ASX Announcement



2 May 2023

ABN: 45 116 153 514 ASX: TMX

Smokebush IP Survey Expanded & Update

Terrain Minerals Limited (ASX: TMX) (Terrain) is excited to provide the market with a further update from the announcement released on 17 March 2023 in respect to the Induced Polarisation (IP) survey at its 100% owned Smokebush Project, located within the Yalgoo mineral field, 350 kilometres north of Perth, Western Australia.

Highlights:

- Processing of IP Survey confirms multiple new targets at Smokebush
- Targeting justifies expanding the IP survey to better define open targets
- New potential structural corridors emerging
- IP Targets close to existing known gold mineralisation drill intersected that appear to be with in there 'Hallow Zone'

Terrain is pleased to announce that the IP survey has been extended over newly identified structural corridors (refer to diagram 1) for a further two weeks. Data processing is expected to commence upon completion of the IP programme and expected to be completed within a two-week time frame.

Terrain is currently preparing to drill test the newly identified gold targets and any others targets that may be identified from the expanded survey. Terrain has received quotes for drilling and key drilling permits have been approved. Subject to rig availability, current estimate for the commencement of drilling is before the end of the 2^{nd} quarter 2023.

IP surveys conducted near Hurley & Paradise City areas have identified two priority targets (refer to diagram 2 to 5). Both are located close to historic gold drilling intersections (footnote 1). A third hidden target has also been confirmed 'excitingly' just north of Terrain's two successful drilling campaigns at Monza, which appears to have missed the target (refer to diagrams 2 & 3). A current interpretation is that historic drilling intercepted gold mineralisation hosted in a 'halo zone' distal to all the newly identified IP targets.

Other: Results from both the Larin's Lane MMI sampling program and results from the recently filed report by RSC mining & Mineral Exploration who tested multiple pegmatites over Smokebush for Lithium (footnote 2) which are currently being analysed. If positive results emerge from any of the pending data sets, the IP drilling program could easily be expanded to accommodate additional targets.

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Footnote 1:

Historic gold result can be located:

- **2 December 2019 -** Farm-in Agreement for the Smokebush Gold Project at Mt Mulgine, 65km West of Paynes Find WA.
- 12 October 2020 Exciting Drilling Results at Smokebush Gold Project.
- **3 December 2020 -** New Application Granted with Exciting Historic Results at the Paradise City Gold Prospect Smokebush Gold Project.
- 19 July 2021 Positive First Pass Drilling Results Smokebush Gold Project.

Footnote 2:

Refer to ASX release:

- 6 December 2022 Smokebush Pegmatite Swarms Identified, Sampling for Lithium Mineralisation Underway.
- **7 February 2023** Smokebush 2023 Field Season Now Underway, IP Survey & MMI Soils Programs.
- 17 March 2023 Smokebush IP Survey & Lithium Update Priority Gold Drill Targets Emerging.

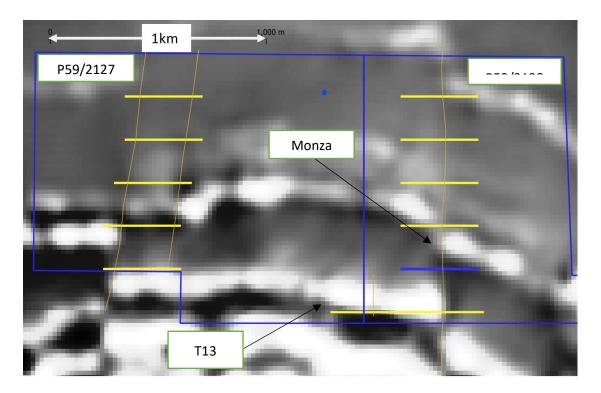


Diagram 1. Yellow lines indicate the additional IP survey areas.

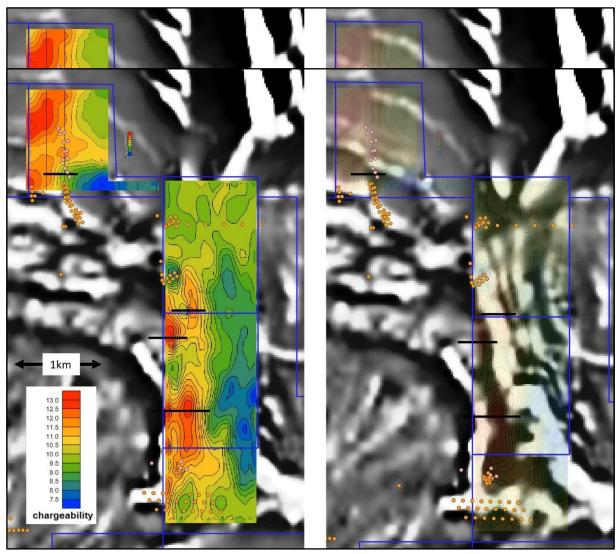


Diagram 2: Shows the extent of IP coverage completed to date. The colour image is the gradient array IP chargeability. The grey tone image is the 1st vertical derivative of reduced to pole magnetics. The image on the right-hand side has the IP chargeability image with 80% transparency so the magnetics is more visible. Firm black lines show the locations of the four completed lines of dipole-dipole IP. Tenements are outlined in blue and drill collars are shown as dots.

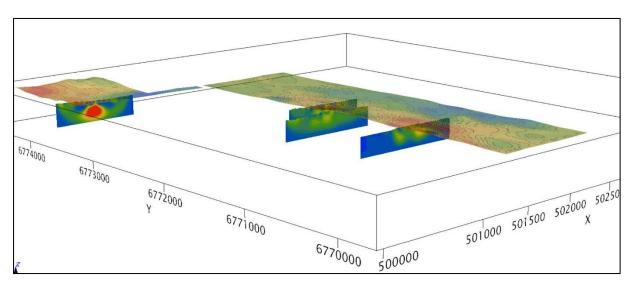


Diagram 3: 3D view of the gradient array IP results and the inversions of the chargeability from the 4 sections of dipole-dipole IP. Monza target is located in the top left-hand corner.

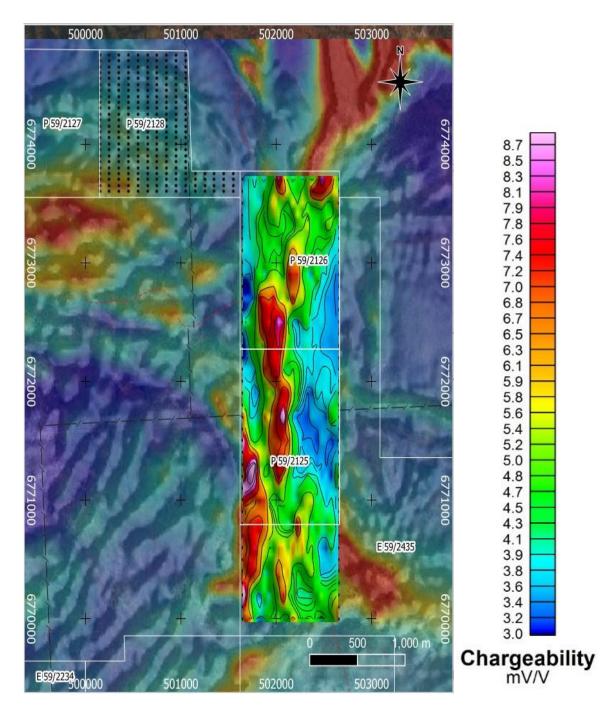


Diagram 4. Smokebush Gradient Array IP Resistivity with Contours & Legend from the ASX release from the 17 March 2023.

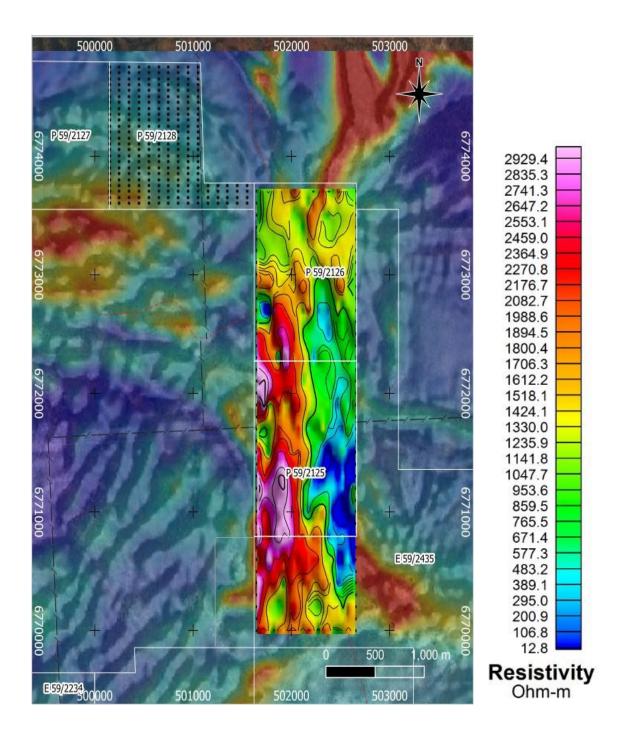


Diagram 5. Smokebush Gradient Array IP Chargeability with Contours from the ASX release from the 17 March 2023.

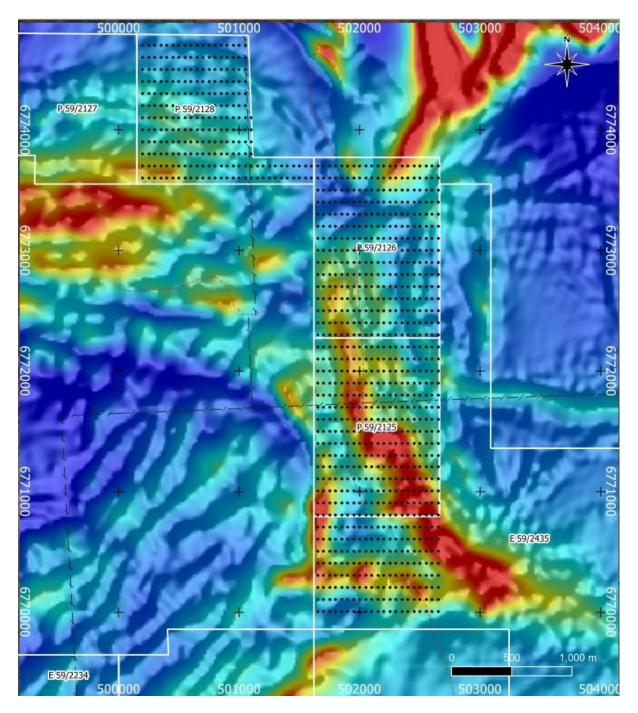


Diagram 6: The above plan shows the survey points for the current IP survey. The specifications and details of the IP survey include 200 metre line spacing (with infill 100 metre line spacing order any anomaly), and 50 metre along line sample spacing.

This IP survey is designed to detect and map the location of any sulphides present within the underlying bedrock, which is potentially associated with the high-grade gold mineralisation. This exploration technique for discovering gold mineralisation has proven successful in the past across the Yalgoo gold province.

Previous drilling by Terrain at its Monza target appears to have established a possible positive relationship between the increased occurrence of sulphide mineralisation and higher recorded gold grades.

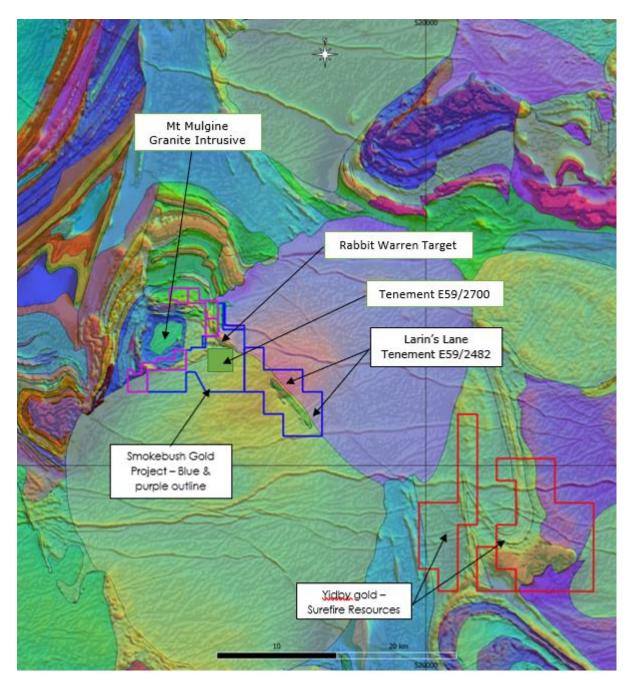


Diagram 7: Smokebush Project Location: The Mt Mulgine granite intrusive can been identified and shows that Terrain pegmatites are in the so-called Goldilocks zone for potential lithium mineralisation. The area also hosts Terrains new Larin's Lane gold target a ~4.5km long by 200-300m wide untested and undercover greenstone that is wedged between two granites.

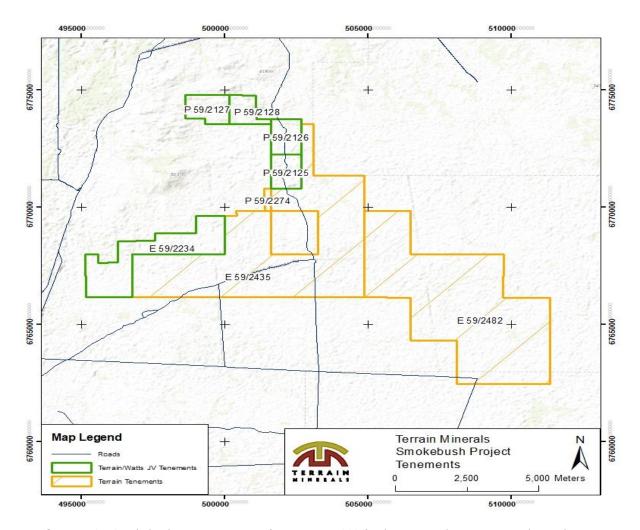


Diagram 8: Smokebush Project Location (tenements 100%). The new Hurley IP target is located on P59/2126 with the other target located on P59/2125 and north of Paradise City which is located on E59/2435. The Monza IP target is located on P59/2128 all are hidden under cover.

Location & Access

The Smokebush Project area is located approximately ~350km from Perth Western Australia and 85 kilometres east northeast of the Perenjori township and 65 kilometres west of Paynes Find within the Yalgoo Mineral Field. The tenements can be accessed via the unsealed Perenjori - Warriedar Road, and thence via extensive historical exploration grid lines, station tracks and fences lines.

The now 100% owned project consist of Prospecting Licenses (P59/2125, 2126, 2127, 2128 & 2774) and Exploration Licence E59/2234, 2435, 2482 & 2700 (refer to diagram 6 & 7).

The geology of the area consists predominantly of a complexly folded, regionally metamorphosed Archaean greenstone sequence at the southern end of the Yalgoo Singleton Greenstone Belt that has been subjected to multi-phase granitoid intrusion. Located adjacent to a large tungsten resource at Mt Mulgine (Tungsten Mining NL) and a number of Minjar Golds Pty Ltd open pit mines, now held by Warriedar Resource (AXS: WA8).

Justin Virgin Executive Director

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Note: For additional information refer to ASX announcement:

- 2 December 2019 Farm-in Agreement for the Smokebush Gold Project at Mt Mulgine, 65km West of Paynes Find WA.
- 18 December 2019 Smokebush Exceptional Historic Drilling Results Identified During Project Due Diligence.
- 3 March 2020 Exciting Results from Smokebush Gold Project.
- 08 October 2020 High Grade Rock Chips at Smokebush Gold Project.
- 12 October 2020 Exciting Drilling Results at Smokebush Gold Project.
- 3 December 2020 New Application Granted with Exciting Historic Results at the Paradise City Gold Prospect -Smokebush Gold Project.
- 12 February 2021 Ground Geophysics & Mapping Refines Targeting Matrix at Smokebush Gold Project.
- 17 March 2021 Drilling & Project Update Smokebush Gold Project.
- 22 April 2021 2,100m RC Drilling Program Commenced at the Smokebush Gold Project.
- 27 May 2021 New Rock Chip Samples & Drilling Update Smokebush Gold Project.
- 19 July 2021 Positive First Pass Drilling Results Smokebush Gold Project.
- 13 September 2021 New Geological Interpretation (Monza) & Exploration Update, Smokebush Gold Project.
- 23 August 2022 New Project Calytrix & Smokebush & Wild-viper Gold Project Updates.
- 2 December 2022 Acquisition Smokebush JV Tenement Now 100% owned.
- 6 December 2022 Smokebush Pegmatite Swarms Identified, Sampling for Lithium Mineralisation Underway.
- 7 February 2023 Smokebush 2023 Field Season Now Underway, IP Survey & MMI Soils Programs.
- 17 March 2023 Smokebush IP Survey & Lithium Update Priority Gold Drill Targets Emerging.

ABOUT TERRAIN MINERALS LIMITED:

Terrain Minerals Limited (ASX: TMX) is a mineral exploration company with a Western Australian based asset portfolio consisting of:

- **Investments:** As of the date of this announcement, Terrain holds 650,000 Red 5 Limited shares (ASX: RED) from the Great Western sale.
- Lort River WA Rare Earth Elements Exploration Project 100% owned. Covering 320km2 of highly prospective exploration acreage for REE within the now tightly held and emerging southern Esperance clay hosted REE province of Western Australia Cube Consulting has been appointed to ensure that all exploration drilling is compliant with JORC code. Terrain is currently planning for a smaller proof of concept roadside drilling due to farms being sowed, before embarking on a larger wide spaced 8,500m 1600m by 1600m, 60m deep air core program over tenement package under way. All holes will be drilled to be JORC compliant. Drilling aims to test two targets: Firstly: Shallow clay REE and Secondly: Bottom of hole samples will be testing for Tropical style gold and Nova style base metal targets. Heritage clearance process is about to commence.
- Smokebush (SB) WA Gold/Lithium exploration Project 100% owned. Terrain has identified multiple drill targets along with several other prospective areas. Terrain executed its extraordinarily successful maiden RC drill program in 2020, which followed up on historic drilling and extended mineralisation a further 400m, (now 700m in length). As well as identifying a new zone Monza North that appears to be on a different orientation. MMI soil sampling results are pending at Larin's Lane, and an IP survey continues over Paradise City, Hurley, Monza, T13 and P59/2127. Refer to the above release for comprehensive update.
- **SB Lithium** 15+ pegmatites identified to date, ranging from 5m to 30m wide and up to 200m long until appearing to go under cover. These areas have been sampled and results are expected first Q 2023. Terrain intends to drill these pegmatites subject to sample results identify Lithium mineralisation, which are still pending, refer to above realise update.
- Calytrix WA Rare Earth Elements Exploration Project 100% owned. Terrain's geological team is planning a field trip targeting several new areas to examine a potent new geological model. Areas will be mapped and sampled.

- **Wildviper -** WA Gold Exploration Project 100% owned which incorporates the strategic land holding known as Wilson Patch (WP). Wild-viper tenement package is strategically located and surrounds Red5 Ltd Great Western Project (GW) as well as being adjacent to Northern Stars (ASX: NST) Bundarra gold deposits.
- **Project Review -** Terrain Minerals continues to investigate potential projects across various commodities including Gold, Copper, Nickel, REE and other industrial minerals. Western Australian based projects are the company's current focus. But other parts of Australia are being seriously examined and considered as well as other jurisdictions like Africa, Continental Europe, and the Americas.

Authority

This announcement has been authorised for release by the Justin Virgin Director of Terrain Minerals Limited.

Competent Person Statement:

The information in this report that relates to Exploration Results are based on information compiled by Mr. B. Bell, who is a Member of the Australian Institute of Geoscientists and is a consultant retained by Terrain Minerals Ltd. Mr Bell is a shareholder and options holder of Terrain Minerals Ltd. Mr Bell 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. Bell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

ASX Listing Rule 14.3

In accordance with ASX Listing Rule 14.3 and its Constitution, the Company advises that valid nominations for the position of director remain open throughout the year.

Compliance Statement:

The Company notes that within the announcement all the information is referenced directly to the relevant original ASX market releases of that technical data.

Terrain would like to confirm to readers that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of the estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Disclaimer:

Information included in this release constitutes forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue" and "guidance" or other similar words, and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate environmental conditions including extreme weather conditions, staffing and litigation

Forward looking statements are based on the company and its management's assumptions made in good faith relating to the financial, market, regulatory and other relevant environments that exist and effect the company's business operations in the future. Readers are cautioned not to place undue reliance on forward looking statements.

Forward looking statements are only current and relevant for the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward-looking statements or advise of any change in events, conditions or circumstances on which such statement is based.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
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 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. 	 IP is a ground geophysical technique used in mineral exploration to identify the electrical properties of subsurface minerals, such as sulphides. Source electrodes induce and measure a potential field in the ground. From this data, the rock chargeability and corresponding resistivity can be measured. The methods is useful for indicating potential sulphide mineralisation associated with gold mineralised as noted by Warriedar Resources (ASX: WA8) in their 12 January 2023 ASX release. (Warriedar Resources neighbors Terrain Minerals' Smokebush Project). A total of 53 lines of gradient surveys were undertake and were split into four blocks with four transmitter (TX) lines. Reading where taken every second line (200 metres spacing). Any anomalous IP responses were followed up with 100 metre spaced infill before moving to the next survey block. The IP receiver (Rx) dipole were located 50 metres apart. Data was collected in time domain with a 50% duty cycle and a base frequency of 0.125Hz.
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	Not applicable
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	Not applicable
Logging	Whether core and chip samples have been geologically and	Not applicable

Criteria	JORC Code explanation	Commentary
	 geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable
and sample preparation	 If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to 	
	 maximise representivity of samples. 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. 	
	 Whether sample sizes are appropriate to the grain size of the material being sampled. 	
Quality of assay data and	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not applicable
laboratory tests	 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. 	
	 Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	Not applicable
assaying	The use of twinned holes.	
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	

Criteria	JORC Code explanation	Commentary
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 All coordinates are based on Map Grid Australia (MGA) Zone 50 datum GDA94.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. 	Not applicable
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	 Geophysical surveys are oriented east-west to provide introductory information on sub-surface geology, generally believed to be approximately north-south.
Sample security	The measures taken to ensure sample security.	Not applicable
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 Survey data was reviewed, processed and interpreted by leading independent consulting firm, Newexco.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 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. 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. 	 The Exploration Results are from within Prospecting License 59/2125 and P59/2126, which is 100% held and operated by Terrain Minerals. P 59/2125 and P 59/2126 are located approximately 350 kilometres north of Perth, Western Australia, and 65 kilometres west of Paynes Field, within the Yalgoo Mineral Field. There are no known material issues with third parties in relation to these tenements. The tenements in good standing with no know impediments to exploration.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Historic work has been completed over these tenements, including drilling, geophysical surveys and surface sampling. Previous operators of these tenements include: Westfield Minerals (1965), Minefields Exploration (1970-1982), ANZEO (1970-1982), Golconda (1983), General Gold Resources NL (1991-1993), Renison Goldfields Consolidated (1993-1996), Normandy Exploration (1997-1999), Gindalbie Gold NL (1999-2006), Vital Metals (2005-2009), Minjar Gold (1999-2007), Hazelwood Resources (2010-2015) and Tungsten Mining (2015-2017) Terrain Minerals has no reason to question the quality or results of the exploration activities undertaken by previous holders of these tenements.
Geology	Deposit type, geological setting and style of mineralisation.	 The Smokebush Project covers a region in the Yalgoo-Singleton Greenstone Belt comprising supracrustal greenstone rocks, including mafic and felsic volcanic rocks, banded iron formation (BIF) and clastic sedimentary rocks. Mineralisation style is Archaean orogenic gold.
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 elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	No drilling included in this report.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	No drilling included in this report
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	No drilling included in this report.
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. 	Appropriate maps and the relevant associated diagrams have been included within the body of this report.

Criteria	JORC Code explanation	Commentary
Balanced reporting	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.	No drilling included in this report.
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.	 There is no meaningful or material historic exploration data known to Terrain Minerals that is considered relevant to the Exploration Results contained within this report.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Future work, including any relevant diagrams and/or geological interpretations, are discussed within the body of this report