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Orion Acquires Key Surface Rights at its New Okiep Mining, Flat Mines Project

Previous lack of surface access has prevented drilling to provide final validation of data for the Bankable Feasibility Study on the Flat Mines deposits that are located on this land.

- Orion to acquire 12,156 hectares of surface rights at its Okiep Projects including 5,687 hectares covering the New Okiep Mining Project area in the Northern Cape, South Africa.
- The acquisition clears the way for drilling to provide additional resource classification geotechnical and metallurgical zonation information for the New Okiep Mining Project.
- Surface right ownership also removes any conflict of interest in future surface use, allowing outstanding Environmental Authorisations, and Water Use License and rezoning applications to proceed to completion.

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

"This is a very important milestone for the New Okiep Mining Project. As a result of this acquisition, Orion now finally has clear access and exclusive use of the surface rights without any conflict with the surface owner to facilitate the development of the Flat Mines Mining Project. Conflicting land use interests have until now prevented Orion from accessing the surface area to conduct minor but important validation work to finalise the Flat Mines Bankable Feasibility Study.

"While the primary access for the deposits is located on municipal land – where we do have an access agreement – important supporting infrastructure such as roads, power transmission, water supply pipelines and, most importantly, ventilation holings will need to be located on the surface, within the newly acquired area.

"The acquisition of surface rights also gives us the flexibility and required surface access to undertake future extensional drilling of the known deposits and resource categorisation drilling."

Orion Minerals Ltd (ASX/JSE: ORN) (Orion or the Company) is pleased to advise that it has reached an agreement to access and acquire the surface ownership rights of properties owned by Mora Plase Proprietary Limited (Mora Plase). These properties, known as Farm Nababeep and Farm Plaatjesfontein (Farms Nababeep) overlie most of the area covering the Flat Mines Project where Orion's majority owned subsidiary, New Okiep Mining Company, holds a Mining Right and Prospecting Right applications at the Okiep Copper Project in the Northern Cape Province of South Africa.

Orion is progressing a Bankable Feasibility Study (**BFS**) for the Flat Mines Project and is progressing Prospecting Right applications on the surrounding area, where known mineral deposits present significant upside potential.

Importantly, this surface right access and ownership will allow Orion to optimise the location of surface infrastructure including roadways, underground access and ventilation holings for the Flat Mines Project.

As a result of the acquisition, Orion will also immediately have access to undertake a drilling program to confirm the expected metallurgical zonation and geotechnical assessments of the deposits that Orion has included in the Flat Mines Project BFS, with the data expected to enhance and further de-risk the BFS outcomes.

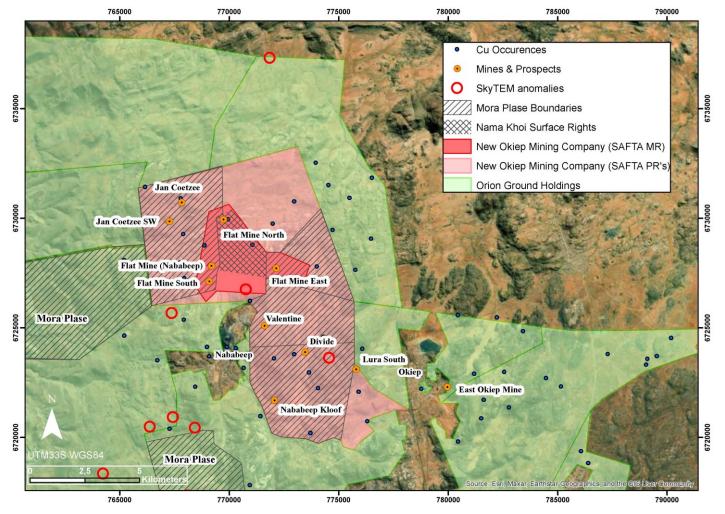


Figure 1: Location of the Flat Mines Project and Farms Nababeep surface rights acquired.

Ownership of the surface area will also allow Orion to optimise ongoing Social and Labour Plan projects such as community agriculture while also providing suitable land to locate renewable energy generation, such as solar and wind plants, that are expected to deliver significant benefits for the future mining operations and to the surrounding communities.

The surface ownership over the remaining areas that will be impacted in the foreseeable future is by the Nama Khoi Local Municipality, with whom Orion has already secured an access and surface use agreement.

Orion has mobilised drill rigs to execute a 3,000m twin hole drilling program over the Flat Mines East and Flat Mines North deposits and conduct confirmatory geotechnical and metallurgical test work.

The drilling and test work program will be completed in the current quarter, with the results to be incorporated into an optimised BFS that will be externally reviewed in the following quarter before release scheduled for June 2024.

The previous lack of surface access has prevented the drilling of validation holes into portions of the Flat Mines deposits. As a result, Orion has based all of the estimations used in the BFS on 128km of historical Newmont and Goldfields drilling records that were validated by 2,331m of twin drilling by previous owners Southern African Tantalum Mining (Pty) Ltd.

Unfortunately, the drill core from Newmont and Goldfields is not available for geotechnical studies and important test work such as for XRF ore sorting. Access to fresh drill core is expected to materially enhance the data used in the BFS.

Additional in-fill and twin hole drilling planned to be conducted on Farms Nababeep, will also provide the required information to improve resource classification at the Flat Mine Nababeep, and Jan Coetzee Mines (refer ASX/JSE release 29 March 2021), where 37km of historical Newmont and Goldfields drilling has intersected significant mineralisation that provides compelling upside potential for the expansion and extension of the Flat Mines Project. Orion is currently not able to include these Inferred resources in current mine planning.

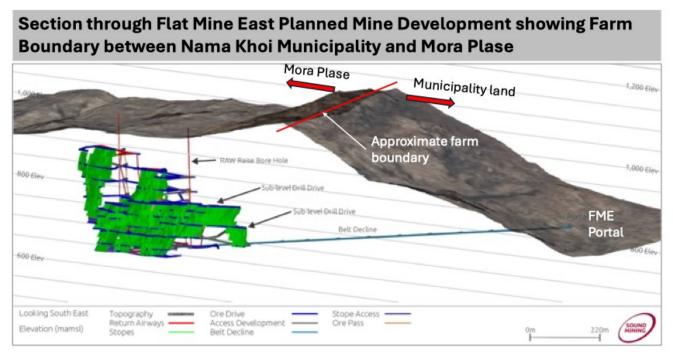


Figure 2: Section looking North through Flat Mine East Mine demonstrating location of planned infrastructure on both Farms Nababeep and municipal-owned surface rights.

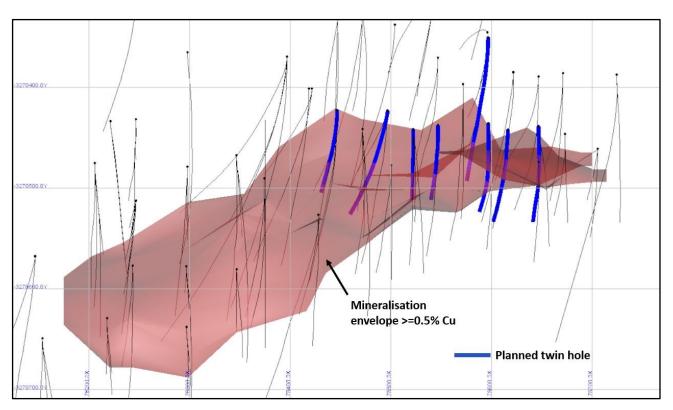


Figure 3: Plan of the Flat Mine East mineralised envelope showing planned in-fill and twin holes where drilling is to commence in January 2024.

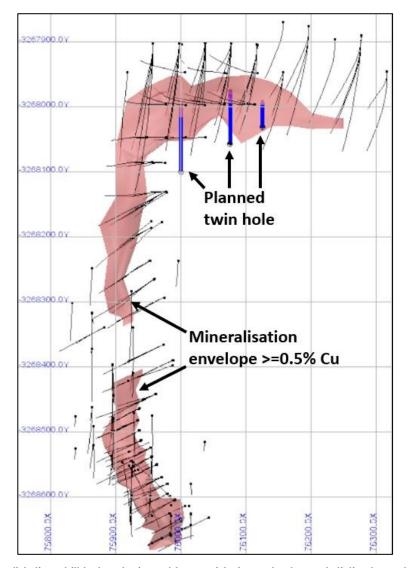


Figure 4: Three additional validation drill holes designed to provide important geostatistical, geotechnical and metallurgical validation for the Flat Mine North Mining Project.

As a result of the removal of objections arising from potential conflicts in surface use of the area, Orion's application for environmental and water right permitting over the Flat Mines and the surrounding prospecting rights will now also be allowed to progress to completion.

The mining right and prospecting rights surrounding the granted mining right contain 18 known mineralised bodies that are mapped and drilled by Newmont and Goldfields. Although 15 of these mineralised bodies will not be incorporated into the initial BFS, they provide important upside to increase the scale of mine production and extend the life-of-mine.

For and on behalf of the Board.

Errol Smart

Managing Director and CEO

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