

ASX Announcement



04 November 2024

ABN: 45 116 153 514

ASX: TMX

Larins Lane Phase One JORC Exploration Target Outlines Potential

Terrain Minerals Limited (ASX: TMX) ('Terrain' or the 'Company') is pleased to announce that leading mining consulting firm, SRK Consulting (Australasia) Pty Ltd (**'SRK Consulting'**), has defined an initial *Phase One* Exploration Target for the Company's 100% owned Larins Lane Project located in the Mid-West region of Western Australia (see Diagram 1).

The initial *Phase One* Exploration Target is based solely on the limited air core program completed by the Company in 2023, which appears to **cover less than 5% of the prospective geology at Larins Lane**. (See Diagram 2).

It should be noted that both the rare earth element (REE) mineralisation and Gallium covered by this *Phase One* Exploration Target are hosted within the regolith (or oxide) horizon, sitting above the fresh bedrock (see Diagram 3).

Zone	Tonnage range (million tonnes)	Grade range: TREO (ppm)	Grade range: Gallium (grams per tonne)
South	5 to 7	870 to 760	19 to 21
Central	17 to 20	995 to 945	19 to 21
North	4 to 6	1,050 to 820	19 to 21
Total	25 to 33	980 to 880	19 to 21

Table 1: *Phase One* Exploration Target for the Larins Lane Project (covers 5% of prospective geology).

Cautionary Note:

The Exploration Target quantities and grades are conceptual in nature. Insufficient exploration has been conducted to estimate Mineral Resources and it is uncertain if further exploration will result in the estimation of Mineral Resources.

As part of their report, SRK Consulting also designed a follow-up air core drilling program aimed at **testing an expanded mineralisation footprint** at Larins Lane. This proposed drill program, which comprise 53 holes for an estimated total of 3,500 metres of air core drilling, is designed **to triple the amount of prospective geology drill tested** by the Company (see Diagram 2).

This drill program is currently anticipated to commence in the first quarter of the 2025 calendar year, with results due six weeks after the completion of the program. Following receipt of the assays, an **updated Phase Two Exploration Target** for the Larins Lane Gallium Project will be determined by SRK Consulting that will reflect any **expected increase in the mineralised footprint at the Larins Lane Gallium Project**.

As a participant in the Minerals Research Institute of Western Australia (MRIWA) research project M10528, selected samples from the upcoming drilling at Larins Lane will also be the subject of a series of extraction processes via Curtin University. The objective of this government-sponsored research project is to optimise the recovery of regolith-hosted critical minerals (including Gallium) with a **focus on organic, near pH neutral, solvents**. Results from this research project will be provided to Terrain over the course of the next 12 months and will play a significant role in **underpinning any future Mineral Resource calculation** (and Scoping Study) for the Larins Lane Gallium Project.

The Company, in consultation with SRK Consulting, is also presently designing a *Phase Three* (and final) air core drilling program for the Larins Lane Project (See Diagram 2). The purpose of **the Phase Three program is to test the remaining 80% of the prospective geology at Larins Lane** not covered by the *Phase One* and

Address: Suite 2, 28 Outram Street, West Perth WA 6005 **Postal:** PO Box 79, West Perth, WA 6872

T: +61 8 9381 5558 **E:** terrain@terrainminerals.com.au **W:** www.terrainminerals.com.au

Phase Two drilling campaigns. Further details of this drill program will be released as part of the Phase Two Exploration Target announcement presently anticipated for release in mid-2025.

The Phase One Exploration Target reflects both the regolith-hosted REE mineralisation in addition to gallium (with REE being the basis for the Phase One Exploration Target determined by SRK Consulting as outlined within this release). However, the Company anticipates that any future (updated) Exploration Targets for the Larins Lane Project will subsequently prioritise Gallium mineralisation. This proposed adjustment in focus reflects the industry's apparent increasing interest in this gallium and is anticipated to be supported by the expected favourable results from the Company's ongoing Gallium-focused metallurgical test work (which are anticipated to show that there is more than a reasonable prospective of eventual economic extraction of gallium from Terrain's Larins Lane Gallium Project).

Commenting on the determination of an initial, Phase One Exploration Target for Larins Lane by SRK Consulting, Terrain's Executive Director, Justin Virgin, said:

Justin's Key Highlights:

- **Initial Exploration Target Defined:** SRK Consulting has defined a Phase One Exploration Target at Terrain Minerals' 100%-owned Larins Lane Project, covering only 5% of prospective geology.
- **Rare Earths and Gallium Potential:** Targeted REE and gallium mineralisation are located within the regolith (oxide horizon) above fresh bedrock.
- **Planned Expansion of Drilling:** SRK Consulting designed a follow-up air core drilling program (53 holes, 3,500 meters). Drilling is expected to commence in Q1 2025, with results six weeks post-completion (See Diagram 2).
- **Collaboration with Curtin University:** As part of the MRIWA research project, samples will undergo extraction tests focusing on critical minerals like gallium, using environmentally friendly, near pH-neutral solvents. Findings will support future resource calculations and scoping studies.
- **Future Exploration Phases:** A Phase Three drilling program is under design to cover the remaining 80% of Larins Lane's geology. Details will be released with the Phase Two Exploration Target expected mid-2025. With a focused on delineating the higher-grade zones.

Selected higher grade holes include: (Refer to ASX announcement 27 May 2024)

Applying: Gallium Oxide (Ga₂O₃) cut-off 40.32 g/t (ppm)

- 16m @ 53.74 g/t Ga₂O₃ from 64m - (23SBAC035)
 - 20m @ 48.33 g/t Ga₂O₃ from 4m - (23SBAC045)
 - 30m @ 40.32 g/t Ga₂O₃ from 24m - (23SBAC071)
 - 24m @ 46.34 g/t Ga₂O₃ from 32m - (23SBAC077)
 - 8m @ 52.62 g/t Ga₂O₃ from 20m - (23SBAC080)
- **Shift in Focus to Gallium:** Future targets are expected to prioritise gallium, responding to industry demand and encouraging initial metallurgical results on its economic extraction potential.

"We're excited to announce this initial Exploration Target for the Larins Lane Project, marking a pivotal step in unlocking the project's vast potential. The Phase One findings have shown us just a glimpse of what Larins Lane holds, and our planned drilling campaigns aim to substantially increase our understanding of the resource. With less than 5% of the prospective geology covered by this Phase One Exploration Target, the Company expects that this preliminary Exploration Target will grow substantially during the next two phases of drilling."

To quote SRK Consulting:

*"SRK has not seen any data to indicate that the drill target areas chosen by Terrain have better prospectivity than the undrilled areas between these drill clusters, and **it is reasonable to expect that mineralisation of a similar grade tenor could be discovered in the undrilled areas** elsewhere along the granite contact".*

"With 95% of the prospective area still to be properly drill tested, this represents an enormous opportunity for the Company and its shareholders alike".

"The Company is pleased with the progress of its on-going discussions with potential international partners in relation of the gallium mineralisation at Larins Lane and the release of this, and subsequent Exploration Targets, play a vital role in advancing these discussions. Terrain looks forward to updating shareholders on these gallium partnership discussions once they develop sufficiently to meet disclosure requirements".

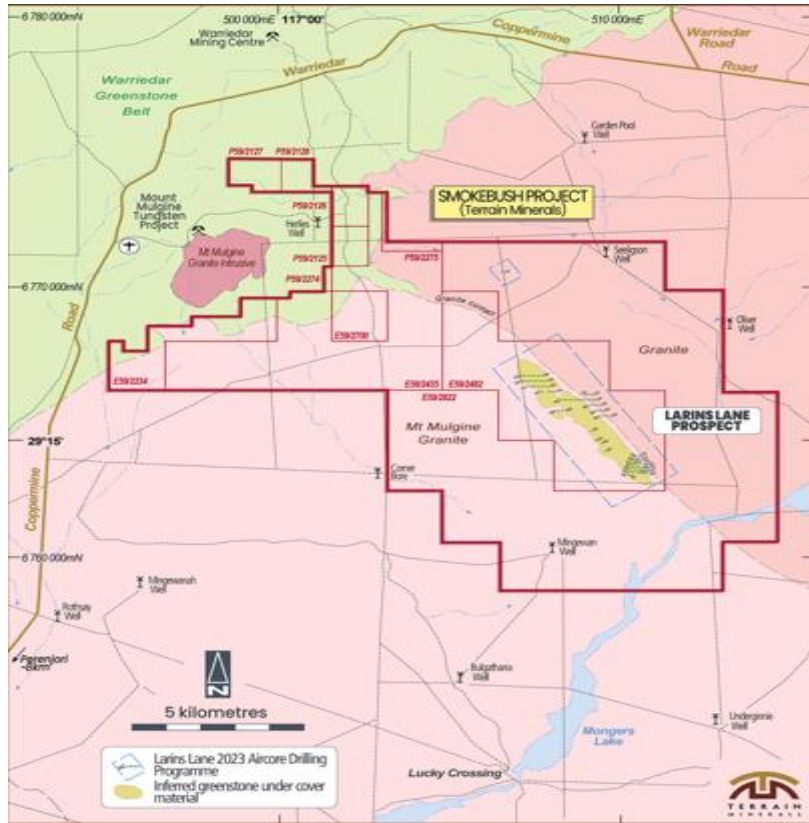


Diagram 1: Smokebush tenement package, refer to the following Diagram 2 (zoom in) which outlines the potential of Larin’s Lane Project and the proposed 3 stages of exploration, outlined in this report.

SRK Consulting’s Technical Information: Phase One Exploration Target, Larins Lane Project

Section 1. Introduction

The Larins Lane Project is part of Terrain’s Smokebush project area, which is located in the Mid-West region of Western Australia, approximately 40 kilometres west of Paynes Find, and 350 kilometres northeast of Perth.

In 2023, Terrain conducted a 101-hole air core drilling program at the Larins Lane Project. Elevated concentrations of clay-hosted rare earth element (REE) and gallium (Ga) mineralisation were discovered in the regolith that has developed on an elongated amphibolite body located between adjacent monzogranite bodies.

Terrain engaged SRK Consulting to conduct an interim review of the available geological data with the aim of assessing the likely prospectivity of the area.

Following an initial review of the data, SRK Consulting concluded that there is sufficient data in selected parts of the deposit to define an REE and Gallium Exploration Target, which is also described below.

Section 2. Data sources

The assessment and commentary provided below is based on the following primary data sources.

- Data provided by Terrain and Expedito Services:
 - The Smokebush area drill hole database containing collar, survey, assay, lithology, regolith, and weathering information. The assay file contains data for 63 analytes, including all of the rare earth elements, as well as yttrium, scandium and gallium.
 - Exploration Results derived from the recent drilling program (Refer to ASX announcement 27 May 2024).

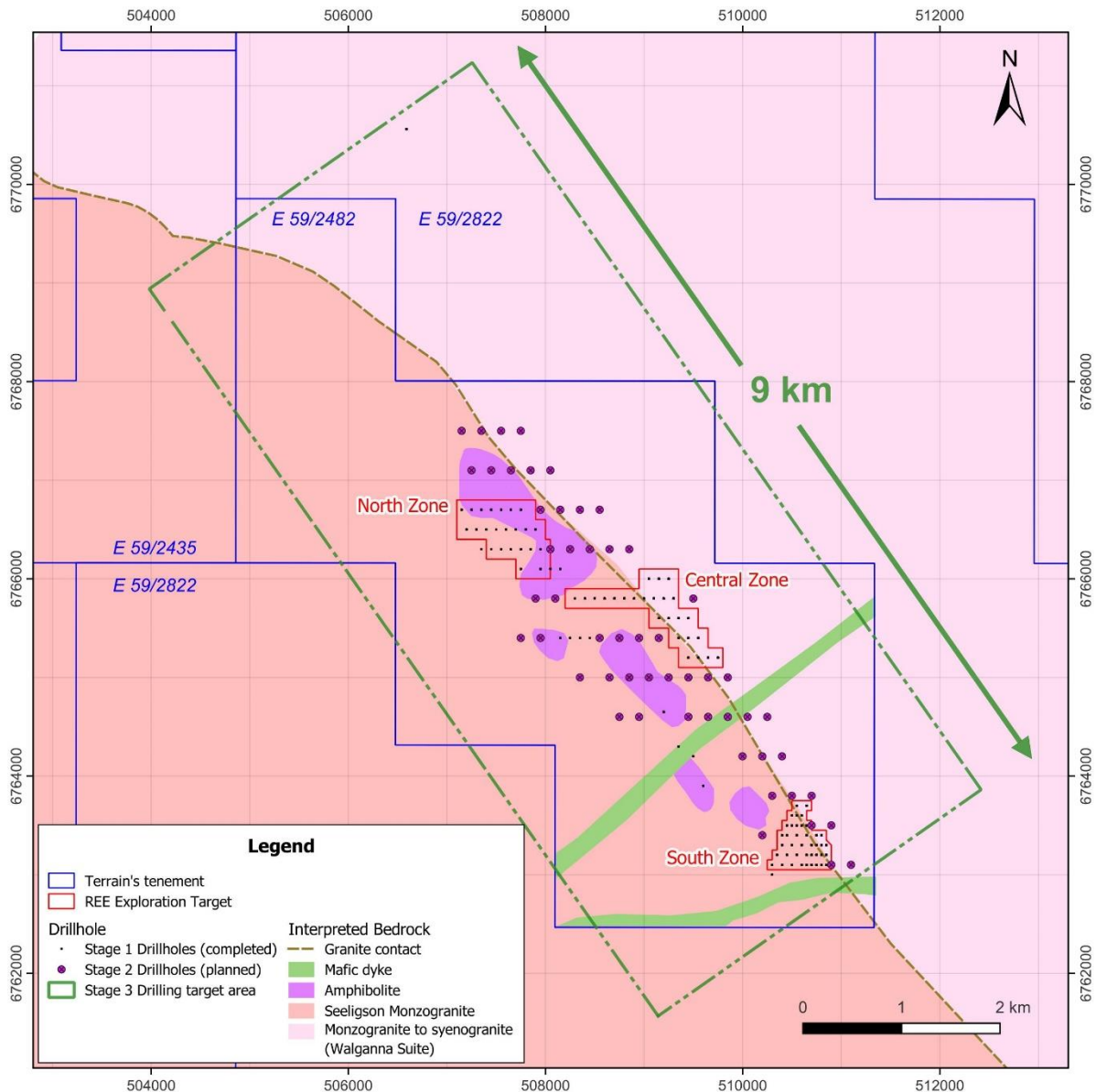


Diagram 2: Indicative area covered by the completed Stage 1 (2023) air core drill program, plus the proposed Stage 2 and Stage 3 drilling programs, highlighted in the legend box.

Notes: E 59/2482 is a granted exploration tenement held 100% by Terrain Minerals Limited (see Appendix 1). Tenement E 59/2822, which surrounds E 59/2482 is a pending application submitted by Terrain Minerals in 2024. Whilst there is no guarantee that E 59/2822 will be granted, Terrain Minerals is unaware of any reason why E 59/2822 would not be granted to the Company.

- A progress report (July 2024) for the Minerals Research Institute of Western Australia (MRIWA) 10500 Project, *Characterisation of clay-hosted rare-earth element deposits in Western Australia* (including some accompanying data).
- Public domain data sourced by SRK Consulting:
 - Geological Survey of Western Australia (GSWA) Geology MERGED: an interpreted bedrock geology map of Western Australia created by combining limited 1:100,000 scale and statewide 1:500,000 scale geology data. The aim of the Geology MERGED layer is to create a single statewide interpreted bedrock geology map that incorporates geological data at the best available resolution.
 - GSWA Digital State Regolith Geology of Western Australia (1:500,000): regolith units are coded according to GSWA’s classification scheme and categorised into 11 landforms.

- GSWA Total Magnetic Intensity (TMI) Data (80 metres): values from low to high are represented by colours ranging from black to white. This merged magnetic anomaly data was generated from federal and state government datasets acquired with a line spacing of 500 metres or less, and over 1,600 open file company datasets at various line spacings.
- ASX releases and other publicly available documents from selected local companies developing projects with similar mineralisation styles.

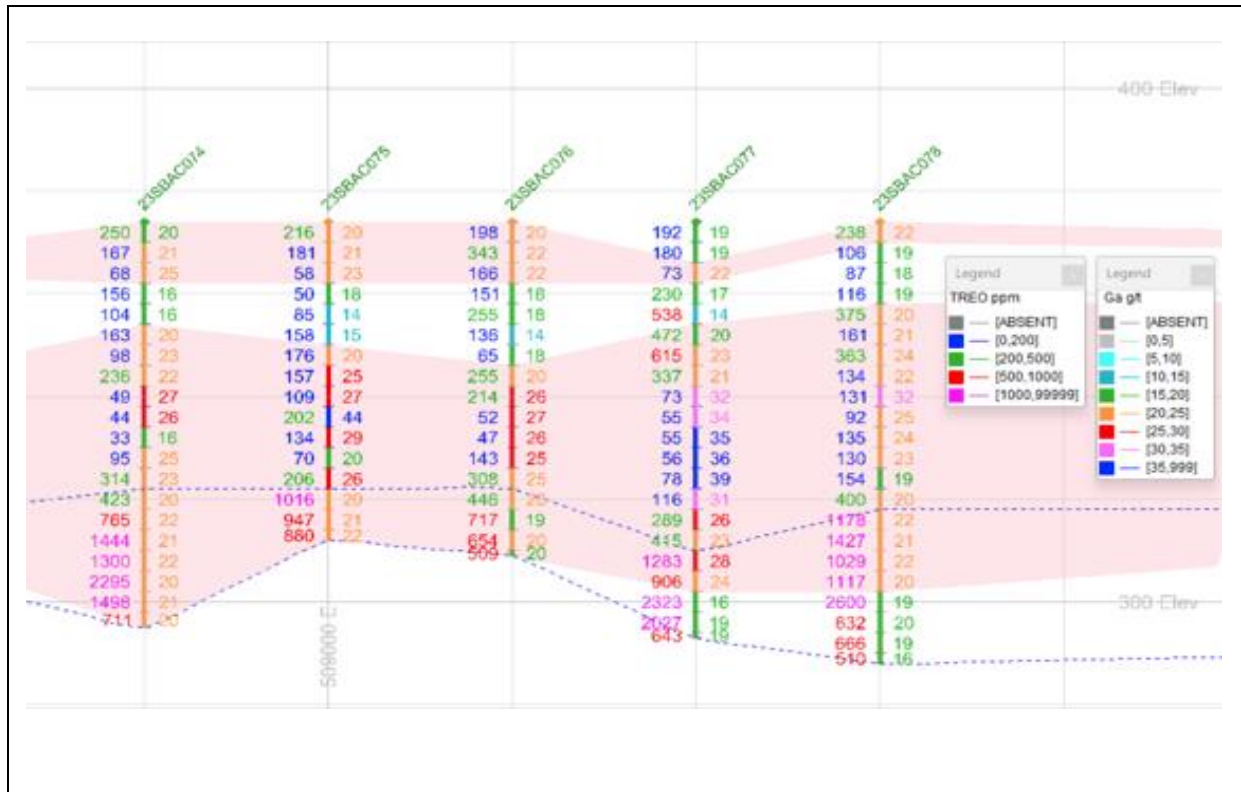


Diagram: 3 (Drill section line 6,765,800mN) – **Mineral grades highlighted above show that Gallium mostly sits above the REE zones which also contain Gallium;** Left hand side REE with Gallium grades on the Right-hand side of the above drill collars. Areas indicated in pink indicative the +20g/t zones of Gallium sitting in clays/Oxide. The blue dotted lines highlighting the elevated REE and Gallium sitting along the hard rock interface zone (no drilling data into the underlying hard rock).

Section 3. Local geology

Terrain’s exploration program has targeted the regolith clays/oxide that have formed on granites and greenstones of the Walganna Suite. Rocks of the Walganna Suite are distributed extensively throughout the Youanmi Terrane.

Within the project area, the Seeligson Monzogranite and an unnamed sequence of monzogranite and syenogranites, that are both part of the Walganna Suite, are identified. These formations are associated with the Yilgarn Craton granite magmatism (3010–2600 Ma) and are located south of the Yalgoo Dome (GSWA Report 186).

The project area is mainly characterised by depositional units consisting of sediments derived from residual or erosional landforms. It includes colluvial, sheetwash, alluvial, lacustrine, sandplain, eolian and marine deposits of variable thickness (GSWA Regolith Map).

SRK Consulting used data sourced from the GSWA database and the Western Australian regional magnetic data (TMI data) to prepare a bedrock interpretation of the region covered by Terrain’s exploration licence E59/2482. The dominant lithologies in the area are the monzogranites and syenogranites of the Walganna Suite.

The tenement straddles a northwesterly trending contact between the Seeligson Monzogranite and the unnamed syenogranite. The contact is also marked by the presence of an amphibolite belt derived from mafic volcanic and intrusive rocks that are locally schistose.

Presented below is a summary of the interpreted bedrock lithostratigraphic units (Diagram 4):

- Mafic dykes: likely fine-grained to medium-grained dolerites interpreted from magnetic data (TMI) associated with Warakurna Supersuite (c. 1085–1030 Ma Giles Event).
- Seeligson Monzogranite (Walganna Suite): equigranular, coarse-grained, undeformed monzogranite with 4–12 millimetre (mm) grain size; locally with 3 centimetre (cm) long K-feldspar megacrysts; metamorphosed (3010–2600 Ma).
- Walganna Suite: monzogranite to syenogranite; undeformed; common magmatic foliation.
- Youanmi Terrane greenstones: amphibolite derived from mafic volcanic and intrusive rocks; locally schistose.

Based on the bedrock interpretation prepared by SRK Consulting, Terrain’s drilling appears to have primarily targeted the amphibolite belt and the contact area between the monzogranite and syenogranite (see Diagram 4).

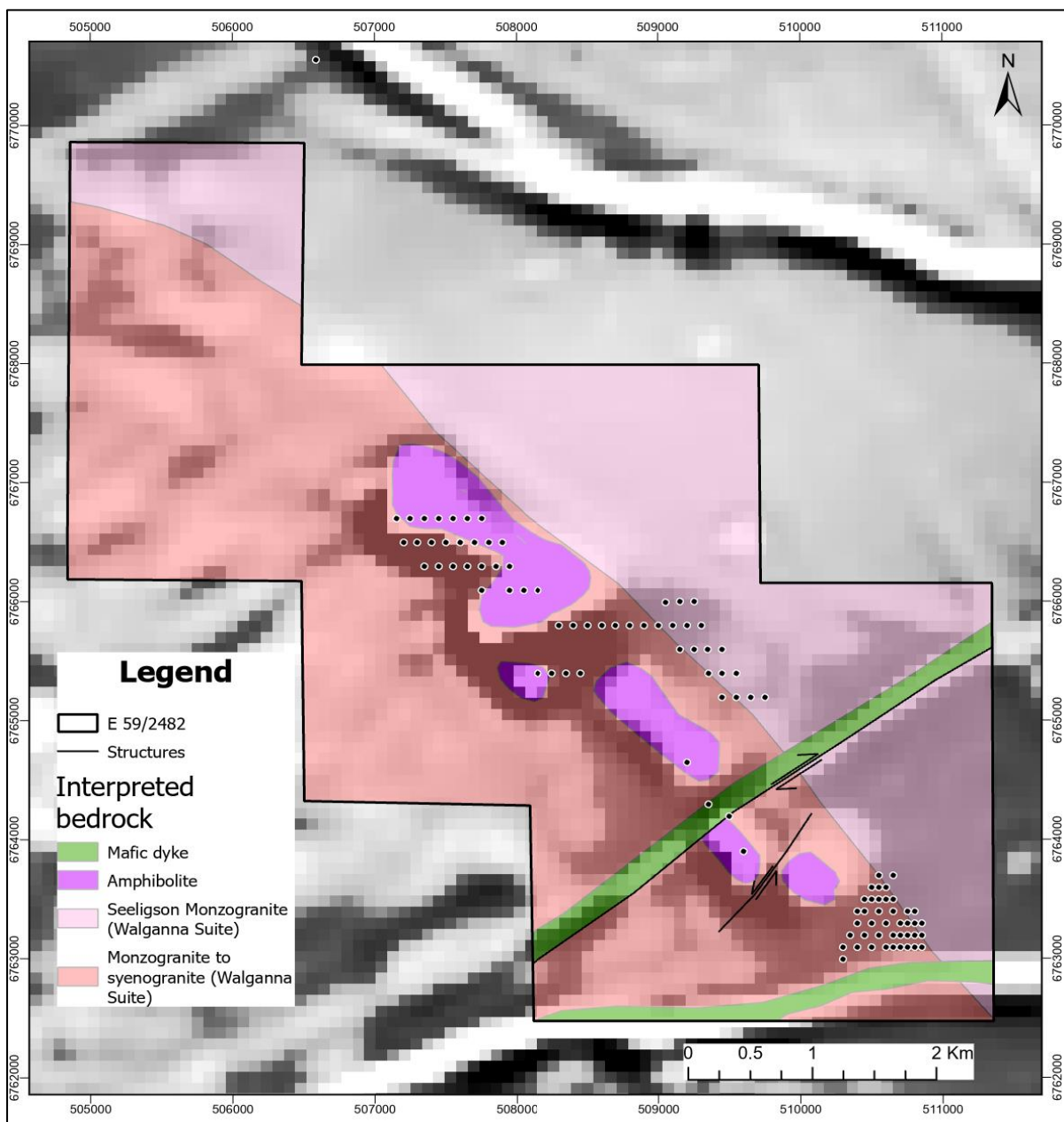


Diagram 4: Bedrock geology interpretation of Terrain Minerals' Larins Lane Project.

Sources: SRK; GSWA; Terrain **Notes:** Magnetic data (TMI) as a background image from GSWA

Section 4. Data review

Drilling data observations

Terrain's 2023 air core program was designed to sample the regolith–bedrock interface in the vicinity of the greenstone belt located near the contact between the monzogranite and syenogranite. As shown in Diagram 4, most of the drilling occurs within three clusters straddling this contact. Through this drilling, Terrain discovered elevated REE grades and potentially anomalous gallium grades within the mid-saprolite and lower-saprolite horizons.

An examination of the drilling data shows some evidence that the regolith hosts two sub-horizons containing material with elevated REE grades: a zone in the upper-mid level saprolite material with grades typically exceeding 200 parts per million (ppm) total rare earth oxides (TREO) (Domain 200), and a (sub) zone near the regolith–bedrock contact with grades typically exceeding 500 ppm TREO (Domain 500).

There is some evidence of the Domain 500 horizon in 83 of the 101 drill holes, indicating reasonable continuity. The larger accumulations (grade × thickness) appear to occur near the contact between the two granites (see Diagram 5). It is also noted that the last sample in many of the holes reports elevated REE grades. There is insufficient data to enable SRK Consulting to comment on whether these end-of-hole samples do in fact represent the base of weathering, or whether elevated REE grades may continue lower in the profile.

A summary of the Domain 500 intercepts composited over the domain thickness in each hole is presented below:

- The Domain 500 TREO grades range from 509–2,084 ppm, with an average of 920 ppm (thickness-weighted).
- The domain thickness ranges from 1–36 metres, with an average of 13 metres.
- The domain depth (from surface to the top of the domain) ranges from 12–92 metres, with an average depth of 55 metres.
- The NdPr (oxide)/TREO ratio ranges from 0.1 to 0.26, with an average of 0.20.
- The Ce₂O₃/TREO ratio ranges from 0.30 to 0.66, with an average of 0.42.

The gallium grades in the assay dataset are approximately normally distributed with an average grade of approximately 20 ppm, and a maximum grade of 50 ppm (Diagram 6).

There is no evidence of a significant correlation between TREO and gallium concentrations. The average gallium grade both inside and outside of Domain 500 is approximately 20 ppm. Also, there is no significant correlation between gallium concentration and the distance above the regolith–bedrock contact (as there is with TREO).

Most of the elevated gallium grades (>35 ppm or g/t) occur in close proximity to the interpreted contact between the two granites (see Diagram 6).

Bedrock correlation

Based on an initial assessment of the available datasets, it is noted that the larger TREO (and Gallium) accumulations (grade × thickness) occur near the interpreted contact between the two granites and not necessarily directly above the interpreted amphibolite. However, this relationship may be obscured by the scale and reliability of the bedrock mapping data, as well as the drill coverage. It is also difficult to assess what component of the weathered material may be in situ or transported. A more detailed assessment of the assay data may provide better insight into this.

SRK Consulting has not seen any data to indicate that the drill target areas chosen by Terrain have better prospectivity than the undrilled areas between these drill clusters, and **it is reasonable to expect that mineralisation of a similar grade tenor could be discovered in the undrilled areas elsewhere along the granite contact.**

Concluding remarks

A northwest-trending amphibolite unit has been interpreted in the area. This unit exhibits a high magnetic response and is surrounded by felsic monzogranitic to syenogranitic rocks from the Walganna Suite. Additionally, northeast-trending mafic dykes cross-cut the amphibolites, occurring between the clusters of REE anomalies. This geological setting suggests a complex interplay of magmatic and tectonic processes that may influence REE mineralisation.

The **elevated concentrations of TREO and gallium appear to occur along the contact between the two granite bodies**. However, because of the limitations with the mapping data (data coverage, mapping scale, and the limited geological logging data), it is not possible to establish a clear relationship between the elevated grades and substrate lithology.

There is limited information available on the mineralogical form of the rare earth elements. Based on the observed correlation with P_2O_5 and the general finding of the MRIWA study, it is more likely that they are associated with primary or secondary phosphate minerals (such as monazite and rhabdophane).

The available data provide little information on the mineralogical form of the REE mineralisation (Gallium yet to be tested). It is quite likely that the elevated TREO grades are associated with phosphate minerals and are not ionically bonded to clay minerals (such as kaolinite). The exploration samples were assayed using a near total analytical method (lithium borate fusion, four acid digest, and ICP-MS analyses), and leach tests have not been conducted. Based on the observed correlation with P_2O_5 and the general findings of the MRIWA study, it is most likely that the REE occurrences are associated with primary or secondary phosphate minerals (such as monazite and rhabdophane).

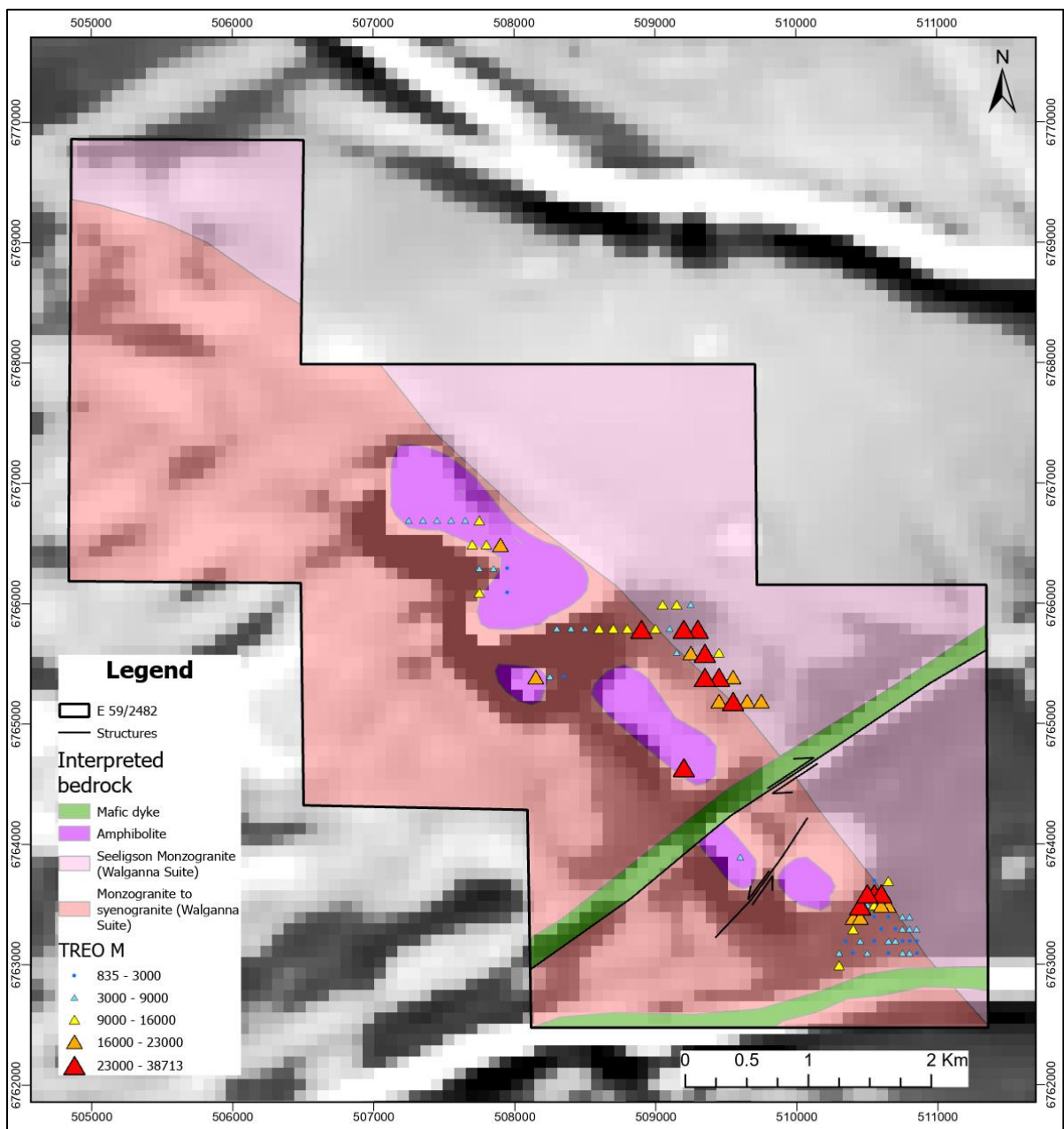


Diagram 5: Average total rare earth oxide (TREO) Domain 500 accumulation (grade × thickness)

Sources: SRK; GSWA; Terrain

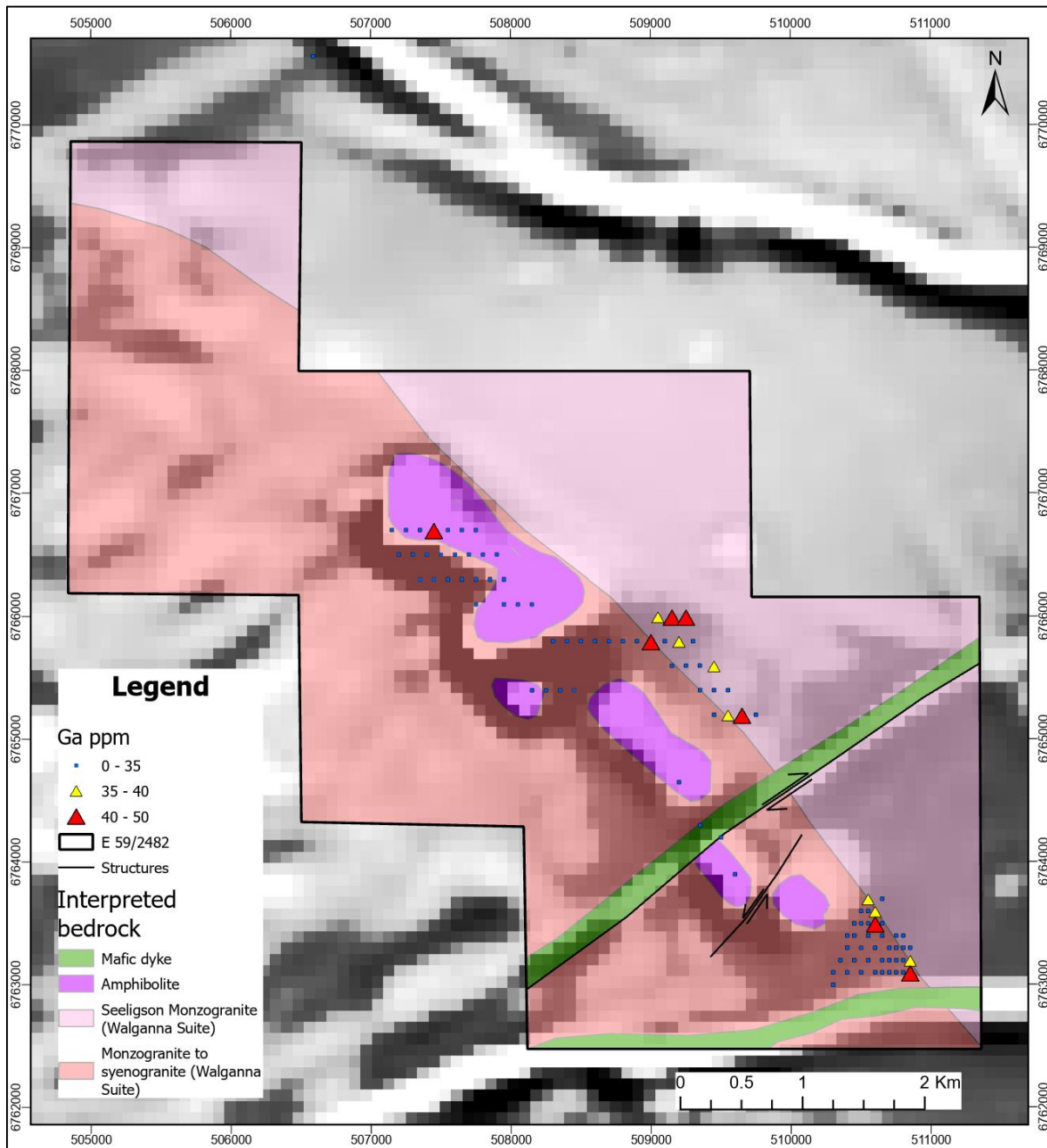


Diagram 6: Gallium samples with grades exceeding 35 ppm Sources: SRK; GSWA; Terrain

Section 5. Exploration Target estimation

As noted above, most of the drilling occurs within three clusters straddling the granite contact. This drilling has provided quite uniform coverage in these three areas, with a nominal spacing of 50–100mE × 200mN in three locations along the granite contact.

SRK Consulting considers that there is sufficient data available for the definition of Exploration Targets in the three areas described above. Presented below are the Exploration Targets estimated for the three regions with uniform drill coverage, as well as summary descriptions of the data used and the estimation procedures. The Exploration Target locations are shown in Diagram 7. Descriptions of the data collection and procedures are presented in the JORC Code Table 1.

The Exploration Target assessment presented below is primarily based on TREO grades, which have been calculated from the rare earth element grades provided in Expedito's database extracts. Please note that the stated TREO grades include yttrium oxide.

The TREO grades do not include scandium.

The Exploration Target quantities and grades are conceptual in nature. Insufficient exploration has been conducted to estimate Mineral Resources and it is uncertain if further exploration will result in the estimation of Mineral Resources.

The Exploration Target estimates were derived from the drilling data. Two different estimation approaches were used with the results used to define the upper and lower tonnage and grade values. The following estimation approaches were used.

Estimation Method 1

Because the drilling has been conducted on a regular grid and the assays were conducted on relatively large composites (3–4 metres), a volume of influence was assigned to each composite. A rectangle with dimensions equivalent to the local drill spacing (typically 200 m × 100 m) was defined around each composite. The composite length was used to convert this to a volume estimate, and an assumed dry density of 1.8 t/m³ was used to convert it to a tonnage estimate. The composite grade was assigned as the block grade. The Exploration Target quantities were estimated by summing all blocks with a TREO grade equal to or exceeding 500 ppm.

Estimation Method 2

As outlined above, a reasonably continuous zone of material with elevated TREO is observed in the lower part of the saprolite zone. A nominal threshold grade of 500 ppm was used to interpret strings representing the upper and lower surfaces of this zone for each drill section. The threshold grade was not used in an overly prescriptive way but was locally adjusted to better capture the continuity evident in the data. The strings were then linked to form surfaces covering the extent of each drill cluster. The composites located between the upper and lower surface were extracted and accumulated to give an average TREO grade and thickness at each drill hole location.

An example east–west drill section showing the TREO grades and the domain interpretation has been shown in Diagram 8.

A perimeter was interpreted around each drill cluster, with the boundary placed approximately half the local drill spacing beyond the outermost holes. The perimeter area and average thickness and grade were used to estimate the volume and grade of each zone. An assumed dry density of 1.8 t/m³ was used to estimate the tonnage.

The grade and tonnage estimates for the two methods have been used to define the Exploration Target range. The differences largely reflect the impact of averaging and assumptions pertaining to grade continuity and data precision. A TREO metal range has also been included to highlight the expectation that the lower end of the tonnage range is likely to correspond to the higher end of the grade range and vice versa.

The relative proportions of the individual rare earth elements appear to be quite consistent in the Exploration Target areas. Ce₂O₃ typically represents approximately 40% of TREO and NdPr (Ne₂O₃ + Pr₆O₁₁) typically represents approximately 20% of TREO.

As part of its follow-up investigations, Terrain plans to assess the potential value of gallium and, for this reason, gallium grade ranges have been included in the Exploration Target estimate.

These estimates reflect the gallium grades of the material contained in the TREO Exploration Target.

As noted above, there is no significant correlation evident between TREO and gallium, nor strong gallium grade trends within the profile.

Zone	Tonnage range	Grade range	Metal range	Ga grade range
	(Mt)	TREO (ppm)	TREO (t)	Ga (g/t)
South	5–7	870–760	3.9–5.1	19–21
Central	17–20	995–945	16.5–18.8	19–21
North	4–6	1,050–820	3.7–5.2	19–21
Total	25–33	980–880	24.2–29.2	19–21

Table 2: Larins Lane *Phase One* Exploration Target

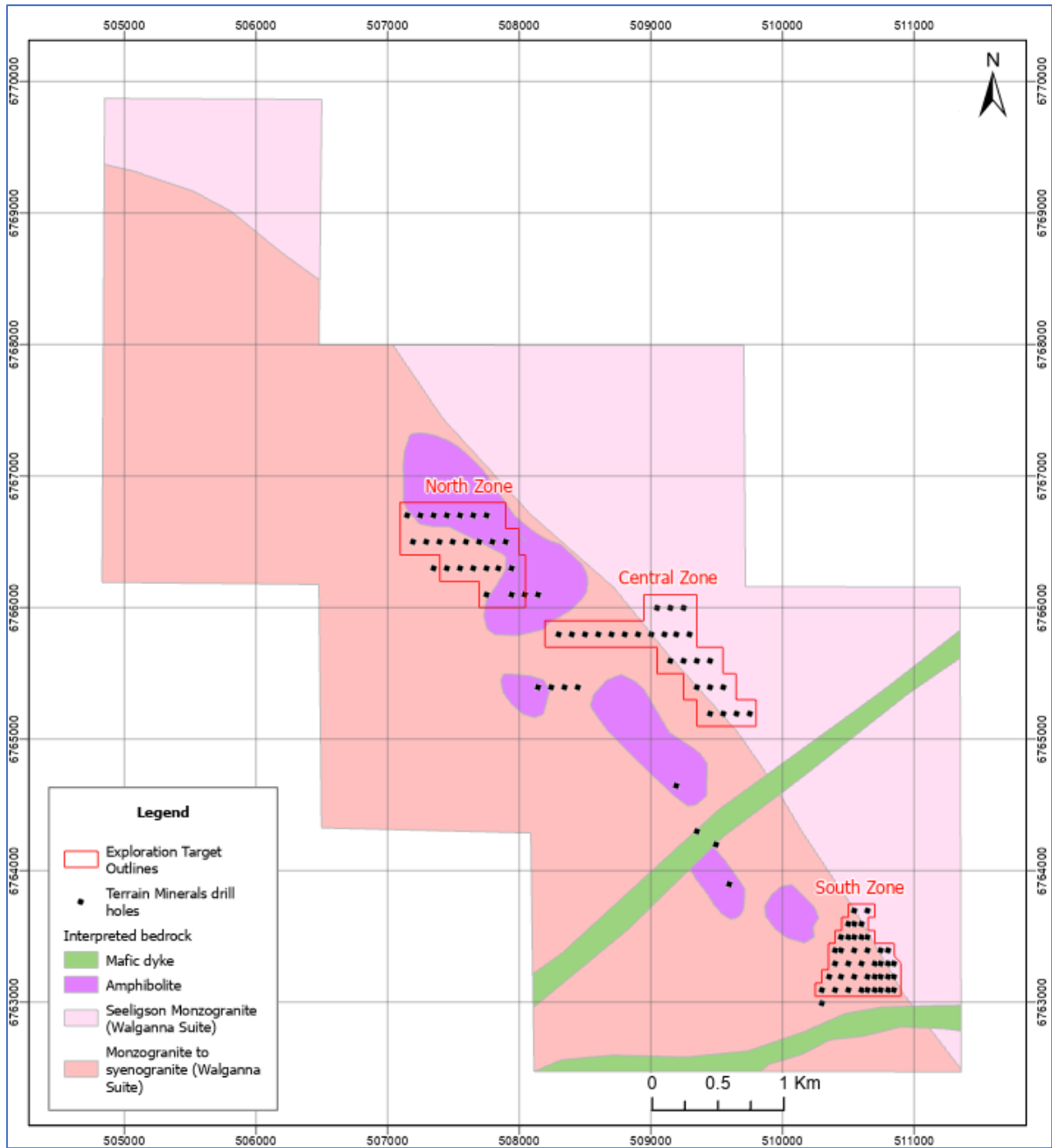


Diagram 7: Phase One Exploration Target locations at Larins Lane Project

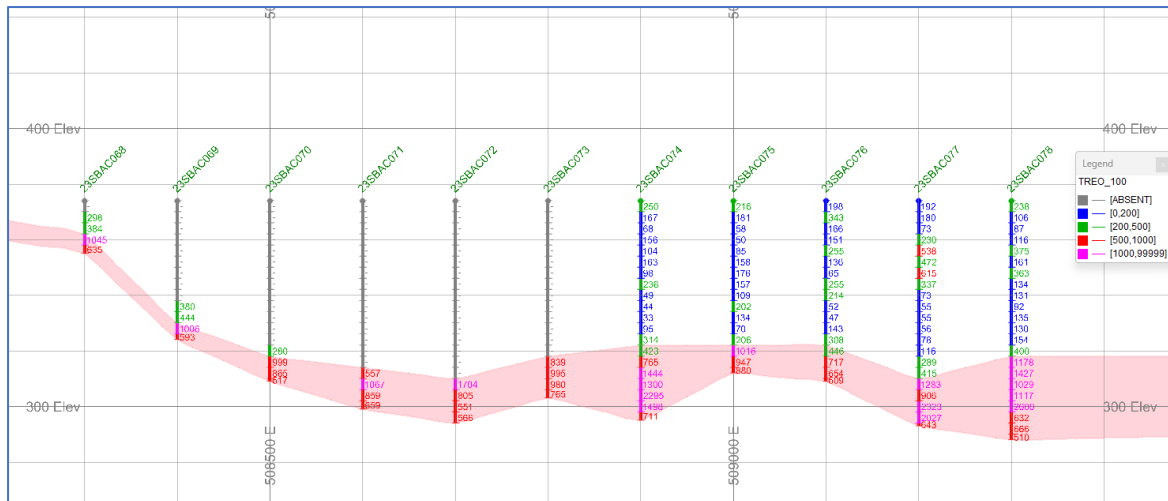


Diagram 8: Drill section line 6,765,800mN

Section 6: Recommendations for further work

As outlined above, SRK Consulting has delineated Exploration Targets within the three areas with uniform drill coverage.

SRK Consulting has not seen any data to suggest that these three areas have better prospectivity than elsewhere along the granite contact. Therefore, **material of similar grade tenor could be discovered in the intervening areas.**

SRK Consulting recommends that additional drilling be conducted to test the areas proximal to and between the existing drill clusters. As well as providing additional coverage, the results from the recommended drilling should provide a better understanding of the relationship between grade and bedrock geology, and of the REE mineralogy.

To ensure consistency with the existing drilling, SRK Consulting recommends east-west oriented drill lines nominally spaced 400 metres apart straddling the granite contact, with a nominal spacing of 200 metres along each grid line. SRK Consulting considers that this spacing should be adequate to **support extension of the current Phase One Exploration Target** if the proposed drilling intersects mineralisation with similar grade characteristics and tenor to that of the existing drilling.

The recommended air core drilling program comprises a total of 53 drill holes designed to evaluate the regolith mineralisation along the northwest-southeast strike of the granite contact and in the vicinity of the existing drilling. The recommended drill hole locations are presented in Diagram 9.

What is Gallium (Ga)

Gallium (GA) atomic number 31, is a soft, silvery metal, at standard temperature and pressure. The elemental gallium is a liquid at temperatures greater than 29.76C (85.57F) (slightly above room temperature), where it becomes silvery white. Source: <https://strategicmetalsinvest.com/gallium-prices/>

Solid gallium alloys are used in optics, electronics, and nuclear engineering because of their non-toxicity and resistance to neutron radiation and beta decay. Used in alloys with other metals such as aluminium, copper, and tin to create gallium arsenide (GaAs) as well as being used in semiconductor fabrication, one of gallium's most important uses. It provides a critical component in multiple steps of the manufacturing process for computer chips and other electronic devices including photovoltaics (solar panels cells due to a recent patent expiring).

Gallium is a critical metal used in the defence industry and computer chips, (Gallium chips will potentially replacing silicon), semi-conductors, transistors, including electronic circuitry.

Gallium nitride (GaN) is another important compound of gallium that has applications in light-emitting diodes (LEDs), laser diodes, power amplifiers, and solar cells. Source: <https://strategicmetalsinvest.com/gallium-prices/>

Gallium increases component speed and miniaturization critical in generative AI (and the associated demand for semiconductor).

Until 1 August 2023 export ban, China was ostensibly the sole supplier to Gallium to the semiconductor industry, producing a staggering ~98% of the world's supply of raw Gallium. It is anticipated that USA, European and Asian, Sovereign states and semiconductor chip makers will actively seek to ensure reliable and secure supply outside of China, with the aim of safeguarding critical manufacturing and in country industrial production into the future.

Note: Gallium - For addition information and references, refer to ASX releases:
 16 August 2023 - Gallium (Ga) Discovered at Smokebush RC drilling campaign.
 31 October 2023 - Quarterly Activities Report: September 2023.
 23 October 2023 - Gallium Clays in drilling at Lort River.
 11 March 2024 - Highly encouraging REE & Gallium results at Larins Lane Project, only ~25% of samples assayed to date.
 27 May 2024 - Exciting Gallium & REE drilling results at Larin's Lane.

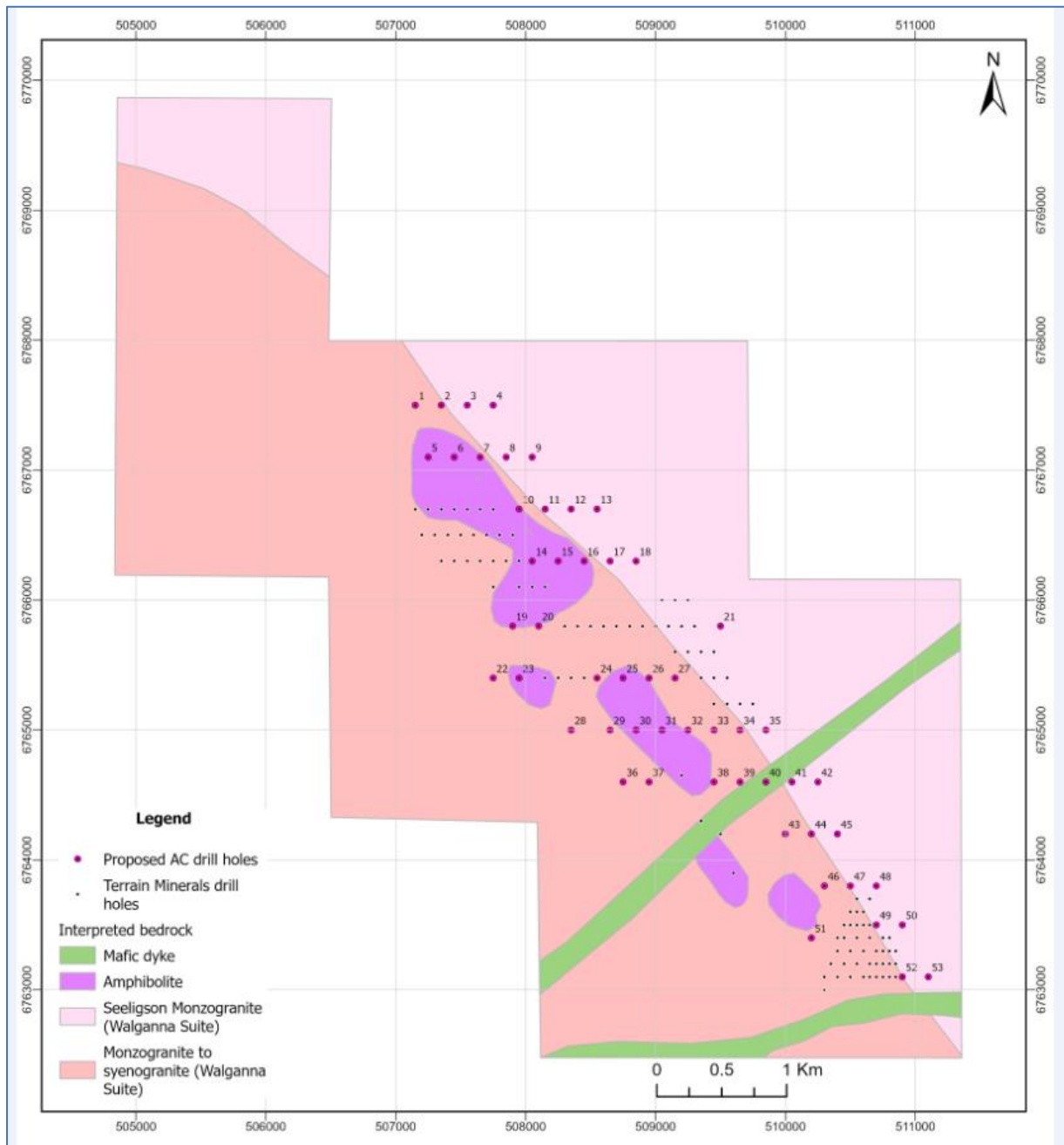


Diagram 9: Recommended drill hole locations designed to support extension of the current *Phase One* Exploration Target and enable SRK Consulting to determine a *Phase Two* Exploration Target that would reflect any the expected increase in the mineralised footprint at the Larins Lane Project.

For further information, please contact:

Justin Virgin - Executive Director
Email: terrain@terrainminerals.com.au
Phone: +61 8 9381 5558

ABOUT TERRAIN MINERALS LIMITED:

Terrain Minerals Limited (ASX: TMX) is a mineral exploration company with an asset portfolio that includes:

Trade Opportunities:

Terrain is open to commercial discussions in relation to the full or partial sale, and/or joint venture of the Company's non-core assets.

Smokebush Exploration Project

100% owned exploration project located within the prospective Yalgoo Mineral Field of Western Australia which neighbours Warriedar Resources Limited's (ASX: WA8) Golden Dragon Project. The Company's previous exploration campaign have targeting gold, and other commodities across the tenement package:

Larin's Lane - Gallium (& REE) Project:

The maiden drilling program in late 2023 intersected broad zones of Gallium mineralisation over a ~9km by ~3km of interpreted strike. This mineralisation remains open in all directions and has the potential to grow into a significant clay/oxide hosted Gallium project. The project area benefits from year-round access and within close proximity to established mining infrastructure. A JORC compliant exploration target refer to above announcement.

Wildflower/Cota Gold Prospects:

- First-pass air core drilling program was conducted in September 2024, consisting of 71 holes for 1,710 metres. Drilling tested strike and depth extension of an historic RAB hole that returned 15 metres @ 1.49g/t gold from 10 meters depth (hole MM110) refer to ASX releases 18/12/2019 & 03/03/2020. Drill results are now pending.

- **Lightning/Monza Gold Prospects:**

Lightning IP target was drill tested by the Company in late 2023, which appears to have confirmed the presence of gold mineralisation refer to ASX release 14 November 2023. Terrain proposes to undertake a targeted 6-hole reverse circulation (RC) drill program at Lightning and Monza Gold Prospects at some time in the future. Both Wildflower and Cotta currently rank higher and appear to sit in a different geological setting and as such an IP survey would be ineffective and unwarranted as targets are already identified.

Lort River Exploration Project

100% owned exploration project that covers more than ~550km² square kilometres of highly prospective exploration acreage located approximately 50 kilometres northwest of Esperance, Western Australia.

- **Lort River - Nickel Project:**

Is situated within the highly prospective Albany-Fraser Belt, being home to Nova-Bollinger nickel-copper ore bodies. The host geology of the Nova-Bollinger nickel-copper orebody appears as a very distinctive "eye" in the aeromagnetic data. Terrain has identified a possible repetition of the Nova-style eye feature in its recently granted tenement E63/2447 within its Lort River Project. An Airborne EM (Vtem) survey to test for sulphide bodies, flying over 1,281km line survey. **Leading geophysical consulting firm Southern Geoscience Consultants (SGC) has confirmed that the "eye" feature at Lort River is likely a mafic or ultra mafic "intrusion" potentially emplaced during the Albany Fraser Orogen, for additional information refer to ASX release 13 August 2024.**

Project Review

Terrain continues to investigate potential projects across various commodities including gold, copper, nickel, and industrial minerals. Whilst Western Australian based projects are the Company's current focus, other parts of Australia are being seriously examined and considered as are other jurisdictions including, but not limited to, Africa, Europe, and the Americas across all commodities.

Pending Applications

Terrain has several pending tenement (packages) applications across Australia. These applications include:

Biloela: Copper & Gold Project is located along strike of the Cracow Gold Mine in Queensland (See ASX release dated 21 June 2023 for more information on the rationale, geological setting and walk-up drill targets already identified within this key project area).

Carlindie: Lithium Project is strategically located between Wildcat Resources (ASX: WC8) and Kali Metals (ASX: KM1) tenements in the East Pilbara of Western Australia. The Company has prioritised the granting of its Carlindie tenement package and is continuing to work successfully towards achieving its goal.

Note: Terrain incurs no addition costs until pending applications are granted. Terrain's board also believes that having a strong project pipeline into the future ensures investors are able to see future value opportunities by being a shareholder of the Terrain Minerals Limited (ASX:TMX).

Authority

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

Competent Person's Statement

The information in this report is based on information compiled by Mr. Rodney Brown who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and Member of the Australian Institute of Geoscientists (AIG). Mr Brown is Principal Consultant (Resource Evaluation) at SRK Consulting (Australia) Pty Ltd and 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. Brown 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.

Appendix 1

Section 1: Sampling techniques and data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> ▪ Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. ▪ 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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> ▪ The Exploration Target estimates presented in this release have been prepared using data collected from a drilling program conducted by Terrain Minerals in 2023. Data from a total of 101 air core holes were made available for this assessment. The Exploration Results used to prepare the Exploration Target estimates have previously been reported by Terrain Minerals in ASX announcement entitled <i>Exciting Gallium & REE drilling results at Larin's Lane</i>, dated 27 May 2024. ▪ The drilling was conducted as a reconnaissance program to assist in assessing the prospectivity of the project area. Terrain acknowledges that, for this initial stage of exploration, sample collection and field preparation procedures may not be consistent with 'best practice' approaches. ▪ The samples were taken over 1 metre intervals and laid out as drill spoil piles. Spear sampling was used to collect a sub-sample from each pile, and the sub-samples were combined in the field to produce composites. Over 70% of the samples submitted for assaying were composited over 4 metre intervals, with most of the remainder composited over 3 metre intervals. A small number of samples were collected over 1 metre or 2 metre intervals (<5%) – most of these occur at the ends of the drill holes. ▪ As described below, the samples were prepared and assayed by ALS (Perth) using conventional sample preparation and analytical procedures.
Drilling techniques	<ul style="list-style-type: none"> ▪ Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> ▪ All the drilling was completed in late 2023 by Raglan Drilling using a single air core drill rig fitted with a 4.25" bladed bit. ▪ The holes are all relatively shallow, with an average depth of 65 metre and a maximum depth of 107 metre. All holes are assumed to be vertical, and downhole surveying was not performed.
Drill sample recovery	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ An assessment of recovery is understood to have been limited to visual assessment of the volume of sample collected from each interval. ▪ There is insufficient information available to determine whether there is a relationship between sample recovery and grade. Given the nature of the material and the sampling method, a significant relationship is not expected. ▪ The drill string and cyclone were flushed at the end of each hole to reduce the likelihood of contamination.

Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> ▪ 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. ▪ Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. ▪ The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> ▪ Geological logs were prepared for all holes and provided in electronic form. ▪ The logging is qualitative and quantitative in nature and data have been collected over the total lengths of the holes. ▪ The logs were prepared from a visual examination of the drill cuttings. Portable x-ray fluorescence (XRF) readings were taken on the drill spoil samples, and these results were used to assist with lithological interpretation.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> ▪ If core, whether cut or sawn and whether quarter, half or all core taken. ▪ 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. 	<ul style="list-style-type: none"> ▪ The samples were collected on 1 metre intervals from the cyclone underflow and then dropped into spoil piles. Spear sampling was used to collect a split from each pile, and the splits were then combined to represent 3 metre or 4 metre composites. ▪ The weights of the 1 metre samples, the speared splits, or the composites were not recorded. ▪ As outlined above, this work was conducted as part of a reconnaissance program. Procedures specifically designed to maximise recovery and monitor quality were not included. ▪ The sample size is considered to be suitable for this style of mineralisation.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> ▪ The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. ▪ 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> ▪ All the samples were prepared and assayed by ALS Perth. ▪ The samples were prepared in a conventional manner, which included oven drying at 105°C, crushing to 90% passing 2 mm, and pulverising to 85% passing 75 µm. ▪ All samples were assayed for an extensive suite of analytes, including all the rare earth elements, as well as gold. The assaying procedures were tailored for specific groups of analytes and included borate fusion and/or 4-acid digest, with an ICP-MS finish. Fire assay (25 gram) was used for gold. ▪ The assay techniques are considered to give (near) total concentrations. SRK understands that no partial extraction techniques (that could otherwise provide insights into the mineralogical form of the REEs) were conducted. ▪ Terrain Minerals advised that, because this was intended as a reconnaissance program only, no QAQC procedures (additional to the laboratory's internal procedures) were included.
Verification of sampling and assaying	<ul style="list-style-type: none"> ▪ The verification of significant intersections by either independent or alternative company personnel. ▪ 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. 	<ul style="list-style-type: none"> ▪ Twinned hole drilling has not been conducted. ▪ All logging and assay data are stored within an independently managed database, with auto-validation of all data. ▪ The assay data were provided by the laboratory in elemental form. These data were converted to their oxide equivalents for the estimation of TREO. No other adjustments were made to the assay data.

Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ The spatial data are reported using the MGA94 Zone 50 coordinate system. ▪ The drill hole collar locations were surveyed using handheld GPS to a reported accuracy of ± 5 metres. The collar elevations have not been measured, and a nominal elevation of 374 mRL has been assigned to all drill hole collar records in Terrain's database. ▪ Accurate topographic survey data are not available for the project area, however the publicly available SRTM data do not indicate that there is significant topographic relief in the areas in which the Exploration Targets have been defined. The subdued topography coupled with the tabular sub-horizontal nature of the mineralised zones and the use of vertical drill holes means that the lack of reliable elevation data is not expected to have a significant impact on the Exploration Target estimates. When preparing the Exploration Target estimates, SRK used the nominal drill hole collar elevation of 374 mRL contained in Terrain's database.
Data spacing and distribution	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ The majority of the drilling has been conducted in three clusters. A nominal spacing of 200mN \times 100mE was used for the central and northern clusters. A nominal spacing of 100mN \times 50mE was used for the southern cluster. The spacing is considered to be suitable for the delineation of Exploration Targets. ▪ The samples were collected on 1 metre intervals. The samples from the initial holes (~30 holes) were field composited over 3 metre intervals, and the remaining holes were field composited over 4 metre intervals. The composite length is considered to be adequate for the delineation of an Exploration Target.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ All the drill holes are vertical and located on a semi-regular grid, which means that the sampling is expected to be near orthogonal to the sub-horizontal mineralised units. ▪ No orientation-based sampling biases have been identified or are expected for this style of mineralisation.
Sample security	<ul style="list-style-type: none"> ▪ The measures taken to ensure sample security. 	<ul style="list-style-type: none"> ▪ Terrain Minerals advised that the sampling program was supervised by a company appointed geologist, who was responsible for chain of custody. The samples were placed in labelled bags, that were sealed and transported by road to ALS in Perth.
Audits or reviews	<ul style="list-style-type: none"> ▪ The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> ▪ An external review of the assay data has been completed by Expedito Services ▪ Expedito Services did not raise any issues or concerns in relation to the data.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ The Exploration Target and the datasets described in this report are all contained within the Western Australian exploration tenement E59/2482, which is located approximately 350 kilometers north of Perth. ▪ Tenement E59/2482 is 100% owned and operated by Terrain Minerals Limited. ▪ There are no known material issues with third parties in relation to this tenement. ▪ Terrain advised that tenement E59/2482 is in good standing with no known impediments to exploration.
Exploration done by other parties	<ul style="list-style-type: none"> ▪ Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> ▪ Terrain Minerals advised that a significant amount of historical work has been completed over the tenement, including drilling, geo-physical surveys and surface sampling. ▪ Previous operators of the tenement areas include Westfield Minerals (1965), Minefields Exploration (1970–82), ANZECO (1970–82), General Gold Resources NL (1991–93), Renison Goldfields Consolidated (1993-1996), Normandy Exploration (1997-1999), Gindalbie Gold NL (1999–2006), Vital Metals Ltd (2005–09), Minjar Gold Pty Ltd. (1999–2017), Hazelwood Resources Ltd (2010–15), and Tungsten Mining NL (2015–17). ▪ No historical data have been used to estimate the Exploration Target
Geology	<ul style="list-style-type: none"> ▪ Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> ▪ The Smokebush Project covers a region in the Yalgoo–Singleton Greenstone Belt comprising Seeligson Monzogranite (Walganna Suite), monzogranite to syenogranite (Walganna Suite), amphibolite, and a more recent mafic dyke. ▪ The REE mineralisation in the Larin’s Lane area is considered to be a clay-hosted REE regolith deposit, which is expected to have formed from residual and supergene enrichment of granitic rocks. Elevated REE concentration are observed in the lower part of the saprolite horizon. ▪ The mineralogical form of the elevated REE concentrations is not yet known, however it is more likely to be in the form of secondary phosphate minerals than weakly bonded to clay minerals.
Drill hole Information	<ul style="list-style-type: none"> ▪ 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: <ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ Detailed descriptions of the drilling data used to prepare the Exploration Targets are listed in Terrain Minerals ASX announcement named <i>Exciting Gallium and REE drilling results at Larin’s Lane</i> and dated 27 May 2024. ▪ A plan showing the collar locations of drill hole data used to prepare the Exploration Target estimates is presented in Diagram 2.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> ▪ 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. ▪ 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. 	<ul style="list-style-type: none"> ▪ No new Exploration Results have been reported for the project. ▪ The Exploration Targets have been estimated using the composite sample results, as provided by Terrain. No high-grade or low-grade cuts have been applied to the datasets. A nominal TREO grade threshold of 500 ppm was used to define the mineralised zones.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> ▪ 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 (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> ▪ The mineralisation occurs in sub-horizontal layers and all drill holes are vertical. As such, the drill holes are approximately orthogonal to the mineralised zones, and the reported drill hole intercepts can be considered to represent the true thicknesses.
Diagrams	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ Appropriate plans and sections are included in the Exploration Target statement.
Balanced reporting	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ No new Exploration Results have been reported.
Other substantive exploration data	<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ The Exploration Targets described in this report have been estimated using the data sourced from Terrain Minerals 2023 drilling program. Terrain Minerals advised that a number of other companies have conducted exploration activities in the region between 1965 and 2017, however no datasets from these historical programs were made available for this study.
Further work	<ul style="list-style-type: none"> ▪ The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> ▪ SRK understands that Terrain Minerals plans to conduct follow-up drilling programs to assess the prospectivity of the areas located proximal to and between the three drill clusters. The objective of this second round of drilling is to increase the size of the Exploration Target (timing to be announced once confirmed).

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> ▪ Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> ▪ Terrain Minerals has recently signed an agreement with the Minerals Research Institute of Western Australia (MRIWA) to conduct mineralogical and metallurgical tests on samples obtained from the Larins Lane Project. ▪ Depending upon the outcomes of these programs, Terrain Minerals plans to conduct follow-up drilling and testing with the objectives of defining a Mineral Resource estimate at Larins Lane.