Orion Minerals

ASX/JSE RELEASE: 22 April 2024

Spectacular High-Grade Copper Intercept at Okiep Copper Project, Flat Mines Area

49m at 4.89% Cu including 10.23m at 12.47% Cu

- **Outstanding initial results from diamond drilling at Flat Mine East, part of the Okiep Copper Project in the Northern Cape Province, South Africa:**
  - **Drill hole OFMED153: 49m at 4.89% Cu from 231m down hole, including 10.23m at 12.47% Cu.**
- **This is the highest-grade drill intercept ever reported at Flat Mines and confirms the high-grade copper intercepts returned from drilling completed in 1995 by the previous owners, Goldfields.**
- **Flat Mine East, which is a virgin discovery that is blind to surface, will form a key part of Orion's early production plan for the Okiep Copper Project.**
- **The wide, high-grade massive sulphide zone is within a larger intrusive body that hosts lower grade disseminated or blebby sulphide mineralisation.**
- **The intersections achieved to date support geological and grade distribution interpretations and were taken into account for the mineral resource modelling and estimation.**
- **Eleven diamond drill holes totalling 5,800m are planned at Flat Mine East, Flat Mine South and Flat Mine North to confirm historical drilling results, provide geotechnical information and generate material for additional confirmatory metallurgical test work.**

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

"This standout intercept is one of the highest-grade intercepts reported in South Africa for the past 40 years. While it is always exciting to drill such spectacular intersections, they are not unexpected at Okiep. The high-grade copper zones confirmed by our drilling are an important, known feature in the district and at Flat Mines. Our Okiep Mine is reported to have milled 907,000 tonnes grading 21% copper from hand-sorted ore."

"For me as a geologist, this underscores the huge potential of Orion's 641km² mineral right holdings which contain literally hundreds of mapped, outcropping mineralised bodies. Previous owners Newmont and Goldfields, intersected strong copper mineralisation in dozens of bodies with scout drilling but never completed drilling out the discoveries, due to low copper prices at the time, which resulted in management decisions to curtail exploration."

"This has created a huge opportunity for Orion, in a district which produced over 2 million tonnes of contained copper metal historically. The Okiep region, which has lain dormant for decades, is now undergoing a major revitalisation with the application of modern exploration and mining technologies."

"Following our announcement on 17 April 2024, that we are moving to completion of the acquisition of the mineral rights at Okiep, we are itching to get drills turning to demonstrate the untapped potential of the district, while we get our foundational operation at Flat Mines into production."

"This confirmation drilling and metallurgical test work program is being carried out at the request of the appointed debt finance advisor's independent technical expert and is the last remaining matter to be concluded before finalisation of the Bankable Feasibility Study."

Orion Minerals Limited (**ASX/JSE: ORN**) (**Orion** or **Company**) is pleased to report results from its confirmation diamond drilling program in the Flat Mines area at the Okiep Copper Project (**OCP**) in the Northern Cape, South Africa.

The OCP ground holdings of 641km² cover the majority of the area where a total of 105Mt is reported to have been mined in the district over the past 100 years (refer ASX/JSE release 21 May 2021). The Flat Mines area and the current drilling program fall entirely within the executed Mining Right.

Results received to date from the first two completed holes have confirmed historical information from drilling by Goldfields of South Africa (**GFSA**) in the 1990's, used in the Mineral Resource update (refer ASX/JSE release 28 August 2023) where 9.4Mt at 1.3% Cu was reported for the Flat Mines area including 4.4Mt at 1.3% Cu at Flat Mine East (**FME**).

Hole OFMED153 intersected **49.00m at 4.89% Cu, including 10.23m at 12.47% Cu**. This intersection is located approximately 13m west of a historical intersection in FME035, drilled by GFSA in 1995, which returned an intercept of 59.10m at 3.55% Cu including 10.12m at 9.83%.

Flat Mines Drilling Program

A diamond drilling program commenced in the Flat Mines area of the OCP in February 2024. A total of eleven diamond core drill holes have been planned at FME, Flat Mine South (**FMS**) and Flat Mine North (**FMN**) comprising a total of 5,800m.

The program has been designed to confirm historical drilling information and resultant interpretations, provide geotechnical information, and provide additional material for confirmatory metallurgical test work.

The planned program comprises five holes at FME, four holes at FMS and two holes at FMN (Figures 1 and 3). The holes have been specifically designed to best cover the areas that contribute most significantly to the overall estimated Indicated Mineral Resource.

Two holes have been completed at FME, with the remaining three holes currently in progress. The first two holes are currently in progress at FMS. All holes include a deflection (or wedge) through the mineralisation to provide the additional material for confirmatory metallurgical test work.

Assay results from the first two completed holes at FME have been received and are summarised in Table 1. A total of 149 split core samples were submitted to ALS for analysis by aqua regia ICP-AES method (ALS codes ME-ICP41a and MEOG-46).

Drill hole OFMED151 returned 25.22m at 0.97% Cu from 260.00m, including 10.22m at 1.35% Cu from 275.00m (Figure 4, Table 1). This is all within a broad zone of elevated copper of 40.22m at 0.80% Cu from 245.00m.

Drill hole OFMED153 intersected 49.00m at 4.89% Cu from 231.00m to 280.00m, including 10.23m at 12.47% Cu (Figure 5, Table 1). One highly mineralised sample of 0.35m length from 280.00m at the bottom of the intersection is pending reporting of assay results.

An interpretive cross-section is shown in Figure 5. The OFMED153 intersection compares well to the intersection in historical hole FME035 approximately 13m to the east where 59.10m at 3.55% Cu was reported including 10.12m at 9.83%.

The OFMED153 core shows the presence of significant stockwork vein style to massive bornite, and chalcopyrite developed over 11m (Figure 6).

Significant widths of waste granitic material are included within the 49.00m intersection in OFMED153 (Figure 5), providing opportunities for upgrading of material through modern XRF ore sorting techniques to reject internal waste before milling.

On completion of the drilling program, the geological and mineralisation envelope interpretations will be reviewed and adjusted where necessary, followed by an update of the Mineral Resource estimate including the new information. New geotechnical information will be used for input for mine design.

Planned confirmatory metallurgical test work includes comminution, flotation optimisation, locked cycle tests, tailings characterisation and XRF sorting.

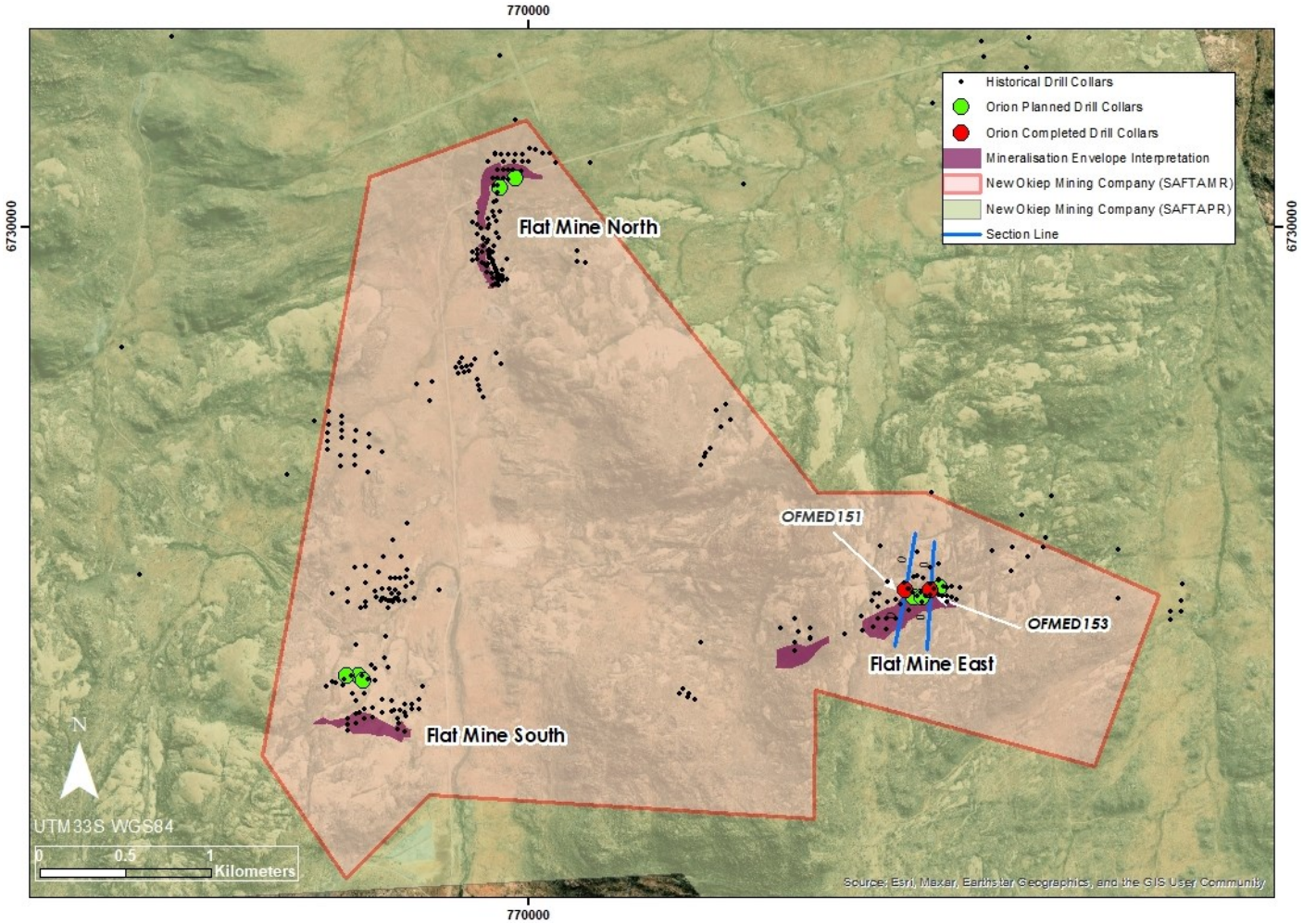


Figure 1: Plan showing historical and Orion drill holes, mineralisation envelope interpretations and extent of the Mining Right.

Figure 2: Discovery drilling contractors at FME.

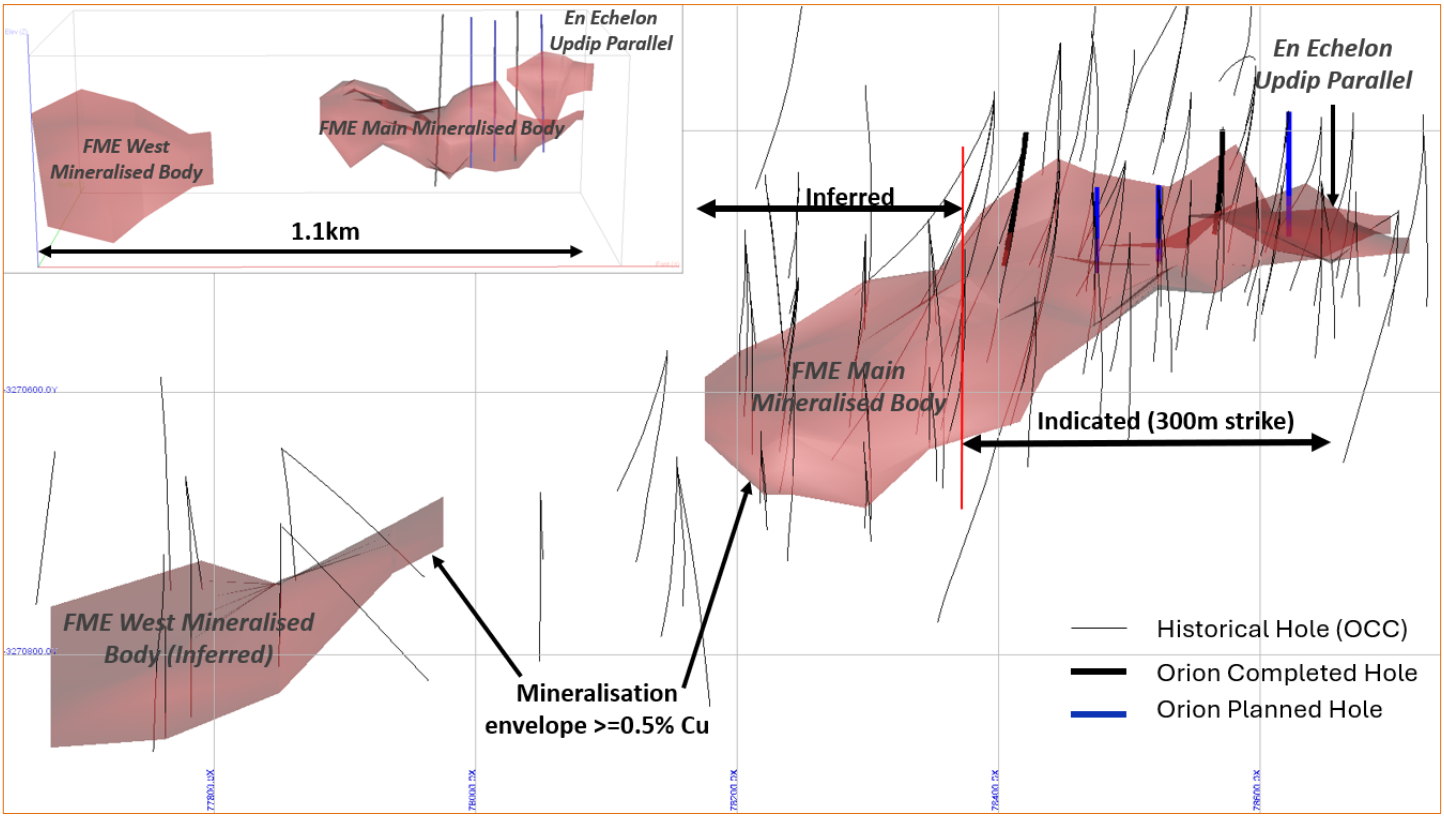


Figure 3: Plan view of FME, with sectional view inset, showing historical and Orion drill holes and mineralisation envelope interpretations.

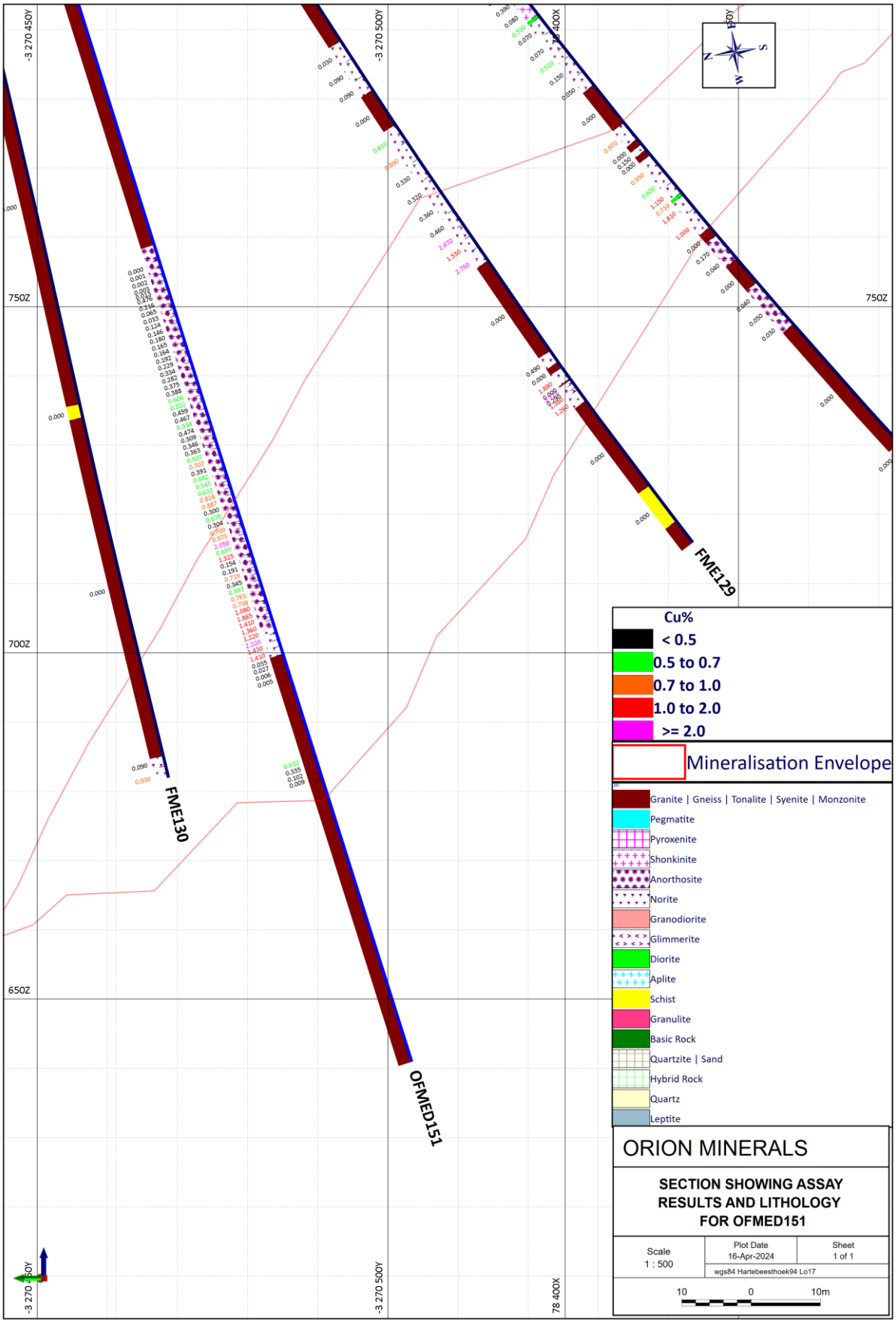


Figure 4: Section through OFMED151. View corridor 20m either side of section line.

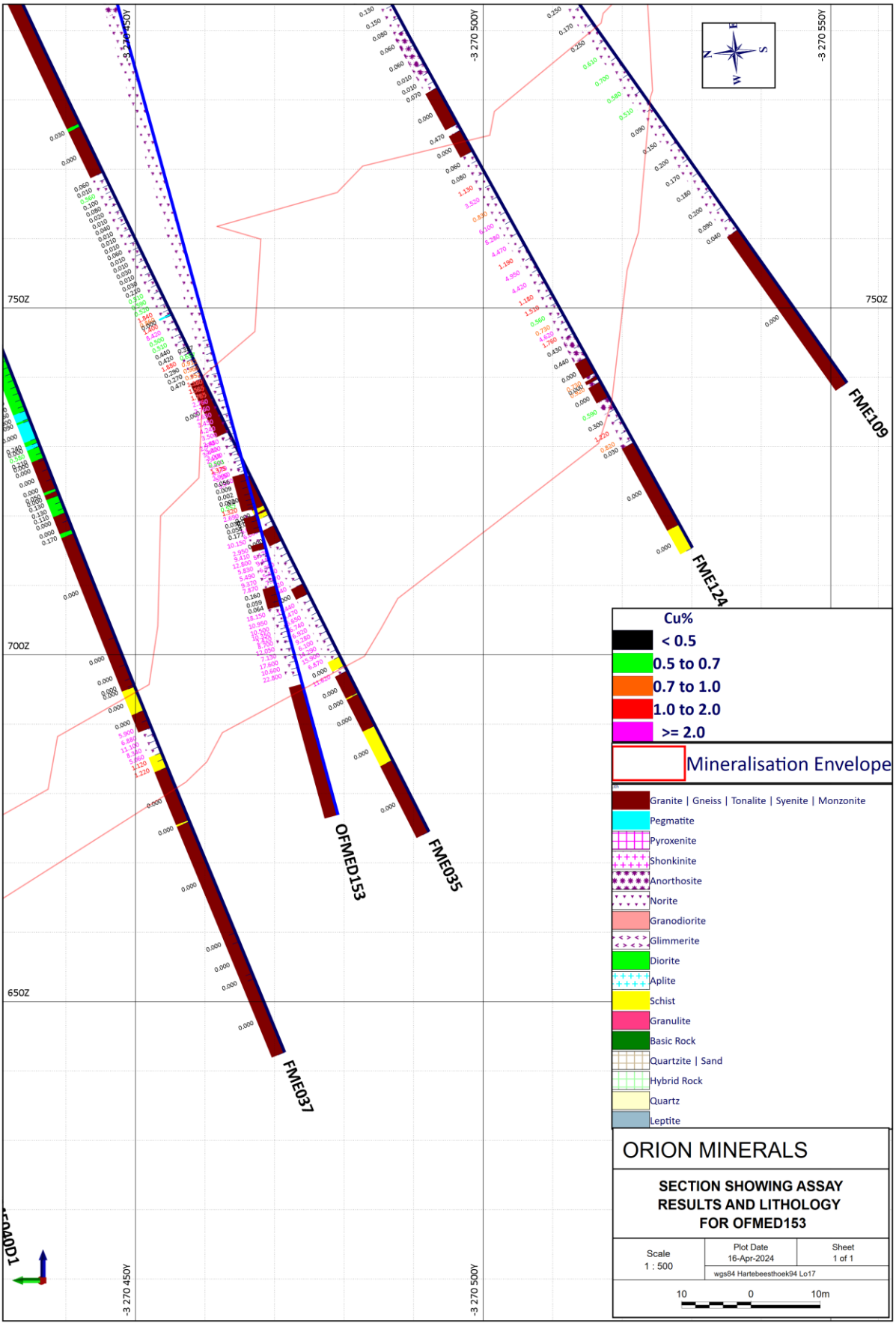


Figure 5: Section through OFMED153. View corridor 20m either side of section line.

Figure 6: OFMED153 drill core showing bornite and chalcopyrite mineralisation.

Assay Results

Results received are summarised in Table 1 below. Further results are pending.

Table 1: Summary table of drill results to date for FME prospect (a minimum cut-off of 0.7% Cu with maximum 3m internal waste allowed). Intersections and inclusions with grades mostly above 1% Cu are tabulated. The data was not capped. Note widths are drill widths.

Hole ID	Mineralisation				
	Notes	From (m)	To (m)	Interval (m)	% Cu
OFMED151		**260.00**	**285.22**	**25.22**	**0.97**
	Including	275.00	285.22	10.22	1.35
OFMED153		**231.00**	**280.00**	**49.00**	**4.89**
	Including	231.00	250.00	19.00	2.14
	Including	253.84	256.25	2.41	1.82
	Including	258.69	266.78	8.09	8.18
	Including	269.77	280.00	10.23	12.47

Comparable grades are reported for OFMED153 and the nearest historical hole FME035 intersection located approximately 13m to the east (Figure 5, Table 4). Internal waste zones also show a broad correlation over this separation (Figure 5).

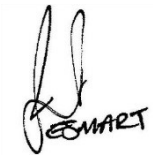
This strongly supports geological and grade distribution expectations for the zones drilled that were taken into account for mineral resource modelling and estimation.

Table 2: Comparison of % Cu grades and widths for OFMED153 and nearest neighbour holes FME035, FME037 and FME124.

Hole ID	From (m)	To (m)	Including internal waste			Internal Waste (m) (<=0.5% Cu)	Internal Waste % Cu	Excluding Internal Waste		Distance from OFMED153 (m)
			Intersection Width (m)	Average % Cu	Max % Cu			Mineralised Material (m) (>=0.5% Cu)	Average % Cu	
OFMED153	231.00	280.00	49.00	4.89	22.80	9.27	0.06	39.73	6.03	---
FME035	250.52	309.62	59.10	3.55	16.74	25.91	0.07	33.19	6.32	13.00
FME037	305.26	312.64	7.38	5.51	11.10	---	---	7.38	5.51	30.00
FME124	223.00	249.50	26.50	3.02	8.28	---	---	26.50	3.02	45.00

The comparative grades of mineralised mafic rock (excluding internal waste zones of granitic country rock xenoliths) compares very well in this zone of the intrusive. These zones are expected to be amenable to the same ore sorting techniques that were tested with success on Flat Mine North mineralisation, to discard waste from run of mine ore before milling. Core from a deflection drilled from OFMED153 is currently being tested for ore sorting, followed by confirmatory flotation metallurgical test work.

For and on behalf of the Board.



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Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Paul Matthews (Pr.Sci.Nat.), a Competent Person who is a member of the South African Council for Natural Scientific Professionals, a Recognised Professional Organisation (**RPO**). Mr Matthews is a full-time employee of Orion. Mr Matthews has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Matthews consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

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Appendix 1: Drill hole collar information and assay results from drill program at Flat Mine East

Table 3: Drill hole collar information for FME prospect. Coordinates in WGS84 Hartebeesthoek 94 L017

Hole ID	Easting	Northing	RL	Azimuth	Dip	Depth (m)
OFMED151	78,421	-3,270,401	971	180	-73	346.99
OFMED153	78,571	-3,270,399	978	180	-75	301.03

Table 4: Historical hole FME035 and Orion hole OFMED153 intersections.

FME035				OFMED153			
From (m)	To (m)	Interval (m)	% Cu	From (m)	To (m)	Interval (m)	% Cu
246.52	247.52	1.00	0.21	230.00	231.00	1.00	0.36
247.52	248.52	1.00	0.51	231.00	232.00	1.00	0.66
248.52	249.52	1.00	0.59	232.00	233.00	1.00	0.91
249.52	250.52	1.00	0.52	233.00	234.00	1.00	0.97
250.52	251.52	1.00	1.84	234.00	235.00	1.00	0.95
251.52	252.13	0.61	0.86	235.00	236.00	1.00	1.18
252.13	252.40	0.27	0.00	236.00	237.00	1.00	1.57
252.40	253.40	1.00	1.40	237.00	238.00	1.00	1.77
253.40	254.40	1.00	8.42	238.00	239.00	1.00	2.76
254.40	255.40	1.00	0.50	239.00	240.00	1.00	2.76
255.40	256.40	1.00	0.51	240.00	241.00	1.00	2.65
256.40	257.40	1.00	0.44	241.00	242.00	1.00	3.45
257.40	258.40	1.00	0.42	242.00	243.00	1.00	4.24
258.40	259.40	1.00	1.88	243.00	244.00	1.00	3.50
259.40	260.40	1.00	0.29	244.00	245.00	1.00	2.48
260.40	261.40	1.00	0.27	245.00	246.00	1.00	3.02
261.40	262.51	1.11	0.47	246.00	247.00	1.00	3.00
262.51	271.10	8.59	0.00	247.00	248.00	1.00	0.50
271.10	272.10	1.00	2.97	248.00	249.00	1.00	1.38
272.10	273.10	1.00	3.44	249.00	250.00	1.00	2.99
273.10	274.10	1.00	2.41	250.00	251.00	1.00	0.06
274.10	275.10	1.00	5.45	251.00	252.00	1.00	0.01
275.10	276.10	1.00	4.17	252.00	253.00	1.00	0.00
276.10	277.10	1.00	3.15	253.00	253.84	0.84	0.00
277.10	278.14	1.04	3.95	253.84	254.51	0.67	0.55
278.14	282.88	4.74	0.00	254.51	255.00	0.49	1.32

FME035				OFMED153			
From (m)	To (m)	Interval (m)	% Cu	From (m)	To (m)	Interval (m)	% Cu
282.88	283.50	0.62	0.00	255.00	256.25	1.25	2.69
283.50	283.75	0.25	0.00	256.25	257.00	0.75	0.03
283.75	284.44	0.69	0.00	257.00	258.00	1.00	0.05
284.44	285.44	1.00	5.69	258.00	258.69	0.69	0.18
285.44	286.14	0.70	6.00	258.69	260.33	1.64	10.15
286.14	288.60	2.46	0.00	260.33	261.23	0.90	2.95
288.60	289.60	1.00	8.17	261.23	262.00	0.77	9.41
289.60	290.60	1.00	9.44	262.00	263.00	1.00	12.80
290.60	291.60	1.00	6.30	263.00	264.00	1.00	5.83
291.60	292.60	1.00	5.47	264.00	265.00	1.00	5.49
292.60	293.60	1.00	7.37	265.00	266.00	1.00	9.37
293.60	294.60	1.00	7.12	266.00	266.78	0.78	7.87
294.60	295.52	0.92	4.94	266.78	268.00	1.22	0.16
295.52	297.18	1.66	0.00	268.00	269.00	1.00	0.06
297.18	298.18	1.00	11.44	269.00	269.77	0.77	0.06
298.18	299.18	1.00	5.47	269.77	271.00	1.23	18.15
299.18	300.18	1.00	5.65	271.00	272.00	1.00	10.95
300.18	301.18	1.00	16.74	272.00	273.00	1.00	10.50
301.18	302.18	1.00	6.92	273.00	273.54	0.54	10.35
302.18	303.18	1.00	9.28	273.54	274.28	0.74	2.42
303.18	304.18	1.00	6.10	274.28	275.00	0.72	8.70
304.18	305.18	1.00	14.29	275.00	276.00	1.00	12.05
305.18	306.18	1.00	15.90	276.00	277.00	1.00	7.13
306.18	307.30	1.12	6.87	277.00	278.00	1.00	17.60
307.30	308.82	1.52	0.00	278.00	279.00	1.00	10.60
308.82	309.62	0.80	11.62	279.00	280.00	1.00	22.80

Table 5: OFMED151 assay results.

Hole ID	From (m)	To (m)	Interval (m)	% Cu
OFMED151	240.00	241.00	1.00	0.23
OFMED151	241.00	242.00	1.00	0.33
OFMED151	242.00	243.00	1.00	0.28
OFMED151	243.00	244.00	1.00	0.38
OFMED151	244.00	245.00	1.00	0.39
OFMED151	245.00	246.00	1.00	0.61
OFMED151	246.00	247.00	1.00	0.52
OFMED151	247.00	248.00	1.00	0.46
OFMED151	248.00	249.00	1.00	0.47
OFMED151	249.00	250.00	1.00	0.53
OFMED151	250.00	251.00	1.00	0.47
OFMED151	251.00	252.00	1.00	0.31
OFMED151	252.00	253.00	1.00	0.35
OFMED151	253.00	254.00	1.00	0.36
OFMED151	254.00	255.00	1.00	0.51
OFMED151	255.00	256.00	1.00	0.71
OFMED151	256.00	257.00	1.00	0.39
OFMED151	257.00	258.00	1.00	0.68
OFMED151	258.00	259.00	1.00	0.55
OFMED151	259.00	260.00	1.00	0.62
OFMED151	260.00	261.00	1.00	0.83
OFMED151	261.00	262.00	1.00	0.89
OFMED151	262.00	263.00	1.00	0.30
OFMED151	263.00	264.00	1.00	0.68
OFMED151	264.00	265.00	1.00	0.30
OFMED151	265.00	266.00	1.00	0.70
OFMED151	266.00	267.00	1.00	0.97
OFMED151	267.00	268.00	1.00	2.05
OFMED151	268.00	269.00	1.00	0.70
OFMED151	269.00	270.00	1.00	1.33
OFMED151	270.00	271.00	1.00	0.15
OFMED151	271.00	272.00	1.00	0.19
OFMED151	272.00	273.00	1.00	0.72
OFMED151	273.00	274.00	1.00	0.35

Hole ID	From (m)	To (m)	Interval (m)	% Cu
OFMED151	274.00	275.00	1.00	0.60
OFMED151	275.00	276.00	1.00	0.76
OFMED151	276.00	277.00	1.00	0.74
OFMED151	277.00	278.00	1.00	1.08
OFMED151	278.00	279.00	1.00	1.87
OFMED151	279.00	280.00	1.00	1.41
OFMED151	280.00	281.00	1.00	1.36
OFMED151	281.00	282.00	1.00	1.22
OFMED151	282.00	283.00	1.00	2.22
OFMED151	283.00	284.00	1.00	1.43
OFMED151	284.00	285.22	1.22	1.41
OFMED151	285.22	286.00	0.78	0.04
OFMED151	286.00	287.00	1.00	0.03
OFMED151	287.00	288.00	1.00	0.01
OFMED151	288.00	289.00	1.00	0.01
OFMED151	300.30	301.30	1.00	0.61
OFMED151	301.30	302.30	1.00	0.34
OFMED151	302.30	303.30	1.00	0.10
OFMED151	303.30	304.10	0.80	0.01

Appendix 2: The following tables are provided in accordance with the JORC Code (2012) requirements for the reporting of Exploration Results from the Okiep Copper Project.

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Sampling was carried out using industry standard procedures. NQ-size diamond drill cores were longitudinally split in half using a diamond core cutting machine. • HQ core size was only drilled in the upper weathered portion and no HQ core was sampled. • One-metre sample length was taken in most cases. Sample lengths were varied to honour geological and mineralisation boundaries, with a maximum sample size of 1.77m and a minimum sample size of 20cm. • Areas of sampling were selected based on visual observations and readings from a handheld Niton XL3t 500 XRF instrument (standard analytical range >25 elements from S to U with additional elements Mg, Al, Si and P via helium purge).
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Diamond core drilling was undertaken. • HQ and NQ size core was drilled using a standard tube. HQ core size was only drilled in the upper weathered portion of approximately 6m. No Cu mineralisation was visually identified in the HQ core and no HQ core was sampled. • Core was oriented using a Reflex ACT III™.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Core 'stick-ups' reflecting the depth of the drill hole are recorded at the rig at the end of each core run. A block with the depth of the hole written on it is placed in the core box at the end of each run. At the core yard, the length of core in the core box is measured for each run. The measured length of core is subtracted from the length of the run as recorded from the stick-up measured at the rig to determine the core loss. • Core recovery was found to be very good (>98%) within the mineralised zone. • Ground conditions below the weathered zone were very good. • No obvious relationship exists between sample recovery and grade. • No core/sample loss or gain which could result in sample bias.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Core of the entire hole length was geologically logged by qualified geologists. • The core was logged to a level of detail that is sufficient to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Geological logging was qualitative and was carried out using a standard sheet with a set of standard logging codes to describe lithology, structure and mineralisation. The logging sheet allows for free-form description to note any unusual features. • Geological logs were captured electronically. • All cores were photographed before and after sampling. • Two diamond holes, totalling 642.96m core were logged. Of this, approximately 180m are ultramafic/mafic lithologies primarily hosting the Cu mineralisation.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• NQ core was cut, and half core was taken as sample with quarter core for duplicates. • HQ core size was only drilled in the upper weathered portion and no HQ core was sampled. • Sample preparation was undertaken at ALS Laboratory Johannesburg (**ALS**), an ISO accredited laboratory, and is considered appropriate. ALS utilises industry best practice for sample preparation for analysis involving drying of samples, weighing samples, crushing to <2mm if required. Crushed samples are riffle-split and a 250g portion pulverised with +85% passing through 75 microns. • Crushing and pulverising QC tests were applied by ALS and found acceptable. • Quarter core field duplicates were taken for 8 samples. • All sample sizes are deemed appropriate.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples submitted to ALS were analysed for base metals and gold. • All samples were analysed by an appropriate high-grade aqua regia ICP-AES method, ALS code ME-ICP41a. • Samples where assays returned >5% Cu were re-assayed by aqua regia digestion and ICP-AES method, ALS code MEOG-46. • Samples were assayed for gold by fire assay and AAS, ALS code AU-AA25 method. • Orion inserted CRMs every 10th sample. A total of nineteen CRMs were inserted. CRMs were alternated throughout the sample stream and where possible matched to the sample material being analysed. • Three CRMs were used. AMIS0399 (1.014 %Cu), AMIS0809 (2.97 %Cu) and AMIS088 (0.3 %Cu). • All nineteen CRMs returned acceptable results within two Standard Deviations of the CRM average. • Chip blanks are inserted at the beginning of each batch and after any sample that may be considered high grade. A total of ten blanks were used. Acceptable results were returned indicating no contamination. • The laboratory conducts their own checks which are also monitored. The accuracy and precision of the geochemical data reported on has deemed to be acceptable. • No external laboratory checks have been carried out at this stage.

Criteria	JORC Code explanation	Commentary
Verification of Sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Orion's exploration geologist personally supervised the drilling and sampling along with a team of experienced geologists. • Due to the high degrees of deviation in both dip and azimuth of the historical holes, twin holes were not planned. However, with the high density of historical drilling in some areas, some Orion drilled holes will intersect mineralisation in relative proximity to historical intersections. • Considering the irregular nature of the intrusive related mineralisation, it can be noted that the intersections in the two Orion holes broadly correlate with the historical drilling. • The intersection in OFMED153 is approximately 13m from an intersection in historical hole FME035. Grades and widths in these intersections are comparable (Tables 2 and 4). • The CP has reviewed the raw laboratory data and confirmed the calculation of the significant intersections. • No adjustments have been made to the assay data.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Collar positions of the Flat Mine East prospect holes were located using a hand-held Garmin GPS. • On completion drill collars are capped and labelled and will be surveyed by a qualified surveyor. • The local South African Lo17 WGS84 (Hartebeesthoek 94) grid system is used. • All the Flat Mine East holes were surveyed down-hole. A north seeking Reflex SPRINTIQ gyro tool was used for the down-hole surveys.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Holes were drilled along 50m spaced drill lines. • Due to the irregular intrusive nature of the mineralisation, the historical drill spacing was kept relatively tight. • The spacing for Orion holes was designed to confirm historical information, provide geotechnical information, and provide additional samples for confirmatory metallurgical test work. The drill spacing is considered sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation and classifications. • No samples were composited.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• To achieve unbiased sampling, drilling is oriented as close as practically possible to perpendicular, or at a maximum achievable angle, to the attitude of the mineralisation. Drill holes were inclined between -70° to -78° degrees. • No sampling bias is anticipated as a result of drill hole orientations.
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by the Company. Samples were stored on site in a secure locked building and then freighted directly to the laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been carried out to date.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The mineral rights to the properties are vested in the State and the Minerals and Petroleum Development Act, 2002, (MPRDA) regulates the exploration and mining industry in South Africa. • A mining right, NC30/5/1/2/2/10150MR (**Mining Right**), in accordance with section 23 of the MPRDA; was granted to Southern African Tantalum Mining (Pty) Ltd (**SAFTA**) to mine for a period of fifteen years on 28 July 2022 and executed on 14 December 2022. On receipt of Permission to cede from the Minister, the Mining Right was ceded to an Orion subsidiary, New Okiep Mining Company (Pty) Ltd (**NOMC**) on 11 December 2023. • The right is for copper and tungsten ore for a portion of portion 3, a portion of portion 13, a portion of portion 14 and a portion of portion 21 of the farm Nababeep No 134 situated within the administrative district of Namaqualand. The total area measures 1,214Ha in extent. • A prospecting right, NC30/5/1/1/2/12850PR (**Prospecting Right**), for the same area was granted to SAFTA on 27 June 2023 in accordance with section 17 of the MPRDA for 3 years for 26 additional minerals including gold and silver. An application for permission to cede to NOMC has been submitted to the authorities. • The area was mined historically for copper.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous explorers in the region includes Newmont, Gold Fields of SA and SAFTA. Exploration was focussed on Cu.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The tenements are located over the Central and Western parts of the Okiep Copper District. The style of mineralisation is mafic hosted orogenic Cu-mineralisation. • Copper mineralisation is primarily associated with irregular, elongated and steeply dipping Koperberg Suite mafic intrusives. • The Koperberg Suite intrusives are mainly restricted to so-called "Steep Structures" of extensive strike lengths and steeply dipping to the north. • The Koperberg Suite consists of anorthosite, diorite and norite intermediate to mafic rock types. • Mineralisation usually occurs as blebs to disseminated Cu mineral assemblages bornite > chalcopyrite > chalcocite and less pyrite and pyrrhotite. • The more mafic and magnetite-rich lithologies generally host the bulk of and higher-grade mineralisation. • The OCD has a long exploration and mining history, and the geology is well known and understood.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Refer to Table 3 in Appendix 1 for collar details of drill holes reported.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade*	• A minimum 0.7% Cu cut-off was used to calculate intercepts. • Allowance was made for 3m internal waste. • A cut-off of 1.0% Cu was used for the higher-grade inclusions.

Criteria	JORC Code explanation	Commentary
	results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Weighted grades were calculated as follows; %Cu x sample length(m) • The CP is of the opinion that the above aggregation methods are acceptable for this type of deposit. • No metal equivalents are reported. • No capping of assay results was required.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Drilling is generally oriented perpendicular, or at a maximum achievable angle to, the attitude of the mineralisation. • Generally, drill hole inclinations ranged between -70° to -78° while the mineralisation is expected to dip close to 70^0. • Only down holes lengths are reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to body of the announcement for plans, sections and tables. • Drilling data was incorporated and monitored in Micromine™ software together with interpretation models based on the available historical drill data.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• In the Competent Person's opinion, the Exploration Results reported in this announcement have been reported in a balanced manner.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• The Company's previous ASX releases have detailed exploration works. • A high-resolution drone magnetic survey was carried-out and will assist in future planning of additional drill holes. • Drone (DJI 600M Pro) magnetics were done at 30m AGL and 50m line spacing. • Historical detailed surface mapping is interpreted and utilised during drill hole planning. • Where possible, bulk density measurements were made over the full length of each individual sample of split core. Where not possible due to incompetent (crushed or broken) core, a minimum of 80% of the (half-core) sample was used. The bulk density is determined by measuring and subtracting the wet weight from the dry weight using an electronic scale. Care is taken to clean and zero the scale between each weighing. The intact sample portion is first weighed in air and the weight recorded. The sample is then weighed, while completely submerged in clean water within a measuring container. The mass of container and water are deducted for net submerged weight and volume displacement

Criteria	JORC Code explanation	Commentary
		read on measuring container. The sample is then removed and placed back into the core tray in the correct position and orientation. The procedure is repeated for each geological sample interval. The data were recorded in the bulk density Data Sheet. The bulk density is calculated for each sample using the formula: $BD = \frac{\text{weight of sample}}{(\text{weight of sample in air} - \text{weight of the sample in water})}$
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Historic resource confirmatory Drilling is continuing on Flat Mine East, Flat Mine South and Flat Mine North prospects. • Further surface geophysical surveys may inter alia include ground, drone and/or airborne EM, gravity and radiometrics.