



Orion Minerals

ASX/JSE RELEASE: 30 April 2018

Quarterly Activities Report For Period Ended 31 March 2018

HIGHLIGHTS

- **Prieska Zinc-Copper Project Mineral Resource drilling and estimation achieves major milestones:**
 - Maiden JORC compliant total Mineral Resource estimate reported as 29.4Mt containing 1,126,000 tonnes Zn and 365,000 tonnes Cu, for the Prieska Project.
 - Prospecting Rights covering strike extensions of the Prieska deposit granted.
 - 42 new drill hole intersections completed, further validating historical drilling results at the Prieska Project's Deep Sulphide Target.
 - +105 Level Target (Open Pit) drilling campaign completed, providing invaluable geotechnical and mineral resource estimation data.
- **Safety, environment and community engagement ongoing:**
 - Zero Lost time injuries for 69,030 manhours worked at the Prieska Project.
 - Prieska Project Social and Labour Plan endorsed by Local Municipality.
 - The Steering Committee of the collaboration forum with local Government on the Prieska Project social investment projects was constituted and is now operational.
 - The mandatory public participation and commentary process for the Prieska Project environmental assessment has progressed well.
- **Mine feasibility studies reach significant milestones:**
 - Detailed inspection of main hoisting shaft completed.
 - Metallurgical processing flowsheet formulated for all material types.
 - Preparation and lodgement of the Mining Right application for the feasibility studies concluded.
 - Confirmation that national grid power available from onsite electrical substation.
- **Regional Exploration Program initiated:**
 - Litho - geochemistry investigation of ultramafic intrusive drill samples undertaken with the aim of assisting in the identification of priority regional exploration drill targets on the Namaqua-Disawell Project.
 - SkyTEM™ survey completed on the Masiqhame and Namaqua-Disawell projects, identifying high priority VMS Zn-Cu and intrusive related Ni-Cu-Co-PGE targets for follow-up.
 - Classification and reporting of a maiden JORC compliant Mineral Resource estimate of the Jacomynspan Nickel-Copper-Cobalt-PGE deposit of 6.8Mt containing 39,480 tonnes Ni, 22,800 tonnes Cu and 1,800 tonnes of Co at 0.4% Ni cut-off grade with grades of 0.57% Ni, 0.33% Cu and 0.03% Co drilled between 1971 and 2012.
 - Masiqhame earn-in to 49% (Kantienpan Deposit) completed.
 - Namaqua-Disawell first stage of earn-in (25%) obligations satisfied.

Exploration

Areachap Belt Projects (South Africa)

The Company continued an intensive drilling campaign at the Prieska Zinc-Copper Project (**Prieska Project**). Work focused on drilling at the Deep Sulphide Target with the aim of upgrading the classification of Mineral Resources compliant with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 edition) (**JORC Code**). This, along with other key studies, will be used as the basis of a Bankable Feasibility Study (**BFS**), which the Company aims to complete by Q4 CY18. A maiden total Mineral Resource was reported for the Prieska Project during the Quarter (refer ASX release 8 February 2018).

Regional exploration on the Masiqame and Namaqua-Disawell permits continued, with an airborne electromagnetic (**EM**) survey, data compilations, geochemical studies and Mineral Resource work being carried out.

Prieska Zinc-Copper Project

The Prieska Zinc-Copper Project covers unmined dip and strike extensions from a historical underground mining operation. Mineralisation was delineated by extensive drilling carried out by the previous owners. Orion has digitally captured, validated and modelled all relevant project drilling data available from hard-copy sources. This work has enabled the Company to define targets for near surface mineralisation comprising oxide, supergene and primary sulphide material to a depth of 100m which is potentially accessible via an initial open pit (+105 Level Target (Open Pit)) and the deeper sulphide mineralisation (Deep Sulphide Target). The targets are based on 182 historical drill intersections, which could be relied on for width and depth of mineralisation, while 88 historical drill holes provided information on grade of mineralisation.

Since the acquisition of the Prieska Project in March 2017, 281 additional drill holes have been digitised from historic mine plans below the -680m level. The data initially had shortcomings due to loss of some historic records which prevented estimation of Mineral Resources compliant with the JORC Code until further validation and infill drilling was completed by Orion. By 31 March 2018, 42 mother and deflected holes for resource estimation, and 11 holes for metallurgical test work had been drilled in the Deep Sulphide Target by Orion. At the +105 Level Target (Open Pit) 31 holes for resource estimation and 13 holes for metallurgical and/or geotechnical test work were drilled by Orion, providing confirmation of the original data and allowing a Maiden JORC compliant Mineral Resource to be established for both the +105 and Deep Sulphide Targets. The Deep Sulphide Mineral Resource remains open on both dip and strike and drilling will continue to test for extensions and provide improved density within the Mineral Resource to increase confidence level.

Safety and Environment

No lost time injuries were reported during the Quarter.

| Category of Work | Hours Worked | |
|------------------|---------------|---------------|
| | Quarter | Year to Date |
| Exploration | 65,558 | 65,558 |
| Mine Re-Entry | 3,472 | 3,472 |
| Total | 69,030 | 69,030 |

The Lost Time Injury Frequency Rate (**LTIFR**) per 200,000 manhours worked is: **0.72**.

The Quarterly LTIFR for 200,000 manhours worked is: **0**.

These safety metrics compare well to industry averages of 10.32 and 1.50 respectively.

Emphasis for the Quarter was on improving awareness and practices associated with hydrocarbon and general waste management. Containment bunding around the fuel storage and surface parking bay for underground mobile equipment were upgraded. An awareness campaign on the statutory requirements for waste management was conducted and signage was erected to improve access control around the Prieska Project site. A safety audit of the community liaison and information centre in the town of Prieska was also undertaken to ensure facilities are safe for public use in light of anticipated increasing use as the Company's activities increase in the region.

Feasibility Studies and Environmental Impact Assessment

Mine development work on the Prieska Project for the Quarter focused primarily on preparing the Mining Right application documentation. Ongoing feasibility study work will reference data collated and concepts derived for the mining right application, though to greater detail.

Mine Design

Mine design work for the Quarter focused on conceptualising mine layouts and sequencing for the Mining Right Application. As complete Mineral Resources estimate for the Copperton deposit are due for completion later in the year, the majority of mine design work involved the collection of data in preparation for detailed design work on geotechnical conditions, quantifying of voids, investigating backfilling options, including the collection of samples for both paste and cemented aggregate fill backfill testing.

Detailed inspection of the main hoisting shaft (Hutchings Shaft)

The ongoing mine feasibility studies reached a material milestone this Quarter with the completion of the detailed visual, mechanical and civil inspections of the Hutchings Shaft barrel, steelwork and concrete headgear, from the surface down to a depth of 380m. The inspections confirmed that the shaft headframe, shaft barrel steelwork and shaft wall integrity have been well preserved since mine closure in 1991. This makes the option of refurbishing the existing shaft for future use a realistic and viable option to be considered for detailed feasibility assessment.

The commercial viability of mining operations, planned to be established within the footprint of the historic Prieska Copper Mine, is substantially enhanced by being able to leverage off the substantial suite of pre-existing infrastructure which includes, amongst others, the concrete-lined, 1km deep, vertical Hutchings Shaft, that was originally designed to hoist some 300,000 tonnes per month of rock out the mine (Figure 1).

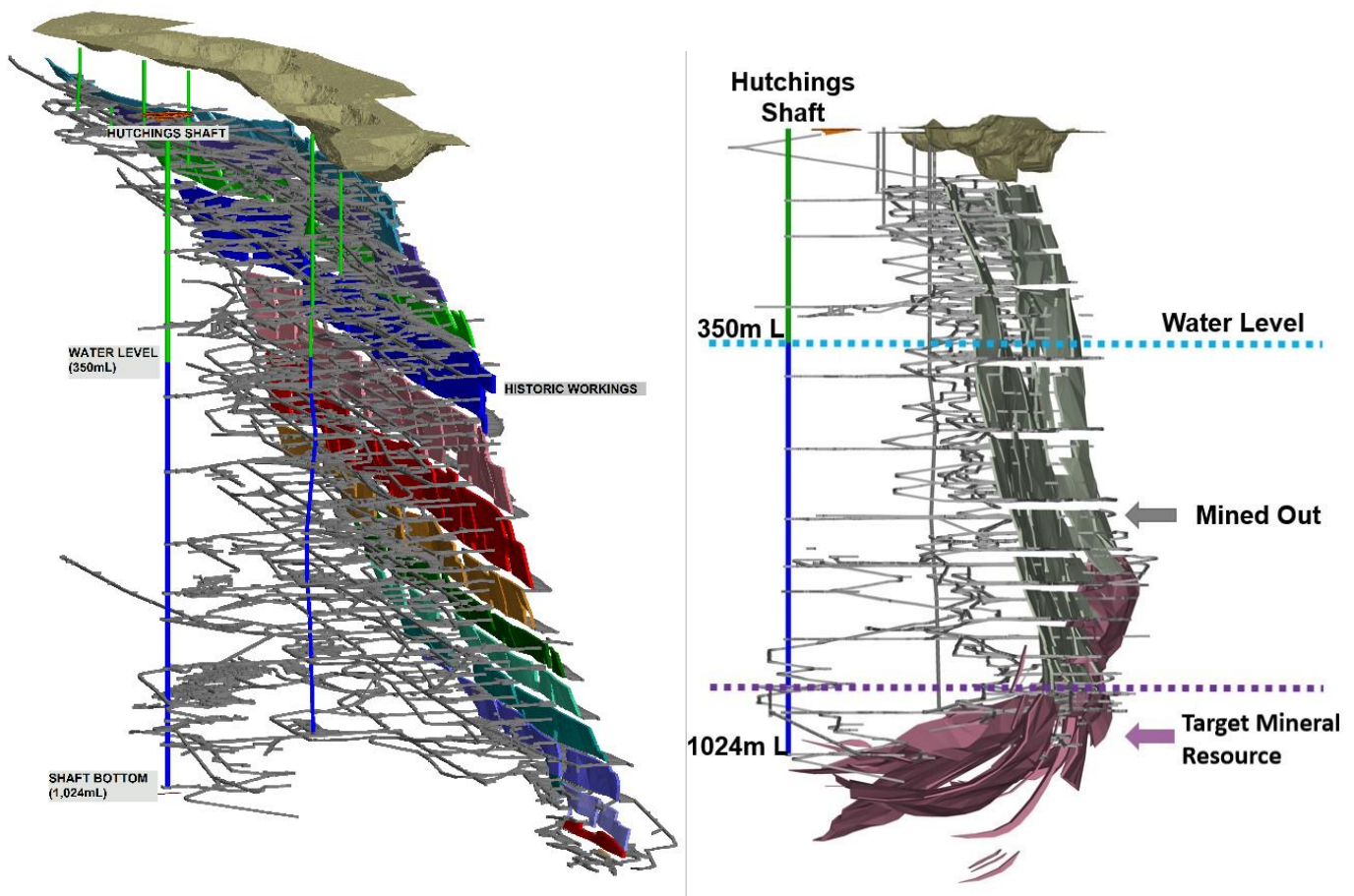


Figure 1: Isometric views of Hutchings Shaft and existing excavations.

The shaft is concrete-lined with an inside diameter of 8.84m. The shaft steelwork consists of a lattice of buntions and dividers that are configured to provide two compartments to house rock hoisting skips and one central compartment to house a square cage to transport people and materials (Figure 2).

The shaft barrel is topped by a rectangular concrete headframe which is 68.6m high (Figures 3 and 4). The shaft operated with a Koepe-type winder mounted on top of the headframe to hoist the rock skips and a separate, ground-based, double-winder to lift the people and materials cage.

A large volume of engineering data has now been collected for assessment and is being used to formulate and cost the detailed shaft refurbishment plan. This is a significant step towards de-risking the mine re-establishment project.

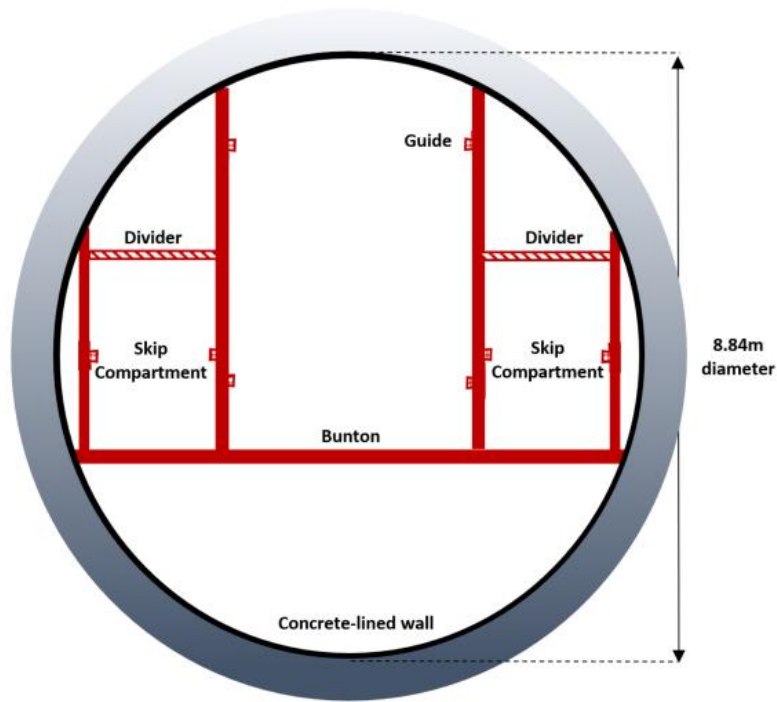


Figure 2: (Top) Plan-view schematic showing the configuration of the Hutchings Shaft and (Bottom) photograph of the Hutchings Shaft taken in January 2018 showing a similar plan-view perspective, with the accumulated water at the 350m Level.

Orion originally obtained permission and re-established access into the underground mine and the shaft barrel from March 2017. During that time, Orion completed a preliminary assessment of the shaft integrity concluding that:

- no substantial obstructions were in the shaft barrel;
- the water quality was unlikely to accelerate corrosion;
- the main steel members, bolts and welding in the headframe and shaft barrel had been preserved; and that
- shaft refurbishment and re-use was a realistic option to be considered for further assessment.

This Quarter, a detailed inspection program was completed (refer ASX release 2 February 2018). The initial stage of this inspection program aimed to accurately determine the mechanical and structural integrity of the shaft steel work down to a depth of 380m. The second stage of inspection involved obtaining video footage of the shaft steelwork and walls to do a visual inspection down to a depth of 200m below the accumulated water surface. A remote-operated vehicle was used to obtain the footage. The third stage of the inspection involved a detailed civil and structural assessment of the concrete headframe to assist with winder placement and shaft configuration.

Various characteristics of the shaft steelwork and infrastructure were assessed as part of the first stage. Table 1 summarises characteristics assessed, and methodologies employed.

| Characteristic | Assessment Methodology |
|---|---|
| Buntions, dividers and guides identification | Aerosol paint markers |
| Buntions, dividers and guides condition | Visual assessment / detailed photography |
| Buntions, dividers and guides connections condition | Visual assessment / detailed photography |
| Shaft barrel connection condition | Visual assessment / detailed photography |
| Shaft services and piping condition | Thickness testing instrument |
| Bunton, divider and guide thickness testing | Thickness testing instrument |
| Piping thickness testing | Thickness testing instrument |
| Shaft wall / concrete lining condition | Visual / mechanical assessment / detailed photography |
| Shaft dimensions assessment | Laser distance measuring instrument |
| Bunton, dividers and guide positioning | Laser distance measuring instrument |
| Steelwork weld integrity | Magnetic particle inspection instrument (NDT) |

Table 1: Shaft steelwork and infrastructure characteristics inspected during campaign.



Figure 3: (LHS) Divider from submerged Bunton Set number 81 tested steel thickness to 5.0mm; (Middle) section through retrieved Bunton (RHS) location where bunton section was removed.

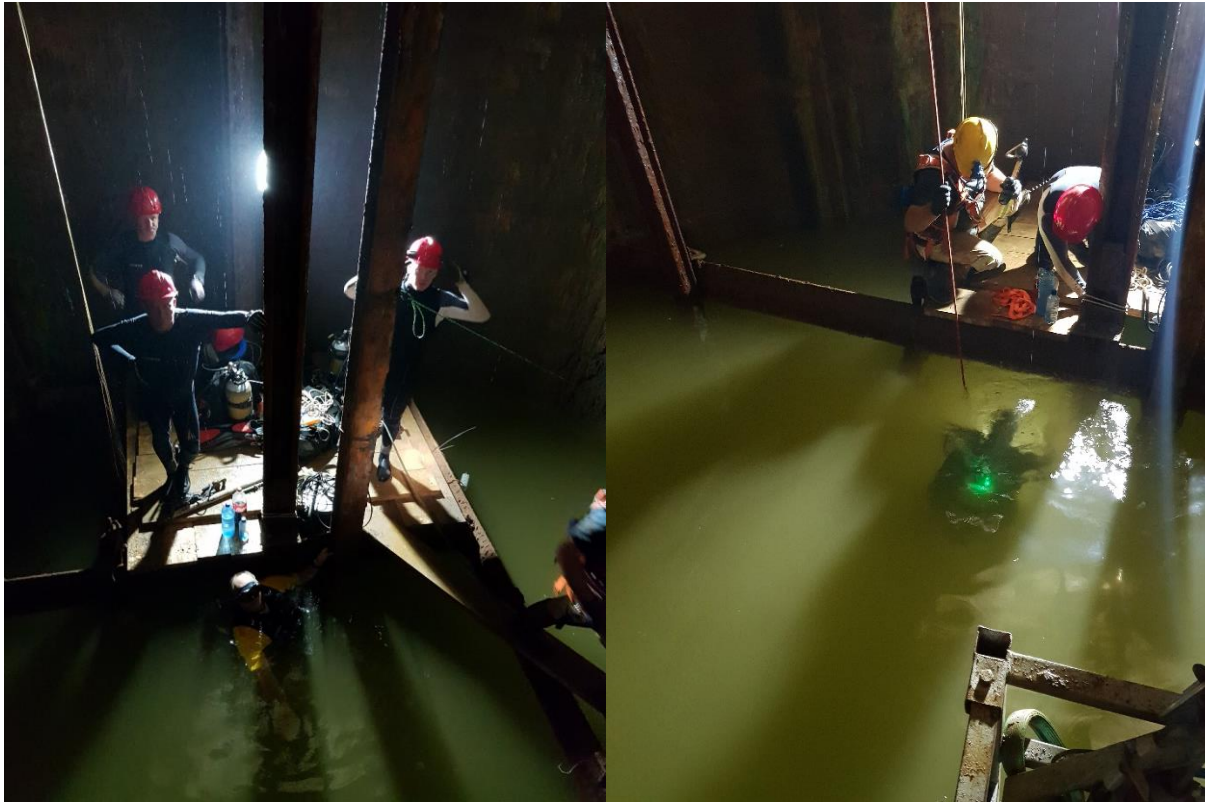


Figure 4: (LHS) Diving platform at the 350m Level below surface. (RHS) The divers retrieved a section of steelwork from 30m below the water surface to allow assessment of corrosion/preservation of submerged shaft steelwork.

Based on collected information the following conclusions were made:

- The primary steelwork, connections and shaft walls presents well and better than was expected by the shaft inspection team.
- Significant corrosion is limited to the top 45m of primary steelwork in the shaft. Structural integrity of the steelwork below this level is amenable to re-use following selective replacement and repairs.
- Shaft steelwork recovered from underwater has been unaffected by being submerged and shows no signs of added deterioration compared to similar steelwork from above the waterline.
- As expected, secondary light steelwork and pipework is compromised by corrosion and will be replaced.

Shaft refurbishment is now viewed as the optimal route of re-establishing hoisting capabilities of the Hutchings Shaft. The steelwork is repairable, though a portion of the steelwork will require replacement, generally in line with assumptions that were made as part of formulating conceptual planning.

Ore processing investigations

The development of a mineral processing flowsheet, for the treatment of sulphide zinc-copper mineralisation at the Prieska Project was completed during the Quarter.

The derived mineral processing flowsheet achieves high zinc and copper recoveries into separated product streams from which the production of high-quality, differentiated zinc and copper concentrates can be yielded.

The processing flowsheet has been tested with notable success on all the mineralised zones of the Prieska deposit that are targeted in the BFS that is currently being conducted. The deposit is zoned, for metallurgical testing, by the degree of oxidation, (**shallow supergene and deep hypogene zones**), and test work addressed internal variation in zinc and copper grades relative to each other resulting in (**zinc-dominant and copper-dominant zones**). Representative core samples for the test work were collected from holes drilled by Orion across these different grade and oxidation zones.

The derived flowsheet, when applied to samples collected from the supergene horizon, achieved maximum metal recoveries of 88% zinc within the zinc circuit and 74% copper within the copper circuit. Samples collected from the hypogene horizon attained maximum metal recoveries of 85% for zinc within the zinc circuit and 88% for copper within copper circuit.

These metal recoveries, were achieved using only open-circuit testing, (a preliminary step applied to only demonstrate processing flowsheet efficacy) and compare very well to metal recoveries reported to have been achieved during historical mining operations¹. Further improvements in metal recovery and the production of optimised, premium quality concentrates can be expected during the follow-up locked-cycle testing that is currently underway and due for completion in Q2 2018.

Results achieved are summarised in Table 2.

| Test Description | | Test Head Grade | | Cu Circuit Recovery ² | | Zn Circuit Recovery ² | | Combined Tails | |
|------------------|----------------------|-----------------|--------|----------------------------------|-------------|----------------------------------|-------------|----------------|--------------|
| | | Cu (%) | Zn (%) | Cu Rec. (%) | Zn Rec. (%) | Zn Rec. (%) | Cu Rec. (%) | Cu Grade (%) | Zn Grade (%) |
| Cu-rich Deeps | Open Circuit Cleaner | 2.3 | 2.5 | 87 | 16 | 69 | 3 | 0.3 | 0.9 |
| Zn-rich Deeps | Open Circuit Cleaner | 1.5 | 5.7 | 88 | 7 | 85 | 5 | 0.1 | 0.5 |
| Supergene | Open Circuit Cleaner | 2.1 | 3.7 | 74 | 7 | 88 | 20 | 0.2 | 0.2 |

Table 2: Summary of flowsheet development metallurgical test work results from open circuit tests (refer ASX release 1 March 2018).

The results achieved from Phase 2 test work, reported here, are indicative of how the derived flowsheet performs with respect to recovering and separating targeted metals. Ongoing optimisation aims to improve the resultant concentrate qualities to equal or better the metallurgical performance that what was achieved during historical mining operations. The metallurgical test work results achieved to date confirm that the Prieska deposit is amenable to efficient treatment applying widely-used, well-understood mineral processing techniques and using standard, widely available reagents.

Other metallurgical design work progressed during the Quarter includes definition of the ore processing design criteria, preliminary mass and water balances, preliminary mechanical equipment lists and process flow diagrams. Metallurgical test work is being conducted at Mintek Laboratories in Johannesburg, South Africa and work currently in progress includes, amongst others,

- investigating pre-concentration by ore sorting and heavy liquid separation;
- comminution testing on samples taken from various parts of the deposits; and
- low intensity magnetic separation to optimise recoveries and targeted copper and zinc concentrate qualities.

Mining Infrastructure

Power Supply – Eskom, the national power supply company, was commissioned to complete a feasibility study into re-establishing the power supply to the mine from its Cuprum substation that is located on the Prieska Project site. Eskom has now completed the first phase of the study with the conclusion that sufficient electrical power can be made available at the Cuprum substation to support future mining operations. The second stage of the study involves a detailed assessment of the optimal substation upgrades required and selection of the entity to undertake these same upgrades.

¹ Refer ASX release 15 November 2015.

² Represents the total metal recovered to the high grade cleaner concentrate, high grade cleaner tailings, low grade re-cleaner concentrate, low grade re-cleaner tailings and scavenger rougher concentrate in open circuit testing. Lock-cycle testing aims to recover most of this metal into the final concentrate.

Product Logistics and Marketing

Investigations into the optimal route for the transport of copper and zinc concentrates to market have continued with several port options and transport modes being considered. Preliminary inquiries sent out to 11 potential service providers were short-listed during the Quarter and the facilities of some of these service providers inspected. Various pricing models are still being assessed and a response to preliminary enquiries sent to Transnet on the availability of rail for use by the project is expected in Q2 2018.

Metallurgical test work results to produce optimised concentrates for detailed marketing enquiries are due in Q2 2018. Whilst preliminary product quality estimates were used for initial conceptual studies and enquiries, the mining studies are now at a stage where detailed concentrate analyses are required.

Community and Stakeholder Engagement

A Steering Committee was constituted to administer the Memorandum of Understanding entered into in October 2017 between the Company and local government to collaborate on community and social development programs to be implemented in the vicinity of the Prieska Project. The Company uses this forum, amongst others, to act as a catalyst for local economic and social development. The Steering Committee has held regular meetings during the Quarter with focus areas including, amongst others, education-related initiatives, such as the assessment of how best to introduce e-learning through the application of the EduVOD satellite education content solution for Prieska schools and the engagement with various stakeholders, including the Provincial Department of Education, to align efforts on improving the provision of education services in the region.

The Company has also been instrumental in reinvigorating the "Greening of Prieska Committee", a local organisation focused on improving living conditions for Prieska residents.

On 27 March 2018, the Company presented the Prieska Project Social and Labour Plan (**SLP**) to the local Municipal Council. The SLP encompasses the commitments the Company will make with respect to undertaking local economic development and the development of its workforce should mining operations commence. The SLP is thus an integral and mandatory component of the Mining Right application.

The Municipal Council passed a resolution providing unconditional endorsement of the project SLP. This endorsement was submitted together with the SLP to the Department of Mineral Resources as part of the Mining Right application. The Mining Right application was lodged in April 2018.

Members of the community continued to engage with the Company through the community liaison office in Prieska, which also provides facilities for potential suppliers of goods and services to complete online registration, as well as facilitating for individuals to register their interest for future employment with the Company or its contractors.

Environmental

The mandatory Public Participation Process continued with the project description baseline document prepared and public notices and advertisements pertaining to the proposed Prieska Project made available to interested and affected parties. Some public comments have been received and responded to satisfactorily. Pre-application meetings with the various authorities continued throughout the Quarter. Environmental assessment work is on schedule to allow for the submission of applications for a water-use licence, waste management permit and Environmental Authorisation in April 2018, along with the Mining Right application. The following key tasks were also addressed during the Quarter:

- the groundwater study is now complete and a draft report prepared; and
- static leach testing and radiological testing on tailings samples are under underway.

Mining Right Application

The application for a Mining Right for the Prieska Project was submitted to the Department of Mineral Resources in April 2018. Once submitted, the review and approval process takes a statutorily mandated 300 working days before a decision is granted. Hence, the mining right review process is scheduled to be completed by Q3 2019.

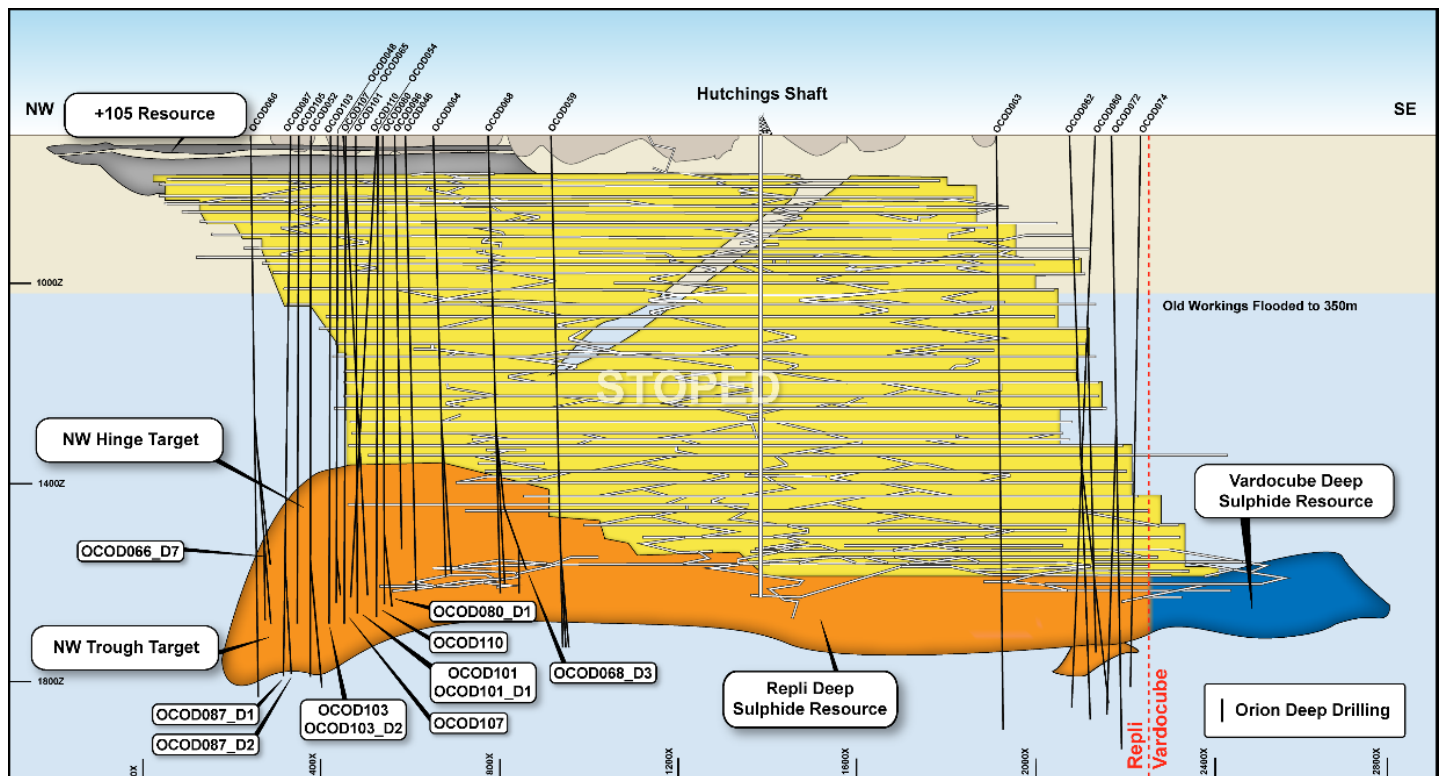
Deep Sulphide Target drilling progress

During the Quarter, the Company continued with an intensive drill program in the north-western part of the Deep Sulphide Target (Figures 5 and 6). A total of 50,685m of drilling has been completed on the Deep Sulphide Target as at the end of March 2018. At the height of activity, 13 surface diamond drill rigs and one percussion rig were in operation. A total of 8,188m of diamond drilling was completed during the Quarter.

The Orion drill program aims to provide statistical validation of historic drill data in the Deep Sulphide Target as well as to infill data points required for optimal drill spacing for a Mineral Resource estimate compliant with the JORC Code. Drilling is also testing new targets and extending known mineralisation outside the historic drill grid. Drilling results from 11 drill holes and deflections targeting the Deep Sulphides were announced during the Quarter (refer ASX releases 1 February 2018 and 19 February 2018) (Table 3).

Detailed geostatistical analysis on the Orion and historic drilling indicated that the data compared well and were acceptable for Mineral Resource estimation.

While drilling has concentrated on validation within the confines of historically detected mineralisation, several holes were successfully drilled to test for upside potential, intersecting both strike extensions and new target horizons.



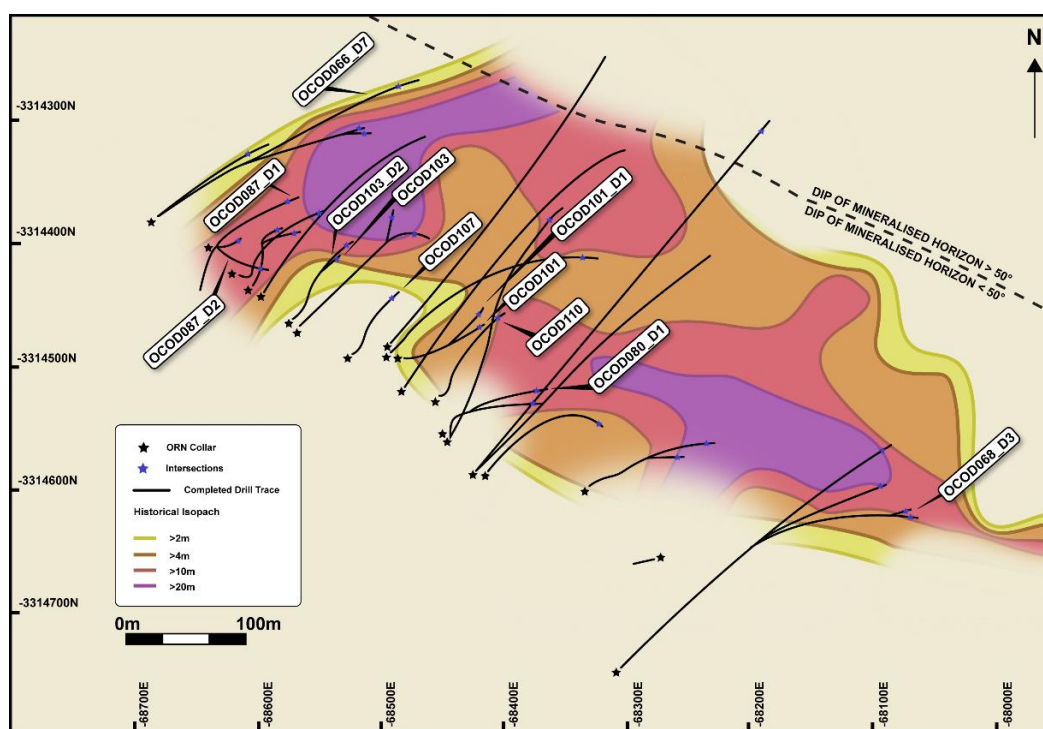


Figure 6: Plan showing Orion drill hole collars and intersection points on the Deep Sulphide Target in the North West Hinge Target Area.

| Drill hole | East | North | From | To | Length | Cu | Zn | Au | Ag |
|------------|--------------|------------|----------|----------|--------|------|------|-------|-------|
| | (WGS84 Lo23) | | (m) | (m) | (m) | (%) | (%) | (g/t) | (g/t) |
| OCOD066_D7 | -68 682 | -3 314 374 | 1,056.90 | 1,061.00 | 4.1 | 0.75 | 2.64 | 0.13 | 6 |
| OCOD068_D3 | -68 334 | -3 314 757 | 989.6 | 991.6 | 2 | 1.36 | 0.12 | 0.35 | 14 |
| | | | 999.42 | 1,012.64 | 12.62 | 2.94 | 3.33 | 2.19 | 30 |
| | | including | 999.42 | 1,004.04 | 4.62 | 5.06 | 2.73 | 5.31 | 55 |
| OCOD080_D1 | -68 451 | -3 314 556 | 1,033.50 | 1,046.00 | 12.5 | 0.44 | 3.44 | 0.12 | 5 |
| OCOD087_D1 | -68 640 | -3 314 400 | 1,103.50 | 1,104.00 | 0.5 | 0.24 | 5.72 | 0.11 | 9 |
| | | | 1,109.45 | 1,120.47 | 11.02 | 0.71 | 3.45 | 0.11 | 6 |
| | | including | 1,109.45 | 1,113.00 | 3.55 | 0.3 | 4.17 | 0.04 | 4 |
| | | | 1,116.00 | 1,120.47 | 4.47 | 1.32 | 4.82 | 0.38 | 10 |
| OCOD087_D2 | -68 640 | -3 314 400 | 1,105 | 1,109.5 | 4.5 | 0.08 | 5.39 | 0.17 | 5 |
| | | | 1,122 | 1,136 | 14 | 0.59 | 4.23 | 0.18 | 5 |
| OCOD101 | -68 510 | -3 314 497 | 1,079.66 | 1,086.70 | 7.04 | 1.1 | 3.58 | 0.22 | 9 |
| OCOD101_D1 | -68 510 | -3 314 497 | 1,070.5 | 1,075.73 | 5.23 | 1.27 | 5.27 | 0.21 | 11 |
| OCOD103 | -68 583 | -3 314 461 | 1,098.00 | 1,106.40 | 8.4 | 0.65 | 1.99 | 0.08 | 7 |
| OCOD103_D2 | -68 583 | -3 314 461 | 1,089 | 1,103.09 | 14.09 | 1.53 | 2.82 | 0.51 | 11 |
| | | including | 1,099 | 1,102 | 3 | 4.22 | 1.95 | 1.49 | 31 |
| OCOD107 | -68 539 | -3 314 489 | 1,086.30 | 1,086.90 | 0.6 | 1.33 | 4.06 | 0.19 | 11 |
| OCOD110 | -68 482 | -3 314 533 | 1,060 | 1,065 | 5 | 0.74 | 4.83 | 0.22 | 15 |

Table 3: Drill hole intersections reported from the Deep Sulphide Target for the January – March 2018 Quarter (refer ASX releases 1 February 2018 and 19 February 2018). All intersections weighted by length and relative density.

By the end of March 2018, Orion had completed and received assays from 42 mother and deflected holes on the Deep Sulphide target. Intersections in these holes were achieved at vertical depths of between 880m to 1,136m below surface and required 285 directional wedges to steer the drilling to pre-determined target points. At the end of the Quarter, assay results from 4 more intersections were awaited while 7 holes were in progress.

Deep Sulphide Target Drilling Results – validation

A statistical comparison between historic and Orion drilling was completed by Z Star Mineral Resource Consultants (**Z***) as part of the January 2018 Mineral Resource estimation of the Deep Sulphide Target. The comparison indicated that the variogram models for Cu% and Zn% for both historic and Orion data compared favourably.

Drilling on the margins of and outside and on the periphery of the historic drill grid

Drilling on the north-west margin of the historic drilled grid and in areas with low drill density has demonstrated significant upside potential, with thicker than expected mineralised zones persisting beyond the core area.

Drill holes OCOD087_D1 and OCOD087_D2 drilled as deflections from OCOD087, OCOD103, and OCOD103_D2 drilled as a deflection from OCOD103 all intersected thick mineralisation beyond the north-west margin of historical drilling (Figures 5 and 6). The Intersections made are:

- OCOD087_D1: 11.02m at 3.45% Zn, 0.71% Cu, 0.11g/t Au and 6g/t Ag from 1,109.45m;
- OCOD087_D2: 14.0m at 4.23% Zn, 0.59% Cu, 0.18g/t Au and 5g/t Ag from 1,122.00m;
- OCOD103: 8.40m at 1.99% Zn, 0.65% Cu, 0.08g/t Au and 7g/t Ag from 1,098.00m and
- OCOD103_D2: 14.09m at 2.82% Zn, 1.53% Cu, 0.51g/t Au and 11g/t Ag from 1,089.00m.

Drill hole OCOD066_D7, drilled as a deflection from OCOD066, intersected 4.10m at 2.64% Zn, 0.75% Cu, 0.13g/t Au and 6g/t Ag from 1,056.90m, indicating the thick mineralised zone reported above is narrowing along strike to the north-west which confirms the thickness indicated by historic isopach data in this area (Figures 5 and 6).

Drill hole OCOD080_D1, drilled as a deflection from OCOD080, intersected 12.50m at 3.44% Zn, 0.44% Cu, 0.12g/t Au and 5g/t Ag from 1,033.50m in the hinge zone of the north-western part of the Deeps Sulphide Target along strike to the south-east of the thick mineralisation mentioned above (Figures 5 and 6).

Drill holes OCOD101, OCOD101_D1 drilled as a deflection from OCOD101, OCOD110 and OCOD107 were all drilled on the down-dip margin of the historical drill grid in the north-west of the Deep Sulphide Target (Figures 5 and 6). These holes confirmed historic isopach data indicating that the mineralised horizon is narrowing down-dip towards the trough of the synformal structure that deformed the Deep Sulphide horizon. Intersections made are:

- OCOD101: 7.04m at 3.58% Zn, 1.10% Cu, 0.22g/t Au and 9g/t Ag from 1,079.66m;
- OCOD103: 8.40m at 1.99% Zn, 0.65% Cu, 0.08g/t Au and 7g/t Ag from 1,098.00m;
- OCOD110: 5.00m at 4.83% Zn, 0.74% Cu, 0.22 g/t Au and 15g/t Ag from 1,060.00m and
- OCOD107: 0.60m at 4.06% Zn, 1.33% Cu, 0.19g/t Au and 11 g/t Ag from 1,086.30m.

Drilling in area with high copper-gold - proximal to depositional vent

Drill hole OCOD068_D3 drilled as a deflection from OCOD068 in the south-eastern part of the north-western hinge area of the Deep Sulphide mineralised body intersected 12.62m at 3.33% Zn, 2.94% Cu, 2.19g/t Au and 30g/t Ag from 999.42m (Figures 5 and 6). This mineralisation is interpreted as a possible proximal depositional vent to the deposit.

+105 Level Target (Open Pit) Area

The last two drill holes on the +105 Level Target (Open Pit) were completed during the Quarter. These included:

- One infill hole from the +105 level Target (Open Pit) underground; and
- One geotechnical hole from surface.

+ 105 Level Target (Open Pit) – Resource drilling

Drill hole OCOU112, drilled from underground as an infill hole in the supergene ore zone, intersected a few centimetres of oxidised material within a zone of high core loss at the target depth of 66.80m. This indicates that a

sink hole has collapsed from surface to the level of the intersection and that the remainder of the oxide and collapsed material was probably washed away during drilling. The final depth of OCOU112 is 90.52m.

+105 Level Target (Open Pit) – Geotechnical drilling

Drill hole OCOD099, the last of a total of 3 diamond drill holes drilled into the hanging wall of the +105 Level mineralised zone to obtain orientated core for geotechnical logging, to assist in the optimisation of the open pit design, was completed. The final depth of OCOD099 is 163.8m.

Mineral Resource Estimation and Reporting

Mineral Resource estimation of the Deep Sulphide Target by Z* on both the Repli Prospecting Right and the available information from historic drilling on the Vardocube Prospecting Right, using drill data available as at 31 December 2017, was completed during the Quarter. Formal execution of the Vardocube Prospecting Right from the Department of Mineral Resources is expected in April 2018.

The +105 Level Mineral Resource (Open Pit) estimation by Z* and a third-party review thereof by SRK Consulting South Africa (Pty) Ltd (**SRK**) was completed in December 2017. Queries highlighted by SRK relating to the relative density water-method initially used by Orion were resolved by re-doing relative densities in the mineralised zone using a different method, a wax method. No significant differences in the values between the two methods were found, and it was concluded that the original relative density determinations used for the +105 Mineral Resource are acceptable for resource estimation.

A maiden total Mineral Resource for the Prieska Project, comprising the Deep Sulphide and the +105 Level resources, was reported and classified in February 2018. The Deep Sulphide Mineral Resource was restricted to that lying within the Repli Prospecting Right (approximately 70% of the targeted mineralisation). In April 2018, the JORC compliant total Mineral Resource was updated to include the remaining 30% targeted mineralisation on the Vardocube Prospecting Right (Table 4) (refer ASX release 9 April 2018).

| Total Mineral Resource For Prieska Project - Repli Trading No 27 (Pty) Ltd & Vardocube (Pty) Ltd | | | | | | | | | | |
|---|-----------|--------------|-----------|--------------|-----------|--------------|-------------|--------------|-------------|-----|
| Classification | Tonnes | Zn | | Cu | | Ag | | Au | | |
| | | Metal Tonnes | Grade (%) | Metal Tonnes | Grade (%) | Metal Ounces | Grade (g/t) | Metal Ounces | Grade (g/t) | |
| Deep Sulphide Repli * | Inferred | 22,600,000 | 839,000 | 3.7 | 266,000 | 1.2 | 6,904,000 | 9.5 | 153,000 | 0.2 |
| Deep Sulphide Vardocube** | Inferred | 5,200,000 | 253,000 | 4.9 | 67,000 | 1.3 | 1,627,000 | 9.7 | 35,000 | 0.2 |
| | | | | | | | | | | |
| +105 Supergene Repli * | Indicated | 1,200,000 | 32,000 | 2.6 | 30,000 | 2.4 | 348,000 | 8.7 | 9,000 | 0.2 |
| + 105 Oxide Repli * | Inferred | 300,000 | 2,000 | 0.9 | 2,000 | 0.6 | 17,000 | 1.8 | 1,000 | 0.1 |
| | | | | | | | | | | |
| Total Global | | 29,400,000 | 1,126,000 | 3.8 | 365,000 | 1.2 | 8,896,000 | 9.4 | 198,000 | 0.2 |
| Note All Resources Stated at Zero Cut-off. | | | | | | | | | | |
| Rounding, as required by reporting guidelines, may result in apparent differences between tonnes, grade and contained metal content | | | | | | | | | | |

Table 4: Total Indicated and Inferred Mineral Resource Table for the Prieska Project - Repli Trading No 27 (PTY) Ltd and Vardocube (PTY) Ltd (* refer ASX release 8 February 2018; ** refer ASX release 9 April 2018).³

³ Mineral Resource reported in ASX release of 9 April 2018: "Prieska Project total Mineral Resource increases to 29.4 million tonnes containing 1.13 million tonnes Zn and 0.36 million tonnes Cu" available to the public on www.orionminerals.com.au/investors/market-news. Competent Person Orion's exploration: Mr. Errol Smart. Competent Person: Orion's Mineral Resource: Mr. Sean Duggan. Orion is not aware of any new information or data that materially affects the information included above. For the Mineral Resource, the company confirms that all material assumptions and technical parameters underpinning the estimates in the ASX release of 9 April 2018 continue to apply and have not materially changed. Orion confirms that the form and context in which the Competent Person's findings are presented here have not materially changed.

SkyTEM™ survey

Modern EM methods have advanced a great deal since the last systematic exploration took place in the Northern Cape Areachap Belt and Orion stands to benefit from its approach to use the latest EM techniques in its regional exploration program.

Orion contracted SkyTEM™, a leading airborne electromagnetic (**AEM**) survey company headquartered in Denmark which offers state-of-the-art helicopter-borne transient electromagnetic (**TEM**) and magnetic acquisition systems, to fly an extensive TEM survey. The survey covered a large portion of the Company's Masiqhame and Namaqua-Disawell Project areas located in the Northern Cape (Figure 8).

The SkyTEM™ survey was flown with the SkyTEM™312 high power technology for deep target imaging. This high-power system, with a peak moment up to 1,000,000 NIA, is optimised to provide an exceptional depth of investigation due to the high moment mode with high current and low base frequency of 12.5 Hz.

The high power SkyTEM™ AEM survey over the Masiqhame and Namaqua-Disawell Prospecting Right areas, was completed on 24 January 2018. A total of 6,025-line kilometres were flown with an area of 962km² covered by the survey. Known VMS deposits and Magmatic Ni-Cu deposits were detected by the survey proving AEM to be an effective exploration tool in the Areachap Belt (Figures 9 and 10, ASX releases 14 December 2017 and 1 February 2018).

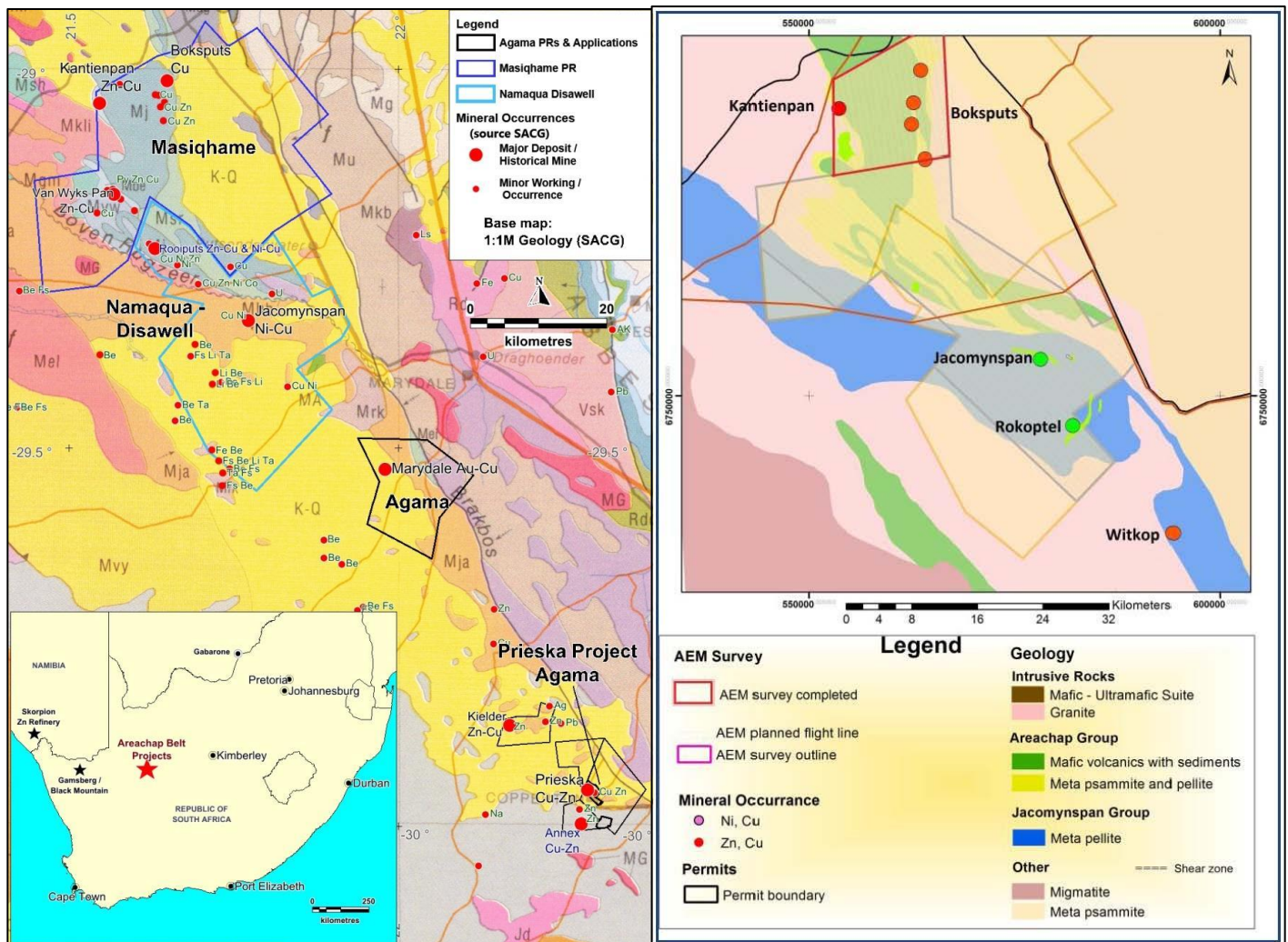


Figure 8: Locality plan for the 962km2 SkyTEM™ (AEM) survey area. The area completed is shown in red. The contact with the geological unit indicated in green on the right-hand diagram represents the priority target area (refer ASX release 1 February 2018).

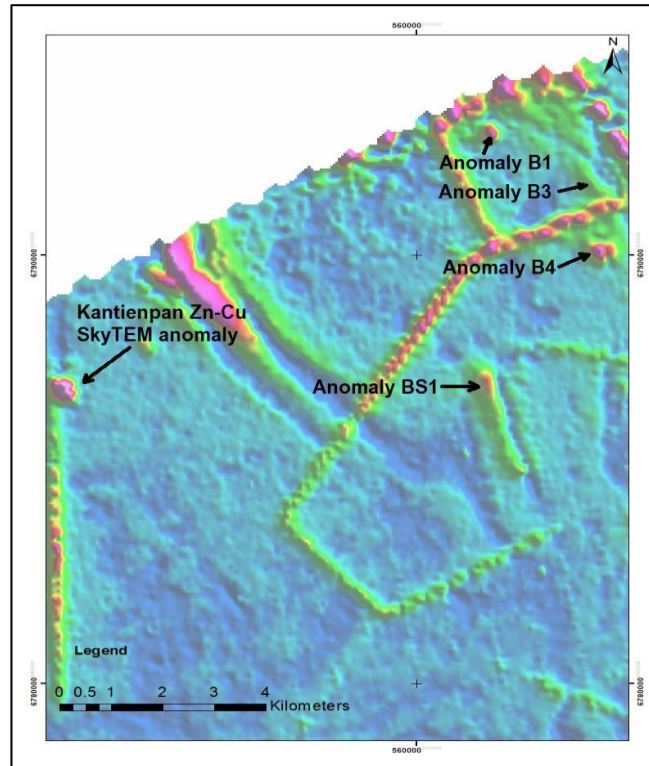


Figure 9: Plan of SkyTEM™ channel 25 data showing the EM response over the Kantienpan Zn-Cu deposit and proximal anomalies (refer ASX release 14 December 2017).

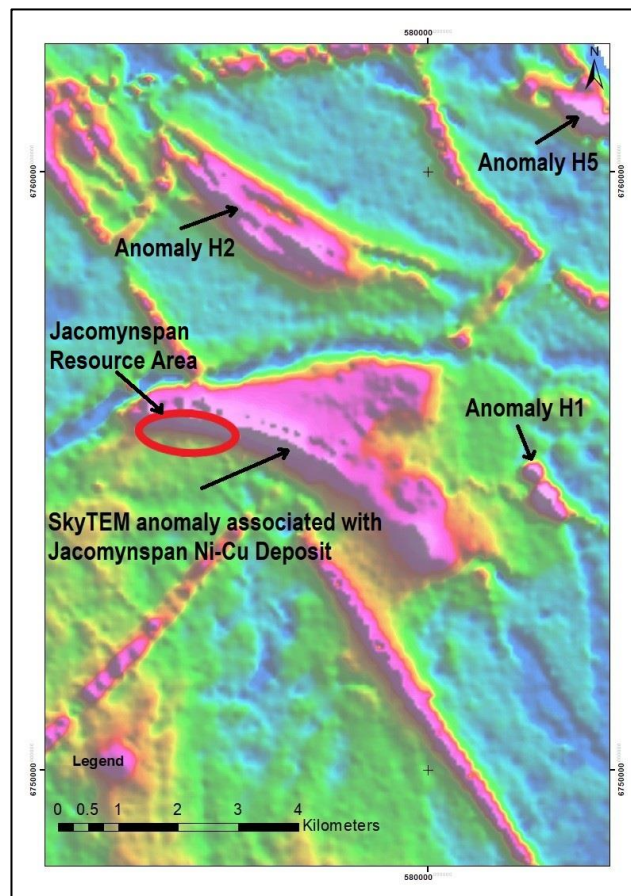


Figure 10: Plan of SkyTEM™ channel 25 data showing the EM response over the Jacomynspan deposit and the proximal anomalies.

Masiqhame Project

This project is defined in terms of the Masiqhame tenement holding and includes Kantienpan, Bokspuits and Van Wyks Pan zinc – copper mineral occurrences and has regional potential for VMS zinc copper and intrusive nickel-copper-cobalt-PGE mineralisation.

SkyTEM™ anomalies associated with a paleo sea floor setting

AEM anomalies identified during a preliminary review of the SkyTEM™ data by Orion's Perth based geophysical consultants, Southern Geoscience Consultants were prioritised for follow-up. Following geological, airborne magnetic interpretation and initial field work, 20 anomalies are currently selected for follow-up by ground TEM surveys. Of the 20 anomalies, 15 coincide with a paleo sea floor setting, and are considered VMS type targets. The paleo sea floor position was interpreted from available regional geological data and field mapping. The paleo sea floor setting forms the target stratigraphic horizon for VMS type deposits. The anomalies in the northern part of the Masiqhame prospecting right are spatially associated with known Zn – Cu VMS deposits at Kantienpan and Bokspuits. This include anomalies K1 – 2, B1 – 4 (Figures 11 and 12). These mineral deposits and occurrences are considered under explored. Importantly, outcrops of ferruginous chert, characteristic of distal exhalites that form within VMS mineralising systems, coincide with Anomaly BS1. Anomaly BS1 has a strike length of 600 to 800m (refer ASX releases 14 December 2017 and 1 February 2018).

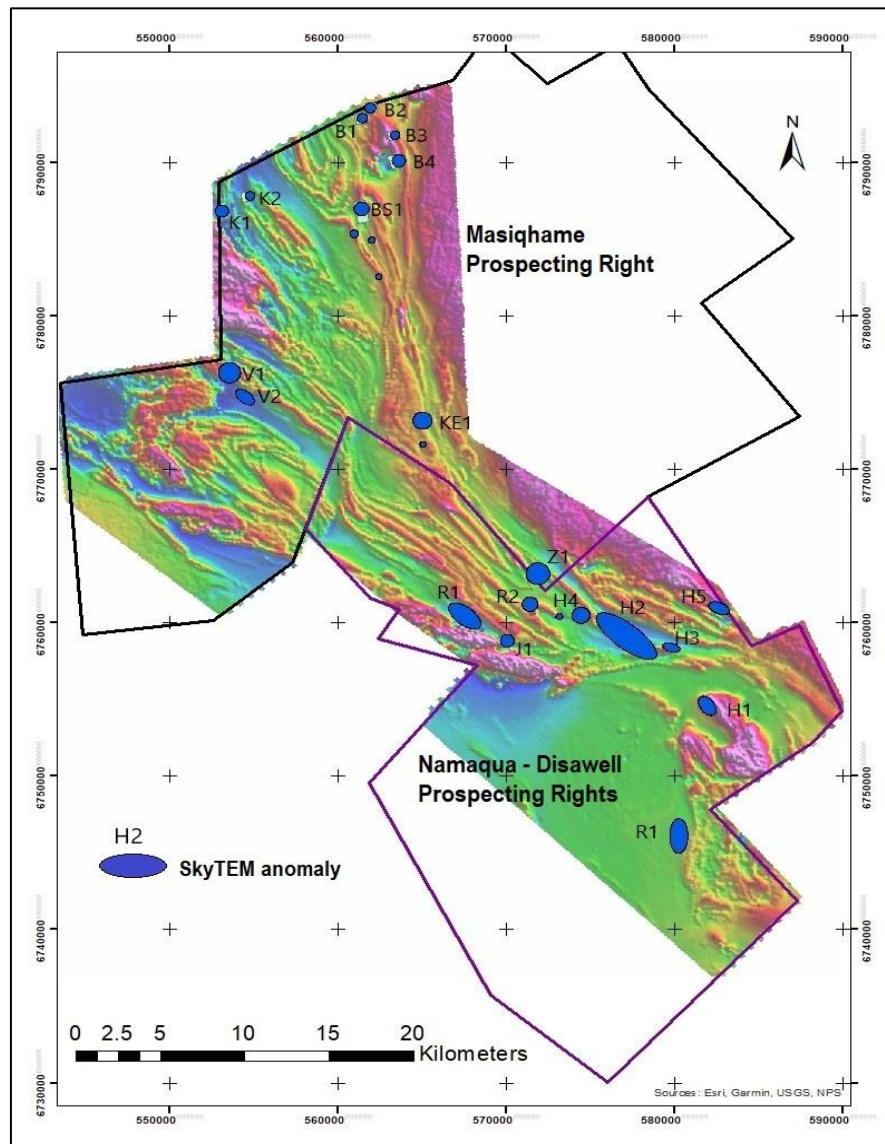


Figure 11: Airborne EM anomalies shown on the Airborne Magnetic map.

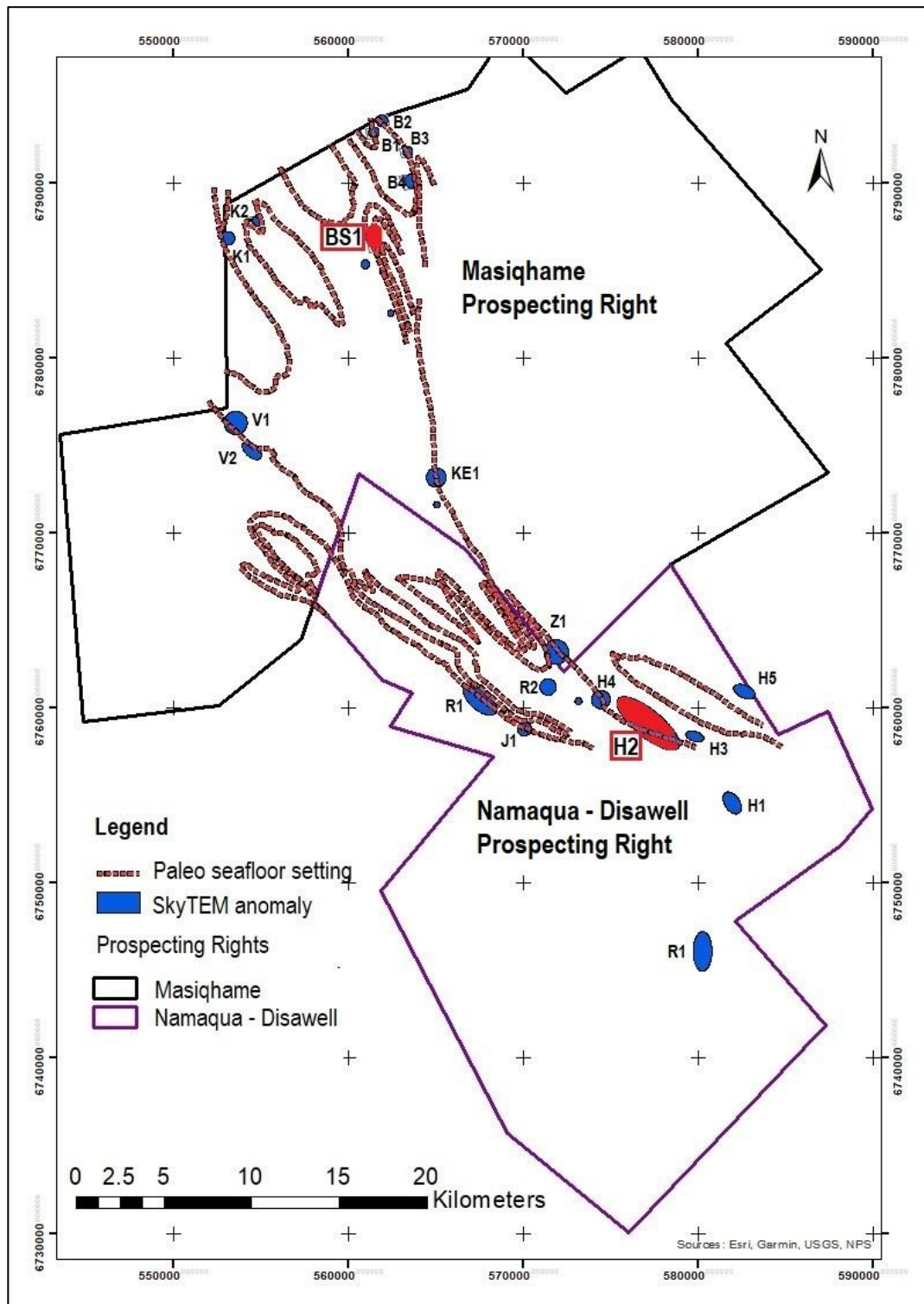


Figure 12: Plan showing SkyTEM™ anomalies relative to the interpreted paleo-seafloor position. Anomalies with exhalites mentioned in the text are shown in red.

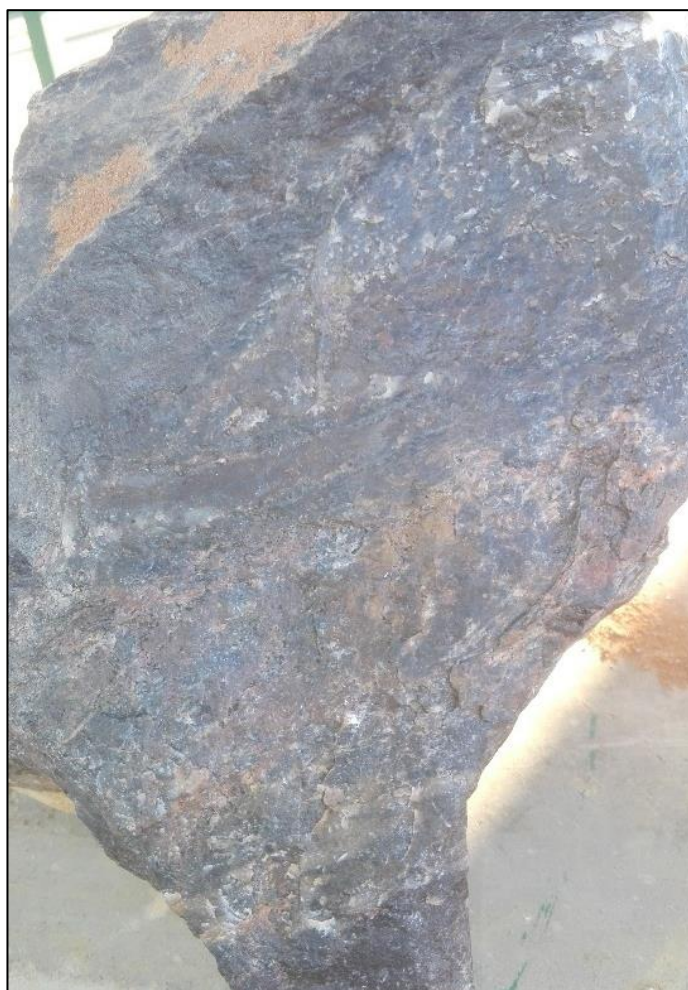


Figure 13: Photo of a sample taken from the siliceous exhalative rock outcropping at anomaly H2. The sample measures approximately 40cm across.

About the Masiqhame Project

In April 2016, the Company entered into a binding option agreement to earn up to a 73% interest in Masiqhame Trading 855 Pty Ltd. Masiqhame holds prospecting rights over a large, highly prospective area located approximately 80km north of the Prieska Project (Figure 7). The Company exercised the option it holds with Masiqhame and to date, has acquired a 49% interest in Masiqhame.

Namaqua–Disawell Project

VMS Zinc-Copper & Nickel-Copper-Cobalt-PGE Targets

This project is defined in terms of the Namaqua and Disawell tenement holdings, includes the Jacomynspan Ni-Cu-Co-PGE and Rooiputs Zn – Cu Deposits and has regional potential for VMS zinc copper and Intrusive nickel-copper-cobalt-PGE mineralisation.

VMS Zinc-Copper

Historic exploration on the Namaqua and Disawell Rights focussed mainly on Cu-Ni mineralisation. However, reconnaissance mapping reveals outcrops of ferruginous chert on anomaly H2. The chert is considered a distal exhalite of a VMS system. H2 is a 2800m long conductor associated with the interpreted paleo seafloor (Figures 10, 13 and 14). The 2800m strike length compares favourably with that of the giant Prieska Deposit that has a strike length of 2400m. This is an untested target and offers a unique opportunity for discovery as there is currently no evidence to suggest that this conductor was explored in the past.

Magmatic Ni-Cu-Co

During the Quarter, the following work was completed on the Ni – Cu project, covering mainly the Namaqua–Disawell Prospecting Rights:

- A litho-geochemical study characterizing the Jacomynspan Intrusive and rating Disawell Prospecting Right as a target area for Ni–Cu–Co–PGE mineralisation by nickel expert consultant, R. Hornsey (refer ASX release 8 March 2018);
- The SkyTEM™ survey (refer ASX releases 14 December 2017 and 1 February 2018);
- The first pass selection of SkyTEM™ anomalies for follow-up; and
- A JORC compliant Mineral Resource estimate by The MSA Group on the Jacomynspan Ni–Cu–Co–PGE deposit (refer ASX release 8 March 2018).

Ongoing studies include:

- Compilation of a GIS database;
- Modelling of SkyTEM™ data; and
- Planning of Ground EM surveys

Litho-geochemical study

The final report on the Jacomynspan litho-geochemical study was received on the 12 March 2018. The findings of this research are discussed below.

The Jacomynspan Intrusion hosts sulphide mineralisation throughout its extent within almost all recorded lithologies except for a volumetrically subordinate footwall harzburgite unit. The sulphidic harzburgite unit contains higher tenor Cu – Ni mineralisation than the earlier, low temperature metamorphosed pyroxenite, which it intrudes. The sulphide mineralisation has been derived from primary magmatic processes that, although intimately related, reflect different conditions within the flowing magma conduit. For characterisation purposes, the mineralisation is divided into three categories reflecting the genetic processes involved (Figure 14):

- Type 1 mineralisation is primary magmatic mineralisation that has frozen in-situ together with the host cumulates. This is extensively present as fine grained disseminated and net-textured sulphide mineralisation (1 - 30% sulphide).
- Type 2 mineralisation has been injected into previously lithified cumulates, or immediately overlies internal unconformities within the intrusion. This mineralisation may be coarsely net-textured, or forms veins, stringers, semi-massive to massive sulphide (60-80% sulphide). Although injected, this is a primary magmatic feature related to transport of sulphide liquid by the magma travelling along the conduit. The intrusion hosts stringer sulphide as cross-cutting veins that locally brecciate the host. Of these, the JMP038 intersection is the most significant due to its higher tenor, and development of loop-textured pentlandite.



Figure 14: Type 2 mineralisation hosted by all lithological units at Jacomynspan. From the top; massive sulphide stringer (JMP001) with an associated alteration halo cross-cutting the peridotite unit. Massive sulphide vein associated with pegmatitic feldspar (JMP003) cross-cutting the pyroxenite unit. Transgressive massive sulphide veins intruding and brecciating already-lithified pyroxenite unit (JMP041). Massive sulphide stringer, which is currently unique due to its higher tenor (>4% Ni), and which has coarse loop texture (red arrow) (JMP038).

- Type 3 mineralisation is massive sulphide mineralisation possibly of similar tenor as Type 2 injections, but with volumetrically larger accumulations that result from trapping of large quantities of sulphide liquid derived from the magma chamber. These are typically associated with locations of intrusion morphology change or choke-points. This style of mineralisation has not specifically been explored for outside of the original discovery site and has not yet been discovered at the main Jacomynspan intrusion, where exploration focused on the core of a large intrusive body, rather than the margin zones and other potential trap sites required to accumulate the sulphide liquid, such as those found at similar mineral deposits globally including the Voisey's Bay Deposit. This type of mineralisation should form the focus of ongoing exploration.

Geochemical "spidergram" plots indicate that all samples have similar profiles, therefore are part of the same magma suite and are intimately related. Magma provenance and characterisation diagrams indicate that the magmas are crustally contaminated, tholeiitic komatiites to komatiitic basalt, related to arc magmatism, and derived from extensive, shallow mantle melting. These melts generally produce large quantities of magma that are enriched in base metals and PGE.

Implications for Exploration

The Jacomynspan intrusive complex shares many characteristics to other late-tectonic intrusions emplaced into orogenic margins globally. These include moderate to deep-seated, late-stage, post-peak deformation emplacement, complex magma emplacement history indicative of a long-lived conduit, and indications of a multi-phase mineralisation history that has good potential for forming massive sulphide deposits.

Mineral Resource estimate

The Mineral Resources for the Jacomynspan Project were previously reported (refer ASX release 14 July 2016) in accordance with the SAMREC Code (2007) as a “qualifying foreign resource estimate” as defined in the ASX Listing Rules. The Mineral Resources have been reassessed by the Competent Person, classified and reported in compliance with the JORC Code (refer ASX release 8 March 2018). The Mineral Resources stated in Table 5 are for drilling data currently available (Figure 15). A 0.4% Ni cut-off grade was used for the Mineral Resource with the resource estimate at other cut-off grades presented in Table 6. Figure 16 shows a longitudinal projection of the resource classifications.

Mineral Resource Grade-Tonnage Table for the Jacomynspan Project at a 0.40% Ni cut-off grade

| Classification | Cut off % Ni | Volume (m ³) | Tonnes | Ni | | Cu | | Co | | Pt | | Pd | | Au | |
|----------------|--------------|--------------------------|-----------|-----------|--------------|-----------|--------------|-----------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|
| | | | | Grade (%) | Metal Tonnes | Grade (%) | Metal Tonnes | Grade (%) | Metal Tonnes | Grade (g/t) | Metal Ounces | Grade (g/t) | Metal Ounces | Grade (g/t) | Metal Ounces |
| Indicated | 0.40 | 584,000 | 1,780,000 | 0.55 | 10,000 | 0.29 | 5,000 | 0.03 | 1,000 | 0.17 | 10,000 | 0.11 | 6,000 | 0.07 | 4,000 |
| Inferred | 0.40 | 1,647,000 | 5,056,000 | 0.58 | 29,000 | 0.35 | 18,000 | 0.03 | 1,000 | 0.19 | 31,000 | 0.13 | 21,000 | 0.07 | 11,000 |

Table 5: Indicated and Inferred Mineral Resource Classification and Reporting for the Jacomynspan Project on the Namaqua Mining Right using a 0.4% Ni cut-off (refer ASX release 8 March 2018).⁴

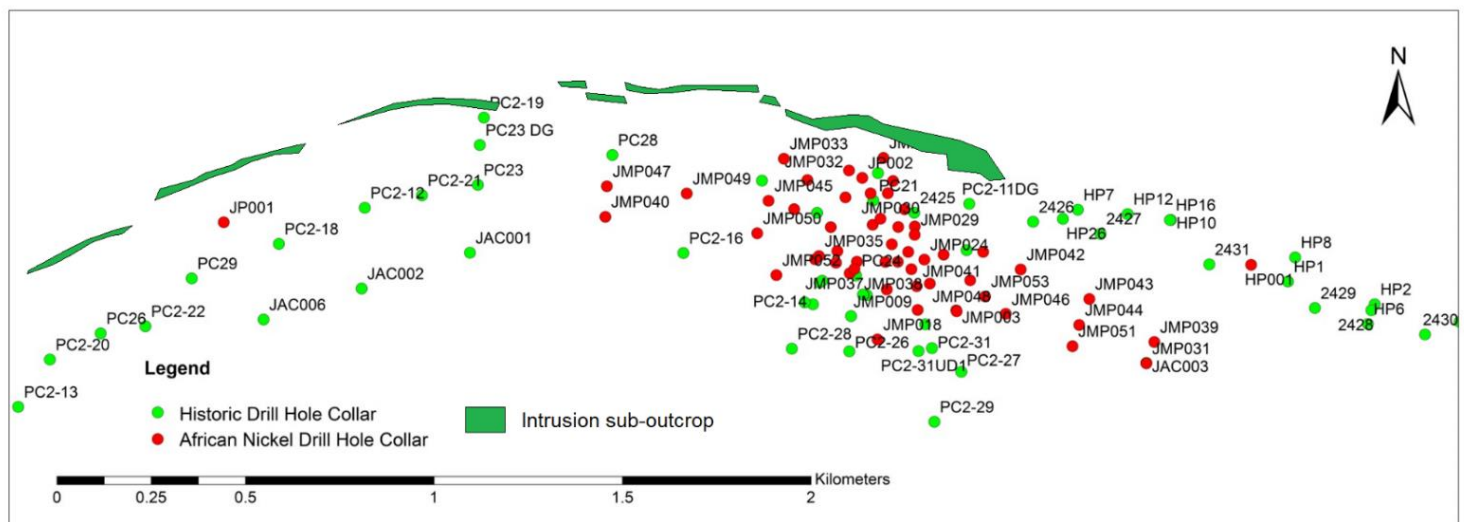


Figure 15: Plan showing mafic intrusion sub-outcrop and drilling at the Jacomynspan Mineral Resource area (refer ASX release 8 March 2018).

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 www.orionminerals.com.au/investors/market-news. Competent Person Orion’s exploration: Mr. Errol Smart. Competent Person: Orion’s Mineral Resource: Mr. Jeremy Witley. Orion is not aware of any new information or data that materially affects the information included above. For the Mineral Resource, the company confirms that all material assumptions and technical parameters underpinning the estimates in the ASX release of 8 March 2018 continue to apply and have not materially changed. Orion confirms that the form and context in which the Competent Person’s findings are presented here have not materially changed.

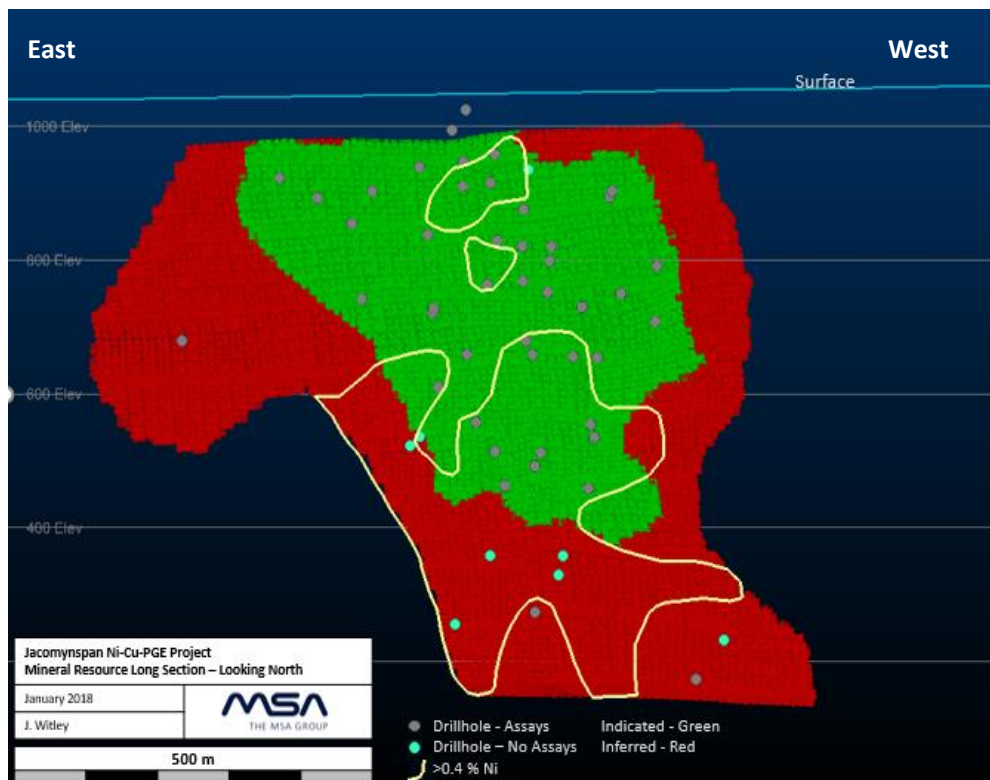


Figure 16: Longitudinal Section of the Jacomynspan Mineral Resource showing in green the Indicated and red the Inferred Resource at zero cut-off. The yellow outline indicates the resource at a 0.4% Ni cut-off (refer to Table 5) (refer ASX release 8 March 2018).

| Indicated Mineral Resource for the Jacomynspan Project at various Ni cut-off grades | | | | | | | | | | | | | | |
|---|--------------------------|------------|-----------|--------------|-----------|--------------|-----------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|
| Cut off % Ni | Volume (m ³) | Tonnes | Ni | | Cu | | Co | | Pt | | Pd | | Au | |
| | | | Grade (%) | Metal Tonnes | Grade (%) | Metal Tonnes | Grade (%) | Metal Tonnes | Grade (g/t) | Metal Ounces | Grade (g/t) | Metal Ounces | Grade (g/t) | Metal Ounces |
| 0.20 | 11,252,000 | 33,000,000 | 0.26 | 86,000 | 0.18 | 58,000 | 0.02 | 6,000 | 0.10 | 101,000 | 0.05 | 53,000 | 0.04 | 44,000 |
| 0.25 | 4,205,000 | 12,393,000 | 0.32 | 40,000 | 0.20 | 25,000 | 0.02 | 3,000 | 0.11 | 45,000 | 0.06 | 25,000 | 0.05 | 19,000 |
| 0.30 | 1,501,000 | 4,461,000 | 0.42 | 19,000 | 0.24 | 11,000 | 0.02 | 1,000 | 0.14 | 20,000 | 0.08 | 12,000 | 0.05 | 8,000 |
| 0.40 | 584,000 | 1,780,000 | 0.55 | 10,000 | 0.29 | 5,000 | 0.03 | 1,000 | 0.17 | 10,000 | 0.11 | 6,000 | 0.07 | 4,000 |
| 0.50 | 284,000 | 872,000 | 0.66 | 6,000 | 0.37 | 3,000 | 0.04 | 300 | 0.16 | 5,000 | 0.11 | 3,000 | 0.07 | 2,000 |
| Inferred Mineral Resource for the Jacomynspan Project at various Ni cut-off grades | | | | | | | | | | | | | | |
| Cut off % Ni | Volume (m ³) | Tonnes | Ni | | Cu | | Co | | Pt | | Pd | | Au | |
| | | | Grade (%) | Metal Tonnes | Grade (%) | Metal Tonnes | Grade (%) | Metal Tonnes | Grade (g/t) | Metal Ounces | Grade (g/t) | Metal Ounces | Grade (g/t) | Metal Ounces |
| 0.20 | 11,022,000 | 32,304,000 | 0.29 | 94,000 | 0.20 | 63,000 | 0.02 | 6,000 | 0.10 | 108,000 | 0.06 | 60,000 | 0.04 | 44 000 |
| 0.25 | 3,974,000 | 11,863,000 | 0.42 | 49,000 | 0.26 | 31,000 | 0.02 | 2,000 | 0.15 | 55,000 | 0.09 | 34,000 | 0.05 | 20 000 |
| 0.30 | 2,303,000 | 7,008,000 | 0.52 | 36,000 | 0.31 | 22,000 | 0.02 | 2,000 | 0.19 | 42,000 | 0.12 | 27,000 | 0.06 | 14 000 |
| 0.40 | 1,647,000 | 5,056,000 | 0.58 | 29,000 | 0.35 | 18,000 | 0.03 | 1,000 | 0.19 | 31,000 | 0.13 | 21,000 | 0.07 | 11 000 |
| 0.50 | 982,000 | 3,041,000 | 0.67 | 20,000 | 0.41 | 13,000 | 0.03 | 1,000 | 0.17 | 16,000 | 0.12 | 11, 000 | 0.07 | 7 000 |

Table 6: Indicated and Inferred Mineral Resource for the Jacomynspan Project at various cut-off grades (refer ASX release 8 March 2018).

SkyTEM™ survey over Ni-Cu targets

The Type 2 and Type 3 mineralisation identified during the litho-geochemical study, which will be the main target, are best targeted using electro-geophysical techniques such as the SkyTEM™ survey. The SkyTEM™ survey detected conductors over three known Ni – Cu occurrences, including the Jacomynspan and Rok Optel deposits and the Hartebeestpan 1 Anomaly (Figures 10 and 17). Interpretation of the EM data is ongoing. In addition to the Jacomynspan anomaly, five anomalies were selected for follow-up as a first pass (Figures 11 and 17).

The SkyTEM™ anomaly over the Jacomynspan Prospect shows an extensive formational conductor continuing south east from the known deposit for 4km and suggesting the Jacomynspan Intrusion to be developed over this strike length. The Ni-Cu potential of the intrusion was not previously fully tested over this strike length (Figure 17).

Modelling of plates from the SkyTEM™ data, ground EM follow-up and diamond drilling to test for high tenor Ni-Cu-Co-PGE mineralisation on these anomalies will be the next steps in follow up exploration programs.

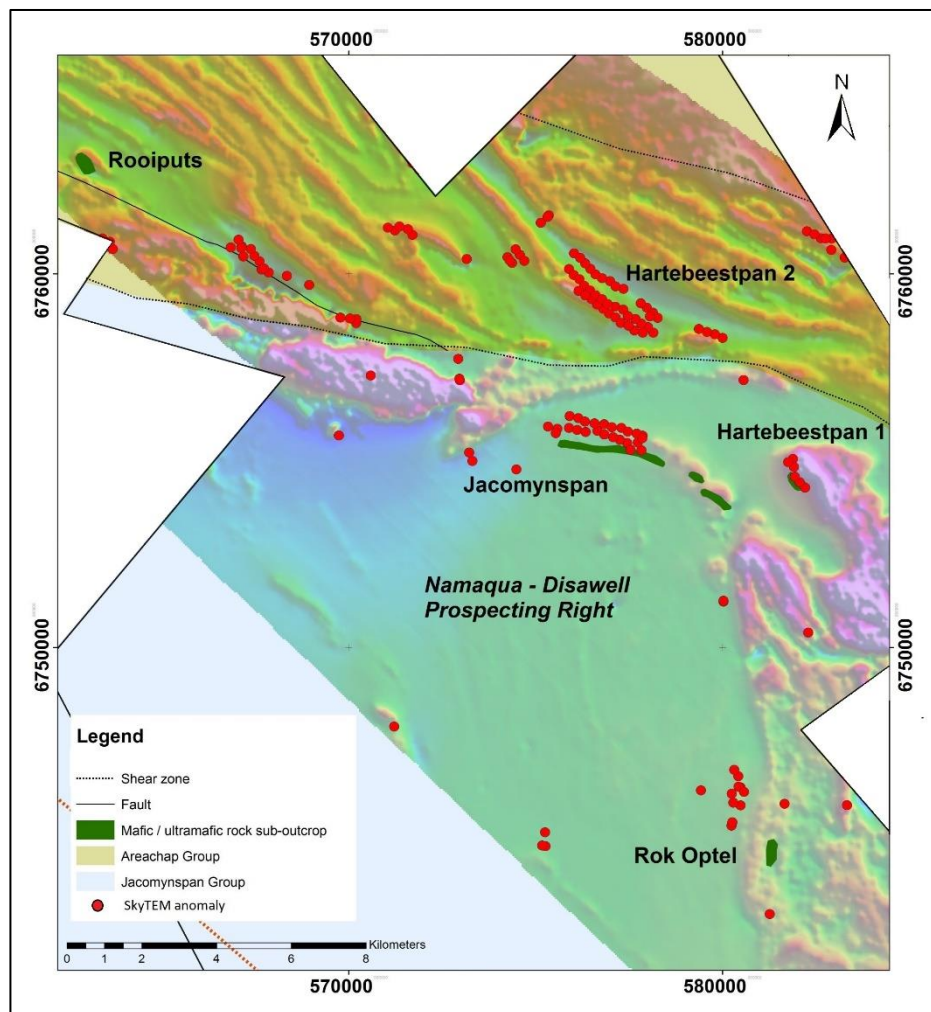


Figure 17: Locality of the Jacomynspan and Rok Optel deposits and the Hartebeestpan 1(H1) anomaly.

About the Jacomynspan Nickel-Copper-Cobalt-PGE Deposit

The Jacomynspan-Deposit was first identified by Anglo American Prospecting Services (**AAPS**) with drilling carried out along a 4km strike length. Resource drilling was carried out over a 1.3km central section of the strike length where AAPS drilled to a depth of 900m. Disseminated nickel sulphide mineralisation was intersected with widths between 30 – 70m (refer ASX release 14 July 2016).

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.

In July 2016, the Company entered into a binding term sheet to acquire up to a 59.2% interest over the Jacomynspan Project from two companies, Namaqua Nickel Mining (Pty) Ltd and Disawell (Pty) Ltd (**Companies**), which hold partly overlapping prospecting rights and mining right applications (Figure 7).

Orion's earn-in right will be via a South African-registered special-purpose vehicle (**SPV**), established by the Company 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. To-date, Orion has satisfied its obligations for Orion SPV to earn an initial interest of 25% (Orion 18.5%).

Marydale Gold-Copper Project

This project is defined in terms of the Agama: Rich Rewards tenement holding and includes the known Marydale Gold Copper Deposit.

In addition to the Prieska Project, the Agama transaction gives the Company exploration rights over the Marydale Gold-Copper Project, a gold copper deposit located 60km north of the Prieska Project (Figure 7).

Past work by Orion includes an IP survey over 2.6 km strike following the target horizon. The Company drilled two holes within the historic drill grid, that confirms the copper - gold mineralisation, and 4 holes on IP anomalies. Drilling showed the IP response to be caused by broad zones containing disseminated sulphides with low levels of Cu-Au mineralisation. Orion is currently planning follow-up exploration on the Marydale Gold – Copper Project.

Connors Arc Epithermal Gold Project (Queensland)

During the Quarter, no work was undertaken at the Connors Arc Project due to the fast tracking of drilling and the BFS at the Prieska Project. The Company is actively seeking opportunities to progress the Connors Arc Project through a joint venture or possible sale.

Fraser Range - Nickel-Copper Projects (Western Australia)

Orion maintains a sizeable tenement package in the Fraser Range Province of Western Australia which Independence Group NL (ASX: IGO) is currently earning in to via a Joint Venture Agreement (**JVA**, refer ASX release 10 March 2017).

As foreshadowed in the December 2017 Quarterly Report, IGO is completing a major regional scale interpretation of the geological framework of the Albany-Fraser Orogen based on first pass aircore drilling (principally used to improve the understanding of the bedrock geology in the project area) and high resolution geophysical data including a regional scale Spectrem airborne EM survey.

The regional scale work is also enabling areas with lower prospectivity, either due to the underlying geology or the depth of transported cover, to be identified and relinquished so that exploration can focus on the most prospective areas.

In addition to the regional scale surveys, a ground EM survey is currently underway on parts of the Orion tenements where VTEM and aircore geochemistry anomalism has previously been identified.

Under the JVA, IGO is responsible for all exploration on the tenements and provides regular updates to Orion of its activities and results arising from them. No material results were received during the Quarter.

Walhalla Gold and Polymetals Project (Victoria)

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

Tenement Schedule

| Tenement | Project | Ownership Interest | Change in Quarter | Joint Venture Partner |
|-------------------------------------|------------------|--------------------|-------------------|--|
| South Africa | | | | |
| NC30/5/1/1/2/10445PR | PCM | 73.33% | --- | --- |
| NC30/5/1/2/2/10244PR | Marydale | 73.33% | --- | --- |
| NC30/5/1/1/2/11841PR ⁽¹⁾ | Vardocube | 70.00% | Granted | --- |
| NC30/5/1/1/2/11850PR ⁽¹⁾ | Bartotrax | 74.00% | Granted | --- |
| NC30/5/1/1/2/10032MR ⁽²⁾ | Namaqua-Disawell | 18.50% | Earn in Achieved | Namaqua Nickel Mining (Pty) Ltd |
| NC30/5/1/1/2/10938PR | Namaqua-Disawell | 18.50% | Earn in Achieved | Disawell (Pty) Ltd |
| NC30/5/1/1/2/11010PR | Namaqua-Disawell | 18.50% | Earn in Achieved | Namaqua Nickel Mining (Pty) Ltd |
| NC30/5/1/1/2/816PR | Masiqhame | 49.00% | Earn in Achieved | Masiqhame 855 (Pty) Ltd |
| Western Australia | | | | |
| E28/2367 | Fraser Range | 30% | --- | Independence Group NL |
| E28/2378 | Fraser Range | 30% | --- | Independence Group NL |
| E28/2462 | Fraser Range | 30% | --- | Independence Group NL |
| E28/2596 | Fraser Range | 30% | --- | Independence Group NL |
| E39/1653 | Fraser Range | 35% | --- | Independence Group NL & Geological Resources Pty Ltd |
| E39/1654 | Fraser Range | 10% | --- | Independence Group NL & NBX Pty Ltd |
| E69/2379 | Fraser Range | 10% | --- | Independence Group NL & Ponton Minerals Pty Ltd |
| E69/2380 | Fraser Range | 10% | --- | Independence Group NL & Ponton Minerals Pty Ltd |
| E69/2707 | Fraser Range | 10% | --- | Independence Group NL & 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% | --- | --- |
| EPM26082 | Connors Arc | 100% | --- | --- |
| EPM26083 | Connors Arc | 100% | --- | --- |
| | | | | |

| Tenement | Project | Ownership Interest | Change in Quarter | Joint Venture Partner |
|------------------------|----------|--------------------|-------------------|-----------------------|
| Victoria | | | | |
| MIN5487 ⁽³⁾ | Walhalla | 100% | --- | --- |
| EL5340 | Walhalla | 100% | --- | --- |
| EL5348 | Walhalla | 100% | --- | --- |

(1) Execution of Prospecting Right expected April 2018.

(2) Execution of Mining Right pending.

(3) MIN 5487 has been sold to Centennial Mining Ltd.

Corporate

Cash and Finance

Cash on hand at the end of the Quarter was \$1.6M.

Tembo Top-Up Right and Loan Facility

On 2 January 2018, the Company announced that mining focused, private equity group Tembo Capital Mining Fund II LP and its affiliated entities (**Tembo Capital**), confirmed its continued support of Orion through subscribing for Shares allowing Tembo Capital to maintain its 19.99% holding in the Company.

Orion announced on 12 April 2017 that it had entered a formal placement agreement in respect of a placement and strategic relationship with Tembo Capital, pursuant to which Tembo Capital was granted an anti-dilution right to maintain its percentage holding in Orion where the Company conducts subsequent equity raisings (**Top-up Right**). Tembo Capital's interest in Orion was diluted as a result of capital raisings completed by the Company during the December 2017 Quarter.

Pursuant to the Top-up Right, Orion offered Tembo Capital the right to subscribe for up to 60M Shares, allowing Tembo Capital to maintain its 19.99% holding in Orion (**Top-up Shares**) at an issue price of 2.4 cents (the same Share issue price as the capital raisings). On 29 December 2017, Orion issued 60M Shares in the Company at an issue price of 2.4 cents per Share to raise \$1.44M as approved by shareholders at a General Meeting held on 13 December 2017.

Orion announced on 18 August 2017 that it had entered into a \$6.0M bridge loan facility agreement with Tembo Capital, pursuant to which Tembo Capital has advanced funds to Orion (**Loan Facility**). The \$1.44M raised was used to reduce the balance of the Loan Facility.

On 15 November 2017, the Company announced an extension to the term of the Loan Facility from 15 December 2017 to 31 May 2018. The extension to the term of the Loan Facility relieved Orion of its requirement to repay the Loan Facility by 15 December 2017 ensuring that proceeds from the Capital Raisings and Loan Facility can be used principally to progress the Company's Prieska Zinc-Copper Project. As part of the terms of amendment to the Loan Facility, Orion agreed to an increase in the establishment fee from 5% to 6.67% of the Loan Facility amount (capitalised).

At the end of the Quarter, \$3.56M had been drawn down against the Loan Facility.

Board Changes

Mr Mark Palmer joined the Orion Board on 31 January 2018 as a Non-executive Director and the appointee nominated by Tembo Capital.

Following Quarter end, on 18 April 2018 the Company announced that Mr Michael Hulmes had been appointed as a Non-executive Director of Orion.

Following Mr Hulmes' appointment, the Company also advised that Mr William Oliver stepped down as a Non-executive Director, effective 18 April 2018, in order to focus on his other business interests. Mr Oliver will continue to consult to the Company on technical matters in his new role, including supervision of the Fraser Range joint venture and the Connors Arc Project.

Small Shareholding Sale Facility

On 21 November 2017 the Company announced that it had established a small shareholding sale facility (**Sale Facility**) for shareholders who held a small parcel of Shares (i.e. less than a marketable parcel of Shares as defined in the ASX Listing Rules (that is a parcel of shares with a value of less than \$500, based on the Share price of 3.1 cents on the Record Date) (**Small Holding**)) and whose registered address was in Australia. The Sale Facility allowed those shareholders to sell their Shares cost effectively, while also assisting the Company reduce the costs associated with servicing smaller shareholdings.

Shareholders who on 20 November 2017 (**Record Date**) held a Small Holding received a letter and share retention slip from the Company. The letter explained that, unless those shareholders notified the Company that they wished to retain their Shares by submitting the share retention slip or they hold more than \$500 worth of Shares on the Sale Facility closing date, those Shares would be sold, and the proceeds remitted to them free from brokerage and handling fees.

On 23 November 2017, a first notice was sent to shareholders of Small Holdings and on 10 January 2018 a second letter to shareholders was dispatched to all shareholders who held a Small Holding of Shares on the Record Date and who were yet to return a completed share retention slip. The Sale Facility closed on 19 January 2018.

In line with the terms of the Sale Facility, a total of 1,463,432 Shares (representing approximately 0.1% of Shares on issue) were sold at the sale price of 3.2 cents per Share which was higher than the authorised price as required by the Company's constitution. Following the Sale Facility, the total number of shareholders was reduced by 1,020.

Shareholders who were the holder of a less than a marketable parcel of Shares as at 5:00pm (Melbourne time) 19 January 2018, who had not taken steps to retain their holding under the Sale Facility, received payment of their respective proceeds in February 2018.

Change of Status, Name and Replacement Constitution

At the General Meeting held on the 13 December 2017, shareholders approved the change of status from a no liability company, "Orion Minerals NL", to public company limited by shares, "Orion Minerals Limited". The change to the status and name of the Company came into effect on 2 February 2018. The ASX Code for the Company remains unchanged.

Also, at the General Meeting, a new constitution of Orion was adopted by shareholders by special resolution and came into effect on 2 February 2018.

Euroz Research Report

On 1 March 2018, Euroz Securities Limited (**Euroz**) completed a research report on Orion. To view a copy of the report, please visit our website at:

<https://orionminerals.com.au/investors/analyst-coverage/>.

Euroz makes the report available (and Orion reproduces it) subject to the disclaimer and disclosure on page 14 of the report.

Hannam & Partners Research Report

On 12 March 2018 the Company announced that Hannam & Partners had completed a research report on Orion. To view a copy of the report, please visit our website at:

<https://orionminerals.com.au/investors/analyst-coverage/>.

As disclosed in the report, the cost of producing the report was covered by Orion as part of a contractual arrangement with Hannam & Partners. Hannam & Partners makes the report available (and Orion reproduces it) subject to the disclaimer on page 24 of the report.