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Orion signs MOU with South Africa's Council for Geoscience to collaborate on Northern Cape exploration initiatives

First project will be cooperation on Orion's upcoming SkyTEMTM geophysical survey over the Okiep Copper District, expected to be the first survey of its kind in this world-class copper district

- Orion to cooperate with geoscientists from the Council for Geoscience, Republic of South Africa (CGS) to advance the geological understanding of the Northern Cape, South Africa.
- Studies aimed at stimulating greenfields exploration in an underexplored geological terrain.
- Particular focus on the application of modern exploration techniques, including geophysics, geochemistry and remote sensing.

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

"We have been impressed by the CGS's recent drive to acquire, organise and make baseline geological data available to assist explorers and help stimulate a greenfields exploration boom in South Africa.

"CGS have recognised that their counterparts worldwide play a critical role as the custodians of historic exploration data, as well as in undertaking large, district-scale geoscientific studies that are often not within the capabilities of individual explorers. These surveys and related geoscientific studies often result in accelerated exploration programs by mineral exploration companies that can sometimes lead to major discoveries that bring economic benefits to the regions. There have been many examples of this in Australia – most recently in the East Tennant region, where regional initiatives by Geoscience Australia has effectively led to the discovery of an entirely new IOCG district.

"Under this MOU, we intend to work with our geoscientific colleagues at the CGS, sharing both data and technical skills. The collaboration is on a non-exclusive basis and we sincerely hope that our fellow exploration and mining companies in the Northern Cape will join us in this exciting endeavour. While we recognise and respect the need for confidentiality for each company's key intellectual property and commercially sensitive exploration results, we think we can all gain much more by sharing and working together for a mutual good, than for each team to be working in 'secret silos'. The sooner we pool the extensive geoscientific skills available in South Africa, and collaborate on gathering and harmonising datasets, the sooner we will make major new discoveries.

"Our intended first collaboration with CGS will be for the acquisition and interpretation of a district-scale SkyTEMTM airborne electromagnetic survey over the Okiep Copper District. Orion is preparing to fly a close-spaced survey at 150m line spacing commencing in June this year to detect massive sulphide bodies – the first survey of its kind in this world-class copper district. As part of its collaboration with CGS, Orion will also fund a regional survey at 1,000m spaced lines, in-filling the 10,000m line spacing flown by the CGS earlier this year with the data to go on open file and be available for other explorers operating in the region."

CGS CEO, Mosa Mabuza commented:

"Orion Minerals has been a trail-blazer for the junior mining and exploration sector in South Africa, both at their flagship Prieska Copper-Zinc Project and more recently in the Okiep Copper District, and we are delighted to have signed this MOU with them to work together on a number of significant exploration initiatives in the Northern Cape. We see this partnership as a great opportunity that will demonstrate the importance of collaborating with key stakeholders to uncover the untapped geology that South Africa is blessed with. It will go a long way to secure

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the 5% global exploration share consistent with the commitment of the Minister of Mineral Resources and Energy of South Africa, Mr SG Mantashe (MP). This collaborative effort established with Orion, marks a quantum leap to work together by acquiring, sharing data and information as well as ideas to make the next generation of discoveries for South Africa's future."

"The Northern Cape Province is one of the most geologically prospective regions in the world, and yet has had very little modern exploration over it. We believe that there is a major opportunity by applying the latest exploration techniques and methodologies to make significant new discoveries. It all begins with having access to high-quality data, and that's what this MOU is all about."

Orion Minerals Limited (ASX/JSE: ORN) (Orion or the Company) is pleased to announce that it has signed a Memorandum of Understanding (MOU) with the Council for Geoscience, Republic of South Africa (CGS) to collaborate on joint initiatives in the Northern Cape Province aimed at stimulating exploration activity and enhancing regional exploration targeting across this highly prospective region.

Under the MOU, Orion and the CGS will cooperate on matters of common interest, particularly with respect to national priorities, research, geoscientific advice and development.

The parties will benefit by cooperating on joint exploration initiatives and the exchange of information, scientific and technical personnel and research into subjects of mutual interest. The main purpose is to enable a two-way flow of knowledge, information and collaborative research aimed at stimulating exploration activity and potentially unlocking a new generation of mineral discoveries in the Northern Cape Province.

Cooperation initiatives under the Memorandum of Understanding with Council for Geoscience

Under the terms of the MOU, exchange and cooperation is intended to be conducted in the following ways:

- Skills development;
- Capability and capacity augmentation;
- Joint project development and implementation;
- Implementation of high-resolution in-fill surveys;
- Data, information and knowledge sharing;
- Technology development and implementation; and
- Other forms of cooperation as may be mutually agreed upon by both Parties.

The parties intend to enter into formal written agreements on specific cooperative projects, with the scope for cooperation expected to include activities such as:

- Geoscientific professional services and/or advice;
- Geophysical surveys; and
- Projects of mutual benefit, as agreed to by both parties in writing.

Subject to mutual agreement, other areas of cooperation may be identified subject to the resources and capacity of the parties.

Okiep District Aeromagnetic Survey

One of the first joint projects to be undertaken under the MOU will be a collaboration between Orion and the CGS on the Company's upcoming SkyTEMTM electromagnetic (**EM**) survey over its Okiep District properties.

Orion is scheduled to fly a high-resolution helicopter borne SkyTEMTM survey over the Okiep district commencing in mid-June 2021. The Orion survey will be flown at 150m line spacing and will be the first airborne EM survey flown over the district, which has geology well-suited to mapping using modern EM techniques.

In order to advance the understanding of the district's structural geological controls, Orion will also fund the flying of lines at 1,000m line spacing for CGS, which earlier this year flew 10,000m spaced lines over the district. The data for the 1,000m line spacing is intended to go on open file and be available for all explorers working in the district to assist with their structural interpretation.

For and on behalf of the Board.

Frrol Smart

Managing Director and CEO

ENQUIRIES

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