

ASX/JSE RELEASE: 30 July 2018

Quarterly Activities Report For Period Ended 30 June 2018

HIGHLIGHTS

• Resource drilling continues to deliver positive results:

- 56 massive sulphide intersections in Deep Sulphide Target validate 330 historical results at Prieska Project.
- Drilling of the south-eastern continuation of the Deep Sulphide Target on the Vardocube Prospecting Right commenced.
- Mineral Resource updated with estimate for the Deep Sulphide Target to include drill information from the Vardocube Prospecting Right.
- Data migrated to Geobank geological database.

• Mine feasibility studies reach significant milestones:

- Detailed mine designing and scheduling now commenced using the latest Mineral Resources estimation models.
- Metallurgical test-work continues to validate that targeted mineralisation has similar metallurgical responses to plant feed that was successfully treated historically.
- The Mining Right Application was submitted, triggering the commencement of the 300-day mandatory review and permit granting process.
- Design work commenced to reconnect the project site to the national power supply grid via the onsite sub-station.

• Regional Exploration Program initiated:

- o Ground electromagnetic (**EM**) follow-up surveys and interpretation of results over two SkyTEM™ anomaly target areas on the Namaqua-Disawell Prospecting Rights completed.
- Ground orientation EM survey and interpretation of results over the Jacomynspan Ni-Cu deposit completed.
- Drill targets on the Rok Optel Ni-Cu target established.
- Field mapping over SkyTEM™ anomalies continued.

• Safety, environment and community engagement ongoing:

- Zero Lost time injuries for 89,153 manhours worked at the Prieska Project.
- Significant environmental permitting progress made at the Prieska Project with the submission of the Final Environmental Scoping Report to authorities and the completion of draft environmental management plans.
- Continued co-operation with communities with the Municipal Mayor and Councillors hosted on a familiarisation site visit of the Prieska Project.

• \$23M capital raising initiatives during the Quarter:

- \circ \$5.0M raised via placement to Independence Group NL at \$0.05 per Share.
- \$11.25M raised via placements to sophisticated and professional investors at \$0.037 per Share, to be conducted via two tranches. Tranche 1 Shares issued during the Quarter raising \$3.4M.

Tranche 2 Shares to raise \$7.9M to be issued subject to shareholder approval, to be sought at a general meeting to be held on 3 August 2018.

- \$0.25M to be raised via placement of Shares at \$0.037 per Share to the Company's Chairman, Mr Denis Waddell (subject to shareholder approval).
- Tembo Capital confirmed its continued support of Orion through subscribing for \$6.3M in Shares, at an issue price of \$0.037 per Share (subject to shareholder approval), with the subscription amount to reduce the amount re-payable to Tembo Capital under the Loan Facility.

Operations Report

Orion Minerals Limited (**Company** or **Orion**) strives for a sustainable balance of intense operations and strong focus on social responsibility.

Health and Safety, Environmental Management and Community Engagement

Health and Safety

With high intensity of site work and over 90,000 manhours worked on all sites in the Quarter, health and safety performance on all Company projects was excellent with no lost time injuries reported for the year to date.

At the Prieska Zinc-Copper Project (**Prieska Project**), which includes underground activity, the Lost Time Injury Frequency Rate (**LTIFR**) per 200,000 manhours worked for the Quarter and year to date were both zero. These safety metrics compare very favourably against industry averages of 10.32 (annually) and 1.50 (quarterly) respectively.

Category of Work	Hours Worked				
	Quarter	Year to Date ¹			
Exploration	86,574	86,574			
Mine Re-Entry	2,579	2,579			
Total	89,153	89,153			

Employee education and awareness of health and safety, including related regulations and employee rights, is an ongoing theme being promoted. During the Quarter, site induction formats were updated by establishing a formal process for vetting and incorporating sub-contractors' safe work procedures into project sites' health and safety systems.

Engineering inspections, in compliance with the Mines Safety and Health Act, were carried out on all machinery including drill rigs and lifting equipment operating at the Prieska Project, ensuring all inspected equipment is in a safe and serviceable condition.

Environmental Management

No environmental incidents were recorded at any of the Company's projects.

The Quarter saw significant progress made with respect to the environmental impact assessment being conducted for the Prieska Project. An environmental scoping report was completed and submitted to

¹ The year start date is April 2018, being the commencement of the Deep Sulphide resources definition drilling program.

the Department of Mineral Resources (**DMR**) for review. This scoping report describes the broad concepts of the contemplated mine development plan, along with the manner in which the environmental impact studies will be conducted. The scoping report is also made available for public review and comment.

Draft versions of the Environmental Impact Report, Environmental Management Program and Integrated Water and Waste Management Plan were also completed. This suite of reports is a mandatory requirement for issuance of environmental authorisation before a mine development project can proceed.

All specialist environmental studies for the Prieska Project, including radiological assessments, baseline air and water quality studies and noise monitoring were also concluded during the Quarter. Postclosure cost re-estimation and the updating of the environmental management plan for the historical tailings storage facility (**TSF**) on the Prieska Project site were done as a precautionary measure to ensure the TSF is maintained in an environmentally benign condition.

The scope of work for the additional environmental studies required in order to include the recently delineated southern extension of the Copperton deposit into the Prieska Project mine development plan, is now defined and planned for execution during the next Quarter (Q3 CY2018).

Final environmental authorisation documentation for the Project is planned to be submitted in September 2018. Environmental authorisation is then anticipated to be granted by Q3 CY2019.

Monthly dust monitoring in the Prieska Project environs is continuing, as part of the dust management program implemented at the commencement of the resources definition drilling program.

Environmental performance at all the other regional exploration projects was exemplary, with no detrimental environmental incidence recorded.

Community Engagement

The Company continues to promote proactively informing and interacting with communities near project sites. Productive engagement with the Siyathemba Municipal Council, the local government authority for the district where the Prieska Project is situated, continued, as part of implementing the collaboration Memorandum of Understanding entered into between the Company and the Municipality.

On 25 April 2018, the Company hosted the Siyathemba Mayor, Councillors and Municipal Managers for a site visit of the Prieska Project. The visit included a tour of the underground workings, the surface infrastructure and field trip around the 18 drill rigs engaged in the Deep Sulphide drilling program.

On 31 May 2018, the Company facilitated a visit by representatives of the Siyathemba Municipality and the Northern Cape Provincial Department of Education to an established EduVOD Learning Centre in KwaMashu, KwaZulu-Natal Province. This enabled a shared understanding of the potential for the EduVOD satellite education content solution in Prieska schools.

On 20 June 2018, the Company hosted an informal function in the town of Copperton for local residents during which Company management provided an update of progress on the Prieska Project.

Discussions with various stakeholders, seeking to secure long-term access to land on which the Prieska Project will be developed, were initiated and are continuing in good faith.

Exploration and Mine Development

Areachap Belt Projects (South Africa)

The Company continued an intensive drilling campaign at the Prieska Project. Supplementary drilling was commenced into the Deep Sulphide Target with the aim of upgrading the classification of Mineral Resources, in compliance 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 in Q1 CY2019. The maiden total Mineral Resource reported for the Prieska Project in February 2018 (refer ASX release 8 February 2018) was updated with the inclusion of the south-eastern extension of the resource on the Vardocube Prospecting Right (PR).

Regional exploration on the Masiqhame and Namaqua-Disawell permits continued, with field mapping and ground EM surveys underway over targets identified from airborne electromagnetic (**AEM**).

Prieska Project

The Prieska Project remains the focus of the Company's activities and is at an advanced stage of feasibility studies.

Project Overview

The Prieska Project covers un-mined dip and strike extensions from a historical underground mining operation. Mineralisation was delineated by extensive drilling done by the previous owners (Copperton Deposit). The Company 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 are potentially extractable via open pit mining (+105 Level Target) and the deeper sulphide mineralisation identified by historic drilling (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 the grade of mineralisation.

Since the acquisition of the Prieska Project in March 2017, 261 additional drill holes have been digitized from historic mine plans below the -680m level. While this additional data has shortcomings due to some missing records, the Company is encouraged by the infill and confirmatory drilling results that continue to validate interpretation of the historical data set. By 30 June 2018, 56 mother and deflected holes for resource estimation, and 12 deflections for metallurgical test work had been drilled by the Company in the Deep Sulphide Target.

Mineral Resources estimates for the Copperton deposit were declared in April 2018. Furthermore, with the appointment of DRA Projects SA Pty Ltd (**DRA**) as the lead study consultants in July 2017, work has commenced and is well-advanced, on completing a bankable feasibility study targeting the exploitation of the deposit.

Deep Sulphide Target drilling

During the Quarter, the Company continued with an intensive drill program which focussed in the northwestern section of the Repli Prospecting Right and the south-eastern section of the Vardocube Prospecting Right, areas of the Deep Sulphide Target (Figure 1). A total of 67,158m of drilling has been completed on the Deep Sulphide Target as at 30 June 2018. At the height of activity, 18 surface diamond drill rigs were in operation, 14 of which were drilling on the Vardocube extension of the Deep Sulphide resource (Figure 1). A total of 17,446m of diamond drilling was completed during this Quarter, of which 11,227m was drilled on the Vardocube Prospecting Right. The Company 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. Drilling is also testing new targets and extending known mineralisation outside the historic drill grid.

Drilling results from 13 drill hole intersections targeting the Deep Sulphide Target were announced during the Quarter (refer ASX release 16 July 2018) (Table 1 and Figures 1, 2 and 3). These intersections are consistent with previous reported intersections adjacent to these intersections.

By the end of June 2018, the Company had completed 56 mother and deflected holes and received assays from 53 intersections on the Deep Sulphide target. Intersections in these holes were achieved at vertical depths of 880m to 1,220m requiring the setting of 355 directional wedges to steer the drilling to pre-determined target points. At the end of the Quarter, analytical results from 3 more intersections were awaited while 18 holes were in progress.

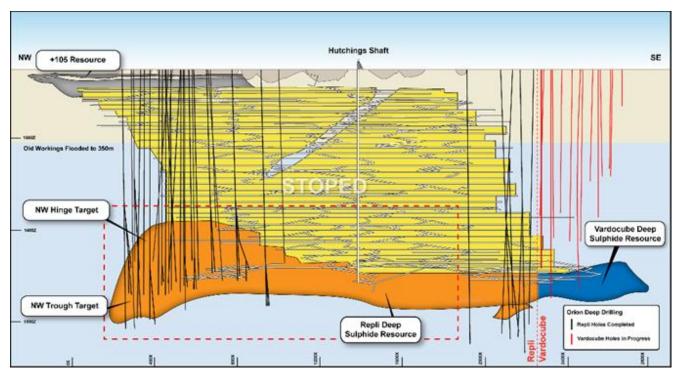


Figure 1: Longitudinal projection of the Prieska Project showing the Repli and Vardocube areas. The area blocked in red shows the intersection points of the drill holes reported in this Quarter and is enlarged in Figure 2. The Vardocube drill holes in progress are shown in red traces.

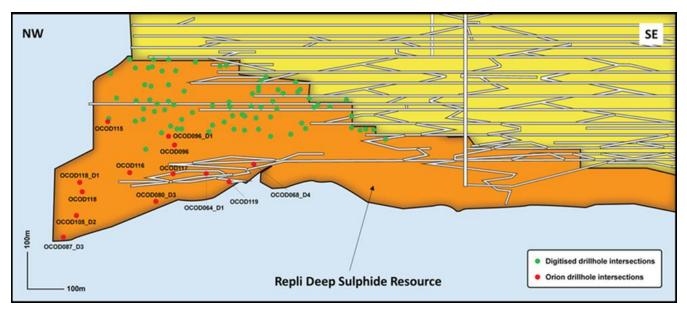


Figure 2: Longitudinal projection of the NW Target area of the Prieska Project, showing the additional drill hole information included in the Prieska Project database and the Orion drill holes reported in this Quarter.

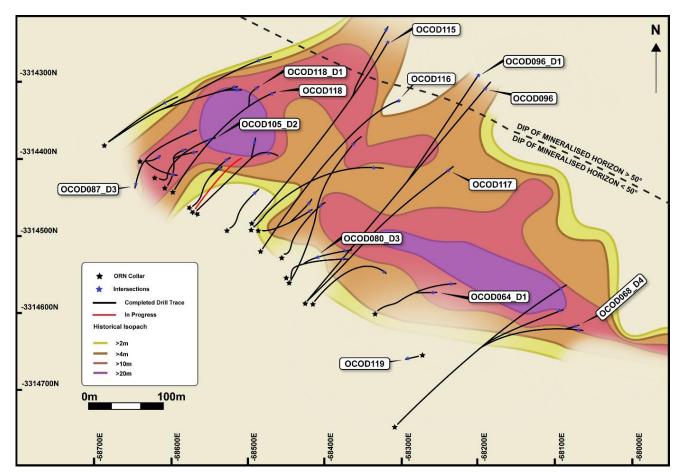


Figure 3: Plan showing drill hole collar positions in the NW Target area, with Orion drill holes that have been completed shown as black drill traces and drill holes in progress as red traces. Drill holes reported in this Quarter are annotated and results indicated in Table 1.

	East	North	From	То	Length	Cu	Zn	Αu	Ag
Drill hole	(WGS84 LO23)	(WGS84 LO23)	(m)	(m)	(m)	(%)	(%)	(g/t)	(g/t)
OCOD064_D1	-68,270	-3,314,574	988.91	1003.45	14.54	0.56	1.06	0.12	4
	-68,094	-3,314,615	978.62	983.00	4.38	0.80	4.84	0.21	11
	-68,089	-3,314,614	994.00	1007.72	13.72	1.65	2.31	0.41	17
OCOD068_D4	inclu	dina	997.00	1000.00	3.00	2.59	2.56	0.70	32
	Inclu	ung	1005.00	1007.72	2.72	3.35	4.08	0.83	24
OCOD080_D3	-68,405	-3,314,524	1056.70	1060.20	3.50	0.38	4.95	0.08	4
OCOD087_D3	-68,644	-3,314,422	1154.00	1154.75	0.75	0.26	4.33	0.05	4
OCOD096	-68,175	-3,314,354	968.69	974.09	5.40	0.66	2.01	0.09	6
	-68,178	-3,314,339	950.00	958.00	8.00	1.18	3.57	0.24	15
OCOD096_D1	Inclu	Iding	951.49	958.00	5.51	1.05	4.55	0.23	14
	-68,178	-3,314,343	944.20	948.00	3.80	0.81	1.89	0.11	8
	-68,555	-3,314,377	1088.62	1111.68	23.06	1.35	2.70	0.31	12
	pCOD105_D2 including		1093.00	1097.39	4.39	0.68	4.45	0.09	21
0000105_02			1097.39	1103.83	6.44	2.17	4.79	0.35	21
			1108.00	1111.68	3.68	2.00	1.74	0.43	15
	-68,311	-3,314,241	890.50	893.00	2.50	3.08	2.97	0.27	26
OCOD115	-68,307	-3,314,235	905.50	912.75	7.25	0.98	3.27	0.09	9
	-68,298	-3,314,224	936.00	937.60	1.60	0.43	1.79	0.05	3
OCOD116	-68,321	-3,314,338	1014.00	1017.30	3.30	0.85	1.67	0.18	6
OCODIII	-68,319	-3,314,337	1024.00	1027.00	3.00	1.34	1.71	0.26	13
	-68,252	-3,314,429	1000.00	1001.00	1.00	0.28	3.43	0.15	8
OCOD117	-68,250	-3,314,429	1005.00	1006.67	1.67	1.45	2.81	0.97	9
	-68,250	-3,314,428	1012.00	1015.00	3.00	1.79	2.96	0.22	10
	-68,469	-3,314,309	1040.60	1058.00	16.40	1.08	2.27	0.23	10
OCOD118	Inclu	udina	1040.60	1051.50	9.90	1.08	2.79	0.27	9
	Inclu	lang	1052.17	1058.50	5.83	1.18	1.53	0.16	11
	-68,444	-3,314,273	1031.70	1040.15	8.45	0.97	2.02	0.21	7
OCOD118-D1	Inclu	iding	1034.70	1038.95	4.25	1.23	2.74	0.22	7
	-68,441	-3,314,271	1045.15	1046.40	1.25	1.09	1.37	0.25	15
OCOD119	-68,270	-3,314,675	1000.50	1002.71	2.21	0.55	4.48	0.11	8

 Table 1: Drill hole intersections reported from the Deep Sulphide Target for the April - June 2018 Quarter (refer ASX release 16 July 2018). All intersections weighted by length and relative density.

In addition to the on-going infill drilling, the Company has also completed the digital capture and validation of drilling from historic mine records and has now included a further 79 drill intersections (Figure 2 and Table 2) to add to the 251 historic intersections in the geological database, bringing the total historical intersections to 330. The newly captured intersections are concentrated in the up-dip extension of the NW Target area where the Company has targeted its deep drilling campaign since May 2017 (refer ASX release of 16 July 2018).

	East	North	From	То	Length	Cu	Zn	Αu	Ag
Drill hole	(WGS84 LO23)	(WGS84 LO23)	(m)	(m)	(m)	(%)	(%)	(g/t)	(g/t)
D279	-68 282	-3 314 222	29.44	31.16	1.72	0.11	4.72	N/A	N/A
D286	-67 961	-3 314 580	21.39	22.96	1.57	0.48	2.08	N/A	N/A
D311	-68 139	-3 314 342	93.71	100.17	6.46	0.02	0.06	N/A	N/A
D312	-68 144	-3 314 301	48.06	57.97	9.91	1.67	4.97	N/A	N/A
D339	-67 995	-3 314 538	45.69	55.85	10.16	1.01	1.90	N/A	N/A
D340	-67 964	-3 314 504	31.80	38.30	6.50	0.87	4.24	N/A	N/A
F1092	-67 919	-3 314 577	12.76	14.37	1.61	4.01	1.46	N/A	N/A
F1413	-67 811	-3 314 684	47.40	54.03	6.63	1.85	1.38	N/A	N/A
F1414	-67 800	-3 314 693	71.46	94.82	23.36	2.12	1.50	N/A	N/A
F1442	-67 922	-3 314 595	59.31	62.35	3.04	0.56	5.00	N/A	N/A
F1488	-67 922	-3 314 506	79.59	90.79	11.20	2.20	3.75	N/A	N/A
F1517	-68 181	-3 314 282	55.25	74.52	19.27	0.89	5.33	N/A	N/A
F1527	-67 753	-3 314 716	72.29	80.60	8.31	0.11	0.10	N/A	N/A
F1534	-68 238	-3 314 251	53.61	65.91	12.30	0.81	1.30	N/A	N/A
F1542	-67 821	-3 314 658	69.15	72.90	3.75	0.17	0.98	N/A	N/A
F1555	-67 884	-3 314 584	97.49	129.47	31.98	0.96	4.02	N/A	N/A
F1571	-67 861	-3 314 620	17.04	70.23	53.19	1.11	3.24	N/A	N/A
F1579	-67 935	-3 314 566	44.62	52.08	7.46	0.95	3.39	N/A	N/A
F1580	-67 916	-3 314 556	55.61	67.30	11.69	2.46	3.17	N/A	N/A
F1584	-67 923	-3 314 569	34.11	58.88	24.77	1.34	3.35	N/A	N/A
F1587	-67 957	-3 314 459	38.32	46.10	7.78	0.97	1.76	N/A	N/A
F1588	-67 964	-3 314 456	28.87	34.00	5.13	2.16	3.82	N/A	N/A
F1590	-67 941	-3 314 489	29.04	34.65	5.61	0.14	1.71	N/A	N/A
F1606	-68 172	-3 314 263	39.76	52.92	13.16	2.44	3.54	N/A	N/A
F1610	-67 970	-3 314 471	54.42	55.57	1.15	0.25	3.19	N/A	N/A
F1611	-67 962	-3 314 457	40.60	43.27	2.67	0.04	0.66	N/A	N/A
F1616	-67 979	-3 314 447	42.10	50.66	8.56	0.75	3.61	N/A	N/A
F1617	-68 004	-3 314 446	53.23	58.17	4.94	0.95	2.54	N/A	N/A
F1619	-67 943	-3 314 504	46.53	48.55	2.02	0.39	1.88	N/A	N/A
F1654	-68 101	-3 314 342	60.17	62.36	2.19	0.65	0.74	N/A	N/A
F1658	-68 116	-3 314 299	18.47	22.99	4.52	0.61	3.83	N/A	N/A
F1668	-68 159	-3 314 298	40.60	46.46	5.86	0.76	3.72	N/A	N/A
F1669	-68 159	-3 314 321	70.55	78.04	7.49	1.20	5.51	N/A	N/A
F1672	-68 180	-3 314 310	61.06	66.57	5.51	1.45	1.01	N/A	N/A
F1673	-68 163	-3 314 297	35.39	40.35	4.96	0.63	3.79	N/A	N/A
F1675	-68 171	-3 314 282	72.29	74.94	2.65	1.67	3.67	N/A	N/A
F1687	-68 215	-3 314 246	36.02	39.76	3.74	1.14	2.77	N/A	N/A
F1689	-68 217	-3 314 253	29.72	36.29	6.57	1.69	2.89	N/A	N/A
F1690	-68 226	-3 314 258	28.70	30.75	2.05	0.57	2.78	N/A	N/A
F1695	-67 935	-3 314 504	11.11	22.18	11.07	2.02	3.70	N/A	N/A
F1709	-68 181	-3 314 278	27.31	29.40	2.09	1.10	5.44	N/A	N/A

Drill hole (WGS84 (D23) (W) (D23) (m) (m) <th></th> <th>East</th> <th>North</th> <th>From</th> <th>То</th> <th>Length</th> <th>Cu</th> <th>Zn</th> <th>Αu</th> <th>Ag</th>		East	North	From	То	Length	Cu	Zn	Αu	Ag
FI711 -68 229 -3 314 302 34.80 36.95 2.15 0.27 2.32 N/A F1730 -68 108 -3 314 372 39.74 42.12 2.38 1.33 5.53 N/A F1730 -68 002 -3 314 392 38.98 55.64 16.66 1.28 1.96 N/A F1730 -68 002 -3 314 392 90.94 93.86 2.92 0.83 1.98 N/A F1730 -68 002 -3 314 372 28.85 47.59 18.74 1.84 2.00 N/A F1755 -68 049 -3 314 332 47.88 56.84 8.96 0.99 4.94 N/A F1756 -68 049 -3 314 334 29.76 31.89 2.13 0.89 1.52 N/A F1776 -68 102 -3 314 244 29.76 3.89 2.13 0.80 3.08 N/A F1780 -68 102 -3 314 244 27.50 3.38 2.22 2.55 N/A	Drill hole			(m)	(m)	(m)	(%)	(%)	(g/t)	(g/t)
F1727 -68 022 -3 31 4 392 38.98 55.64 16.66 1.28 1.96 N/A F1730 -68 083 -3 31 4 392 90.94 93.86 2.92 0.83 1.98 N/A F1749 -66 007 -3 31 4 444 34.22 38.97 4.75 2.72 3.42 N/A F1755 -68 049 -3 31 4 372 24.88 56.84 8.96 0.99 4.94 N/A F1755 -68 049 -3 31 4 372 47.88 56.84 8.83 1.28 4.47 N/A F1755 -67 778 -3 31 4 314 29.76 31.89 2.13 0.89 1.52 N/A F1770 -68 102 -3 31 4 259 37.76 39.69 1.93 0.60 3.08 N/A F1780 -68 178 -3 31 4 264 22.89 45.54 2.65 1.11 2.90 N/A F1781 -68 178 -3 31 4 264 2.89 3.0.43 2.85 3.1.4 1.91	F1711	-68 229		34.80	36.95	2.15	0.27	2.32	N/A	N/A
F1730 -68 083 -3 314 392 90.94 93.86 2.92 0.83 1.98 N/A F1749 -68 007 -3 314 444 34.22 38.97 4.75 2.72 3.42 N/A F1753 -68 025 -3 314 377 28.85 47.59 18.74 1.84 2.60 N/A F1755 -68 049 -3 314 336 35.51 44.34 8.83 1.28 4.47 N/A F1756 -67 778 -3 314 336 35.51 44.34 8.83 1.28 4.47 N/A F1775 -67 778 -3 314 314 29.76 31.89 2.13 0.89 1.52 N/A F1776 -68 192 -3 314 259 37.76 39.69 1.93 0.60 3.08 N/A F1781 -68 178 -3 314 264 42.89 45.54 2.65 1.15 1.58 N/A F1781 -68 267 -3 314 264 42.89 3.043 2.85 1.11 2.90 N/A	F1718	-68 188	-3 314 272	39.74	42.12	2.38	1.33	5.53	N/A	N/A
F1749 -68 007 -3 314 444 34.22 38.97 4.75 2.72 3.42 N/A F1753 -68 025 -3 314 377 28.85 47.59 18.74 1.84 2.60 N/A F1756 -68 049 -3 314 372 47.88 55.84 8.96 0.97 4.94 N/A F1756 -68 062 -3 314 316 35.51 44.34 8.83 1.28 4.47 N/A F1776 -68 102 -3 314 314 29.76 31.89 2.13 0.89 1.52 N/A F1777 -68 102 -3 314 259 37.76 39.69 1.93 0.60 3.08 N/A F1780 -68 192 -3 314 266 42.89 45.54 2.65 1.11 2.90 N/A F1781 -68 176 -3 314 264 47.59 3.043 2.85 1.11 2.90 N/A F1783 -68 207 -3 314 267 41.90 43.53 1.63 0.18 7.22 N/A	F1727	-68 022	-3 314 392	38.98	55.64	16.66	1.28	1.96	N/A	N/A
F1753 -68 025 -3 314 377 28.85 47.59 18.74 1.84 2.60 N/A F1755 -68 049 -3 314 372 47.88 56.84 8.96 0.99 4.94 N/A F1756 -68 082 -3 314 372 15.01 26.55 11.34 1.91 2.42 N/A F1776 -67 778 -3 314 314 29.76 3.189 2.13 0.89 1.52 N/A F1778 -68 102 -3 314 314 29.76 3.189 2.13 0.89 1.52 N/A F1780 -68 192 -3 314 264 42.89 45.54 2.65 1.15 1.58 N/A F1781 -68 178 -3 314 264 42.89 45.54 2.65 1.11 2.90 N/A F1782 -68 192 -3 314 264 42.89 3.63 0.18 7.92 N/A F1783 -68 267 -3 314 264 43.53 1.63 0.18 7.92 N/A F1786	F1730	-68 083	-3 314 392	90.94	93.86	2.92	0.83	1.98	N/A	N/A
F1755 -68 049 -3 314 372 47.88 56.84 8.96 0.99 4.94 N/A F1756 -68 082 -3 314 336 35.51 44.34 8.83 1.28 4.47 N/A F1775 -67 778 -3 314 702 15.01 26.35 11.34 1.91 2.42 N/A F1776 -68 102 -3 314 311 29.76 31.89 2.13 0.89 1.52 N/A F1770 -68 102 -3 314 250 37.76 39.69 1.93 0.60 3.08 N/A F1780 -68 178 -3 314 264 42.89 45.54 2.65 1.15 1.58 N/A F1781 -68 178 -3 314 264 27.58 30.43 2.85 1.11 2.90 N/A F1782 -68 207 -3 314 264 27.58 30.43 2.85 1.11 2.90 N/A F1780 -68 267 -3 314 264 33.73 35.33 1.66 0.34 3.38 N/A	F1749	-68 007	-3 314 444	34.22	38.97	4.75	2.72	3.42	N/A	N/A
F1756 -68 082 -3 314 336 35.51 44.34 8.83 1.28 4.4.7 N/A F1775 -67 778 -3 314 702 15.01 26.35 11.34 1.91 2.42 N/A F1776 -68 102 -3 314 314 29.76 31.89 2.13 0.89 1.52 N/A F1779 -68 103 -3 314 259 37.76 39.69 1.93 0.60 3.08 N/A F1780 -68 178 -3 314 264 42.89 45.54 2.65 1.15 1.58 N/A F1781 -68 179 -3 314 264 27.58 30.43 2.85 1.11 2.90 N/A F1782 -68 176 -3 314 267 33.73 35.33 1.64 0.38 N/A F1780 -68 267 -3 314 267 33.73 35.33 1.6 0.34 3.38 N/A F1804 -67 826 -3 314 267 34.79 37.49 2.5 2.48 1.792 N/A	F1753	-68 025	-3 314 377	28.85	47.59	18.74	1.84	2.60	N/A	N/A
F1775 -67 778 -3 314 702 15.01 26.35 11.34 1.91 2.42 N/A F1778 -68 102 -3 314 314 29.76 31.89 2.13 0.89 1.52 N/A F1779 -68 130 -3 314 331 95.66 99.04 3.38 2.22 2.55 N/A F1780 -68 192 -3 314 259 37.76 39.69 1.93 0.60 3.08 N/A F1781 -68 178 -3 314 264 42.89 45.54 2.65 1.15 1.58 N/A F1782 -68 207 -3 314 264 27.58 30.43 2.85 1.11 2.90 N/A F1783 -68 267 -3 314 287 33.73 35.33 1.6 0.34 3.38 N/A F1780 -67 846 -3 314 287 33.73 35.33 1.6 0.34 3.38 N/A F1804 -67 876 -3 314 480 22.83 2.58 3.00 N/A F1828 4.57	F1755	-68 049	-3 314 372	47.88	56.84	8.96	0.99	4.94	N/A	N/A
F1778 -68 102 -3 31 4 314 29.76 31.89 2.13 0.89 1.52 N/A F1779 -68 130 -3 31 4 331 95.66 99.04 3.38 2.22 2.55 N/A F1780 -68 192 -3 31 4 259 37.76 39.69 1.93 0.60 3.08 N/A F1781 -68 178 -3 31 4 264 42.89 45.54 2.65 1.15 1.58 N/A F1782 -68 199 -3 31 4 264 27.58 30.43 2.85 1.11 2.90 N/A F1782 -68 207 -3 31 4 264 27.58 30.43 2.85 1.11 2.90 N/A F1787 -68 267 -3 31 4 264 27.58 30.43 2.85 1.03 4.38 N/A F1780 -68 267 -3 31 4 265 32.34 34.83 1.46 0.14 N/A F1804 -67 846 -3 31 4 657 32.44 34.83 2.49 4.59 3.00 N/A <	F1756	-68 082	-3 314 336	35.51	44.34	8.83	1.28	4.47	N/A	N/A
F1779 -68 130 -3 314 331 95.66 99.04 3.38 2.22 2.55 N/A F1780 -68 192 -3 314 259 37.76 39.69 1.93 0.60 3.08 N/A F1781 -68 178 -3 314 264 42.89 45.54 2.65 1.15 1.58 N/A F1782 -68 199 -3 314 264 47.58 30.43 2.85 1.11 2.90 N/A F1783 -68 207 -3 314 264 41.90 43.53 1.63 0.18 7.92 N/A F1787 -68 267 -3 314 267 33.73 35.33 1.6 0.34 3.38 N/A F1804 -67 848 -3 314 667 34.99 37.49 2.5 2.48 1.79 N/A F1805 -67 826 -3 314 657 32.34 34.83 2.49 4.59 3.00 N/A F1805 -67 826 -3 314 480 22.83 2.589 3.06 1.17 2.77 N/A	F1775	-67 778	-3 314 702	15.01	26.35	11.34	1.91	2.42	N/A	N/A
F1780 -68 192 -3 314 259 37.76 39.69 1.93 0.60 3.08 N/A F1781 -68 178 -3 314 266 42.89 45.54 2.65 1.15 1.58 N/A F1782 -68 199 -3 314 264 27.58 30.43 2.85 1.11 2.90 N/A F1783 -68 207 -3 314 269 41.90 43.53 1.63 0.18 7.92 N/A F1787 -68 267 -3 314 287 33.73 35.33 1.6 0.34 3.38 N/A F1790 -68 181 -3 314 667 34.99 37.49 2.5 2.48 1.79 N/A F1804 -67 846 -3 314 657 32.34 34.83 2.49 4.59 3.00 N/A F1805 -67 826 -3 314 657 22.33 5.84 0.99 3.28 N/A F1828 -67 975 -3 314 297 14.57 22.15 7.58 1.08 1.32 N/A	F1778	-68 102	-3 314 314	29.76	31.89	2.13	0.89	1.52	N/A	N/A
F1781 -68 178 -3 314 266 42.89 45.54 2.65 1.15 1.58 N/A F1782 -68 199 -3 314 264 27.58 30.43 2.85 1.11 2.90 N/A F1783 -68 207 -3 314 269 41.90 43.53 1.63 0.18 7.92 N/A F1787 -68 267 -3 314 233 60.62 63.12 2.5 0.52 3.82 N/A F1804 -67 848 -3 314 267 33.73 35.33 1.6 0.34 3.38 N/A F1804 -67 848 -3 314 667 34.99 37.49 2.5 2.48 1.79 N/A F1805 -67 826 -3 314 450 22.83 25.89 3.06 1.17 2.77 N/A F1828 -64 795 -3 314 480 22.33 5.48 0.99 3.28 N/A F1884 -68 141 -3 314 297 14.57 22.15 7.58 1.08 1.32 N/A <	F1779	-68 130	-3 314 331	95.66	99.04	3.38	2.22	2.55	N/A	N/A
F1782 -68 199 -3 314 264 27.58 30.43 2.85 1.11 2.90 N/A F1783 -66 207 -3 314 269 41.90 43.53 1.63 0.18 7.92 N/A F1787 -66 267 -3 314 233 60.62 63.12 2.5 0.52 3.82 N/A F1790 -68 181 -3 314 287 33.73 35.33 1.6 0.34 3.38 N/A F1804 -67 848 -3 314 667 34.99 37.49 2.5 2.48 1.79 N/A F1805 -67 826 -3 314 665 32.34 34.83 2.49 4.59 3.00 N/A F1819 -67 876 -3 314 589 21.41 48.02 26.61 2.13 4.19 N/A F1828 -67 975 -3 314 480 22.83 25.89 3.06 1.17 2.77 N/A F1884 -68 140 -3 314 297 14.57 22.15 7.58 1.08 1.32 N/A	F1780	-68 192	-3 314 259	37.76	39.69	1.93	0.60	3.08	N/A	N/A
F1783 -68 207 -3 31 4 269 41.90 43.53 1.63 0.18 7.92 N/A F1787 -68 267 -3 31 4 233 60.62 63.12 2.5 0.52 3.82 N/A F1790 -68 181 -3 31 4 287 33.73 35.33 1.6 0.34 3.88 N/A F1804 -67 848 -3 31 4 667 34.99 37.49 2.5 2.48 1.79 N/A F1805 -67 826 -3 31 4 665 32.34 34.83 2.49 4.59 3.00 N/A F1819 -67 876 -3 31 4 80 22.83 25.89 3.06 1.17 2.77 N/A F1828 -67 975 -3 31 4 30 22.83 25.89 3.06 1.17 2.77 N/A F1884 -68 140 -3 31 4 297 14.57 22.15 7.58 1.08 1.32 N/A F1884 -68 141 -3 31 4 306 41.11 45.82 4.71 0.63 3.07 N/A <td>F1781</td> <td>-68 178</td> <td>-3 314 266</td> <td>42.89</td> <td>45.54</td> <td>2.65</td> <td>1.15</td> <td>1.58</td> <td>N/A</td> <td>N/A</td>	F1781	-68 178	-3 314 266	42.89	45.54	2.65	1.15	1.58	N/A	N/A
F178768 2673 314 23360.6263.122.50.523.82N/AF179068 1813 314 28733.7335.331.60.343.38N/AF180467 8483 314 66734.9937.492.52.481.79N/AF180567 8263 314 66532.3434.832.494.593.00N/AF181967 8763 314 58921.4148.0226.612.134.19N/AF182867 9953 314 48022.8325.893.061.172.77N/AF188468 1403 314 29714.5722.157.581.081.32N/AF188668 1473 314 33642.7152.9410.231.202.19N/AF188768 1313 314 30641.1145.824.710.633.07N/AF189068 0693 314 40237.1247.7610.641.613.21N/AF189168 0503 314 40237.1247.7610.641.613.21N/AF189268 0503 314 42242.6347.014.381.552.08N/AF189368 0503 314 42242.6347.014.381.552.08N/AF189468 0283 314 42242.6347.014.381.552.08N/AF189568 0313 314 45039.3842.803.42	F1782	-68 199	-3 314 264	27.58	30.43	2.85	1.11	2.90	N/A	N/A
F1790 -68 181 -3 314 287 33.73 35.33 1.6 0.34 3.38 N/A F1804 -67 848 -3 314 667 34.99 37.49 2.5 2.48 1.79 N/A F1805 -67 826 -3 314 665 32.34 34.83 2.49 4.59 3.00 N/A F1819 -67 876 -3 314 655 32.34 34.83 2.49 4.59 3.00 N/A F1828 -67 975 -3 314 480 22.83 25.89 3.06 1.17 2.77 N/A F1884 -68 140 -3 314 297 14.57 22.15 7.58 1.08 1.32 N/A F1884 -68 141 -3 314 297 14.57 22.15 7.58 1.08 1.32 N/A F1886 -68 147 -3 314 306 41.11 45.82 4.71 0.63 3.07 N/A F1890 -68 069 -3 314 402 37.12 47.76 10.64 1.61 3.21 N/A F1891 -68 050 -3 314 402 30.08 31.10 1.62	F1783	-68 207	-3 314 269	41.90	43.53	1.63	0.18	7.92	N/A	N/A
F1804 -67 848 -3 314 667 34.99 37.49 2.5 2.48 1.79 N/A F1805 -67 826 -3 314 665 32.34 34.83 2.49 4.59 3.00 N/A F1807 -67 876 -3 314 589 21.41 48.02 26.61 2.13 4.19 N/A F1828 -67 975 -3 314 480 22.83 25.89 3.06 1.17 2.77 N/A F1828 -68 140 -3 314 297 16.85 22.33 5.48 0.99 3.28 N/A F1884 -68 141 -3 314 297 14.57 22.15 7.58 1.08 1.32 N/A F1886 -68 147 -3 314 306 41.11 45.82 4.71 0.63 3.07 N/A F1890 -68 069 -3 314 306 41.11 45.82 4.71 0.63 3.07 N/A F1897 -68 069 -3 314 402 37.12 47.76 10.64 1.61 3.21 N/A F1893 -68 050 -3 314 402 37.12 47.76 10.64	F1787	-68 267	-3 314 233	60.62	63.12	2.5	0.52	3.82	N/A	N/A
F1805 -67 826 -3 314 665 32.34 34.83 2.49 4.59 3.00 N/A F1819 -67 876 -3 314 589 21.41 48.02 26.61 2.13 4.19 N/A F1828 -67 995 -3 314 480 22.83 25.89 3.06 1.17 2.77 N/A F1883 -68 140 -3 314 297 14.57 22.15 7.58 1.08 1.32 N/A F1884 -68 141 -3 314 297 14.57 22.15 7.58 1.08 1.32 N/A F1886 -68 147 -3 314 306 41.11 45.82 4.71 0.63 3.07 N/A F1887 -68 050 -3 314 402 37.12 47.76 10.64 1.61 3.21 N/A F1893 -68 050 -3 314 402 37.3 34.16 1.83 0.64 0.74 N/A F1893 -68 050 -3 314 402 37.12 47.76 10.64 1.61 3.21 N/A	F1790	-68 181	-3 314 287	33.73	35.33	1.6	0.34	3.38	N/A	N/A
F1819-67 876-3 314 58921.4148.0226.612.134.19N/AF1828-67 995-3 314 48022.8325.893.061.172.77N/AF1883-68 140-3 314 29916.8522.335.480.993.28N/AIF1884-68 141-3 314 29714.5722.157.581.081.32N/AIF1886-68 147-3 314 33642.7152.9410.231.202.19N/AIF1887-68 131-3 314 30641.1145.824.710.633.07N/AIF1890-68 069-3 314 40237.1247.7610.641.613.21N/AIF1893-68 050-3 314 40237.1247.7610.641.613.21N/AIF1894-68 028-3 314 42242.6347.014.381.552.08N/AIF1895-68 031-3 314 42242.6347.014.381.552.08N/AIF1897-68 044-3 314 45039.3842.803.420.010.02N/AIF1897-68 044-3 314 45048.4251.362.940.020.02N/AIF1897-68 044-3 314 45048.4251.362.940.020.02N/AIF1897-68 044-3 314 45048.4251.362.940.020.02N/AI<	F1804	-67 848	-3 314 667	34.99	37.49	2.5	2.48	1.79	N/A	N/A
F1828-67 995-3 314 48022.8325.893.061.172.77N/AF1883-68 140-3 314 29916.8522.335.480.993.28N/AF1884-68 141-3 314 29714.5722.157.581.081.32N/AF1886-68 147-3 314 33642.7152.9410.231.202.19N/AF1886-68 131-3 314 30641.1145.824.710.633.07N/AF1890-68 069-3 314 39145.7748.752.981.623.08N/AF1892-68 020-3 314 40237.1247.7610.641.613.21N/AF1893-68 050-3 314 40237.1247.7610.641.613.21N/AF1894-68 028-3 314 40237.1247.014.381.552.08N/AF1895-68 031-3 314 47430.0831.701.620.391.29N/AF1897-68 044-3 314 45039.3842.803.420.010.02N/AF1897-68 044-3 314 45048.4251.362.940.020.02N/AF1898-67 967-3 314 45048.4251.362.940.020.02N/AF1893-67 967-3 314 45048.4251.362.940.020.02N/AF1894-68 024-3 314 57526.4133.567.150.704.14 </td <td>F1805</td> <td>-67 826</td> <td>-3 314 665</td> <td>32.34</td> <td>34.83</td> <td>2.49</td> <td>4.59</td> <td>3.00</td> <td>N/A</td> <td>N/A</td>	F1805	-67 826	-3 314 665	32.34	34.83	2.49	4.59	3.00	N/A	N/A
F1883-68 140-3 314 29916.8522.335.480.993.28N/AF1884-68 141-3 314 29714.5722.157.581.081.32N/AF1886-68 147-3 314 33642.7152.9410.231.202.19N/AF1887-68 131-3 314 30641.1145.824.710.633.07N/AF1890-68 069-3 314 30641.1145.824.710.633.07N/AF1891-68 050-3 314 40237.1247.7610.641.613.21N/AF1893-68 050-3 314 40237.1247.7610.641.613.21N/AF1894-68 028-3 314 42242.6347.014.381.552.08N/AF1895-68 031-3 314 47430.0831.701.620.391.29N/AF1897-68 044-3 314 450239.3842.803.420.010.02N/AF1897-68 044-3 314 45048.4251.362.940.020.02N/AF1897-68 044-3 314 45048.4251.362.940.020.02N/AF1893-67 967-3 314 45048.4251.362.940.020.02N/AF1894-68 044-3 314 45048.4251.362.940.020.02N/AF1895-67 967-3 314 45048.4251.362.940.020.02<	F1819	-67 876	-3 314 589	21.41	48.02	26.61	2.13	4.19	N/A	N/A
F188468 1413 314 29714.5722.157.581.081.32N/AF188668 1473 314 33642.7152.9410.231.202.19N/AF188768 1313 314 30641.1145.824.710.633.07N/AF189068 0693 314 30641.1145.824.710.633.07N/AF189068 0693 314 40237.1247.7610.641.613.21N/AF189268 0203 314 41832.3334.161.830.640.74N/AF189368 0503 314 41832.3334.161.830.640.74N/AF1894-68 0283 314 42242.6347.014.381.552.08N/AF1895-68 031-3 314 47430.0831.701.620.391.29N/AF1897-68 044-3 314 45039.3842.803.420.010.02N/AF1897-68 044-3 314 45048.4251.362.940.020.02N/AF1980-67 967-3 314 45048.4251.362.940.020.02N/AF1983-67 978-3 314 45161.5166.615.10.473.25N/AF1983-67 978-3 314 45161.5166.615.10.410.82N/AF2024-68 022-3 314 45726.4529.663.210.32 <td>F1828</td> <td>-67 995</td> <td>-3 314 480</td> <td>22.83</td> <td>25.89</td> <td>3.06</td> <td>1.17</td> <td>2.77</td> <td>N/A</td> <td>N/A</td>	F1828	-67 995	-3 314 480	22.83	25.89	3.06	1.17	2.77	N/A	N/A
F188668 1473 314 33642.7152.9410.231.202.19N/AF188768 1313 314 30641.1145.824.710.633.07N/AF189068 0693 314 39145.7748.752.981.623.08N/AF189268 0203 314 40237.1247.7610.641.613.21N/AF189368 0503 314 41832.3334.161.830.640.74N/AF189468 0283 314 42242.6347.014.381.552.08N/AF189568 0313 314 47430.0831.701.620.391.29N/AF189768 004-3 314 40239.3842.803.420.010.02N/AF189768 044-3 314 40539.3842.803.420.010.02N/AF189768 044-3 314 45048.4251.362.940.020.02N/AF1980-67 967-3 314 45048.4251.362.940.020.02N/AF1983-67 978-3 314 45161.5166.615.10.473.25N/AF2024-68 022-3 314 41171.7173.571.860.410.82N/AF2029-67 992-3 314 45726.4529.663.210.323.54N/A	F1883	-68 1 40	-3 314 299	16.85	22.33	5.48	0.99	3.28	N/A	N/A
F188768 1313 314 30641.1145.824.710.633.07N/AF189068 0693 314 39145.7748.752.981.623.08N/AF189268 0203 314 40237.1247.7610.641.613.21N/AF189368 0503 314 40237.1247.7610.641.613.21N/AF189468 0283 314 42242.6347.014.381.552.08N/AF189568 0313 314 47430.0831.701.620.391.29N/AF189768 0043 314 50239.3842.803.420.010.02N/AF189768 0443 314 45048.4251.362.940.020.02N/AF1980-67 967-3 314 45048.4251.362.940.020.02N/AF1983-67 978-3 314 45161.5166.615.10.473.25N/AF1984-68 022-3 314 45161.5166.615.10.410.82N/AF1983-67 978-3 314 45726.4529.663.210.323.54N/A	F1884	-68 141	-3 314 297	14.57	22.15	7.58	1.08	1.32	N/A	N/A
F1890-68 069-3 314 39145.7748.752.981.623.08N/AF1892-68 020-3 314 40237.1247.7610.641.613.21N/AF1893-68 050-3 314 41832.3334.161.830.640.74N/AF1894-68 028-3 314 42242.6347.014.381.552.08N/AF1895-68 031-3 314 47430.0831.701.620.391.29N/AF1897-68 004-3 314 50239.3842.803.420.010.02N/AF1897-67 967-3 314 48831.0772.7741.71.403.03N/AF1897-67 967-3 314 45048.4251.362.940.020.02N/AF1980-67 785-3 314 45161.5166.615.10.473.25N/AF1983-67 978-3 314 45161.5166.615.10.410.82N/AF2024-68 022-3 314 45726.4529.663.210.323.54N/A	F1886	-68 1 47	-3 314 336	42.71	52.94	10.23	1.20	2.19	N/A	N/A
F1892-68 020-3 314 40237.1247.7610.641.613.21N/AF1893-68 050-3 314 41832.3334.161.830.640.74N/AF1894-68 028-3 314 42242.6347.014.381.552.08N/AF1895-68 031-3 314 47430.0831.701.620.391.29N/AF1897-68 004-3 314 50239.3842.803.420.010.02N/AF1899-67 967-3 314 48831.0772.7741.71.403.03N/AF1947-68 044-3 314 45048.4251.362.940.020.02N/AF1980-67 895-3 314 45161.5166.615.10.473.25N/AF1983-67 978-3 314 45726.4529.663.210.323.54N/AF2024-68 022-3 314 45726.4529.663.210.323.54N/A	F1887	-68 131	-3 314 306	41.11	45.82	4.71	0.63	3.07	N/A	N/A
F1893-68 050-3 314 41832.3334.161.830.640.74N/AF1894-68 028-3 314 42242.6347.014.381.552.08N/AF1895-68 031-3 314 47430.0831.701.620.391.29N/AF1897-68 004-3 314 50239.3842.803.420.010.02N/AF1899-67 967-3 314 48831.0772.7741.71.403.03N/AF1947-68 044-3 314 45048.4251.362.940.020.02N/AF1980-67 895-3 314 45141.5166.615.10.473.25N/AF1983-67 978-3 314 45161.5166.615.10.473.25N/AF2024-68 022-3 314 45726.4529.663.210.323.54N/A	F1890	-68 069	-3 314 391	45.77	48.75	2.98	1.62	3.08	N/A	N/A
F1894-68 028-3 314 42242.6347.014.381.552.08N/AF1895-68 031-3 314 47430.0831.701.620.391.29N/AF1897-68 004-3 314 50239.3842.803.420.010.02N/AF1897-67 967-3 314 48831.0772.7741.71.403.03N/AF1899-67 967-3 314 48831.0772.7741.71.403.03N/AF1947-68 044-3 314 45048.4251.362.940.020.02N/AF1980-67 895-3 314 57526.4133.567.150.704.14N/AF1983-67 978-3 314 45161.5166.615.10.473.25N/AF2024-68 022-3 314 45726.4529.663.210.323.54N/A	F1892	-68 020	-3 314 402	37.12	47.76	10.64	1.61	3.21	N/A	N/A
F1895-68 031-3 314 47430.0831.701.620.391.29N/AF1897-68 004-3 314 50239.3842.803.420.010.02N/AF1899-67 967-3 314 48831.0772.7741.71.403.03N/AF1947-68 044-3 314 45048.4251.362.940.020.02N/AF1980-67 895-3 314 57526.4133.567.150.704.14N/AF1983-67 978-3 314 45161.5166.615.10.473.25N/AF2024-68 022-3 314 45726.4529.663.210.323.54N/A	F1893	-68 050	-3 314 418	32.33	34.16	1.83	0.64	0.74	N/A	N/A
F1897-68 004-3 314 50239.3842.803.420.010.02N/AF1899-67 967-3 314 48831.0772.7741.71.403.03N/AF1947-68 044-3 314 45048.4251.362.940.020.02N/AF1980-67 895-3 314 57526.4133.567.150.704.14N/AF1983-67 978-3 314 45161.5166.615.10.473.25N/AF2024-68 022-3 314 45171.7173.571.860.410.82N/AF2029-67 992-3 314 45726.4529.663.210.323.54N/A	F1894	-68 028	-3 314 422	42.63	47.01	4.38	1.55	2.08	N/A	N/A
F1899 -67 967 -3 314 488 31.07 72.77 41.7 1.40 3.03 N/A F1947 -68 044 -3 314 450 48.42 51.36 2.94 0.02 0.02 N/A F1980 -67 895 -3 314 575 26.41 33.56 7.15 0.70 4.14 N/A F1983 -67 978 -3 314 451 61.51 66.61 5.1 0.47 3.25 N/A F2024 -68 022 -3 314 457 26.45 29.66 3.21 0.32 3.54 N/A	F1895	-68 031	-3 314 474	30.08	31.70	1.62	0.39	1.29	N/A	N/A
F1947 -68 044 -3 314 450 48.42 51.36 2.94 0.02 0.02 N/A F1980 -67 895 -3 314 575 26.41 33.56 7.15 0.70 4.14 N/A F1983 -67 978 -3 314 451 61.51 66.61 5.1 0.47 3.25 N/A F2024 -68 022 -3 314 451 71.71 73.57 1.86 0.41 0.82 N/A F2029 -67 992 -3 314 457 26.45 29.66 3.21 0.32 3.54 N/A	F1897	-68 004	-3 314 502	39.38	42.80	3.42	0.01	0.02	N/A	N/A
F1980 -67 895 -3 314 575 26.41 33.56 7.15 0.70 4.14 N/A F1983 -67 978 -3 314 451 61.51 66.61 5.1 0.47 3.25 N/A F2024 -68 022 -3 314 411 71.71 73.57 1.86 0.41 0.82 N/A F2029 -67 992 -3 314 457 26.45 29.66 3.21 0.32 3.54 N/A	F1899	-67 967	-3 314 488	31.07	72.77	41.7	1.40	3.03	N/A	N/A
F1983 -67 978 -3 314 451 61.51 66.61 5.1 0.47 3.25 N/A F2024 -68 022 -3 314 411 71.71 73.57 1.86 0.41 0.82 N/A F2029 -67 992 -3 314 457 26.45 29.66 3.21 0.32 3.54 N/A	F1947	-68 044	-3 314 450	48.42	51.36	2.94	0.02	0.02	N/A	N/A
F2024 -68 022 -3 314 411 71.71 73.57 1.86 0.41 0.82 N/A F2029 -67 992 -3 314 457 26.45 29.66 3.21 0.32 3.54 N/A	F1980	-67 895	-3 314 575	26.41	33.56	7.15	0.70	4.14	N/A	N/A
F2029 -67 992 -3 314 457 26.45 29.66 3.21 0.32 3.54 N/A	F1983	-67 978	-3 314 451	61.51	66.61	5.1	0.47	3.25	N/A	N/A
	F2024	-68 022	-3 314 411	71.71	73.57	1.86	0.41	0.82	N/A	N/A
F2054 -68 303 -3 314 236 29.12 43.67 14.55 1.22 3.29 N/A	F2029	-67 992	-3 314 457	26.45	29.66	3.21	0.32	3.54	N/A	N/A
	F2054	-68 303	-3 314 236	29.12	43.67	14.55	1.22	3.29	N/A	N/A

 Table 2: Table of historical drill intersections from the NW Target area, added to the Prieska Project geological database and reported in ASX release of 16 July 2018. All intersections weighted by length and relative density.

Mineral Resource Estimation and Reporting

The total Mineral Resource for the Prieska Project, comprising both the Deep Sulphide and the +105 Level Mineral Resources has been updated with historical drill information from the south-eastern extension of the Deep Sulphide resource on the Vardocube Prospecting Right area (refer ASX release 9 April 2018) (Table 3).

			Zr	1	Cu	J	Ag	3	Au	J
	Classification	Tonnes	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

Table 3: Total Mineral Resource table for the Prieska Zinc-Copper Deposit (refer ASX release 9 April 2018).

Mineral Resource reported in Orion 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 orionminerals.co.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 Orion ASX release of 8 February 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.

All drill hole survey and geological logging data to 14 May 2018 have been successfully imported into a new Geobank database. The importation of the remainder of the data and a full migration from an old Access database to the new solution will take place during the next Quarter (Q3 CY2019).

Feasibility Studies

Project study work focused on detailed mine design and determining the production output for the planned underground operation. Metallurgical test results continue to validate that the remaining Mineral Resource has metallurgical continuity with the ore previously processed. Bench scale testwork confirmed comparable mineral processing performance with that achieved during the historical mining operations, with marketable copper and zinc concentrates produced².

Trade-offs and investigations into the best strategy for de-watering the underground workings continue, with the preferred arrangement now being the use of a cascading system of conventional pumps, set up in a manner that permits the setup to remain in use over the potential mine life.

The feasibility study team, led by DRA, was augmented by the co-option of Fraser McGill Mining and Minerals Advisory, METC Process Engineering Consultants and Mining Engineering and Technical Services at Shaft Sinkers Pty Ltd (**METS**), to conduct mining, ore processing and shaft refurbishment trade-off studies, concurrent to the main feasibility study work streams.

² Refer ASX release 12 June 2018.

Mine Design

Preliminary mine designs are being done using interim model estimates of the deposit's extractable mineral resources. Various mining methods are being considered with a combination of longhole open stoping (LHOS) and Drift and Fill mining being preferred. A Mining Right Application was submitted in April 2018 based on a conceptual mine layout, employing a combination of LHOS and Drift and Fill mining with paste fill support³. Design work is now focusing on determining an optimum mining rate to improve the Project's economics. Initial stoping layouts indicate that the majority of the deposit targeted for extraction by underground mining is amenable to LHOS without fill. The LHOS method has a low unit operating cost and so emphasis is being placed on minimizing the requirements of filling or drift and fill mining.

Significant progress has been made on underground ventilation design, with a preliminary ventilation layout compiled for the production rates being considered. Ventilation simulation software has been used to confirm that the existing shaft arrangements can accommodate required ventilation volumes. A schematic of one conceptual layout under investigation is shown below:

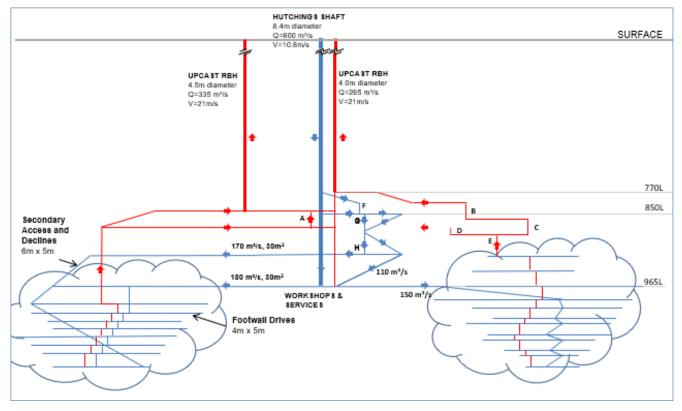


Figure 4: Ventilation Layout for the Underground Mine⁴

Design work also commenced on the rock handling arrangements incorporating the existing tunnel infrastructure and conveyor layouts. A trade-off study is underway comparing a truck hauling strategy with a truck-rail combination option. The rail option can potentially make use of existing rail haulages and ore-passes that may prove to be beneficial in respect of leveraging off available infrastructure. The following diagram shows the existing infrastructure around the main Hutchings shaft which is being incorporated into the various rock-handling scenarios.

³ Refer ASX release 9 April 2018.

⁴ Hooman, M. Prieska interim ventilation design (June 2018).

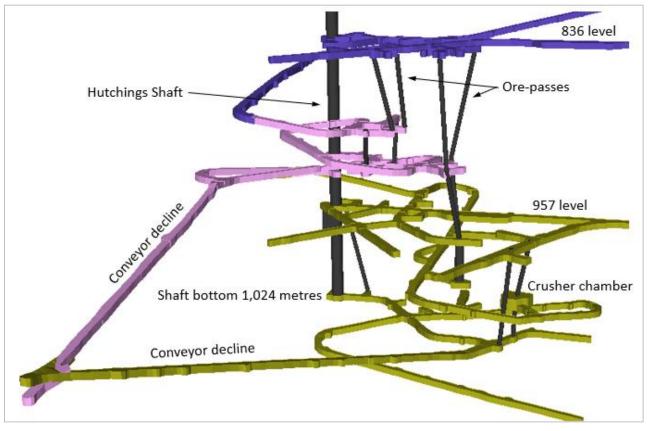


Figure 5: Existing Shaft Rock-handling Infrastructure around Hutchings Shaft.

<u>Shaft De-watering</u>

Several dewatering layouts were investigated during the Quarter, including the use of either a single-lift submersible pumping assembly or a more conventional cascading pumping arrangement. This latter layout would make use of two pre-existing pump chambers within the mine workings, along with five new temporary pump chambers that would be set-up at various intervals down the main hoisting shaft.

In investigating the latter option, an underground inspection was carried out on the pump chamber at the 310-metre level and the settlers and water storage dams were found to be in very good condition. Two multi-stage pumps would likely be proposed for use if this option is selected. These pumps would be installed on floating pontoons within the shaft to pump via 250 mm columns, to the 310-metre chamber where additional pumps will be permanently installed to pump to surface. Figure 6 shows the top of the settlers and the solid ground conditions of the pump chamber.



Figure 6: The 310 metre Level Pump Chamber.

Ore processing investigations

Following on from the open-cycle testing that was carried out in Quarter 1, locked-cycle testing was commenced during Q2 CY2018 and is due for completion by Q3 CY2018. Locked-cycle tests are laboratory scale flotation tests designed to represent a commercial scale plant operation. Locked-cycle tests are part of the advanced stages of metallurgical testing. The tests were carried out on composite samples representing a blend comprising 50% of material from the north-western area of the deposit and 50% from the south-eastern area. This blend is intended to characterise the expected mix of head feed from the planned mining operation.

Recoveries of copper into marketable concentrates ranged between 80% to 86%, whilst those for zinc ranged between 91% and 94%. These recoveries and concentrate qualities achieved are in line with historical performance⁵. Graphs of the copper and zinc recovery tests (FS blend #1) are shown below which compares the test results with historical pilot plant and operational results.

⁵ Refer ASX release 12 June 2018.

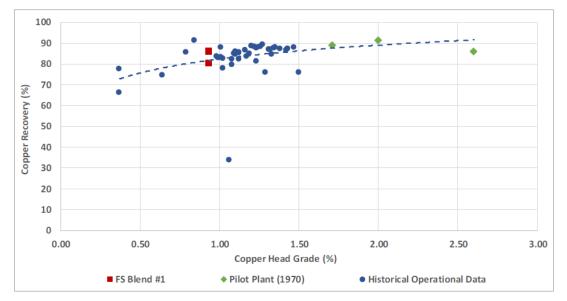


Figure 7: Graph showing the copper recoveries into marketable concentrates achieved for various head grades during historical mining operations (Historical Operational Data)⁶⁷, during 1970 Anglovaal pilot plant testing (Pilot Plant (1970))⁸ and during the latest locked-cycle testing (FS Blend #1).

The copper concentrate grades resulting from the locked-cycle tests were in the region of 21% to 24%, whilst the zinc concentrate grades ranged from 45% to 54% which are both saleable products. Current indications are that zinc recoveries are unlikely to benefit further from additional cycles, while copper recoveries and qualities also have further opportunity for optimisation.

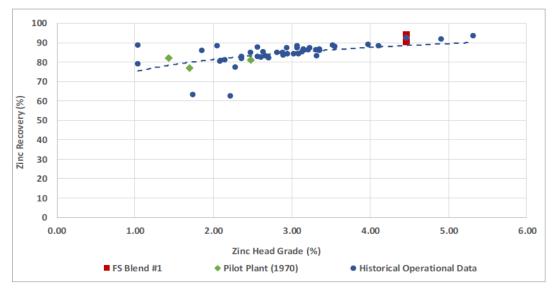


Figure 8: Graph showing the zinc recoveries into marketable concentrates achieved for various head grades during historical mining operations (Historical Operational Data)^{6,7} during 1970 Anglovaal pilot plant testing (Pilot Plant (1970))⁸ and during the latest locked-cycle testing (FS Blend #1)

⁶ Averaged Monthly Production Data (January 1975 – December 1976), Brian Broekman 1991, The Prieska experience: Flotation developments in copper-zinc separation, J.S. Afr. Inst. Min. Metal., vol. 91, no. 8. Aug. 1991. pp. 257-265.

⁷ Averaged Annual Production Data 1973 – 1991 extracted from: Technical Report on the Copperton Project of Repli Trading No. 27 (Pty) LTD, March 2014.

⁸ S.K De Kok 1972, Differential Flotation of Copper-Zinc at Prieska Copper Mines (Pty) Limited: A Pre-Liminary Report, Journal of the South African Institute of Mining and Metallurgy July 1972. pp. 305 – 321.

<u>Infrastructure</u>

Power Supply – Eskom, the national power supply entity, has recommended that the Company carry out a self-build program for the Cuprum substation upgrade required to support future mining operations. The Company has commissioned a specialist electrical engineering consulting company to carry out the design and costing of the proposed upgrade which is required to meet Eskom's specifications. An initial meeting has been held with Eskom representatives to confirm various options around the upgrade and to understand Eskom's future expansion plans for the area and its approval and quality assurance processes. The aim is to design a modular expansion to meet the Project's increasing electrical power requirements over time. The design and costing exercise is expected to be completed by Q3 CY2018.

Water Supply – Negotiations with the Siyathemba Municipality and other stakeholders to obtain longterm access to the Prieska waterworks and pipeline continued. The water supply infrastructure currently delivers water from the Orange River to the project site and neighbouring land users. Draft Memorandums of Understanding are being reviewed by all parties to the negotiations.

Product Logistics and Marketing

Investigations into trucking, rail and shipping options for the concentrate logistics have been advanced throughout the Quarter. There are currently two rail options being considered for transporting concentrate to port using either rail from Kimberley (300 km from site) or Groveput (48 km from site). Trucking would be used from site to either rail depot. Kimberley is a larger transport hub with proven reliability on schedules and has scale of economies cost-wise. Groveput would reduce trucking distances and interactions with local traffic and the general public. Groveput is however a smaller depot with lower volumes compared to Kimberley and it is likely to introduce more risk around schedule reliability and unplanned delays. Both rail options are based on containerised concentrate to the port. Studies are continuing on the two options although Kimberley is currently the favoured solution.

Trucking options with containerised and bulk transport are being investigated. Containerised loading of the concentrate from site is expected to provide a more seamless transport system across the various handling interfaces. With this option, container handling and stacking equipment will be required at site and a suitable inventory of containers will be required across the logistics chain from site to the smelters.

Work has commenced on designing the processing plant concentrate discharge arrangements with both the container and bulk transport systems being considered.

Based on preliminary cost estimates, the Port of Coega, near Port Elizabeth, is favoured, with the Port of Cape Town a strong second alternative for export of concentrates. Site visits to Coega, Kimberley and Groveput rail heads were conducted by the Project team. Visits to European smelters are planned for the coming Quarter to understand offshore logistics and the concentrate market. The complete product logistics solution is planned for completion by Q4 CY2018.

Mining Right Application

The application for a Mining Right for the Prieska Project was submitted to the Department of Mineral Resources (**DMR**) this Quarter⁹. Receipt of the application has been formally acknowledged by the DMR, signifying the start of the prescribed 300-day review and approval process.

⁹ Refer ASX release 9 April 2018.

Regional Exploration (South Africa)

Overview of Regional Activity

With the completion of the Agama transaction in March 2017, the focus of the Company has been on rapidly advancing the Prieska Project through feasibility studies towards a development decision point. The Company maintains a substantial and prospective landholding in the Areachap Belt (Figure 9) and is applying increasing attention to exploration for both Volcanogenic Massive Sulphide and Ni-Cu PGE deposits to the north of the Prieska Copper Project. The Areachap Belt is analogous to other Proterozoic Mobile Belts with major VMS and magmatic Ni-Cu-PGE deposits.

Volcanogenic Massive Sulphide (VMS) deposits almost always occur as "clusters" associated with volcanic centres. Four such centres have been identified in the Areachap Belt. The Company's prospecting and mining rights include the bulk of the Copperton and Boksputs Volcanic Centres. Further details of the work programs will be released as they are designed and implemented, with results to be released as they are received.

Similarly, world-class nickel deposits occur in clusters for example, Sudbury, Duluth, Pechenga and Voisey's Bay. Several mafic intrusive bodies with known nickel and related mineral occurrences are known to cluster on the Namaqua-Disawell Prospecting Rights (Figure 9). EM geophysical methods are useful for exploring for both VMS and Magmatic Ni-Cu types of deposits.

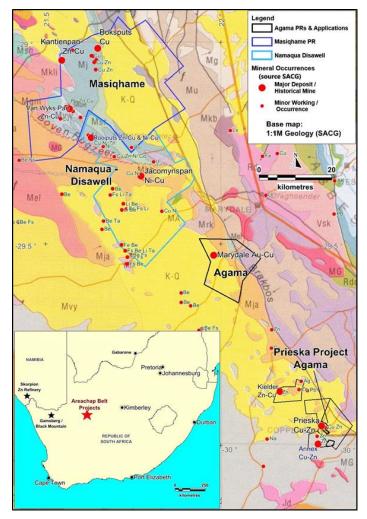


Figure 9: Regional geology map of the Areachap Belt showing prospecting rights held by, or currently under option to, Orion and noted mineral occurrences as per published data from South African Council for Geoscience.

Regional exploration on the Masiqhame and Namaqua-Disawell permits continued, with Fixed Loop Time Domain Electromagnetic (**FLTDEM**) surveys and field mapping underway on targets identified from airborne electromagnetic (**AEM**) surveys.

Geophysical surveys

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

The Company completed an extensive AEM and magnetic survey over a large portion of the Company's Masiqhame and Namaqua-Disawell Prospecting Rights during the March 2018 Quarter (Q1 CY2018) (Figure 10, refer ASX release 1 February 2018).

During this Quarter, work focussed on ground EM follow-up on the AEM targets. Equipment used is a best-in-class EM receiver manufactured in Perth, Western Australia, by Electromagnetic Technologies. The current source is a custom-built Time Domain Electromagnetic (**TDEM**) transmitter, capable of transmitting 140 Amps into a 1km by 1km aluminium wire loop. This current source is coupled with military-grade fluxgate sensors. Readings are taken every 50 to100m on grid lines spaced 200m apart. A total of 10 loops with 1,061 stations were surveyed for the Quarter.

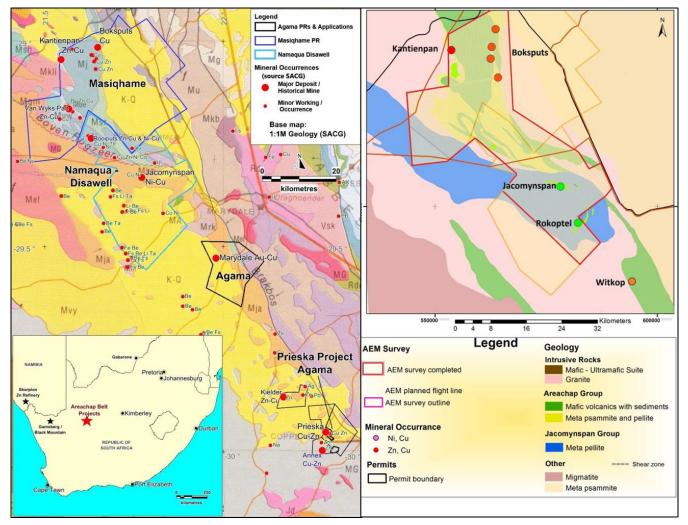


Figure 10: Locality plan for the 962km2 SkyTEM[™] (AEM) survey area. The area covered by SkyTEM[™] is outlined in red.

Masiqhame Project

Overview

This project is defined in terms of the Masiqhame tenement holding and includes Kantienpan, Boksputs and Van Wyk's Pan zinc copper mineral occurrences (Figure 10) and has regional potential for VMS zinc- copper and nickel sulphide mineralisation.

SkyTEM™ anomalies associated with a paleo sea floor setting

AEM anomalies identified during a preliminary review of the SkyTEM[™] data by the Company's Perth based geophysical consultants, Southern Geoscience Consultants, were prioritized for follow-up EM work. Fifteen anomalies were interpreted to coincide with a paleo sea floor setting and are considered VMS type targets (Figure 11). 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. Anomalies in the northern part of the Masiqhame Prospecting Right are spatially associated with known Zn–Cu VMS deposits at Kantienpan and Boksputs. This include anomalies K1, K 2, and B1 to B4 (Figure 11). These mineral deposits are considered poorly explored.

Work on the Masiqhame Prospecting Right for this Quarter consists of data interpretation and field mapping. Mapping started in the north of the prospecting right, with known VMS style mineralisation. Mapping over anomalies B1 to B3 shows the anomalies to be underlain by schist and quartzite of the Sprigg Formation, close to the contact with meta volcanic rocks off the Jannelsepan Formation and is considered a favourable setting for VMS deposits.

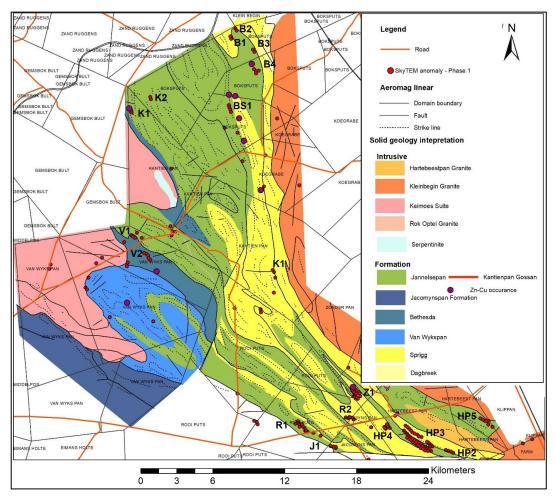


Figure 11: Geological map of the Masiqhame prospecting Right area showing EM anomalies selected for ground follow-up.

Planned work on the Zn-Cu targets

Ground EM surveys are planned to start in July in the Boksputs area over Anomaly B4, which is completely sand covered, and Anomaly BS1, where outcrops of ferruginous chert, characteristic of distal exhalites forming within VMS mineralising systems, are identified on outcrop (Figure 11).

Namaqua - Disawell Project

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

This project is defined in terms of the Namaqua and Disawell tenement holdings and includes the Jacomynspan Ni-Cu-Co-PGE and Rooiputs Zn–Cu Deposits (Figure 9) and has regional potential for VMS zinc-copper and Magmatic Nickel sulphide mineralisation.

VMS Zinc-Copper

Historic exploration on the Namaqua and Disawell Rights focussed mainly on Cu-Ni mineralisation. However, reconnaissance mapping revealed some of the SkyTEM™ anomalies to overlay outcrops of supracrustal rocks, making them VMS targets rather than Magmatic Ni-Cu targets.

Ground TDEM surveys were carried out over VMS targets HP3, HP4 and HP5 (Figure 12). Two loops were surveyed over anomaly HP3 which has a 2,800m strike extent SkyTEM[™] anomaly. The survey detected a broad formational conductor at depth that cannot be explained by lithologies found in outcrop. Drilling will be required to explain this conductor.

Modelling of ground TDEM data over Anomaly HP4 indicates the presence of a broad conductor of large areal size (>1000 x 1000m). Conductance ranges from weak to moderate in strength (100 to 300S). Anglovaal drilled two holes in the vicinity of HP4, both holes of which intersected graphite, which is known as a good conductor. The Anglovaal boreholes need to be ground located before a final decision can be made regarding the exploration potential of this target.

Ground TDEM data over anomaly HP5 (Figure 12) shows two discrete local bedrock conductors of approximately 250 x 250m and 400 x 150m size. Conductance levels were low to moderate with readings of 100 to 300S. Conductor depths are estimated at 75 to 125m below surface. The conductors dip north-east at 30 to 40°. Although outcrops in this area is poor the up-dip projection of the conductors will be mapped, and should the mapping not explain the conductors, diamond drilling will be required.

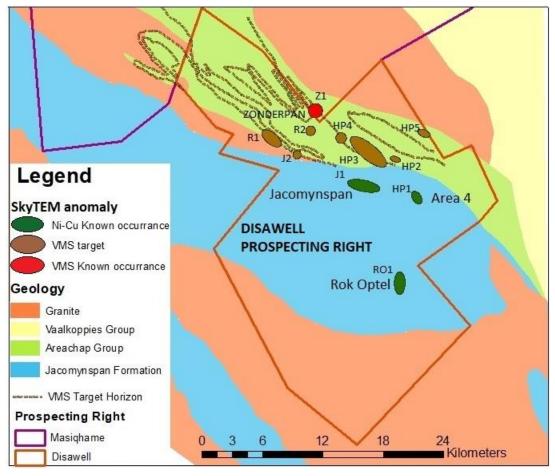


Figure 12: Locality Map showing Airborne EM anomalies followed up on the Disawell Prospecting Right.

Magmatic Ni-Cu-Co

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. The complex hosts sulphide mineralisation throughout its extent within 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. The Company is targeting the higher-grade net-textured and massive sulphide mineralisation.

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 to a depth of 900m over 1.3km of the strike by AAPS. Disseminated nickel sulphide mineralisation was intersected with widths varying between 30 to 70m (refer ASX release 14 July 2016).

The Company 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.

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

- Selection of SkyTEM™ anomalies for follow-up work.
- Reconnaissance mapping over SkyTEM™ targets.
- An orientation FLTDEM survey over the Jacomynspan deposit.
- FLTDEM surveys over five loops in two target areas.
- Modelling of the FLTDEM surveys and planning of drill holes.
- Compilation of a GIS database.

Ongoing work includes:

- Drill testing of FLTDEM conductors.
- Target generation interpretation of data.

Ground EM surveys over Ni-Cu targets

A single FLTDEM loop was surveyed over the Jacomynspan deposit as an orientation survey. Three FLTDEM loops were surveyed over SkyTEM™ conductors at the Rok Optel Prospect and two loops over Area 4 (Figure 12).

The Jacomynspan orientation survey resulted in plate models that closely fit the 70m thick mineralised zone, proving the suitability of the FLTDEM method to detect this style of mineralisation (Figure 13). Conductance over the Jacomynspan deposit is low to moderate at 250 to 575 S.

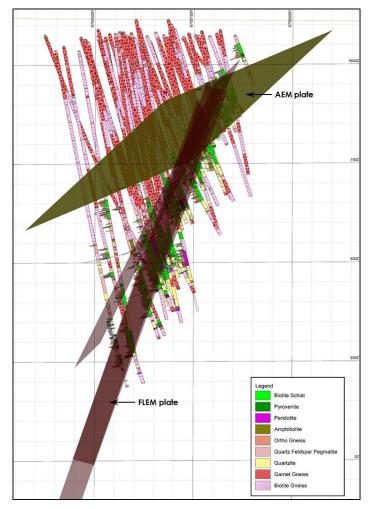


Figure 13: Oblique section looking west of the Jacomynspan Intrusion (Grid HP2A) indicating the excellent fit between the FLTDEM data and drilled mineralisation.

Conductors on Rok Optel have conductivities greater than 3000 S. The position of the Rok Optel conductors relative to historic drill holes are shown in Figure 14. Most historic drill holes which tested induced polarisation (**IP**) and magnetic targets did not intersect the zones of highest conductance detected in the Company's surveys. The drilling intersected zones of lower conductance on the edges of the new modelled plates (Figures 14 and 15). Historic drill hole PUD003 intersected 23.12m at 0.32% Ni and 0.28% Cu from 294m including 5.92m at 0.46%Ni and 0.35% Cu from 303m and 1.8m at 0.58% Ni and 0.60% Cu from 306m (Figure 15).

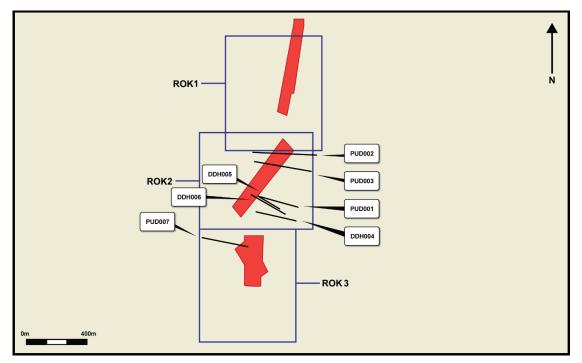


Figure 14: Plan showing grids, EM conductors and historic drill holes on the Rok Optel prospect.

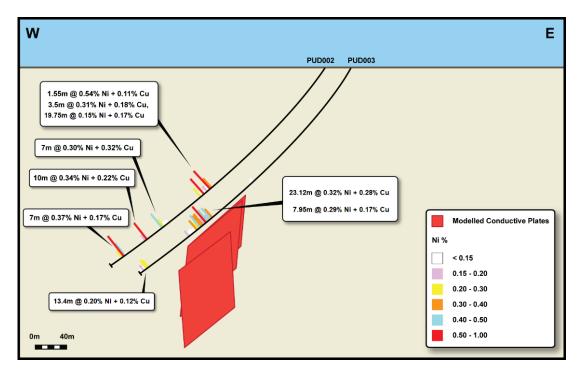


Figure 15: Cross section showing historic drill results and conductive plates on the northern side of the Rok Optel 2 grid.

Area 4 was surveyed using two grids, A4A and A4B (Figures 12 and 16). Seven plate models of conductance ranging from 350 to 2000 S, with smaller dimensions characteristic of semi-massive to massive sulphide mineralisation within or on margins of disseminated sulphide mineralisation have been modelled (Figure 17). Drilling by previous companies targeting geochemical, magnetic and IP targets did not test the highly-conductive bodies detected by the Company using FLTDEM (Figures 16 and 17). The plates on Grid A4B lie within 100m of known Ni-Cu sulphide mineralisation intersected in historic drill hole JAC007. The hole intersected 62.5m of sulphide mineralisation at 0.26% Ni and 0.17% Cu from 304m (Figure 17).

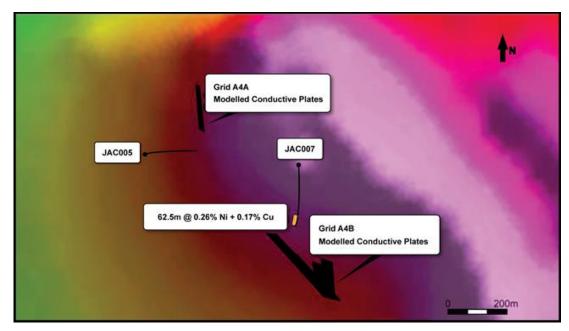


Figure 16: Plan showing EM conductors (black) and historic drill results on the Area 4 prospect as overlain on an airborne magnetic image.

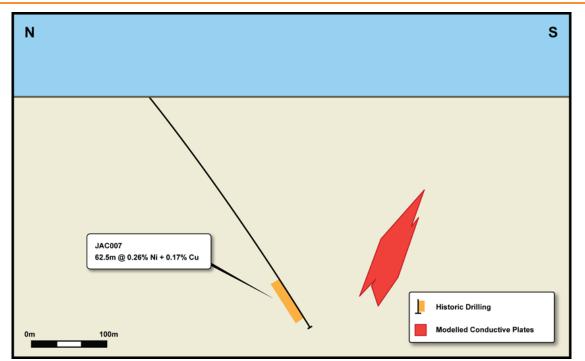


Figure 17: Section looking east through drill hole JAC007 showing the Ni-Cu sulphide intersection and newly detected FLTDEM conductors at the Area 4 prospect.

Planned work on the Ni-Cu targets

Drill testing of the EM conductors on the Ni–Cu prospects is ongoing at the time of writing. Three holes totalling 1,325m are planned to test the Ni-Cu targets on Rok Optel (Figure 18).

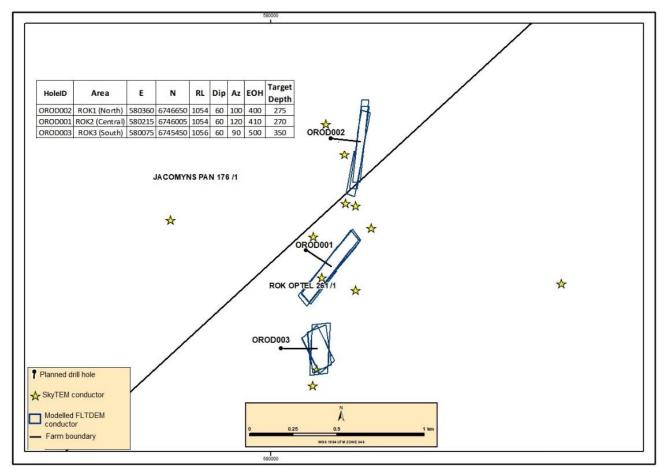


Figure 18: Map showing the modelled conductors and planned holes on the Rok Optel prospect.

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 located 60km north of the Prieska Project (Figure 9).

Past work by the Company includes an IP survey over 2.6km strike following the target horizon. The Company drilled two holes within the historic drill grid, that confirms the copper-gold mineralisation, and four holes on IP anomalies. Drilling showed the IP response to be caused by broad zones containing disseminated sulphides with low levels of copper and gold mineralisation.

The Company 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 announced on 2 May 2018 a binding sale agreement with Evolution Mining Limited for 100% interest sale of the Connors Arc Project, refer to the Corporate section for more information.

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 stated in previous Quarterly Reports, 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 was completed 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	РСМ	73.33%		
NC30/5/1/1/2/10138MR	РСМ	73.33%	Mining Right Application Submitted	
NC30/5/1/2/2/10244PR	Marydale	73.33%		
NC30/5/1/1/2/11841PR ⁽¹⁾	Vardocube	70.00%	Executed	
NC30/5/1/1/2/11850PR ⁽¹⁾	Bartotrax	74.00%	Executed	
NC30/5/1/1/2/10032MR	Namaqua-Disawell	18.50%		Namaqua Nickel Mining (Pty) Ltd
NC30/5/1/1/2/10938PR	Namaqua-Disawell	18.50%		Disawell (Pty) Ltd
NC30/5/1/1/2/11010PR	Namaqua-Disawell	18.50%		Disawell (Pty) Ltd
NC30/5/1/1/2/816PR	Masiqhame	49.00%		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

Tenement	Project	Ownership Interest	Change in Quarter	Joint Venture Partner
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	1	- I	1	1
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%		
Victoria				
MIN5487 ⁽²⁾	Walhalla	100%		
EL5340	Walhalla	100%		
EL5348	Walhalla	100%		

(1) Execution of Mining Right pending.

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

Corporate

Cash and Finance

Cash on hand at the end of the Quarter was \$4.8M.

Following Quarter end, the Company received \$2.0M cash from Evolution Mining Limited as part of the consideration for the sale of the Connors Arc Project (refer below).

Capital Raising

On 25 June 2018, the Company announced an \$11M capital raising at an issue price of \$0.037 per fully paid ordinary share (**Share**), to be conducted via a placement to sophisticated and professional investors (**Placement**). One of the members of the Company's Broad Based Black Economic

Empowerment Partner in South Africa also subscribed for \$0.25M in Shares which will be included in Tranche 2 at an issue price of \$0.037 per Share.

The Placement will be conducted via two stages, being:

- Tranche 1 On 29 June 2018, the Company issued 91.6M Shares at \$0.037 per Share to raise \$3.39M. The Shares issued pursuant to Tranche 1 did not require shareholder approval under the ASX Listing Rules as they were issued pursuant to the Company's placement capacity under ASX Listing Rule 7.1. However, ratification of the issue will be sought from shareholders at a general meeting (refer below), to allow for future equity fundraising flexibility; and
- Tranche 2 212.5M Shares to raise \$7.86M (subject to shareholder approval, to be sought at a general meeting to be held on 3 August 2018).

In addition, the Company will also seek shareholder approval at the General Meeting pursuant to ASX Listing Rule 10.11 to enable the Chairman, Denis Waddell, to subscribe for 6.8M Shares at the same issue price as the Shares being offered under the Placements to raise \$0.25M.

Proceeds from the Placement will be used principally to finalise the bankable feasibility study on the Company's flagship Prieska Project, which is scheduled to be completed early 2019. Funds will also be used to continue exploration programs on the Company's highly prospective tenements located in the Northern Cape, South Africa and for working capital.

Tembo Capital

In addition to the Placement, Tembo Capital Mining Fund II LP and its affiliated entities (**Tembo Capital**), has confirmed its continued support of the Company through subscribing for \$6.3M in Shares, at an issue price of \$0.037 per Share, being the issue price for Shares issued under the Placement. The issue of Shares to Tembo Capital will be subject to shareholder approval in accordance with ASX Listing Rule 7.1 and will occur in two stages being:

- 102.7M Shares, resulting in Tembo Capital's shareholding increasing to 19.99%; and
- 70.2M Shares, resulting in Tembo Capital's shareholding increasing to 22.99%, in reliance on the 3% creep exemption available under item 9 of section 611 of the Corporations Act.

The Company announced on 18 August 2017 that it had entered into a loan facility agreement with Tembo Capital, pursuant to which Tembo Capital has advanced \$6M in funds to the Company (excluding capitalised interest and fees) (Loan Facility). On 31 May 2018, the Company announced an extension to the term of the Loan Facility from 31 May 2018 to 30 September 2018. The extension to the term of the Bridge Loan relieved the Company of its requirement to repay the loan by 31 May 2018. At the end of the Quarter, \$6.0M had been drawn down against the Loan Facility (excluding capitalised interest and fees).

The Company has agreed with Tembo, that Tembo Capital's Share subscription will be issued in consideration for reducing the amount re-payable to Tembo Capital under the Loan Facility at a deemed issue price of \$0.037 per Share, being the same issue price as the Shares being offered under the Placements. The balance of the Loan Facility will be reduced by \$6.3M (being the value of Shares subscribed for by Tembo). The balance of the Loan Facility (including accrued interest) following this repayment will be approximately \$0.6M.

General Meeting

The Company will seek the required shareholder approvals for the capital raising at a General Meeting of shareholders planned to be held at RSM Australia Pty Ltd, Level 32, 2 The Esplanade, Perth, Western Australia on Friday, 3 August 2018 commencing at 3:00 p.m. (Perth time).

Independence Group Placement

On 18 May 2018, the Company announced that it had taken another important step in its base metal development strategy in South Africa after entering into an agreement with Independence Group NL (**IGO**), that saw the leading mid-tier miner and explorer become a substantial shareholder in the Company and cementing a collaborative working relationship between the two companies.

The Company entered into an agreement with IGO, for IGO to subscribe for a placement of Shares in the Company at \$0.05 per Share, to raise \$5.0M (**IGO Placement**). On 21 May 2018, the Company announced that it had received \$5.0M from IGO and had issued 100M Shares to IGO at \$0.05 per Share.

The agreement also sets out the terms of an agreed collaborative working relationship between the two parties, whereby IGO has secured matching rights to any potential joint venture or sale of the Company's nickel projects located in the Areachap Belt, South Africa. If the Company wishes to assign the whole or any part of its right, title or interest in any of its South African Nickel Projects (located within a defined area of the Areachap Belt) to a third party, it must first offer to assign such interest to IGO on the same terms and conditions as the proposed terms and conditions of the assignment to the third party.

IGO's preferential rights include the Company's advanced Jacomynspan Nickel-Copper-Cobalt Project, where the Company has announced a JORC compliant Mineral Resource estimate (refer ASX release 8 March 2018). The collaborative working relationship formed between the Company and IGO will also enhance the Company's planned regional exploration programs within the highly prospective yet very much under explored Areachap Belt.

Due to the lack of favourable environments world-wide which have the potential to host major new Nickel-Copper-Cobalt and VMS discoveries, the Company's large ground holdings in the Northern Cape of South Africa provides both the Company and IGO significant exposure to exploration success.

Based on regional exploration programs already completed, the Company has identified the potential for discovery of nickel hosting massive sulphide bodies similar to IGO's Nova Bollinger Mine in the Fraser Range, Western Australia in the Areachap Belt (refer ASX releases dated 14 July 2016 and 8 March 2018). The Company intends to commit a minimum amount equivalent to 30% of the \$5M IGO Placement (being \$1.5M) towards its Nickel-Copper-Cobalt exploration targets.

The IGO Placement and IGO's preferential rights further strengthen the existing relationship between the Company and IGO, following the Company's announcement on 10 March 2017 that the Company and IGO had entered into a joint venture agreement on the Fraser Range Nickel-Copper Project, Western Australia and that IGO had subscribed for a \$1.3M share placement in the Company.

Sale of Connors Arc Project

On 2 May 2018, the Company announced that it had entered into a binding sale agreement (**Agreement**) with Evolution Mining Limited (**Evolution**), for Evolution to acquire 100% of the Company's Connors Arc Project (**Tenements**) in Queensland. Consideration for the sale of the Tenements consists of \$2.5M cash and a 2% royalty on net smelter returns (**NSR**) from the sale of gold recovered and sold by Evolution from the Tenements to a value of \$5.0M.

Key terms of the Agreement are:

- Stage 1 Payment an initial \$1.5M cash payment, payable upon conditions typical for agreements of this nature being:
 - the Company obtaining indicative approval from the Queensland Government Department of Natural Resources, Mines and Energy (**Department**), for the transfer of the Tenements to Evolution; and
 - the assignment to Evolution of the Tenements' native title agreements.

- Stage 2 Payment a further \$0.5M cash payment, payable to the Company upon approval by the Department for retention of the total area of three of the Tenements included in the Agreement until the renewal of the existing term of those Tenements;
- Stage 3 Payment a further \$0.5M cash payment, payable to the Company upon approval by the Department for renewal of two Tenements included in the Agreement and for retention of the total area of those Tenements for a period 12 months from the date of such renewal; and
- a 2% royalty on NSR from the sale of gold recovered and sold by Evolution from the Tenements to a value of \$5.0M.

Following Quarter end, the Company received Stage 1 Payment and Stage 2 Payment, totalling \$2.0M cash.

The sale of the non-core Tenements is consistent with the Company's decision to place greater focus on its flagship project, the Prieska Project and its highly prospective regional exploration projects within the Areachap Belt, including the advanced Jacomynspan Nickel-Copper-Cobalt Project.

Board Changes

Mr Michael Hulmes joined the Company's Board on 17 April 2018 as a Non-executive Director. 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.

Expiry of Options

The following optic	ons exp	oired	during	the Qu	Jarte	r:	

Exercise Price	Number of Options	Expiry Date
\$0.15	9,000,000	31 May 2018
\$0.25	\$0.25 9,000,000	
\$0.35	9,000,000	31 May 2018
\$0.15	1,000,000	30 April 2018
\$0.25	1,000,000	30 April 2018
\$0.35	1,000,000	30 April 2018