



# North Stawell Minerals

## ASX Announcement

13 May 2025

## New Stawell-type Mineralisation at Darlington West

### HIGHLIGHTS

- Drill hole NSD058 tested the Darlington West trend, a previously undrilled basalt 500m west of the Darlington Mine, 6km north of Stawell, Victoria, Australia.
- Darlington West is a priority geophysics and modelling-derived target in an area highlighted by NSM's predictive modelling techniques.
- Drilling returned multiple intercepts, including:
  - A 45m zone of anomalous gold (<1g/t Au) that includes **0.8m at 1.07 g/t Au from 156.2m (NSD058)** on the up-dip projected contact of the deeper basalt.
  - A 16m anomalous (<1g/t Au) zone with **0.85m at 1.56 g/t Au from 258m (NSD058)** on the upper contact of a foliated, chloritic basalt, and
  - **0.5m at 6.01 g/t Au from 283.35m (NSD058)** on the lower contact of the foliated basalt.
- Basalt-contact mineralisation is one of the key characteristics of Stawell-type mineralisation - an exciting first hole in the Darlington West target remaining open along strike and down-dip.
- The lower contact mineralisation includes fine-grained, acicular (needle-like) arsenopyrite – a mineralisation style associated with several known deposits in the Stawell Zone; Stawell Gold Mines Pty Ltd (SGM) intrusion-overprinted Wonga Deposit (7 km to the south), parts of the Stawell Gold Mine and in other Stawell-type targets in Western Victoria.
- Finding mineralisation where the numerical modelled and geophysics predicts it will be is an encouraging result that other similar modelled targets throughout the NSM tenement package are more likely to be gold mineralised.

North Stawell Minerals (ASX:NSM) is pleased to announce an update on the results of its recent diamond drill program. The North Stawell Project includes a 504 km<sup>2</sup> contiguous package of ground that incorporates the gold-prospective corridor immediately north of Stawell Gold Mines' operation at Stawell. A thin blanket of unmineralised sediments preserves potential for large, near-surface repeats of the multimillion-ounce ore deposit at Stawell. The current focus is on two priority targets, Wildwood and Darlington, which both have potential to be repeats of the multi-million-ounce mineralisation at Stawell.

Executive Director Campbell Olsen advised:

*“NSD058 is an exciting result for NSM’s drilling program and for mineralisation potential within NSM’s tenements. NSD058 is the first hole testing geophysics-only interpreted basalt that has also been modelled in mineral-systems research as a likely focus for gold-bearing fluids<sup>1</sup>. Intersecting visually impressive mineralisation where modelled and supported by significant (>1g/t) gold grades within long runs of anomalous gold (<1g/t Au). This is a great result, with significant upside for future refinement of our programs and expansion targets.*

*A first-hole success is a very positive sign that at Darlington West responds to the Stawell-type gold model. The target is open in all directions and the “target shape” from geophysics and modelling is approximately 700m long<sup>1</sup>, with increased prospectivity in the northeastern areas.*

*Demonstrating that the geophysics-modelling targets can correlate to mineralisation in NSD058 at Darlington West, is significant for the Company as it suggests that other modelling targets throughout the NSM tenement package are more likely to host mineralisation. This is critical for exploration, allowing focus on smaller parts of the 60km strike of known and interpreted basalts<sup>2</sup>, and the potential to find repeats of the multi-million-ounce deposit at Stawell. There is also significant potential to more effectively explore, saving time and cost of exploration and discovery!*

*Both holes drilled at Darlington in 2025 have returned exciting results for NSM, and we’re already looking at required next-steps to assess this fast-developing, increasingly high-priority target”.*

<sup>1</sup> [ASX:NSM 29 Apr 25](#), <sup>2</sup> [ASX:NSM 25 Nov 24](#)

The Darlington prospect lies in the highly gold-prospective corridor that runs from Stawell in the south, through Darlington, and is interpreted to continue to the north of Wildwood, 20 km to the north (Figure 1). Within the corridor, fault-disrupted blocks of basalt occur, and the margins of these basalts are the most likely areas to host a repeat (or repeats) of the multimillion-ounce mineralisation at Stawell. The southern section (from Stawell to Darlington) is termed the Browns Trend and includes semi-continuous (but faulted) basalt with demonstrated shallow gold mineralisation (Figure 1) associated with basalt margins. The northern-most 2km of the Browns Trend is on NSM tenements (EL007325 (Appendix 1)).

NSD058 assay results are the final results received from NSM's most recent drill program ([ASX:NSM 30 Apr 25](#)). Another important result includes the intersection of high-grade visible gold at the Darlington target (2.3m at 29.2 g/t Au from 108.2m (NSD057) ([ASX:NSM 23 Apr 25](#))).

Drill hole NSD058 drill hole was planned to utilise multiple geophysical and numerical modelling datasets to drill in an area where a higher likelihood of mineralisation was determined. The process included:

- the acquisition of high resolution AGG gravity data([ASX:NSM 8 June 21](#)), which highlights a large, broad gravity anomaly occurring 500m west of the Darlington Mine on the Browns Trend (Figure 3).
- 3D inversion of the data to create likely 3D shapes of the interpreted basalts in the geophysics ([ASX:NSM 29 Oct 21](#)), which, at Darlington west returned a 700m long by 500m wide shallow-

northwest dipping basalt geometry

- Numerical modelling of the deeper fault architecture to identify areas where gold-bearing fluid may be channeled towards basalts ([ASX:NSM 29 Apr 25](#)), which at Darlington indicated that the Coongee fault beneath the Darlington and West Darlington targets occur just above a part of the fault that was correctly oriented to focus gold-bearing fluids during the main gold mineralisation event throughout western Victoria,
- Modelling of the parts of the interpreted basalt margins of the basalts to focus and host gold mineralisation ([ASX:NSM 7 Nov 22](#)). Numerical modelling of strain on the margins of the basalt highlights the northwest flank as an area where gold bearing fluids are most likely to be focused and precipitated.
- Drilling to test and confirm mineralisation. Data received from the drill program will refine the mineralisation model for continually improved exploration and discovery.

The process followed above approximates to a mineral systems approach – looking at the larger mineralisation processes to understand where gold-bearing fluids are coming from, where they are focussed to (regionally), where the basalts are that have potential to repeat the geological and structural controls observed at Stawell (SGM), and which parts of the basalts are most likely to dilate, focus and trap gold-mineralisation ([ASX:NSM 29 Apr 25](#)).

The early success in NSD058 is regionally highly encouraging, indicating that other potential targets identified using the same “Mineral Systems” process may also be mineralised. Several other targets similar to Darlington West for gold prospectivity are identified, in particular: the Caledonia, Lubeck, Lubeck Tip and Crams targets, as well as several other targets (Figure 2).

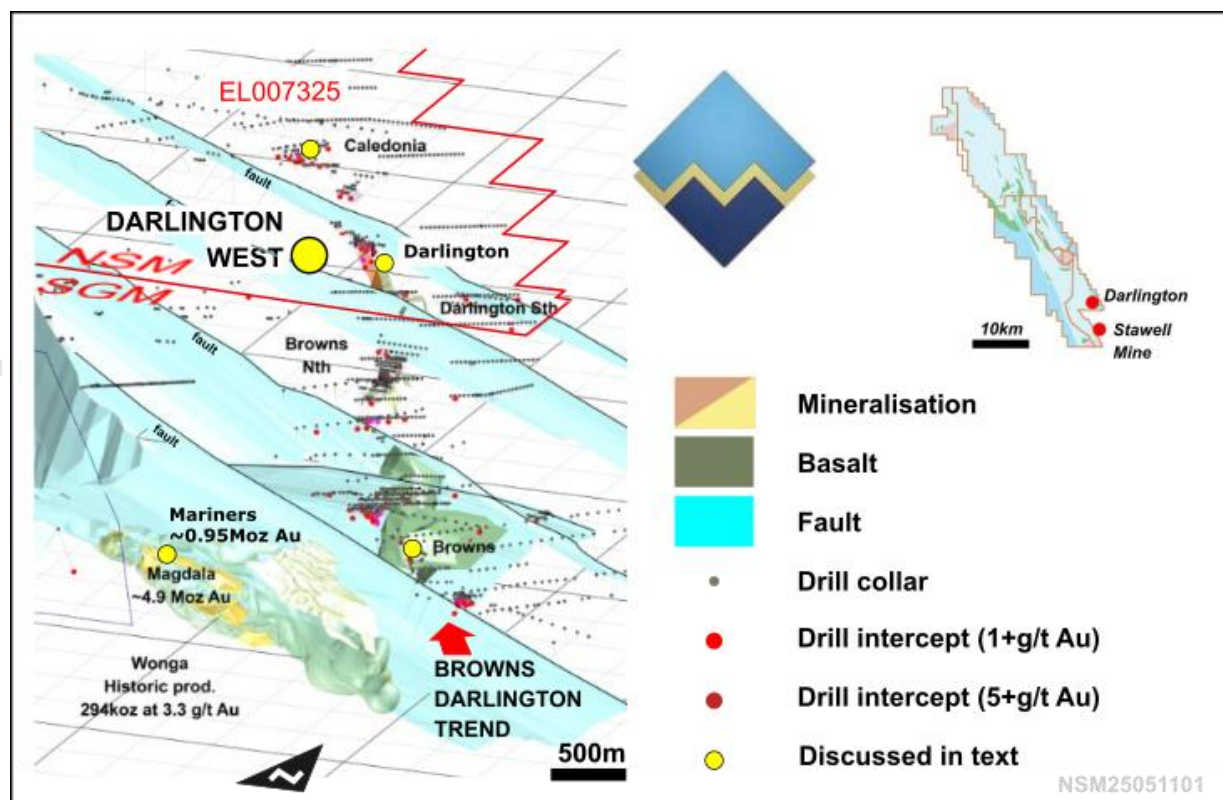


Figure 1 Regional geology, Darlington West. Ortho-image looking down to the NNW along the Browns Trend.

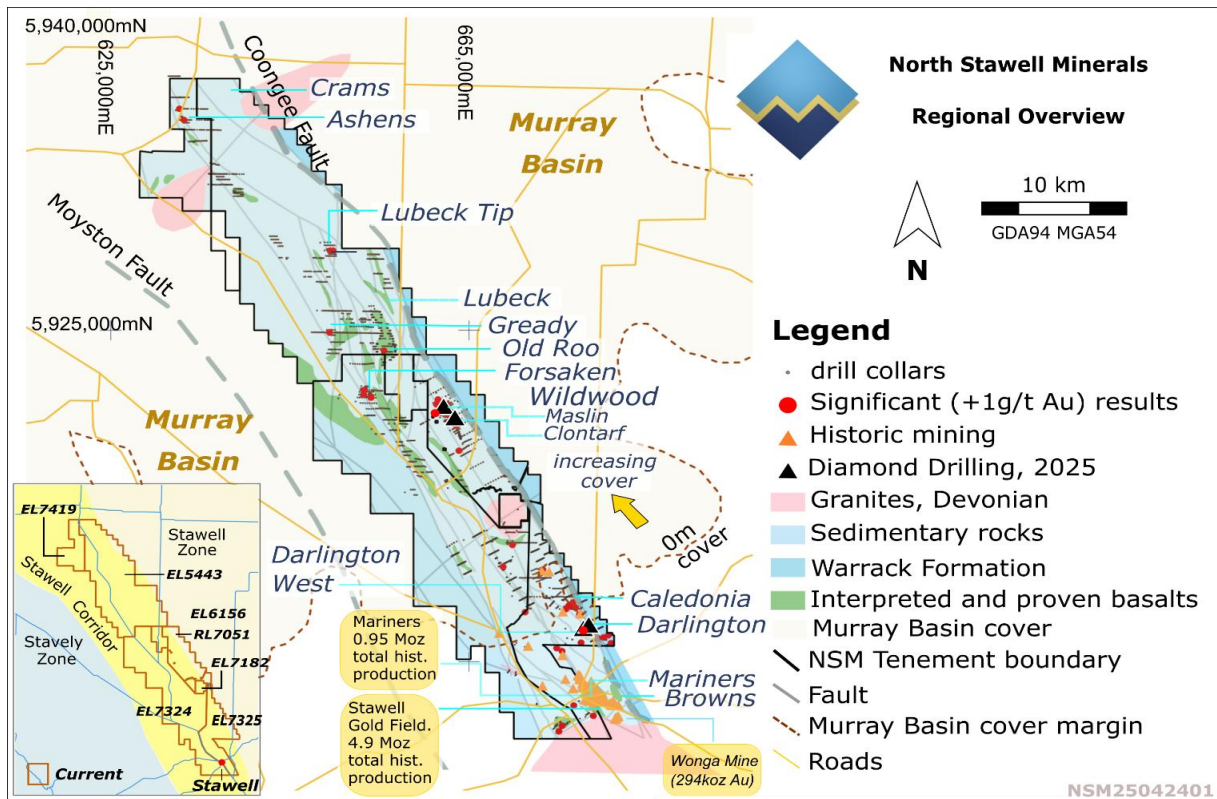


Figure 2 NSM tenement package and key locations

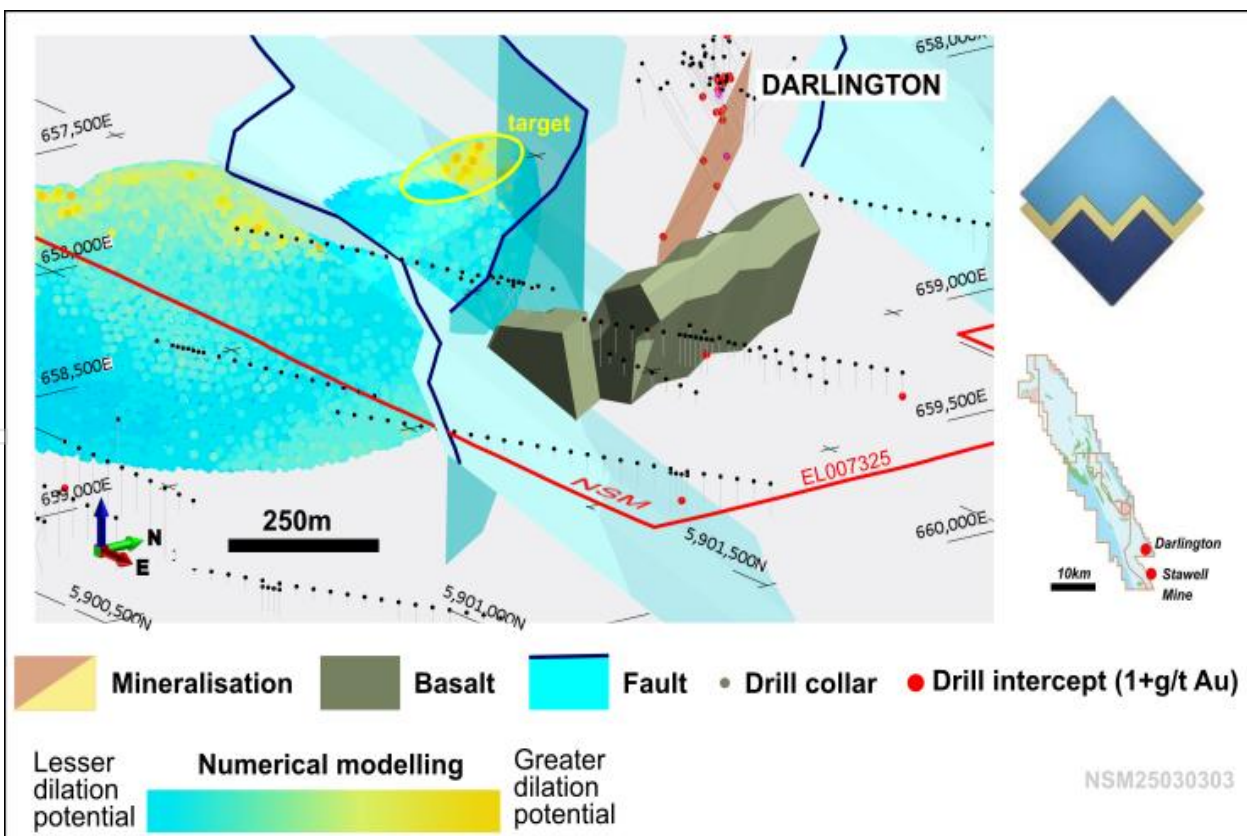


Figure 3 Numerical modelling target at Darlington West.

**NSD058** (Table 1, Table 2, Figure 8) tested one of the better-developed Mineral System targets. The hole intersected basalt at 256m – a success amplified by encountering mineralisation on the upper and lower contact. The mineralised zone returned:

- A 45m zone of anomalous gold (<1g/t Au) that includes **0.8m at 1.07 g/t Au from 156.2m (NSD058)** on the up-dip projected contact of the deeper basalt.
- A 16m anomalous (<1g/t Au ) zone with **0.85m at 1.56 g/t Au from 258m (NSD058)** on the upper contact of a foliated, chloritic basalt, and
- **0.5m at 6.01 g/t Au from 283.35m (NSD058)** on the lower contact of the foliated basalt.

NSD058 targets Darlington West. It is an exploration hole and does not presently contribute to, or materially change, any of NSM's mineral resource estimations.

The 45m zone of anomalous gold (<1g/t Au) that includes 0.8m at 1.07 g/t Au from 156.2m (NSD058) occurs in quartz-carbonate veining with weakly brecciated veining and clasts of dark, carbonaceous sediments. Carbonaceous sediments occur throughout the Stawell Corridor and are sometimes associated with west-flank Stawell-type mineralisation and associated with the Mariners-type mineralisation, that occurs as a splay from the Stawell basalt into the overlying sediments. (Figure 4, Figure 8).

The upper contact of the basalt includes a 16m anomalous (<1g/t Au ) zone in altered, weakly veined sediments, with 0.85m at 1.56 g/t Au from 258m (NSD058) on the contact of a foliated, chloritic basalt. (Figure 5, Figure 8).



Figure 4 NDS058, 156m – upper hole intercept



Figure 5 NSD058, mineralised upper contact of interpreted basalt.

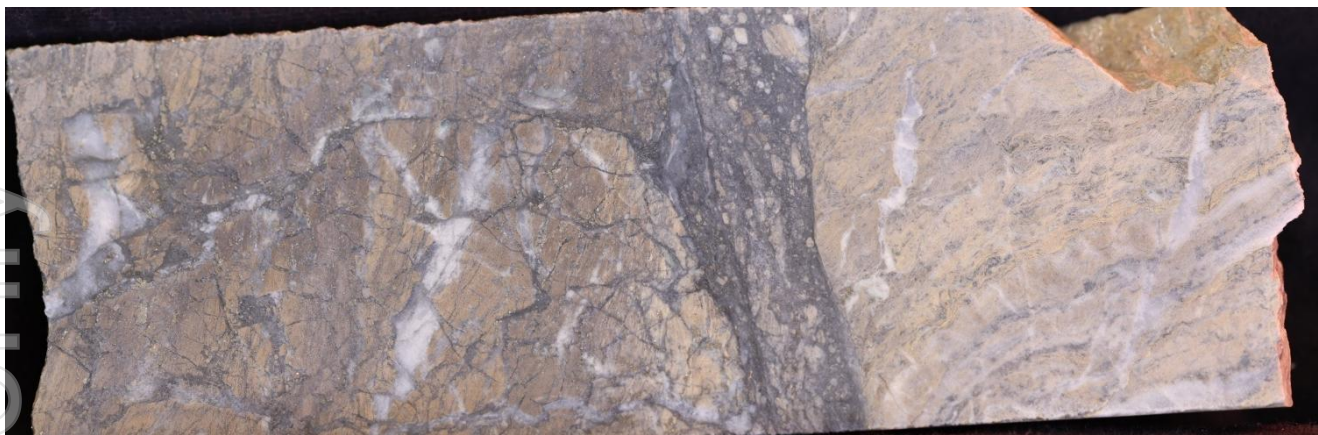


Figure 6 NSD058 283.5m asp-cpy-carbonate-sericite altered sulphide-rich interval on the southern margin of interpreted basalt.



Figure 7 NSD058, 283.65m, fine-grained, acicular (needle-like) arsenopyrite in brecciated sulphide.

The lower contact of the basalt returned 0.5m at 6.01 g/t Au from 283.35m (NSD058) (Figure 6, Figure 7). The mineralisation is a multi-phase, siliceous, strongly carbonate altered and brecciated with minor chalcopyrite. Arsenopyrite occurs throughout the unit as very fine-grained, randomly oriented, needle-like (acicular) laths. Needle-like arsenopyrite is widely associated with gold in multiple Victorian (and global) mineralisation – and is a very encouraging observation. In Victoria, the Stawell, Wonga, and Irvine mineralisation (and Fosterville further to the east in the Bendigo Zone) describe needle-like mineralisation in respective ore systems.

The initial geophysical “shape” of the basalt suggests that the West Darlington basalt is a slice of basalt running for 700m truncated to the north and south by NW-trending late faults (Figure 3). These faults occur throughout the Browns trend and at Stawell and are known to offset Stawell-type mineralisation. NSD058 intersected basalt deeper than anticipated, allowing a re-modelling of the gravity data to best-fit the new information about the position of the basalt (figure). This new constraint, as well as the position of the identified mineralisation zones, will help determine next-phase exploration to follow up on the results.

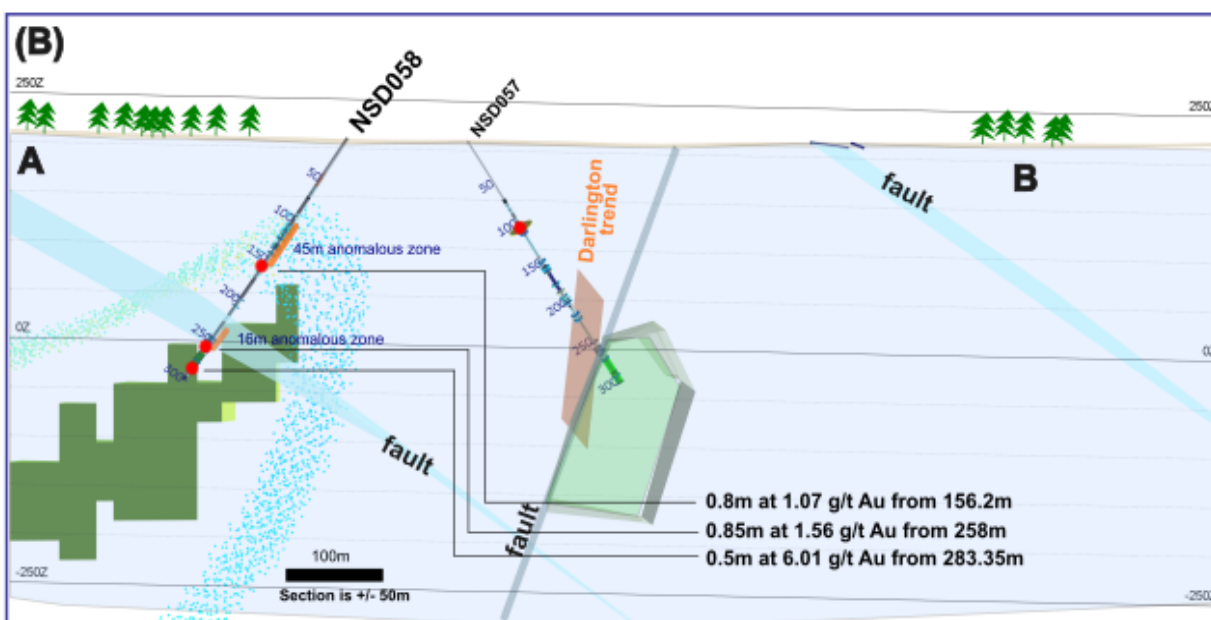
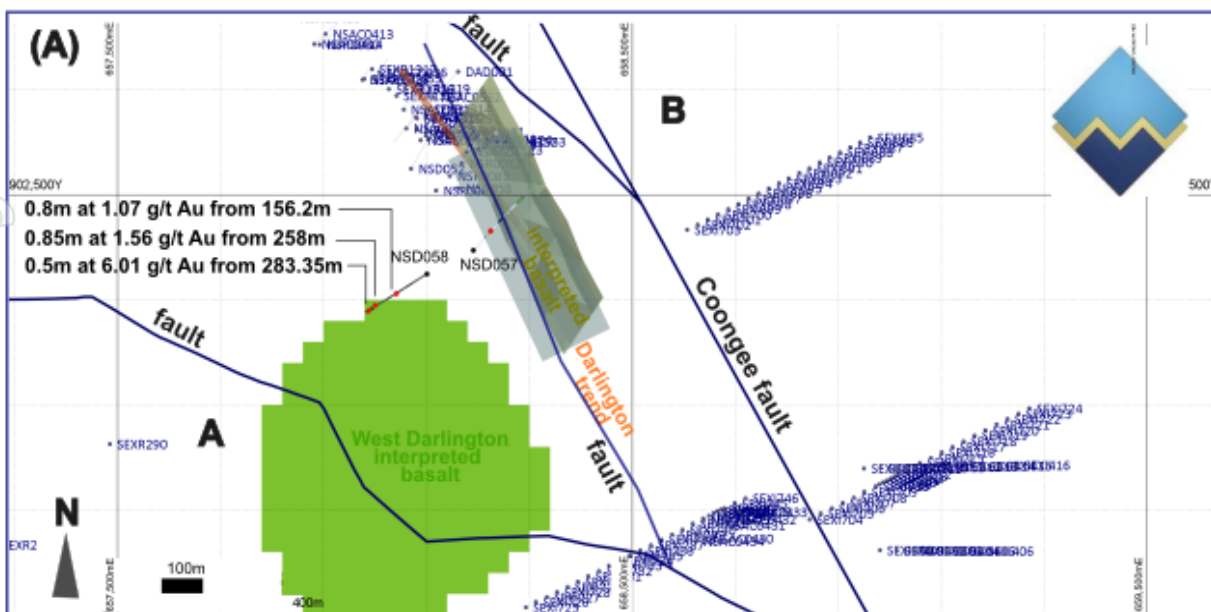


Figure 8 NSD058, Plan (A) showing revised geophysics derived basalt shape at Darlington West and position of the drill hole, and (B) section A-B showing the intercepts in NSD058 and their position relative to the Darlington West basalt.

Table 1 NSD058 (coordinates GDA94 MGA54)

Hole ID	Easting (MGA54)	Northing (MGA54)	RL (ASL)	Azi (true)	Dip (degrees)	Hole Depth (m)	Target depth (m)
NSD058	658,250	5,902,321	217	042	-55	305	210-280

Table 2 Significant Intercepts, NSD057

Hole ID	Depth From (m)	depth To (m)	Interval* (m)	Gold intercept (g/t Au)	Comment
NSD058	258	156.2	0.80	1.07	within a 45m anomalous (<1g/t Au) zone
NSD058	258	258.85	0.85	1.56	within a 16m anomalous (<1g/t Au) gold zone on the upper contact of a basalt
NSD058	283.35	283.85	0.5m	6.01	carbonate altered sulphide rich zone with needle-like arsenopyrite on the lower contact of a basalt.

\* Widths are down hole intervals. Assuming that the intercepts in NSD058 are subparallel to the regional trend (typical for the region), true thickness may be 70-80% of the recorded interval thickness.

The Company advised the commencement of drilling at the Darlington West target in March 2025 ([ASX:NSM 5 Mar 25](#)), and referred to the drilling of “modelled” targets in March 2025 ([ASX:NSM 29 Apr 25](#)).

For further details on the project and targets, refer to the most recent investor update ([ASX:NSM 25 Nov 24](#)) and presentation ([ASX:NSM 15 Apr 25](#)) or contacts below.

This announcement has been approved for release by the Board of Directors of North Stawell Minerals Ltd.

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### **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.

**Competent Person's Statement**

The information that relates to North Stawell Minerals Exploration Targets, Exploration Results and Mineral Resources is based on information compiled by Mr. Bill Reid, a Competent Person who is a Member of The Australian Institute of Geoscientists (AIG) and Head of Exploration of North Stawell Minerals. Mr. Reid 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. Reid consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

**About North Stawell Minerals Limited:**

North Stawell Minerals Limited (ASX:NSM) is an Australian-based gold exploration company, solely 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 more than five million ounces of gold. NSM's granted tenure has a total land area of 504 km<sup>2</sup>. 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 the 51km length of tenements - northerly strike extension of the under-explored Stawell Mineralised Corridor.

**Stawell-type mineralisation – the Magdala orebody at Stawell**

The multimillion-ounce Magdala orebody (or Stawell Mine) is owned and operated by Stawell Gold Mines (SGM) and makes an excellent model for exploration. The style of mineralisation is termed Orogenic Gold and has many similarities to other Victorian gold deposits (e.g. Bendigo, Ballarat, Fosterville) where the mineralisation exploits structures that are developing as the host rocks are compressed, folded and faulted. The mine is 3.5km long, approx. 400m wide and mined to depths of around 1,600m. The mineralisation is centred on a large buttress of doubly plunging basaltic rock (the Magdala "Dome"). Ore shoots are on – or proximal to – the margins of the basalt, occurring where the structures that control the mineralisation bend and warp around the basalt. The mine is still operational.

**Exploring for Stawell-type mineralisation through cover**

The Stawell Gold Mine was found in the 1850s where gold occurred close to the surface and was not obscured by a blanket of sedimentary cover. Over 80% of NSM's tenements are masked by sediments, but the underlying rocks and structures are similar to Stawell. Multiple repeats of basaltic "domes" are interpreted throughout the NSM tenements and elsewhere along the Stawell Corridor. The basalt domes - intrinsically associated with Stawell-type mineralisation – can be detected with geophysics and identified through the blanket of cover. New geophysical processing and acquisition by the Company is leveraging off the geophysics response to find "domes" as a pathway to finding the next, multimillion-ounce, shallow gold deposit north of Stawell

**Other mineralisation potential**

Multiple shears, thrusts, faults and folds occur through the NSM tenements. These also have the potential to host Orogenic Gold systems without basalt domes (more typical of Ballarat and Bendigo). However, they are more challenging targets through the covering sediments as they lack the geophysical signature of the "domes" found in Stawell-type mineralisation. Intrusion related gold (IRG) and thermal aureole gold (TAG) type deposits are possible as late granites intrude the folded rocks with potential to remobilise and upgrade existing mineralisation or be mineralised themselves. Volcanogenic-Hosted Massive Sulphides also occur in the Stawell Corridor. At surface, within the cover sediments, Heavy Minerals Sands are known to occur at impressive volumes.

**Appendix 1: NSM Tenement Summary**

Tenement	Status	Number	Area (km <sup>2</sup> )	Graticules <sup>1</sup>	Initial NSM holding	Earn-in potential
Wildwood	Granted	RL007051	50	50	51%	90%
Barrabool	Renewal	EL5443	182	194	51%	90%
Glenorchy	Granted	EL006156	10	18	100%	n/a
West Barrabool	Granted	EL007419	37	40	100%	n/a
Wimmera Park						
Granite	Granted	EL007182	4.5	9	100%	n/a
Deep Lead	Granted	EL007324	167	209	51%	90%
Germania	Granted	EL007325	54	82	51%	90%
Total granted			504.5	602		

<sup>1</sup> Exploration Licence areas in Victoria are recorded as graticular sections (or graticules). Graticules are a regular 1km by 1km grid throughout the state. The graticular sections recorded for an exploration licence are the count of each full graticule and each part graticule. If the tenement shape is irregular, the actual area (km<sup>2</sup>) is less than the graticular area.



Figure 9 North Stawell Minerals – Tenements

**JORC Table 1**

## Section 1a Sampling Techniques and Data – NSM Diamond Drilling

## Section 2 Reporting of Results – NSM Diamond Drilling

## Section 1a. Sampling Techniques and Data – NSM Diamond Drilling

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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 downhole 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.</li> <li>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 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.</li> </ul>	<p>The diamond drill core samples were selected on geological intervals varying from 0.3m to 1.0m in length.</p> <p>All drill core was routinely cut in half (typically on the right of the marked orientation line) with a Almonte diamond saw and selected intervals submitted for analysis.</p> <p>Sample representivity was ensured by a combination of Company procedures regarding quality control (QC) and quality assurance testing (QA). Certified standards and blanks were routinely inserted into assay batches. Duplicates are taken as field duplicates and laboratory duplicates to monitor variability.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>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.).</li> </ul>	<p>Pre-collars (PCD) were drilled to competent saprolite followed by diamond coring NQ2.</p> <p>All drill core was orientated with a core gyro orientation tool every core barrel run. At the Core farm, core was continuously oriented and aligned during logging.</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure the 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>	<p>All diamond core was logged capturing any core loss, if present, and recorded in the database.</p> <p>All drill depths are checked against the depth provided on the core blocks and rod counts are routinely carried out by the driller.</p>
Logging	<ul style="list-style-type: none"> <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>	<p>Geological logging of samples followed Company and industry common practice. Qualitative logging of samples included (but was not limited to), lithology, mineralogy, alteration, structure, veining and weathering.</p> <p>All logging is quantitative, based on visual field estimates.</p> <p>Detailed diamond core logging, with digital capture, was conducted for 100% of the core.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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 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> </ul>	<p>Half core was sampled from NQ diameter drill core, cut with an Almonte saw. Half core is retained for further study and reference.</p> <p>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.</p> <p>Blanks and certified reference materials are submitted with the samples to the laboratory as part of the quality control procedures. Sampling is primarily based on geological and mineralogical observation, with priority units' oversamples by 5-10 cm to ensure mineralised margins report with the prospective</p>

	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	geology.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 include 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>	<p>Analysis for gold is undertaken at Gekko Laboratories (GAL) by 2-3kg Leachwell Bottle Roll with a 27 element ICP finish to a lower detection limit of 0.01ppm Au using ALS technique Au-AA26. Sample weight data is returned as well as laboratory QAQC.</p> <p>A 50g Fire assay is conducted on the Leachwell tail to determine residual gold values.</p> <p>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.</p> <p>Internal laboratory QAQC checks are reported by the laboratory and a review of the QAQC reports indicates the laboratory is performing within acceptable limits.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> <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>	<p>The data has been verified by North Stawell Minerals' Competent Person.</p> <p>Data entry is via standardized Company excel templates, using pre-set logging codes, with built in validation checks.</p> <p>Data is stored in a third-party geodatabase (Datashed 4) and managed by Stawell Gold Mines DBA with further internal validations before export products are generated. Data is further validated visually in GIS and 3D software by North Stawell Minerals personnel.</p>
Location of data points	<ul style="list-style-type: none"> <li>The accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>All maps and locations are in MGA Grid (GDA94 zone MGA54).</p> <p>All drill collars were determined with an EMLID Kinematic GPS. Final collar pick-ups were completed with the same instrument, with accuracy &lt;0.01m (including elevation)</p> <p>An initial topographic control is achieved via use of DEM acquired during Airborne gravity acquisition. Final elevation is by Kinematic GPS.</p> <p>Gyro down-hole surveys were taken every 30m on the way down to verify correct orientation and dip then multi-shots survey taken every 6m on the way out of the drill hole at hole completion.</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>Drill hole spacing in these vanguard holes is bespoke, targeting geology cf. pattern drilling. Collars and targets are determined from geochemical, geophysical and geological data. Effort is made to ensure a 60m x 60m or 80m x 80m pierce points on-target. Collars are determined to deliver as equally spaced as possible intercepts (geology notwithstanding)</p> <p>Drilling reported in this program are exploration holes and infill drillholes and do not contribute to current mineral resource or ore reserves. Pierce points are determined on the same grid as historic drilling.</p> <p>Refer to sampling techniques, above for sample compositing.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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>	<p>Prior exploration has returned a defensible orientation of the potential mineralisation. The exact location of mineralisation, in relation to lithological and structural boundaries, is relatively well understood in the main, although additional intercepts that depart from the geological model can occur.</p> <p>The drill orientation is attempting to drill perpendicular to the geology and mineralised trends</p>

		previously identified from earlier drilling.
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p>The chain of custody is managed by internal staff and transport contractors. Drill samples are stored on (fenced and secured) site and transported by a licensed reputable transport company to Gekko Assay Laboratories – or by company staff. Sample receipts are issued. At the laboratory samples are stored in a secure yard before being processed and tracked through preparation and analysis.</p> <p>Sample information other than the company name and the sample ID are not provided to the laboratories.</p>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling</li> </ul>	Darlington West is a new target, and no audits have been completed.

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## Section 2 Reporting of Results – NSM Diamond Drilling

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<p>Current tenements are summarised in Appendix 1 -Table 1 of the announcement. Historic tenements are identified from the Victorian Government Geovic online spatial resource.</p> <p>All granted tenements are current and in good standing.</p> <p>The project area occurs on freehold land. Minor Crown Land (&gt;3%) and Restricted Crown Land (&gt;50%) is identified. NB. The western half of the Darlington West prospect are beneath Restricted Crown Land. Access to Restricted Crown Land is possible with work permits but cannot utilise the Low Impact Drilling guidelines to expediate drill planning. All areas are accessible if appropriate land access requests and agreements are in place.</p> <p>The Victorian Governments Geovic spatial online resource identifies restricted Crown Land covering the western side of the Darlington West target.</p> <p>The southern end of EL007325 encompasses parts of the Stawell Township. These areas are complicated by dense, urban freehold land parcels, and challenges gaining access may occur if attempted.</p> <p>EL007325 is held by Stawell Gold Mines (SGM). North Stawell Minerals has an earn-in agreement with SGM. Initial Interest is 51%. Up to 90% earn-in can be achieved on meeting agreement conditions.</p> <p>EL007325 “Germania” was granted in November 2021.</p> <p>Tenement security is high, established in accordance with the Victorian Mineral Resources Act (MRSDA) and Regulations (MR(SD)(MI)R 2019).</p> <p>Victorian Exploration licences are granted for a 5-year initial term with an option to renew for another 5 years. Compulsory relinquishments are as follows; end of year 2 - 25%; end of year 4 - 35%; end of year 7 - 20%; end of year 9 - 10%. An additional 5 years is possible at the discretion of the Minister.</p>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p>The Tenure area has been explored in several campaigns since the 1970’s, principally by companies related to Stawell Gold Mines and its predecessors (initially WMC Resources in the 1970’s, Leviathan Resources and then subsequent owners).</p> <p>Rio Tinto Exploration, Planet Exploration, Highlake Resources and Iluka Resources have also held parts of the tenement historically.</p> <p>Public data available on exploration programmes has been downloaded from the Victorian State Governments’ GeoVic website and sometimes describes exploration strategy, which is consistent with exploring for gold mineralisation under shallow cover into structural targets generated from available geochemistry and geophysics.</p> <p>Although NSM has reviewed and assessed the exploration data, it has only limited knowledge of the targeting and planning process and, as a consequence, has had to make assumptions based on the available historical data generated by these companies. However, the methodology appears robust.</p> <p>Work by Iluka was for Heavy Minerals exploration and is not material to gold exploration.</p>

Most programs include regional lines of RAB or AC drilling (13 of 14 holes for 2927m) around the immediate environs of the historic Darlington Mine

A single historic diamond hole is drilled into Darlington (DADD001 – 209.57m), located below the historic mine shaft. The hole was drilled to the west.

In prior programs NSM has drilled 22 AC holes for 4659m between 2022 and 2023. In 2023, 2 diamond holes were drilled into the southern trend, and total 428.8m.

In the far south of tenement EL007324 and EL007325, exploration is typically testing for fault-repeats of the Stawell-type mineralisation, centred on magnetic anomalies. Basalt 'dome' analogies were identified with minor associated gold mineralisation.

Historic and modern work includes:

142,000m AC (2,422 holes)

34,358m RC (449 holes)

47,261m DD (211 holes)

10,003 geochem samples

504km<sup>2</sup> high-res Magnetics

504km<sup>2</sup> high-res Gravity (AGG)

211km<sup>2</sup> Inversion modelling

## 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.

Orogenic Gold occurrences are possible away from the basalt domes.

Mariners-type gold (occurring as splays above the roof of the basalt domes) is possible and characterised by the type-deposit at Mariners above the Stawell Mine, including brecciated, gold-bearing quartz veins associated with late faulting and, sometimes, carbonaceous sediments.

The geological setting is a tectonised accretionary prism on the forearc of the Delamerian-aged Stavely Arc active plate margin.

Elements of the subducting tholeiitic basaltic ocean crust are incorporated into the accretionary pile and are important preparatory structures in the architecture of Stawell-type gold deposits.

Mineralisation is Benambran-aged hydrothermal (orogenic gold) overprinting events – penecontemporaneous with other major mineralisation events in western and central Victoria (e.g., Ballarat, Bendigo, Fosterville).

## Drill hole Information

- 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:
  - easting and northing of the drill hole collar

All required tables, images and discussion to understand the results of NSD058 are in the body of this announcement.

Historic results are summarised as assays extracted from a historic, managed, validated database solution (Datashed), and associated procedures for QAQC.

	<ul style="list-style-type: none"> <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> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<p>Historic easting and northings are captured as WGS84, AGD66 and GDA94 coordinates. All are transformed to GDA94MGA54S for the collar tables.</p> <p>Drill collar elevation is defined as height above sea level in metres (ASL).</p> <p>Drill holes were drilled at an angle deemed appropriate to the local structure and stratigraphy and is tabulated. Regional AC and RAB holes are typically vertical.</p> <p>Hole length of each drill hole is the distance from the surface to the end of hole, as measured along the drill trace.</p> <p>Tabulated data is included in this report, with all relevant details.</p>
Data aggregation methods	<ul style="list-style-type: none"> <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>	<p>Determination of gold grades is a weighted average method of grades above 1 g/t Au, with no external dilution and a maximum of 2m of internal dilution. Internal dilution is attributed the sub-1 g/t value or, if below detection, 0 g/t Au.</p> <p>No top cuts have been applied.</p> <p>Historic results</p> <p>Intercept summaries (composites) are determined from the historic assays using the same criteria as NSM summarised data (see above).</p> <p>Weighted averages are applied with up to 2m of internal dilution and no external dilution.</p> <p>No top cuts have been applied.</p> <p>A nominal 1 g/t Au or greater lower cut-off is reported as being potentially significant in the context of this report.</p> <p>No metal equivalent reporting is used or applied.</p>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</li> </ul>	<p>Estimated true widths are based on orientated drill core axis measurements and are interpreted to represent between 30% to 80% of total downhole widths.</p>
Diagrams	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<p>Diagrams are included in this report, including locations, plans, sections, and areas mentioned in the text.</p>
Balanced reporting	<ul style="list-style-type: none"> <li>• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</li> </ul>	<p>All drill hole results received have been reported in this announcement. Results for a subsequent program at Darlington are pending.</p> <p>No holes are omitted for which complete results have been received.</p> <p>For the exploration results, only significant exploration results are reported and described.</p>
Other substantive	<ul style="list-style-type: none"> <li>• Other exploration data, if meaningful and material, should be</li> </ul>	<p>All relevant exploration data is shown in diagrams and discussed in text.</p>

exploration data	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.
Further work	<ul style="list-style-type: none"> <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> <p>A program to assess the new mineralisation trend will be designed during the next Quarter. The drill hole NSD058) has been left open for potential re-entry. Surface geochemistry requires review to see if the signature of mineralisation comes to surface.</p> <p>NSM anticipates good access options along the east side of the basalt-mineralisation system, and much of the west side can be tested from these positions too.</p> <p>Future drilling would likely step further south, into the core of the interpreted basalt, and intended to demonstrate additional flank-style mineralisation.</p>

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