ASX Announcement



24 January 2025

ABN: 45 116 153 514 ASX: TMX

Quarterly Activities Report: December 2024

Terrain Minerals Limited (ASX: TMX) (**Terrain**) is pleased to provide the following update across multiple exploration campaigns, projects and marketing activities during the December 2024 quarter:

HIGHLIGHTS:

Smokebush 100% - Gold & Gallium Project:

Wildflower Gold Project - RC Drill Results Pending

Highly successful first pass air-core reconnaissance drilling program consisted of 72 air-core holes, totalling 1,710 metres.

- Cotta (T16W) "Supergene" mineralisation intersected:
 - o 9 metres @ 1.17 g/t Gold from 30 metres hole 24WFAC062.
 - o Including 3 metres @ 2.61 g/t Gold from 33 metres.
- Additionally, multiple wide zones of lower supergene gold anomalism:
 - o 42 metres @ 0.11 g/t Gold from 0 metres hole 24WFAC050.
 - 18 metres @ 0.14 g/t Gold from 42 metres hole 24WFAC051.
 Note: Refer to Appendix 1, Table 1 in ASX release 12 November 2024.

Follow up Reverse Circulation (RC) drilling Wildflower:

- Stage One RC drilling completed December 2024 (8 holes for 1.182 metres RC).
 - Samples have been submitted, Results Pending Due Late February.
 - Targets tested: Cota (T16W), Target 16 and Wildflower.
- Stage Two RC drilling planned to commence in January 2025 (~11 holes for ~1,368 metres RC).
- **Positive Outlook:** The combination of favourable geological features and encouraging historical data suggests significant potential for a gold discovery at the Wildflower Gold Project.

Larins Lane 100% - Gallium (Ga) Oxide/Clay Project

- Gallium/REE JORC compliant exploration target released over 5% of the target area.
- Metallurgical (Met) studies underway as part of the MRIWA Research Project M10528.
- Met results expected mid-year with potential updates prior.
- Potential Joint Venture (JV) discussions continue.

<u>Lort River 100% - Nickel/Copper Project</u>

- Terrain completed a ground-based electromagnetic (EM) survey during December 2024.
- Drill testing of T1 & T2, High-Priority Sulphide Bedrock Conductors commenced in January 2025.
- Leading geophysical consultants Southern Geoscience has confirmed that the "eye" feature at Lort River is likely a mafic or ultramafic "intrusion" potentially emplaced during the Albany-Fraser orogeny (see ASX release 13/08/2024).
- **Strategic Positioning:** Two of the sulphide conductors (T1 & T2) are located on the western edge of the intrusive feature, like Nova-Bollinger's ore bodies, which are also located on an intrusive unit.

Continues to page 2:

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Corporate Update

Capital Raising

Strategic placement after the December Quarters end:

- \$450,000 raised from a small selective group of strategic investors.
- Approximately 150 million fully paid ordinary shares, at an issue price of \$0.003 per share.
- Leeuwin Wealth acted as the lead manager.
- The Company received multiple unsolicited enquires to participate in the placement, due to the originally planned small size of the placement these enquires, where not advanced.
- Funds received are largely being allocated to accelerate drilling, in keeping with Companies' strategy of rapidly advancing exploration across its portfolio, of Gold, Nickel/Copper and Gallium projects.

Share issue for land access at Lort River Project

- Four Landowner agreements signed (\$8,000 each). Total amount \$32,000.
- All landholders chosen to take Terrain shares, as payment with each receiving 2,666,666 fully paid ordinary shares (a total of 10,666,666 shares issued) (refer to ASX release 17 December 2024).

AGM held on the 28 November 2024

· All resolutions passed.

Marketing Activities

Link to Terrain's Linked-in page please follow Terrain:

- o https://www.linkedin.com/company/terrain-minerals-ltd/
- o <u>Justin Virgin</u>

Smokebush - 100% Exploration - Gold & Gallium Projects

The Company's 100% owned Smokebush Project, is located approximately 350 kilometres north of Perth, Western Australia. Terrain has been actively exploring multiple targets using various geological techniques over the Smokebush tenement package, exploring for multiple commodities including Gallium and Gold.

<u>The Smokebush Project Names</u>: The names are now being divided into two projects that focus on specific commodity types. <u>Firstly, The Wildflower Gold Project</u> which incorporates all gold targets. <u>Secondly, The Larin's Lane Gallium Project</u> (Refer to diagram 5).

Wildflower Gold Project - RC Drill Results Pending

During the Quarter Terrain conducted a first pass air-core reconnaissance drilling program comprising of 72 air-core holes, totalling 1,710 metres. The air-core campaign targeted previously defined (and untested) gold in-soil anomalies, the drilling excitingly intersected supergene gold mineralisation at Terrain's 100%, Wildflower Gold Project.

Highlights First pass Air-Core "Supergene" mineralisation at Cotta (T16W):

- **9 metres @ 1.17 g/t Gold** from 30 metres hole 24WFAC062.
 - o Including 3 metre @ 2.61 g/t Gold from 33 metres.
- Additionally, multiple wide zones of lower supergene gold anomalism:
 - o 42 metres @ 0.11 g/t Gold from 0 metres hole 24WFAC050.
 - o **18 metres @ 0.14 g/t Gold** from 42 metres hole 24WFAC051.

Note: Refer to Appendix 1, Table 1 for additional intersections of anomalous gold in ASX release 12 November 2024.

The discovery of mineralisation (interpreted as being "supergene") was made following Terrain's exploration team following up on one of three historic gold and arsenic soil anomalies first identified within the Wildflower gold (Au) project area in 1983 (and reconfirmed by previous tenement owners in 2001 and 2009 (note 2)). The anomaly had remained untested prior to the September/October 2024 air-core drill program.

New findings highlighted from the 9 metre @ 1.17g/t Au from 30 metres 24WFAC062, is highly significant. The assays relate to the only hole that appears to have tested within the oxide zone (regolith) zone immediately above an interpreted northeast-trending shear. This area is under cover, previously untested, and therefore has potential for multiple shear zones to be uncovered around Cotta and adjacent to the other target areas. **The supergene mineralisation has been interpreted as coming from a primary gold source.**

The region has extensive gold mineralisation across it including the Rothsay's gold deposit (operated by ASX Vault Minerals formerly Silverlake & Red5) located ~ 10 kilometres to the southwest of the Wildflower, which is hosted within (and potentially controlled by) a shear zone (albeit trending northwest). The presence of gold mineralisation coincident with the shear zone at Cotta/T16W is an exciting discovery and one that warranted immediate follow-up RC drilling.

Notes (page 1):

² See Table 2, Appendix 2 of this report, and Terrain Minerals ASX release of 24 September 2024 http://terrainminerals.com.au/upload/documents/InvestorRelations/Releases/20240926ASXreleaseWildflowerGoldDrillinghasCommencedFinalJV.pdf

The new data set modelling appears to suggest that the current drilling may have only intersected a supergene halo proximal to primary gold mineralisation. Whilst considered low-grade, the presence of oxide (or supergene) gold mineralisation within the overlying regolith at Wildflower may be indicative of the presence of primary gold mineralisation within the underlying bedrock (as is often observed at gold deposits across the broader Yalgoo-Singleton Greenstone Belt).

The Company notes, that although results received to date are highly encouraging, the exploration project is still at an early stage and drilling to date does not allow sufficient understanding of the style of mineralisation present at the Wildflower project nor does it allow an assessment of the potential size of mineralisation. However, the interpretation of existing data is ongoing and is being supported by a targeted field mapping. Terrain commenced a follow-up RC drill campaign in December 2024.

Wildflower Follow up RC Drilling December - Result Pending

A sixteen (19)-hole Reverse Circulation (RC) drill program totalling ~2,550 metres (refer to diagrams 1 and 3). Seven targets, including the newly identified Cota (T16W), T16 and W3 are being tested based on the successes of the first pass drilling results, and the new geological modelling highlighting their potential (Due to the Christmas period this program was split into two campaigns).

Gold Drilling Highlights:

Cota (T16W), T16, Wildflower (all three targets tested)

- Testing of high-priority NW trending structures interpreted as potential repetitions of the shear zones hosting the Rothsay Deposit (note1) (refer to diagram 1).
- Newly identified NW structures coincide with historic elevated gold in soil anomalies and the recent drilling results at Cota/T16.

Monza/Lightning (known mineralised parallel structures)

- New modelling has identified a new structural model for Monza and Lightning.
- Drilling targets mineralised extensions, down plunge and orientation.

Stage One Completed in December 2024 - Results Pending

- Completed, 8 holes for a total of 1,182 RC metres.
- Targets tested at Cota (T16W) and T16, and 1 of 3 planned holes at Wildflower.
- Samples (~2.500kg) now delivered to the Laboratory for processing.
- Drilling results are due February/March 2025.

Stage Two - RC drilling - currently planned for January 2025

- Stage two program is designed for 11 holes for ~1,368 metres.
- Two new drill targets (W3 and Mirja), identified during stage 1 drilling and field reconnaissance.
- Monza and Lighting's parallel structures, plus a newly interpreted parallel structures at Mirja recently identified historic workings (refer to picture 1).
- Target W3, is a structure that sits between Cota and T16, all structures appear to be parallel and on the same orientation (refer to diagram 1).
- Wildflower finish off planned RC holes.

Maintaining its accelerated exploration approach, Terrain has returned to the field within 14 days of releasing the first pass air-core drilling results. Following the release of results on 12 November 2024, the board responded

quickly with an RC drilling campaign with the aim of unlocking this project towards a potential new gold discovery in 2025. The geological team has generated a new geological model over the three targets at Wildflower, using Terrains internal field mapping, combined with historic data and remodelled magnetics. The Monza and Lightning targets have been a work in progress, with a new model being generated over these two mineralised zones, may unlock further potential.

Notes: 1 Vault Minerals (VAU:AU) was previously known as Red 5 Limited and Silver Lake Resources.

Smokebush - 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 Payne's Find. Located within the Yalgoo Mineral Field. The tenements can be accessed via the unsealed Perenjori - Warriedar Road, and via extensive historical exploration grid lines, station tracks, and fences lines.

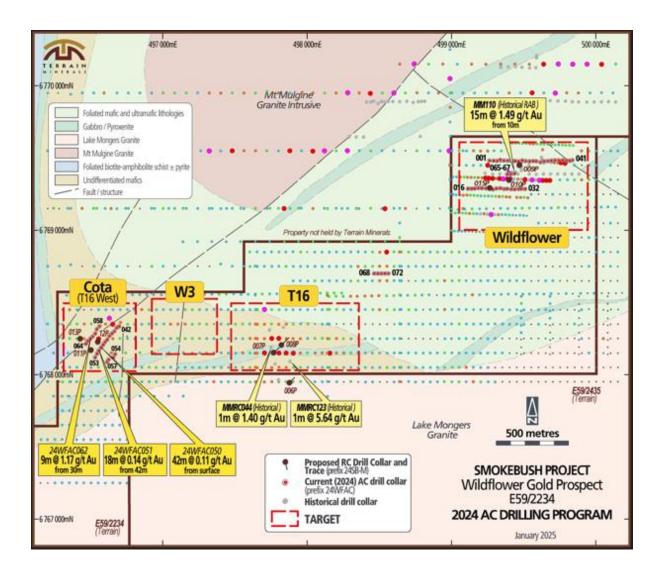


Diagram 1: Drill collar location plan for the Wildflower project. Drill hole 24WFAC062 in the west of the project area, which intersected 9 metres @ 1.17 g/t gold from 30 metres downhole, including 3 metres @ 2.61 g/t gold from 33 metres downhole appears to have been the only hole to coincide with the weathered horizon above an interpreted northeast-trending shear. Drill testing of the gold in soil anomaly in the east of the project area failed to return significant mineralisation. All but one air-core hole was shallow (<8 m) and failed to completely test the targets. As such, this target requires testing by using reverse circulation (RC) to reach any primary mineralisation present. The 500 metres by 500 metre gold in soil anomaly in in the central area of the Wildflower project is schedule for drill testing (using RC).

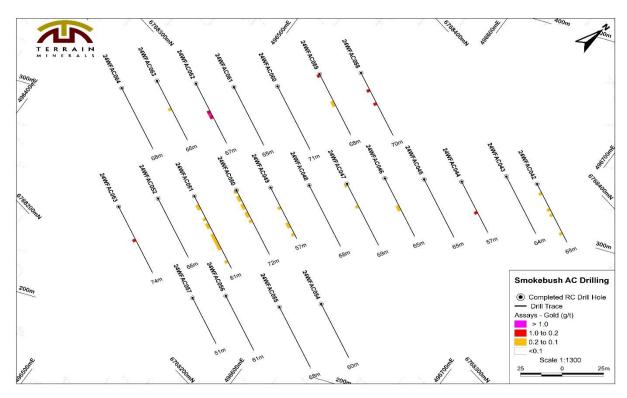


Diagram 2: Cross section Cotta/T16 (maiden/first pass air-core drill program) at the Wildflower project.

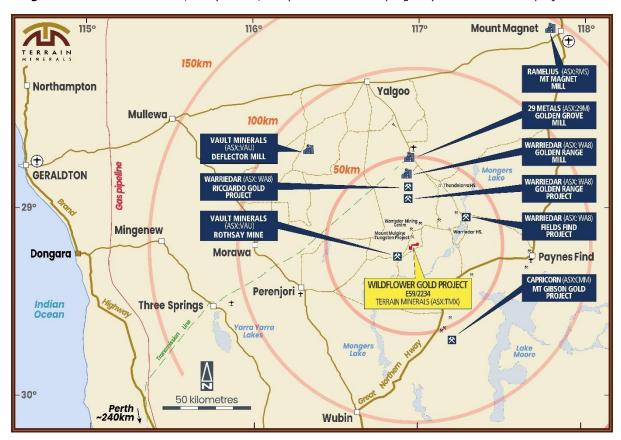


Diagram 3: The Wildflower project is located within the Yalgoo-Singleton Greenstone Belt situated in the southwestern Murchison Domain. The Belt is prospective for volcanic-hosted massive sulphide (VHMS) copperzinc-gold mineralisation (e.g. 29 Metals' Golden Grove deposit) and shear-hosted gold mineralisation (e.g. Warriedar Resources' Golden Range mineralisation within the Mougooderra Formation and Vault Minerals' Rothsay gold deposit within the younger Warriedar Suite).

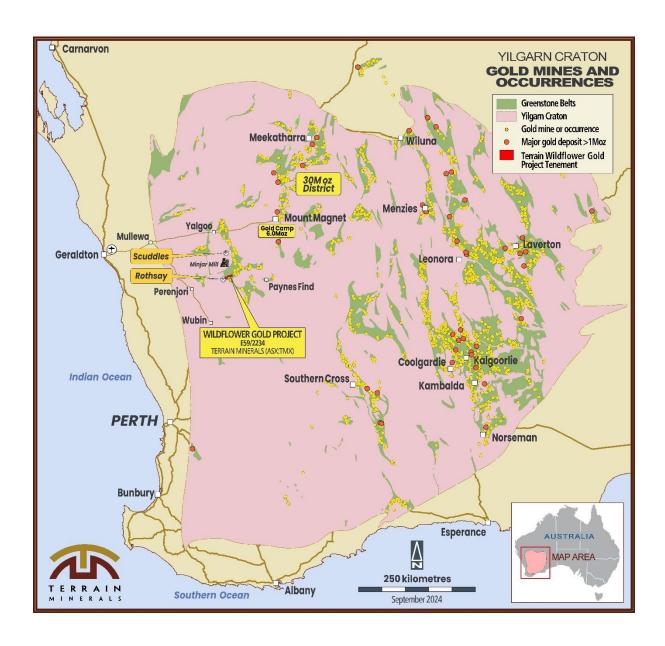


Diagram 4: The Wildflower project is located approximately 350 kilometres north of Perth, Western Australia.



Picture 1: Picture of extensive historic workings over the Mirja target, that has been interpreted as a potential new structure sitting on the same orientation as Monza and Lighting structures. The target was identified from ground magnetic survey and its recent reinterpretation, from this Terrain field team conducted further field investigations during the December stage 1 drilling campaign, which uncovered the above historic workings that appears coincide with the interpreted new model. Terrain intends to drill under these working to test for potential mineralisation.

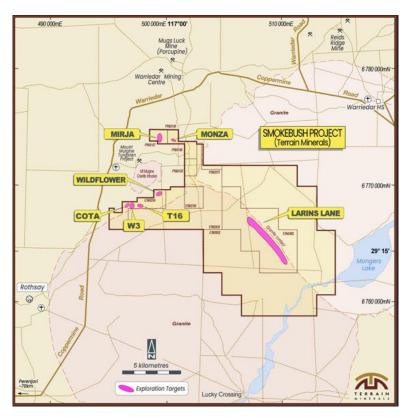


Diagram 5: The Smokebush project area, is now being divided into two projects that focus on specific commodity types. **Firstly,** The Wildflower gold project which incorporates all gold targets, sitting on the left-hand side of the tenement map. **Secondly,** The Larin's Lane Gallium project which can be seen on the right-hand side. Based on recent filed observations during the stage 1 RC drilling (December 2024) which Terrain drilled both Cota and T16, the geological team has added in several new holes into W3 target. The W3 structure runs between Cota/T16 and is also on the same orientation. Also, at the Mirja structure which appears to be parallel to both Monza and Lighting will also get a RC hole under the newly identified historic artisanal workings.

Note: For additional information refer to ASX announcement on **Smokebush**:

- 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.
- 05 July 2023 Smokebush "Phase 2" Gold & Pegmatite RC Drilling has Commenced.
- 14 August 2023 Heritage approval received for maiden REE drilling at Lort River & Smokebush Exploration Update. 16 August 2023 Gallium (Ga) Discovered at Smokebush RC drilling campaign.
- 18 October 2023 Larin's Lane MMI Extends & Identifies New Copper/Nickel/Gold & Silver Anomalies.
- 14 November 2023 Smokebush high grade gold mineralisation intersected, confirming 600-metre-long gold target zone.
- 28 November 2023 Larin's Lane Maiden drilling testing poly-metallic targets.
- 19 December 2023 Larin's Lane, Maiden drill program completed.
- 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.
- 05 August 2024 Exploration drilling at Wildflower Gold Project; Testing strike and depth extension of 15m @ 1.49/g/t gold.
- 26 September 2024 Commencement of Drilling at Wildflower Gold Project. 12 November 2024 Wildflower Air-Core results.
- 10 December 2024 RC Gold Drilling Commenced at Wildflower Gold Project.
- 20 December 2024 Christmas & New Year Drilling Pause at Wildflower Gold Project.

Larin's Lane Gallium (Ga) Project

Terrain is advancing its 100% owned Gallium Project, strategically located at the Company's 100%-owned Smokebush project. During the quarter, Terrain made two key announcements at Larin's Lane. Firstly, Terrain released the maiden JORC compliant exploration target over only 5% of the project area. This is intended to be the start of a larger strategy to systematically advance these critical metals opportunities. Secondary a Metallurgical study has also commenced as part of the larger advancement strategy.

Terrain is currently exploring opportunities to further advancing the project forward and continues to engage in discussions with prospective industry and offtake partners.

Details of the Larin's Lane 'Maiden' Air-Core Drilling Program:

The maiden air-core program consisted of 102 holes for 6,611 metres. All holes were widely spaced over the ~6 km long and ~1 km wide area and typically located ~100m apart along drill fences. It is important to note that large areas remain untested but appear to be highly prospective and open (over an estimated ~9km by ~3km area, (refer to diagrams 6 and 8).

Previously released drilling results, identified Gallium in 70% of holes that returned impressive intersection of Gallium up to 64 metres wide with multiple high-grade zones up to 53.74 g/t (ppm) Gallium oxide/clays.

Selected holes include:

Applying: Gallium Oxide (Ga0) cut-off 40.32 g/t (ppm)

- **16m @ 53.74 g/t** Ga203 from 64m (23SBAC035)
- **20m @ 48.33 g/t** Ga203 from 4m (23SBAC045)
- 30m @ 40.32 g/t Ga203 from 24m (23SBAC071)
- **24m @ 46.34 g/**t Ga203 from 32m (23SBAC077) **8m @ 52.62 g/t** Ga203 from 20m (23SBAC080)
- All results in ASX release 27 May 2024 to many to list.

Note: for additional results data including JORC see ASX release 27 May 2024.

Maiden JORC Exploration Target

Terrain appointed leading mining consulting firm, SRK Consulting (Australasia) Pty Ltd ('SRK Consulting'), to define an initial *Phase One* Exploration Target for the Company's 100%-owned Larins Lane Project located in the mid-west region of Western Australia (refer to diagrams 3 to 5).

The initial *Phase One* Exploration Target was based solely on the limited air-core program completed by the Company in 2023, which appears to <u>cover less than 5% of the prospective geology at Larins Lane.</u> (See Diagram 6). 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 (refer to diagram 7).

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).

Note: All JORC data and tables can be found in ASX released on 06 November 2024.

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 the 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 (refer to diagram 6).

This drill program is currently anticipated to commence in the 2025 calendar year, and the study will be updated accordingly. **A Phase Two Exploration Target** for the Larins Lane Gallium Project can be determined by SRK Consulting that will reflect any **expected increase in the mineralised footprint at 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 (refer to diagram 6). The purpose of **the** *Phase Three* **program is to test the remaining 80% of the prospective geology at Larins Lane** not covered by *Phase One* and Two.

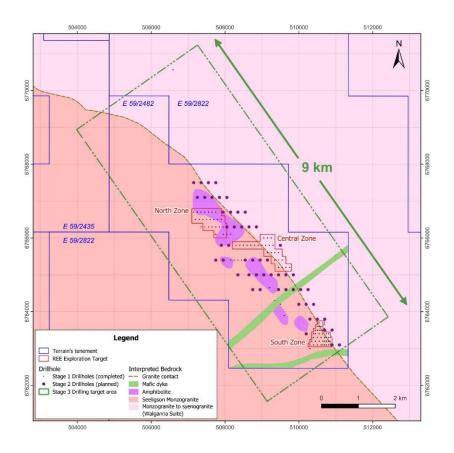


Diagram 6: Indicative area covered by the completed Stage 1 (2023) air-core drill program, plus the proposed Stage 2 and Stage 3 drilling programs, highlighted in the legend box.

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.

- 27 May 2024 Excluding Gallium & REE drilling results at Earli's Lane.

 06 November 2024 Larin's Lane Phase One JORC Exploration Target Outlines Potential.

 05 December 2024 Larin's Lane Gallium Project Metallurgical Studies Underway MRIWA Research Project M10528.

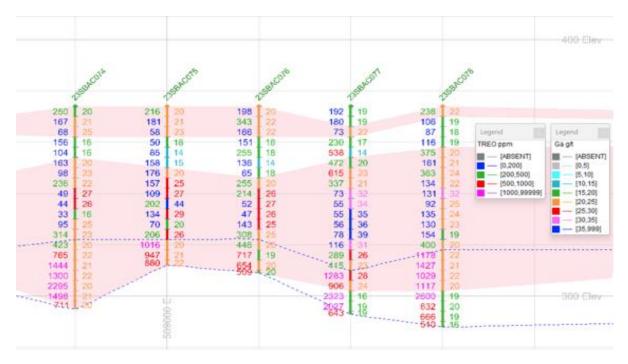


Diagram: 7 (Drill section line 6,765,800mN) – **Mineral grades highlighted above show that Gallum mostly sits above the REE zones which also contain Gallium;** Left hand side REE with Gallium grades on the Righthand side of the above drill collars. Areas indicated in pink indicative the +20g/t zones 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 underlaying hard rock).

Metallurgical Studies Underway MRIWA Research Project M10528

Terrain is excited to be taking part in a phase two Metallurgical (Met) study being led by geological consulting group RSC who have been appointed to lead the **Minerals Research Institute of Western Australia** (MRIWA) Project M10528, (refer to ASX release 05 December 2024).

MRIWA Project M10528 study overview:

- Samples will be tested with 8 separate solvents (acids as their pH <7).
- Signal twin hole at 23SBAC077 during the Wildflower stage two drill is planned for metallurgical samples.
- Terrain has switched the focus of the study goals to target Gallium extraction which is a critical metal.
- Final results will be available mid-year 2025 with interim results along the way.

As a participant in the MRIWA research project M10528, selected samples 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 and will play a significant role in **underpinning any future Mineral Resource calculation** (and Scoping Study) for the Larins Lane Gallium Project.

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/

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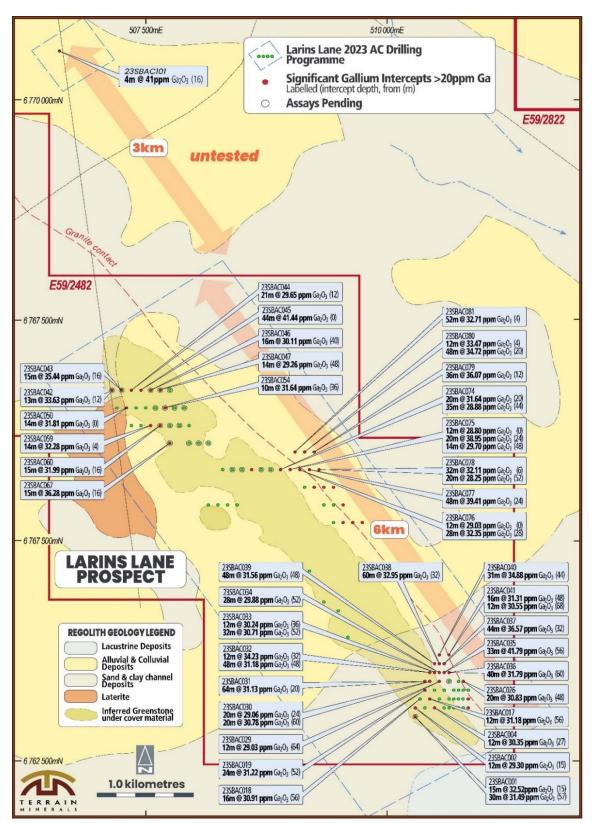


Diagram 8: Drill hole location (Not possible to show all) of Terrain's 2023 air-core drill program at the Larin's Lane Project with selected gallium oxide grades highlighted. Intercepts are based on 20ppm gallium (26.88ppm Ga2O3) lower cut and up to four metres internal dilution. A significant gallium oxide intercept, as referred to in this diagram, is an interval returning greater than 20ppm gallium (26.88ppm Ga2O3) lower cut over a minimum of one composite sample (generally being three or four metres). Refer ASX release 27 May 2024 for JORC data.

Gallium increases component speed at lower voltages and miniaturization critical in generative AI (and the associated demand for semiconductor). Components can also operate at higher temperatures.

Until 1 August 2023 export ban, (and other following restrictions) 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.

Lort River Exploration Project – Nickel/Copper

The Company's 100% owned Lort River Exploration Project covers more than \sim 550 km2 of highly prospective exploration acreage located approximately 50 kilometres northwest of the town of Esperance, Western Australia. Esperance is a large regional centre with an export port (minerals and grains) and is well connected by major roads, air and rail networks.

Lort River 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 ore body appears as a very distinctive "eye" in the aeromagnetic data. Terrain has identified a possible repetition of the Nova-style eye feature within its recently granted tenement E63/2447 within its Lort River Project. Consequently, in keeping with its 22 February 2024 ASX release, Terrain has continued to fast-track exploration of this potential repetition of the Nova-Bollinger style magnetic nickel-copper in tenement E63/2447 (refer to ASX release 16 April 2024).

Ground EM survey completed over bedrock sulphide Conductors

During the quarter, Terrain conducted a ground-based EM survey (refer to ASX release 9 December 2024) over several of the Vtem max Airborne electromagnetic (AEM) in May 2024 (refer to ASX release 7 May 2024 and 13 August 2024), which successful identified four high-priority sulphide bedrock conductors.

Both, targets LRTO-01 and LRT-02, conductors are situated on the western edge of the "eye" feature, aligning closely with the location of late-time electromagnetic conductors associated with Nova-Bollinger. Encouraged by these results, Terrain has now secured relevant landowners' permission, and the ground-based electromagnetic (EM) surveys were carried out to better define targets for drilling. Terrain drill tested these two targets after the quarters end, during January 2025 (refer to ASX release 16 January 2025).

The EM survey was not conducted over T3 due to access issues from regrowth vegetation, Terrain intends to drill test this target later in the year. The remaining targets have proven to be of low quality and currently appear to not be worth drill testing.

Data analysis conducted by Southern Geoscience Consultants, during the quarter, revealed that the "eye" feature at <u>Lort River is a mafic or ultra mafic "intrusion"</u>, a geological setting characteristic of Nova-style deposits. This finding strengthens the Company's belief that the magmatic processes necessary for forming such deposits are prevalent throughout the Albany-Fraser Belt (refer to ASX release 13 August 2024).

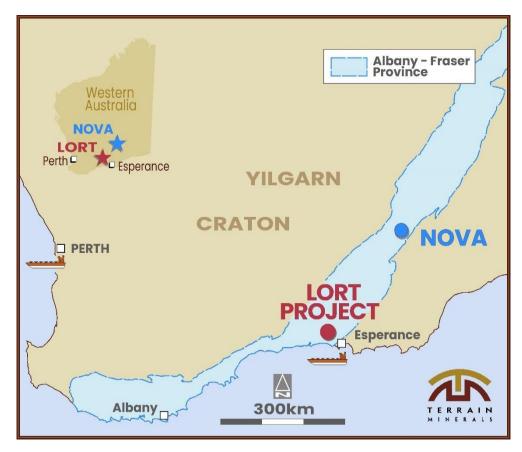


Diagram 9. Terrain Minerals' 100% owned Lort Rover Project is located approximately 50 kilometres northwest of Esperance, and within the highly prospective Albany-Fraser Belt, being home to Nova-Bollinger nickel-copper ore bodies.

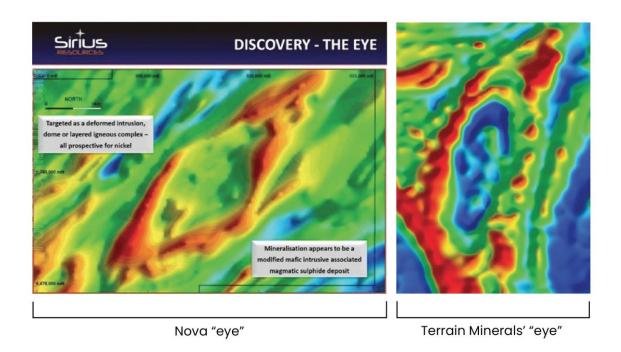


Diagram 10. Host geology of the Nova-Bollinger nickel-copper orebody appears as a very distinctive 'eye' in the aeromagnetic data (left image). Terrain has identified a possible repetition of the Nova-style eye feature within its recently granted tenement E63/2447 (right image) (Source: Sirius Resources' ASX announcement dated 4 October 2012). <u>Diagram 11 shows the Terrain 'eye' after the Vtem survey, and in a higher resolution.</u>



Picture 2. Ground EM survey over Targets 1 & 2, at the Lort River Vtem bedrock sulphide conductors. Operator taking readings from the middle of each of the laid-out loop (wire) station, refer to picture 3 for additional survey explanation.



Picture 3. Ground EM survey at Lort river Project. Above picture is of one of the two EM survey operators, (other team member of the three positions cables) who is located at one corner of the actual on ground wire loop (8 or 10mm copper cable), the cables are laid out on the ground in a large 200m square loop. The above vehicle has a large battery and via the charge station (yellow box) the operator charges the loop with a measured electric charge, this charge creates a magnetic field throughout the wire loop, and it is this magnetic field that induces a response from present sulphides in the ground (if any are present). It's this magnetic (induced polarization) that the reading station located in the middle of the wire loop reads/measures. Each loop overlaps the next loop in the middle, across the whole target area.

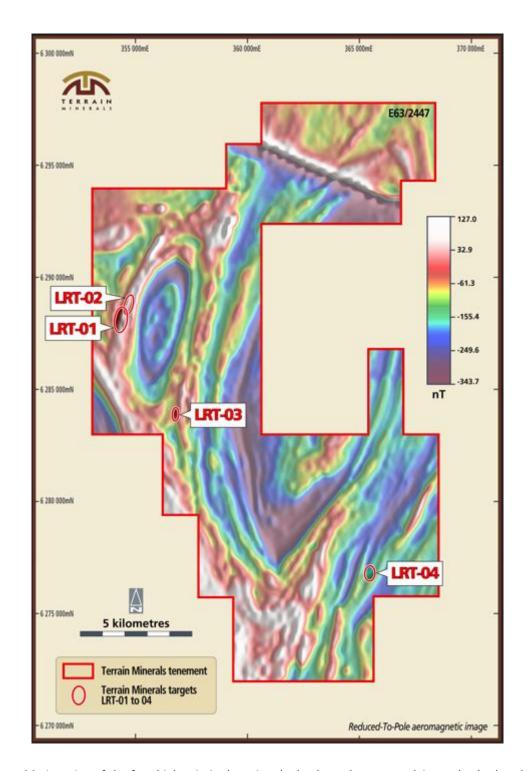


Diagram 11: Location of the four high-priority late-time bedrock conductors overlain on the (reduced to pole¹ or RTP) aeromagnetic image acquired over tenement E 63/2447 by Terrain Minerals in May 2024. The Lort River "eye" feature is clearly visible within in the northwestern area. Notably, conductors LRT-01 and LRT-02 occur on the western edge of the "eye" feature at Lort River being in a similar position to the late-time electromagnetic conductors associated with Nova nickel-copper ore body² (refer to ASX release 13 August 2024).

¹ The reduction-to-the-pole process recalculates the observed magnetic field to what it would look like at the north or south magnetic pole, where the Earth's magnetic inclination is vertical. It theoretically removes the asymmetry of the Total Magnetic Intensity (TMI) anomaly and places the peak

response directly over the magnetic bodies www.igo.com.au/site/file/163/view/20201003_TechnicalReview_FraserRangeProject_updatedmap.pdf

Note: For additional information refer to ASX announcement on Lort River:

- 5 May 2022 Lort River (320km2) Rare Earth Project Highly Prospective Tenements Granted.
- 30 May 2022 High-Grade Clay Type Rare Earths (REE) Soil Anomaly Identified at Lort River Project.
- 21 Nov 2022 Rare Earths (REE) Exploration Planning for 2023 has Commenced at Lort River.
- 14 August 2023 Heritage approval received for maiden REE drilling at Lort River & Smokebush Exploration Update.
- 22 August 2023 Lort River 'REE' Maiden Drilling has Commenced.
- 28 August 2023 Lort River 'REE' Drilling Intersected Large Clay Zones.
- 19 October 2023 Rare Earth Element (REE) Mineralisation Intersected across the Lort River project area.
- 23 October 2023 Gallium Clays Mineralisation Intersected in all Drill holes at the Lort River (REE) Project.
- 22 February 2024 Nova-style "eye" feature identified within Albany-Fraser tenement; Conductor also identified within "eye" feature Detailed airborne electromagnetic survey to commence.
- 16 April 2024 Airborne electromagnetic contract awarded over the Nova-style "eye" Target Commencing early May 2024 at Lort River Exploration Project.
- 07 May 2024 Airborne electromagnetic (VTEM) survey has now commenced over the Nova-style "Eve" at Lort River.
- 13 August 2024 High-Priority Nickel-Copper Targets Identified in Lort River Project's "Eye" Feature.
- 09 December 2024 Commencement of EM Survey at Lort River Testing Four Bedrock Sulphide Conductors (Nickel/Copper).
- 16 January 2025 Start of Drilling Bedrock Sulphide Conductor at Lort River.

Corporate Update

Capital Raising - Strategic placement after Quarters end

Subsequent to the quarter end, Terrain announced that it has secured binding commitments to raise approximately \$450,000 (before costs) via a placement of approximately 150 million fully paid ordinary shares in the Company at an issue price of \$0.003 per share (**Placement**) to selected sophisticated and professional investors.

The Board would like to express its gratitude to Leeuwin Wealth who acted as lead manager on the Placement and the new shareholders for their support during this exciting phase of the Company's development. Furthermore, the Board wishes to recognise and thank several key strategic investors whose initiatives led to this Placement.

The Company notes that it experienced a very large number of direct enquires from brokers and professional investors during the trading halt who expressed interest in participating in the Placement, unfortunately due to the original small scale of the Placement these enquires were not advanced.

Funds received from the Placement are being allocated to continue current exploration momentum, drilling at Smokebush (Wildflower Gold) and Lort River projects. This is in keeping with Companies' strategy of rapidly advancing exploration across its exciting portfolio of assets.

Share issue for land access at Lort River Project

Terrain entered into four separate land access agreements, each involving a payment of \$8,000. This payment covers landholders' legal expenses, access for the electromagnetic (EM) survey, and the initial drilling phase. The total payment across all four agreements amounts to \$32,000. All landholders have chosen to receive their payment in Terrain shares, with each receiving 2,666,666 fully paid ordinary shares (a total of 10,666,666 shares issued) (refer to ASX release 17 December 2024).

AGM held on the 28 November 2024

• All resolutions passed, (see ASX release 28 November 2024).

Mandate Corporates

Corporate Mandate with Melbourne Capital was terminated early by mutual agreement with outstanding sums settled in cash. No other corporate mandates or affiliations exist.

Marketing Activities

Terrain's board recommends that all investors follow the company via its LinkedIn web page, listed under the Company's name (see link below). Terrain intends to continue to post regular updates via LinkedIn and other reputable platforms to ensure investors receive relevant, correct information and that comments made are from identifiable sources.

Link to Terrains LinkedIn page please follow Terrain:

- https://www.linkedin.com/company/terrain-minerals-ltd/
- Justin Virgin

Trade Opportunities

Terrain is open to commercial discussions of full/partial sales and/or joint ventures of assets.

- Terrain has prioritised the grant process for its Carlindie East Pilbara WA tenement applications. The area is approximately ~1,200km² (under soil cover) and is prospective for lithium and iron ore.
- Terrain also prioritised the grant process for its Biloela Qld tenement applications. Tenement package is approximately ~2,500km² with seven existing copper and gold targets.
- Advancing ongoing discussions with two potential project partners at Larins Lane Gallium project.
- The Company remains open to new opportunities, with the current strategy focusing on extracting value from the extensive project pipeline within Western Australia and Queensland (once granted).

Justin Virgin **Executive Director**

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 ASX release on 06 11 2024, and metallurgical studies are underway.

Wildflower Gold Project

- Wildflower/Cota/T16 and Lightning/Monza Gold Prospects:
 - Stage one RC program completed in December 2024 Result Now Pending.
 - Stage two drilling due to commence January 2025.
 - New additional targes added to the original program Targets W3 and Mirja.

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 km 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.

Ground-based EM survey completed in December 2024. Both Targets T1 and T2 are being drill tested in January 2025.

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 – (refer to above release for update).

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, Director of Terrain Minerals Limited.

Related Party Transactions

In accordance with ASX Listing Rule 5.3.5, payments to related parties of the Company and their associated during the quarter totalled \$56,000. Terrain advises that this relates to Executive Director salaries and entitlements and Non-Executive Director fees. Please refer to the Remuneration Report in the Annual Report for further details on Director remuneration.

No new exploration results

This release does not contain any new data or exploration results, with all references to historic announcements clearly notated within the main body of this release.

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.

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Terrain Minerals Limited	
ABN	Quarter ended ("current quarter")
45 116 153 514	31 December 2024

Con	solidated statement of cash flows	ed statement of cash flows	
1.	Cash flows from operating activities		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation	(232)	(331)
	(b) staff costs	(56)	(121)
	(c) administration and corporate costs	(118)	(199)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	2	5
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other - Net GST	(26)	(96)
1.9	Net cash from / (used in) operating activities	(430)	(742)

2.	Cash flows from investing activities	
2.1	Payments to acquire or for:	
	(a) entities	-
	(b) tenements	-
	(c) property, plant and equipment	-
	(d) exploration & evaluation	-
	(e) investments	-
	(f) other non-current assets	-
2.2	Proceeds from the disposal of:	
	(a) entities	-
	(b) tenements	-

ASX Listing Rules Appendix 5B (17/07/20)

· · · · · · · · · · · · · · · · · · ·		Current quarter \$A'000	Year to date (6 months) \$A'000
	(c) property, plant and equipment	-	-
	(d) investments net sale of Red 5 shares	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other	-	-
2.6	Net cash from / (used in) investing activities	-	-

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	1,041
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(84)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	-	957

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,094	449
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(430)	(742)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	957
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	664	664

Page 2

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	664	1,094
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	664	1,094

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000	
6.1	Aggregate amount of payments to related parties and their associates included in item 1	56	
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-	
	Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.		

7.	Financing facilities Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	Total financing facilities		
7.5	Unused financing facilities available at qu	arter end	
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		itional financing

8.	Estimated cas	sh available for future operating activities	\$A'000
8.1	Net cash from /	(used in) operating activities (item 1.9)	(430)
8.2	(Payments for e activities) (item 2	xploration & evaluation classified as investing 2.1(d))	-
8.3	Total relevant or	utgoings (item 8.1 + item 8.2)	(430)
8.4	Cash and cash	equivalents at quarter end (item 4.6)	664
8.5	Unused finance	facilities available at quarter end (item 7.5)	-
8.6	Total available f	unding (item 8.4 + item 8.5)	664
8.7	Estimated quar	ters of funding available (item 8.6 divided by	1.54
		s reported positive relevant outgoings (ie a net cash inflow) in item 8. for the estimated quarters of funding available must be included in it	
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:		
		e entity expect that it will continue to have the current I ws for the time being and, if not, why not?	level of net operating
	Answer: Yes		
	cash to	entity taken any steps, or does it propose to take any fund its operations and, if so, what are those steps and that they will be successful?	
	raise for on 10 Ja in the M	n the 22 January 2025 Terrain announced it had exect approximately \$450,000 before costs. In additional \$2 anuary 2025, following the relinquishment of several te ukkabuddin area. The Board remains confident in its a company going forward.	29,835 was received enement applications
	8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?		
	Answer: Yes.		

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Schedule of Exploration Tenements held as at 31 December 2024 - Listing Rule 5.3.3 **Interests in Mining Tenements**

Project/Tenements	Location	Held at end of quarter	Acquired during the quarter	Disposed during the quarter
Smokebush E59/2234 E59/2435 E59/2482	Western Australia	100%		P59/2274 P59/2275
E59/2700 P59/2822 P59/2125 P59/2126 P59/2127			P59/2125 was amalgamated into E59/2435	P59/2125
P59/2128 E59/2939* E59/2940*				E59/2939* E59/2940*
Lort River E63/2208 E63/2209 E63/2447 E63/2448	Western Australia	100%		
Mukka E70/6382* E70/6384*	Western Australia			E70/6352 E70/6380 E70/6381 E70/6383 E77/3043
Biloela EPM/28717 EPM/28718 EPM/28719 EPM/28720 EPM/28721 EPM/28722 EPM/28723 EPM/28835* EPM/28836	Queensland	100%		277/3043
EPM/28837 EPM/28839				

Bassit Bore E09/2765* E09/2766*	Western Australia	100%	
Carlindie E45/6522* E45/6523* E45/6524* E45/6525* E45/6894* E45/6951* E45/6952*	Western Australia	100%	

^{*} Application pending

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date:	24 January 2025
Authorised by:	
	Board of Directors

Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.