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# Empire Metals Limited ("Empire" or "the Company")

# Major Drilling Campaign to Commence at Pitfield: Targeting High-Grade Zones Within the Weathered, Titanium-Rich Surface Deposit

Empire Metals Limited (LON: EEE)the AIM-listed resource exploration and development company, is pleased to announce the commencement of the next major drilling campaign at the Thomas and Cosgrove Prospects, within the Pitfield Project in Western Australia ('Pitfield' or the 'Project'). The planned campaign consists of 84 Air Core (AC') drillholes for a total 4,340m drilled, that will both test the extent of, and bulk sample, the high-grade zones of titanium mineralisation that were recently discovered within the strongly weathered cap covering this giant, titanium-rich mineral system.

### Highlights

- The drilling targets priority areas containing thick, strongly weathered zones of high-grade titanium mineralisation, these having been identified from previous Reverse Circulation ('RC') and Diamond Core ('DD') drillholes and which show average grades of over 6% TiO<sub>2</sub> and intervals as high as 18% TiO<sub>2</sub>.
- Recent XRD analysis has confirmed that the mineral assemblage within these high-grade weathered zones is primarily high-purity titanium dioxide minerals, anatase and rutile.
- Drilling is planned on a 100m by 100m grid, to an average depth of around 50m, and will provide up to 80 tonnes of bulk metallurgical sample from both of the two prospects.
- The combined drill targets cover over 60 hectares of mineralised weathered cap and were selected on the basis of three key parameters: high-purity TiO<sub>2</sub> mineral assemblage, high titanium grades and significant depth of weathering.

  Metallurgical samples derived from this drill programme will be representative of a significant mineral inventory.
- The bulk samples will enable the rapid upscaling of metallurgical test work to allow production scale testing of gravity and flotation circuits ahead of a large-scale product development trial, aimed at providing high-quality titanium product samples for potential customer evaluation.
- The AC drillholes will be sub-sampled on 2m intervals, and geochemically analysed, these data will provide the basis for geological modelling which will greatly assist in, and expedite the development of, a Mineral Resource Estimate ('MRE').

Shaun Bunn, Managing Director, said: "I am pleased to announce the commencement of this very important AC drilling campaign that provides not only the bulk metallurgical samples to enable a significant scale-up of our metallurgical test work programme, but also represents the next phase of defining a Mineral Resource Estimate for Pitfield. The drilling covers an area of around 30 hectares at each of the Thomas and Cosgrove prospects, to a targeted depth of around 50m, this being the average depth of the weathering profile based on previous drilling results from within the area.

"Drilling is expected to be completed in a short period of time, given the soft, friable nature of the weathered zone. Subsampling of the drillholes and geochemical analysis will be the first priority and this will take a few weeks to turnaround. Delivery of the bulk metallurgical samples to the processing laboratory will follow and we anticipate moving to a large scale metallurgical testwork programme around May-June."

## Air Core Drilling Programme

The planned campaign consists of 84 AC drillholes for a total 4,340m drilled, which will both test the extent of, and bulk sample, the high-grade zones of titanium mineralisation that were recently discovered within the strongly weathered cap covering this giant, titanium-rich mineral system. This AC drill programme will be funded from the Company's existing cash reserves.

The drilling is targeting high-grade priority areas within the Cosgrove and Thomas Prospects and is scheduled to commence late February and run for a two-to-three-week period.

Air core drilling is a drilling method that uses compressed air to flush cuttings out of the borehole. It's a cost-effective and efficient drilling method that's commonly used for shallow exploration projects. The use of AC drill rigs will enable large quantities of metallurgical bulk samples to be collected quickly and cost effectively, these samples will allow the Company to rapidly advance and upscale the process development test work programme.

The location and spacing of the planned 84 AC drillholes has also been designed to assist with the Company's MRE preparation. The programme consists of 40 holes at each of the Cosgrove and Thomas Prospects on 100m x 100m drillhole-spaced grids, with an average forecast depth of 51.5m, for a total of 4,125m. Additional holes may be added to further defined the consistency of the deposit. Two additional holes at each prospect are planned as "twin holes", designed to validate the geological and assay data quality of the AC holes, focusing on the weathered portion of the existing 3 RC drillholes and 1 diamond core drillhole in the target areas. The average planned depth for each of the four twin holes is 54m for a total of 215m. Pending the quality of the results from the twinning of the 3 RC drillholes and the diamond core drillhole, the Company expects to be able to utilise the geological and assay data from the campaign towards the expedited development of a maiden MRE

The targeted drilling areas contain thick, strongly weathered zones of high-grade titanium mineralisation, these having been identified from previous RC and Diamond Core drillholes and which show average grades of over  $6\% \text{ TiO}_2$  and intervals as high as  $18\% \text{ TiO}_2$  (refer Figure 1).

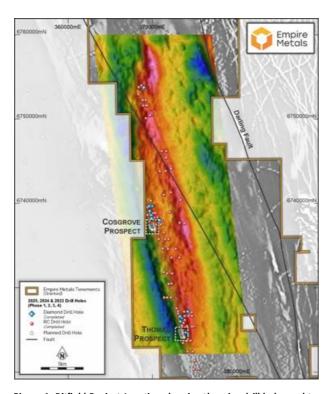


Figure 1. Pitfield Project Location showing theprior drill holes and two new drilling target areas within the Cosgrove and Thomas Prospects.

## Cosgrove Prospect

At Cosgrove, the drilling is focused on a priority area which is approximately 500m by 600m (refer Figure 2). The weathered zone interval width and average assay grades from the two previous drill holes located within the Cosgrove priority area are 48m at 6.50% TiO<sub>2</sub> [RC23COS010] and 63m at 6.13% TiO<sub>2</sub> [DD24COS004], while nearby drill holes have similar depths and high-grades (refer Table 1 for full details).

The depth of weathering of the Cosgrove priority drill area was shown to be consistently thick and contains high-grade intervals of mineralisation of up to 17.97% TiO<sub>2</sub>.

There are also broad zones of high-grade mineralisation close to surface, for example 10m at 9.56% TiO<sub>2</sub> from 10m [RC23COS010] and 7.7m at 11.52% TiO<sub>2</sub> from 14.9m [DD24COS004]. These near-surface areas are also shown to hold the highest percentage of the most important titanium bearing minerals, anatase and rutile, which will form the primary feedstock for the upscaled metallurgical test work programme.



Figure 2. Planned Air Core drillhole collar locations within the Cosgrove Prospect priority area.

## Thomas Prospect

At Thomas, the drilling is focused on a priority area which is approximately 300m by 1,000m (refer Figure 3). The weathered zone interval width and average assay grades from the two previous drill holes located within the Thomas priority area are 72m at 6.75% TiO<sub>2</sub> [RC24TO M021] and 54m at 7.02% TiO<sub>2</sub> [RC24TO M022]. Nearby drill holes have similar depths and high-grades (refer Table 1). What is important to note in the Thomas priority area is that the depth of weathering is consistently deeper than the Cosgrove priority area, having been modelled down to 76m from surface.

There are also broad zones of higher grade mineralisation close to surface, for example 8m at 8.54% TiO<sub>2</sub> from 4m [RC24TOM022] and 8m at 9.03% TiO<sub>2</sub> from 4m [RC24TOM021]. As in the case of the Cosgrove priority area the near-surface deposit at the Thomas priority area also contains a high percentage of the key titanium bearing minerals, anatase and rutile.



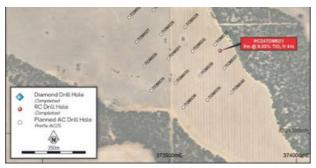


Figure 3. Planned Air Core drill hole collar locations within the Thomas Prospect priority area.

Table 1: Weathered Zone drill intercepts (previously released results) including high-grade intervals to be followed up by AC programme

Hole ID	Easting	Northing	Depth From (m)	Depth To (m)	EOH (m)	Weathered Interval (m)	Grade TiO <sub>2</sub> (%)
RC23COS009	369647	6737881	0.0	40.0	154.0	40.0	6.76
including			6.0	10.0		4.0	9.87
RC23COS010	369799	6737456	0.0	48.0	154.0	48.0	6.50
including			8.0	18.0		10.0	9.56
including			10.0	12.0		2.0	10.41
RC23COS022	370507	6737510	0.0	58.0	148.0	58.0	5.70
including			4.0	12.0		8.0	8.14
including			4.0	6.0		2.0	9.76
RC23COS024	370347	6736595	0.0	52.0	148.0	52.0	6.17
including			12.0	18.0		6.0	8.76
including			4.0	6.0		2.0	8.96
DD24COS004	369997	6737088	0.0	63.0	78.7	63.0	6.13
including			14.9	22.6		7.7	11.52
including			14.9	16.0		1.1	17.97
RC24TOM021	373699	6724326	4.0	76.0	154.0	72.0	6.75
including			4.0	58.0		54.0	6.90
including			4.0	12.0		8.0	9.03
including			8.0	10.0		2.0	9.98
RC24TOM022	373329	6724796	0.0	54.0	154.0	54.0	7.02
including			4.0	12.0		8.0	8.54
RC24TOM023	373639	6724978	0.0	58.0	154.0	58.0	5.68
including			6.0	20.0		14.0	6.09
DD24TOM006	373947	6724741	0.0	46.5	70.5	46.5	5.94
including			4.5	45.0		40.5	6.10
including			10.5	22.5		12.0	6.95

## Metallurgical Test Programme

The AC drilling programme will provide several large bulk samples from high-grade zones of titanium mineralisation that have been previously identified within the weathered profile across the Cosgrove and Thomas Prospects. Producing metallurgical testing samples of this size and nature will facilitate important test work aimed at confirming mineral separation and titanium extraction characteristics, including:

- scale-up and optimisation of mineral separation techniques, such as gravity and flotation, which are already looking promising at small scale;
- testing of comminution techniques and mineral concentration methods that are not easily scaled down to bench
- conduct a semi-continuous piloting run on the mineral separation flowsheet to produce a large, bulk mineral concentrate sample;
- comparative testing of operating conditions in the titanium leach extraction and precipitation stages, using the bulk concentrate; conduct further purification and refining testwork to deliver high-purity TiO<sub>2</sub> products; and
- produce a TiO<sub>2</sub> product suitable for industry players to test product suitability for chloride pigment and Ti sponge metal feedstock.

titanium project lies 313km north of Perth and 156km southeast of Geraldton, the Mid West region's capital and major port. Western Australia is ranked as one of the top mining jurisdictions in the world according to the Fraser Institute's Investment Attractiveness Index published in 2023, and has mining-friendly policies, stable government, transparency, and advanced technology expertise. Pitfield has existing connections to port (both road & rail), HV power substations, and is nearby to natural gas pipelines as well as a green energy hydrogen fuel hub, which is under planning and development (refer Figure 4).



Figure 4. Pitfield Project Location showing the Mid-West Region Infrastructure and Services

## **Competent Person Statement**

The technical information in this report that relates to the Pitfield Project has been compiled by Mr Andrew Faragher, an employee of Empire Metals Australia Pty Ltd, a wholly owned subsidiary of Empire. Mr Faragher is a Member of the Australian Institute of Mining and Metallurgy. Mr Faragher has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Faragher consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

## Market Abuse Regulation (MAR) Disclosure

Certain information contained in this announcement would have been deemed inside information for the purposes of Article 7 of Regulation (EU) No 596/2014, as incorporated into UK law by the European Union (Withdrawal) Act 2018, until the release of this announcement.

\*\*ENDS\*\*

For further information please visit  $\underline{www.empiremetals.co.uk}$  or contact:

Empire Metals Ltd Shaun Bunn / Greg Kuenzel / Arabella Burwell	Tel: 020 4583 1440
S. P. Angel Corporate Finance LLP (Nomad & Broker)  Ewan Leggat / Adam Cowl	Tel: 020 3470 0470
Shard Capital Partners LLP (Joint Broker)  Damon Heath	Tel: 020 7186 9950
St Brides Partners Ltd (Financial PR) Susie Geliher / Charlotte Page	Tel: 020 7236 1177

## **About Empire Metals Limited**

Empire Metals is an AIM-listed exploration and resource development company (LON: EEE) with a primary focus on developing Pitfield, an emerging giant titanium project in Western Australia.

The high-grade titanium discovery at Pitfield is of unprecedented scale, with airborne surveys identifying a massive, coincident gravity and magnetics anomaly extending over 40km by 8km by 5km deep. Drill results have indicated excellent continuity in grades and consistency of the mineralised beds and confirm that the sandstone beds hold the higher-grade titanium dioxide (TiO<sub>2</sub>) values within the interbedded succession of

sandstones, siltstones and conglomerates. The Company is focused on two key prospects (Cosgrove and Thomas), which have been identified as having thick, high-grade, near-surface, bedded TiO<sub>2</sub> mineralisation, each being over 7km in strike length.

An Exploration Target\* for Pitfield was declared in 2024, covering the Thomas and Cosgrove mineral prospects, and was estimated to contain between 26.4 to 32.2 billion tonnes with a grade range of 4.5 to 5.5% TiO<sub>2</sub>. Included within the total Exploration Target\* is a subset that covers the weathered sandstone zone, which extends from surface to an average vertical depth of 30m to 40m and is estimated to contain between 4.0 to 4.9 billion tonnes with a grade range of 4.8 to 5.9% TiO<sub>2</sub>.

The Exploration Target\* covers an area less than 20% of the overall mineral system at Pitfield which demonstrates the potential for significant further upside.

Empire is now accelerating the economic development of Pitfield, with a vision to produce a high-value titanium metal or pigment quality product at Pitfield, to realise the full value potential of this exceptional deposit.

The Company also has two further exploration projects in Australia; the Eclipse Project and the Walton Project in Western Australia, in addition to three precious metals projects located in a historically high-grade gold producing region of Austria.

\*The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

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