

30 July 2021

# North Stawell Minerals Ltd June 2021 Quarterly Report

## **Highlights:**

- Tenure wide gravimetric survey successfully flown in April
- This data has been processed and integrated into exploration GIS generating new gold targets
- Gravity data is expected to evolve into a number of new datasets over the next year. External review of newly integrated data is highly positive
- Exploration is now focussed on systematically drilling regional gold targets over northern tenure package, incorporating new geophysics and structural analysis
- 1,687m of diamond core drilled at Wildwood during the June quarter
- Passive seismic survey and surface geochemical sampling are returning valid results, augmenting existing datasets and refining targeting.
- Discussions underway to contract drilling rigs to commence in the September Quarter
- The Company remains well capitalised to pursue its exploration objectives with \$11.78m in cash

Victorian gold explorer North Stawell Minerals Ltd (ASX:NSM) (North Stawell or the Company) is pleased to report its June 2021 Quarterly report.



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North Stawell's Chief Executive Officer Steven Tambanis said:

"The June quarter saw the delivery of a number of key exploration milestones, paving the way for upcoming drill programmes.

A tenement wide fixed-wing gravimetric survey was completed during April and processed during June and July. We believe this dataset to be transformational for NSM's exploration work, vastly improving our ability to identify structures and targets through the extensive, masking cover sediments of the Murray Basin. It is generating new gold targets, has downgraded some old targets but more significantly is providing far more detail for more accurate drill placement of our regional target set.

NSM now has the most comprehensive dataset ever compiled for this portion of the Stawell Corridor. We have worked this new data both internally and collectively with our consultants to develop an ongoing process to continuously refine our exploration portfolio as new drilling results, exploration data and interpretations are incorporated. There is a lot more value to derive from this data, our exploration team and the tenure.

The Company safely completed the final 1,687m of the Wildwood drilling programme with over 12,643m drilled. We reported a number of significant gold intercepts however the key value of this programme will be to better understand the geometry and structural controls on the Wildwood dome and other domes. This recent drilling has provided new gold targets from updated geological models on both flanks of the Wildwood dome.

The historic data review is essentially complete with all reports and maps digitised and the electronic database updated with a huge amount of information including drill holes, assay results, geophysical and geological data. We are augmenting this data with a passive seismic survey and surface geochemical sampling programmes – both currently underway.

Our key tasks over the September quarter are to continue working this unparalleled dataset to update our understanding of the geology and targets and commence testing of over sixty gold targets. Discussions are underway with drilling contractors to bring in the first rigs in the second half of the year.

We regard the Stawell Mineralised Corridor to be one of Australia's most prospective and historic gold provinces and have a target rich environment to explore with an experienced and enthusiastic team. Many gold prospects are already demonstrated to be gold mineralised and we look forward to drilling regional targets after incorporating our new geophysical and structural datasets. Geochemical and passive seismic sampling continue to deliver valuable information."



ACN 633 461 453 ABN 84 633 461 453

#### New geophysical datasets

NSM has systematically upgraded what was a dated and incomplete historic geophysics package over its entire tenure package:

1. Historic magnetic data was reprocessed with modern software. This is revealing significant structural features potentially associated with gold mineralisation.

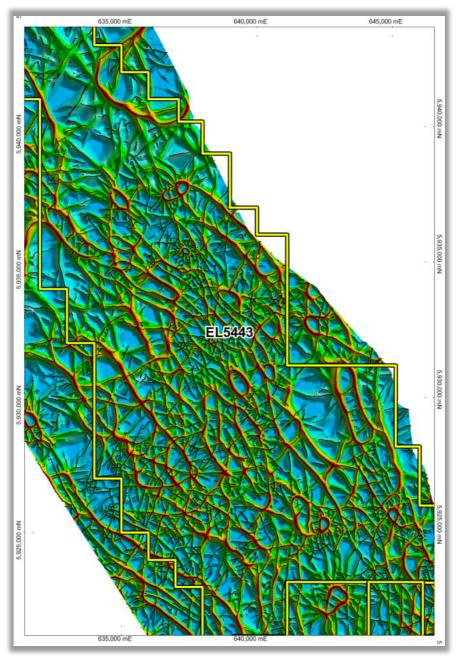
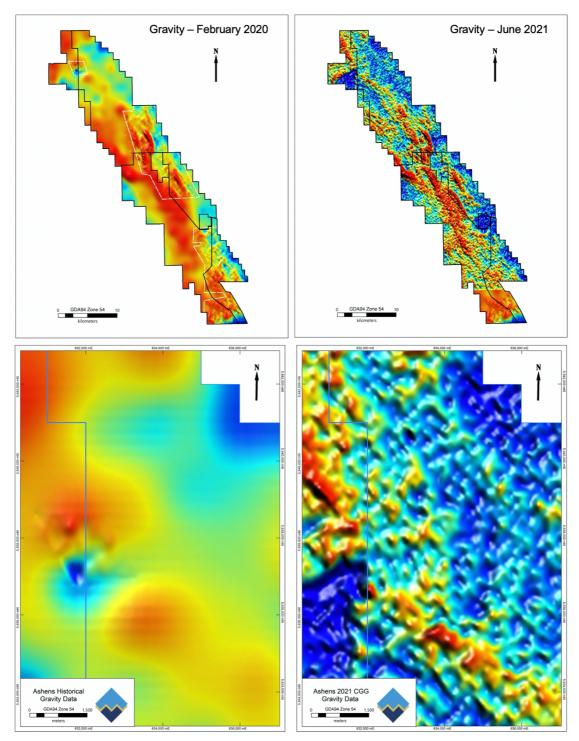


Figure 2. An example of edge detection processing of magnetic data providing structural information that was not available to earlier explorers.



ACN 633 461 453 ABN 84 633 461 453

 A tenement wide aero gravimetric survey is providing a compelling new targeting dataset as it is integrated with other data. The clarity of the new gravity data is exceptional compared to historic datasets and is demonstrated to identify basalt units and domes, which are key structural controls for Stawelltype mineralisation.



Figures 3a and 3b, top and bottom respectively. A comparison of tenure wide resolution of gravity datasets. Zoomed into prospect scale (3b), the value of high-resolution data



ACN 633 461 453 ABN 84 633 461 453

becomes more apparent and has value in target interpretation and drill placement.

3. A near-surface passive seismic method across gold prospects is clearly revealing surface topography beneath overlying Murray Basin sediments (palaeosurface). This method appears to consistently show elevated terrain over coincident gravity/magnetic highs and is expected to improve drill collar accuracy to target over interpreted basalt dome structures. It also accurately maps depth to basement.

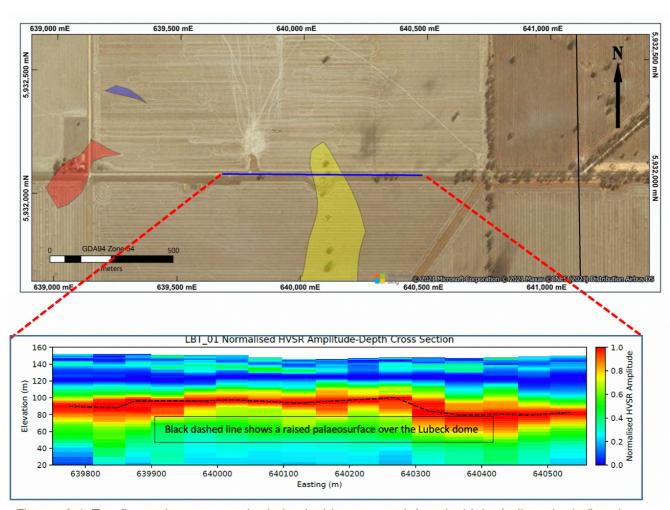


Figure 4. Top figure shows green shaded coincident magnetic/gravity highs (yellow shaded) at the interpreted northern tip of the Lubeck dome. Lower figure is the passive seismic section, showing the subtle but distinct palaeosurface high over the dome. Seismic Line is located at a northing of 5,932,050mN, eastings marked on figure 4. Seismic samples are at 50m spacing. Projection is GDA94 Zone 54.

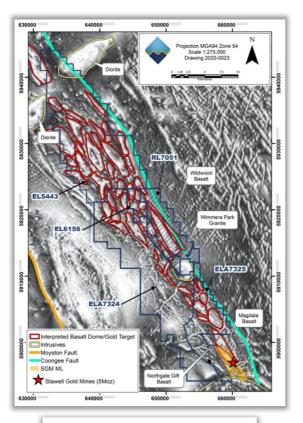
- 4. Priority gold targets are being further processed to further the geometry of interpreted targets, including depth to target estimates.
- 5. The recent gravity survey included an exceptionally detailed terrain model. Subtle topographic highs may correlate to near-surface mineralisation in the southern tenements. The terrain models is being reviewed to determine if these suble features persist to the north under cover.



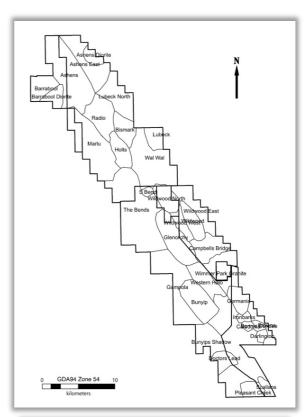
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6. Radial structures (intrusion detection), morphometry and potential fluid flow vectors are being reviewed.

The following four images in Figure 5 show how gold targets have progressed since listing, as new data has been incorporated.

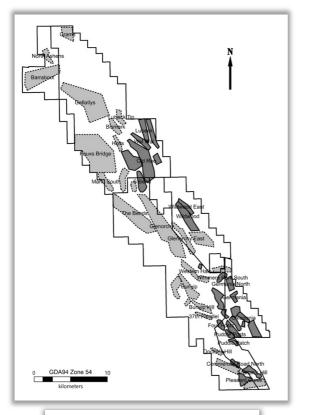


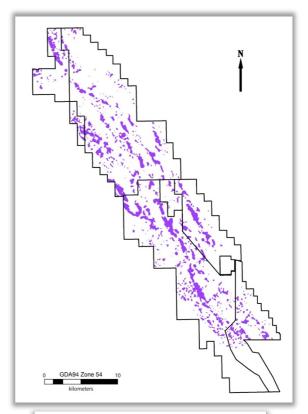
Dome's - September 2020



Prospect Area's - December 2020







Targets - February 2021

Refined Targets - June 2021

Figure 5. Three progressive 'generations' of gold targets since listing. Target definition and ranking has improved as geological and geophysical data has been processed and incorporated. June 2021 image is a tenure wide summary of coincident gravity and magnetic highs. Note how target zones are now far more distinct, narrow and focussed.



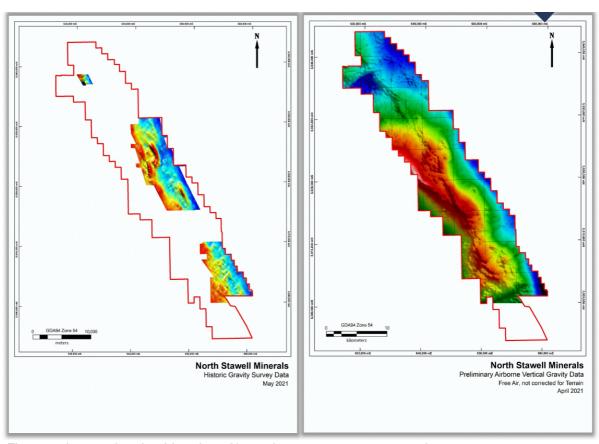


Figure 6. Image showing historic 25% gravity survey coverage pre the 2021 survey.



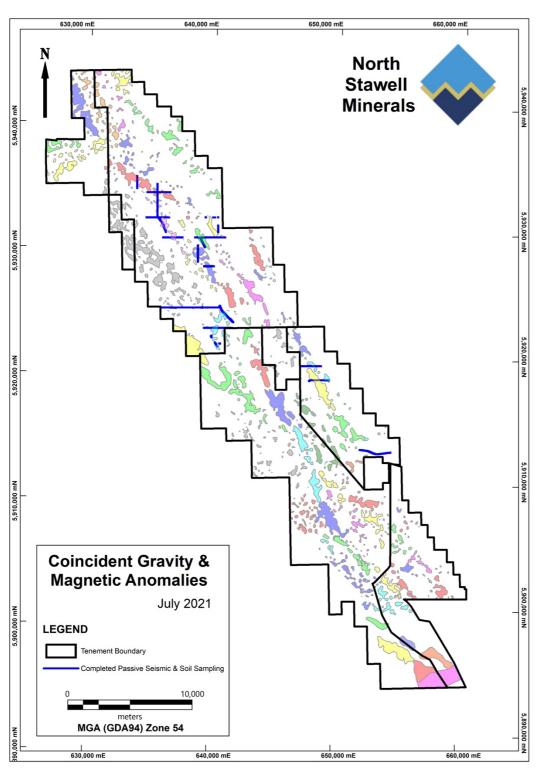


Figure 7. Coincident magnetic and gravity highs plotted over tenure. These individual highs have been clustered into prospects (colours). The passive seismic lines refine the paleosurface and provide accurate depths to basement.



ACN 633 461 453 ABN 84 633 461 453

# Integration and analysis of historical data, new geophysics and new geochemical data – what it means

The historic and new datasets have been progressively reviewed by the NSM team and external specialists to better understand the geology and prospectivity of the tenure package. Revised structural analysis by Western Mining Services has identified higher priority corridors. These are a focus for the September quarter. Additional structural work and fluid flow analysis will be ongoing.

#### Targeting/Ranking

During the Quarter the exploration team essentially completed its review of historical exploration data. The database was updated to include missing drill and assay data with a fully updated database ready for final QA/QC audit.

Following the reprocessing of historic magnetic data during the March quarter, a surface geochemistry programme was trialled across Wildwood with positive results. A larger scale geochemical sampling programme has been underway over the past few months, collecting 30 line km of sample data or 1,200 samples, as shown in Figure 6.

A significant amount of historical geophysics (raw data and processed images) was added to the database. Two external geophysicists were engaged to review the data and develop a work plan to address a number of areas with little historic gravity data.

An ongoing passive seismic survey continues to more accurately map out the paleosurface below the current Murray Basin cover. Gravity and historic drill hole data is currently being combined and processed to provide a tenure wide map of the palaeosurface.

Regional gold targets are being reviewed and ranked to generate drill targets. NSM is targeting undrilled basalt domes and identified prospective structures, late intrusive margins and significant cross faulting structures within the tenure package. This work will greatly assist prioritising drill targets over the remainder of the year.



ACN 633 461 453 ABN 84 633 461 453

#### Wildwood Drilling

The Wildwood Basalt dome has been intermittently explored and drilled over the past 35 years by WMC Resources and its successors – owners of Stawell Gold Mines. An historic JORC compliant Inferred Mineral Resource of 55kOz @ 2.0g/t Au was declared based on historic drilling data to 2012 (see Prospectus (ASX announcement: 22 September, 2020). NSM interpreted the mineralisation as having potential to be open – to be tested by drilling down-dip, along-strike and down-plunge.

Drilling at southern Wildwood encountered strike parallel faults to the east and west of the crown of the basalt dome, clearly seen in the diamond drill core. We conclude that gold mineralisation from the dome flanks has been down-faulted as per Figure 8. The structure has offset the volcanogenic sediments that typically envelope and host the mineralisation around the basalt dome.

By way of example, the Moray fault on the East flank of the Magdala dome has down-thrust or offset the mineralised dome contact by 180m. Movement sense has been observed by orientated core and orientations of the S3 cleavage angles approaching the structure. This down-thrust faulting is what we believe we are also seeing at Wildwood. Further structural work is intended, with planned follow up drilling to be conducted in a future programme.

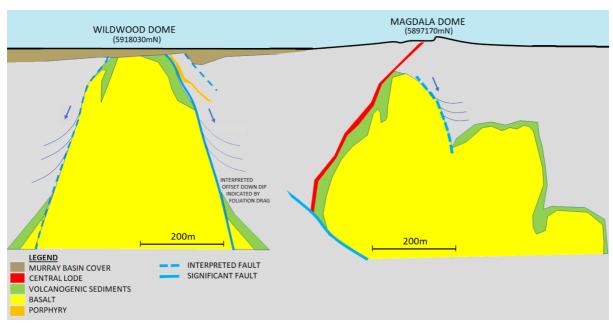


Figure 8. Scale cross section of the Magdala and Wildwood basalt domes with comparable structures and sense of movement



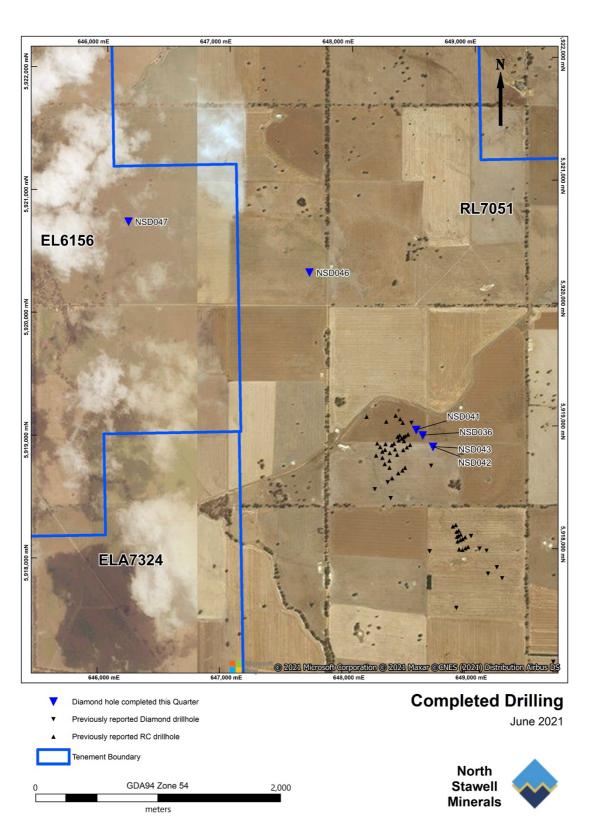


Figure 9. Plan view of completed drill hole collars at Wildwood.



ACN 633 461 453 ABN 84 633 461 453

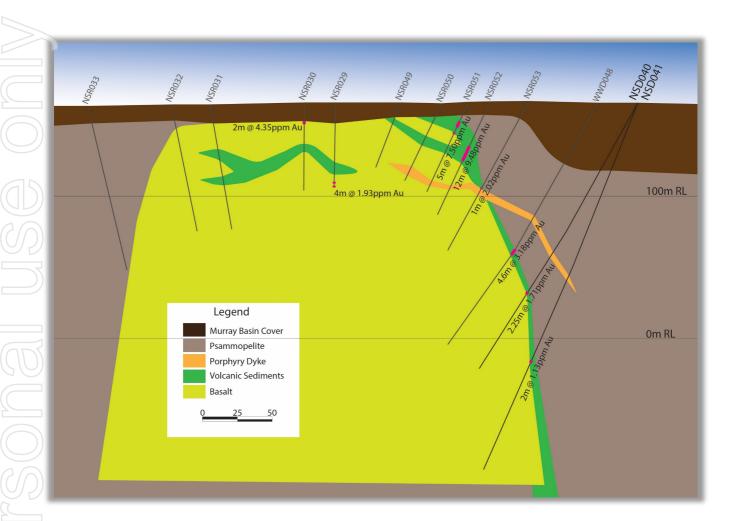


Figure 10. Cross section on 5918990N indicating significant intercept of NSD041 on the East flank at Wildwood.

#### Activities subsequent to the June quarter

Gravity data processing continued into July together with revised geology interpretations. A number of gold targets defined pre-listing have been refined through the improved dataset – some targets now have enhanced ranking and some were dropped. New gold targets have emerged and the entire gold target matrix was and continues to be updated.

An external review of the processed geophysical data by Western Mining Services will provide a regional geological interpretation and has validated a number of pre-existing gold targets as well as identifying additional targets to be assessed. Review has commenced on the new targets.



ACN 633 461 453 ABN 84 633 461 453

#### Planned activities for the September Quarter

- Commence drilling at priority targets as ground conditions allow access
- Continue targeting work in the southern 290km<sup>2</sup> of tenure in preparation for an expected grant of the tenements (ELA's 7324 and 7325). The ELAs include 36 gold exploration targets
- Continue passive seismic surveys to determine paleosurface beneath recent Murray Basin Sediments
- Expand the surface geochemical sampling across tenure
- Consolidate and refine drilling programs prior to recommencement of drilling programs.

#### Finance and use of Funds

Pursuant to ASX Listing Rule 5.3.4, the Company advises the proposed use of Funds as per Section 4.7 of the Prospectus to actual use of funds as follows:

Funding Allocation:	Prospectus	Dec 20 Qtr	Mar 21 Qtr	Jun 21 Qtr	Actual to date	Variance
Cost of listing, IPO, brokerage	2,127,929	2,200,400	-	-	2,200,400	72,471
Exploration (2 years)	11,026,000	284,100	1,839,800	2,481,100	4,605,000	(6,421,000)
Capital Equipment (Year 1)	631,000	291,100	4,900	70,300	366,300	(264,700)

Cash at the end of the Quarter was \$11.78m. As per ASX Listing Rule 5.3.5 a Company is required to provide a description and explanation of any related party payments made during the quarter. \$102,700 in total, being for \$87,850 Director fee payments (inclusive of superannuation) and \$14,850 to Arete Capital Partners for media and administrative support.



ACN 633 461 453 ABN 84 633 461 453

#### Summary

The June quarter saw the delivery of a number of key exploration milestones, paving the way for upcoming drill programmes due to begin in the second half of 2021.

Following the acquisition and processing of aero gravimetric data during the quarter, NSM now possesses the most comprehensive exploration dataset of any past explorers in the Stawell Corridor, significantly improving the Company's capability to interpret geology, structures and targets through the Murray Basin sediments. The exploration team is working this dataset to re-rank and prioritise drilling targets with the expectation of maximising the potential for drilling success at a lower cost.

When approved, ELA's 7324 and 7325 will unlock access to 36 gold targets in the southern 290km<sup>2</sup> of tenure and proactive planning continues.

The next round of drilling is being prepared, focussing on a number of previously undrilled or recently interpreted basalt dome targets.

The Company is excited to be preparing to drill the next series of prospects over the coming quarters.

This Announcement is authorised for release by Steven Tambanis, Chief Executive Officer of North Stawell Minerals Ltd

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ACN 633 461 453 ABN 84 633 461 453

#### **About North Stawell Minerals Limited:**

North Stawell Minerals Limited (ASX: NSM) is an Australian-based gold exploration company focused on discovering large scale gold deposits in the highly prospective Stawell Mineralised Corridor in Victoria.

The Company is exploring prospective tenements located along-strike of and to the immediate north of the Stawell Gold Mine which has produced in excess of five million ounces of gold. NSM's granted tenure and tenure applications have a total land area of 601.9 km². NSM believes there is potential for the discovery of large gold mineralised systems under cover, using Stawell Gold Mine's Magdala orebody as an exploration model to test 51km of northerly strike extension of the Stawell Mineralised Corridor.

The Company has inherited a significant geological database consisting of Magdala mine geology and regional datasets. This data has been significantly expanded with comprehensive new geophysical data. We believe this dataset provides a huge competitive advantage to our technical team, who will continue compiling and extending this knowledge base with updated geophysics and geochemistry to improve exploration targeting resolution.



ACN 633 461 453 ABN 84 633 461 453

#### Wildwood Inferred Mineral Resource Estimate and Competent Person's Statement

The Wildwood JORC Inferred Mineral Resource Estimate is extracted from the report entitled "Prospectus" created on 22 September 2020 and is available to view on <a href="www.asx.com.au">www.asx.com.au</a>. 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 Mineral Resource Estimates, 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.

The information that relates to Exploration Targets, Exploration Results and Mineral Resources is based on information compiled by Mr Brad Robinson, a Competent Person who is a Member of The Australian Institute of Mining and Metallurgy (AusIMM) and an employee of North Stawell Minerals. Mr Robinson 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' (2012 JORC Code). Mr Robinson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information that relates to Exploration Targets, Exploration Results and Mineral Resources is based on information compiled by Mr Steven Tambanis, a Competent Person who is a Member of The Australian Institute of Mining and Metallurgy (AusIMM) and CEO of North Stawell Minerals. Mr Tambanis 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' (2012 JORC Code). Mr Tambanis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Forward-Looking Statements**

This announcement contains "forward-looking statements" within the meaning of securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "believe", "continue", "objectives", "outlook", "guidance" or other similar words, and include statements regarding certain plans, strategies and objectives of management and expected financial performance. These forward-looking statements involve known and unknown risks, uncertainties and other factors, many of which are outside the control of NSM and any of its officers, employees, agents or associates. Actual results, performance or achievements may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based. Exploration potential is conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. Readers are cautioned not to place undue reliance on forward-looking statements and NSM assumes no obligation to update such information.



ACN 633 461 453 ABN 84 633 461 453

#### **Table 1. NSM Tenure summary**

Tenement	Number	Area (km²)	Initial NSM holding	Earn-in potential
Wildwood	RL7051	49.9	51%	90%
Barrabool	EL5443	194	51%	90%
Glenorchy	EL6156	18	100%	N/A
West Barrabool	EL7419	40	100%	N/A
Wimmera Park Granite	EL7182	9	100%	N/A
Total Granted Tenement Area		310.9		
Deep Lead Application <sup>1</sup>	ELA7324	209	51%	90%
Germania Application <sup>1</sup>	ELA7325	82	51%	90%
Total Tenement Application Area		291		
Total Tenement and Tenement Applicatio	n Area	601.9		
<sup>1</sup> Tenement Applications, subject to granting.				

#### **Table 2. Previous NSM announcements**

The following announcements reported exploration results and tenure information during the June Quarter:

Date		Title
	13/04/2021	High grade gold results continue at Wildwood Prospect
	8/06/2021	Airborne gravity survey completed
	11/06/2021	Cutting Edge Series presentation
	16/06/2021	New tenure granting
	24/06/2021	Airborne gravity survey completed - clarification
	1/07/2021	Field activity update



ACN 633 461 453 ABN 84 633 461 453

#### Table 3. June Quarter drilling assay results from Wildwood

Diamond Drilling Results		Downhole			
Hole No	<u>From</u>	<u>To</u>	<u>Interval</u>	Au ppm	Comments
NSD036					No Significant Intercept
NSD041	202	204	2	1.125	
NSD042					No Significant Intercept
NSD043					No Significant Intercept
NSD046					No Significant Intercept
NSD047					No Significant Intercept

#### **Table 4. June Quarter Drill Hole Summary**

Diamond	<b>Drill Holes</b>					
<b>Hole No</b>	Easting	Northing	Azimuth	Dip	Elevation(m)	Depth Drilled (m)
NSD036	648,606	5,918,945	232	-69	168.64	299.70
NSD041	648,554	5,918,990	232	-69	168.65	285.60
NSD042	648,688	5,918,850	232	-45	165.96	191.80
NSD043	648,688	5,918,850	232	-58	165.96	245.80
NSD046	647,704	5,920,288	60	-70	169.17	351.60
NSD047	646,232	5,920,727	60	-75	161.02	528.40



ACN 633 461 453 ABN 84 633 461 453

## **JORC Table Appendices**

# Section 1 Sampling Techniques and Data (Geophysics only) (Criteria in this section apply to all succeeding sections.)

Sampling techniques  • 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.  • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or	<ul> <li>NSM is reporting a new airborne gravity gradiometer (AGG) survey over its tenure. The survey was flown by</li> </ul>
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.  Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or	airborne gravity gradiometer (AGG) survey over its tenure.
systems used.  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 (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.	CGG Aviation (Australia) Pty Ltd) and is summarised in Figure 1.  Airborne gravity gradiometer data were acquired using CGG's FALCON system. In total, 3261.6 line kilometres of data were acquired along 200m spaced survey lines oriented east west.  The following parameters were recorded during the course of the survey:  FALCON® AGG data: recorded at different intervals.  Terrain clearance: provided by the radar altimeter at intervals of 0.1 s.  Airborne GPS positional data (latitude, longitude, height, time and raw range from each satellite being



Criteria	JORC Code explanation	Commentary
- Cinteria	CONTO COGO EXPIGNATION	absence of thick vegetation).
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Geophysical data detailed in this report have been QA/QC's by Nordic Geoscience. Nordic Geoscience determined that the data met the survey acquisition criteria, and the processed data is acceptable.
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>	<ul> <li>Differential GPS processing was applied to compute accurate aircraft positions once per second.         Waypoint's GrafNav GPS processing software calculated DGPS positions using raw range data obtained from receivers in the aircraft and at a fixed ground base station.</li> <li>The GPS ground station position was determined by obtaining a differentially corrected computed position. The service selected was AUSPOS, which is provided by Geoscience Australia. The GPS data were processed and quality controlled using the WGS84 datum.</li> </ul>
Data spacing and distribution	<ul> <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</li> </ul>	<ul> <li>Survey lines were spaced 200 metres apart with a minimum drape height of 80 metres above ground level.</li> <li>Data spacing and distribution is not sufficient to allow the estimation of mineral resources.</li> </ul>



ACN 633 461 453 ABN 84 633 461 453

Criteria	JORC Code explanation	Commentary
	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>	Traverses were oriented east-west in order to cross- cut regional trends and stratigraphy
Sample security	The measures taken to ensure sample security.	All data collected under strict security measures by the contractor
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Contractor conducted normal reviews and confirmation of geophysical data; as did Nordic Geoscience.

#### Section 1 Sampling Techniques and Data (non geophysical)

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

Criteria JOR	C 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 instru]ments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling</li> </ul>	<ul> <li>The diamond drill core samples were selected on geological intervals varying from 0.3m to 1.3m in length.</li> <li>All drill core was routinely cut in half (usually on the right of the marked orientation line) with a diamond saw and selected intervals submitted for analysis.</li> <li>Sample representivity was ensured by a combination of Company procedures regarding quality control (QC) and quality assurance/ Testing (QA). Certified standards and blanks</li> </ul>



	was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems.	were routinely inserted into assay batches.  RC Drilling  RC sampling was at 1m intervals. A cyclone sampler on the rig split samples into 2-3kg sub-samples for assay.
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).	<ul> <li>Pre-collars were drilled to solid bedrock followed by diamond coring with HQ and NQ2.</li> <li>All drill core was orientated with a core orientation tool every core barrel run. At the Core farm, core was oriented prior to geological and structural logging.</li> </ul>
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>	<ul> <li>All diamond core was logged capturing any core loss, if present, and recorded in the database.</li> <li>All drill depths are checked against the depth provided on the core</li> </ul>
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>	<ul> <li>Geological logging of samples followed Company and industry common practice. Qualitative logging of samples included (but was not limited to); lithology, mineralogy, alteration, veining and weathering.</li> <li>All logging is quantitative, based on visual field estimates.</li> <li>Detailed diamond core logging, with digital capture, was conducted for 100% of the core.</li> <li>RC chips from each metre drilled were collected into chip trays as a visual record of lithology, mineralogy, alteration, veining and weathering.</li> </ul>
Sub- sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	



ACN 633 461 453 ABN 84 633 461 453

and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	<ul> <li>Detailed diamond core logging, with digital capture, was conducted for 100% of the core.</li> <li>RC sampling was through an integral riffle in the RC rig sample cyclone. Samples were mostly dry with occasional wet intervals</li> </ul>
Criteria JORC	<ul> <li>Code explanation</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub- sampling 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 duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Half core was sampled from NQ and HQ diameter drill core.     Company procedures were followed to ensure sub- sampling adequacy and consistency. These included (but were not limited to), daily workplace inspections of sampling equipment and practices.     Blanks and certified reference materials are submitted with the samples to the laboratory as part of the quality control procedures.     No second-half sampling has been conducted at this stage.     The sample sizes are appropriate to correctly represent the sought after mineralisation.
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>	<ul> <li>Analysis for gold is undertaken at ALS by 50g Fire Assay with an AAS finish to a lower detection limit of 0.01ppm Au using ALS technique Au-AA26.</li> <li>ALS also conduct a 33 element Aqua Regia ICP-AES (method: ME-ICP41) analysis on each sample to assist interpretation of pathfinder elements.</li> <li>A review of certified reference material and sample blanks inserted by the Company indicate no significant analytical bias or preparation errors in the reported analyses</li> <li>Internal laboratory QAQC checks are reported by the laboratory and a review of the QAQC reports suggests the laboratory is performing within acceptable limits.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry</li> </ul>	<ul> <li>Samples are verified by NSM geologists before importing into the drill hole database.</li> <li>No twin holes have been drilled during this program.</li> </ul>



	<ul> <li>procedures, data verification, data storage</li> <li>(physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Primary data was collected for drill holes in Excel format using lookup codes. The information was sent to a database consultant for validation and compilation into a Datashed database.</li> <li>Reported drill results were compiled by the Company's Exploration Manager and verified by the CEO.</li> <li>No adjustments to assay data were made.</li> </ul>
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>	<ul> <li>All maps and locations are in UTM Grid (GDA94 zone 54).</li> <li>All drill collars were initially measured by hand-held GPS with an accuracy of +3 metres. A differential GPS system base station was used for more accurate collar pick-up to an accuracy of +0.2m.</li> <li>A topographic control is achieved via use of regional DEM data.</li> <li>Gyro down-hole surveys were taken every 30m on the way down to verify correct orientation and dip then multishots taken every 6m at hole completion.</li> </ul>
Data spacing and distribution	<ul> <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</li> </ul>	<ul> <li>Variable drill hole spacings are used to test targets and are determined from geochemical, geophysical and geological data.</li> <li>Drilling reported in this program is of an early exploration nature and has not been used to estimate any mineral resource or ore reserves.</li> </ul>

Criteria JORC	Code explanation	Commentary
	<ul> <li>Resource and Ore Reserve estimation</li> <li>procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Refer to sampling techniques, above for sample compositing
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</li> </ul>	<ul> <li>Exploration is at an early stage and, as such, knowledge on exact location of mineralisation, in relation to lithological and structural boundaries, is not accurately known.</li> <li>The drill orientation is attempting to drill perpendicular to the geology and mineralised trends previously identified from earlier drilling. Due to the early stage of exploration it is</li> </ul>



ACN 633 461 453 ABN 84 633 461 453

	should be assessed and reported if material.	unknown if the drill orientation has introduced any sampling bias. This will become more apparent as further drilling is completed.
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by internal staff. Drill samples are stored on site and transported by a licenced reputable transport company to ALS Laboratories. At the laboratory samples are stored in a secured yard before being processed and tracked through preparation and analysis.
Audits or reviews	The results of any audits or reviews of sampling	There has been no external audit or review of the Company's sampling techniques or data.

#### Section 2 Reporting of Exploration Results

Criteria JORO	Code explanation Comm	nentary
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 licence to operate in the area.</li> </ul>	<ul> <li>Tenements are summarised in Table 1 of the announcement</li> <li>The tenements are current and in good standing.</li> <li>The project area occurs on freehold land.</li> <li>Tenure is the subject of royalty agreements</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Tenure area has been explored in several campaigns since the 1980's by Stawell Gold Mines (initially WMC Resources and then SGM's subsequent owners). There is public data available on exploration programmes and NSM has much of this data in electronic and paper based formats.

Criteria JORC Code explanation		Commentary	
Geology	Deposit type, geological setting and style of mineralisation.	The project areas are considered prospective for the discovery of gold deposits of similar character to those in the nearby Stawell Gold	



			Mine, particularly the 5Moz Magdala gold deposit located over the Magdala basalt dome. The Stawell Goldfield has produced approximately 5 million ounces of gold from hard rock and alluvial sources. More than 2.3 million ounces of gold have been produced since 1980 across more than 3 decades of continuous operation.
	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:	•	Reported results are summarised as assays are released. Drill collar elevation is defined as height above sea level in metres (RL). Drill holes were drilled at an angle deemed appropriate to the local structure and stratigraphy and tabulated in Table 4 of this announcement. Hole length of each drill hole is the distance from the surface to the end of hole, as measured along the drill trace.
а	<ul> <li>this is the case.</li> <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>	•	All reported assays have been average weighted according to sample interval.  No top cuts have been applied.  An average nominal 0.3g/t Au or greater lower cut-off is reported as being potentially significant in the context of this drill program.  No metal equivalent reporting is used or applied.



Relationship between mineralisation	These relationships are particularly important in the reporting of Exploration Results.	Diamond Core and RC Drilling  Estimated true widths are based on
widths and intercept lengths	<ul> <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 (e.g. 'down hole length, true width not known').</li> </ul>	orientated drill core axis measurements and are interpreted to represent between 30% to 80% of total downhole widths.
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.	Refer to diagrams in body of text
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>All drill hole results received and pending have been reported in this announcement.</li> <li>No holes are omitted for which complete results have been received.</li> </ul>
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.	All relevant exploration data is shown in diagrams and discussed in text.
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>	expected to be followed up with infill and expansion diamond