

#### **ASX Code: ORN**

#### **Issued Capital:**

Ordinary Shares: 475M

Options: 91M

#### **Directors:**

#### **Denis Waddell**

Chairman

#### **Errol Smart**

Managing Director, CEO

#### **Bill Oliver**

**Technical Director** 

#### **Alexander Haller**

Non-Executive Director

#### **Management:**

#### **Martin Bouwmeester**

Company Secretary & Business Development Manager

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## **QUARTERLY ACTIVITIES REPORT**

FOR THE QUARTER ENDED 30 JUNE 2016

### **HIGHLIGHTS**

- Drilling in progress at the Areachap Project, South Africa:
  - Drilling has intersected massive sulphides at the +105 Level Exploration Target at the historical Prieska Copper Mine Zinc-Copper (PC) Project, with excellent initial results.
    - 22 metres at 10.8% zinc and 1.38% copper (OCOR016) including 7 metres at 17.8% zinc and 1.41% copper.
    - 12 metres at 4.14% copper and 1.89% zinc (OCOR017) including 3 metres at 7.4% copper and 4.34% zinc.
  - PC is recorded as one of world's 30 largest VMS base metal deposits with recorded historical production of 0.43Mt of copper and 1Mt of zinc from 46.8Mt of sulphide ore milled(1). Unmined dip and strike potential is confirmed by extensive drilling and geophysics.
  - Drilling is also being carried out at the Marydale Gold Project, a virgin epithermal discovery where initial drilling identified wide intersections of gold mineralisation. Drilling to date has intersected zones of similar lithologies and alteration.
- Further exploration opportunities secured to the north of the PC Project prospective for VMS, SEDEX and mafic intrusive hosted base metal mineralisation, as well as lithium and rare earth element bearing pegmatites:
  - Mapped occurrences of VHMS style mineralisation including the previously drilled Kantienpan Zinc-Copper deposit.
  - Recently acquired Jacomynspan Nickel-Copper deposit analogous to Nova-Bollinger Deposit and other magmatic nickel-copper deposits, however no modern era exploration for massive sulphides.
  - Orion now has rights over a total of 1,790km² of prospective tenure in the Areachap Belt.
- \$0.8 million raised via private placements of shares at 1.5c per share during the Quarter.

(1) Source: Mine records.



During the Quarter, Orion commenced its maiden drill program at its highly prospective South African projects. Drilling has progressed well with excellent initial drill results and further results anticipated in coming weeks. A substantial program of work is underway in parallel with drilling incorporating field mapping, surface geochemistry and geophysical surveys as well as validation and field checking of historical data.

### Areachap Copper-Zinc and Gold-Projects (South Africa)

During the Quarter, the Company commenced its maiden resource delineation drilling programs at the historical Prieska Copper Mine (PC) Zinc-Copper Project, undertook fieldwork including drilling at the Marydale Project and advanced the recent Masighame acquisition via data compilation and review, as well as acquiring an option over further prospecting rights within the Areachap Belt (Figure 1).

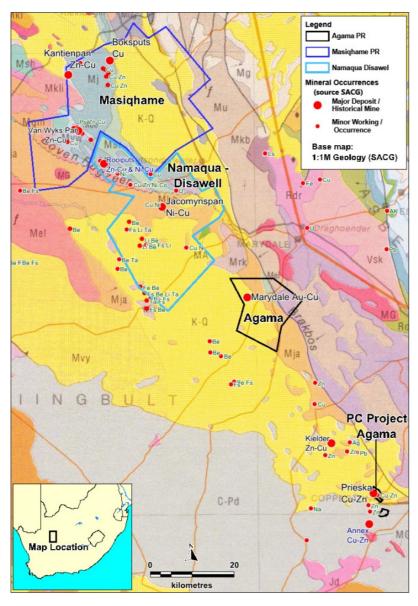


Figure 1: Regional magnetic map of the Areachap Belt showing prospecting rights currently under option to Orion and noted mineral occurrences as per published data from South African Council Geoscience.



Drilling at the PC Project is focussed on near surface mineralisation and testing the Company's +105 Level Exploration Target (Table 1). To date 15 holes for 983 metres have been completed (Figure 2). Significant intersections received to date include:

- 22 metres at 10.8% zinc, 1.38% copper and 0.3g/t gold from 57 metres incl. 7 metres at 17.8% zinc and 1.41% copper (OCOR016);
- 12 metres at 4.14% copper, 1.89% zinc and 0.29g/t gold from 57 metres incl. 3 metres at 7.4% copper and 4.34% zinc (OCOR017);
- 5 metres at 2.1% copper and 0.34% zinc from 35 metres (OCOR014); and
- 5 metres at 0.92% copper and 1.56% zinc from 15 metres (OCOR013A).

(Refer ASX Release 25 July 2016)

Drilling aims to infill and validate historical drilling which returned results including:

- 11.5 metres at 1.2% copper + 7.2% zinc from 109.5 metres (V04);
- 8.1 metres at 4.6% copper + 2.5% zinc from 106.05 metres (V09);
- 33.4 metres at 0.95% copper + 0.80% zinc from 16.4 metres (COC01);
- 8.4 metres at 1.25% copper + 0.72% zinc from 43.8 metres (COC02);
- 6.5 metres at 2.17% copper + 0.38% zinc from 46.8 metres (COC04);
- 6.6 metres at 1.63% copper + 3.76% zinc from 84.7 metres (COC05);
- 5.8 metres at 1.49% copper + 6.93% zinc from 70.6 metres (COC09); and
- 9.6 metres at 4.34% copper + 0.39% zinc from 51.9 metres following 6.0 metres at 0.34% copper + 0.50% zinc from 40.1 metres (COC10).

(Refer ASX Release 18 November 2015)

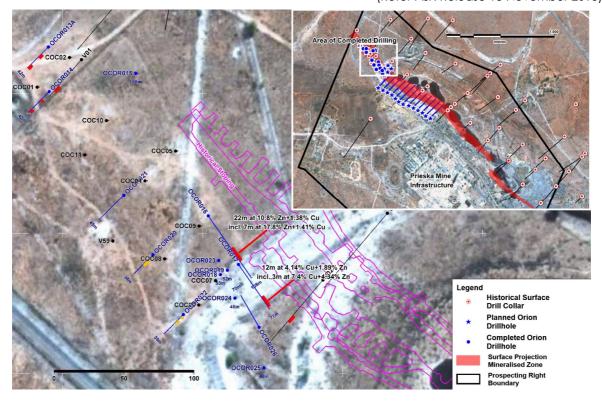


Figure 2: Plan showing the PC Project with completed, proposed and historical drilling at the +105 Level Exploration Target.



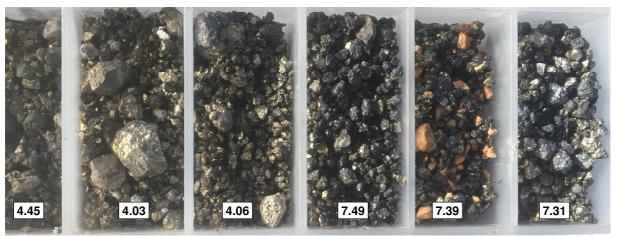
PC Project – Exploration Targets						
Area	ea Tonnage Range Cu range (%) In range (%)					
+105 Level	3,000,000 – 4,500,000	1.0 – 1.6	1.3 – 2.0			
Deep Sulphide	7,000,000 – 11,000,000	1.2 – 1.8	3.9 – 5.9			

**Table 1:** Exploration Targets at the PC Project. Detail and supporting information relating to these Exploration Targets is contained in the ASX Release of 18 November 2015.

Drilling to date has intersected high grade zinc-copper mineralisation principally hosted in massive and semi-massive sulphides (Figure 3). While oxide mineralisation is intersected from 0-40 metres vertical depth, zonation in grade and metal content (refer intersections in ASX Release 25 July 2016) are encountered as expected. Grades of both copper and zinc are most elevated in the supergene and primary sulphides, which have been intersected below 40 metres depth, with some outstanding individual assays such as 21.7%, 21.0% and 18.1% zinc (OCOR016, 64 – 67 metres; refer ASX Release 25 July 2016) and 7.49%, 7.39% and 7.31% copper (OCOR017, 63 – 66 metres; refer ASX Release 25 July 2016).

Of further interest is the presence of associated gold-silver mineralisation and even elevated lead results in certain samples, with peak results of 1.15g/t gold and 39g/t silver (OCOR016, 70 – 71 metres; refer ASX Release 25 July 2016). These results within broader intersections of 0.3g/t gold and 10g/t silver indicate potential for significant precious metal credits. It is worth noting that the previous operator of the historic Prieska Mine did not routinely assay for precious metals.

Drilling is ongoing at the PC Project with further massive sulphides intersected in recent drilling. A portable XRF analyser is being used to efficiently select intervals for analysis, allowing rapid sample preparation and submission to ALS in Johannesburg for analysis. As a result, the Company anticipates being able to release results regularly over the forthcoming Quarter.



**Figure 3**: Massive sulphides in OCOR017 between 60 metres and 66 metres (left to right) (each divider shows chips from a 1m interval).

#### **Marydale Project**

Drilling has been completed at the Marydale Project, a virgin gold discovery of possible high sulphidation epithermal origin located 60km from the PC Project. Drilling aimed to test the geological model for the Marydale mineralisation by in-filling historic drilling at the project. Results from historic drilling included:



- 50.4 metres at 2.68g/t gold from 8.1 metres (WC08);
- 37.1 metres at 2.72g/t gold from 61.1 metres (WC09);
- 25.7 metres at 2.72g/t gold from 47.8 metres (WC22);
- 11.3 metres at 3.36g/t gold from 1.4 metres (WC10); and
- 12.1 metres at 2.37g/t gold from 56.2 metres & 27.4 metres at 2.18g/t gold from 72.6 metres (WC01).

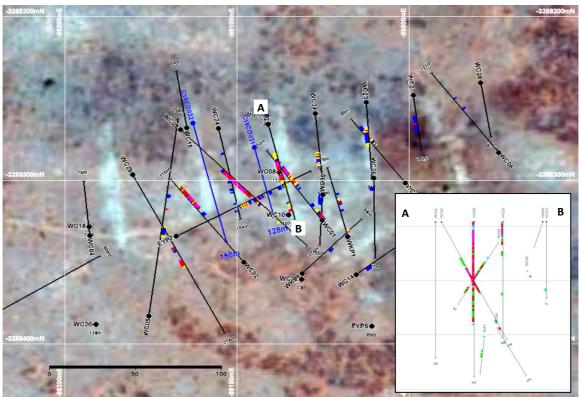
(Refer ASX Release 18 November 2015)

Two holes focused on obtaining oriented drill core through the higher grade zones historically intersected, have been completed for 278 metres. From inspection of the core, the lithologies and alteration intersected in both holes are similar to those drilled in WC08 and WC22, sulphide minerals (predominantly pyrite) present in similar quantities (Figure 4, locations shown on Figure 5). Significantly, multiple zones of mineralisation were intersected in OWCD032, which may imply a repetition of the mineralisation due to folding and faulting. Initial interpretations based on data from the oriented core have made it clear that the host lithology is in a structurally complex folded and sheared package.



**Figure 4**: Highly mineralised core intersected in hole OWCDO33 between 70 – 74 metres. Pyrite (5%-15%) is partially oxidised to haematite and limonite at this depth. Lithology is structurally complex, folded and sheared. The white line marks orientation reference line.

Detailed structural readings are being taken from the oriented core before sampling for analysis is carried out. This data will be incorporated with the results of trench mapping (and sampling) and other field observations to allow a robust model for the mineralisation to be developed and future drilling to target extensions of mineralised shoots to be planned.



**Figure 5**: Plan showing drilling completed by Orion (blue) and historical drilling at the NW Quadrant area of Marydale Project and (inset) section A – B showing historic drill intercepts.

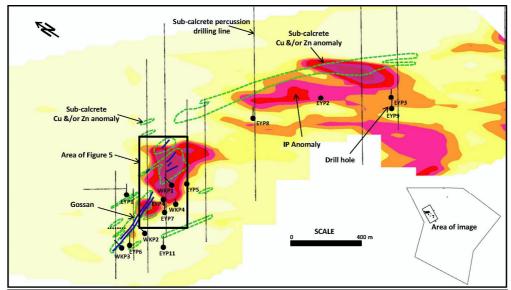


Figure 6: Plan showing historical drilling and geochemical anomalies over conductivity response in IP survey at the Marydale Project. The box indicates the NW Quadrant area, where drilling is currently being conducted.

Analysis and reinterpretation of historic surface geochemical and geophysical data over the larger prospect area has enhanced the prospectivity of the extensive IP and geochemical anomalous area which stretches over 2km along trend as shown in Figure 6.



Orion's geological team has concluded that the primary tool to effectively target the highly sulphidic mineralisation similar to that intersected in the NW Quadrant area of the prospect, will be a combination of magnetic and conductivity data (from IP surveys). Anglo American Prospecting Services carried out an IP survey in the 1970's which successfully delineated conductivity anomalies which led to the successful drilling in the NW Quadrant summarised above (Figure 6).

This IP survey also delineated further large anomalies to the south-east which are coincident with low order, surface, copper and/or zinc geochemical anomalies (Figure 6) that are of similar intensity to those encountered over the NW Quadrant area. Historically, only first-pass testing of these anomalies was undertaken with reconnaissance drilling, yielding the following anomalous results that are consistent with drill results drilled in the halo around the mineralisation in the NW Quadrant:

- 8 metres at 1300ppm copper, 717ppm zinc and 77ppb gold (EYP2);
- 4 metres at 2400ppm copper, 600ppm zinc and 100ppb gold (EYP8); and
- 1 metre at 140ppm copper, 1400ppm zinc and 30 ppb gold (EYP9).

It should be noted that hole EYP3 was abandoned before reaching target depth. The intersections above are not significant intersections as they are not above 1g/t gold, but the anomalism present is geologically important and is being used to guide future exploration.

The Company considers that the historical IP survey also did not adequately cover the historical geochemical anomalies. Accordingly, plans are being progressed for geophysical surveys to be undertaken to verify the historical surveys and completely cover the prospective horizon for mineralisation at the Marydale Project. The IP survey will be done with higher powered and more modern instruments than the 1970's survey with the objective of looking deeper and to provide more defined targets.

#### **Masighame Project**

In April 2016, Orion entered into a binding option agreement to earn up to a 73% interest in Masiqhame Trading 855 Pty Ltd (**Masiqhame**), which holds a prospecting right covering an area of almost 980km² located 80 kilometres north of the PC Project (Figure 1). Orion has targeted the large Masiqhame prospecting right after analysing regional data which points to the potential for three significant styles of mineralisation:

- Zinc-copper VHMS-SEDEX mineralisation in the Areachap-Copperton Province;
- Nickel-Copper mineralisation hosted in mafic intrusions analogous to the Jacomynspan Deposit (refer below); and
- Pegmatite hosted mineralisation such as lithium, beryl and REEs in the Orange River pegmatite belt.

Due diligence investigations continued during the Quarter. Compilation of available data relating to the Masiqhame prospecting right confirmed that the Kantienpan Zinc-Copper Deposit lies within the Masiqhame prospecting right. The Kantienpan Deposit is one of a number of Volcanogenic Massive Sulphide (VMS) hosted zinc-copper occurrences in the area of the Masiqhame prospecting right. The deposit was targeted by a combination of magnetic and time-domain electromagnetic ground surveys, following up on alteration identified by rock-chip sampling (Rossouw, 2003).

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Orion Gold<sub>NL</sub> Historically, a total of 14 diamond core holes for 3,199m were drilled at the Kantienpan Deposit by Iscor Ltd (Iscor). Significant intersections included the following results:

- 8.84 metres at 6.32% zinc and 1.02% copper (KN005);
- 6.15 metres at 4.74% zinc and 0.49% copper (KN010);
- 7 metres at 3.15% zinc and 0.57% copper (KN007);
- 13 metres at 3.96% zinc and 0.36% copper (KN003); and
- 2.6 metres at 6.59% zinc and 0.35% copper (KN011).

(Refer Figures 7 and 8, and ASX Release 31 May 2016)

Drilling has confirmed the presence of significant mineralisation extending from 80 metres – 250 metres below surface and along 800 metres of strike (Figures 7 and 8). Mineralisation at the Kantienpan Deposit remains open both along strike and at depth as drilling at the Kantienpan Deposit was curtailed soon after discovery, due to a corporate decision by Iscor to stop all exploration and focus on iron ore production.

Orion believes that the integration of geochemical and geophysical methods may quickly enable new targets to be identified within the Masiqhame Prospecting Right, which overlies a highly prospective VMS horizon extending over more than 30km of strike. This horizon contains numerous published occurrences of copper-zinc and zinc-copper mineralisation associated with massive sulphides. Orion has contracted Mr Deon Rossouw, who led the discovery team at the Kantienpan Deposit, to produce a project review and design a follow-up exploration program for the area overlain by the Masiqhame Prospecting Right.

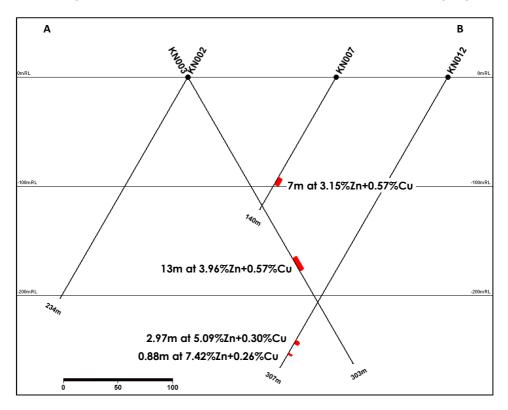


Figure 7: Cross section through Kantienpan Deposit (refer Figure 8 for location of A - B).

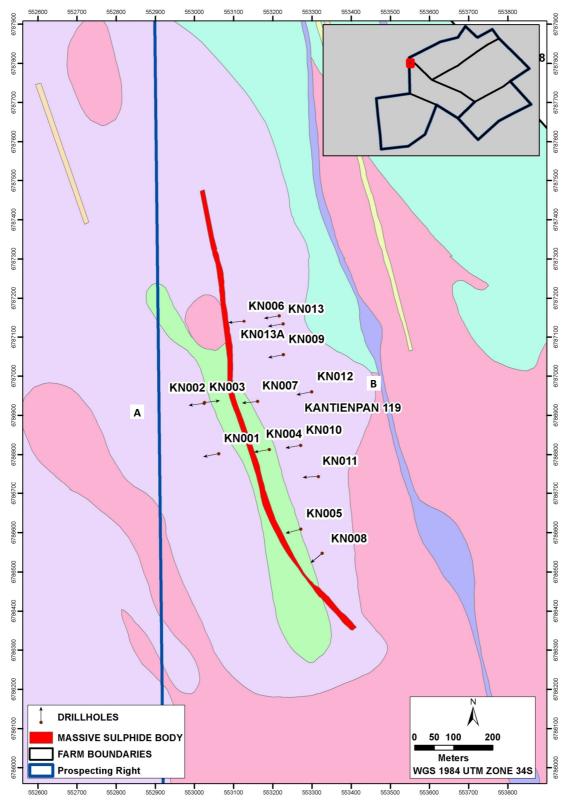


Figure 8: Geology map of the Kantienpan Deposit area showing Iscor drilling.



## Orion Gold<sub>NL</sub> Namaqua- Disawell Project

Subsequent to the end of the Quarter, Orion entered into a binding term sheet to acquire the earn-in rights to the prospecting and mining right applications covering a further area of 626km<sup>2</sup> in the Areachap Belt. The earn-in rights (refer below) have been acquired over the Jacomynspan Nickel-Copper-PGE Project (Jacomynspan Project) from two companies, Namaqua Nickel Mining (Pty) Ltd (Namaqua) and Disawell (Pty) Ltd (Disawell) (together the Companies), which hold partly overlapping prospecting rights and mining right applications.

The Namaqua mining right application covers an advanced nickel-copper-platinum group elements (**PGE**) deposit with a completed mining concept study, while the Disawell prospecting rights are focused on zinc-copper volcanogenic hosted massive sulphide (**VHMS**) deposits such as those at the PC zinc-copper and Kantienpan Projects discussed above. The Jacomynspan Project area is contiguous with the prospecting rights held under the Company's Masighame transaction and adjacent to the Marydale Prospecting Right (Figure 1).

The Jacomynspan Project area contains numerous known occurrences of VHMS style zinc-copper deposits and is highly prospective for magmatic hosted nickel-copper mineralisation similar to that seen in Proterozoic mobile belts worldwide including the Thompsons Belt in Canada and the Albany-Fraser Belt in Western Australia. A number of mafic-ultramafic intrusions have been recognised within the project area, with most historical work focusing on the Jacomynspan Deposit (Figure 1).

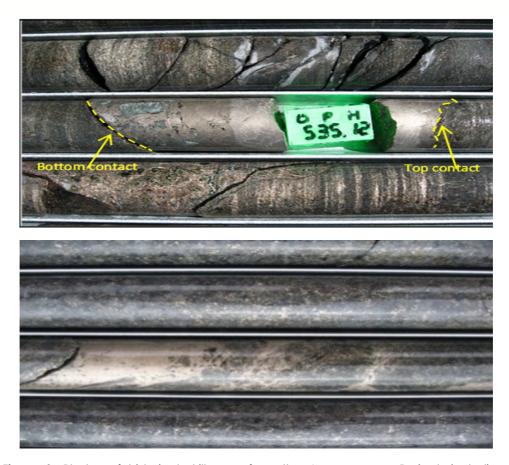
Orion believes a substantial exploration opportunity exists within the project area to search for higher grade, massive and semi-massive accumulations of nickel-bearing sulphides, analogous to the Nova-Bollinger deposit in the Fraser Range Province of Western Australia.

Orion has identified many similarities to the Fraser Range-style of mineralisation from historical data available for the project area and the surrounding Areachap belt. This includes:

- mafic-ultramafic intrusives of late Proterozoic age;
- intruded in intercratonic/craton margin tectonic setting;
- hosted in high metamorphic grade rocks (garnet, amphibolite gneisses) within a mobile belt;
- the presence of evolving magmas yielding multi-phase intrusives, including mafic to ultramafic rocks. Importantly, lithologies observed at the Jacomynspan Project include anorthosites, hartzburgites and various metamorphic equivalents;
- the identification of nickel and copper-bearing sulphides with minor cobalt and PGE's (higher concentrations than in Fraser Range) at numerous localities;
- low-grade, disseminated nickel-copper sulphide bodies are re-intruded by cumulate textured mafics, with net textured and massive sulphides present (Figure 9); and
- shallow, recent cover sequences (calcrete and soil) obscures much of the surface expression on the belt.

Orion will be utilising its experience and expertise developed in exploring for magmatic nickel-copper deposit in the Fraser Range Province of Western Australia to reinterpret the extensive database for the Jacomynspan Project area and rank the exploration targets. These will then be followed up with modern high-powered geophysical tools and methods which have not previously been applied in the Areachap belt before drill testing.





**Figure 9:** Photos of historical drill core from the Jacomynspan Project, including massive sulphide zones grading up to 4.2% Nickel.

Orion has identified several high quality targets from available data with all the key exploration indicators that justify further investigation as priority targets. Areas of combined VHMS and Nickel-Copper intrusive potential are of particular interest. The later mafic intrusives have intruded through and been emplaced in VHMS prospective horizons and may have sourced additional sulphur from those lithologies triggering deposition of immiscible metal sulphides from the intrusive melt.

The Jacomynspan Deposit was first identified by Anglo American Prospecting Services (AAPS) with drilling carried out along a 4 kilometre strike length. In one portion of the deposit AAPS drilled to a depth of 900 metres. Disseminated nickel sulphide mineralisation was intersected with widths between 30 – 70 metres. Metallurgical test work and mining studies were undertaken on the deposit, culminating in an economic assessment in 1983 which was generally positive and recommended that more detailed studies be undertaken. However, prevailing macro-economic and geopolitical conditions were not favourable and the option was relinquished by AAPS in 1984.

The surrounding area received exploration attention from a number of large companies in the 1970's, with several nickel-copper bearing intrusive occurrences discovered over a combined trend extending for almost 40 kilometres. Yskor also explored a portion of the current tenements for VHMS deposits in the 1990s.

In 2006, the project area was pegged by Namaqua. Exploration activities completed since then have included airborne electromagnetic (**EM**) and high-resolution magnetic surveys as

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well as more than 26,000 metres of diamond core drilling in 53 holes (refer ASX Release 14 July 2016). Importantly, while numerous mafic-ultramafic targets stretching along a trend of approximately 40 kilometres have been interpreted from historical mapping, geophysics and geochemical surveys, Namaqua drilled out only a 1.2 kilometre section of strike. This was confined to in-fill drilling on an outcropping ultramafic sill which was discovered and previously drilled by AAPS.

Namaqua delineated a resource for the Jacomynspan Deposit based on drilling results and historical AAPS data (Table 2). The resource for the Jacomyspan Deposit as shown in Table 2 is estimated in accordance with the SAMREC Code (2007) and is therefore a "qualifying foreign resource estimate" as defined in the ASX Listing Rules (further detail refer ASX Release 14 July 2016). Extensive metallurgical test work, geotechnical appraisal, environmental studies and mine design work was also carried out by Namaqua to complete a concept study and economic assessment for the mining of the deposit. These appraisals support an application for a Mining Right over the area, which is currently in process.

While Namaqua did not do any follow-up exploration on satellite intrusive bodies and geophysical targets, the entire Jacomynspan Project area was covered by airborne EM and magnetic surveys. The high resolution airborne magnetic survey targeted the distinct magnetic fingerprint of hartzburgites within, and extending from, the drilled resource area and produced a high quality target map that was never followed up on (Figure 10). Within the resource area, the harzburgite units are noted to contain higher concentration of metals.

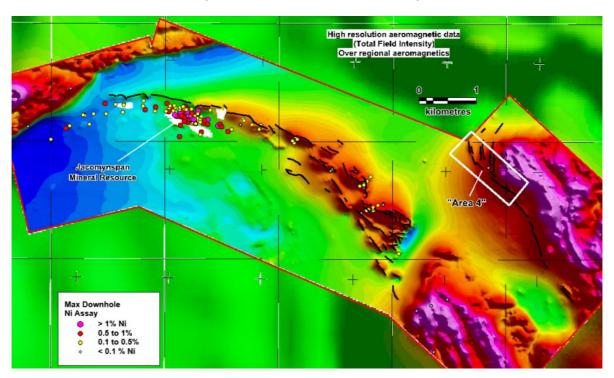
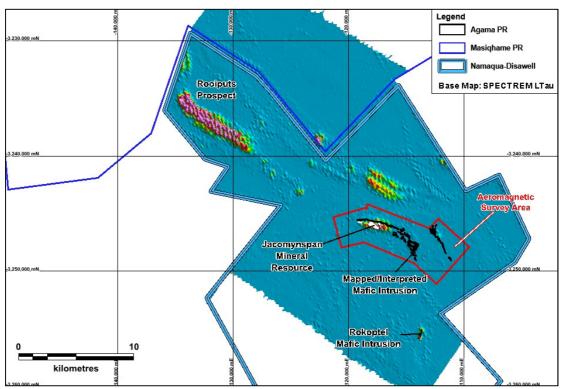


Figure 10: High-resolution aeromagnetic survey data with hartzburgite targets and historical drilling.

Importantly, there are occurrences of known nickel-copper bearing intrusives that have not been adequately drill tested, or indeed drill tested at all. None of the identified bodies have been closed off on strike and the dip extent and 3D geometry has not been established. The target bodies are intruded into a fold and thrust belt and the Company believes that favourable geometries with flat-dipping basal contacts are likely to be developed. Feeder zones and large bodies transgressing stratigraphy are considered higher quality targets. The

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airborne EM and magnetic survey data have also identified numerous stratigraphic VHMS targets, which have not been tested. These anomalies follow the trend of the VHMS horizon extending onto the neighbouring Orion-Masighame prospecting right (Figure 11).



**Figure 11:** Late time constant (Tau) data from the Namaqua – Disawell SPECTREM airborne EM survey showing the high resolution magnetic survey area including the Jacomynspan Mineral Resource and hartzburgite hosted Nickel-Copper targets.

Category	Tonnes	Ni	Cu	Со	Pt	Pd	Αu
	(Millions)	%	%	%	g/t	g/t	g/t
Indicated	42.6	0.26	0.18	0.02	0.09	0.05	0.04
Inferred	35.5	0.27	0.18	0.02	0.10	0.06	0.04
Total	78.1	0.26	0.18	0.02	0.10	0.05	0.04

Table 2: Resources at the Jacomynspan Deposit.

**Table 2 Notes:** While this foreign resource is not reported in compliance with the JORC Code, it is the Company's opinion (and the opinion of the Competent Person for this document), that the data quality and validation criteria, as well as the resource methodology and check procedures, are reliable and consistent with criteria as defined by JORC 2012. All tabulated data has been rounded to one decimal place for tonnage and two decimal places for grades. Quantities are reported after the application of 5% geological loss factor and all resources are greater than 75 metres and less than 900 metres below surface.

The resource for the Jacomyspan Deposit as shown in Table 2 is estimated in accordance with the SAMREC Code (2007) and is therefore a "qualifying foreign resource estimate" as defined in the ASX Listing Rules. Errol Smart, Managing Director and CEO of Orion, is acting as the Competent Person for the Mineral Resource and has reviewed data presented by African Nickel Holdings (Pty) Ltd (African Nickel), supporting documentation from third party sources and completed a field trip to the Jacomynspan Project, which included viewing drill



core from the African Nickel drilling. The Competent Person has not yet completed sufficient review on the qualifying foreign resource estimate to classify it in accordance with the JORC Code at this time and consequently it is uncertain that, following evaluation and/or further exploration work that the qualifying foreign resource estimate will be able to be reported as a Mineral Resource in accordance with the JORC Code. Figure 12 below shows historical drilling on the Jacomynspan resource area, while the existing resource is summarised in Table 2. More detail, including significant intersections and additional figures can be found in the ASX release of 14 July 2016.

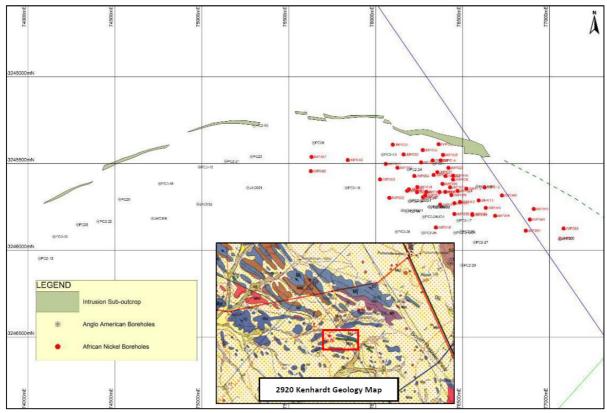


Figure 12: Plan showing drilling on the Jacomynspan resource area.

### Background on Prieska Copper – a world-class VMS development asset(2)

Prieska Copper Mines Limited, then a subsidiary of Anglovaal Limited, operated the mine between 1971 and 1991, producing over 430,000 tonnes of copper and more than 1 million tonnes of zinc from an underground operation based on an initial drilled reserve<sup>(3)</sup> of 47Mt grading 1.74% copper, 3.87% zinc, 8g/t silver, 0.4g/t gold and 30% pyrite.

Mining ceased in 1989, with milling ceasing in 1991. The site was closed and rehabilitated in 1991. The operation was a significant financial success for its owners, returning ZAR2.64 per share (US\$1.16 in money of the time) in dividend yields for an investment of ZAR0.5 per share (US\$0.70) by the shareholders. The premature closure of the mine was influenced by an early operating decision by the owners to focus on maximising dividend yields, rather than investing further in underground capital development to extend mine life. The decision was influenced by uncertain economic and political environment in South Africa in the mid-1980s.

(2) Source of information in this section: Mine records.
(3) Note – this is not a JORC Compliant figure, source Prieska Copper Mines Ltd Annual Report 1970.

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The project is located 270 kilometres south-west of Kimberley (the regional capital) in the Northern Cape province. Importantly, the project has access to significant local and regional infrastructure, with mine infrastructure including a regional power grid feed, bitumen access roads, access to a bulk, treated water supply and a 1,900 metre landing strip. Several large commercial wind and solar generation projects are operational in the surrounding area and the mine is located just 48 kilometres from a railway siding at Groveput with an open-access railway line connecting the site to the world-class export port of Saldanha Bay.

The underground development and regional infrastructure and services in place at the mine is estimated by Orion to have significant replacement value, which will assist in the feasibility and economics of any potential redevelopment of the mine. The underground mine is accessed via an 8.8 metre diameter concrete lined vertical shaft to a depth of 1,024 metres. Three separate ramp declines (6.5 metres by 3.8 metres) have been developed to access the deepest ore at a vertical depth of 1,140 metres. The mineralisation lies in a synformal structure and the target lies in the keel and upturned limb of the syncline, above 1,200 metres.



Figure 13: Historical photograph of the Prieska Copper Mine

As part of its due diligence process, Orion has digitally captured, validated and modelled all available project drilling data, from hard-copy sources. This work has enabled the Company to calculate Exploration Targets for near surface mineralisation comprising both oxide, supergene and primary sulphide material to a depth of 100 metres which is potentially accessible via an initial open pit (+105 level Exploration Target) and an Exploration Target for the deeper sulphide mineralisation identified by historic drilling (Deep Sulphide Exploration Target) (refer Table 1 and ASX Release 18 November 2015). The Exploration Target is based on 182 drill intersections, which can be relied on for width and depth of mineralisation, while 88 boreholes provide information on grade of mineralisation (Figure 14 and 15).

While the data has shortcomings due to loss of some historic records, which prevent estimation of JORC 2012 compliant resources, the Company is encouraged by the assessment by its Competent Person that limited infill and confirmatory drilling may be sufficient to establish JORC 2012 compliant resource estimates. Additional comfort comes from the highly credentialed Dr Danie Krige (of "Kriging" fame), under whose supervision the mines resources were historically estimated and who published academic papers on the estimation methodology applied. The historic data and mine records also provide important information for preliminary mine design and selection of mining methods to advance scoping studies.

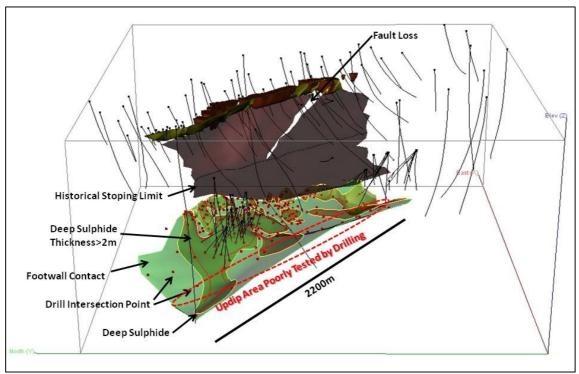


Figure 14: Three Dimensional view of drilling and 3D mineralisation model for the PC Project.

Area	Item	Arithmetic Mean Value	Weighted Mean	Max Value	Count
NBA/ Townsh	Cu%	1.59	1.49	4.29	42
	Zn%	4.19	4.12	6.52	42
NW Trough	SG	3.54	3.65	N/A	17
	Thickness	7.71	N/A	N/A	75
	Cu%	1.52	1.27	3.13	4
NW Hinge	Zn%	3.73	3.81	4.27	4
NVV Hillge	SG	3.41	3.41	N/A	4
	Thickness	5.76	N/A	N/A	39
	Cu%	1.34	1.38	2.76	28
SE Trough	Zn%	5.58	5.54	7.68	28
SE Trough	SG	3.64	3.62	N/A	24
	Thickness	4.97	N/A	N/A	36
	Cu%	1.63	1.75	2.69	12
SE Llings	Zn%	6.94	7.04	12.62	12
SE Hinge	SG	3.77	3.77	N/A	2
	Thickness	10.12	N/A	N/A	14
Central Trough Area	Cu%	0.40	0.40	0.41	2
	Zn%	5.91	5.39	8.29	2
	SG	3.18	3.19	N/A	2
	Thickness	5.77	N/A	N/A	18
M/h ala Araa	Cu%	1.48	1.50	4.29	88
	Zn%	5.03	4.90	12.62	88
Whole Area	SG	3.57	3.62	N/A	49
	True Thickness	6.74	N/A	N/A	182

Notes
Cu%, Zn% and SG "arithmetic mean values" are arithmetic mean of stretch values.

Thickness mean values are arithmetic mean of true thickness values.

Figure 15: Summary of drill hole intersections available for the PC Project

<sup>&</sup>quot;Weighted means" are individual intersections (stretch values) weighted by true thickness.

Cu% and Zn% "max values" are maximum of stretch values.



## Background on the Option Agreement and Due Diligence Investigations

In November 2015 the Company announced the signing of a binding term sheet giving Orion the right to acquire the unlisted company, Agama Exploration & Mining (Pty) Ltd (**Agama**), a South African registered company which through its subsidiary companies, ultimately holds an effective 73.33% interest in the PC Project and the Marydale gold project (**Option**). Information on these projects is detailed in the Company's ASX Release of 18 November 2015 and is summarised in the "Background" section above.

The projects have a well established Broad Based Black Economic Empowerment (**BBBEE**) ownership structure (26.66% ownership) in place with strong local partners.

On 13 May 2016, the Company announced that the terms of the Option have been amended. Importantly, the Option term has been extended to 31 December 2016 and can be terminated at any time at Orion's election. This enables Orion to continue to conduct comprehensive due diligence, including geophysics, in-fill and confirmatory drilling and feasibility studies in advance of a decision to exercise the Option and to advance discussions with prospective investors interested in financing and/or joint venture participation in the acquisition.

The Option represents a low-cost, counter-cyclical opportunity for Orion to expand its existing resource portfolio beyond greenfields exploration projects and create significant value for its shareholders. Importantly, the PC Project has a cash backed environmental fund of ZAR17.3 million (A\$1.5 million) which has not been needed since the mine closed in 1991. Further, the acquisition target is well financed at project level to advance its main project, with ZAR 30 million (approximately A\$2.6 million) facility available from a South African Investment Fund.

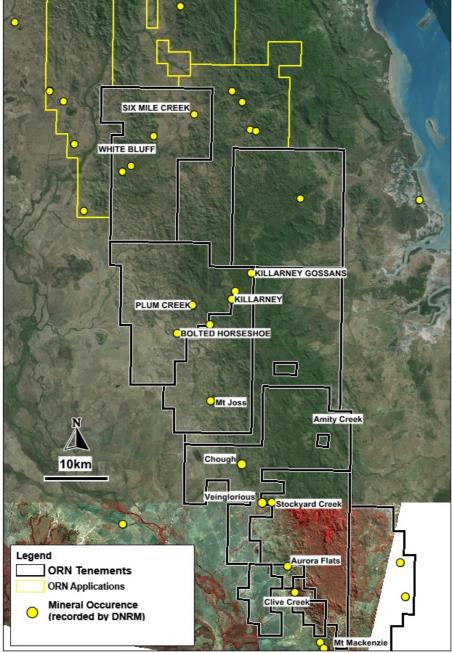
The Option period allows Orion to conduct comprehensive due diligence, including geophysics, in-fill and confirmatory drilling and feasibility studies in advance of a decision to exercise the Option. Since signing of the Option the Company has progressed extensive due diligence investigations including:

- Legal title opinion by Japie Van Zyl Attorneys in South Africa has confirmed good standing of the Prospecting Rights of the PC Project and the Marydale project, freehold title to certain properties at PC and servitude rights for usage of all land required to operate PC if a Mining Right is granted.
- Paul Matthews, a geologist and Competent Person under the JORC Code, has undertaken extensive review of historical geological records, capturing and recording all information to evaluate the geological potential and has signed off on the +105 Level and Deep Sulphide Exploration Targets including compilation of information required under the JORC Code (refer ASX Release 18 November 2015).
- A comprehensive review of environmental conditions, mining infrastructure, engineering design and costing for potential future mine development to +-30% accuracy levels (normally applied at the Scoping Study level) has been carried out by a team of over 10 engineers and scientists under the supervision of the METS Group and Shaft Sinkers, who are industry leaders in planning and executing primary mine development.
- METS made use of specialist sub-contractor groups to evaluate open pit mining, underground mining, mineral processing and environmental conditions.
- Drilling has commenced to firm up on the expectations of the Exploration Target and advance toward JORC compliant resources.



## **Connors Arc Epithermal Gold Project (Queensland)**

During the Quarter, exploration activities at the Connors Arc Epithermal Gold Project (Queensland) were limited due to the intense activity in South Africa. However field work continued to identify new occurrences of epithermal veining within the project area along with review of drilling results from Chough, Veinglorious and Aurora Flats (Figure 16).



**Figure 16:** Plan showing location of Chough, Aurora Flats and Veinglorious Prospects. Regional prospects and recorded mineral occurrences also shown.



Field mapping focussed on the area surrounding the Killarney Prospect and the Bora Creek catchment area (Figure 16). A number of epithermal quartz veins were identified and sampled with results awaited. Various epithermal textures were able to be seen in outcrop and hand specimen, with examples shown in Figure 17 below.





Figure 17: Samples from field mapping showing epithermal vein textures (LHS) and sheeted quartz veins in outcrop (RHS).

#### Interpretation of Drilling Results

Interpretation of results from the Company's drilling earlier in the year continued with the focus on determining palaeo-temperature and palaeo-pressure conditions from short-wave infra red (SWIR) spectral data. During the quarter measurements of core from the 2016 drill program were completed and results are currently being interpreted and placed into context with data from the Company's previous drilling.

#### **Background**

The New England Fold Belt in Queensland hosts numerous +1 Moz Devonian through to Triassic aged epithermal and intrusion-related gold deposits. Many of these are Permian -Carboniferous aged systems and are intimately associated with intrusive lithologies of similar age.

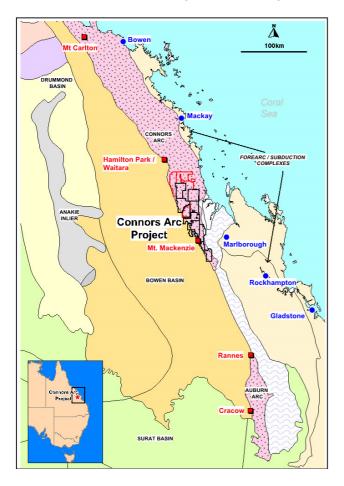
Orion's Connors Arc project area is located within a geological and structural setting very similar to other significant epithermal gold systems in Queensland (Figure 18). Notable features include close proximity to the eastern margin of the Bowen Basin and prospective, Permo-Carboniferous aged volcanic and intrusive lithologies. In addition:

- Key prospects are spatially associated with a large, magmatic hydrothermal system (Mt Mackenzie);
- This hydrothermal system is located within a geological and structural setting which is very similar to other significant epithermal gold systems in Queensland such as



- Cracow and Mt Carlton and is of the same broad age (Permo-Carboniferous) as many other intrusion-related gold systems in Queensland; and
- Geological and geochemical characteristics in historical drilling which suggests that some prospects may be shallowly eroded, implying potential for higher gold grades at depth and existence of blind to surface orebodies.

In addition, several targets have been identified based on historical data review and using coincident ASTER alteration, geological and geophysical features which represent grass-roots additions to the project's target portfolio, which complement more mature targets such as Aurora Flats. Field mapping and sampling has also identified new targets.



**Figure 18:** Location of tenements in the Connors Arc Project.

### Fraser Range - Nickel-Copper and Gold-Projects (Western Australia)

The Company continues to hold a substantial tenement holding in the Fraser Range Province of Western Australia. The Company has defined a substantial number of targets within the project area but at this point is still assessing how to effectively explore the significant areas covered by these targets with the limited resources at hand.

A number of these targets lie beneath deeper, modern sediment cover in the eastern project area, where airborne EM has been ineffective and, in some cases, where high-resolution magnetic data has not yet been acquired.

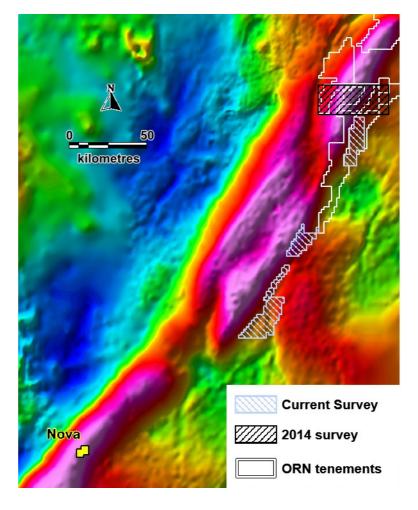
Orion has commenced a ground gravity and aeromagnetic survey over the southern portion of the project area (Figure 19). Data from the surveys will be used to identify locations with the highest potential to host mafic-ultramafic intrusions with the potential to host nickel-

# Sorion Gold<sub>NL</sub>

copper mineralisation. In addition interpretation of the data will enable compilation of a geological model including identification of major crustal structures which may represent historical magma pathways and sediments which would provide contaminants to trigger deposition of metal bearing sulphides.

Whilst the Fraser Range Project is highly prospective, due to the nature and scale of exploration activities that need to be undertaken, the Company is in discussions with several parties who have expressed interest to become involved in the Fraser Range Project. Involvement from these interested parties could provide both additional technical capability and potential financing for expanded exploration efforts on Orion's large tenement holding. Discussions with various parties are ongoing.

**Figure 19:** Orion tenements in the Fraser Range Project showing location of current gravity and magnetic surveys.



#### **Background**

The Fraser Range Project is located between two world-class discoveries, being the Tropicana Gold Project to the north, owned by Independence Group and AngloGold Ashanti and the Nova Nickel-Copper-Cobalt Project to the south, owned by Independence Group. The tenement areas cover prospective targets for both Tropicana-style gold and Nova-style nickel deposits, with historical geochemical anomalies and scout drilling identifying bedrock mineralisation of both minerals.



Orion Gold<sub>NL</sub> Nickel-PGE exploration in the Peninsula Project, to the north-east of the Cundeelee Shear Zone, was carried out by Western Areas NL between 2000 and 2006. Scout RC drilling in 2005 yielded intersections of gabbronorite and other mafic units which were interpreted to represent differentiated mafic intrusives, similar to those which were later discovered and host Independence Group's Nova-Bollinger nickel-copper-cobalt deposit.

Exploration of the Peninsula Project pre-dated the Nova-Bollinger discovery and the Company has now reinterpreted data from the Project in that context and acquired additional geophysical data to generate targets for drilling to test for deposits obscured by surface cover.

In December 2013, the Company carried out its maiden drilling program at the Peninsula Project and identified prospective mafic-ultramafic intrusive lithologies in areas where intrusive bodies had not previously been identified. RC drilling at Peninsula in early 2014 yielded anomalous Nickel-Copper results which are the subject of current work programs.

In addition, a total of 34 Nickel-Copper-Platinum Group Element targets, have been generated, based on geophysical, geochemical and geological criteria across the Company's substantial landholding of approximately 4,000km² (Figure 19). The Company's interest in these tenements is between 70% - 100% and includes 1,783km² of granted tenements and 1,933km² of applications where the Company and its partner are the sole or priority applicant.

The Company's exploration programs have recently focussed on the Peninsula Prospect where the following key indicators have been observed:

- Large bodies of mafic-ultramafic intrusives are present, with the Company's drilling confirming the nature and extent of the magma chamber at Pennor;
- Detailed geochemical data from drill hole (fresh rock) samples confirms that:
  - the large HA2 and Pennor intrusive bodies are related and from the same source;
  - o the parent magmas for these intrusions are fertile as sources of Nickel-Copper;
  - a substantial amount of crustal contamination has occurred during uplift and emplacement of these magmas, adding the necessary components to form sulphides;
  - the HA2 magma chamber contains sulphides which were formed in the parent magma then entrained by magma dynamics;
  - the Pennor magma chambers contains magma which is depleted in Nickel-Copper, relative to the parent magma; and
  - the Nickel-Copper segregated out (or entrained in the case of HA2) is expected to have accumulated along basal contacts in magma chamber or in feeder zones to the large chambers.

#### Walhalla Gold and Polymetals Project (Victoria)

During the Quarter, the Company did not carry out any exploration activity on the Walhalla Project.



As part of its longer term growth strategy, the Directors of Orion continually review new business opportunities and the Company routinely makes opportunistic applications for vacant ground in known mineralised provinces with the aim of building a landholding in these areas.

During the Quarter the Company divested its Eastern Goldfields Project, a series of small, noncontiguous applications over unexplored ultramafic sequences in the Eastern Goldfields Province of Western Australia, to Eastern Goldfields Limited.

#### **Tenement Schedule**

Tenement	Project	Ownership Interest	Change in Quarter	Joint Venture Partner		
Western Australia						
E28/2367	Fraser Range	100%				
E28/2378	Fraser Range	100%				
E28/2462	Fraser Range	100%				
E39/1653	Fraser Range	80%		Geological Resources Pty Ltd		
E39/1654	Fraser Range	70%		NBX Pty Ltd		
E69/2379	Fraser Range	70%		Ponton Minerals Pty Ltd		
E69/2380	Fraser Range	70%		Ponton Minerals Pty Ltd		
E69/2707	Fraser Range	70%		Ponton Minerals Pty Ltd		
Queensland	-					
EPM19825	Connors Arc	100%				
EPM25122	Connors Arc	100%				
EPM25283	Connors Arc	100%				
EPM25703	Connors Arc	100%				
EPM25708	Connors Arc	100%				
EPM25712	Connors Arc	100%				
EPM25714	Connors Arc	100%				
EPM25763	Connors Arc	100%				
EPM25764	Connors Arc	100%				
EPM25813	Connors Arc	100%				
EPM26081	Connors Arc	100%	Granted			
EPM26082	Connors Arc	100%	Granted			
EPM26083	Connors Arc	100%	Granted			
Victoria	Victoria					
MIN5487 <sup>(4)</sup>	Walhalla	100%				
EL5340	Walhalla	100%				
EL5348	Walhalla	100%				

(4) MIN5487 has been sold to A1 Consolidated Gold Ltd.



#### Cash and Finance

Cash on hand at the end of the Quarter was \$0.65 million.

#### **Investments**

As a result of transactions previously announced to the ASX, the Company holds the following interests in ASX listed companies:

Eastern Goldfields Limited (ASX: EGS) - 2,000,000 unlisted options, on the following terms:

Number of options	Exercise Price	Expiry Date
1,000,000	\$0.168	8/03/2018
1,000,000	\$0.189	8/03/2020

A1 Consolidated Gold Limited (ASX: AYC) - 7,816,285 fully paid ordinary shares.

The Company continuously assesses the value and progress of these interests and may divest some or all of these interests to provide capital for its ongoing exploration activities.

#### Earn-In Right - Jacomynspan Nickel-Copper-PGE Project (South Africa)

As referred to in the Exploration section of this Report, subsequent to the end of the Quarter the Company announced that it had entered into a binding term sheet to acquire the earnin rights over the Jacomynspan Project from two companies, Namaqua and Disawell, which hold partly overlapping prospecting rights and mining right applications.

Orion's earn-in right is via a South African-registered special-purpose vehicle (SPV), which will be established by Orion as its vehicle for investment in the joint ventures and of which historically-disadvantaged South African (HDSA) shall hold a minimum of 26% of the issued shares. Key terms of the transaction are set out below:

- Orion SPV has the exclusive opportunity to earn up to an 80% interest (Orion 59.2%) in the Companies. The Companies are privately owned South African companies with 26% or greater HDSA ownership.
- Conditions precedent to the commencement of earn in rights (Earn-In **Commencement Date**) include:
  - Due diligence to be conducted by Orion;
  - o Orion providing the Companies with an initial exploration program to be carried out for the first 6 month period following the Earn-In Commencement Date (Initial Program);
  - o The Companies obtaining all necessary approvals for Orion to access the Jacomynspan Project and conduct exploration activities including the Initial Program;
  - o Orion providing proof of financial capacity to execute the Initial Program prior to 9 January 2017; and
  - The parties entering into a comprehensive earn-in agreement prior to 10 November 2016.



- Orion SPV is able to earn an initial interest of 25% (Orion 18.5%) in the Companies via staged expenditure of US\$0.5 million on the Jacomynspan Project over the 12 months from the Earn In Commencement Date (First Earn In Right) including:
  - o Expenditure commitment of US\$0.25 million in the first 6 months; and
  - o A further \$0.25 million must be spent within 12 months of the Earn-In Commencement Date (US\$0.5 million in total expenditure).
- Once Orion SPV has earnt the initial 25% interest:
  - The Companies will issue Orion with fully paid ordinary shares in the Companies (Shares) which shall result in Orion SPV being the holder of 25% of the total Shares on issue immediately following such issue of Shares;
  - The Companies will record a shareholder loan account in favour of Orion SPV to the value of the First Earn In Right expenditure incurred by Orion and shall continue to record further expenditure by the Orion SPV as an increase in the shareholder loan account (**Orion Loan**);
  - o Orion can elect to increase its interest via further expenditure, as detailed below, or maintain its 25% interest by contributing pro-rata to exploration; and
  - o Within 30 days, the parties will negotiate the terms of a shareholders agreement to govern the terms of relationship between the shareholders.
- Following the First Earn-in Right, should Orion elect to increase its interest via further expenditure, the Orion SPV can earn a further 25% interest (making its total interest 50% (Orion 37%)) by expending a further US\$1 million on the Jacomynspan Project (US\$1.5 million total expenditure) over a further 12 months (2 years from Earn-In Commencement Date) (Second Earn In Right).
- Once Orion SPV has earnt a 50% interest:
  - The Companies will issue Orion with Shares which shall result in Orion SPV being the holder of 50% of the total Shares on issue immediately following such issue of Shares; and
  - o Orion can elect to increase its interest via further expenditure, as detailed below, or maintain its 50% interest by contributing pro-rata to exploration.
- Following the Second Earn in Right, should Orion elect to increase its interest via further expenditure, Orion SPV can earn a further 30% interest (making its total interest 80% (Orion 59.2%)) by:
  - Expending a further US\$0.5 million on the Jacomynspan Project (US\$2 million total expenditure) over a further 12 months (3 years from Earn In Commencement Date);
  - Completing a bankable feasibility study, which has been reviewed and signed off by an independent external expert; and
  - o Providing or securing project finance terms to develop a mining operation within the Project Area as per the bankable feasibility study and which shall not result in any Shareholder dilution.
- On the Earn-In Commencement Date, Orion will be appointed as the operator and manager of the joint ventures and will have the right to appoint a minimum of one director to the boards of the Companies.
- The Companies shareholders on the date of execution of the Term Sheet (**Signature Date**) shall be entitled to a 2% royalty in proportion to their beneficial interest in the Companies at the Signature Date, on net smelter returns arising from the production



and sale of metals from the Jacomynspan Project's SAMREC resource as at the Signature Date (**Royalty**). At any time following the Earn-In Commencement Date, Orion shall have the right at its sole discretion to buy out the Royalty for an aggregate value of US\$2 million.

As noted above, all expenditure by Orion shall be advanced to the Companies as an Orion Loan. In addition to the Orion Loan, the Companies have existing shareholder loans of ZAR78.5 million (US\$5.4 million) as at the Signature Date (together Shareholder Loans). Following the completion of the First Stage Earn In, the parties will negotiate the terms of a Shareholders Loan to govern the terms of the Shareholder Loans. The Shareholder Loan agreement will contain clauses normally contemplated by a formal agreement negotiated in good faith between the parties.

Should Orion fail to meet its earn in right commitments, then either the parties will renegotiate the terms of the Term Sheet or, if the parties are unable to agree those new terms, then Orion will relinquish its rights to earn any further interest in the Companies and the Term Sheet will be at an end.

#### Option Agreement Amendment to terms of Agama option (South Africa)

As referred to in the Exploration section of this Report, on 13 May 2016, the Company announced that the terms of the Option to acquire an effective 73.33% interest in Agama, the company holding Prospecting Rights over the historic Prieska Copper Mine, located at Copperton, Northern Cape province, South Africa have been amended. Importantly, the The binding term sheet with private company Agama provides Orion with an exclusive right to carry out due diligence and to acquire Agama, which through its subsidiary companies, ultimately holds an effective 73.33% interests in the PC copper – zinc project and the nearby Marydale gold project.

The key terms of the revised binding term sheet (**Term Sheet**) are set out below:

- The vendor group, who are unrelated and at arm's length to Orion, have agreed to option and sale terms, to sell a 100% interest in Agama.
- The Option is exercisable at Orion's election at any time before 31 December 2016 (previously 31 July 2016), and can be terminated at any time at Orion's election.
- Orion has committed to expend a minimum of ZAR1.2 million (A\$0.1 million) on an exploration program during the Option period. As detailed below, the exploration program will be undertaken at PC and Marydale and will include drilling and trenching to test near surface mineralisation, as well as soil sampling to identify additional mineralisation.
- Should Orion exercise the Option on or before 31 July 2016, the purchase consideration payable upon exercise of the Option to complete the acquisition is ZAR49 million (A\$4.3 million), of which:
  - o Cash ZAR29 million (A\$2.5 million) is payable in cash;
  - Consideration Shares ZAR20 million (A\$1.7 million) is payable by issue of Orion fully paid ordinary shares (Shares), to be issued at a 10% discount to the 10 trading day VWAP of the Shares prior to the issue of the Shares (Share Issue Price); and



- Each Share issued will have an attached unlisted Orion option, exercisable at a 100% premium to the Share Issue Price and expiring on the date which is 24 months following the date of issue of the unlisted option (Unlisted Option).
- Should Orion exercise the Option after 31 July 2016, the purchase consideration payable upon exercise of the Option to complete the acquisition is ZAR53 million (A\$4.6 million), of which:
  - Cash ZAR31.5 million (A\$2.7 million) is payable in cash;
  - Consideration Shares ZAR21.5 million (A\$1.9 million) is payable by issue of Shares at the Share Issue Price; and
  - o Each Share issued will have an attached Unlisted Option.
- The Consideration Shares are subject to regulatory and shareholder approvals. If certain South African regulatory approvals for the issue of Shares to the vendors are not received within an agreed period, the Consideration Shares may be settled by cash payment to the vendors unable to obtain such approvals.
- Shares issued to the vendors will be subject to a 6 month voluntary escrow period from their date of issue and 75% of the Shares issued to the vendors will be subject to a 12-month voluntary escrow period from their date of issue;
- Option fees payable by Orion to maintain the Option are as follows:

Date Option fee due	ZAR	A\$ Equivalent (5)
1 July 2016	250,000	22,000
1 August 2016 – 31 December 2016	Nil	Nil

(5) Exchange rate conversion assumption: A\$1 = ZAR11.5.

Upon exercise of the Option, one final option fee will become payable to the vendor, which shall be equal to the previous option fee payment made by Orion.

- The acquisition is subject to:
  - o due diligence to be completed by Orion;
  - o Orion providing or procuring finance for Agama so that it can settle all shareholder loans. Should Orion exercise the Option on or before 31 July 2016, shareholder loans settlement will amount to an aggregate of ZAR31 million (A\$2.7 million). Should Orion exercise the Option after 31 July 2016, shareholder loans settlement will amount to an aggregate ZAR32.3 million (A\$2.8 million);
  - o regulatory approvals;
  - the issues of Shares and unlisted Orion options to the vendors being approved by Orion shareholders where required by law, including the ASX listing rules; and
  - Agama disposing of all its assets and liabilities, other than the PC project and the Marydale project prior to settlement.

#### Option Agreement – Masighame (South Africa)

As referred to in the Exploration section of this Report, on 29 April 2016 the Company announced that it had executed a binding option agreement with Masiahame for Orion to earn up to a 73% interest in Masiahame (**Term Sheet**). Masiahame holds prospecting rights

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Orion Gold<sub>NL</sub> over large, highly prospective area located approximately 80 kilometres north of the Prieska Copper Project. Key terms of the Term Sheet are as follows:

- Orion has the opportunity to earn up to a 73% interest in Masighame.
- Masiqhame is a privately owned South African company with 100% Historically Disadvantaged South African ownership. Masiqhame is thus black economic empowerment (BEE) compliant from the outset and Orion will earn in to an incorporated joint venture, partnering with a BEE partner via Masiqhame.
- Orion will have an exclusive option to undertake due diligence on the corporate entity and the prospecting rights until no later than 30 September 2016 (Option), failing which the parties will be released from their obligations under the Term Sheet.
- Following the successful completion of due diligence, should Orion elect to exercise the Option:
  - Orion will pay Masiqhame ZAR1,500,000 (A\$130,000) to invest in new fully paid Masiqhame shares (Masiqhame Shares); and
  - o Masiqhame will issue Orion with Masiqhame Shares which shall result in Orion being the holder of 50% of the total Masiqhame Shares on issue immediately following such issue of Masiqhame Shares.

### (Completion)

- At Completion, Orion shall have the right to appoint the majority of directors to the board of Masiqhame and shall be appointed manager and operator of the prospecting rights;
- Masighame will then apply the ZAR1,500,000 Orion has invested in Masighame Shares to execute an initial exploration program on the tenements.
- Once Orion has earnt the initial 50% interest in Masighame through the issue of Masighame Shares to Orion, it can elect to increase its interest by a further 23% (to 73% in total) via:
  - o provision of a shareholder loan to Masighame (Loan) on the following terms:
    - The principal amount of the Loan shall be the ZAR equivalent of A\$100,000 in each 12 month period commencing from the 12<sup>th</sup> month following Completion (Principal);
    - Proceeds from the Loan shall be used to progress exploration programs and feasibility study works;
    - The Loan interest rate shall be nil;
    - the Loan shall only be repaid from operating surplus from future operations of Masighame;
    - In addition to the Principal, Orion may elect at its sole discretion to provide additional finance by means of the Loan in order to progress exploration works and complete feasibility study works and if applicable, apply for a mining right;
    - Masighame shareholders as at the date of execution of the Term Sheet will be free carried until such time that a mining right is granted; and
    - if Orion fails to advance the Principal in any 12 month period, Masiqhame may subject to notice periods demand that all of the Shares held by Orion be transferred back to the Masiqhame shareholders (excluding Orion) for nil consideration and remove Orion as manager.
  - o finalisation of a feasibility study; and



 lodgement of an application for the grant of a mining right over some or all of the area of the prospecting rights,

Following this, Masiqhame shall immediately issue further new Masiqhame Shares to Orion which shall result in Orion being the holder of 73% of the total Masiqhame Shares on issue immediately following such issue.

• The transaction is subject to due diligence to be conducted by Orion and all necessary regulatory approvals.

### Sale of Non-Core Tenement Package to Eastern Goldfields

As referred to in the Exploration section of this Report, during the Quarter, the Company entered into a binding agreement for the sale of its Eastern Goldfields Project to Eastern Goldfields Limited (**Eastern**).

Under the terms of the agreement, Orion received the following consideration for the sale of the tenements to Eastern:

- \$125,000 paid in cash;
- 2,000,000 unlisted Eastern options, on the following terms:

Number of options	Exercise Price	Expiry Date
1,000,000	\$0.168	8/03/2018
1,000,000	\$0.189	8/03/2020

• Eastern procured the subscription for 33,333,333 Orion shares at \$0.015 per share to raise \$0.5 million.

#### **Capital Raising**

As referred to above, under the terms of the agreement for the sale of its Eastern Goldfields Project, Eastern agreed to procure the subscription for 33,333,333 Orion fully paid ordinary shares (**Shares**) at \$0.015 per share to raise \$0.5 million. On 8 June 2016, the Company issued the Shares, which fell within the 15% capacity for issues of equity securities without shareholder approval afforded by ASX Listing Rule 7.1.

On 23 June 2016, the Company issued 20,673,332 Shares at an issue price of \$0.015 per share to raise \$0.31 million. The issue of these Shares was made to sophisticated investors, pursuant to Section 708A of the Corporations Act 2001 and fell within the 15% capacity for issues of equity securities without shareholder approval afforded by ASX Listing Rule 7.1.



## Orion Gold<sub>NL</sub> Competent Persons Statement

The information in this report that relates to the Exploration Targets at the Prieska Copper project complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and is based on information compiled by Mr Paul Matthews, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Matthews 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 JORC Code. Mr Matthews consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. The Exploration Results are based on standard industry practises for drilling, logging, sampling, assay methods including quality assurance and quality control measure as detailed in the Company's ASX announcement of 18 November 2015.

The information in this report that relates to Orion's Exploration Results and historical Exploration Results at the PC and Marydale Projects complies with the JORC Code and has been compiled and assessed under the supervision of Mr Errol Smart, Orion Gold NL's Managing Director. Mr Smart (PrSciNat) is registered with the South African Council for Natural Scientific Professionals, a ROPO for JORC purposes and has experience in the identification and exploration of mineralisation of this style. Mr Smart consents to the public release of the information in the context contained within this release as a Competent Person as defined in the JORC Code).

The information in this report that relates to historical Exploration Results at the Jacomynspan Project complies with the JORC Code and has been compiled and assessed under the supervision of Mr Errol Smart, Orion Gold NL's Managing Director. Mr Smart (PrSciNat) is registered with the South African Council for Natural Scientific Professionals, a ROPO for JORC purposes and 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 JORC Code. Mr Smart consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. The Exploration Results are based on standard industry practises for drilling, logging, sampling, assay methods including quality assurance and quality control measure as detailed in ASX announcement of 14 July 2016.

The information in this report which relates to the Jacomynspan SAMREC (2007) resource has been compiled and assessed under the supervision of Mr Errol Smart, Orion Gold NL's Managing Director. Mr Smart has concluded that the information provided in this document complies with ASX Listing Rule 5.12 and is an accurate representation of the data and studies available and relating to this resource. However Mr Smart, as the Competent Person, has not yet completed sufficient review on the qualifying foreign resource estimate to classify it in accordance with the JORC Code at this time and consequently it is uncertain that, following evaluation and/or further exploration work that the qualifying foreign resource estimate will be able to be reported as a Mineral Resource in accordance with the JORC Code. Mr Smart consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results and other technical information for the Fraser Range Nickel-Gold Projects (also described as the Cundeelee Gold Project, the Peninsula Nickel Project and the Plumridge Lakes Project) complies with the JORC Code and has been compiled by Mr Bill Oliver, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Oliver is the Chief Operating Officer of Orion Gold NL and 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 JORC Code. Mr Oliver consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results at the Connors Arc Project complies with the JORC Code and is based on information compiled by Mr Bruce Wilson, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Wilson is the Principal of Mineral Man Pty Ltd, a consultant to Orion Gold, and 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 JORC Code. Mr Wilson consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

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