



Prieska Copper-Zinc Project

Bankable - Fully Permitted - Ready to Build

Errol Smart, Managing Director and CEO | Investor Presentation November 2020



Orion Minerals

ASX/JSE: ORN

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Orion Minerals

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ORION MINERALS CORPORATE SUMMARY



Capital structure summary	Current	Post Share Issue
Shares on issue ¹	3,397M	3,397M
Options on issue	268M	268M
Cash on hand ²	\$5.1M	
Acquisition of Jacomynspan Ni-Cu-PGE Project minority interests ³ - (\$0.75M)		23M
Convertible Loan (2.6cps convert, 12% interest, Jun'21 term) ⁴	\$4.7M	
AASMF Loan (Apr'21 term) ⁵	\$1.6M	
Total Shares (post Share issue)		3,421M
Market capitalisation (2.5cps (ASX)) ⁶	\$85M	\$86M

- Primary listing on the ASX
- Secondary listing on Main Board of the Johannesburg Stock Exchange

Significant shareholders	Current %	Post Share Issue %
Tembo Capital	24.7	24.5
Delphi Group	10.7	10.6
Wyllie Group	6.4	6.4
IGO Limited	4.5	4.5
Tarney Holdings	3.3	3.3
Total	49.6	49.3

1. Fully paid ordinary Orion shares (**Shares**) on issue as at 30 Oct'20.
2. Cash on hand at 30 Sep'20. Excludes cash received from the issue of 10.5M Shares in Oct'20 (~\$0.35M) at an issue price of 3.3cps, as announced to the ASX on 29 Sep'20.
3. Orion announced on 13 Jul'20 that it had entered into an agreement whereby Orion will acquire the remaining minority interests in the Jacomynspan Nickel-Copper-PGE Project (South Africa) held by two companies, Namaqua and Disawell. The purchase price payable by Orion to the Namaqua and Disawell minority shareholders will be \$0.75M, to be settled by way of Orion issuing Shares (shareholder approval for the issue of Shares is being sought at the Company's AGM to be held on 20 Nov'20). Refer to ASX release 13 Jul'20.
4. Orion announced on 25 Jan'19 that it had entered into an unsecured \$3.6M loan facility with Tembo Capital (excluding capitalised interest and fees) (**Convertible Loan**). Under the terms of the Convertible Loan, Tembo Capital may at its election, have the balance of the Convertible Loan settled by the issue of Shares at a deemed issue price of 2.6cps (subject to shareholder and FIRB approvals). Refer to ASX releases 25 Jan'19 and 29 Oct'20 and the Company's Annual Report for the period ended 30 Jun'20 for additional information. Balance shown as at 30 Sep'20.
5. Refer to the Company's Annual Report for the period ended 30 Jun'20 for information related to the loan agreement (ZAR14.25M) that Prieska Copper Zinc Mine (Pty) Ltd (formerly Repli Trading No 27 (Pty) Ltd) has entered into with Anglo American sefa Mining Fund (**AASMF**). Balance shown as at 30 Sep'20.
6. Closing price of ORN Shares on the ASX on 29 Oct'20. Closing price of ORN Shares on the JSE on 29 Oct'20 was ZAR0.32.

BASE METALS THE NEW GOLD

Zinc mining – giving back to people and planet

Oct 15, 2020



Anglo American wants to explore base metals in SA

Its interest in base metals, which include copper, nickel, lead, and zinc, was part of its global discovery strategy in greenfield and brownfield projects.

By Tanisha Heiberg and Helen Reid, Reuters 7 Oct 2020 © 17:13

Fitch revises upwards its zinc price forecast

The research agency Fitch Solutions Macro Research has increased its prognosis for zinc, due to the stronger than expected recovery of the Chinese economy

Copper price surges to 28-month high

Frik Els | October 20, 2020 | 10:18 am [Markets](#) [Latin America](#) [USA](#) [Copper](#)



EMR Capital seeks concessions to develop \$1 bln Zambia copper mine

By Reuters Staff

2 MIN READ



Anglo to explore for base metals in SA but wants Govt to consider “legislative adjustments”

By David McKay - October 7, 2020

INVESTING NEWS OCTOBER 9, 2020 / 9:22 AM / UPDATED 20 DAYS AGO

Trafigura plans to restart Congo copper mine, prime minister says

By Reuters Staff

1 MIN READ



Base metals tipped to be next fertile field for investors as consumer demand kicks in



ORION MINERALS INVESTMENT SNAPSHOT



- **Flagship Prieska Copper-Zinc Project** - accessing globally significant VMS deposit in Northern Cape Province, South Africa
- **Bankable** - updated BFS following successful optimisation & value engineering
 - Foundation Phase Mineral Resource – 30.49Mt at 1.2% Cu and 3.7% Zn
 - Development of an initial 12-year, 2.4Mtpa operation targeting production of 22ktpa copper and 70ktpa zinc at globally competitive costs, strong margins and financials
- **Fully permitted** as of August 2020
- **Ready to build** - project financing and strategic partner discussions well advanced
- **Sustainable development** planned from the outset
 - Increase use of renewable energy and reduce the carbon footprint
 - Water conservation and recycling in the dry and arid conditions at the project maximised
- **Progressive 4IR adoption** - clear roadmap, should deliver high productivity and personnel well-being gains for workforce
- **Economic upliftment** - well placed to play key role in local economic recovery and post host community development
- **Significant pipeline** - exposure to high-impact exploration in Fraser Range, WA (IGO-JV)
 - Key Ni-Cu targets directly along trend from recent Legend Mining discovery
 - Air-core drilling underway ahead planned diamond drilling



NEAR-TERM, LOW-COST BASE METALS MINE

THE OREBODY

- Globally significant VMS Resource: **30.49Mt @ 1.2% Cu, 3.7% Zn**
- Increased Mineral Reserve: **14.5Mt @ 1.1% Cu and 3.2% Zn**

FOUNDATION PHASE AS PER BFS-20 OUTCOMES

- Initial 12-year, 2.4Mtpa operation, targeting **22ktpa Cu** and **70ktpa Zn**
Life-of-mine production **226kt Cu** and **680kt Zn**
- Strong operating margins and financials
 - Pre-tax free cash flow to **AUD1.6bn** (post-tax AUD1.2bn)
 - Pre-tax NPV_{8%} to **AUD779m** (post-tax AUD552m)
 - Payback period of **2.4 years** from first production
 - All-in sustaining margin of **47%**
 - Peak Funding requirement **AUD413m**

FULLY PERMITTED

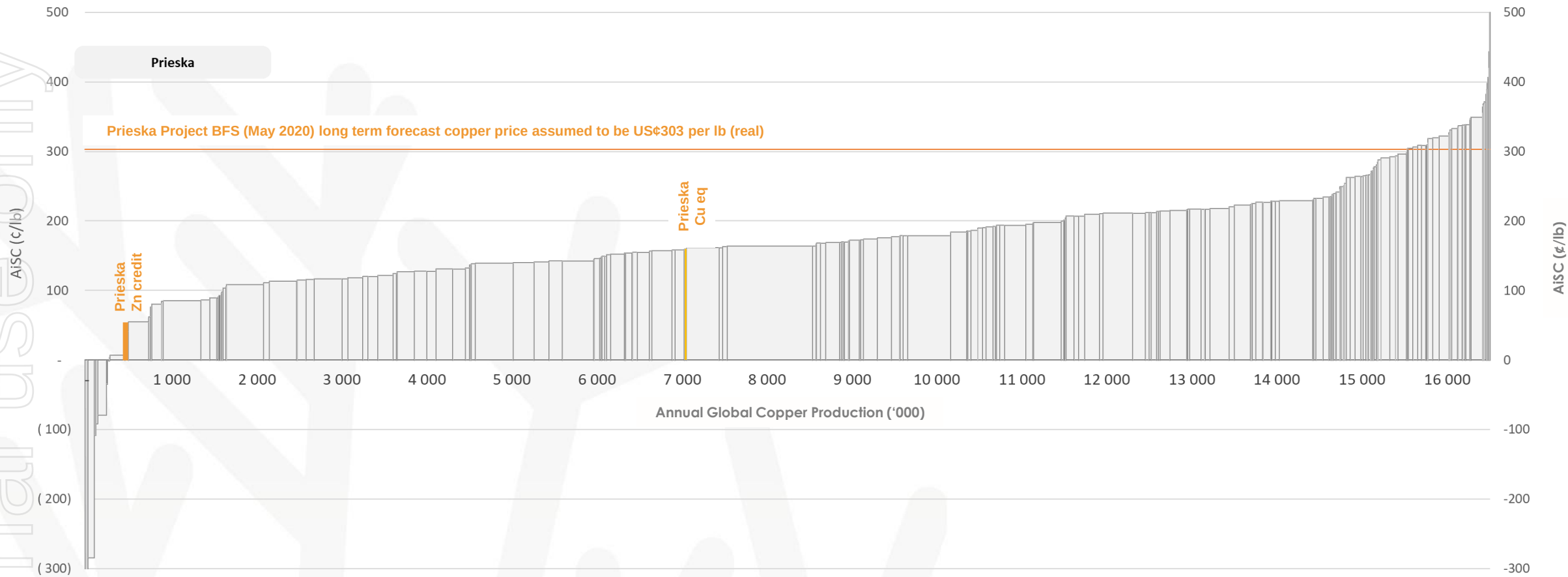
- Mining Right granted to PCZM (formerly Repli) in September 2019
- Mining Right granted to Vardocube in August 2020
- Environmental Financial Provision in place fully capitalised
- Environmental approval notices received for both PCZM and Vardocube
- Water Use Licence granted in August 2020



"The completion of the updated BFS marks another huge step towards the development of a modern, state-of-the-art base metals mine at Prieska, which is ideally placed to become the standard bearer for a new generation of world-class mines in South Africa." – Orion Minerals MD Errol Smart

COST PROFILE: COPPER PRODUCERS' COST CURVE

ALL-IN-SUSTAINING COST (AISC) PER POUND OF COPPER



- **Lowest quartile copper producer with an AiSC of US\$ 45 per pound of copper (net of zinc credits) or**
- **Low cost producer with an AiSC of US\$ 160 per pound of copper (accounting for zinc produced on a copper equivalent basis**

S&P Global Market Intelligence, April 2020 for metal price and cost curve data
 Method used to determine Cu_Equivalent Zn grades:
 $1\% \text{ Zn} = (\text{Zn price} \times \text{Zn NSR}) \times (\text{Zn plant recovery}) = (2,337 \times 68.4\%) \times (81.9\%) = 0.23\% \text{ Cu}$
 $(\text{Cu price} \times \text{Cu NSR}) \times (\text{Cu plant recovery}) (6,680 \times 99.3\%) (83.9\%)$
 $\text{Cu_Equivalent grade} = \text{Cu grade} + 0.23 \times \text{Zn grade}.$
 Recovery assumptions are based on metallurgical test-work completed to date at Mintek (South Africa) under the supervision of DRA, June 2019.

STRONG PROJECT ECONOMICS + STRONG ESG

Environmental, Social and Governance (ESG) responsibility embedded in our growth plans

- Investing in district water and infrastructure development
 - Benefiting the communities
 - Focus on low carbon footprint business
 - Solar + Wind (plus hydrogen energy storage or Li or V batteries)
 - Future integration of battery/hydrogen powered machines
- Ongoing community involvement and upliftment
 - Building on a strong foundation already in place
- Plan to operate in compliance with Equator Principles



MINE OF THE FUTURE

Implementing a modern operating philosophy (4IR enabled) can contribute to achieving quantum changes in key output parameters that are traditionally slow to improve or have regressed in the local mining industry, including:

- Safety and health improvements
- Improved environmental conditions, reduced pollution and contamination
- Improved energy efficiency and lower energy costs
- Productivity improvements
- Operating cost reductions



Benchmark Globally

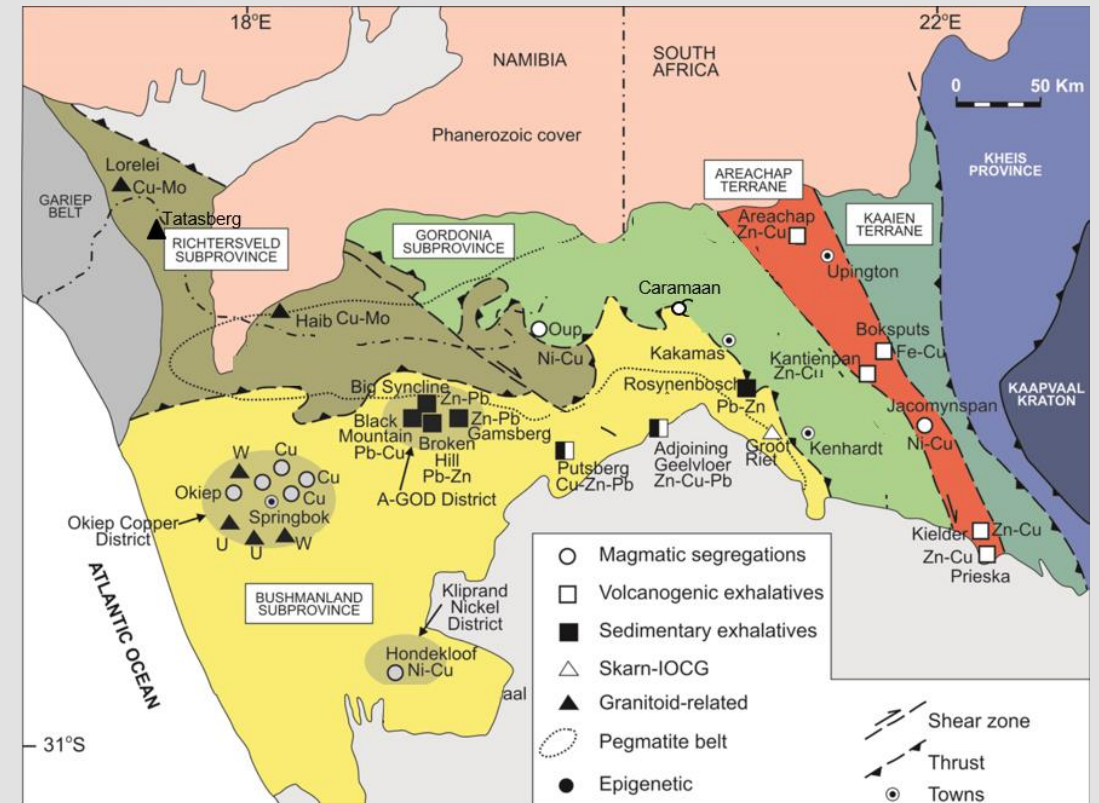
Implement Enablers

Be Fast Followers

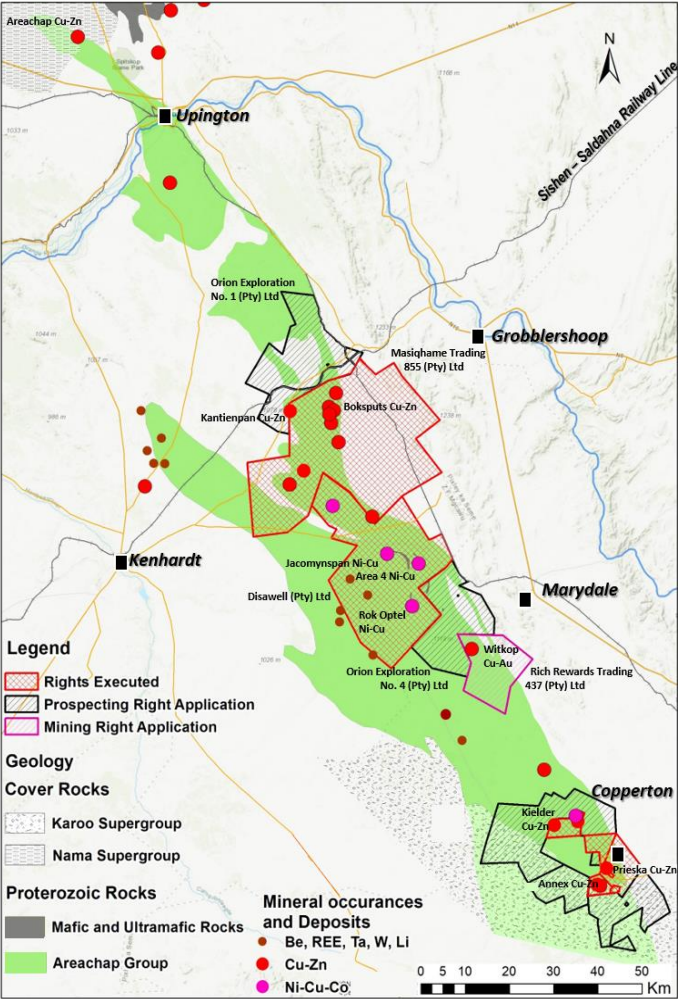
Always Make Commercial Sense

EXPLORATION UPSIDE - LONG TERM OPPORTUNITY

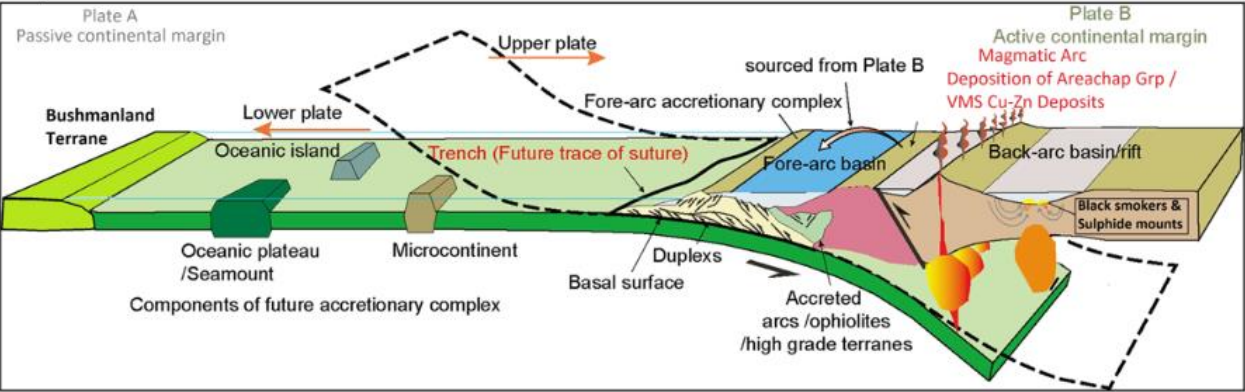
- The Northern Cape was previously a large copper producer with >70,000tpa of copper production during 1970-1980s
- The district has produced >2.5million tonnes of copper over the past 150 years
- Despite its significant base metal endowment, there has been no meaningful exploration in the district for the past 40 years
 - No application of modern exploration methods
 - The district remains highly prospective and underexplored
- Copper mining has gradually declined and virtually ceased after 2003
- Recent resurgence of exploration activity seen in the district
- Orion sees Northern Cape potential to rapidly (5 years) grow Cu production to 1980s levels – 70ktpa
- Potential to produce a premium high value product = green metal



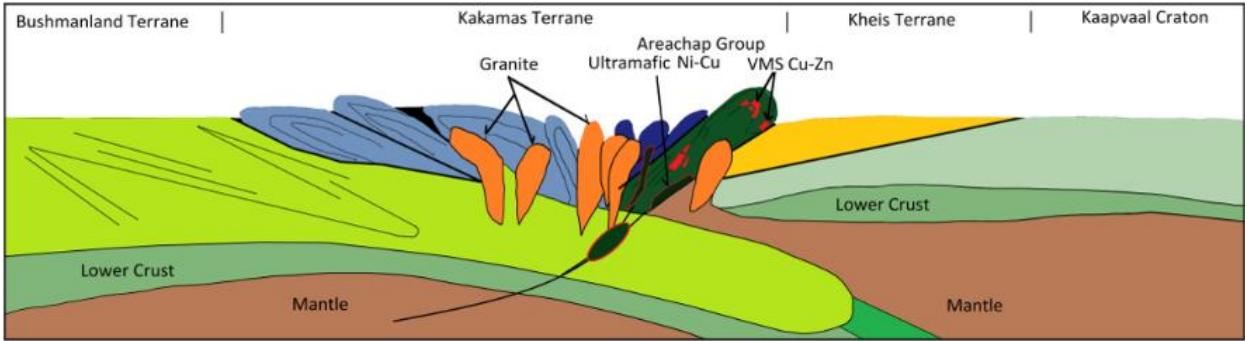
EXPLORATION UPSIDE UNDER-EXPLORED BELT



Depositional Environment

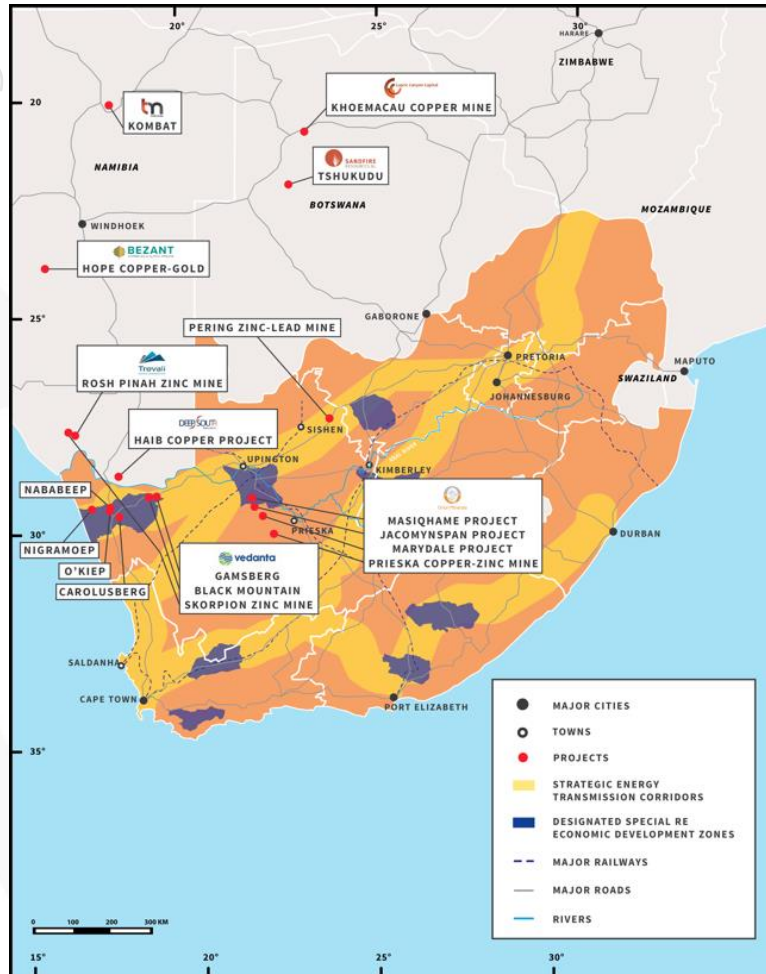


Inter-continental collision and deformation



Multiple Cu-Zn VMS and Ni-Cu intrusive targets within Orion's mineral rights

STRATEGICALLY POSITIONED PIVOTAL LEADERSHIP ROLE



- Interest growing in the Region as a base/battery metals production hub
- RSA government and development finance agencies considering economic stimulus packages to incentivise the sector and all upstream and down-stream business linkages
- The region is:
 - Infrastructure rich
 - Well endowed with Renewable Energy, with the potential addition of “green hydrogen” providing a further opportunity for future low cost beneficiation
- Orion has an established “first-mover” advantage in the region. Our business model incorporates:
 - A strong ESG focus;
 - The ability to leverage modern technology in all aspects of the exploration / mine development cycle; and
 - A first class team, with a strong track record of delivering exceptional results and achieving key project milestones in record time
- Orion is potentially a partner of choice for investors, explorers & miners in the region

ORION'S POSITIONING - THE RIGHT ADDRESS

The Northern Cape – Botswana – Namibia (Southern Africa Customs Union) region provides an unprecedented global opportunity to create a **green, New Era Metals / Battery Metals production district**

- Several new greenfield and brownfield copper projects are scheduled to come onstream in next 5 years
- Large advanced stage exploration/growth potential for copper, nickel and zinc
- Abundant Renewable Energy
 - Improved regulations in South Africa now allow self generation
 - Advances in technology make combination of RE + battery or hydrogen a looming reality to provide reliable and cost effective energy for mining and beneficiation

VISION FOR GROWTH

1 Orion Is uniquely positioned to harness a rapidly growing market for responsibly/sustainably produced “green metals”

2 We have secured a first mover advantage and have established a strong corporate and management structure that can be rapidly scaled and expanded

3 We have a world class project of suitable scale to provide “critical mass” as a growth platform

4 We are uniquely positioned to deliver on RSA government macro-economic growth strategy potentially supporting future beneficiation



Orion Minerals

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