted overall vanadium leach extraction**

*See ASX announcement dated 27th July 2021 'Vanadium Water Leach Meets Target for World Leading Extraction'*

Overall combined roast and leach vanadium extraction including first[2] and second leach stages has been validated at 92%, a key differentiator for AVL's pellet roast and leach processing circuit.

The water-leach and wash processes impressively removed 99% of soluble vanadium from the FeTi coproduct, enhancing its value for direct use in steelmaking.

AVL's unique mechanical water leach circuit has been shown to be a viable, cost-effective design, maximising onshore Australian extraction of high value critical mineral vanadium products.

The work was conducted at ALS testing facilities in Perth – a research partner in AVL's Australian Government's Cooperative Research Centre Projects scheme entitled: "Production of 99.95% Pure Vanadium Pentoxide and Vanadium Electrolytes".

***Figure 4 Process Engineer Greg O'Connor and Study Manager Trevor Smith inspecting the final stage of the heap leach test***

[2] See ASX announcement dated 8th June 2021 *'High Vanadium Extractions Confirmed in Pellet Leach Pilot as BFS Progresses'*

The success of this phase of the water-based leach of AVL's pelletised concentrate compares very favourably to other global operations that process vanadium from vanadium titanium magnetite deposits. Combined roast/leach extractions reported elsewhere are generally under 90%, with extractions usually in the low to mid 80s[3,4], supporting a significant advantage for the Project, having demonstrated overall vanadium extraction of 92%.

Significant amounts of AVL's FeTi coproduct were generated by the pilot leach program and samples have been sent for blast furnace customer testing in Asia. Vanadium pentoxide ($V_2O_5$) products will be analysed and used for specific customer testing in vanadium redox flow battery and specialty chemical applications.

**Potential for increased vanadium resources and higher FeTi coproduct grades in southern blocks**

*See ASX announcement dated 21st September 2021 'AVL Prepares for Vanadium Project Growth Opportunity'*

Beneficiation testwork from the southern resource blocks has indicated higher vanadium and iron concentrate grades. The iron grades in fresh magnetic concentrate are up to 61.0% Fe, demonstrating potential to improve the value of AVL's FeTi coproduct after vanadium extraction is completed.

The work that the AVL team has undertaken across the Project has provided the Company with a unique understanding of the mining recoveries that can be achieved. Grades of up to 1.51% $V_2O_5$ in concentrate confirm near surface opportunities for higher vanadium concentrate grades and recoveries.

New detailed ground geophysics in southern Block 90 confirms 1.5km extension of vanadium magnetite trend, with limited previous drilling.

[3] Largo Resources News Release, 12 May 2021. https://www.largoresources.com/
[4] Competent Persons' Report on the Vametco Vanadium Mine, North West Province, South Africa 10 January 2020. https://www.bushveldminerals.com/technical-reports/

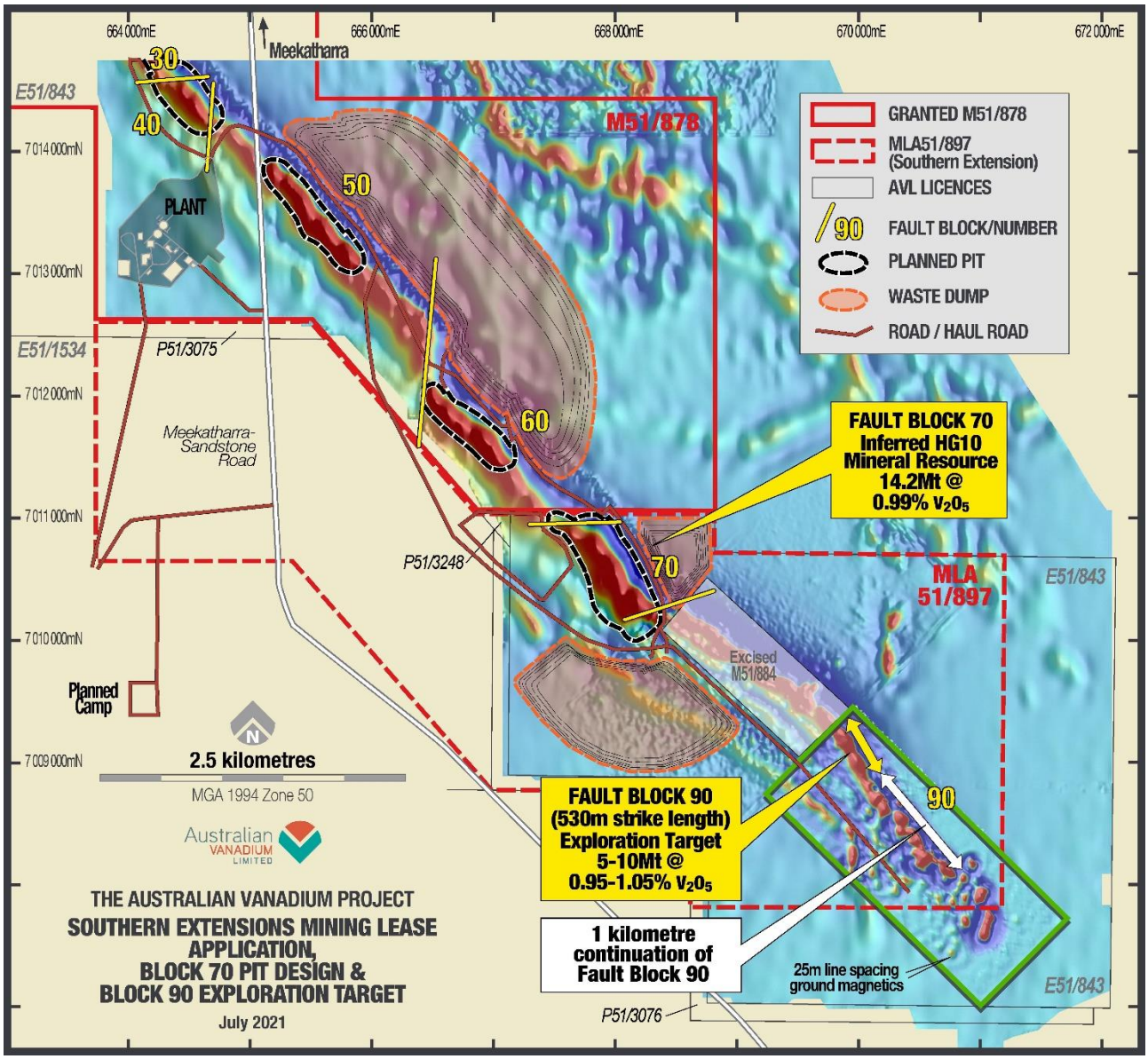


***Figure 5 Proposed Site layout for Block 70 ML 51/897 and Block 90 Exploration Target and Potential Extension[5]***

Following completion of the BFS, AVL will undertake further drilling to increase the Mineral Resource category in parts of Blocks 50, 60 and 70 and expand the Mineral Resource into Block 90.

Mineralogical studies will be completed to understand mineral variation across the deposit, to characterise areas where titanium better separates during magnetic beneficiation, resulting in a residual enrichment of iron within the concentrate.

[5] *The potential quantity and grade of the Exploration Target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.*

Upon completion of drilling and further characterisation work, improved quantification of the location and amount of material that will produce a high iron-vanadium concentrate will be incorporated into the mine studies and financial modelling for the Project.

**Nickel-Copper-Gold-PGE and additional critical metals collaborative drilling exploration at Gabanintha**

*See Bryah Resources Limited (ASX: BYH) ASX announcement dated 10th August 2021 'Regional Drilling Underway at Gabanintha'*

During the quarter, Bryah Resources Limited (Bryah) announced a 5,000m aircore drilling program at Gabanintha to investigate the extent and zonation of the Lady Alma Layered Igneous Complex, which has significant potential to host nickel-copper-gold and Platinum Group Elements (PGE) mineralisation. The Lady Alma Layered Igneous Complex hosts the Australian Vanadium Project.

Samples will be assayed for an extensive suite of elements, with the drilling being co-funded for up to $53,000 by the Western Australian State Government under its Exploration Incentive Scheme (EIS). The remainder of the funding will be split between Bryah and AVL. AVL is testing for new cobalt, chromium, vanadium and titanium horizons in the drilling.

At Gabanintha, the location of the Australian Vanadium Project, Bryah holds the rights to all minerals except vanadium, uranium, cobalt, chromium, titanium, lithium, tantalum, manganese and iron ore (Excluded Minerals). AVL retains 100% rights in the Excluded Minerals on the Gabanintha Project.

## VANADIUM IN ENERGY STORAGE

**Agreement signed with U.S. Vanadium LLC for high purity vanadium oxide supply and vanadium electrolyte manufacturing technology**

*See ASX announcement dated 11th August 2021 'AVL Secures Vanadium Electrolyte Manufacturing Technology'*

AVL has signed a Memorandum of Understanding (MOU) with U.S. Vanadium LLC (USV) for the supply of vanadium oxides for vanadium electrolyte production in Australia. The MOU includes a licence for low cost USV technology to convert vanadium oxides to vanadium electrolyte for use in vanadium redox flow batteries (VRFBs). The MOU covers exclusivity over the technology licence for Australia and New Zealand.

USV is a global leader in the production of high purity vanadium oxide products and a key vanadium battery electrolyte supplier based in the USA. An initial order for USV vanadium oxides has arrived in Perth for conversion and will be used in a commercial flow battery deployment.

Under the agreement, high purity vanadium oxides can be sourced from either USV or AVL and be used to produce vanadium electrolyte for Australian battery installations. The agreement enables AVL to commence commercial vanadium electrolyte production ahead of planned production of its own vanadium products, leading Australian VRFB market development.

The technology and supply agreement complements AVL's recently awarded MMI grant to co-fund commercial vanadium electrolyte manufacturing plant development in WA.

**Vanadium electrolyte manufacturing plant build underway with Primero**

*See ASX announcement dated 27th September 2021 'Vanadium Electrolyte Manufacturing Plant Build Awarded to Primero'*

Western Australian engineering group Primero (a subsidiary of NRW Holdings), has been appointed to undertake the Early Contractor Involvement (ECI) for the building of AVL's vanadium electrolyte manufacturing plant. This will form stage 1 of the vanadium electrolyte manufacturing plant build process, with stage 2 being the engineering, procurement, and construction (EPC).

The ECI stage will incorporate analysis of the U.S. Vanadium LLC plant design, including alignment with Australian standards, design layouts and EPC contract preparation. Primero is also working with AVL to review potential locations for the plant in WA. The vanadium electrolyte plant will initially be able to produce enough electrolyte per annum to fill VRFBs that can store up to 33MWh of energy.

For comparison, a single Tesla Powerwall stores 13.5kWh of energy[6], with the electrolyte plant producing the equivalent energy storage capacity of 2,444 Powerwalls per year.

AVL's commercial vanadium electrolyte plant will be partly funded by the Australian Government's manufacturing grant. The AVL facility will be the first full scale vanadium electrolyte manufacturing plant in Australia.

Vanadium electrolyte is the key component of VRFBs which are used to store and redeploy renewable energy.

AVL has partnered with U.S. Vanadium LLC to utilise proven electrolyte manufacturing technology, simplifying design, construction, and start-up.

The facility will support the anticipated rapid growth of the long duration, renewable energy powered VRFB market in Australia.

**Opportunities offered by manufacturing grant**

Further to the award of the Australian Government's manufacturing grant, AVL's 100% subsidiary VSUN Energy has been advancing its residential battery and stand-alone power system (SPS) plans.

CADDS Group in Bibra Lake has undertaken work to produce concept designs followed by engineering designs for a 5kW/15kWh residential VRFB. The next stage of the project is to build a prototype which can be tested. Feedback is being provided to the manufacturer of the core battery components in China, so that its design can be refined and completed.


***Figure 6 Residential 5kW/15kWh VRFB design intents***

VSUN Energy is currently finalising site selection for its VRFB SPS, with the intent being to deploy to a minesite location. The SPS has been designed to allow the duplication and mass manufacture

[6] See manufacturer's website

of reliable, high penetration renewable energy SPS units. The SPS is targeted at "diesel off" scenarios in the mining, agricultural and remote community markets. The inherent strengths of the VRFB, including long asset life; low maintenance requirements; high temperature tolerance and zero flammability risk, alongside flexibility of operation, allows VSUN Energy to offer a solution for sale which dramatically reduces diesel use, or ideally eliminates it entirely.

**Three 5kW/30kWh VRFBs have arrived in Perth for commercial and residential installations**

*See ASX announcement dated 2nd September 2021 'Vanadium Redox Flow Battery Shipment to Kickstart Industry'*

Three 5kW/30kWh VRFBs manufactured by AVL's Singaporean partner V-Flow Tech have arrived in Perth. The batteries are destined for the Beverley Caravan Park, an off-grid residential customer in WA and a test site being developed by one of WA's energy utilities.

AVL and VSUN Energy have previously signed an MOU with V-Flow for vanadium pentoxide offtake, vanadium electrolyte supply, VRFB sales, installation, service and maintenance.[7]

The companies have developed a strong relationship with V-Flow Tech, with the three batteries being the first from the manufacturer in Australia. The installations will further increase the companies' inhouse experience and provide valuable local operating examples of the Australian-invented storage technology.


***Figure 7 AVL's MD Vincent Algar and VSUN Energy's Electrician Lee Bourke, alongside VSUN Energy branded V-Flow Tech 5kW/30kWh VRFBs***

[7] See ASX announcement dated 1st December 2020 *'Vanadium Offtake, Electrolyte Supply and Battery Sales MOU'*

The first of the three batteries is destined for Beverley Caravan Park which is operated by the Shire of Beverley. The caravan park currently offers 19 powered sites and the VRFB will help the Shire to shift daytime renewable production to evening and night time use for the park's customers. VSUN Energy has already installed the 26kW solar array that will be paired with the battery. Under current feed in tariffs, any excess energy not used by the park is fed back to the grid, with no financial benefit to the Shire. Shifting this otherwise “wasted” energy will allow an increase in renewable consumption for the park and also allow it to reduce energy costs over the next 25 years and beyond.

The second battery will be installed at a rural residential property in regional Western Australia as part of an SPS. The client has decided to run his site with an SPS, rather than connect to the Western Power network, due to the high outages traditionally seen in his area, as well as the significant costs associated with a grid connection. The customer selected the VRFB SPS due to its long lifespan, lack of degradation, robustness and non-flammability.

The final battery of the three will be used in a test project with a WA energy utility. Its installation will enable both VSUN Energy, external engineers, and potential clients to use a local working example of a VRFB, rather than examining installations and data from other countries. This will provide further proof of concept and the learnings required to support decisions on energy storage technology options.

## COATES PROJECT

**Highly encouraging Copper and PGE soil anomalism comparable with Chalice Gold Mines' Julimar Project soil signatures**

*See ASX announcement dated 5th August 2021 'Nickel Chrome Copper PGE Anomalies Identified at Coates Project'*

AVL is exploring for nickel, base metals, gold and platinum group elements (PGEs) at its Coates Project near Wundowie 80km NE of Perth in WA. The project covers a southern extension of similar mafic-ultramafic rocks to the sequence that is host to the Chalice Gold Mines' nickel-copper-PGE Julimar Project (ASX:CHN) 29 km NNW of Coates. The Coates Project hosts a vanadium-titanium magnetite deposit (VTM) and was previously explored only for vanadium-titanium mineralisation, with no other metal assays recorded.

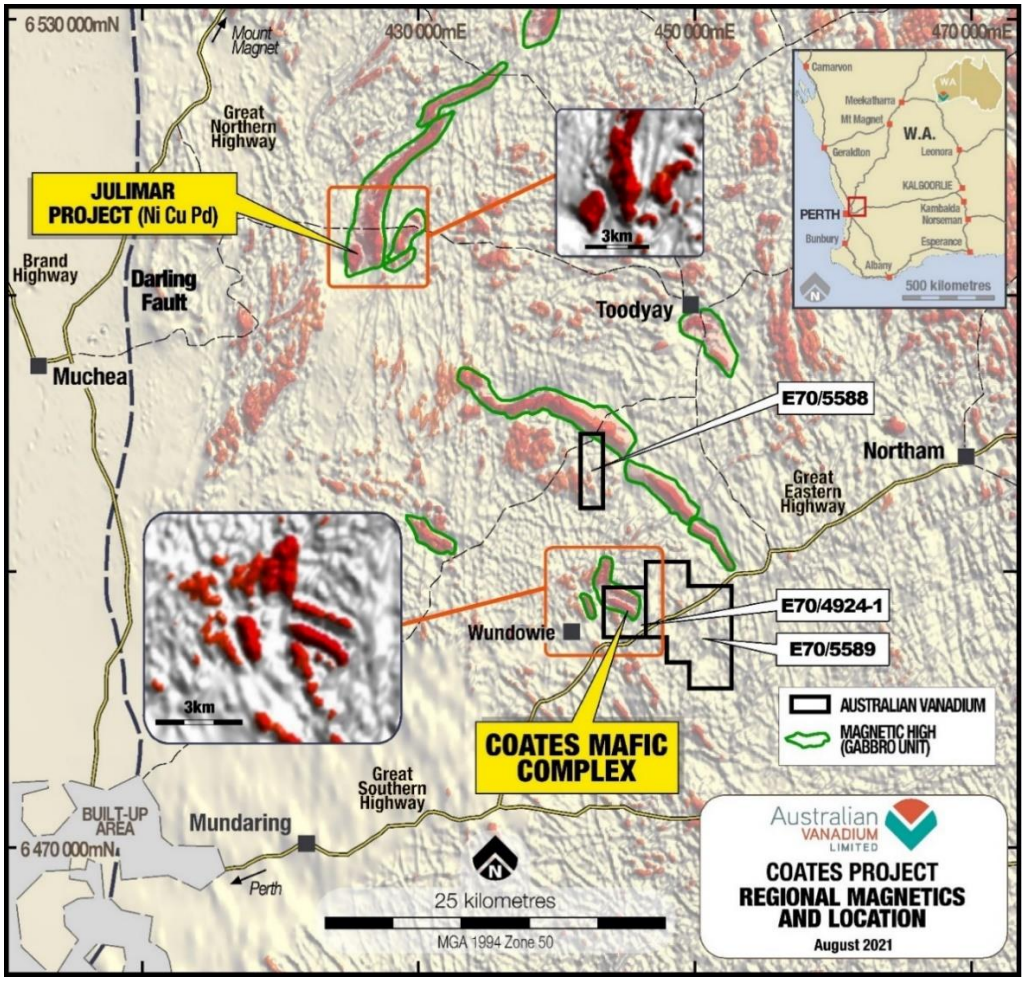


***Figure 8 Coates Mafic Complex Location and Tenure showing proximity and magnetic similarity to Chalice Gold Mines Julimar Discovery on 80m GSWA Aeromagnetics Imagery[8]***

[8] Brett JW, 2020, 80 m Magnetic Merged Grid of Western Australia 2020 version 1: Geological Survey of Western Australia, www.dmp.wa.gov.au/geophysics

An initial soil survey undertaken by AVL at Coates highlighted a prospective sequence of Ni, Cu, PGE bearing rock untested by recent exploration. Copper anomalism at the project is comparable with significant soil signatures at Chalice Gold Mines' Julimar Project. Elevated nickel and chrome were present in soils in a new PGE anomaly identified in NW of soil grid.

The Company also secured 200m of historical diamond drill core from Coates Project for PGE and base metals analysis.

**Significant 1,900 metre long electromagnetic conductor at Coates highlights exploration potential**

*See ASX announcement dated 14th October 2021 'Electromagnetic Conductors at Coates Nickel-Copper-PGE-Project''*

Three conductors have been identified by a SkyTEM Airborne Electromagnetics (AEM) survey at Coates, with the largest having a strike length of 1,900 metres. This coherent 1,900m long bedrock conductor (T2) is present to the northeast and parallel to the Coates magnetite gabbro. The AEM results are highly encouraging considering the success of the method in other discoveries in the area. The new data supports the matching geological setting for Ni-PGE bearing host rocks.

No drilling has been completed in the T2 area, along a magnetic high and topographic low interpreted by AVL to be a serpentinised ultramafic unit, an ideal host for Ni-PGE mineralisation. Two additional lower tenor bedrock conductors (T4 and T6) have also been identified in the south of the tenement area.

EIS co-funded Reverse Circulation (RC) pre-collar and diamond tail drilling is planned for Q4 2021[9]. The grant is for up to $112,500, half of the cost of an 11 hole drill program. The drilling will provide a stratigraphic section through the Coates Mafic Intrusion within AVL tenure, allowing for lithological and geochemical studies, focussing on nickel-copper-PGE prospectivity. The results from the SkyTEM survey strongly support the validity of the existing drill program design to test mafic – ultramafic stratigraphy.

[9] See AVL ASX announcement dated 23rd April 2021 *"Grant Funding for Nickel-Copper-PGE-Gold Drilling at Coates Project"*

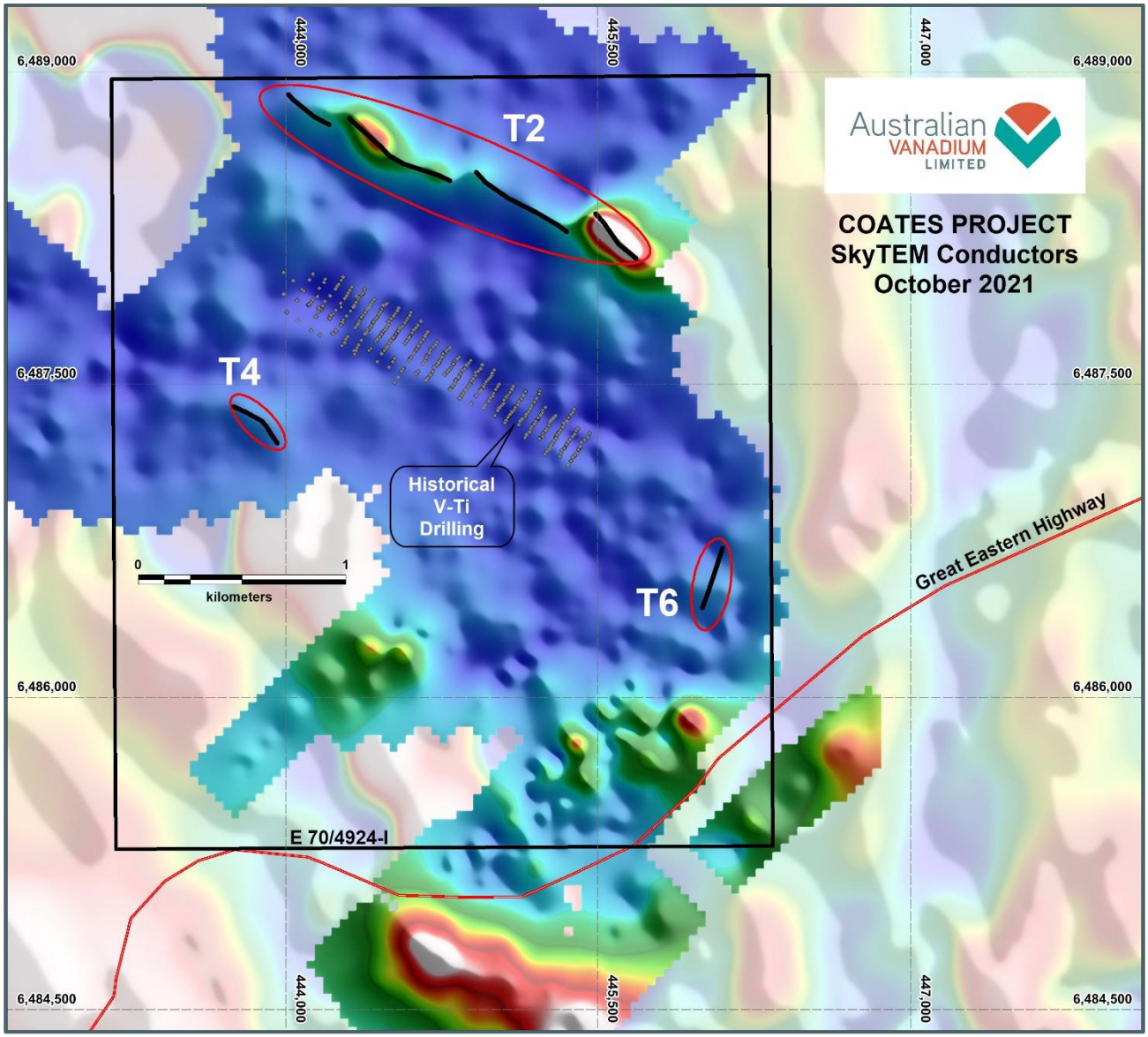


***Figure 9 SkyTEM results (Channel 30) with bedrock conductors T2, T4 and T6 in AVL tenement E 70/4924-I***

An application for approval to conduct non-ground disturbing works (soil sampling and ground geophysics) will be submitted to the Department of Biodiversity, Conservation and Attractions (DBCA) during Q4 2021 as part of the approvals process to work on a wider area of E70/4924-I and within Woondowing Reserve.

Further soil surveys will be completed to cover the main intrusive area. Focus will be on extending sampling out from the areas showing anomalous Cu, Pt, Ni, Cr soil geochemistry identified in the 2021 survey, pending approval by DBCA.

## CORPORATE

### Appendix 5B – Quarterly cash flow report

The cash position of AVL as at 30th September 2021 was $9.324 million.

The aggregate amount of payments to related parties and their associates included in the current quarter cash flows from operating activities was $182k, comprising Directors' fees, staff salaries and superannuation.

During the quarter $73k was expensed for exploration and evaluation which related to tenement management. Of the $2,694k exploration and evaluation expenditure capitalised, $112k was spent on activities related to the Cooperative Research Centre Project. A further $2,212k was spent on the BFS update including engineering work ($1,241k paid to Wood Group), environmental work ($75k paid to Umwelt), hydrogeology ($190k), drilling ($234k to Austral Drilling), tailings ($86k to Golder Associates for tailings storage facility design) and mine study costs ($109k paid to Orelogy Consulting). The balance of exploration and evaluation expenditure comprised of other consultants and labour, testwork and other tenement expenses.

On 30th July the Company received $1,622,806 (inclusive of GST) as an initial payment for the MMI Grant.

The Company issued 348,000,000 ordinary fully paid shares on 30th August under a Placement to raise $8.7M before costs. For every one share issued one free attaching option was issued. The options have an exercise price of $0.025 and will expire on 18 December 2022.

No production and development activities were undertaken during the quarter.

### Award of Australian Government manufacturing grant

*See ASX announcement dated 22nd July 2021 'AVL Awarded $3.69M Federal Government Manufacturing Grant'*

AVL has been awarded a $3.69 Million competitive grant from the Australian Government under the Resources Technology and Critical Minerals Processing National Manufacturing Priority Grant.

On 30th July the Company received $1,622,806 (incl GST) as an initial payment for the Grant.

The grant is for matched funding to support AVL's plan to:

- Include a high-purity processing circuit to produce battery, chemical and master-alloy grade vanadium pentoxide as part of the development of the Australian Vanadium Project.
- Build and operate a commercial vanadium electrolyte plant based in WA, to support the rollout of VRFBs in Australia.

- Manufacture prototype/demonstration residential and SPS based on VRFB technology, for distribution into Australian energy markets.

AVL's vertical integration strategy for the battery market has been developed since it launched VSUN Energy in 2016. VSUN Energy was created to focus on the development of the battery application of vanadium in Australia. The steel market currently consumes most of the world's vanadium production and defines both demand and prices. A secondary market for battery applications will create significant new demand and help to develop price stability.

The Company plans to supply $V_2O_5$ from the Project to manufacture vanadium electrolyte which will then be supplied to VRFB projects in Australia and in the Asia Pacific Region. The electrolyte plant will be the first and only plant of its type in the region.

VSUN Energy installs and maintains commercial VRFB systems. Customers will benefit from the availability of locally produced vanadium electrolyte, which is currently sourced mainly from China.

The AVL strategy and grant objectives complement both the Federal and State governments' plans for the battery industry in Australia and the addition of value to minerals mined in Australia. Emphasising the importance of the value and jobs being retained inside Australia.

**HCF International appointed, in partnership with Grant Thornton Australia**

*See ASX announcement dated 16th September 2021 'AVL Appoints Global Financial Adviser'*

AVL has appointed London based HCF International Advisers Limited (HCF), in partnership with Grant Thornton Australia, to assist with evaluating and arranging the debt financing to support the construction of the Project.

HCF is a leading independent corporate finance advisory boutique, with strong technical and financial expertise, focused on the global natural resources sectors and providing advice across the complete life cycle of projects.

HCF assists in securing finance for mining companies globally, from strategic and financial equity through to debt funding in the form of project and alternate finance, such as streams and royalties. Since its foundation in 2003, HCF has earned a reputation for delivering innovative solutions to clients through the execution of transactions with a value in excess of USD 12 billion.

Grant Thornton is one of the world's leading organisations of independent assurance, tax and advisory firms. In Australia, Grant Thornton provides a broad range of services to mining companies, with cross-disciplined, internationally focused teams.

**Marketing**

During the September quarter AVL and VSUN Energy attended or presented at:

- Energy in WA Conference, Perth (attended)
- Diggers and Dealers, Kalgoorlie (attended)
- Meekatharra Careers Expo, Meekatharra (exhibited)
- Midwest Major Projects Update 2021, Geraldton (presented)
- Australian India Business Exchange Critical Minerals, online (presented)
- Net Zero Emission Mining Conference, Perth (attending and sponsoring – VSUN Energy)
- Mining and Resources Investor Webinar, online (presenting)
- Mines and Money Online Connect @ IMARC, online (presenting)

The Company maintains a strong presence on social media platforms and through its mailing list, summarising Company and vanadium related news and developments. The Company is promoted under Australian Vanadium, AVL and VSUN Energy brand names.

For further information, please contact:

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*This announcement has been produced in accordance with the Company's published continuous disclosure policy and has been approved by the Board.*

## MINERAL RESOURCE

*Table 1 - The Australian Vanadium Project Mineral Resource Estimate at February 2020 by Domain and Resource Classification*[10]

| Zone | Classification | MT | $V_2O_5$% | Fe% | $TiO_2$% | $SiO_2$% | $Al_2O_3$% | LOI% |
|---|---|---|---|---|---|---|---|---|
| HG 10 | Measured | 10.1 | 1.14 | 43.9 | 13.0 | 9.2 | 7.5 | 3.7 |
| | Indicated | 25.1 | 1.10 | 45.4 | 12.5 | 8.5 | 6.5 | 2.9 |
| | Inferred | 52.7 | 1.04 | 44.6 | 11.9 | 9.4 | 6.9 | 3.3 |
| | **Subtotal** | **87.9** | **1.06** | **44.7** | **12.2** | **9.2** | **6.8** | **3.2** |
| LG 2-5 | Measured | - | - | - | - | - | - | - |
| | Indicated | 44.5 | 0.51 | 25.0 | 6.8 | 27.4 | 17.0 | 7.9 |
| | Inferred | 60.3 | 0.48 | 25.2 | 6.5 | 28.5 | 15.3 | 6.7 |
| | **Subtotal** | **104.8** | **0.49** | **25.1** | **6.6** | **28.0** | **16.1** | **7.2** |
| Transported 6-8 | Measured | - | - | - | - | - | - | - |
| | Indicated | - | - | - | - | - | - | - |
| | Inferred | 15.6 | 0.65 | 28.4 | 7.7 | 24.9 | 15.4 | 7.9 |
| | **Subtotal** | **15.6** | **0.65** | **28.4** | **7.7** | **24.9** | **15.4** | **7.9** |
| Total | Measured | 10.1 | 1.14 | 43.9 | 13.0 | 9.2 | 7.5 | 3.7 |
| | Indicated | 69.6 | 0.72 | 32.4 | 8.9 | 20.6 | 13.2 | 6.1 |
| | Inferred | 128.5 | 0.73 | 33.5 | 8.8 | 20.2 | 11.9 | 5.4 |
| | **Total** | **208.2** | **0.74** | **33.6** | **9.0** | **19.8** | **12.1** | **5.6** |

*Table 2 Ore Reserve Statement as at December 2020, at a cut-off grade of 0.7% $V_2O_5$*

| Ore Reserve | Mt | $V_2O_5$% | $Fe_2O3$% | $TiO_2$% | $SiO_2$% | LOI% | $V_2O_5$ production kt |
|---|---|---|---|---|---|---|---|
| Proved | 9.8 | 1.08 | 59.9 | 12.4 | 8.7 | 3.5 | 63.2 |
| Probable | 22.4 | 1.04 | 61.7 | 11.8 | 8.3 | 2.8 | 158.9 |
| **Total Ore** | **32.1** | **1.05** | **61.2** | **12.0** | **8.4** | **3.0** | **222.1** |

| Ore Reserve | Mt |
|---|---|
| Waste | 244.5 |
| Total Material | 276.7 |
| Strip Ratio | 7.6 |

[10] Using a nominal 0.4% $V_2O_5$ wireframed cut-off for low grade and nominal 0.7% $V_2O_5$ wireframed cut-off for high grade (total numbers may not add up due to rounding).

***Table 3 - Tenement Schedule***

Tenement information as required by Listing Rule 5.3.3 for the quarter ended 30 September 2021.

| Project | Location | Tenements | Economic Interest | Notes | Change in Quarter % |
|---|---|---|---|---|---|
| **Western Australia** | **The Australian Vanadium Project** | E51/843 | 100% Granted[1] | | Nil |
| | | E51/1534 | 100% Granted[1] | | Nil |
| | | E51/1899 | 100% Granted[1] | | Nil |
| | | E51/1943 | 100% Granted[1] | | Nil |
| | | E51/1944 | 100% Granted[1] | | Nil |
| | | L51/116 | | 100% on Application | Nil |
| | | P51/3073 | 100% Granted | | Nil |
| | | P51/3074 | 100% Granted | | Nil |
| | | P51/3075 | 100% Granted | | Nil |
| | | P51/3076 | 100% Granted | | Nil |
| | | PLA51/3248 | | 100%[1] on Application | 100% |
| | | M51/878 | 100% Granted | | Nil |
| | | M51/888 | 100% Granted[1] | | Nil |
| | | MLA51/890 | | 100%[1] on Application | Nil |
| | | MLA51/897 | | 100%[1] on Application | 100% |
| | | L51/119 | | 100%[1] on Application | 100% |
| | | ELA51/2067 | | 100%[1] on Application | 100% |
| **Western Australia** | **Nowthanna** | M51/771 | 100% Granted | | Nil |
| **Western Australia** | **Peak Hill** | E52/3349 | 0.75% NSR Production Royalty | | Nil |
| **Western Australia** | **Coates** | E70/4924-I | 100% Granted | | Nil |
| | | E70/5588 | 100% Granted | | Nil |
| | | ELA70/5589 | | 100% on Application | Nil |
| **South Africa** | **Blesberg** | (NC) 940 PR | 10% | | Nil |

*Note 1: Australian Vanadium Limited retains 100% rights in V/U/Co/Cr/Ti/Li/Ta/Mn & iron ore on The Australian Vanadium Project. Bryah Resources Limited holds the Mineral Rights for all minerals except V/U/Co/Cr/Ti/Li/Ta/Mn & iron ore only.*

## FORWARD LOOKING STATEMENTS

Some of the statements contained in this report are forward looking statements. Forward looking statements include, but are not limited to, statements concerning estimates of tonnages, expected costs, statements relating to the continued advancement of Australian Vanadium Limited's projects and other statements that are not historical facts. When used in this report, and on other published information of Australian Vanadium Limited, the words such as 'aim', 'could', 'estimate', 'expect', 'intend', 'may', 'potential', 'should' and similar expressions are forward looking statements.

Although Australian Vanadium Limited believes that the expectations reflected in the forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that the actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements including the potential that Australian Vanadium Limited's project may experience technical, geological, metallurgical and mechanical problems, changes in vanadium price and other risks not anticipated by Australian Vanadium Limited.

Australian Vanadium Limited is pleased to report this information in a fair and balanced way and believes that it has a reasonable basis for making the forward-looking statements in this report, including with respect to any mining of mineralised material, modifying factors, production targets and operating cost estimates.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

## COMPETENT PERSON STATEMENT – EXPLORATION RESULTS AND TARGETS

The information in this report that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr Brian Davis (Consultant with Geologica Pty Ltd). Mr Davis is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Davis consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

## COMPETENT PERSON STATEMENT — MINERAL RESOURCE ESTIMATION

The information in this announcement that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd) and Mr Brian Davis (Consultant with Geologica Pty Ltd). Mr Barnes and Mr Davis are members of the Australasian Institute of Mining and Metallurgy (AusIMM) and Mr Davis is a member of the Australian Institute of Geoscientists, both have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Barnes is the Competent Person for the estimation and Mr Davis is the Competent Person for the database, geological model and site visits. Mr Barnes and Mr Davis consent to the inclusion in this announcement of the matters based on their information in the form and context in which they appear.

## COMPETENT PERSON STATEMENT – METALLURGICAL RESULTS

The information in this announcement that relates to Metallurgical Results is based on information compiled by independent consulting metallurgist Brian McNab (CP. B.Sc Extractive Metallurgy), Mr McNab is a Member of AusIMM. Brian McNab is employed by Wood Mining and Metals. Mr McNab has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is undertaken, to qualify as a Competent Person as defined in the JORC 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr McNab consents to the inclusion in the announcement of the matters based on the information made available to him, in the form and context in which it appears.

## COMPETENT PERSON STATEMENT – ORE RESERVES

The technical information in this announcement that relates to the Ore Reserve estimate for the Project is based on information compiled by Mr Ross Cheyne, an independent consultant to AVL. Mr Cheyne is a Fellow of the Australasian Institute of Mining and Metallurgy. He is an employee and Director of Orelogy Mine Consulting Pty Ltd. Mr Cheyne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a competent person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Cheyne consents to the inclusion in the announcement of the matters related to the Ore Reserve estimate in the form and context in which it appears.