Orion Minerals

ASX/JSE RELEASE: 20 October 2020

Orion Minerals Commences High-Impact Exploration Drilling to Test Prospective Near-Mine and Regional Targets at Prieska

Initial diamond drilling underway at exciting Kielder VMS prospect, just 15km from mine infrastructure

- **Drilling has commenced with two diamond rigs operating at the Kielder Project, located 15km from the planned mill at the Prieska Copper-Zinc Project in the Northern Cape, South Africa.**
- **Drilling will test outcropping VMS-style mineralisation with results of up to 4.8m @ 0.46% Cu, 6.18% Zn and 15g/t Ag from historical shallow drilling by Newmont SA in the 1970s.**
- **The drilling campaign will then test three additional prospects on Orion's Areachap prospecting rights:**
  - **Drilling at Boksputs will test an electromagnetic response below known copper mineralisation;**
  - **Drilling at Kantienpan will investigate the potential that reported historical Iscor drilling results under-reported copper and zinc grades; and**
  - **At the Jacomynspan Ni-Cu deposit, drilling will test for high grade nickel-copper mineralisation close to surface and provide samples for metallurgical test work.**

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

"We have compelling drill targets right across our Areachap tenement holdings in the Northern Cape that we have been itching to test but have not been able to, because of the lockdown requirements for responsible management of the Covid-19 pandemic. With South Africa finally moving to Lockdown Level 1 from 21 September 2020, we are absolutely delighted to be in a position to finally resume exploration field work after a nine-month suspension. Our management team has used the lockdown period to progress licensing and access agreements, and we are now about to re-commence an exciting new phase of exploration across the belt.

'The Prieska Copper-Zinc Mine is one of the few fully permitted and development-ready base metal assets worldwide, underpinned by a compelling investment case outlined in the updated BFS of May 2020 which included an NPV (at an 8% discount rate) of AUD779 million from a 12-year foundation phase mine, planned to produce ~22ktpa of copper and ~70ktpa of zinc[1].

"Any new discoveries in the near-mine environment or further afield across our Areachap licences will benefit from their proximity to the world-class infrastructure we are planning to develop, building on the existing brownfields mine. Our exploration team believes there is exceptional potential both to grow production and extend mine life, both within the mine itself and in the surrounding tenements. We believe there is also potential for a major nickel-copper-cobalt-PGE mine at Jacomynspan, 65km north of the Prieska Project.

"My expectation is that prices for 'new era' metals required for the decarbonisation of the global economy are set to surge in coming years, and Orion is ideally placed to use its first-mover advantage and proven operations model to rapidly expand our business in the Northern Cape."

[1] The production target and forecast financial information were first reported in ASX announcement of 26 May 2020: "Updated Feasibility Study Delivers..." available to the public on http://www.orionminerals.com.au/investors/asx-jse-announcements/. All material assumptions underpinning the production target and forecast financial information in the initial report continue to apply and have not materially changed.

Orion Minerals Limited (**ASX/JSE: ORN**) (**Orion** or the **Company**) is pleased to announce that it has commenced a new phase of high-impact exploration drilling targeting near-mine and regional VMS copper-zinc and nickel-copper targets at its Prieska Copper-Zinc Project (**Prieska Project**) in South Africa's Northern Cape.

The Company has mobilised two diamond drill rigs to its Areachap tenements, with a total of ten diamond drill holes for a total of 1,800m and nine Reverse Circulation (**RC**) drill holes for a total of 640m planned for this campaign.

Drilling will initially be undertaken at the K3 and K6 prospects within the Kielder Project, located on the Dooniespan prospecting right which is located 15km north-west of the planned Prieska Copper-Zinc Mine (**PCZM**), within the Prieska Project (Figure 1).

On completion of three planned holes at K3 and K6, the drill rigs will be mobilised to the northern Prospecting Rights where drilling will be carried out on the Company's Namaqua-Disawell and Masiqhame prospecting rights (Figure 1) at the Boksputs, Kantienpan and Jacomynspan prospects.

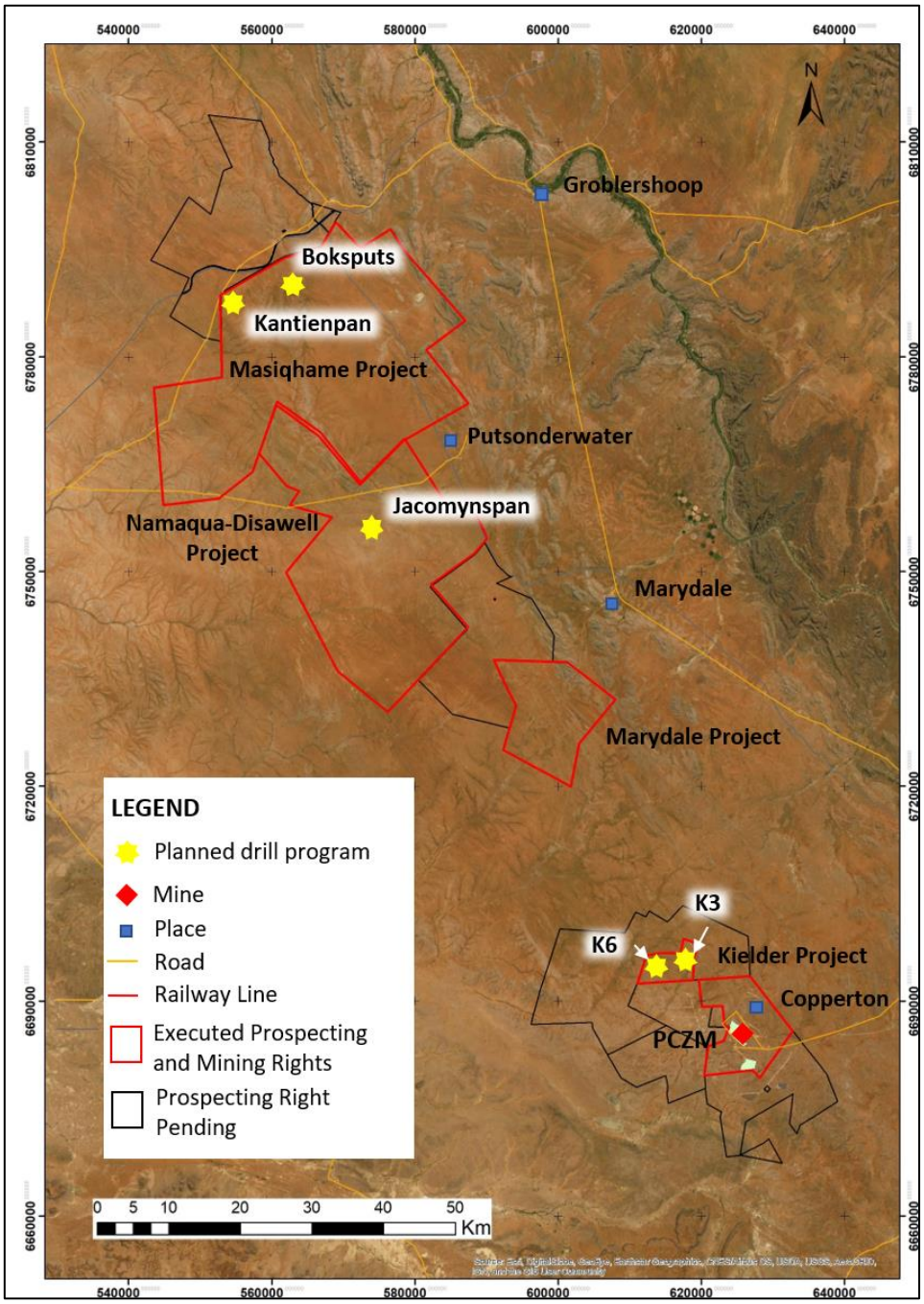

Figure 1: Location map showing the prospects on Orion's tenements in the Areachap belt where drilling will take place during the current drilling program.

Prieska Project (Kielder)

Newmont South Africa (**Newmont**) discovered volcanogenic massive sulphide (**VMS**) style copper-zinc mineralisation at three prospects on the Kielder Project in 1976.

The drilling records and exploration reports available to Orion are incomplete, but include reports of feasibility study work for open pit mining and consideration by Anglovaal and Newmont of a potential joint venture, with milling of the Kielder open pit ore to be undertaken at the nearby Prieska Copper Mine mill, that was operating just 15km away at the time.

The tonnages and grades of the ore mentioned in the feasibility study reports cannot be verified by Orion due to incomplete drilling and exploration records and are therefore not reported in this announcement.

Available Newmont reports indicate that K3 and K6 prospects had returned the best results with maximum intersections of **4.8m @ 0.46% Cu and 6.18% Zn from 116m** in KDH15, at prospect K6, and **13.08m @ 0.23% Cu and 3.69% Zn from 179.21m** in KDH3, at prospect K3. A 1% Zn cut-off was used with no top-cut. Where present, internal waste is included in the intersections.

Drilling only tested the mineralisation at shallow depths with available data showing most of the intersections at depths of less than 200m. At K3, Newmont drill tested up to the border of the tenement boundary. The mineralisation potentially continues to the east of the boundary, where Orion has a pending prospecting right application.

Apart from verifying the Newmont data, the planned holes to be drilled by Orion (Figure 2) will provide drill core for mineralisation characterisation purposes and to provide a platform for follow-up down-hole geophysics.

Orion has demonstrated the value of applying modern, high-powered down-hole geophysics at the nearby PCZM VMS deposit, where down-hole geophysics assisted in guiding drilling to define a current Mineral Resource of 30.49Mt @ 1.2% Cu, 3.7% Zn in accordance with the JORC Code[2] (19.13Mt at 1.18% Cu, 3.59% Zn Indicated Resources and 11.36Mt @ 1.2% Cu, 3.80% Zn Inferred Resources).

Several remaining geophysical targets indicate further extensions of the PCZM deposit at depths of >1,000m below surface (refer ASX release 25 February 2019).

The shallow depth of mineralisation and the strong potential for strike and dip extensions at K3 and K6 – with the possibility of higher grades and thicknesses extending beyond the limited Newmont drilling grids – offers a significant opportunity for Orion to delineate a shallow, near-mine deposit which could become a future source of satellite ore feed to an expanded operation at PCZM.

[2] Mineral Resource reported in ASX release of 15 January 2019: "Prieska Total Resource Exceeds 30Mt @ 3.7% Zn and 1.2% Cu Following Updated Open Pit Resource" available to the public on http://www.orionminerals.com.au/investors/asx-jse-announcements/. Competent Person Orion's exploration: Mr. Errol Smart. Competent Person: Orion's Mineral Resource: Mr. Sean Duggan. Orion confirms it is not aware of any new information or data that materially affects the information included in the original market announcement. Orion confirms that all material assumptions and technical parameters underpinning the mineral resource estimates 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 been materially modified from the original market announcement.

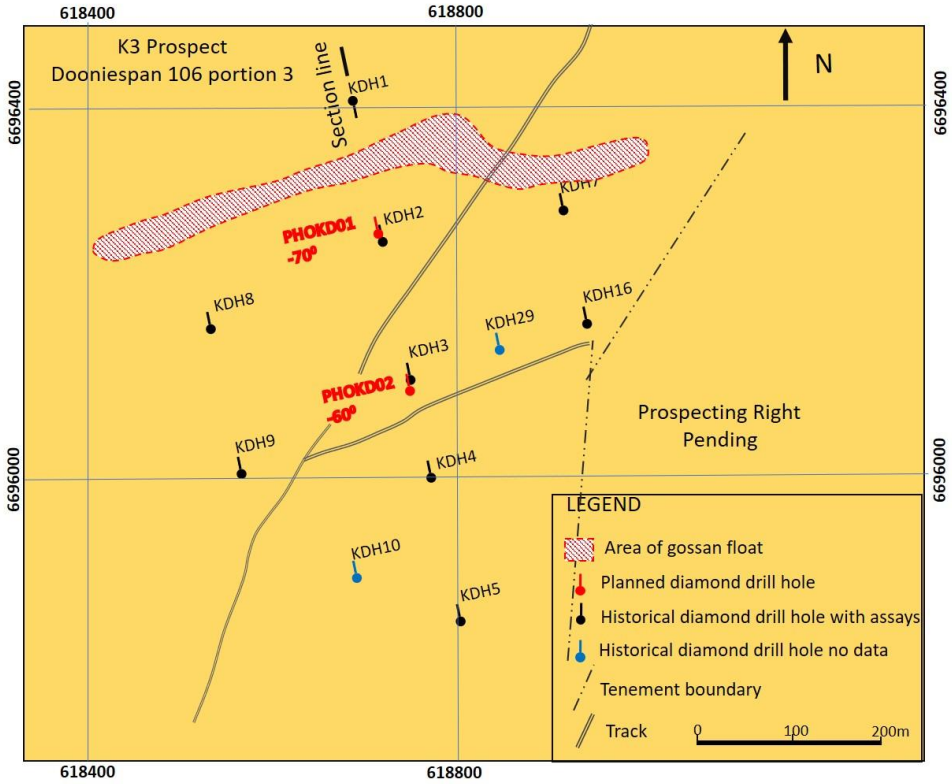

Figure 2: Map showing the historical drilling and planned diamond drill holes at K3.

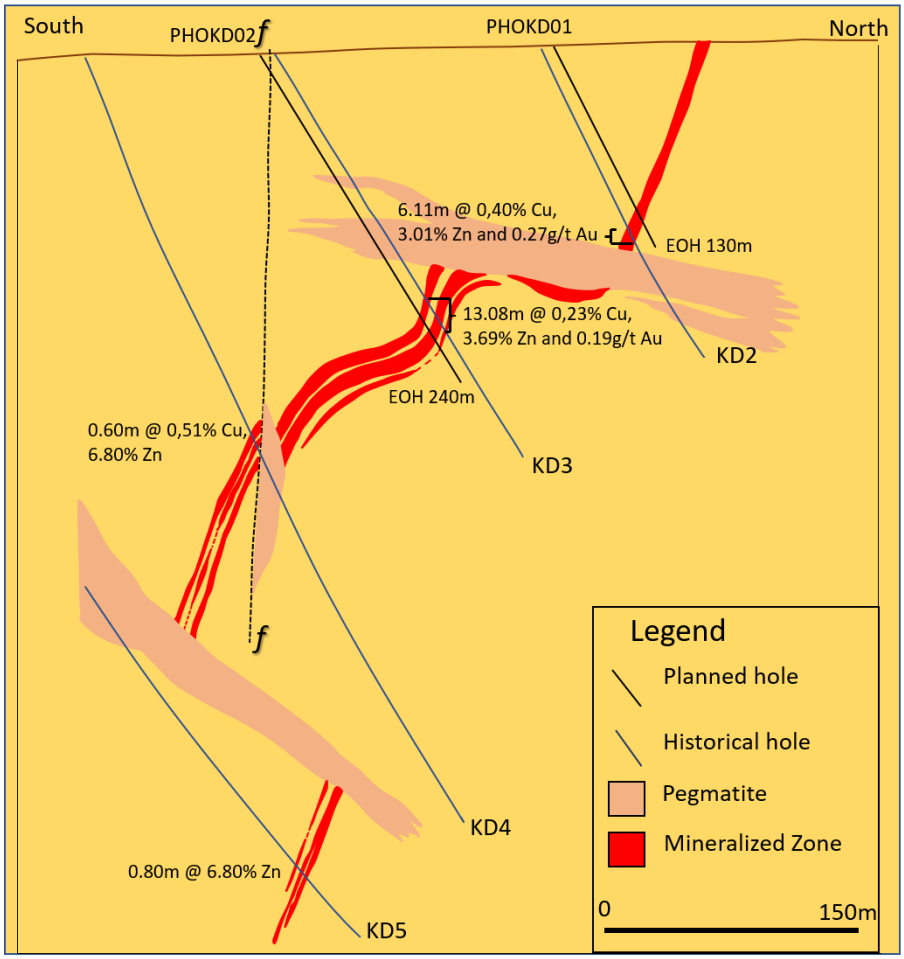

Figure 3: Cross-section showing the mineralisation at K3 as interpreted by Newmont.

Newmont reported its highest-grade drill intersections at Kielder at K6. While little of the Newmont historical drill information is available to Orion (Figure 4 and Appendix 1), available reports do indicate that the Newmont geologists found that the geophysical techniques available at the time, including electro-magnetic (**EM**) surveys, failed to detect the mineralisation at K6, rendering geophysical targeting for down-dip and along strike extensions virtually impossible.

Orion will drill a diamond hole at K6 to obtain core for mineral classification purposes and also as a platform for the application of modern high-powered geophysical methods.

The Company's exploration team believe that there is significant potential for a combined approach utilising structural analysis together with high-powered surface and down-hole geophysics as a viable targeting method for the mineralisation, which has demonstrated significant copper and zinc grades.

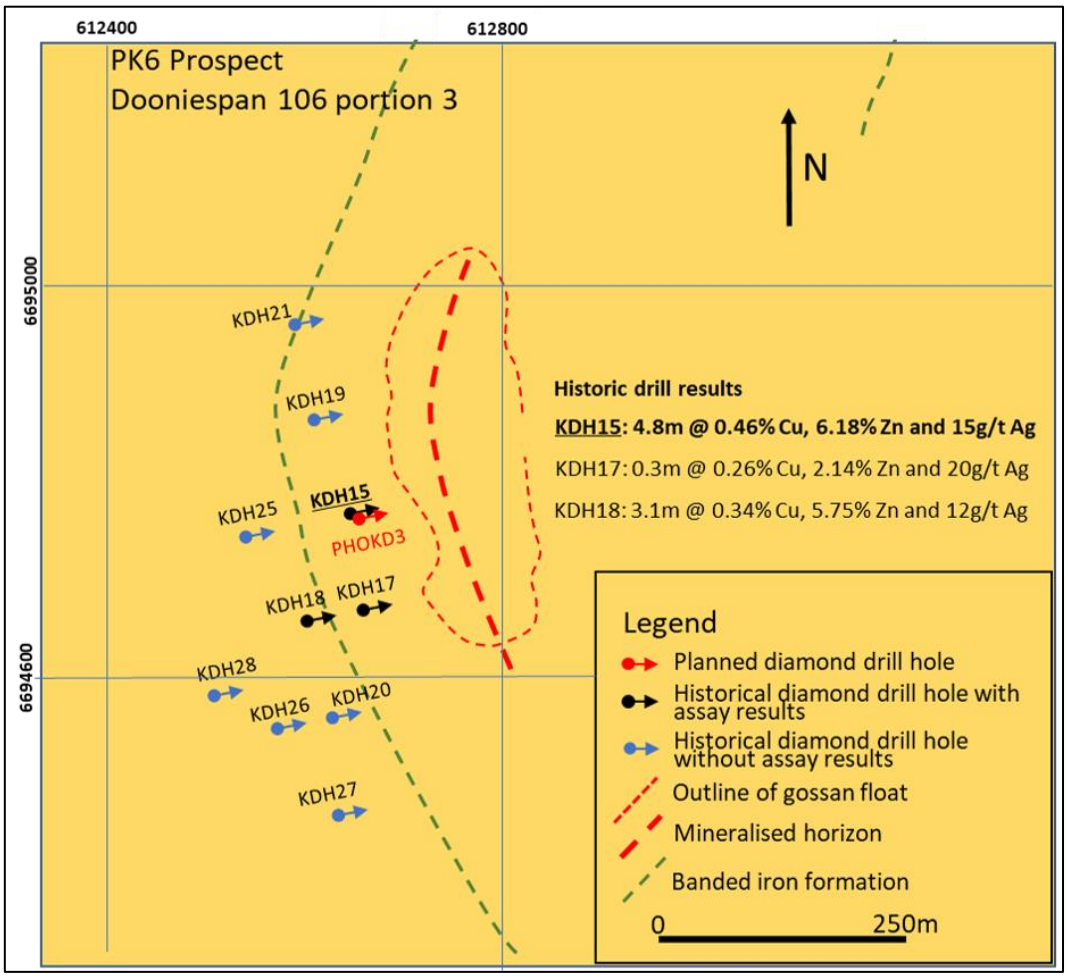

Figure 4: Map of the historical drilling at K6 also showing the planned diamond drill hole.

Boksputs

The Boksputs VMS copper prospect is situated close to the northern boundary of the Masiqhame Prospecting Right, some 125km NNW of the Prieska Project (Figure 1).

Copper mineralisation was discovered by Anglo American Corporation in 1973 and 12 shallow diamond drill holes were completed targeting the prospect. The historical data available is incomplete, but copper mineralisation was reported with intersections reported in the company reports.

Orion conducted five Fixed Loop Time Domain Electro Magnetic (**FLTDEM**) surveys over SkyTEM™ anomalies at Boksputs. At the B4 prospect (refer ASX release 24 September 2018), a plunging body of 300m X 1000m with a conductance of 400S was modelled[3].

[3] Reported in ASX release of 24 September 2018: "Fixed Loop TDEM results confirm Cu-Zn massive sulphide targets at Boksputs." available to the public on http://www.orionminerals.com.au/investors/asx-jse-announcements/. Competent Person Exploration Results: Mr. Richard Hornsey. Orion confirms it is not aware of any new information or data that materially affects the information included in the original market announcements. Orion confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The EM plate fits Orion's structural modelling following detailed mapping, with the B4 conductor developed in the Kraalkop Synform below the Anglo American drill-hole intersections (Figure 5).

Orion interprets the EM conductor down-dip of known mineralisation to be indicative of a greater concentration of massive sulphides and therefore potentially representing higher grades and widths than previously intersected, presenting a high-priority drill target.

Two vertical holes are planned to test the FLTDEM conductor as part of the new exploration program (Figures 5 and 6).

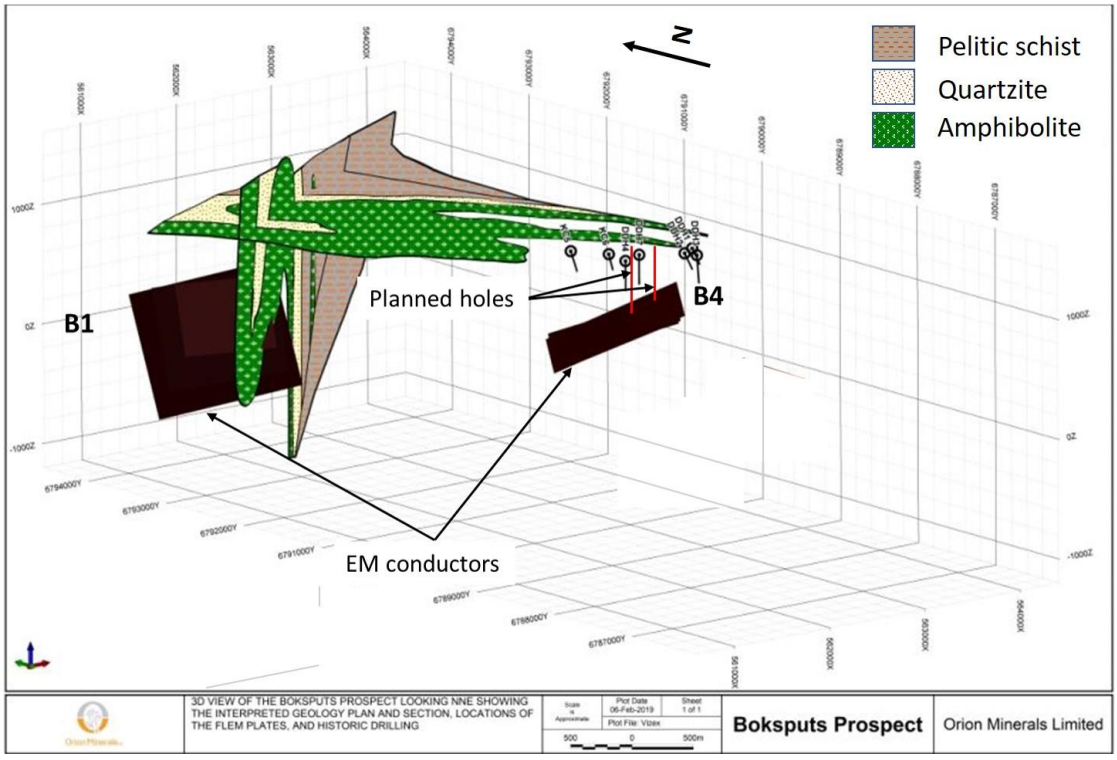

Figure 5: Three-dimensional view of the geology, EM conductor, historical drilling and planned drill holes at B4 on Boksputs.

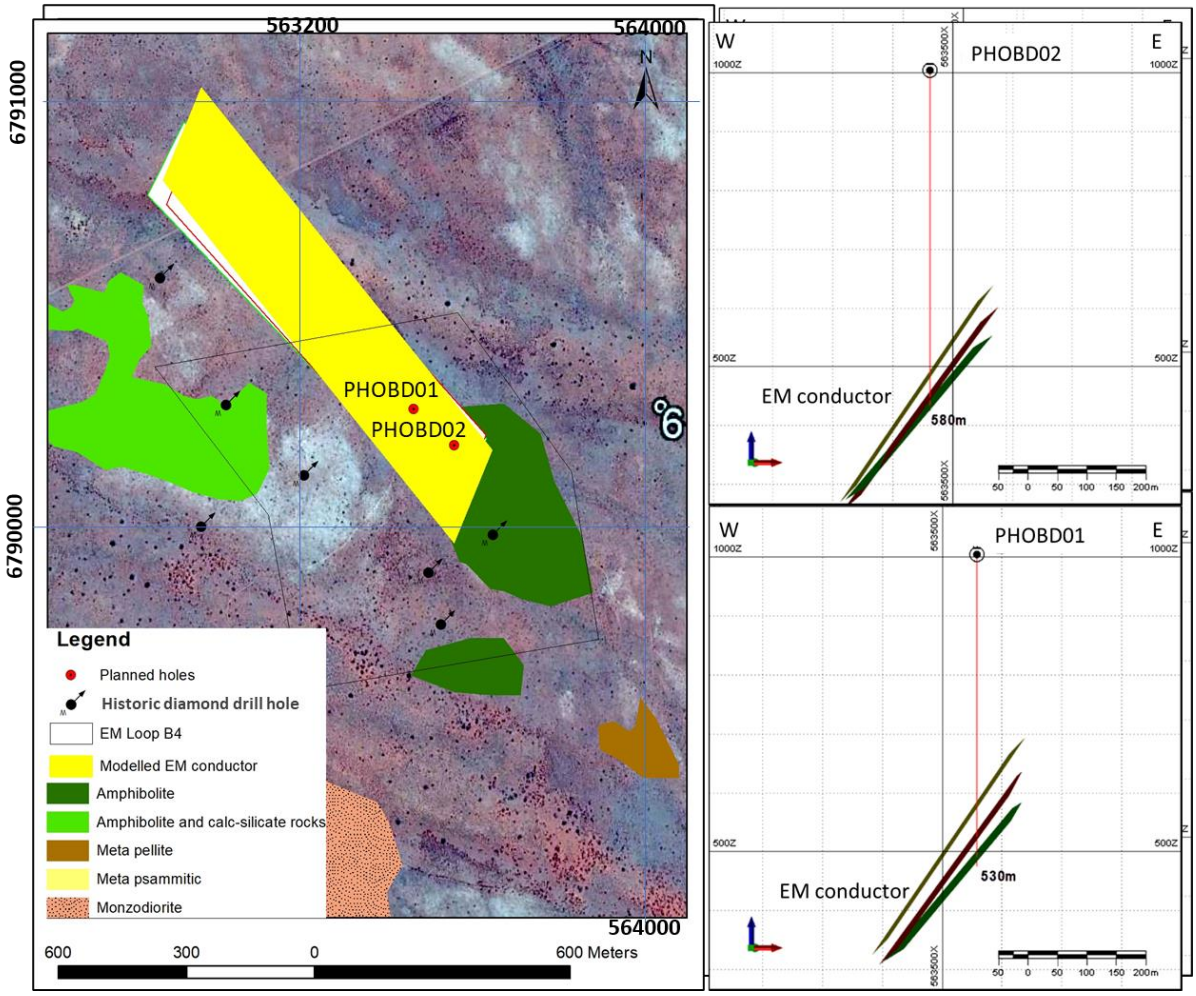

Figure 6: Map and cross-sections showing the modelled conductors and planned drilling on Boksputs.

Kantienpan

Iscor conducted drilling on the Kantienpan prospect in 1998, completing a total of thirteen diamond holes of which ten intersected mineralisation (refer ASX release 31 May 2016).

Orion's review of Iscor records has shown that Iscor reported the results from its in-house assay laboratory, for which there are no QA-QC records available, and anecdotal evidence is that certified standards were not used by Iscor at the time. Records show that check assaying of quartered core was done at an independent commercial laboratory, GoldLab Africa considered to produce high quality assaying, with samples of quartered core from four holes submitted for check assay.

Table 1 illustrates an apparent inconsistency or potential material bias identified in the assays between the GoldLab Africa and Iscor laboratory results, with GoldLab Africa reporting materially higher (13% to 115%) zinc and copper grades over almost all of the intervals that were assayed by GoldLab. The samples assayed by GoldLab did not always cover the full intersection length. This accounts for the differences in intersection lengths and intersection grades between Tables 1 and 2.

No analysis of the discrepancy by Iscor geologists is available in the records, nor any explanation as to why Iscor chose to report their own in-house assays and use those for resource estimation and feasibility studies, given the potential for material underestimation of copper and zinc grades.

Given that remaining core from the Iscor drilling is not of suitable quality to re-sample and check assay, Orion is planning to twin four intersections with short wedges off the historical holes. Four holes that are known to be open and previously used for down-hole geophysics by Orion were selected for twinning (Figure 7), with short deflections to be drilled off the mother holes. The holes are listed in Table 2.

The mineralisation at Kantienpan remains open at depth and along strike to the north, with FLTEM plates presenting attractive drill targets.

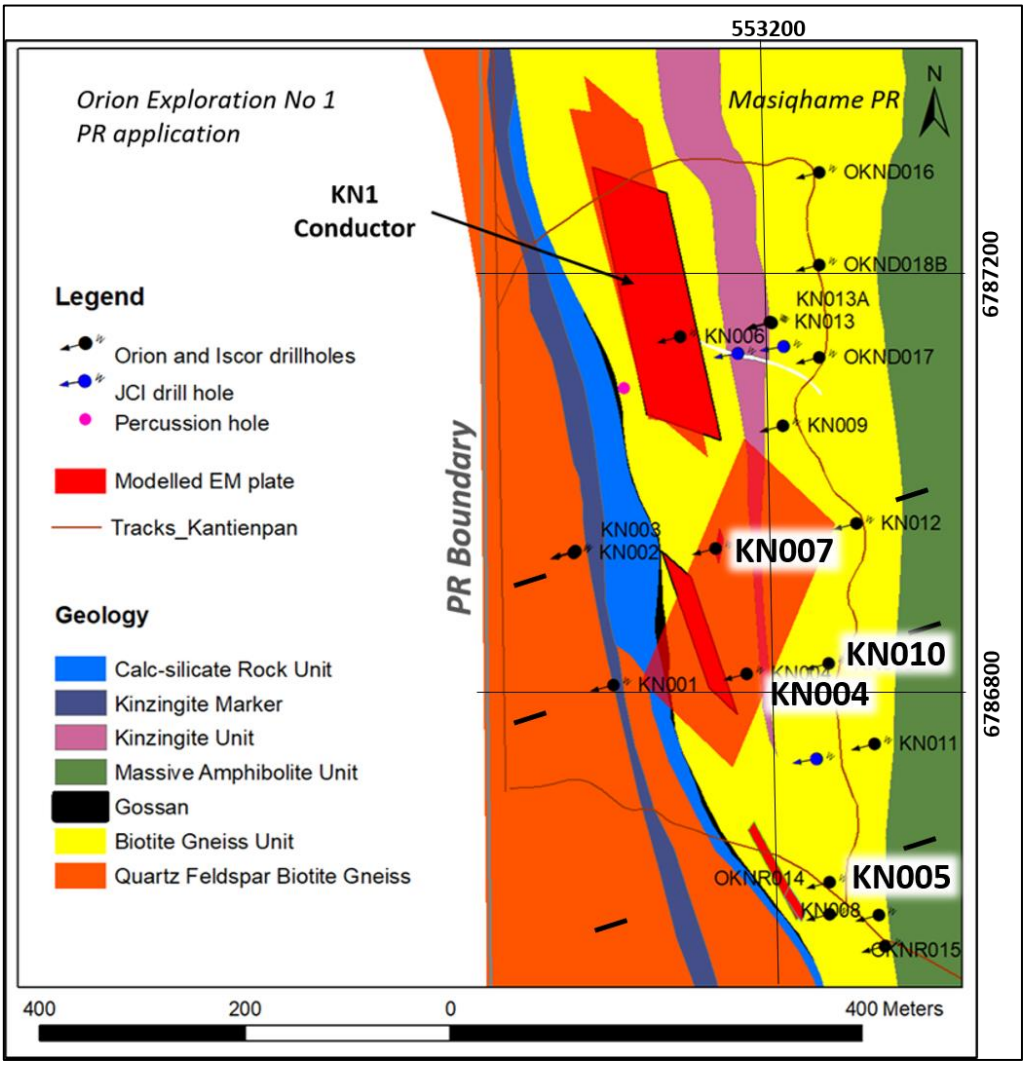

Figure 7: Map showing boreholes KN004, 005, 007 and 010 where intersections will be twinned.

Hole ID	Down hole depth		Width (m)	Iscor Laboratory		GoldLab Africa		Iscor variance to GoldLab (%)		Comment
	From	To		Cu %	Zn %	Cu %	Zn %	Cu	Zn	
KN003	192.00	196.00	4.00	0.42	3.36	0.47	3.79	-14	-13	Continuous intersection by no GoldLab Africa assay result in database for 196 - 197m interval
KN003	197.00	205.00	8.00	0.31	3.97	0.35	4.56	-12	-15	
KN004	106.89	109.89	3.00	0.06	2.21	0.07	2.53	-6	-14	
KN005	82.05	88.89	6.84	0.96	6.73	0.69	8.81	27	-31	The total intersection width 8.84m but no assay result for the 88.89 to 90.89m interval
KN006	103.69	105.90	2.21	0.22	2.23	0.22	4.79	0	-115	

Table 1: Assay results from the Iscor Laboratory and GoldLab Africa Laboratory illustrating the discrepancy in Cu and Zn concentrations reported by the Iscor and GoldLab Africa laboratories. The discrepancy is expressed as:

$$\frac{\text{(metal concentration \% by Iscor Laboratory)- (metal concentration \% by GoldLab Laboratory)}}{\text{metal concentration \% by Iscor Laboratory}} \times 100$$

Historic drill hole	Top of intersection (m)	Intersection width (m)	Cu (%)	Zn (%)	Planned twin hole	Top of wedge (m)	Planned metres (m)
KN004	106.39	9.00	0.14	1.27	KN004-D1	195	30
KN005	82.05	8.84	1.02	6.32	KN005-D1	68	30
KN007	105.96	7.00	0.57	3.15	KN007-D1	90	30
KN010	190.02	6.15	0.49	4.74	KN010-D1	175	30

Table 2: Summary of twin holes planned on Kantienpan with intersections calculated from historical Iscor data. A 0.3% Zn cut-off was used to calculate the intersections. No top cut was used, and internal waste was included.

Jacomynspan

The previous owners, Namaqua Nickel, conducted a Feasibility Study and applied for Mining Right on an underground mine with a Mineral Resource of 6.8Mt at 0.57% Ni, 0.33% Cu, 0.03% Co, 0.19g/t Pt, 0.12g/t Pd, 0.07g/t Au at Jacomynspan reported in accordance with the JORC Code[4] (1.8 Mt at 0.55% Ni, 0.29% Cu, 0.03% Co, 0.17g/t Pt, 0.11g/t Pd, 0.07 g/t Au Indicated Resources and 5.0 Mt @ 0.58% Ni, 0.35% Cu, 0.03% Co, 0.19g/t Pt, 0.13g/t Pd, 0.07g/t Au Inferred Resources).

A combination of recent price increases for "new era" metals (Ni, Cu, Co, PGE), the strong outlook for these metals against the backdrop of accelerating decarbonisation of the world economy, and advances in processing technologies, has prompted Orion to re-evaluate the proposed mine plan for Jacomynspan including a review of the potential to treat both oxide ore and open pit sulphide ore with the inclusion of beneficiation.

Drilling is planned to test the economic potential of shallow Ni-Cu-Co-PGE and Au mineralisation on the Jacomynspan Ni-Cu deposit (Figure 8). Over the 3km strike length of the deposit, the upper 150m remains largely untested. The planned drilling will test for high-grade mineralisation close to surface and obtain material for metallurgical test work.

JMP030 intersected higher grade mineralisation of 0.29% Cu and 0.40% Ni over a true width of 25m at a vertical depth of 110m in harzburgite, developed on the hanging wall contact of the ultramafic intrusion (Figure 9) (refer ASX release 8 March 2018). 100m up-dip, JMP028 intersected oxidised tremolite schist with a true thickness of 19.92m with grades of 0.18% Cu and 0.23% Ni and no harzburgite recorded in the hole.

There is a possibility that JMP028 was collared in the footwall of the harzburgite unit and that the high-grade harzburgite mineralisation has not pinched out between drill holes JMP030 and 028 (Figure 9).

Diamond drill hole PHJD1 is planned to test for high-grade mineralisation and harzburgite up-dip of JMP 30. Nine RC holes are also planned on three sections to obtain metallurgical samples of the oxide and shallow sulphide mineralisation on this section.

Should drilling discover the existence of high grade mineralisation close to surface and metallurgical test work indicate that nickel and copper can be leached from the oxides, the possibility of developing a large scale, open pit operation on the Jacomynspan deposit will be further investigated.

[4] Mineral Resource reported in ASX release of 8 March 2018: "Geological Modelling Confirms Compelling Targets Surrounding the Jacomynspan Ni-Cu-Co-PGE Intrusive" available to the public on http://www.orionminerals.com.au/investors/asx-jse-announcements/. Competent Person Mineral Resource: Mr. Jeremy Witley. Orion confirms it is not aware of any new information or data that materially affects the information included in the original market announcement. Orion confirms that all material assumptions and technical parameters underpinning the mineral resource estimates 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 been materially modified from the original market announcement.

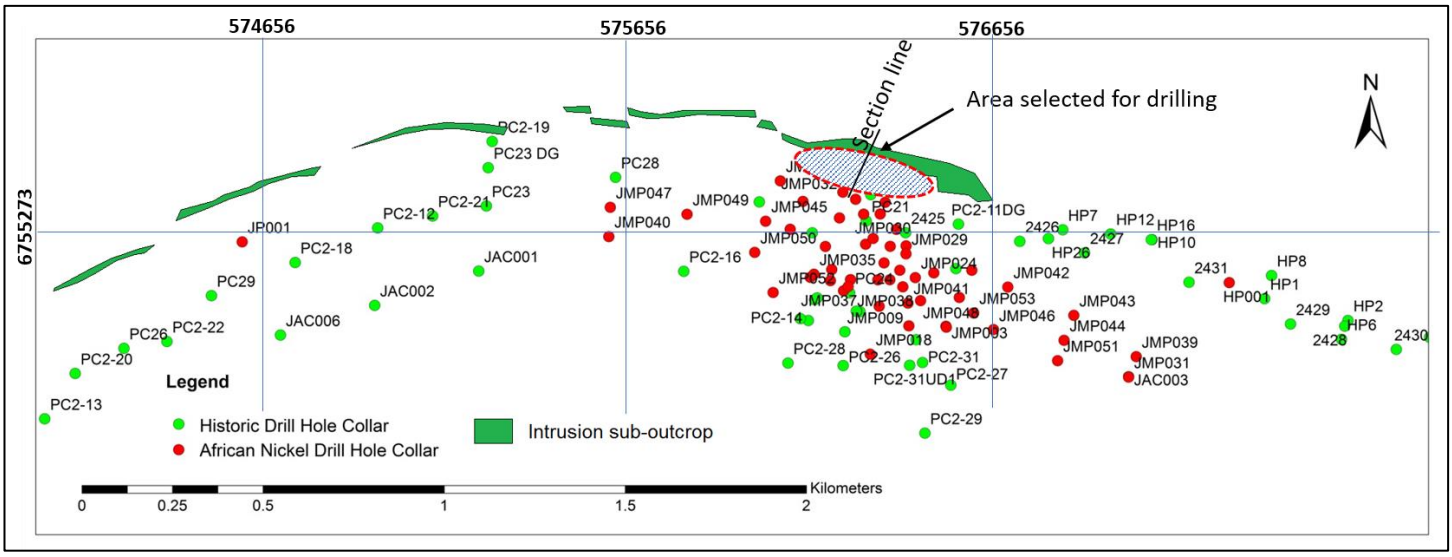

Figure 8: Map of the Jacomynspan Prospect with the planned drill area indicated.

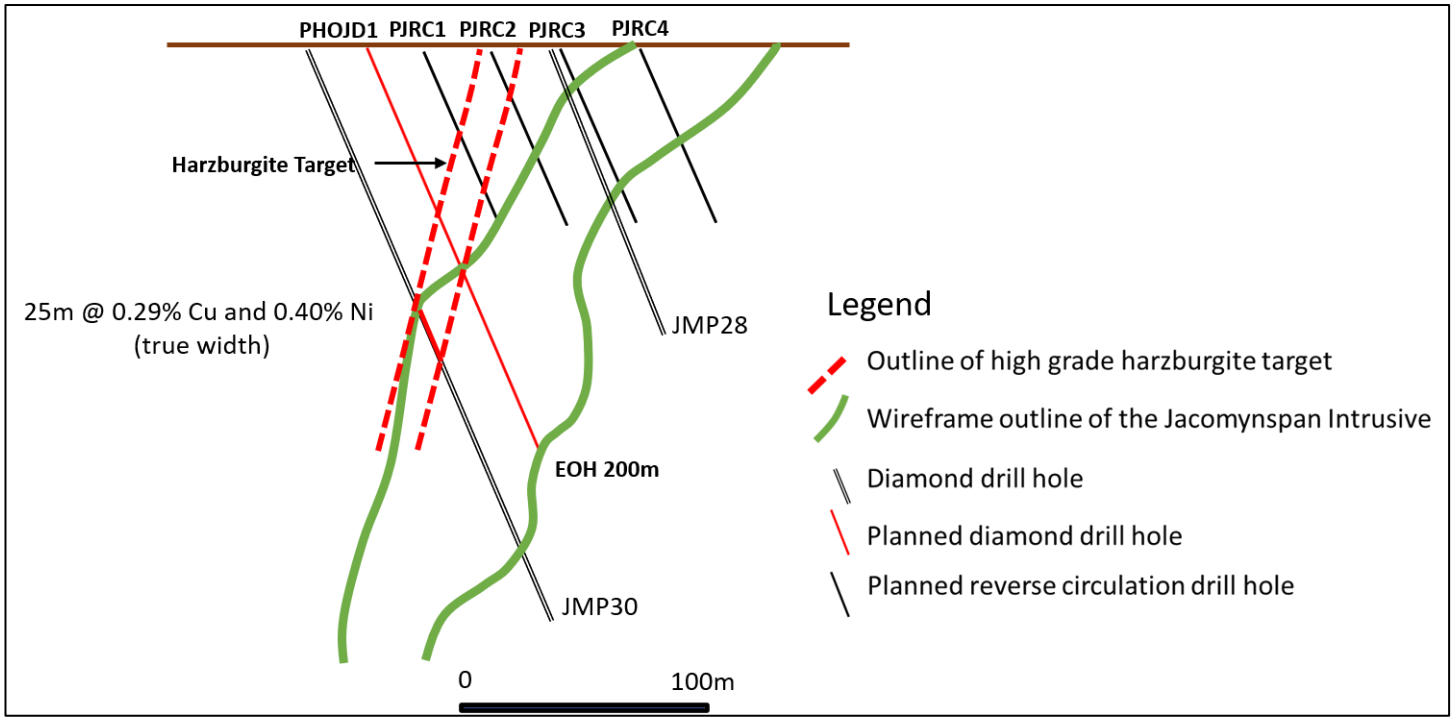

Figure 9: Cross-section showing the high grade Harzburgite drill target and planned drilling.

For and on behalf of the Board.

Errol Smart
Managing Director and CEO

ENQUIRIES

Investors	Media	JSE Sponsor
Errol Smart – Managing Director & CEO	Nicholas Read	Monique Martinez
Denis Waddell – Chairman	Read Corporate, Australia	Merchantec Capital
T: +61 (0) 3 8080 7170	T: +61 (0) 419 929 046	T: +27 (0) 11 325 6363
E: info@orionminerals.com.au	E: nicholas@readcorporate.com.au	E: monique@merchantec.co.za

Competent Person Statement

The information in this report that relates to Exploration Results has been compiled under the supervision of Mr Conrad Louw van Schalkwyk, a Competent Person who is registered with the South African Council for Natural Scientific Professionals, a 'Recognised Professional Organisation (**RPO**). Mr Van Schalkwyk is a full-time employee of Orion in the role of Executive: Exploration. Mr Van Schalkwyk 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Van Schalkwyk consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Disclaimer

This release may include forward-looking statements. Such forward-looking statements 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. These forward-looking statements are based on management's expectations and beliefs concerning future events. Forward-looking statements inherently involve subjective judgement and analysis and are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Orion. Actual results and developments may vary materially from those expressed in this release. Given these uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. Orion makes no undertaking to subsequently update or revise the forward-looking statements made in this release to reflect events or circumstances after the date of this release. All information in respect of Exploration Results and other technical information should be read in conjunction with Competent Person Statements in this release (where applicable). 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 release, 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).

Appendix 1:

Table 3: Drill hole information and intersections of historical holes drilled on the K3 and K6 prospects Dooniespan 103 portion 6. A 1% Zn cut-off was used with no top cut-off. Where present, internal waste is included in the intersections.

Hole No	Prospect	UTM E	UTM N	Inclination	Bearing	Final Depth	From (m)	Width (m)	Cu wt%	Zn wt%	Au (g/t)	Ag (g/t)
KDH1	K3	618690	6696414	-55	169	66.06	Hole abandoned					
KDH2	K3	618724	6696258	-65	349	199.08	116.32	6.11	0.4	3.01	0.27	3.32
KDH3	K3	618757	6696106	-60	349	274.5	179.21	13.08	0.23	3.69	0.19	4.67
KDH4	K3	618778	6695998	-70	349	491.1	246.95	0.6	0.51	6.84	0.09	3.7
KDH5	K3	618810	6695839	-70	349	596.75	556.4	0.8	0.04	3.59	0.07	2.7
KDH6	K3	619136	6696240	-80	349	405.15	No intersection					
KDH7	K3	618918	6696293	-50	349	178.76	104.8	0.6	0.12	1.16	0.14	4.3
KDH8	K3	618540	6696166	-60	349	175.85	151.45	0.35	0.16	0.01	<0.05	1.1
KDH9	K3	618573	6696009	-60	349	288.7	148	2	0.2	0.01	0.11	0.05
KDH10	K3	618451	6695455	-50	169	138.25	No data available					
KDH11	K3	618495	6695300	-45	349	175.5	No mineralisation					
KDH15	K6	612652	6694766	-55	79	175.7	116	4.8	0.46	6.18	0.1	15.4
KDH16	K6	618945	6696163	-60	349	224.6	No mineralisation					
KDH17	K6	612668	6694671	-55	79	175.7	114.4	0.3	0.26	2.14	5.9	20.2
KDH18	K6	612608	6694656	-65	79	239.9	184.78	3.1	0.34	5.75	0.3	11.62
KDH19	K6	612612	6694857	-45	79	192.25	No data available					
KDH20	K6	612635	6694559	-55	79	274.1	No data available					
KDH21	K6	612595	6694956	-45	79		No data available					
KDH25	K6	612542	6694749	-55	79	249.8	No data available					
KDH26	K6	612576	6694548	-55	79	289	No data available					
KDH27	K6	612629	6694456	-65	79	332.8	No data available					
KDH28	K6	612504	6694583	-65	79	1	No data available					
KDH29	K3	618850	6696138	-60	349	283.35	No data available					
KDH30	K3	618699	6695888	-60	349	405.35	No data available					

Coordinate system: UTM/WGS84 Zone 34J

Table 4: Drill hole information and intersections of historical holes drilled on Kantienpan.

	Collar Location (Gauss Kruger LO 21)		Dip / Azimuth	Total Depth (m)	Intercept Data			Assay Data	
Hole ID	Easting	Northing			From (m)	To (m)	Length (m)	Zn (%)	Cu (%)
KN001	53135	-3214191	-60 / 260	309.33	*No Significant Intersection*				
KN002	53097	-3214062	-60 / 260	234.03	*No Significant Intersection*				
KN003	53099	-3214060	-60 / 080	302.80	192	205	13.0	3.96	0.36
KN004	53265	-3214180	-60 / 260	154.89	106.89	115.89	9.0	1.27	0.14
			including		106.89	109.89	3.0	2.21	0.06
KN005	53345	-3214383	-60 / 260	151.32	82.05	90.89	8.84	6.32	1.02
KN006	53200	-3213851	-60 / 260	140.00	103.69	104.69	1.0	4.59	0.24
KN007	53234	-3214057	-60 / 260	140.00	105.96	112.96	7.0	3.15	0.57
KN008	53400	-3214445	-60 / 230	155.30	*No Significant Intersection*				
KN009	53306	-3213938	-60 / 260	280.80	241.37	243.87	2.5	4.50	0.56
KN010	53345	-3214170	-60 / 260	242.20	190.02	196.17	6.15	4.74	0.49
KN011	53388	-3214248	-60 / 260	239.50	204.07	206.70	2.63	6.59	0.35
KN012	53373	-3214033	-60 / 260	307.15	278.34	281.31	2.97	5.09	0.30
					291.82	292.70	0.88	7.42	0.26
KN013	53288	-3213836	-60 / 260	256.60	*Hole Abandoned*				
KN013A	53288	-3213836	-60 / 260	284.95	255.21	256.68	1.47	2.57	0.09
					259.0	259.83	0.83	1.29	0.23

All intersections > 1% Zn

Appendix 2: The following tables are provided as a requirement under the JORC Code (2012) requirements for the reporting of Exploration Results for the Namaqua-Disawell Project: Hartebeestpan (Area 4) and Rok Optel Prospects.

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	**JACOMYNSPAN** • The deposit was sampled using diamond core drilling. • Drill results reported are from drilling and sampling conducted by ANHL in 2011 and 2012. • NQ size cores collected by ANHL were cut longitudinally in half and nominal 0.5 or 1 metre sample lengths were taken. These were varied to honour geological / mineralisation boundaries. • The ANHL half core samples were crushed on-site using a jaw crusher with a 5 mm aperture. The crushed sample was riffle split. One half was sent to the laboratory and the other kept on-site. One in every 20 samples was split again to prepare a coarse duplicate. • The riffle splitter and jaw crusher were cleaned with compressed air after each sample was processed. • The ANHL samples were sent to accredited laboratory Intertek Genalysis in 2011 and ALS Chemex (**ALS**) in 2012, where they were pulverised to produce either a 25 g aliquot (Intertek Genalysis) or 30 g aliquot (ALS) for Pt, Pd and Au determination by fire assay or a smaller amount for digestion and determination of base metals. • Diamond core was continuously sampled in approximately 1m – 1.5m intervals. **KIELDER** • The core was sampled in lengths varying from 0.06m to 2.50m, with a mean of 1.17m. This is appropriate for a reconnaissance-level assessment of volcanogenic massive sulphide deposits. • No additional details are supplied of the sampling techniques of the historical drilling presented in the figures and tables in this report and publicly reported here for this first time. It is assumed that the work was undertaken according to the 'industry standards' of the period. **KANTIENPAN** • Diamond core drilling used to obtain NQ and BQ sized core. • Core was split using a diamond saw and 1 m samples were taken between contacts. • Samples were sent to Iscor in-house laboratories for AA and ICP analysis, with duplicate samples also sent to Goldlabs Africa, a member of Setpoint Technology Group. • Drill sections spaced at approximately 100m, with two sections of drill fences with holes spaced at 100m – 150m intervals.

Criteria	JORC Code explanation	Commentary
		• Sampling carried out under supervision using procedures outlined below including industry standard QA/QC. **BOKSPUTS** • Diamond core drilling used. No data is available on the core size. • Core was split using a core splitter. • Drill holes were spaced 100m to 300m apart. • No records exist on sampling protocols. Both Anglo American Corporation and Shell minerals were reputable companies and it is assumed that the work was undertaken according to the 'industry standards' of the period.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	**JACOMYNSPAN** • All drill holes reported here were diamond drilled, NQ cored and collared at angles of between -45° and -80°. • ANHL drilling was by wireline. • Drill cores were not oriented. **KIELDER** • The historical drilling is presented in the figures and text in this report and publicly reported here for this first time. • Diamond core drilling was undertaken. • No details of the drilling companies used. • BQ size core were drilled. The core is not available. • Drill holes were drilled at -45° to -65°. • There is no record of orientated core. **KANTIENPAN** • Diamond drilling of NQ and BQ sized core. Core was not orientated. **BOKSPUTS** • Diamond drilling of unknown core size were used. • No record exists of core orientation. • Holes were drilled at inclinations of -45 to -80 degrees.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	**JACOMYNSPAN** • The drill cores were fitted together and recovered length was measured. • Core recovery was found to be excellent (>98% within the mineralised ultramafics) for the ANHL holes and therefore no significant sample bias was introduced. No information is available on the core recovery of pre-ANHL drilling. **KIELDER** • No information is available on core recovery. **KANTIENPAN** • The drill cores were fitted together and recovered length was

Criteria	JORC Code explanation	Commentary
		measured • Core recovery reconciliations were recorded and recoveries of higher than 95% were recorded across the ore zones. **BOKSPUTS** • No information is available on core recovery.
Logging	• *Whether core and chip samples have been geologically and geo-technically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	**JACOMYNSPAN** • Core of the entire hole length was geologically logged by qualified geologists. • Basic geotechnical logging was carried out from 20m above the mineralisation to 20m below. • Geological logging was qualitative and was carried out using a standard sheet with a set of standard codes to describe lithology, structure and mineralisation. The logging sheet allows for free-form description to note any unusual features. • Geological logs were captured electronically. • All cores were photographed before and after sampling. **KIELDER** • The drill hole core has been geologically logged to a high standard. • Geological logging was descriptive and carried out using a standard sheet. Lithology, structure and mineralisation were described. • No geotechnical information is available. • No core photography is available. **KANTIENPAN** • All holes logged using visual inspection of both full and split core. All logs have been located at this point in time. • Qualitative logging of colour, grainsize, weathering, structural fabric, lithology, alteration type and sulphide mineralogy carried out. • Quantitative estimate of sulphide mineralogy. **BOKSPUTS** • No information is available on logging methods.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-*	**JACOMYNSPAN** • The diamond drill hole cores were split longitudinally in half using a diamond saw and were continuously sampled in nominal 0.5m or 1m intervals. The sample interval was adjusted in order to honour geological contacts. • The half core samples were crushed on-site using a jaw crusher with a 5mm aperture. The crushed sample was riffle split. One half was sent to the laboratory and the other kept on-site. The crushed samples were finely pulverised at the laboratories. The sample

Criteria	JORC Code explanation	Commentary
	half sampling. • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	preparation technique is appropriate for the style of mineralisation at Jacomynspan. • One in every 20 samples was split again to prepare a coarse duplicate. • The base metal assays for crushed core duplicate samples were mostly within 10% of the original sample indicating that sub-samples are representative. Poorer precision was noted for the precious metal assays, which is expected given the generally low values. **KIELDER** • No details are available with respect to sub-sampling techniques and sample preparation. **KANTIENPAN** • Results announced for core samples are from half core, sawn on site. • Samples were crushed and milled by Iscor's in-house laboratories and were milled to -80 mesh. • The samples were split into 3 fractions to be used for the different analytical techniques and for the external laboratory. • Selected mineralised sections where sampled as quartered core for check assaying. **BOKSPUTS** • Core was split on site using a core splitter. • No other details are available on sampling techniques and sample preparation.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	**JACOMYNSPAN** • Intertek Genalysis (Johannesburg) completed the 2011 assays and ALS completed the 2012 assays. For base metals, Genalysis used an aqua regia digest with ICP-OES finish and ALS used a four-acid digest with ICP-AES finish. A bias test was carried out that indicated that the different dissolution did not materially affect the assay results between the two drilling campaigns. For both laboratories, the method used for PGE analysis was lead fire assay. Genalysis used a 25 g aliquot and the concentrations were read with an ICP-MS, which provides a lower detection limit of 1 ppb. ALS used a 30 g aliquot with ICP-AES finish, which provides for 1 ppb lower detection limit for Pd and Au and 5 ppb for Pt. • External quality assurance of the laboratory assays was monitored by the insertion of: - Blank samples; - Coarse field duplicates consisting of a split sub-sample of the original crushed sample material; and

Criteria	JORC Code explanation	Commentary
		- Certified reference materials. **KIELDER** • No details are available with respect to laboratory, or quality control. **KANTIENPAN** • Samples were analysed at Iscor's in-house labs using AA and ICP techniques • Quarter core samples of more than 50% of the mineralised samples were sent to GoldLabs Africa for separate preparation and ICP analysis. • The GoldLabs Africa assays were shown to report notably higher value on almost all higher grade zinc copper samples. • Iscor Laboratory results were accepted and were used by Iscor in evaluating the deposit. **BOKSPUTS** • No details are available with respect to laboratory, or quality control.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	**JACOMYNSPAN** • Data were stored in a Microsoft Excel database. MSA completed spot checks on the database and is confident that the database was an accurate representation of the original data collected. **KIELDER** • No data is available of any verification of the data or storage of the data by Newmont. **KANTIENPAN** • Data were compiled in a Microsoft Excel database by the Company. • No assay data were adjusted and paper copies of the certificate of analysis are available. **BOKSPUTS** • No data is available of any verification of the data or storage of the data by Anglo American or Shell Minerals.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	**JACOMYNSPAN** • All the ANHL drill hole collars have been surveyed by a qualified surveyor using a differential GPS. Downhole positions were surveyed using an electronic multi-shot instrument. • The topographic surface was based on contours from the government survey plan, with additional data from the surveyed drill hole collars. • Coordinates are relative to the WGS84-LO21 datum.

Criteria	JORC Code explanation	Commentary
		KIELDER • The drill holes are indicated on the geological maps. • The collars have been located in the field and surveyed using a handheld Garmin GPS. • The data are recorded using the WGS84 datum, UTM Zone 34S. • Downhole positions were surveyed using a Sperry-Sun instrument. Data was used to plot the holes on available sections. The recorded data is not available. **KANTIENPAN** • Collar positions were surveyed by a qualified, Iscor in-house surveyor using a theodolite and prism. • Co-ordinates were reported in South African standard Gauss Kruger LO23 coordinates and transformed to UTM WGS84 by a qualified surveyor. • No downhole survey data is available and survey methods are unknown. • Topographic control is based on topographic data derived from public data. **BOKSPUTS** • Collar positions of the holes located in the field were surveyed using a hand-held Garmin GPS. • The data are recorded using the WGS84 datum, UTM Zone 34S.
Data spacing and distribution	• *Data- spacing for reporting of Exploration Results.* • *Whether the data-spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	**JACOMYNSPAN** • Drill holes intersected the mineralisation between approximately 40 m and 150 m apart. • Samples were composited to 1 m intervals for grade estimation. **KIELDER** • At K3 the drill holes were drilled on sections spaced 200m apart over a strike distance off 400m. Hole spacing were at 160m on the sections and two infill holes were drilled. • At K6 holes were drilled on section lines 100m apart with hole spacing 60m to 120m on the section lines. • Data spacing is insufficient to establish a Mineral Resource. • No sample compositing was done. **KANTIENPAN** • Drill hole spacing are 80m to 140m apart and to widely spaced to accurately estimate grade distribution and continuity required for Resource estimations. **BOKSPUTS** • Drill holes were spaced 300m to 100m apart and was not intended for resource estimates.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	**JACOMYNSPAN** • The stratigraphy dips steeply to the south. Drilling was undertaken from the south to intersect at a reasonable angle to dip. **KIELDER** • K3. The stratigraphy dips steeply to the south. Drilling was undertaken from the south to intersect at a reasonable angle to dip. • K6. The stratigraphy dips steeply to the west. Drilling was undertaken from the west to intersect at a reasonable angle to dip. **KANTIENPAN** • The stratigraphy dips steeply to the west. Drilling was undertaken from the west and inclined to intersect at a reasonable angle to dip. **BOKSPUTS** • The stratigraphy dips steeply to the west. Drilling was undertaken from the west and inclined to intersect at a reasonable angle to dip.
Sample security	• *The measures taken to ensure sample security.*	**JACOMYNSPAN** • The sample bags were effectively sealed with cable ties and combined into larger bags for laboratory dispatch. The set of samples from each hole forms a single batch. **KIELDER** • No data is available on the measures taken to ensure sample security. **KANTIENPAN** • No data is available on the measures taken to ensure sample security. **BOKSPUTS** • No data is available on the measures taken to ensure sample security.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	**JACOMYNSPAN** • The CP considers that the exploration work conducted by ANHL was carried out using appropriate techniques for the style of mineralisation at Jacomynspan. • Data were reviewed by MSA as part of the resource estimation **KIELDER** • No audits or reviews is known to have been carried out. **KANTIENPAN** • No audits or reviews is known to have been carried out. **BOKSPUTS** • No audits or reviews is known to have been carried out.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	**JACOMYNSPAN** • The farms Hartebeestpan 175 and Optel 261 have overlapping rights (in respect of differing minerals) held by two companies. • Namaqua Nickel Mining (Pty) Ltd (**Namaqua**) holds mining right NC 30/5/1/2/2/10032MR (over Plaas No. 387: the farm Hartebeest Pan 175 (Portion RE5), Jacomyns Pan 176 (Portion RE1), Rok Optel 261 (Portion RE1, Portion RE2, Portion RE3) for the mining of Nickel, Copper, Cobalt, PGM and Gold. This right was granted on 19 September 2016 subject to certain conditions, which include local community participation and financial guarantees, but is not yet executed. • Disawell (Pty) Ltd (**Disawell**) holds two prospecting rights namely NC 30/5/1/1/2/11010 PR over Jacomyns Pan 176 (Portion RE, Portion 1, Portion 2); Rok Optel 261 (RE, Portion 1, Portion 2, Portion 3); Rooi Puts 172 (Portion 2, Portion 3, Portion 4) and NC 30/5/1/1/2/10938 PR over Hartebeest Pan 175 (RE, Portion 3, Portion 4, Portion 5) and Farm 387, each for the prospecting of Zinc, Lead and Sulphur. • Disawell and Namaqua entered into an earn-in agreement with Orion Minerals Ltd (**Orion** or **Company**), in terms of which Orion (through its subsidiary, Area Metals Holdings No. 3 (Pty) Ltd (**AMH3**)) is granted the right to invest in these companies. Since finalising the earn-in agreement, AMH3 has advanced exploration programs on the Jacomynspan Project, with expenditure held in a shareholder loan account and AMH3 having reached an earn-in right stage. This will see its shareholding increase by a further 25% interest (increasing its total interest to 50%). Upon receipt of regulatory approval, AMH3 will be issued with the additional shares earned. Orion is the manager and operator of the joint venture. • Orion has entered into an agreement whereby it will acquire the remaining minority interests in the Jacomynspan Project held by Namaqua and Disawell shareholders. The agreement is subject to suspensive conditions, undertakings, warranties and terms and conditions as would be standard and customary to include in transactions of this nature (refer ASX release 13 July 2020). • No historical or environmental impediments to obtaining an operating licence are known. **KIELDER** • PCZM, formerly Repli Trading No 27 (Pty) Ltd, holds the prospecting rights, namely NC 30/5/1/2/11840, over Dooniespan 106 Portion 3 for the prospecting of Copper, Zinc, Lead, Gold, Silver, Cobalt, Sulphur in pyrite, Barytes, Limestone, Sulphur and Molybdenum.

Criteria	JORC Code explanation	Commentary
		• No historical or environmental impediments to obtaining an operating licence are known. **KANTIENPAN and BOKSPUTS** • The mineral rights to the property are vested in the State and the Act regulates the exploration and mining industry in South Africa. A prospecting right in accordance with the Act was granted to Masiqhame Trading 855 (**Masiqhame**) to prospect for a period of five years effective from 12 March 2014. • The Prospecting Right was granted in respect of the farm Koegrabe 117 comprising Remainder, Portions 2 – 11; Boksputs 118 Remainder, Portions 1, 7, 8, 9, 10; Kantien Pan 119 Remainder, Portions 1 and 2; Wan Wyks Pan Remainder, Portions 1 – 5; and Zonderpan Remainder Portions 1, 5, 6, 7, 8 situated in the Magisterial/ Administrative District of Kenhardt, Northern Cape Province. The total area measures 98435.8548 Ha in extent. • An application for renewal of the Prospecting Right was submitted in December 2018. Granting of the Renewal is pending.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	**JACOMYNSPAN** • AAC (1971-1973 and 1982), Anglo Vaal (1970-1972), Gencor (1990-1991) and Alenti (2008) have all conducted exploration drilling programs in the Jacomynspan project area. • Gold Fields of South Africa (GFSA) drilled three deflections from AAC holes in 1993. **KIELDER** • On Dooniespan 206 Portion 3 exploration has been undertaken by Newmont SA during the late 1970's to early 1980's. Only part of the data is available. 29 diamond drill holes were drilled on four prospects. Geological mapping, IP, gravity and EM surveys were conducted over selected areas. Soil sampling were conducted on a regional grid with follow-up detail surveys over selected areas. Prieska Copper Mines evaluated the Newmont data and did a high level economic appraisal. **KANTIENPAN** • Various companies explored the area in the past. • JCI drilled 11 drill holes on the Kantienpan Deposit in 1978 - 1979. This data is not available to the Company. • Iscor drilled 13 diamond drill holes on the prospect during the late 1990's and carried out geophysical and surface geochemical surveys. **BOKSPUTS** • Anglo American Corporation explored the property from 1973 to 1976. They carried out airborne EM, ground geophysical and

Criteria	JORC Code explanation	Commentary
		surface geochemical surveys and drilled 12 diamond drill holes. Shell Minerals explored the property from 1976 to 1978 and drilled 13 diamond drill holes.
Geology	• *Deposit type, geological setting and style of mineralisation.*	**JACOMYNSPAN** • The Jacomynspan mineralisation is contained within portions of a steeply dipping metamorphosed mafic to ultramafic intrusion several tens of metres thick containing nickel-copper sulphides. The intrusion consists predominantly of pyroxenite and harzburgite. The intrusion is enclosed within quartz-feldspar-biotite-garnet gneiss country rocks and is locally interfingered with late-orogenic granite. **KIELDER** • The Kielder mineralisation occurs as stratabound massive sulphide lenses within a folded sequence of granulite grade quartzo-feldspathic gneiss, basic granulite and amphibolite. Three massive sulphide lenses consisting of pyrite pyhrrotite, sphalerite, chalcopyrite, and galena with gangue minerals consisting of baryte, chlorite, phlogopite, apatite, tourmaline and quartz is known to exist on the property. The mineralisation is classified as volcanogenic massive sulphide type deposits. **KANTIENPAN** • The mineralisation at Kantienpan is hosted in massive sulphide lenses consisting mainly of pyrrhotite, sphalerite, chalcopyrite and pyrite. Gangue minerals consist of quartz and chlorite. True width of the sulphide zone varies from <1m to 13m. • The deposit is classified as a volcanogenic massive sulphide deposit. • Wall rocks are dominated by biotite gneiss of dacitic composition, calc-silicate rocks and amphibolite **BOKSPUTS** • The Boksputs Copper mineralisation is classified as a VMS style deposit. • Mineralisation discovered to date occur as disseminations of pyrite, chalcopyrite and sphalerite within chloritized amphibolite. • Biotite-amphibole gneiss makes up the bulk of the stratigraphic succession.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole*	• Table 3 and 4 lists all the historical intersections and drilling data at Kielder and Kantienpan.

Criteria	JORC Code explanation	Commentary
	○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	**JACOMYNSPAN** • Averaging was done weighting the assays by sample length and density. • A 0.3% Ni cut-off was use. No maximum cut-off was applied. Internal dilution was included in the intersections. **KIELDER** • Average was done weighting the samples by sample length. Density values are not available. • A 1% Zn cut-off was applied. **KANTIENPAN** • Average was done weighting the samples by sample length. Density values are not available. • For the quoted intersections a cut-off value of 0.3% Zn was applied. **BOKSPUTS** • No data is available on cut-off grades, weighting of samples or other aggregation methods. The intersections quoted is from published data and an internal report from Shell Minerals.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	**JACOMYNSPAN, KIELDER, KANTIENPAN AND BOKSPUTS** • All drill holes were inclined as to intersect the mineralised horizons as close to 90^0 as possible and the intersection width as close to the true width as possible. • Where down hole lengths are reported it is stated in the report.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Not material for this report. Plans with drill hole collars are provided within the text. Intercepts reported for the first time are tabulated in Table 3.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	**JACOMYNSPAN, KIELDER, KANTIENPAN AND BOKSPUTS** • In the Competent Person's view, the historic drill results and the geophysical targets are presented in a balanced manner for the purpose of this Public Report.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical*	**JACOMYNSPAN, KIELDER, KANTIENPAN AND BOKSPUTS** • Extensive geology mapping, geochemical sampling, and airborne and ground geophysical programmes were undertaken by previous explorers, using the equipment and methods available at

Criteria	JORC Code explanation	Commentary
	and rock characteristics; potential deleterious or contaminating substances.	that time. These geophysical data are not all available, and mainly comprises plans without the back-up information to verify the data validity. The new geophysical exploration, using modern technology, supersedes all previous geophysics. The geology mapping remains valid and has been digitally captured. The geochemical data have been captured from the original plans and used where appropriate. • In 2017 and 2018 Orion undertook a regional SkyTEM™ geophysical survey and ground EM surveys over selected SkyTEM™ anomalies. The results are reported in ASX releases 1 February 2018 and 8 March 2018. Interpretation of the results is ongoing. • Ground EM surveys are underway.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	**JACOMYNSPAN, KIELDER, KANTIENPAN AND BOKSPUTS** • Drilling to as proposed in this public report will be the next step.