

ASX Announcement 9 April 2021

### Stavely-Stawell Gold-Copper Project, Victoria

# Alteration mapping identifies new highly prospective copper and gold targets

- Cutting-edge WorldView-3 satellite imagery confirms existing drill targets and identifies new high-ranking prospects
- Field reconnaissance and geological mapping ongoing at gold and copper targets confirms extensive alteration systems
- Inaugural drilling programme targeting Moyston fault set to start later this month

Battery Minerals Limited (ASX: BAT, Battery Minerals Limited) is pleased to provide an update on exploration activities underway at its Stavely-Stawell Gold-Copper Project in Western Victoria.

As part of this work, the Company has obtained cutting-edge WorldView-3 satellite images which identify alteration targets associated with mapped mineralisation in prospective host rocks.

These targets will be drilled as part of the 5,000m air core program starting later this month. The satellite imagery has also identified further targets in "copper" prospective host rocks which the Company plans to drill in June 2021.

In addition to confirming existing and identifying new drill targets, the datasets have also highlighted priority areas for soil geochemistry.

Battery Minerals Managing Director David Flanagan said the satellite images were important because they provided more evidence of the substantial exploration potential at the Stavely-Stawell project.

"The WorldView-3 satellite images highlight alteration associated with anomalous soil geochemistry, gold workings, historical drilling intercepts and prospective rock units along strike from known discoveries or mines," Mr Flanagan said.

As part of its systematic exploration campaign, the Company has identified geological trends with known endowments of gold, copper and other base metals.

The historic Moyston gold mine on its Stavely-Stawell Project is located on the Moyston Fault. The Stawell Gold Mine is to the east (associated with structures intersecting basalt domes) and Stavely Minerals' (ASX:SVY) Thursday's Gossan copper deposit and Navarre Minerals' (ASX:NML) Morning Bill prospect are to the south of the Company's Stavely-Stawell Project within the extension of the Stavely Volcanic Sequence. All these provide strong and relevant mineralisation models to apply across the area (figure 2,4).

Within these "geological trends", the Company is acquiring and applying a combination of data sets to generate quality targets and narrow its focus in preparation for drilling.

Across a strike length of ~67km, Battery Minerals is applying the latest exploration techniques to look for signatures of substantial alteration systems capable of delivering significant discoveries.



Since completing the acquisition of the project in October 2020, the Company has collected and validated large datasets and sustained fieldwork for the first time on the ground, which has been closed to exploration for over 20 years.

Culminating with the recent acquisition of this WorldView-3 processed (alteration mapping) satellite data, the Company has now for the first time compiled historical drilling, soil geochemistry, rock chip sampling, geological mapping, magnetic and EM (electro-magnetic) surveys.

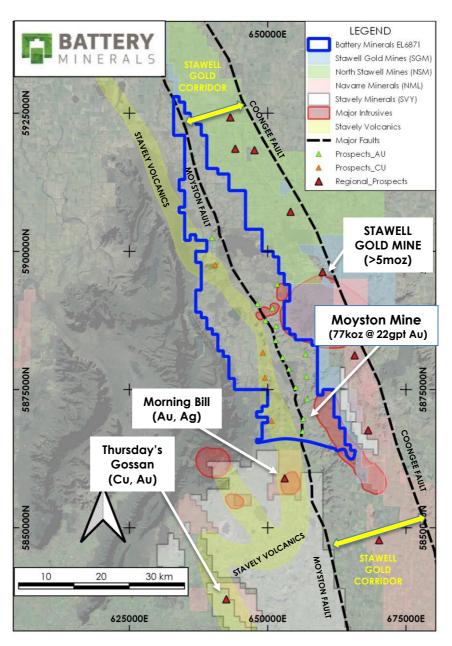


Figure 1: Battery Minerals - Regional Prospects

The Company has also acquired LiDAR data (used to map historical workings) and reprocessed extensive airborne magnetic data. In addition, a 3000 line kilometre EM survey is planned for the September 2021 Quarter.



#### **Detail on WorldView-3 Satellite Imagery**

The WorldView-3 Satellite superspectral imagery measures 17 spectral bands across the visible, near infrared and short-wave infrared portion of the spectrum with 15cm/1.24m/3.8m pixel resolution to assist with the exploration focus over the Company's 808sqkm tenure.

The WorldView-3 satellite shows a dramatic improvement in spatial and spectral resolution compared to the previous generation of resource satellites – Landsat, Sentinel and ASTER - and is the best remote sensing satellite technology commercially available to assist mineral exploration at high-resolution project scales. Interpretation of imagery was completed by Exploration Mapping Group Inc, a Nevada based provider of satellite geological remote sensing services for exploration and mining companies worldwide.

Several image processing techniques were used to explore scene variability, enhance surface cover types, map the spectral geology and alteration and provide potential vectors to mineralisation using state-of-the-art artificial intelligence and deep learning approaches.

WordView-3 is a useful target generation tool. It is not certain that ongoing exploration work will deliver resources and reserves from any targets generated from WordlView-3.

#### **Stavely-Stawell Alteration Targets**

Mineral alteration assemblages are important as they indicate hydrothermal fluids, which are common transporters of mineralisation such as gold and copper, have concentrated in these prospective host rock and outcrop areas. This is also supported in areas by surface sampling (figures 2,3,4).

Figure 2 highlights the alteration 'hot-spots' in orange in relation to the Central and Southern Prospects. In particular, both the Londonderry and Nine-Mile Creek Prospects have very strong alteration responses, firming up the prospectivity of this key drilling targets at the upcoming Inaugural program starting later this month.

Other areas of note (Figure 3 and 4):

- The multiple alteration zones around the Intrusive-related mineralisation at Cox's Find, White Rabbit and Billy Goat Prospects which also has a historic geochemical signature of elevated As-Mo-Sb-Bi-Cu suggesting an epithermal overprint.
- Alteration zones highlighted in Stavely Volcanics which include Mt Dryden and Kent Road prospects. Two additional prospects have been identified using WorldView-3 in conjunction with geophysical and geochemical datasets: Lady Somers and White Cockatoo.

Due to the success of the satellite imagery to assist targeting, the Company has commissioned capture of the northern part of the tenement.

#### **Phase 1 Regional Drilling Programme**

The +5,000m aircore programme remains on track to commence later in April 2021.

The objective is to identify areas of extensive gold mineralisation, map the basement stratigraphy where geophysics datasets are indicating structural complexity of the primary Moyston fault and accompanying secondary structures that may represent potential splay mineralisation.

The Battery Minerals Exploration Team has commenced field validation of areas within the current land access areas, aiming to increase the inventory of drill-ready targets.

A priority has been placed on land holder engagement over areas containing Middle Creek (Au), White Cockatoo – Kent Road Prospects (Cu), White Rabbit (Au) and Billy Goat (Au) for first-pass field reconnaissance.



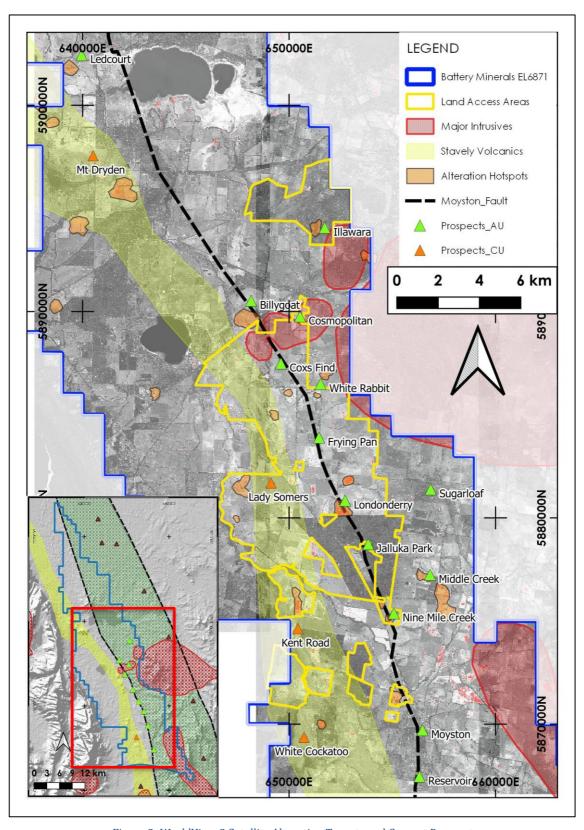


Figure 2: WorldView-3 Satellite Alteration Targets and Current Prospect



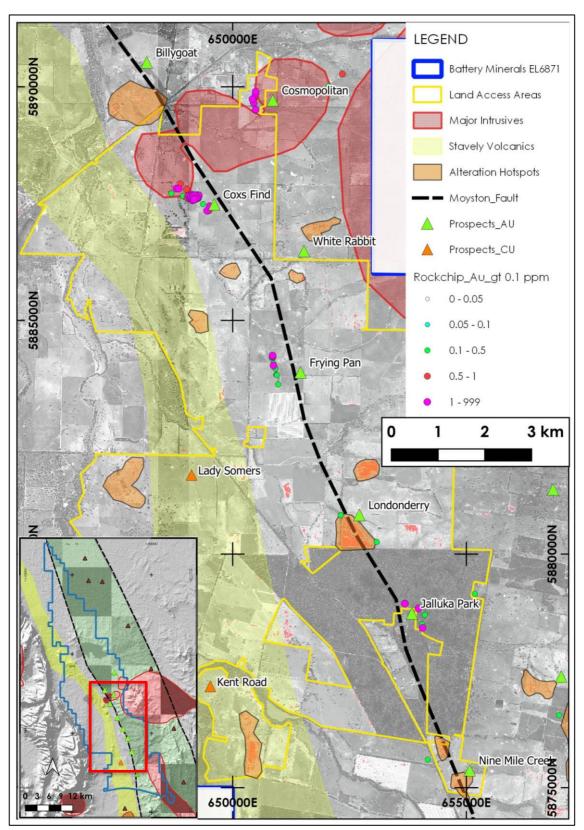


Figure 3: WorldView-3 Satellite Alteration Targets and Rock chip Gold Assays



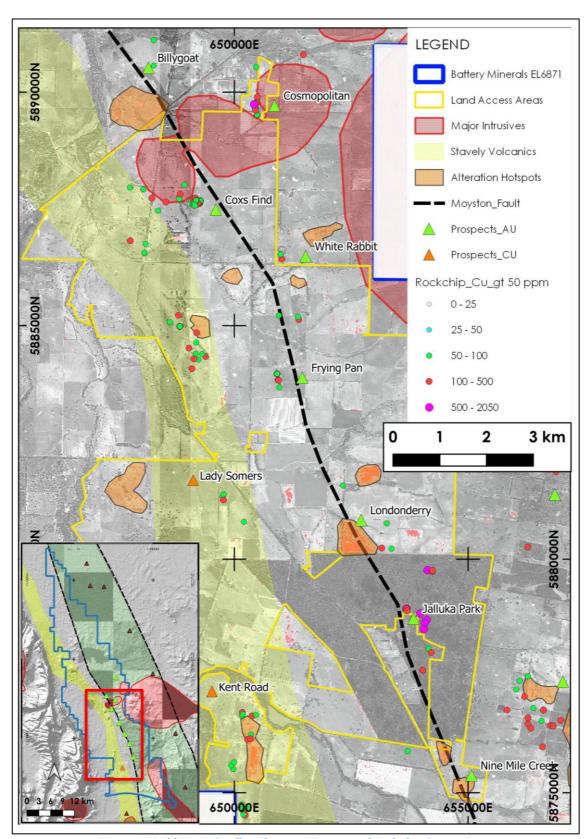


Figure 4: WorldView-3 Satellite Alteration Targets and Rock chip Copper Assays



#### **Investor Enquiries:**

#### **David Flanagan**

Managing Director, Battery Minerals Limited

Tel: +61 8 6148 1000

Email: info@batteryminerals.com

#### **Media Enquiries:**

#### Paul Armstrong Read Corporate

Tel: +61 8 9388 1474

Email: paul@readcorporate.com.au

#### **Tony Walsh**

Company Secretary, Battery Minerals Limited

Tel: +61 408 289 476

#### **Contact Details (Australian Office):**

Ground Floor, 10 Ord Street West Perth, WA 6005 Australia

#### **Competent Person Statement**

The information in this release that relates to Exploration Targets, Exploration Results or Mineral Resources is based on information compiled by Nicholas Jolly, who is a Member of The Australasian Institute of Mining and Metallurgy and is currently General Manager Exploration for Battery Minerals Limited. Mr Jolly has sufficient experience which is relevant to the 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 Jolly consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.

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- 2. Cautionary Statement: WordView-3 is a useful target generation tool. It is not certain that ongoing exploration work will deliver resources and reserves from any targets generated from WordIView-3.

#### **Forward Looking Statements**

Statements and material contained in this document, particularly those regarding possible or assumed future performance, resources or potential growth of Battery Minerals Limited, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Such forecasts and information are not a guarantee of future performance and involve unknown risk and uncertainties, as well as other factors, many of which are beyond the control of Battery Minerals Limited. Information in this presentation has already been reported to the ASX.

All references to future production and production & shipping targets and port access made in relation to Battery Minerals are subject to the completion of all necessary feasibility studies, permit applications, construction, financing arrangements, port access and execution of infrastructure-related agreements. Where such a reference is made, it should be read subject to this paragraph and in conjunction with further information about the Mineral Resources and Ore Reserves, as well as the relevant competent persons' statements.



## **Appendix 1: Table 1 of JORC Code** JORC Code, 2012 Edition Table 1 Appendix 1

#### **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Sampling is rock chips of outcropping stratigraphy using a standard geological hammer.  Sampling is historic in nature, QAQC measures unknown however can assume best practices and industry standard at the time of collection.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	No drilling included in this report.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	No drilling included in this report.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Many samples collected have detailed geological descriptions (qualitative)
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field</li> </ul>	The quality control measures (if any) taken to ensure representivity of the samples were not recorded.  The sample size was not recorded.  The sample preparation techniques were not recorded



Criteria	JORC Code explanation	Commentary
	<ul> <li>duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	The sample preparation and laboratory procedures and techniques have not been verified at this time, however, can be considered best practice by the Companies undertaking the sample collection at the time.  To date, no QAQC data have been found for this data.
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	The data has not been verified.
assaying	<ul> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	Data was recovered from various hard copy documents, compiled into a SQL database with high level validations conducted. Meta data is limited.
	Discuss any adjustment to assay data.	Due to varying assaying techniques, assay data for gold values have been adjusted from parts per million (ppm) to parts per billion (ppb) and vice versa to maintain standardised formats.
Location of data points	<ul> <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>	The sample locations survey method is unknown  The accuracy of the collar locations is unknown; however, most can be verified using available GIS data against sample geological descriptions providing a reasonable degree of accuracy.  The collars were surveyed using AMG and converted to MGA94 zone 54
Data spacing	Data spacing for reporting of Exploration Results.	Sample spacing is variable based on available outcrop.
and distribution	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.      Whether sample compositing has been applied.	No sample compositing has been applied.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	Sampling is bias to available outcrop; orientation of mineralisation is assumed to be parallel to stratigraphy.
Sample security	The measures taken to ensure sample security.	The measures (if any) taken to ensure sample security were not recorded.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The data has not been audited. This is because the projects are at an early stage of assessment and because it is possible that further data may be recovered from the archives resulting in a change to the assessment of the quality of the base data.



#### **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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 license to operate in the area.</li> </ul>	The data reported on are located on tenement EL6874.  All tenements are 100% owned by Battery Minerals through its subsidiary Gippsland Prospecting.  There are no known impediments to development of a mining operation on this lease other than the usual consulting with community and landholders, and the granting of a mining licence and the various permits required to operate.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous explorers over EL6874 include: Stawell Gold Mines Pty Ltd (1991 – 1994) Rio Tinto Exploration (1990 - 1995) Poseidon Gold (1994) Highlake Resources (2010)
Geology	Deposit type, geological setting and style of mineralisation.	EL6871 has potential for two distinct styles of mineralisation.  Firstly, structurally controlled orogenic gold deposits hosted east of the Moyston fault.  Secondly, base metal deposits within Cambrian arc related systems west of the Moyston fault.
Drill hole information	<ul> <li>A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <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>	The data is historical in nature with no supporting information on the quality or accuracy. The assay methodology has not been recorded, and various assay suites are recorded.  Many samples are gold only, without multi-element data – these have been screened out where relevant.  The Company views the data as indicative of prospectivity, with areas of interest to be ground truthed and validated using current QAQC and assaying techniques - either by surface sampling or drilling.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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>	Only results that are economically significant due to their grade and or geological setting are reported.  The grade cutoff applied to intercepts varies dependent on element reported.  No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	<ul> <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> </ul>	Not applicable



	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Diagrams are included in the report.
Balanced Reporting	<ul> <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>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>	For the exploration results only significant exploration results are reported as outlined in the diagrams.
Other substantive exploration data	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.	This work is summarised in the announcement and includes high resolution imagery captured over much of the tenement from the WorldView 3 satellite.
Further work	<ul> <li>The nature and scale of planned further work (e.g. 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>	Further work is planned, which includes verification sampling (both soil and rock chip surface methods) and ongoing drilling campaigns of Aircore and Diamond Drilling.