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# Maiden drilling program progessing at Morro do Ferro REE Project, Brazil

## Highlights

- **Power has completed the first two holes of its maiden diamond drilling program at Morro do Ferro REE Project (MDF), Brazil, with the third hole now underway.**
- **First samples have been dispatched to SGS Geosol laboratory, with initial results expected in two to three weeks.**
- **A second drill rig is scheduled to arrive at MDF shortly to accelerate progress.**
- **Core recovery has been excellent - 487.8m of core recovered to date at an average recovery of 94.5%.**
- **Power also completed a drone geophysical survey covering the entire Manifestos de Mina area to measure surface topography and produce a digital elevation model (DEM) plus magnetic and radiometric data.**
- **Power will use results from MDF drilling to define a JORC 2012 Mineral Resource Estimate for the Project, expected later this year.**
- **Power is well-funded to execute its exploration strategy at MDF with $7 million in cash at the bank.**

**Power Minerals Limited (ASX: PNN | OTCQB: PEIMF)** is pleased to provide an update on its maiden drilling program at the Morro do Ferro Rare Earths Project (MDF) in Minas Gerais, Brazil.

The Company advises it has completed two HQ triple-tube drillholes, with a third drillhole now in progress.

Drilling is planned to consist of ~4000m of diamond core drilling to target depth and expansion of existing high-grade mineralisation, and 800m of larger-diameter PQ diamond core drilling to provide samples for metallurgical test work.

Drilling to date has included:

- Drillhole 1 reached 210.9 metres downhole
- Drillhole 2 reached 173.3 metres downhole

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- Drillhole 3 (MFSR-53) is currently being drilled and has passed 200m depth. It is designed as a vertical hole.

The first two drillholes were drilled at the same dip and azimuth as historical drilling but extended to significantly greater depths. The current vertical drillhole forms part of the Company's strategy to obtain a JORC-compliant Mineral Resource Estimate for MDF.

To ensure that the geological, mineralogical, and resource models are comprehensive and reliable, it is crucial to implement multiple drillholes with varying orientations. The main objective of the program is to determine the margins of the deposit, and the drillholes will continue beyond the expected mineralisation to provide maximum confidence in the model.

Core recovery has been excellent, with 487.8 metres of core recovered to date at an average recovery of 94.5%.

Samples from the first two drillholes have been cut and dispatched to SGS Geosol for detailed geochemical analysis. Sampling has been continuous over the entire cored length. Laboratory assay results are expected within three to four weeks and will be released progressively once received and verified.



**Figure 1:** Power Minerals drilling the second drillhole, MFSR-52, at Morro do Ferro.

## Power Minerals Chief Executive Officer Alistair Stephens commented:

*"We are excited to share that the initial phases of the drill program at Morro do Ferro are progressing exceptionally well. Two HQ triple tube holes have been successfully completed, and we're currently advancing with a third hole. Additionally, the drone geophysical survey has comprehensively mapped the entire project area. The core recovery has been outstanding, and we've sent samples to SGS Geosol for analysis, with assay results anticipated in the next two to three weeks. With a second rig on its way,*

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*we are strategically positioned to continue drilling through December if needed, paving the way for a JORC-compliant Mineral Resource. We eagerly look forward to providing the market with verified assay results and updates on our drilling endeavours."*

**Drilling Progress**

HQ triple tube core drilling was selected for the drilling program to maximise core recovery and ensure high quality analytical, geological and metallurgical data.

Initial delays were encountered due to establishing a reliable water supply near the hilltop drill sites. This has now been resolved, and a second drill rig is scheduled to arrive shortly. Based on local weather records and current access conditions, drilling is expected to continue safely through to December, if required. As Power Minerals holds both mining and landowner surface rights to the Manifestos de Mina, there are no issues regarding access at any time.

Due to strong magnetic interference from near-surface magnetite dykes, differential GPS is being used to determine drillhole azimuths. Downhole surveys are being completed using a continuous gyroscopic tool, ensuring an accurate drillhole trace for modelling. Downhole survey data have confirmed that both completed drillholes remain well within planned tolerances, with only routine, very minor lift and slight curvature observed.

**Drone Survey**

A high-resolution drone-based geophysical survey has now been flown across the entire Manifestos de Mina area. The survey is acquiring:

- High-accuracy digital elevation model (DEM) data
- High-resolution aerial photography
- Magnetic and radiometric datasets.

The DEM will serve as a crucial upper surface constraint for the Mineral Resource model. Additionally, the magnetic and radiometric data (specifically potassium, uranium, and thorium) will aid in refining the geometry of the Morro do Ferro deposit and in identifying potential apophyses or satellite targets.

**Next Steps**

Power continues to check and verify field measurements and downhole data while drilling progresses. These results, together with laboratory geochemical assays, will be released as they become available.

Power looks forward to updating shareholders as the maiden drilling program continues to advance at MDF.

**Santa Anna Project Update**

The Santa Anna Project, located in the Goiás State of Brazil's central region, has outstanding potential with its niobium grades, and is still underexplored. Thus far, most drilling efforts have

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been focused around the centre of the complex. However, there are numerous instances where additional high-grade niobium deposits can be found near the edges of carbonatite complexes.

To expedite targeting in the vast areas surrounding the centre that have yet to be tested, Power will launch a systematic soil sampling program, which is planned to be completed within the current quarter. This reconnaissance exploration is a crucial step in shaping our strategic planning for future drilling endeavours. Results will be released as they become available.

**Authorised for release by the Board of Power Minerals Limited.**

ENDS

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**About Power Minerals Limited**

Power Minerals Limited is an ASX-listed exploration and development company. We are focused on transforming our lithium brine resources in Argentina, exploring and developing our promising REE, niobium and other critical mineral assets in Brazil, and maximising value from our Australian, Canadian, and other Argentinian assets.

**About the Morro do Ferro Project**

The Morro do Ferro Project is located within the Poços de Caldas Alkaline Complex in Minas Gerais, Brazil, one of the world's most prospective rare earth provinces. The project hosts extensive high-grade rare earth mineralisation and is strategically positioned to supply critical materials required for artificial intelligence, robotics, electrification, energy storage and advanced manufacturing technologies. The MDF Project sits on a unique 'Manifesto de Mina' mining licence, which grants direct ownership over the land, facilitating an expedited exploration process by allowing ground-disturbing activities (subject to environmental approvals) and simplifying permitting requirements.

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**Figure 2:** Location of Morro do Ferro in Minas Gerais state, Brazil

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**Figure 3:** Geophysical drone with Morro do Ferro hill in the background. The open areas are where the eucalyptus plantation trees have been harvested.



**Figure 4:** Drilling Morro do Ferro project, looking to the northeast. The site is covered by an eucalyptus plantation scheduled for harvest.