

ASX Announcement



05 July 2023

ABN: 45 116 153 514

ASX: TMX

Smokebush "Phase 2" Gold & Pegmatite RC Drilling has Commenced

Terrain Minerals Limited (ASX: TMX) ('Terrain' or the 'Company') is pleased to announce the commencement of the phase 2 drilling campaign targeting chargeability gold anomalies (IP) and pegmatites at the Company's 100% owned Smokebush Project, located approximately 350 kilometres north of Perth, Western Australia.

Highlights - Phase 2 Drilling Targeting Gold & Lithium:

- **~12 RC drill holes for ~1,340m program has now commenced.**
 - 6 holes targeting Terrain's New Priority gold IP anomalies (Table 1).
 - 6 holes into the northern pegmatites (Table 2).

IP anomalies recently identified by Terrain at Monza, Hurley, & Paradise City as well as two other isolated IP targets will be tested, all hidden discretely under cover. Additionally, Pegmatites near Monza and Hurley are also being tested for Lithium potential.

Highlights - First Phase Drilling completed June 2023:

- **Pending Assay from first phase drilling expected late August 2023**
- **11-hole drilled for a total 1,198m;**
 - **22m** zone of logged pegmatite (F/note 1) hole 23SBRC004 (Hole ended in Pegmatite).
 - **16m** zone of logged pegmatite (F/note 1) hole 23SBRC005.
- **10 of 11 holes intercept pegmatites** (some intercepting multiple zone).

Note: JORC information for phase 1 drilling located in ASX releases: **19 June 2023** - First phase of RC drilling successfully intersects pegmatites at Smokebush.

Larin's Lane - "Extension Program" Mobile Metal Ion (MMI):

- **Follow-up MMI soil sampling program testing the southern continuation of the currently 600 metres by 350 metre copper-in-soil geochemical anomaly.**
 - Geology at Larin's Lane prospect interpreted as potentially part of same greenstone belt that hosts the Golden Grove Copper + Gold + Silver + Zinc + Lead Mine.
 - Large New Gold Anomaly ~700m by ~250m also identified in first MMI program.

Note: Refer to ASX release **16th May 2023** - Smokebush, New Gold & Copper/Ni Anomalies.

News Highlight: Given the large number of promising exploration targets across its current flagship project 'Smokebush' and Terrains commitment to fully testing all targets in a rapid, methodically, and systemically manner, the Board anticipates exciting and regular news flow throughout the rest of 2023 and beyond.

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Phase 2 RC Drilling Program

The Phase 2 reverse circulation (RC) drill program has a dual commodity focus:

- Target gold and base metal mineralisation hosted within the chargeability anomalies (F/note 2) at company's Paradise City, Hurley, Monza and Mirja prospects (refer to table 1 and diagram 2 to 4).
- Continue targeting Lithium mineralisation potential of outcropping pegmatite observed at the Company's Monza and Hurley prospects (refer to diagram 2 and table 2).

Prospect	Easting (GDA94)	Northing (GDA94)	Dip (Degrees)	Azimuth	Depth* (metres)	Comments
Paradise City	501730	6772000	-60	270	200	Dipole-dipole chargeability
Hurley	501960	6772300	-60	270	120	Dipole-dipole chargeability
Monza	500490	6774000	-60	270	150	Dipole-dipole chargeability
Monza	500480	6774400	-60	270	150	Dipole-dipole chargeability
Mirja	499185	6774200	-60	270	100	Dipole-dipole chargeability
Mirja	499250	6774200	-60	270	100	Dipole-dipole chargeability

*depth = planned metres. The actual final depth of each hole may be greater than (but not less than) the planned depth, as it is subject to the actual lithology and/or mineralisation being observed by the field geologist supervising the drill rig.

Table 1: Summary of proposed gold and base metal-focussed drill holes of **Phase 2** program at Smokebush Project

Prospect	Easting (GDA94)	Northing (GDA94)	Dip (Degrees)	Azimuth	Depth* (metres)	Comments on Targets
Hurley	501675	6771515	-60	090	50	Outcropping pegmatite
Hurley	501740	6771515	-60	270	140	Pegmatite fractionation trend
Monza	499935	6773610	-60	180	80	Outcropping pegmatite
Monza	500445	6773630	-60	180	80	Outcropping pegmatite
Monza	500480	6773600	-60	270	120	Pegmatite fractionation trend
Monza	500650	6773580	-60	180	50	Outcropping pegmatite

*depth = planned metres. The actual final depth of each hole may be greater than (but not less than) the planned depth, as it is subject to the actual lithology and/or mineralisation being observed by the field geologist supervising the drill rig.

Table 2: Summary of proposed lithium-focussed drill holes of **Phase 2** program at Smokebush Project

The phase two drill program has been designed to target both gold and/or base metal mineralisation potential at six (6) separate high-priority geophysical targets across the Smokebush project area and six (6) pegmatite targets for lithium mineralisation.

Terrain conducted induced polarisation (IP) geophysical surveys across its Smokebush Project during the first half of 2023 which successfully returned multiple, positive chargeability anomalies within the north to northeast-trending geological shear zones at the Hurley, Paradise City, Monza and Mirja prospects. These targets are considered highly prospective. The details of the gold and base metal focussed drill holes are outlined in Table 1 have been designed to test each of the chargeability anomalies mentioned above.

Note: Terrain's previous RC drilling at Monza appears to have been drilled along a secondary structure running parallel to the new IP target and came within 50m of the new IP target (refer to diagram 3 and 4). Drilling results from this program can be found in Terrain's ASX announcement released on 12 October 2020 – Exciting Drilling results at Smokebush Gold project.

Background information on gold mineralisation across Yalgoo Mineral Field, which includes gold mineralisation reported by Warriadar Resources Limited (ASX: WA8) (F/note 3) that was previously mined by Minjar Gold, and reported a historic production grade averaging 3.3 g/t (F/note 4). These historic mines also appear to be structurally controlled and related to north to northeast-trending shear zones and also having a relationship between gold mineralisation and sulphide minerals, as reported by Warriadar Resources in relation their Windinne Well pit (F/note 5) which was also seen in Terrain's previous drilling campaigns at the Monza prospect.

The current drilling campaign forms part of Terrain's three-part exploration campaign that is running consecutively and is in line with the Company's stated commitment of seeking to make a company-defining discovery in 2023 which aims to create additional and meaningful wealth for its shareholders over the short, medium and longer term.

The Phase 2 drilling is expected to take up to three (3) weeks to complete and assays will be transported to Perth for processing. The market will be updated accordingly once exploration results have been assessed.

Phase 1 Drilling Program - Highlights & Further Explanation

The Phase 1 RC drill program was designed to test the lithium potential of the outcropping pegmatite units mapped across the Paradise City prospects (f/note 6).

As outlined in Jorc tables in the ASX announcement released on 19 June 2023, Terrain was encouraged by the initial potential thickness of the interpreted pegmatite +/- felsic intrusion units intersected by the Phase 1 drill program, which included an interpreted width of at least 22 metres in hole 23SBRC004, which ended in an interpreted pegmatite +/- felsic intrusion unit, the downhole width of 22 metres may understate the actual width of the interpreted pegmatite +/- felsic intrusion unit at this location and so the 'true width' of this intersection is not known.

*As Highlighted in the ASX release 19 June 2023 announcement, **Terrain Minerals Cautions Readers that visual estimates of rock types and/or mineral abundance are the result of observations or estimates made by professional geologists during, and subsequent to, drilling. Those observations should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the widths and grade of the visual mineralisation (if reported) in preliminary geological logging. The Company will update the market when laboratory analytical results become available.***

The Terrain team was highly encouraged by the visual estimates and preliminary geological logging returned from the Phase 1 lithium-focused drill program and has moved quickly to commence the follow-up Phase 2 drilling program. The details of the lithium-focussed drill holes are outlined in Table 2 of this announcement and includes six (6) holes for an indicative total of ~520 metres.

As with the **Phase 1** drilling, the Company may release preliminary visual estimate information to the market in the second half of July, following completion of the **Phase 2** drilling. Terrain Minerals would anticipate receiving the final assay results from the **Phase 2** lithium drilling sometime in late August or early September 2023.

Larin Lane "Extension Program" Mobile Metal Ion (MMI):

- Follow-up MMI soil sampling program testing the southern continuation of the currently 600 metres by 350 metre copper-in-soil geochemical anomaly has commenced.
- Geology at Larin Lane prospect interpreted as potentially part of same greenstone belt that hosts the Golden Grove Copper + Gold + Silver + Zinc + Lead Mine.
- Large New gold Anomaly ~700m by ~250m also identified from the first program.

Larin Lane prospect, located in the southeast of the Smokebush Project and interpreted as a remanent Archean greenstone unit, potentially part of the Yalgoo-Singleton greenstone belt being the host of 29Metals (ASX: 29M) Golden Grove Copper + Gold + Silver + Zinc + Lead Mine (refer to diagram 2 and 5).

The initial soil (mobile metal ion, or MMI) sampling over the northern part of the interpreted remanent Archean greenstone unit at the Larins Lane prospect successfully identified a large (~700 metre by 250 metre) gold-in-soil geochemical anomaly plus a separate 600 metre by 350 metre copper-in-soil geochemical anomaly. Encouraged by these promising results, the Company commenced an MMI soil sampling program over the southern extension of the Larins Lane Gold and Copper Prospect on 28 June 2023.

Note: Refer to ASX release **16th May 2023** – Smokebush, New Gold & Copper/Ni Anomalies.

Foot Notes (F/note):

- 1** - Downhole thickness. The 'true width' of this intersection is not known.
- 2** - See Terrain Minerals ASX announcements dated 17 March 2023, 2 May 2023 and 22 May 2023
- 3** - See Warriedar Resources Limited (ASX: WA8) ASX announcement dated 28 November 2022 for full details of their Golden Dragon Project and the Mineral Resources contained within. Terrain Minerals Limited confirms 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.

- 4 - See: [Minjar Gold District, Yalgoo Shire, Western Australia, Australia \(mindat.org\)](http://www.mindat.org/loc-264404.html)
<https://www.mindat.org/loc-264404.html>
- 5 - See Warriedar Resources (ASX: WA8) ASX announcement dated 9 March 2023
- 6 - See Terrain's ASX announcements dated 19 June 2023

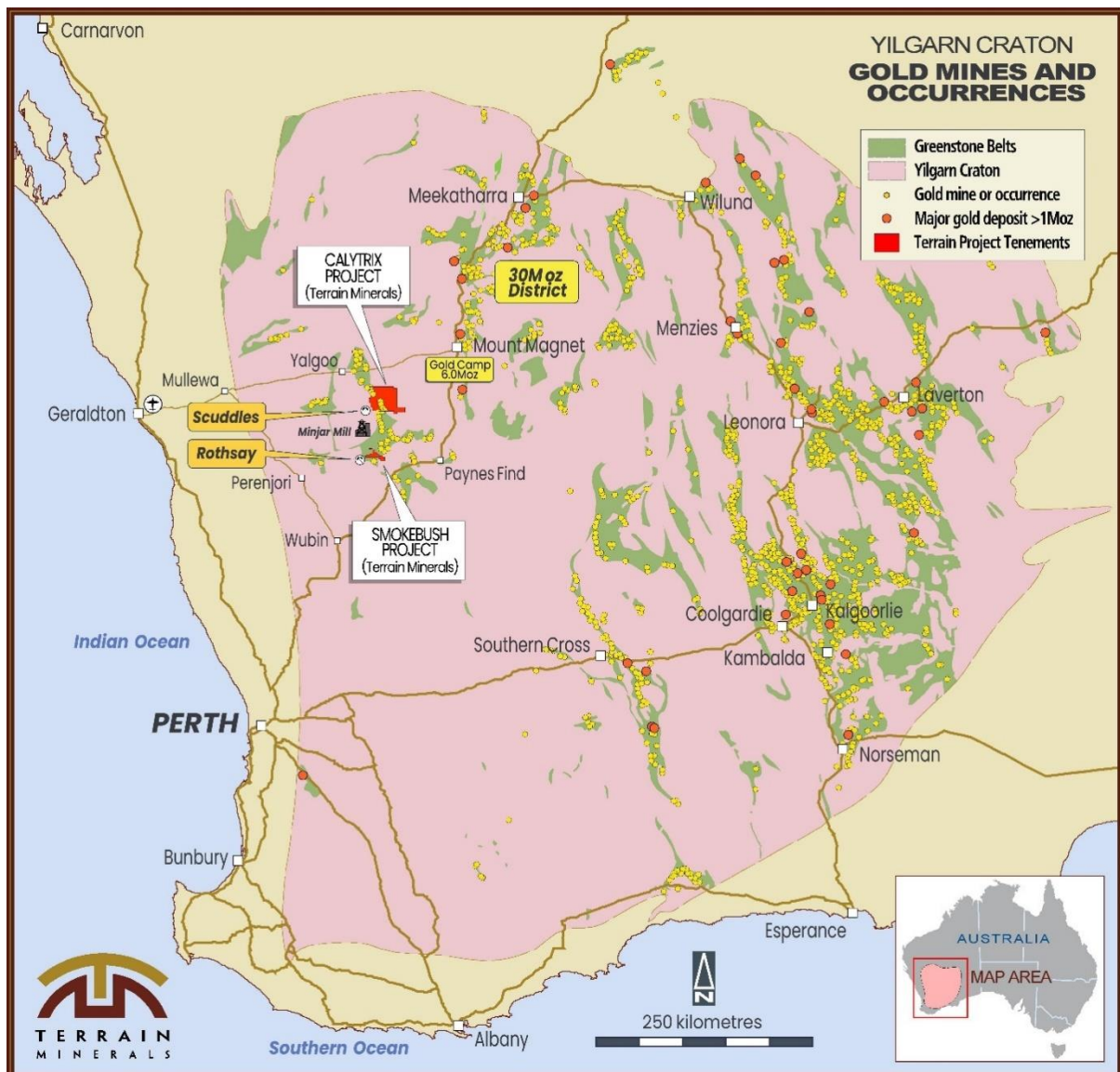


Diagram 1: Terrain Minerals' 100% owned Smokebush Gold and Lithium Project is located within the Yalgoo-Singleton Greenstone Belt in Western Australia.

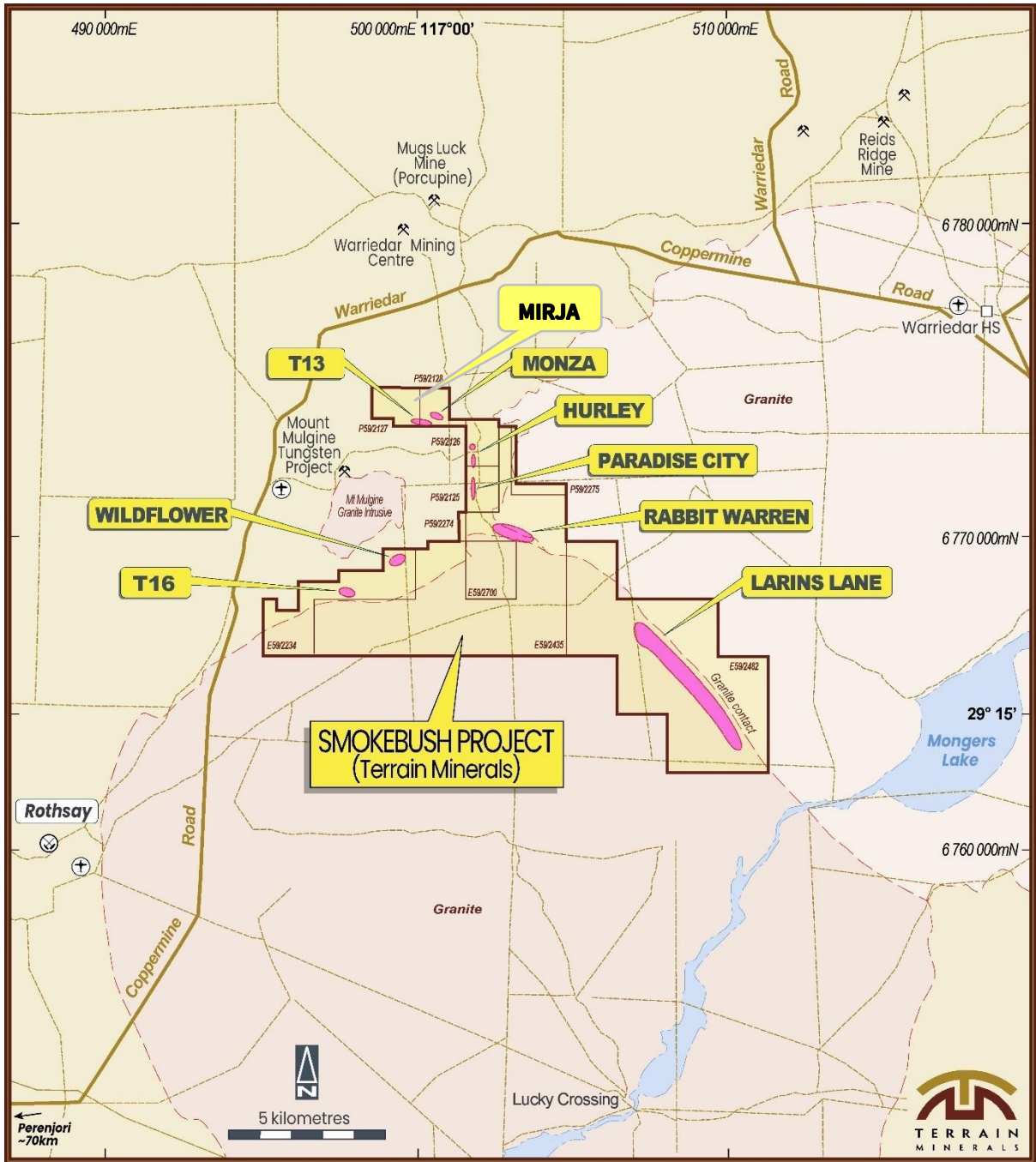


Diagram 2: Indicative location of the gold and lithium prospects within Terrain Mineral’s 100% owned Smokebush tenement area.

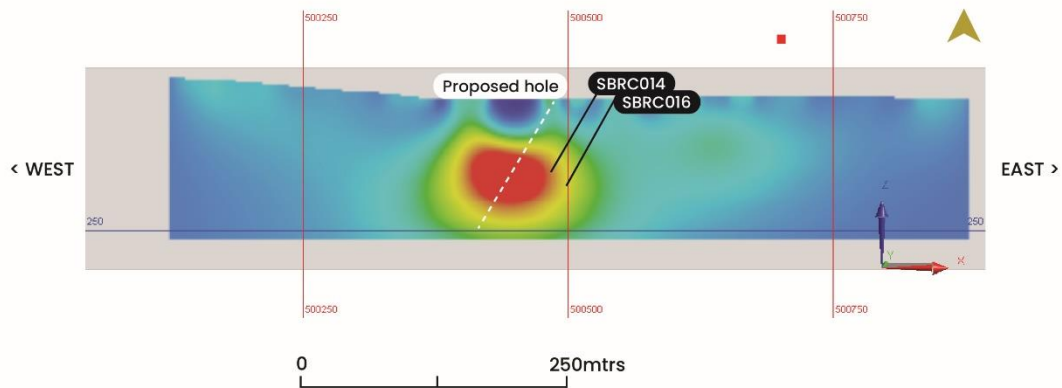


Diagram 3: Monza Gold Prospect: Two-dimensional (2D) inversion chargeability sections on 6774000N looking north with Terrain Minerals Limited's 2020/21 drill holes with superimposed (Refer to ASX announcement dated 22 May 2023 for JORC related data). The proposed drill hole designed to test this geophysical anomaly is shown (as a dashed line) and forms part of the phase 2 reverse circulation (RC) now underway at the Smokebush Project (Refer to ASX announcement dated 22 May 2023 for JORC related data).

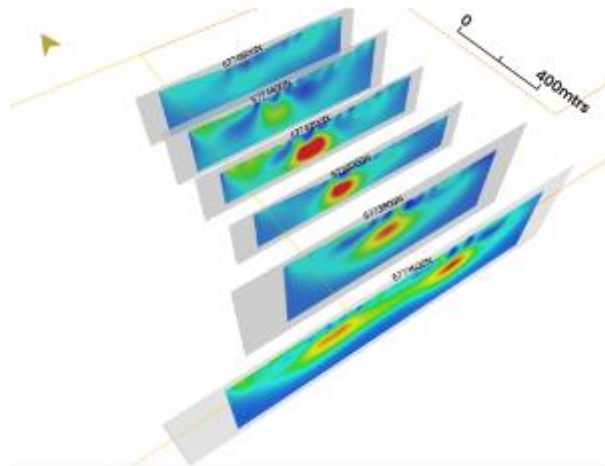


Diagram 4: Monza Gold Prospect: New identified 600m long chargeability Anomaly identified parallel to historic Monza Drilling (Refer to ASX announcement dated 22 May 2023 for JORC related data).

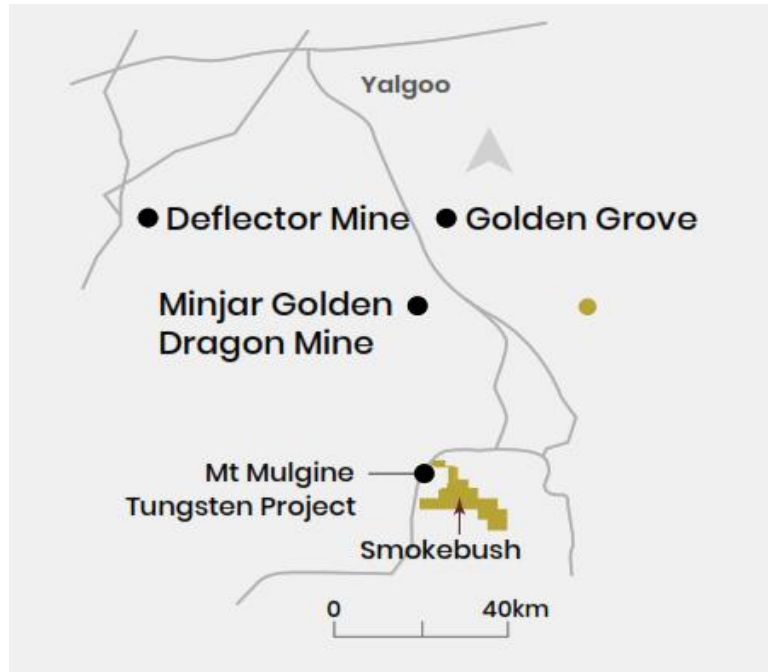


Diagram 5: Smokebush project location in relation to discoveries in the area.

Justin Virgin
Executive Director

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Note: For additional information refer to ASX announcement:

- **02 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.
- **03 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.
- **03 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.
- **02 December 2022** - Acquisition Smokebush JV Tenement Now 100% owned.
- **06 December 2022** - Smokebush - Pegmatite Swarms Identified, Sampling for Lithium Mineralisation Underway.
- **07 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.
- **02 May 2023** - Smokebush IP Survey Expanded & Update.
- **16 May 2023** - Smokebush - New Gold & Copper/Ni Anomalies.
- **22 May 2023** - 600-metre-long chargeability anomaly identified parallel to Monza Gold prospect, Smokebush Project.
- **06 June 2023** - Commencement of Pegmatite Drilling at Smokebush.
- **19 June 2023** - First phase of RC drilling successfully intersects pegmatites at Smokebush.

ABOUT TERRAIN MINERALS LIMITED:

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

Trade Opportunities: Terrain is always open to commercial discussions of full/partial sales and or JV of assets.

- **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. Terrain is currently planning to execute a smaller proof of concept roadside (air core) drilling campaign before embarking on a larger wide spaced 8,500m 1600m by 1600m, 60m deep air core program over tenement package. Heritage related matters are currently being addressed. Secondly: Bottom of hole samples will also be separately testing for Tropical style gold and Nova style base metal targets. Heritage clearance has commenced. The Company's Lort River Project immediately adjoins Meeka Metals Limited's (ASX: MEK) Cascade REE Project and OD6 Metals Limited's (ASX: OD6) Grass Patch REE Project.
- **Smokebush (SB):** 100% owned gold and lithium exploration project located within the prospective Yalgoo Mineral Field of Western Australia. The Company's Smokebush Project neighbours Warriedar Resources Limited's (ASX: WA8) (formally Minjar, Golden Dragon Project), The Company's exploration campaigns are targeting both gold, lithium and now Copper/Ni across the project area;
- **SB - Gold IP Survey** – IP survey program identified multiple drill worth targets, refer to the above release for further information.
- **SB - Lithium** - 20+ pegmatites identified to date that are potentially drill worthy, ranging up to 20m wide and up to 200m long before appearing to go under cover. The pegmatite swarms run along a 4 km long zone between Hurley and Paradise City areas. Samples from the Paradise City area are now at the laboratory pending results. Pegmatites at Hurley and Monza are being tested as part of the phase 2 drilling campaign, refer to the above announcement.
- **SB - Larin's Lane** – Exceptional MMI soil sampling results have identifying one new Gold target and an open Copper with associated Nickel anomaly, which remains open to the SE, an extension program is currently under way.
- **Calytrix Project:** 100% owned rare earth elements (REE) exploration project is located approximately 500 kilometres north of Perth and 40 kilometres southeast of the town of Yalgoo. An active exploration program for both hard rock hosted, and clay hosted REE mineralisation is presently underway across the Calytrix project area.
- **Wild Viper Project:** 100% owned gold exploration project, located 70 kilometres north of Leonora, Western Australia, and incorporates the strategic land holding known as Wilsons Patch. The Company's Wild Viper Project is strategically located and surrounds Red5 Limited's (ASX: RED) Great Western Mine as well as being adjacent to Northern Star Resources Limited's (ASX: NST) Bundarra gold deposits.
- **Project Review:** Terrain Minerals Limited continues to investigate potential projects across various commodities including gold, copper, nickel, rare earth elements, 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 are other jurisdictions like Africa, Europe, and the Americas.
- **Pending Applications:** Terrain has a number of pending tenement applications across Western Australian and Queensland. These applications include:
 - **Biloela Copper and Gold Project** located along strike of the Cracow Gold Mine in Qld (ASX release 21 June 2023);
 - **Carlindie Lithium Project** located near Lithium Power International's Tabba Tabba Lithium Project in the Pilbara WA;
 - **Mukinbudin (WA) Rare Earths and Lithium Project** which neighbours Rio Tinto's landholding in the region.

The Company does not incur any holding or ongoing costs in relation to pending applications. It should be noted that there is no guarantee that pending application will be granted.

Authority

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

Competent Person's 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 Minerals 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.