



Orion Minerals

ASX/JSE RELEASE: 8 June 2022

Resources Rising Stars Investor Conference – Presentation

Orion Minerals Limited (**ASX/JSE: ORN**) (**Orion** or the **Company**) is pleased to advise that its Managing Director and CEO, Mr Errol Smart, will be presenting at the Resources Rising Stars Investor Conference on the Gold Coast today at 2:00pm AEST / 12:00pm AWST.

The presentation to be delivered by Mr Smart is attached and is also available on Orion's website www.orionminerals.com.au.

Investors can watch the conference livestream at no cost by going to www.rsinvestor.com.

For and on behalf of the Board.

Denis Waddell
Chairman

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

Monique Martinez
Merchantec Capital
T: +27 (0) 11 325 6363
E: monique@merchantec.co.za



Orion Minerals

²⁹
Cu
Copper

³⁰
Zn
Zinc

²⁸
Ni
Nickel

²⁷
Co
Cobalt

PGE
PGE

⁷⁹
Au
Gold

⁴⁷
Ag
Silver

FUTURE METALS FOR A NEW ERA OF DEMAND

Accelerating Towards Production

Errol Smart / Managing Director and CEO
Investor Presentation / June 2022

ASX: ORN | JSE: ORN
www.orionminerals.com.au

DISCLAIMER



Orion Minerals

This presentation contains summary information about Orion Minerals Ltd and its subsidiaries (Orion or Company) and their activities and is current as at 2 June 2022. The information in this presentation is a general background and does not purport to be complete or provide all information that an investor should consider when making an investment decision.

No representation or warranty, express or implied, is provided in relation to the accuracy or completeness of the information. Statements in this presentation are made only as of the date of this presentation unless otherwise stated and the information in this presentation remains subject to change without notice.

The Company is not responsible for updating, nor undertakes to update, this presentation. It should be read in conjunction with the Company's other periodic and continuous disclosure announcements lodged with the Australian Securities Exchange (ASX), which are available at www.asx.com.au and the Johannesburg Stock Exchange (JSE), which are available at www.jse.co.za.

Certain statements contained in this presentation, including information as to the future financial or operating performance of Orion and its projects, are forward-looking statements. Such forward-looking statements:

- are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Orion Minerals Ltd, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies;
- involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements; and
- may include, among other things, statements regarding targets, estimates and assumptions in respect of metal production and prices, operating costs and results, capital

expenditures, mineral reserves and mineral resources and anticipated grades and recovery rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions.

Orion disclaims any intent or obligation to update publicly any forward-looking statements whether as a result of new information, future events or results or otherwise.

The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward looking statements.

All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

All information in respect of Exploration Results and other technical information should be read in conjunction with the relevant ASX announcements released by the Company.

Orion is not aware of any new information or data that materially affects the information for the Mineral Resource and confirms that all material assumptions and technical parameters underpinning the estimates in the relevant Orion ASX releases (as referenced in the presentation) continue to apply and have not materially changed. Orion confirms that the form and context in which the Competent Person's findings are presented have not materially changed.

To the maximum extent permitted by law, Orion and any of its related bodies corporate and affiliates and their officers, employees, agents, associates and advisers:

- disclaim any obligations or undertaking to release any updates or revisions to the information to reflect any change in expectations or assumptions;

- do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this presentation, or likelihood of fulfilment of any forward looking statement or any event or results expressed or implied in any forward-looking statement; and
- disclaim all responsibility and liability for these forward looking statements (including, without limitation, liability for negligence).

Nothing contained in this presentation constitutes investment, legal, tax or other advice. The information does not take into account the investment objectives, financial situation or particular needs of any recipient. Before making an investment decision, each recipient of this presentation should make its own assessment and take independent professional advice in relation to the information and any action taken on the basis of this presentation.

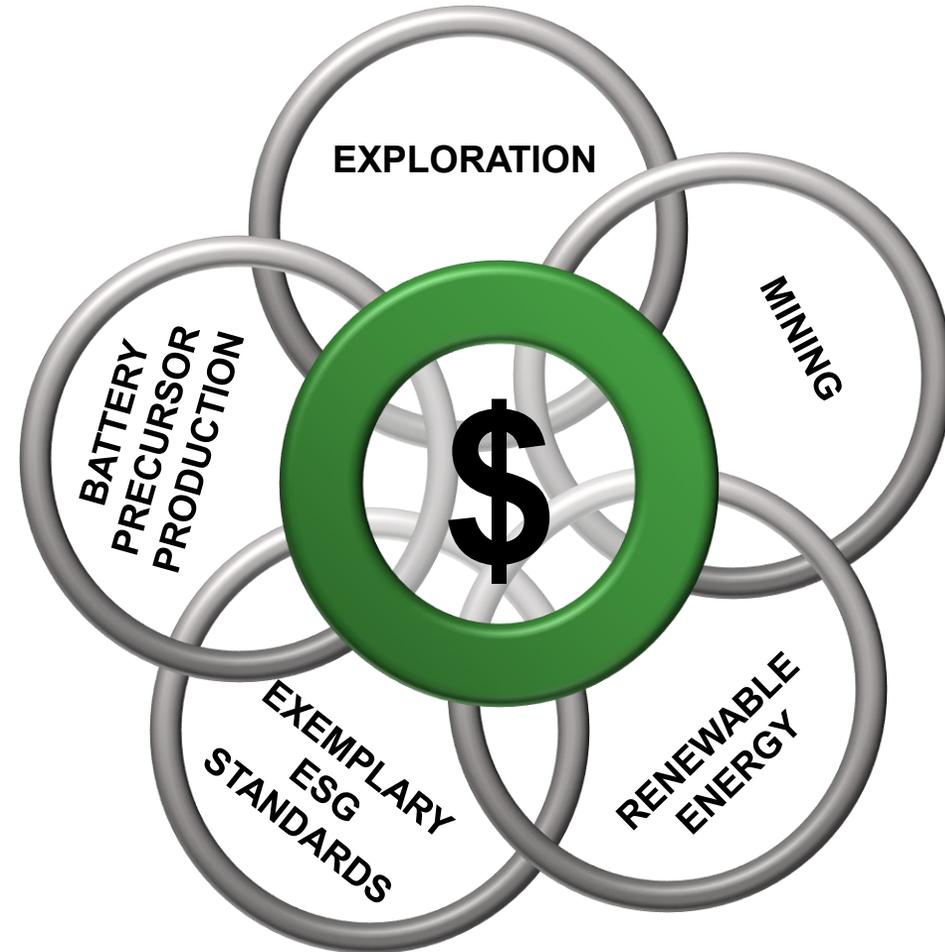
OUR MISSION

FULLY INTEGRATED FROM EXPLORATION TO MARKET



Orion Minerals

PRODUCING FUTURE FACING METAL PRODUCTS – ESG CERTIFIED METALS, TRACKED VIA BLOCKCHAIN FROM EXPLORATION TO SALE



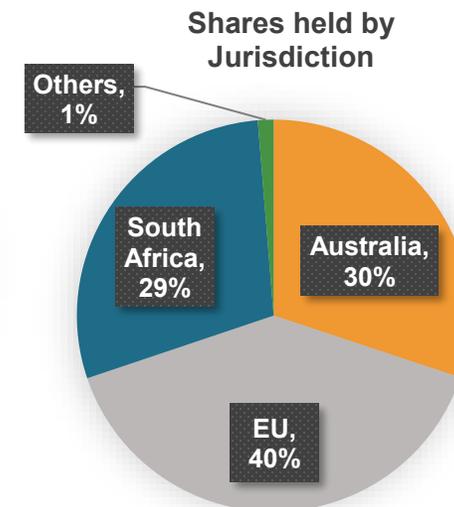
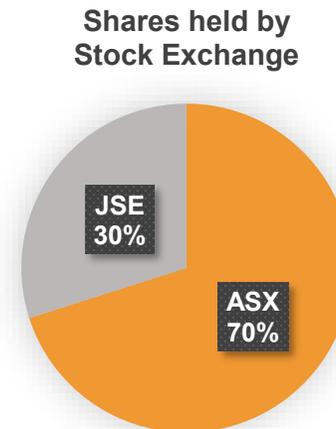
COMPANY SNAPSHOT



Orion Minerals

| Capital Structure Summary | Current | Significant Shareholders | Share Issue % |
|---|----------------|---|---------------|
| Shares on issue ¹ | 4,382M | Tembo Capital (EU/Netherlands) | 23.5 |
| Options on issue | 198M | Delphi Group (EU/Germany) | 13.1 |
| Cash on hand ² | AUD6M | IGO Limited (Australia) | 3.5 |
| AASMF Loan ³ | AUD2M | Tarney Holdings (Denis Waddell) (Australia) | 2.6 |
| Market capitalisation (AUD2.3cps) ⁴ | AUD101M | Total | 42.7 |

| Board of Directors | Senior Management |
|-------------------------|--|
| Denis Waddell, Chairman | Walter Shamu, COO |
| Errol Smart, MD & CEO | Martin Bouwmeester, CFO & Company Secretary |
| Alexander Haller, NED | Michelle Jenkins, Executive: Finance & Administration |
| Mark Palmer, NED | Louw van Schalkwyk, Consulting Geologist |
| Godfrey Gomwe, NED | Nelson Mosiapoa, Group Corporate Social Responsibility Advisor |
| Tom Borman, NED | Marcus Birch, Commercial & Business Support Manager |



1. Fully paid ordinary Orion shares (**Shares**) on issue at 2 Jun'22.
2. Cash on hand at 31 Mar'22.
3. Refer to Orion's December 2021 Interim Financial Report for information related to the loan agreement (ZAR14.25M) that Prieska Copper Zinc Mine (Pty) Ltd has entered into with Anglo American sefa Mining Fund (**AASMF**) and Mar'22 Quarterly Cash Flow report. Balance shown at 31 Mar'22.
4. Volume weighted average price (5 day) at 2 Jun'22 of ORN Shares trading on the ASX & JSE.

FUTURE FACING METALS



Orion Minerals

DEVELOPMENT
READY

ADVANCED
STAGE

EXPLORATION
UPSIDE



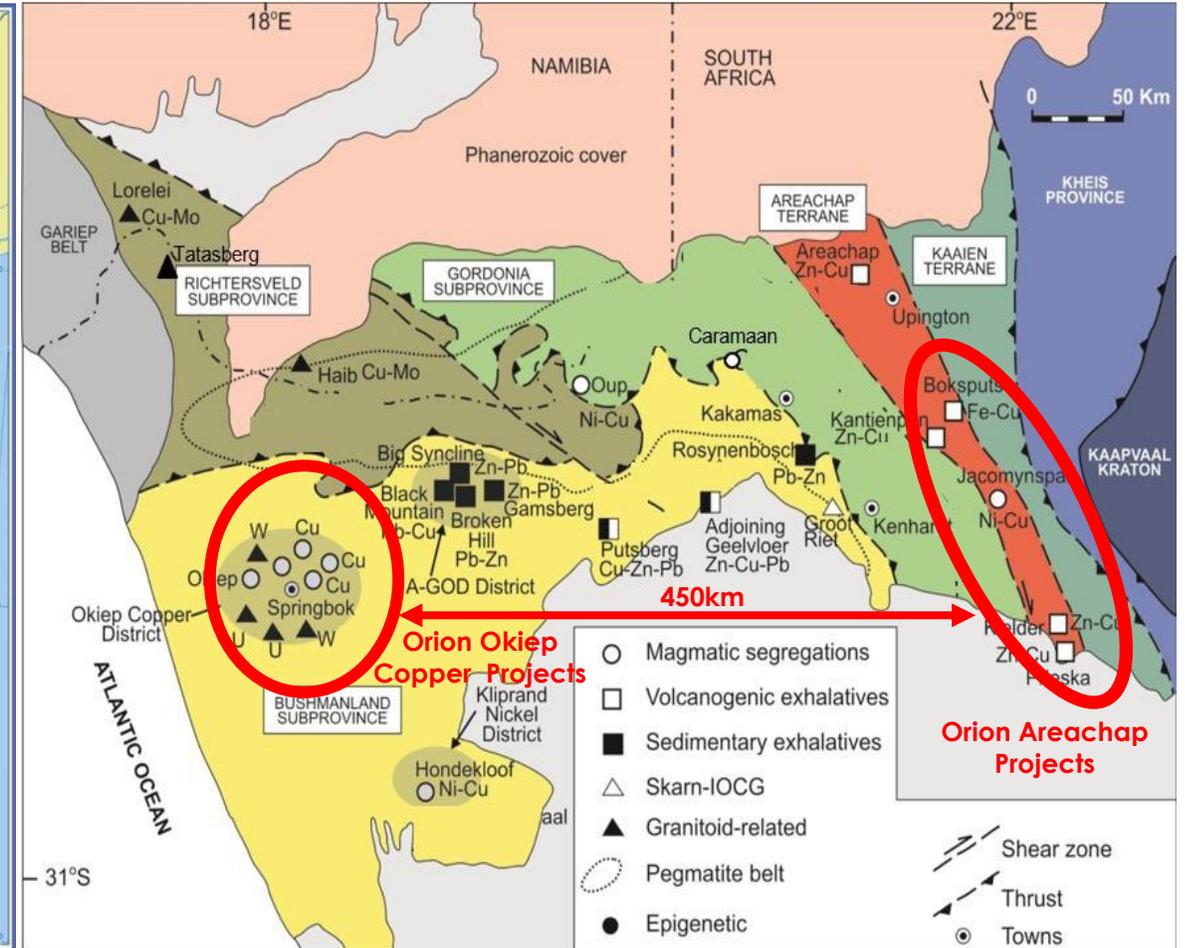
| South Africa | | | | Australia |
|-----------------------|---------------------------------------|---|--|---------------------------------------|
| Prieska (PCZM) | Okiep Copper Project (OCP) | Jacomynspan (JMP) | Bokspits | Fraser Range |
| 70% ownership | 56-70% ownership | 50-70% ownership | Earning 70% ownership | 10-30% free carried to feasibility |
| Copper-Zinc | Copper-Ni Tungsten | Nickel-Copper-Cobalt-PGE-Au Li, Be and REE | Copper-Gold + Nickel-Copper-Cobalt-PGE-Au | Nickel-Copper |
| BFS & fully permitted | BFS underway Mining Right Imminent | Scoping Study 2012 being revisited. Granted Mining Right | Exploration | Exploration |

FOCUS ON TWO HIGHLY PROSPECTIVE SOUTH AFRICAN BASE METAL DISTRICTS

BROWNFIELDS SUCCESS BEING FOLLOWED BY GREENFIELDS EXPLORATION



Orion Minerals



Refer ASX/JSE releases 2 February 2021, 10 February 2021, 29 March 2021 and 2 August 2021

A NEW FUTURE METALS GIANT IN THE MAKING

FAST-TRACKING TOWARDS DEVELOPMENT AND PRODUCTION



- Two brownfields development assets in South Africa's Northern Cape
- Extensive upside exploration potential, high-quality Mineral Resources
- Mineral Rights include known deposits of Copper, Zinc, Nickel, Cobalt, PGE, Au, Ag, W, REE, Li.
- Studies underway to accelerate three base metal projects towards first production
- Substantial exploration upside in under-explored districts
- Strong ESG credentials with available renewable and green hydrogen power
- Financing and strategic partner engagement well advanced
- Perfectly aligned with new market dynamics for future-facing metals
- Investigating battery precursor metal production potential



ESG – CORE FOCUS OF OUR BUSINESS



- **BEE (30%) Black Empowerment for mining projects of which:**
 - 20% Entrepreneurs
 - 5% Community Trust
 - 5% Employee Trust
- Community focused
- Environmentally conscious

AAMEG Award 2020 (Junior Mining Leader on ESG)

- MD & CEO Errol Smart
 - Chairman of the Minerals Council South Africa's Junior and Emerging Miners' Leadership Forum

GREEN POWER – GREEN FOOTPRINT



Orion Minerals

- Water conservation and recycling – tailings water available for re-use and excess delivered to local community for irrigation
- Tailings – predominantly in ground placement / void filling / carbon sequestration



Renewable Energy Advantage

- 170MW Solar Power and 200MW Wind Power operational on site at PCZM, feeding into Eskom grid
- Additional dedicated 55MW Hybrid Wind + Solar Renewable Energy facility scoped for PCZM
- Long Term Target for PCZM and OCP to be 100% Renewable Energy Powered
- “Project Carbon Neutral Roadmap”
- The Northern Cape Province – one of the best areas in the world for wind and solar (PV) energy
- PCZM & OCP sites are within South Africa’s “Renewable Energy Corridors”



PCZM – A GREEN METAL PRODUCER



Scope 1+2 - Carbon Neutral target

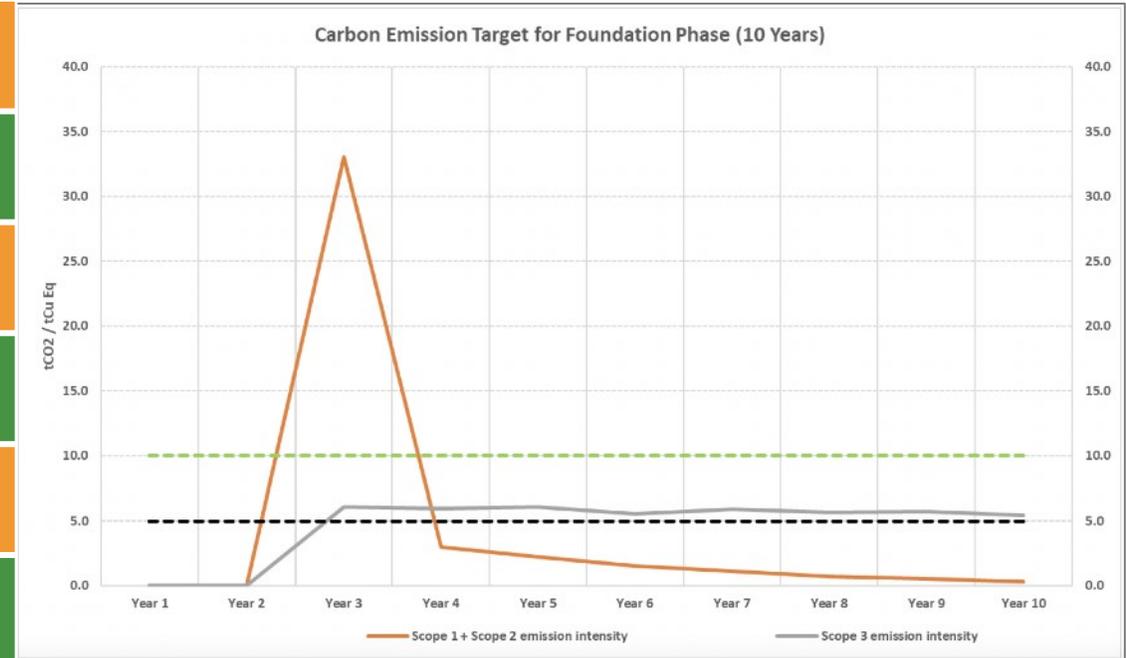
Mine sales – potentially attract “green” premium

Investigating Battery Precursor Production

Desirable for offtake customers

ESG – investment eligibility

Cost savings – carbon credits / low emissions



| PARAMETERS | Description | UoM | Foundation Phase A | | | | | Foundation Phase B | | | | |
|--------------------------------------|-------------|---------------------|--------------------|-----------|-------------|------------|------------|--------------------|------------|------------|------------|------------|
| | | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| Total Carbon Emissions | | ktCO2 | 71 | 64 | 113 | 331 | 419 | 381 | 344 | 316 | 297 | 279 |
| Scope 1 - Direct Emissions | | ktCO2 | 22 | 22 | 22 | 20 | 18 | 12 | 8 | 4 | 3 | 0 |
| Scope 2 - Indirect Energy Emissions | | ktCO2 | 49 | 42 | 74 | 91 | 95 | 71 | 47 | 31 | 23 | 14 |
| Scope 3 - Indirect Emissions (Other) | | ktCO2 | - | - | 18 | 221 | 306 | 298 | 289 | 281 | 272 | 264 |
| Overall emission intensity | | tCO2/t Cu Eq | - | - | 39.1 | 8.9 | 8.4 | 7.1 | 7.1 | 6.4 | 6.2 | 5.8 |
| Scope 1 + Scope 2 emission intensity | | tCO2/t Cu Eq | - | - | 33.0 | 3.0 | 2.2 | 1.5 | 1.1 | 0.7 | 0.5 | 0.3 |
| Scope 3 emission intensity | | tCO2/t Cu Eq | - | - | 6.1 | 6.0 | 6.1 | 5.6 | 5.9 | 5.7 | 5.7 | 5.5 |

NEXT GENERATION WORK PRACTICES

Fourth Industrial Revolution (4IR) enabled

- Orion will be an industry leader within South Africa, adopting next generation technology and work practices
- Fresh start - no workplace or IR legacy issues
- High tech and mechanised - minimising employee exposure to high-risk environment
- Skilled workforce
- Improved environmental conditions, reduced pollution and contamination

**Winner: Enhanced Labour Standards category
for Junior ESG Awards, 2022**



Benchmark
Globally

Implement
Enablers

Be Fast
Followers

Always Make
Commercial
Sense

BENEFICIATION INVESTIGATIONS

Potential to unlock value locally, using beneficiation to produce “Future Metal Products”

- Abundant solar and wind renewable energy installed or being developed, with large-scale green hydrogen and ammonia soon to be added
- Combination of low-cost green energy and rapidly-developing clean beneficiation technology coupled with unprecedented demand growth for battery metal salts and specialist powders (Precursor Battery Products) provides unique opportunity
- Specialist Precursor Battery Products trade at large premiums to the contained metal value
- Modern technology and engineering advances have removed the need for roasting and smelting and reduced CAPEX and OPEX
- Low-cost beneficiation with enhanced revenue may reduce mining cut-off grades and increase production from moderate-grade ore sources



Orion commissioning testwork and scoping feasibility assessments on:

- **Modified carbonyl and chlorine metal vapour technology**
 - MOU and term sheet signed for earn in with Stratega Metals
 - Modified derivation of process technology already in use at Sudbury, Norilsk and Jinchuan
 - Roasting/smelting steps eliminated with use of metal vapour extraction of sulphide concentrates followed by separation and purification of metals
 - Zero emissions, no water used and low energy requirement



- **Hydrometallurgical Atmospheric Acid Leach Process**
 - For application to oxides and mixed oxide - sulphide ore without pre-concentration

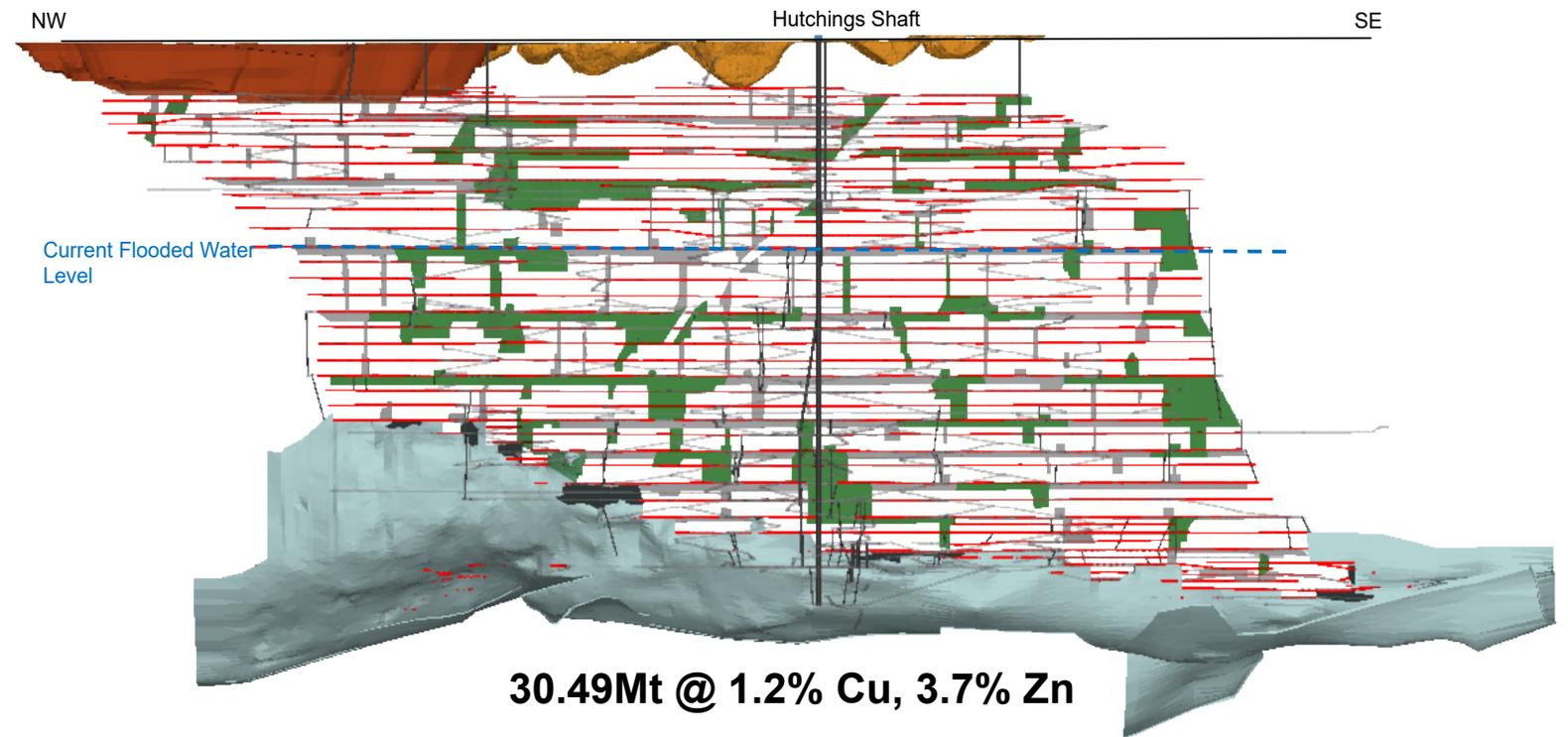
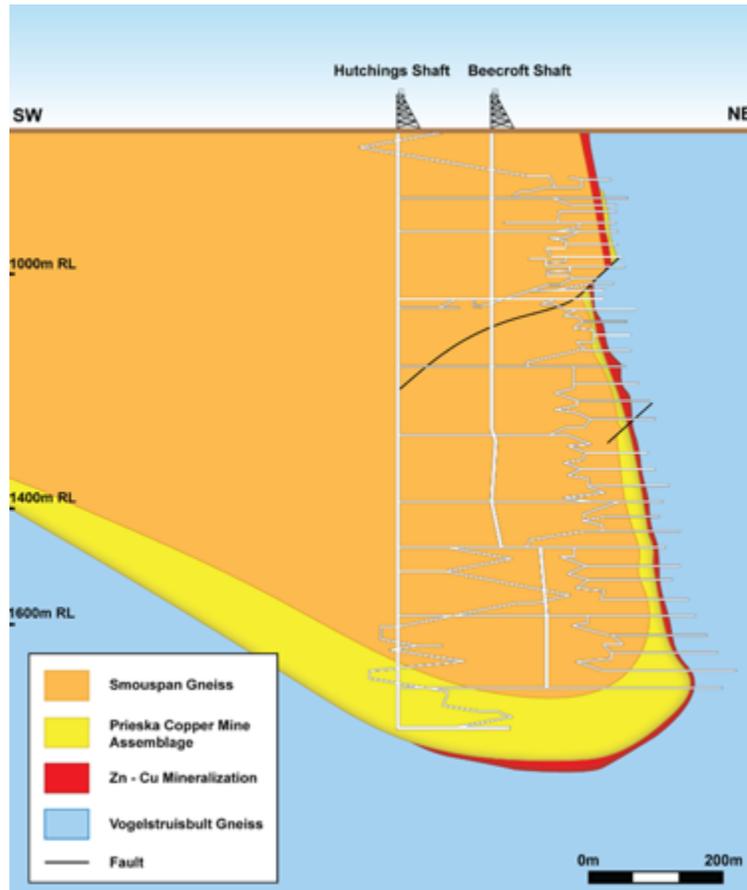




Orion Minerals

Areachap Projects

PCZM – CROSS & LONG SECTIONS



Refer ASX/JSE release 15 January 2019

PRIESKA (PCZM) COPPER ZINC PROJECT (70%)

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 AUD1.6bn (post-tax AUD1.2bn)
- Pre-tax NPV8% 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 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

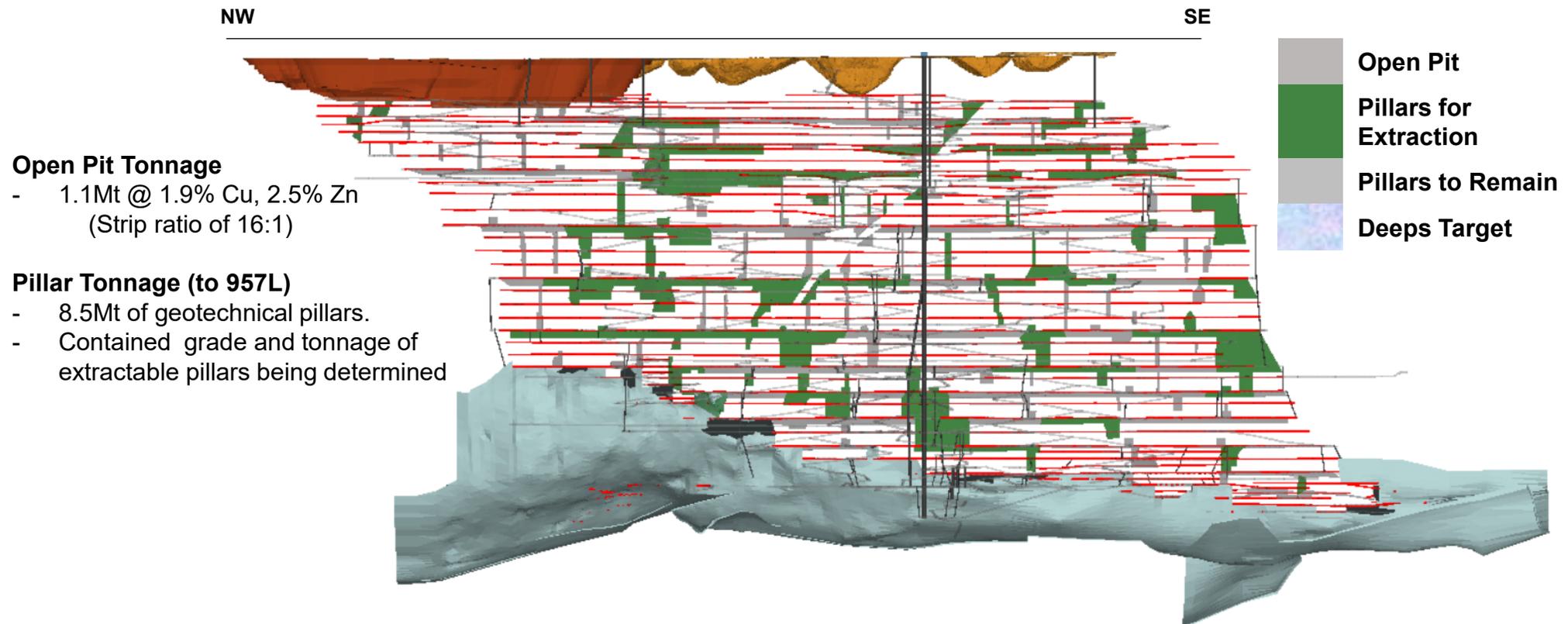
Refer ASX/JSE releases 8 July 2019, 3 September 2019, 9 March 2020, 26 May 2020, 6 August 2020 and 17 August 2020



“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

SHALLOW MINERAL RESOURCES – EARLY MINING TARGETS

- Shallow Mining Plan aims to target mining from the open pit, remnant pillars, while dewatering underway
- Feasibility studies underway to fast-track development
- Stream Finance and early funding advance, provide opportunity fast-track development



A\$120M* NON-BINDING TERM SHEET SIGNED FOR FUNDING ARRANGEMENT & STREAM FUNDING PACKAGE FOR PCZM



- Term Sheet signed with Triple Flag for funding package, including stream finance.
 - Triple Flag is a highly respected precious metal royalty and streaming finance provider
- Funding Arrangement secured to fund:
 - Early commencement of dewatering
 - Completion of early mining feasibility study
- Stream Finance available to fund mine development following completion of Early Mining Feasibility Study
- Funding Arrangement and Stream Finance provide a significant step on the path to total project funding
 - assists with early mine development



Early Funding Arrangement:

- A\$10m to be advanced against calculated repayments equal to 0.8% of gross revenue from future mineral sales
- Conditional on Orion securing A\$20m of co-funding as equity/debt/offtake finance

Precious Metal Stream

- US\$80m (A\$110m) to be advanced against delivery of 84% of future Au and Ag by-product production, reducing to 50% of Au and Ag after delivery of 94.3k Oz of Au and 5,710k Oz of Ag
- Orion also receives payments of 10% of the delivered precious metal value at spot Au and Ag at the time of delivery

* FX Source: Oanda.com

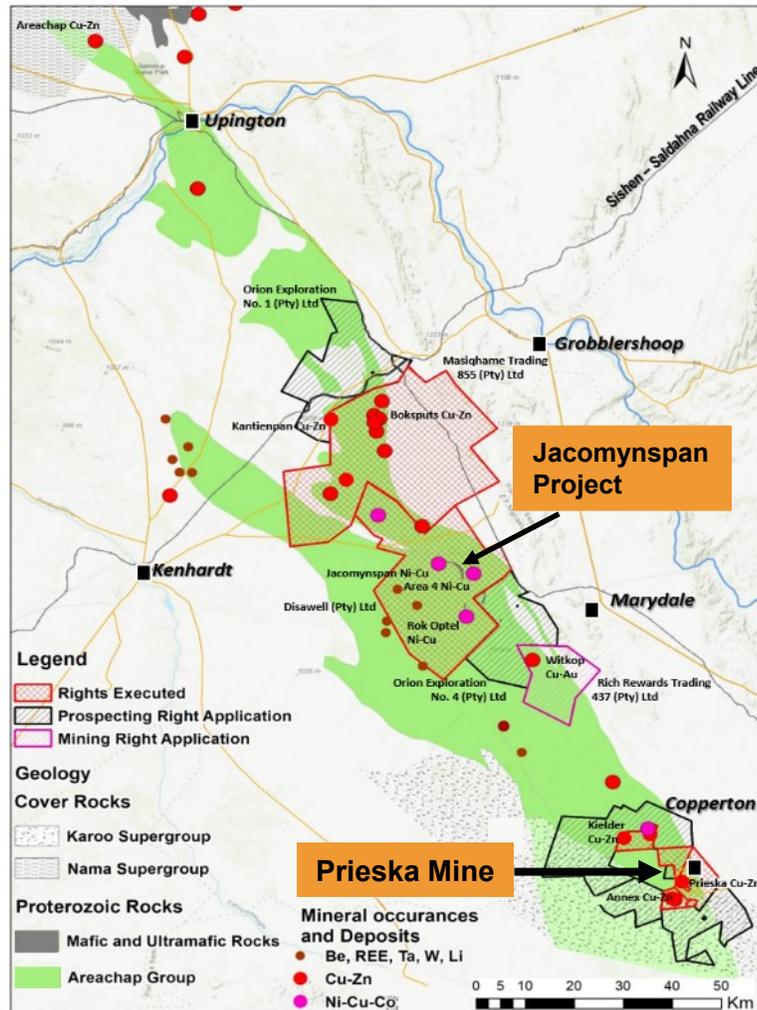
Refer ASX/JSE release 9 May 2022

ENORMOUS EXPLORATION UPSIDE

AREACHAP – AN UNDER-EXPLORED BELT WITH HIGH METAL ENDOWMENT



Orion Minerals



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

- Prieska Cu-Zn near mine, open pit and underground targets with high grade intersections
- Jacomynspan – Mining Right with potential for sulphide Ni-Cu-PGE-Au open pit & shallow underground mining
- Several high grade Cu-Au targets with historical and recent drill intersections
- Several Li, Be, REE occurrences & old diggings to be investigated

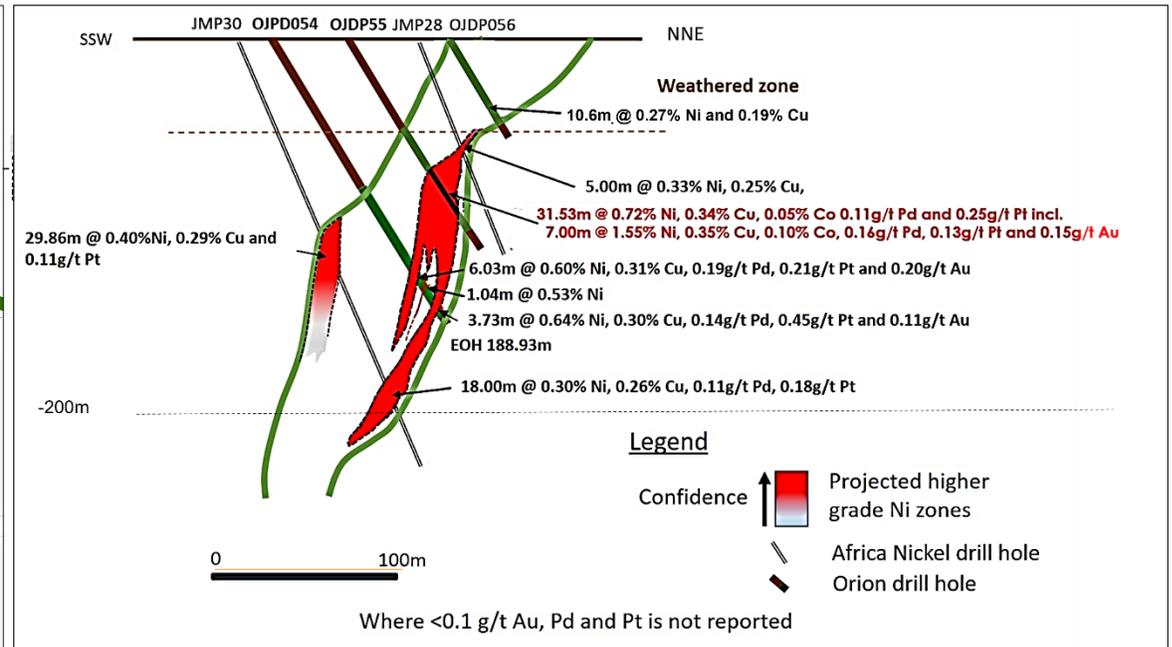
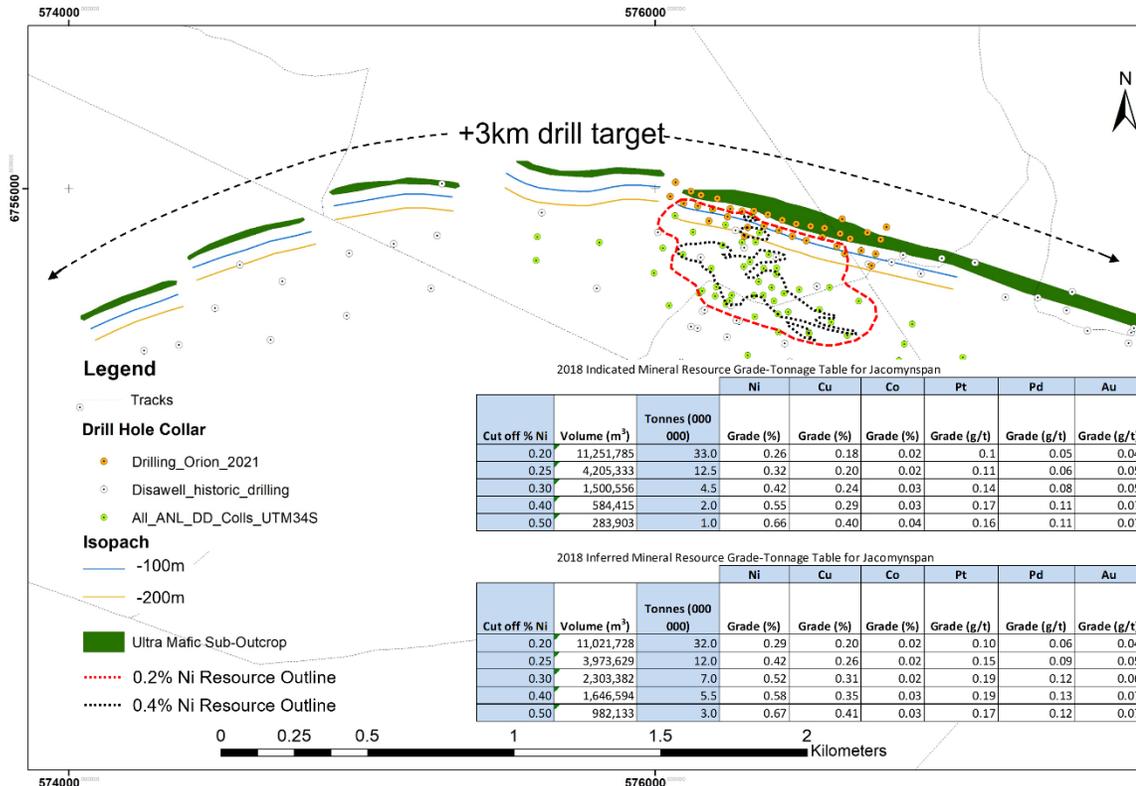
JACOMYNSPAN

POTENTIAL TO BE A SIGNIFICANT FUTURE METALS PRODUCER



Orion Minerals

Granted Mining Right over Ni-Cu-Co-PGE+Au Intrusive Complex



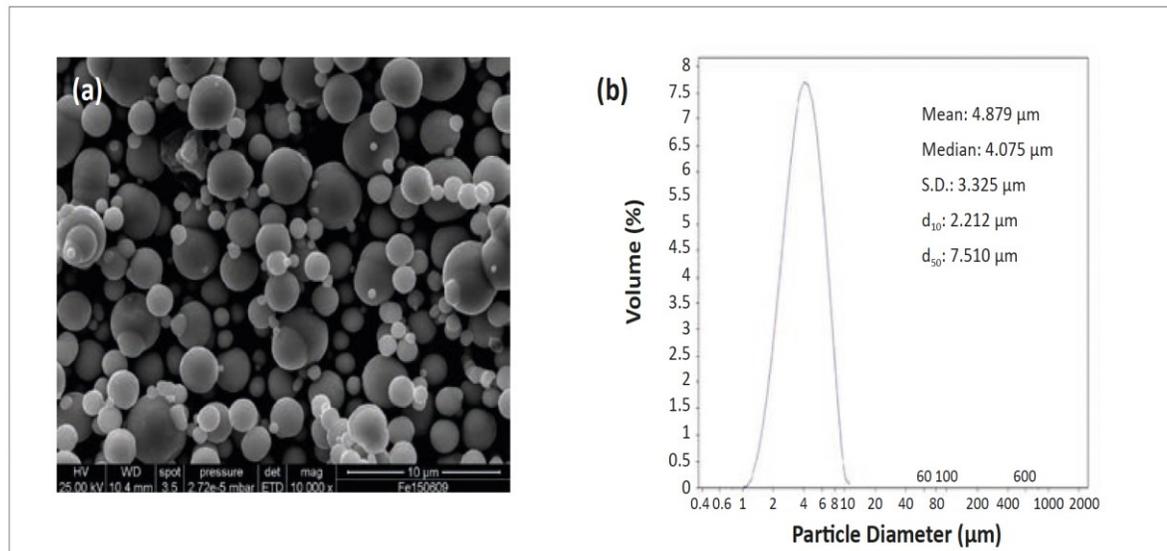
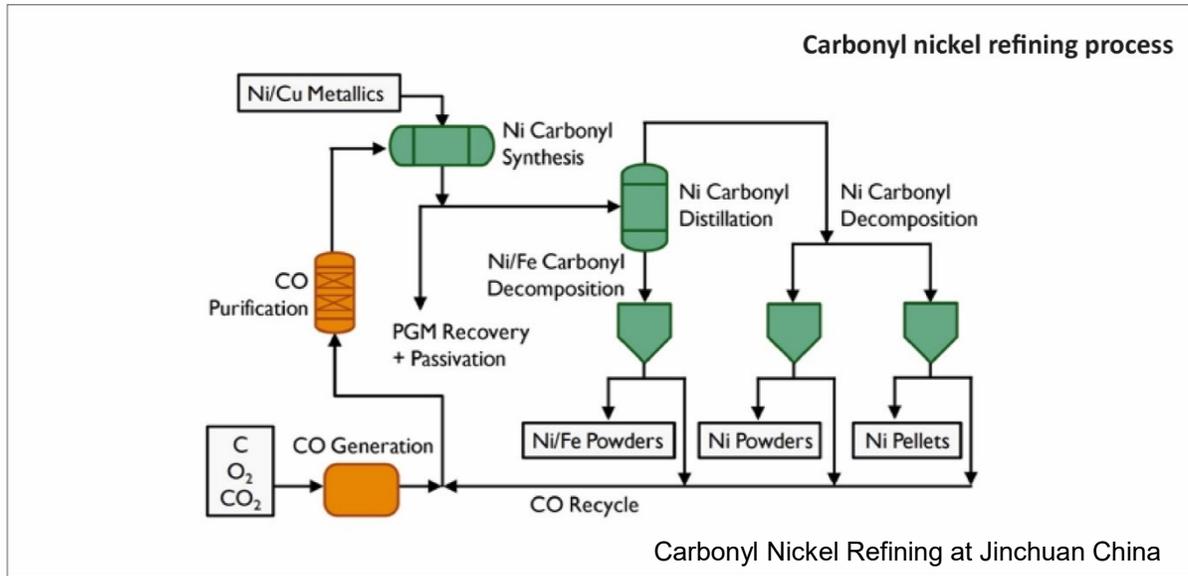
Investigating innovative proprietary technology to recover Battery Metals and high-value Battery Precursor Products – a value game changer

Refer ASX/JSE release 3 March 2018

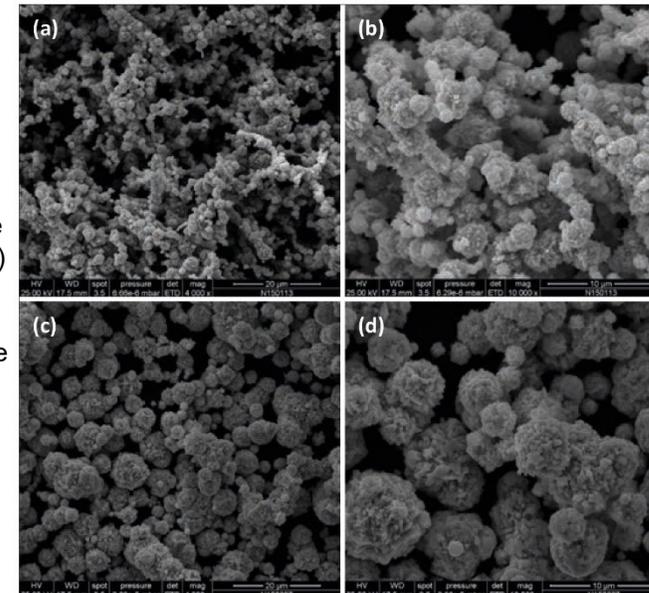
HIGH VALUE FUTURE METAL PRODUCTS



Orion Minerals



Micro granular Fe (left) and Ni (right) metal carbonyl powders
Currently available on market





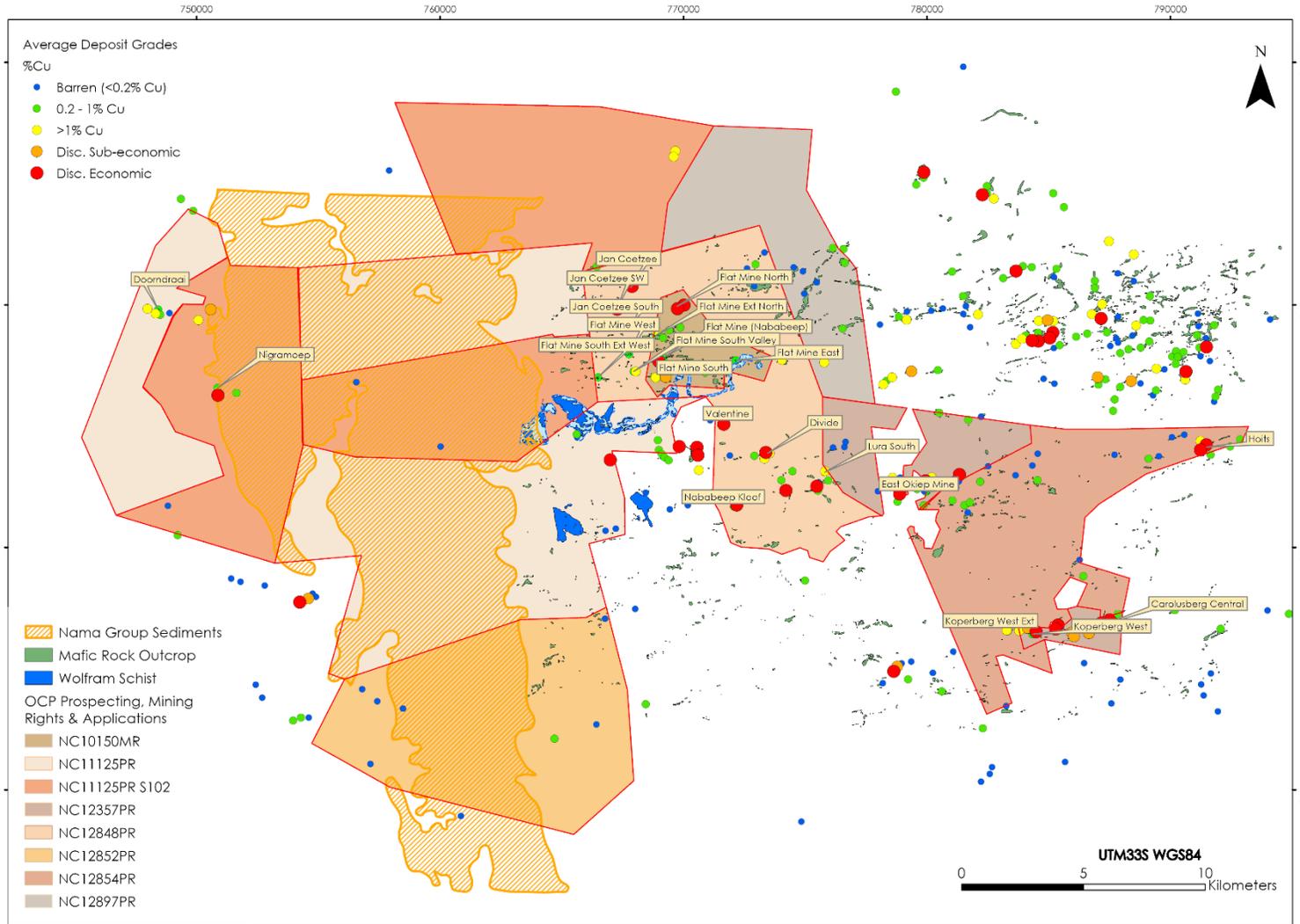
Orion Minerals

OCP Projects

OCP HISTORICAL DISCOVERIES AND MINES



Orion Minerals



- Mineralised intrusive bodies intrude structures aligned in east-west trending structural corridors
- 25% of mineralised corridors hidden under thin surface cover
- Modern geophysics expected to assist in detecting mineralisation underneath the thin cover
- Orion has now proved the existence of a Ni rich sulphide mineralisation phase, not previously targeted

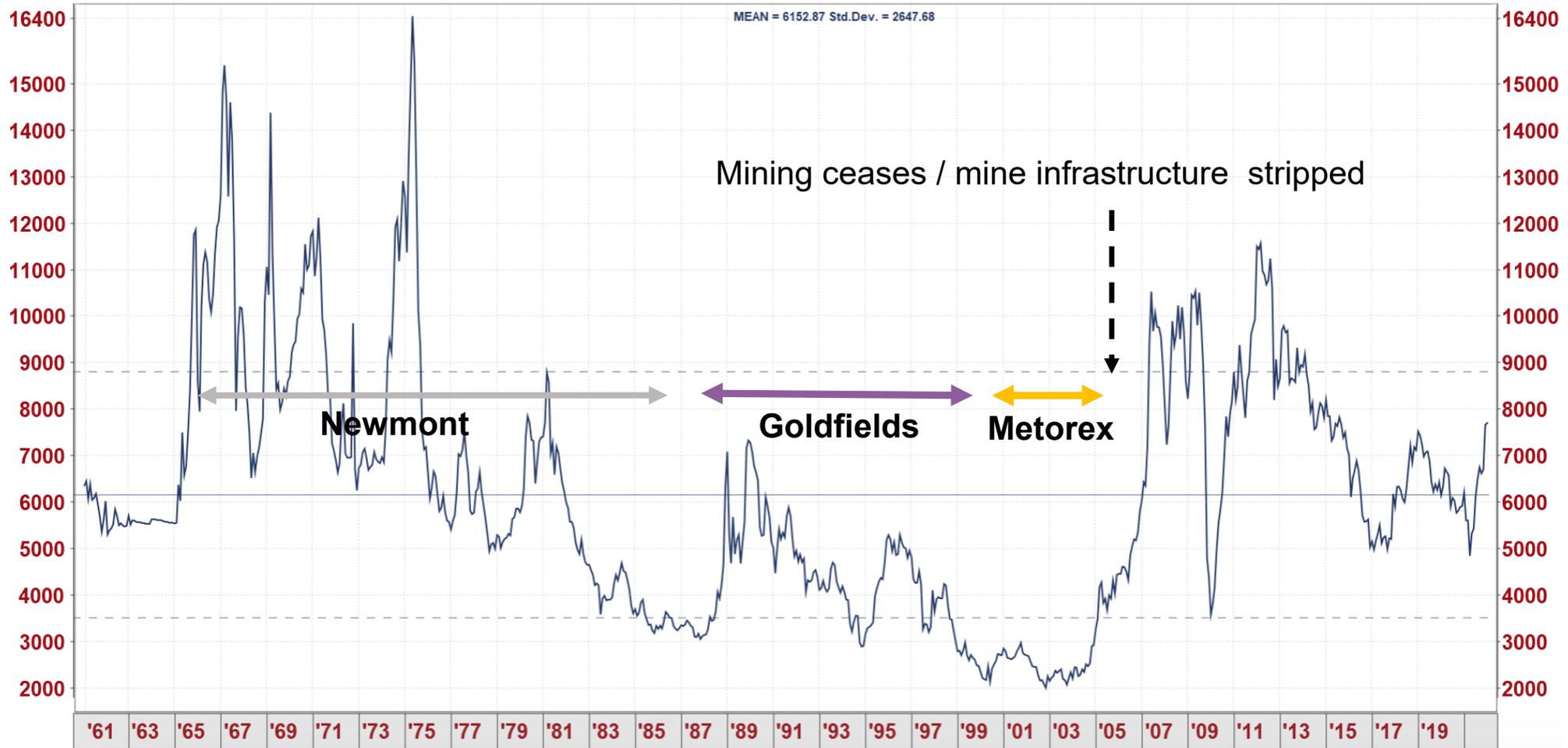
OCC:

HISTORICAL OWNERSHIP CHANGES COINCIDED WITH Cu PRICE LOWS



Orion Minerals

Copper Price \$/ton (real)



Source: Peter Major Mergence Capital

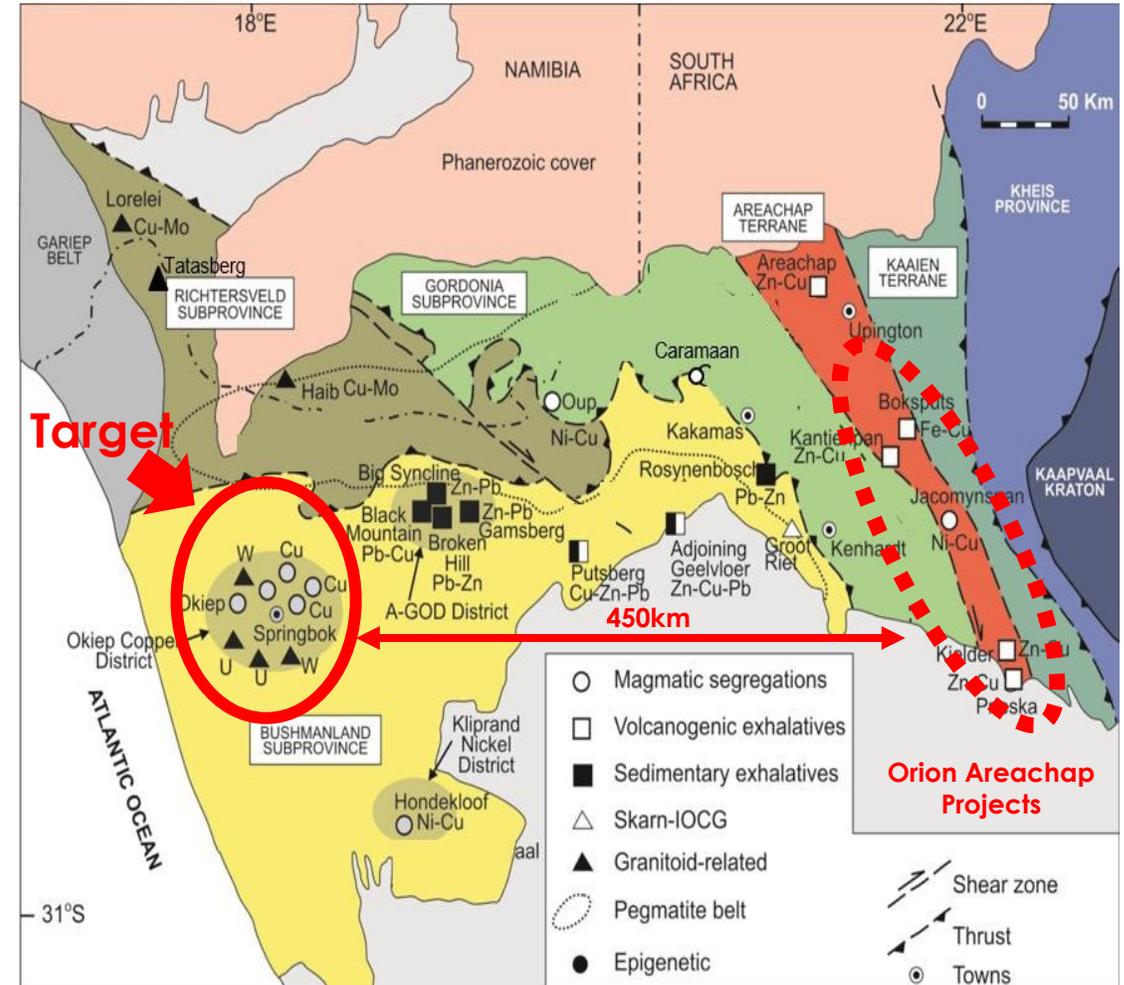
OKIEP COPPER PROJECT (OCP) (56%-100%)



Orion Minerals

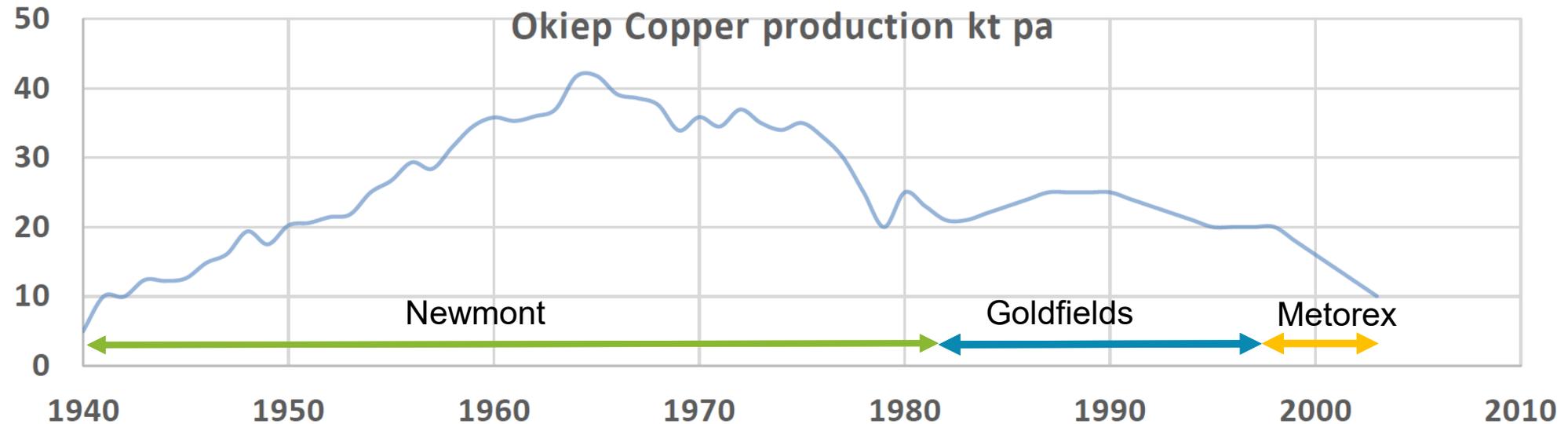
- **Exercised option** to acquire and applying for additional prospecting rights in the Okiep Copper Complex (OCC):
 - Historical production of +2Mt of copper
 - Non-JORC resource ex-Goldfields of 52Mt @ 1.3%
 - **JORC Mineral Resource of 11.5Mt at 1.4% Cu, containing 159,000 tonnes Cu**
 - Tremendous exploration upside
- Promises outstanding operational synergies with Orion's Prieska Copper-Zinc Project, located 450km east of OCC
- Total acquisition cost, payable in stages in cash and shares, of:
 - Purchase price: ~AUD7.1million (Cash 24% : Shares 76%)
 - Deferred Payment subject to exploration success ~AUD9.1m (100% shares)

Significant opportunity for Orion to develop a second base metal production hub alongside Prieska



Refer ASX/JSE releases 2 February 2021, 10 February 2021, 29 March 2021 and 2 August 2021

OKIEP – HISTORICAL PRODUCTION PROFILE



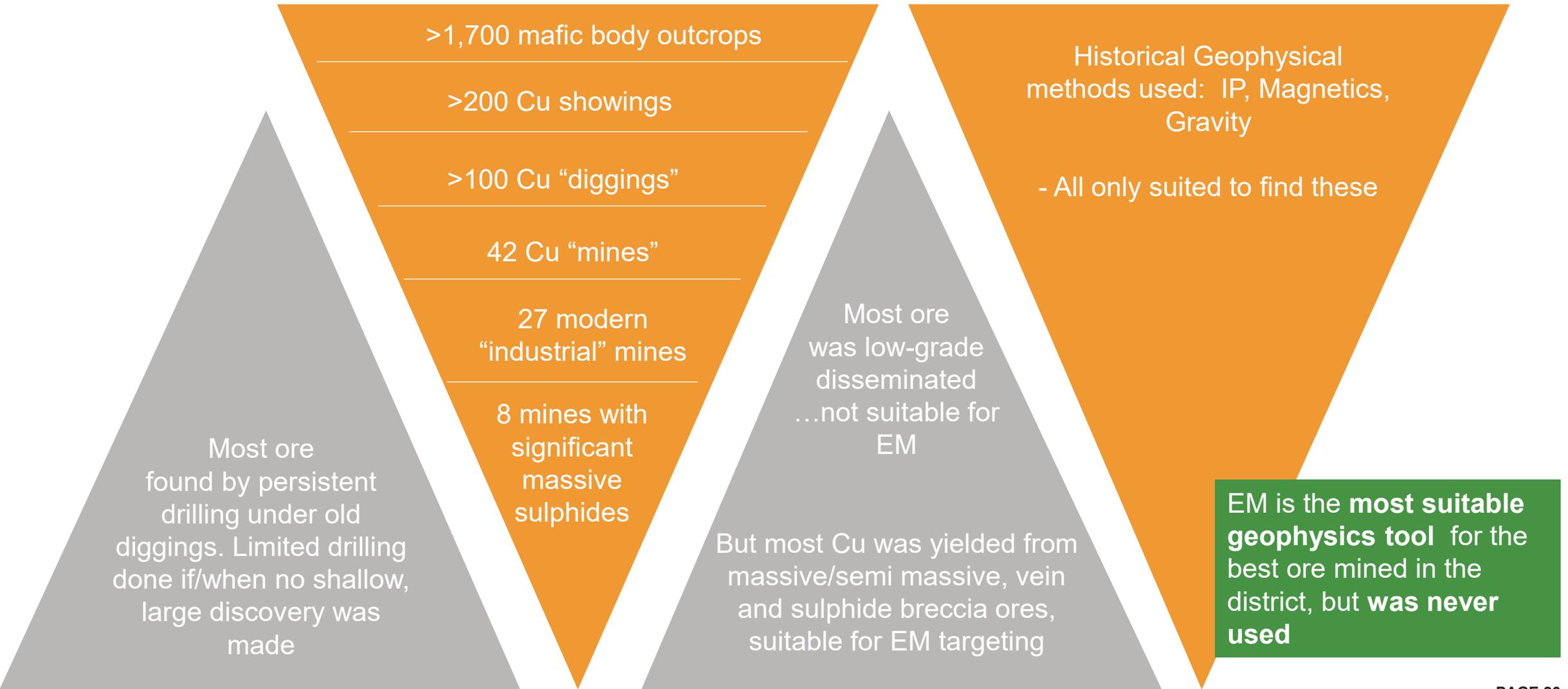
- **Produced 2.1Mt Cu from 121Mt ROM @ 1.9% Cu**
 - Peaked at 2.4Mtpa ROM, mainly from underground mining
 - Ore sourced from 42 separate mines within the district (20km radius)
 - Consistently achieved >90% plant recoveries to >30% Cu in concentrate

Refer ASX/JSE release 2 February 2021

OKIEP DISTRICT – MODERN EXPLORATION/ EM OPPORTUNITY



Orion Minerals



OCP – FLAT MINES SCOPING STUDY INDICATES ROBUST ECONOMICS

- Industrial Development Corporation (IDC) intend to be our partners
- Foundation phase is modelled for 12 years
 - Concurrent exploration targeting mine expansion
- Scoping Study indicates potential for robust pilot-phase mine:
 - Production for the pilot phase of 9Mt at 1.29% Cu producing 102kt of copper in saleable concentrates
 - First production possible within 16 months of the start of construction
- **Capital of AUD58 million (including 15% contingency)**
- **All-in-sustaining costs of USD4,478/t (USD2.03/lb) of copper sold**
- **NPV₁₀ (post tax) of AUD114million (at USD7,593/ton Cu)**
- **All-in-sustaining margin of 40%**
- Average annual undiscounted free cash flows of AUD32 million post-tax
- Break-even grade of 0.8% Cu for both un-optimised open pit and underground mining operations





Orion Minerals

Appendices

PCZM PROJECT BFS 2020: EXECUTIVE DASHBOARD

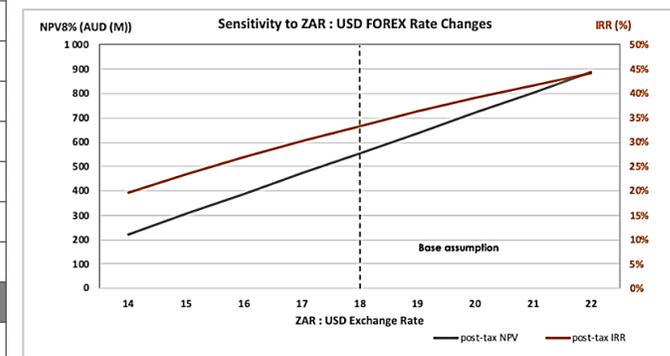


Orion Minerals

Key assumptions and Project Performance Parameters

| Price and FX Assumptions | Unit | Value | Financial Performance | Unit | Value | Unit | Value |
|--|-----------|-------------|--|----------|--------|----------|--------|
| Metal price - Cu | USD/t | 6,680 | NPV (pre-tax) @8% discount rate | ZAR (M) | 8,566 | AUD (M) | 779 |
| Metal price - Zn | USD/t | 2,337 | NPV (post-tax) @8% discount rate | ZAR (M) | 6,069 | AUD (M) | 552 |
| Exchange rate | ZAR : USD | 18 : 1 | IRR (pre-tax) | % | 39% | % | 39% |
| Exchange rate | ZAR : AUD | 11 : 1 | IRR (post-tax) | % | 33% | % | 33% |
| Exchange rate | AUD : USD | 1.64 : 1 | Payback from first production | years | 2.4 | years | 2.4 |
| Production metrics | Unit | Value | Undiscounted free cash flow (pre-tax) | ZAR (M) | 17,691 | AUD (M) | 1,619 |
| Life of Mine (Phase 1) | Years | 11.5 | Peak funding | ZAR (M) | 4,542 | AUD (M) | 413 |
| Treatment plant capacity | Mtpa | 2.4 | Project Cost Metrics | Unit | Value | Unit | Value |
| Phase 1 tonnage - ROM | kt | 25,250 | Average cash operating unit cost (C1) | ZAR/t | 807 | AUD/t | 73 |
| ROM Plant Feed Grade - Cu - U/G (O-Pit) | % | 1.0 (1.3) | All-in-sustaining cost per unit ROM t | ZAR/t | 972 | AUD/t | 88 |
| ROM Plant Feed Grade - Zn - U/G (O-Pit) | % | 3.3 (2.4) | All-in-sustaining cost per unit Cu eq t sold | USD/t Cu | 3,531 | AUD/t Cu | 5,779 |
| Overall Plant Recovery - Cu | % | 83.9% | All-in-sustaining cost per unit Zn eq t sold | USD/t Zn | 828 | AUD/t Zn | 1,355 |
| Overall Plant Recovery - Zn | % | 81.9% | Price received (net of NSR) - Cu | USD/t Cu | 6,604 | AUD/t Cu | 10,807 |
| Concentrate tonnage - Cu - U/G (O-Pit) | kt | 1,071 (54) | Price received (net of NSR) - Zn | USD/t Zn | 1,588 | AUD/t Zn | 2,599 |
| Concentrate tonnage - Zn - U/G (O-Pit) | kt | 1,256 (46) | All-in-sustaining margin | % | 47% | % | 47% |
| Concentrate grade UG - Cu - U/G (O-Pit) | % | 19.8 (25.5) | Operating breakeven grade (Cu eq) | % | 1.0% | % | 1.0% |
| Concentrate grade UG - Zn - U/G (O-Pit) | % | 52.9 (35.0) | Project Cashflows | Unit | Value | Unit | Value |
| NSR as % of metal price - Cu - U/G (O-Pit) | % | 99.3 (92.1) | LoM net revenue | ZAR (M) | 43,404 | AUD (M) | 3,946 |
| NSR as % of metal price - Zn - U/G (O-Pit) | % | 68.4 (51.3) | LoM operating costs (plus State Royalty) | ZAR (M) | 20,082 | AUD (M) | 1,826 |
| Metal sold (in concentrates) - Cu | tonnes | 226,000 | Project Start-up Capital Expenditure | ZAR (M) | 4,100 | AUD (M) | 372 |
| Metal sold (in concentrates) - Zn | tonnes | 680,000 | Sustaining Capital Expenditure | ZAR (M) | 1,510 | AUD (M) | 137 |
| Total Sales as Cu equivalent | tonnes | 386,000 | Income Tax | ZAR (M) | 4,865 | AUD (M) | 442 |
| Total Sales as Zn equivalent | tonnes | 1,644,000 | Cash Flow After Tax | ZAR (M) | 12,826 | AUD (M) | 1,166 |

| NPV Sensitivity (AUD (M)) | % Change | -15% | -10% | -5% | 0% | +5% | +10% | +15% | 0% |
|---------------------------|----------|------------------------------------|------|------|------|------|------|-------|------|
| Zn Price USD/lb | | 0.90 | 0.95 | 1.01 | 1.06 | 1.11 | 1.17 | 1.22 | 1.06 |
| Cu Price USD/lb | | 2.58 | 2.73 | 2.88 | 3.03 | 3.18 | 3.33 | 3.48 | 3.03 |
| % Change | ZAR:USD | post-tax NPV (at 8% discount rate) | | | | | | | IRR |
| -15% | 15.30 | 112 | 185 | 257 | 329 | 400 | 471 | 541 | 25% |
| -10% | 16.20 | 176 | 252 | 328 | 403 | 478 | 553 | 629 | 28% |
| -5% | 17.10 | 238 | 319 | 398 | 477 | 557 | 636 | 716 | 31% |
| 0 | 18.00 | 301 | 385 | 468 | 552 | 636 | 719 | 804 | 33% |
| +5% | 18.90 | 363 | 451 | 538 | 626 | 714 | 803 | 892 | 36% |
| +10% | 19.80 | 425 | 517 | 609 | 701 | 793 | 887 | 981 | 38% |
| +15% | 20.70 | 487 | 583 | 679 | 775 | 873 | 971 | 1,070 | 41% |



Level of Accuracy of Financial Model \pm 15%, LoM = Life of Mine, NSR = Net Smelter Return, NPV = Net Present Value, IRR = Internal Rate of Return

There is a low level of geological confidence associated with Inferred Mineral Resources and therefore there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources so that the Production Target or financial forecast information referred to in this Study will be realised.

Refer ASX/JSE release 26 May 2020

OCP – FLAT MINES PILOT PROJECT SCOPING STUDY



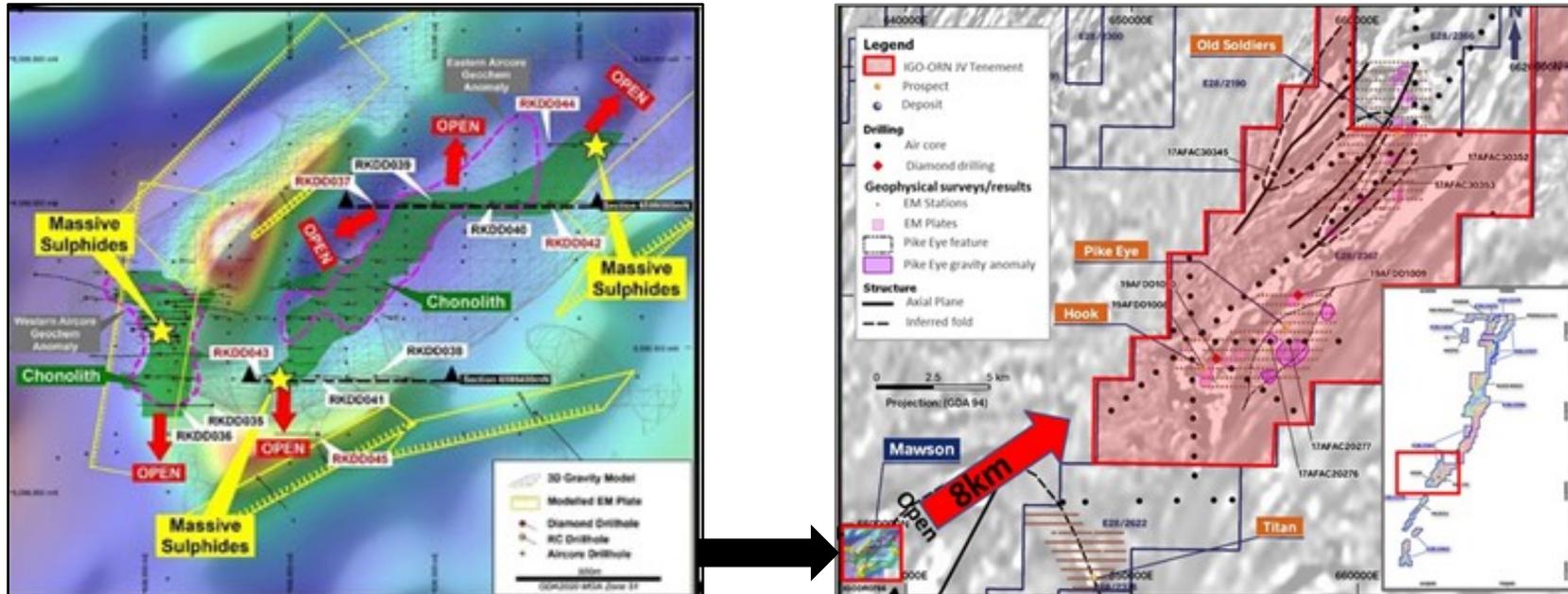
| Executive Dashboard | | | | | | | |
|--|-----------|----------|--|----------|------------|----------|--------|
| Price and Forex Assumptions | | | Financial Performance | | | | |
| | Unit | Value | | Unit | Value | Unit | Value |
| Metal price - Cu | USD/t | 7,593 | NPV (pre-tax) approximated @10% discount rate | ZAR (M) | 1,896 | AUD (M) | 170 |
| Metal price – Au | USD/oz | 1,889 | NPV (post-tax) approximated @10% discount rate | ZAR (M) | 1,267 | AUD (M) | 114 |
| Metal price – Ag | USD/oz | 24 | IRR (pre-tax) | % | 44% | | |
| Exchange rate | ZAR : USD | 17.2 :1 | IRR (post-tax) | % | 37% | | |
| Exchange rate | ZAR : AUD | 11 .1: 1 | Payback from first production | years | 3.25 years | | |
| Production Metrics | | | Project Cost Metrics | | | | |
| | Unit | Value | | Unit | Value | Unit | Value |
| Life of Mine (Proof-of-Concept Phase) | Years | 11.8 | Undiscounted free cash flow (pre-tax) | ZAR (M) | 4,607 | AUD (M) | 413 |
| Treatment plant capacity | ktpa | 780 | Peak funding | ZAR (M) | 643 | AUD (M) | 58 |
| Proof-of-Concept Phase tonnage - RoM | kt | 9,011 | Average cash operating unit cost (C1) | ZAR/t | 781 | AUD/t | 70 |
| Proof-of-Concept Phase tonnage – RoM U/G | kt | 7,479 | All-in-sustaining cost per unit RoM t | ZAR/t | 873 | AUD/t | 78 |
| Proof-of-Concept Phase tonnage – RoM O-Pit | kt | 1,531 | All-in-sustaining cost per unit Cu t sold | USD/t Cu | 4,478 | AUD/t Cu | 6,904 |
| RoM Plant Feed Grade - Cu - U/G | % | 1.29% | Price received (net of NSR) - Cu | USD/t Cu | 7,441 | AUD/t Cu | 11,473 |
| RoM Plant Feed Grade - Cu – O-Pit | % | 1.28% | All-in-sustaining margin | % | 40% | | |
| RoM Plant Feed Grade – Au | g/t conc | 2.2 | Operating breakeven grade - Cu | % | 0.83% | | |
| RoM Plant Feed Grade – Ag | g/t conc | 34 | Project Cash Flows | | | | |
| | Unit | Value | | Unit | Value | Unit | Value |
| Overall Plant Recovery - Cu | % | 87.4% | LoM net revenue | ZAR (M) | 12,712 | AUD (M) | 1,142 |
| Concentrate tonnage - Cu | kt | 386 | LoM operating costs (plus State Royalty) | ZAR (M) | 7,320 | AUD (M) | 657 |
| Concentrate grade - Cu | % | 25.8% | Project Start-up Capital Expenditure | ZAR (M) | 595 | AUD (M) | 53 |
| NSR as % of metal price - Cu | % | 96.9% | Sustaining Capital Expenditure | ZAR (M) | 188 | AUD (M) | 17 |
| Metal sold (in concentrates) - Cu | Tonnes | 102,329 | Income Tax | ZAR (M) | 1,368 | AUD (M) | 123 |
| Total Cu Sales | Tonnes | 386,787 | Cash Flow After Tax | ZAR (M) | 3,241 | AUD (M) | 291 |

Level of Accuracy of Financial Model ± 25%, LoM = Life of Mine, NSR = Net Smelter Return, NPV = Net Present Value, IRR = Internal Rate of Return

There is a low level of geological confidence associated with Inferred Mineral Resources and therefore there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target or financial forecast information referred to in this Study will be realised. Source: *ORN Okiep Financial Model revision 4.0*

EXPLORATION: AUSTRALIA FRASER RANGE (10-30% ORN FREE CARRIED) – JV WITH IGO

Location of Pike Project (IGO: ORN JV) relative to Legend Mining's Mawson Ni-Cu discovery



Pike Project

- ORN 30% free-carried by IGO through to first Pre-Feasibility study
- 2019 diamond drilling intersected Ni-Cu sulphides in ultramafic intrusive and same geological features as Mawson
- **Significant off-hole conductor to be tested this quarter**

Refer Orion March 2021 Quarterly Activities Report

SENIOR MANAGEMENT



Errol Smart

*Managing Director &
Chief Executive Officer*

Errol is a Geologist, with professional registration for JORC purposes. He has more than 28 years' industry experience in exploration, mine development and operations. He is also the Chairman of the Junior and Emerging Miners Forum of the Minerals Council South Africa.



Martin Bouwmeester

*Chief Financial Officer &
Company Secretary*

Fellow of CPA Australia with over 20 years' experience in exploration, mine development and Operations. Key member of the team which evaluated, funded and developed the Fosterville Gold Mine.



Walter Shamu

Chief Operating Officer

Mining engineer with a B.Eng (Mining Engineering) and Masters in Engineering (Rock Mechanics), as well as LLB (Law). He has more than 20 years' experience in exploration, mining development and mining operations throughout Africa.



Michelle Jenkins

*Executive: Finance &
Administration*

Chartered Accountant with more than 20 years' experience in exploration and mining, with a BSc Hons (Geology) and a Bachelor of Accounting Science. Has held role of CFO/FD with a number of exploration and mining companies throughout Africa.



Louw van Schalkwyk

*Consulting
Geologist*

Geologist with over 30 years' experience with major South African mining houses. Part of the team that discovered the 60Mt Gamsberg East Zinc deposit in the Northern Cape. Also discovered the Byumba Gold deposit in Rwanda in 2008.



Nelson Mosiapoa

*Group Corporate Social
Responsibility Advisor*

Founder and trustee of the Mosiapoa Family Trust. Policy scholar of science and technology; served on the policy unit of the governing party in South Africa prior to the first democratic elections.

BOARD OF DIRECTORS



Denis Waddell

Chairman

Denis is a Chartered Accountant with extensive experience in corporate finance and management of exploration and mining companies.

Errol Smart

Managing Director & Chief Executive Officer

Errol is a Geologist, with professional registration for JORC purposes. He has more than 28 years' industry experience in exploration, mine development and operations. He is also the Chairman of the Junior and Emerging Miners Forum of the Minerals Council South Africa.

Alexander Haller

Non-Executive Director

Alexander is a Partner at Zachary Capital Management, which provides advisory services to private investment companies. He is an ex-JP Morgan advisor on corporate mergers and acquisitions.

Mark Palmer

Non-Executive Director

Mark is an investment banker with 12 years' experience working with entities in Australia. He has been Investment Director at Tembo Capital since 2015.

Godfrey Gomwe

Non-Executive Director

Godfrey is the former CEO of Anglo American's Thermal Coal business and he served as Executive Director of Anglo American South Africa until August 2012.

Tom Borman

Non-Executive Director

Tom is a respected and highly experienced global mining executive who served more than 11 years working for the BHP Billiton Group in various senior managerial roles, including that of Chief Financial Officer of an Australian-listed mining company.



Orion Minerals

For further information, contact:

Orion Minerals Limited
Suite 617, 530 Little Collins Street
Melbourne Vic 3000
Australia
Phone: +61 (0)3 8080 7170
Email: info@orionminerals.com.au
Website: www.orionminerals.com.au
ASX/JSE: ORN