IGO preparing to re-commence drilling at IGO-ORN Joint Venture Tenements – Fraser Range, Australia

New phase of exploration planned over three key prospect areas located just 16km from Legend Mining’s recently confirmed Mawson nickel-copper discovery

- Logistics and services being established to support a diamond drilling program at the highly prospective Pike Eye, Pike & Hook targets, located 16km north-east of Mawson.
- Extensive air-core drilling planned over a large area surrounding the Pike, Pike Eye and Hook targets to map bedrock and geochemistry under approximately 100m of unconsolidated cover.
- Mawson has been confirmed as one of the most significant new discoveries in the Fraser Range since Nova-Bollinger, with high-grade massive sulphide intercepts of up to 12.8m at 2.76% Ni and 1.36% Cu from 234.9m reported in diamond hole RKDD008 (refer Legend Mining ASX release 21 April 2020).

Orion Minerals Limited (ASX/JSE: ORN) (Orion or the Company) is pleased to provide an update on the planned exploration program at the IGO Limited (IGO) IGO-ORN Joint Venture (JV), located within the Fraser Range Belt (refer Orion ASX release 3 February 2020).

The JV includes the Pike, Pike Eye, Hook and Garfish targets, located along trend, just 16km north-east of the recently confirmed Mawson nickel-copper discovery (refer Figure 1), where Legend Mining (ASX: LEG) has this week reported significant new high-grade assay results (refer Legend Mining ASX release 21 April 2020) as well as visual results from three step-out diamond holes (refer Legend Mining ASX release 22 April 2020).

Figure 1: IGO-ORN Fraser Range Joint Venture Tenements showing regional aeromagnetic image and locality of the Pike Prospects relative to nearby Legend Mining Mawson Prospect.
Drilling completed by IGO towards the end of 2019 tested several moving-loop electromagnetic (MLEM) conductors (refer Figure 2), anomalous basement geochemical anomalies and magnetic features on intrusive magmatic nickel-copper targets, as well as a Volcanogenic Massive Sulphide (VMS) copper-zinc target, at Hook, Pike Eye and Pike.

The intersection of anastomosing base metal sulphide veins, sulphide-bearing graphite-rich horizons and meta-carbonate rocks hosting intrusive mafic-ultramafic bodies are considered an ideal setting for the discovery of magmatic massive nickel-copper sulphide deposits.

![Figure 2: Plan view of the Pike 1, Hook 1 and 2 prospects with diamond drill holes drilled and targeted conductors plotted on airborne magnetics.](image)

### Proposed Drilling

IGO initially plans to drill a further 2,560m in six holes, including extending hole 19AFDD1008 to test a strong off-hole conductor detected below the current end-of-hole depth. Holes are also planned to test further electromagnetic (EM) targets at Hook, Pike Eye and Pike (refer Figures 2 and 3). At Garfish, a gravity anomaly will be drilled to test for a mafic – ultramafic intrusive.

Drilling at these targets will re-commence once extensive work has been completed to upgrade access tracks which traverse long sections of very soft, dusty terrain and are unable to support heavy drilling gear required to drill deep diamond drill holes.
Drilling conditions are also complicated by thick overlying unconsolidated material, resulting in poor drilling water retention. As a result, a local water resource needs to be established with several wells planned.

In addition to follow-up diamond drilling, an extensive air-core drilling program (refer Figure 4) is planned to map the surrounding bedrock geology which lies under approximately 100 metres of unconsolidated cover material.

Figure 3: Prospects, completed and planned diamond drill holes on tenement E28/2367.
Orion’s Managing Director and CEO, Errol Smart, commented:

“We are looking forward to the re-commencement of field work at the exciting Pike, Pike Eye, Hook and Garfish targets in the Fraser Range, which is once again emerging as front and centre of the focus of exploration attention in Australia thanks to the very exciting new nickel-copper discovery at the Mawson Prospect, which has been confirmed by Legend Mining this week.

“The widths and grades of mineralisation reported by Legend Mining this week from a prospect located just 16km broadly along trend from our JV project clearly shows that this belt is still very much ‘alive’ for world-class magmatic nickel-copper sulphide discoveries.

“While the current Covid-19 restrictions have resulted in some unexpected frustrations for the early follow-up of the very promising drill results announced in February 2020, we are very encouraged by the progress being made by
our JV partner, IGO, to establish the required services and support infrastructure so that an intensive diamond drilling program can be executed effectively at a site that is remote from water resources and currently relies on poor quality field tracks for access.

“We are also pleased by the extended plan presented by IGO to use air-core drilling to map the bedrock geology and geochemistry under unconsolidated cover over the large prospective area surrounding the initial intersection of base metal sulphides at Pike.

“Investor interest in the Fraser Range has certainly been reignited thanks to the exploration success reported by our neighbour, Legend Mining, and we are very much looking forward to the next phase of follow-up drilling planned by IGO in the coming months.”

For and on behalf of the Board.

Errol Smart
Managing Director and CEO

ENQUIRIES

Investors
Errol Smart – Managing Director & CEO
Denis Waddell – Chairman
T: +61 (0) 3 8080 7170
E: info@orionminerals.com.au

Media
Nicholas Read
Read Corporate, Australia
T: +61 (0) 419 929 046
E: nicholas@readcorporate.com.au

JSE Sponsor
Rick Irving
Merchantec Capital
T: +27 (0) 11 325 6363
E: rick@merchantec.co.za

Competent Person Statement
The information in this report that relates to Exploration Results is based on information compiled by Mr Errol Smart (Pr.Sci.Nat.), a Competent Person who is a member of the South African Council for Natural Scientific Professionals, a Recognised Professional Organisation (RPO), Mr Smart is the CEO and Managing Director of Orion. Mr Smart 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 JORC Code. Mr Smart consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

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