

ASX/JSE RELEASE: 5 August 2019

Drilling commences on highly prospective Fraser Range targets at IGO-ORN Joint Venture, Australia

- IGO commences drilling on the North West Passage Ni-Cu JV geophysical prospect.
- Drilling will also test combined Ni-Cu Intrusive and Cu-Zn VMS targets identified at the Pike, Pike-Eye and Hook Prospects.
- Multiple compelling drill targets defined at the Pike Prospect by Moving Loop Electromagnetic (MLEM) ground surveys.

Orion's Managing Director and CEO Errol Smart, commented:

"Through our Fraser Range joint venture with IGO, we have free-carried exposure to a first-class exploration program being undertaken by IGO in one of Australia's most prospective new mineral frontiers – one which has remarkable similarities to our Areachap Belt Project area in South Africa.

We are delighted that IGO has commenced diamond drilling to test a number of compelling targets at the North West Passage and Pike Prospects, which are prospective for both intrusive nickel-copper mineralisation similar to IGO's world-class Nova-Bollinger deposit and VMS-style copper-zinc mineralisation.

This drilling emphasises the often overlooked value in Orion's Australian tenements, where we are partnered with one of Australia's leading base metal exploration and mining groups and hold a free-carried interest in an extremely prospective tenement package."

Orion Minerals Limited (ASX/JSE: ORN) (Orion or the Company) is pleased to advise that its joint venture partner in the Fraser Range belt in Western Australia, Independence Group NL (IGO), has commenced diamond drilling to test several highly prospective intrusive nickel-copper and VMS zinc-copper targets.

Drilling is currently underway at the North West Passage Prospect, part of the IGO - ORN joint venture (JV) on the Fraser Range Belt (Figure 1, refer ASX release 10 March 2017).

The target was initially identified by Orion on tenement E39/1654 (IGO 60%, Creasy Group 30%, Orion 10%) in a 2014 VTEM survey (refer ASX release 3 February 2014). IGO subsequently commissioned a five-line moving loop electromagnetic (MLEM) survey across the prospect in 2017. Modelling of data from this survey highlighted a steeply-dipping conductor which is being targeted by diamond hole 19RAFRD1001, currently underway.

The drilling forms part of a larger exploration program across the northern part of the Fraser Range and it is expected that, following completion of drilling at the North West Passage, drilling will move to the highly prospective **Pike Trend**, located on tenement E28/2367 (IGO 70%: Orion 30%) during the latter part of 2019.

The Pike Trend comprises three distinct prospects called Pike, Pike-Eye and Hook, all of which are prospective for both coincident Ni-Cu intrusive and Volcanogenic Massive Sulphide (VMS) Cu-Zn massive sulphide mineralisation.

Drilling will test four conductors identified by the MLEM survey on the southern half of a linear VMS trend. In addition, a distinct gravity high at Pike-Eye represents a compelling Ni-Cu intrusive hosted target.

The combination of magmatic Ni-Cu and VMS Cu-Zn mineralisation in the Fraser Range is analogous to the Areachap Belt in South Africa, where the Company drilled several massive sulphide intersections in 2018,

Ordinary shares on issue: 2,111m | Options on issue: 288m

identifying both magmatic Ni-Cu and VMS-style Cu-Zn deposits which provide a strong growth pipeline around the Company's flagship Prieska Copper-Zinc Project.

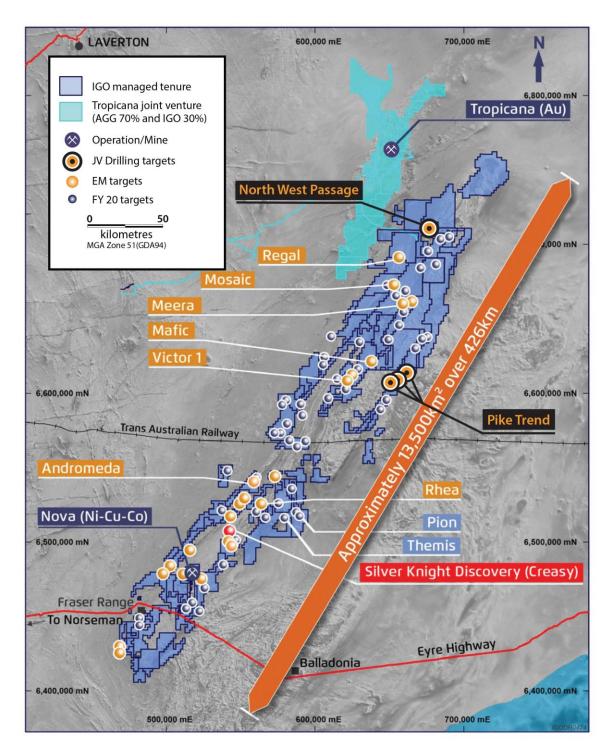


Figure 1: IGO Priority EM targets in the Fraser Range, showing the locality of North West Passage and Pike Trend targets, where Orion has a Free-carried Interest (refer Independence Group 31 July ASX release (Quarterly Activities Report) and 2 August 2019 release (Presentation)).

Investor Presentation at Diggers & Dealers

Orion's Managing Director and CEO, Errol Smart, will be providing investors with an update on its Prieska Copper-Zinc Project in South Africa and the IGO – ORN Joint Venture, at a luncheon presentation being hosted by Read Corporate at the Diggers & Dealers Mining Forum in Kalgoorlie today.

Details of the presentation are provided below:

When: Monday, 5 August 2019
Time: 12.30pm - 2.00pm

• Where: Upstairs at the Palace Hotel

Investors who are attending the Conference and would like to attend this presentation, please contact Read Corporate via email at info@readcorporate.com.au or call +61-8 9388 1474.

Errol Smart

Managing Director and CEO

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