

30 January 2023

The Manager
Market Announcements Office
Level 40, Central Park
152-158 St Georges Terrace
PERTH WA 6000

# AVIRA RESOURCES LIMITED - QUARTERLY ACTIVITIES REPORT (DECEMBER 2022)

Avira Resources Limited (ASX: AVW) (Avira or the Company) is pleased to present the following Report for the quarter ended 31 December 2022.

#### **Highlights**

- During the December quarter, Avira announced the binding Heads of Agreement (HoA) to farm in to the Ni-Cu-Co Puolalaki project located in Northern Sweden.
- Recently completed geophysics work at Puolalaki consisted of a fixed-loop EM (FLEM) survey and a downhole EM (DHEM) survey.
- Key milestones included 7.5-line km of FLEM completed with the airborne magnetics scheduled to be completed in early February 2023.
- Raw data from the FLEM survey is currently being processed and modelled by Precision Geophysics in Perth with the intention of identifying drill ready targets.

### **Operational Activities**

#### Puolalaki Cu-Ni-Co Project (Sweden)

During the December quarter, Avira announced the binding Heads of Agreement (**HoA**) with Scott Geological AB and Outlier Geoscience Pty Ltd. Together the owners of the highly prospective Puolalaki Ni-Cu-Co Project (**Puolalaki Project**).



Figure 1: Puolalaki Project location and images showing Ni-Cu mineralisation from project drill-core.

ABN: 38 131 715 645



The Puolalaki Project comprises a single exploration permit (Puolalaki nr 100) centred over the target gabbro intrusion, owned 50% by Scott Geological AB and 50% by Outlier Geoscience Pty Ltd.

It is located in Sweden's premier Gällivare mining district which is host to Europe's largest open-cut copper mine Aitik, owned by Boliden and to LKAB's Malmberget iron-ore mine.

At Puolalaki, (50km SE of Gällivare) Ni-Cu mineralisation is hosted in a syn-orogenic gabbro intrusion that displays evidence of fractional crystallisation and segregation of the mafic melt. Blebby euhedral magmatic sulphide textures are evident in drillholes PNO98004 and PNO98005. In 1998, exploration company North Atlantic Natural Resources (NAN) drilled two holes intercepting magmatic sulphides at Puolalaki effectively confirming the occurrence of Ni-Cu-Co mineralisation within the gabbro intrusion, significant intercepts included:

PNO98004: 24.1m @ 0.28% Ni, 0.22% Cu, and 0.035% Co from 66.3m
 Inc. 10m @ 0.41% Ni, 0.23% Cu and 0.053% Co from 78.3m

PNO98005: 17.1m @ 0.37% Ni, 0.26% Cu and 0.050% Co from 78.2m Inc. 6m @ 0.54% Ni, 0.19% Cu and 0.070% Co from 78.2m Inc. 5.9m @ 0.51% Ni, 0.54% Cu and 0.070% Co from 89.5m

Within a few months of discovering Ni-Cu mineralisation at Puolalaki, NAN discovered Zn-Cu mineralisation at Storliden, near the town of Malå. The Storliden deposit (1.8Mt @ 10.3% Zn, 3.5% Cu) was subsequently mined as a joint venture between NAN and Boliden and no further work was completed at Puolalaki by NAN.

The Ni-Cu mineralisation at Puolalaki has never been followed-up since its discovery in 1998 and consequently provides a fantastic opportunity to carry-out modern, high-powered geophysics over the Puolalaki Project to test the gabbro intrusion for more extensive sulphide mineralisation at depths previously untested (historic geophysics completed at Puolalaki had a penetration depth of approx. 50m).

Drilling designed from high-powered, targeted fixed-loop electromagnetic surveying (FLEM) may lead to the discovery of the first major Ni-Cu-Co deposit hosted in the Proterozoic rocks of northern Sweden, at a time when demand for these metals in Europe could not be higher.



Figure 2: Regional location and mineralisation setting for the Puolalaki Project



In addition to the Ni-Cu mineralisation at Puolalaki, the project also contains significant, high-grade gold (± Cu, W, Mo) mineralisation. The bulk of the historic exploration at Puolalaki was focused on the gold mineralisation that was first discovered by LKAB during the 1980's whilst exploring for metallurgical olivine within the Puolalaki gabbro.

At least two zones of gold mineralisation (refer Figure 3) have been delineated through diamond drilling (<50 drillholes) at Puolalaki where the gold is hosted in gneissic metasedimentary and metavolcanic rocks intruded by granodiorite to tonalite bodies; a sequence of host rocks not dissimilar to the nearby Aitik deposit. Scheelite, chalcopyrite and molybdenite often accompany the gold-arsenic mineralisation and visible gold (0.8mm) has been observed. The gold mineralisation is currently open at depth and along strike.

Gold intercepts from the early LKAB drilling include: **PUO11**: 20.7m @1.1g/t Au from 36.5m Inc. 4.7m @3.2g/t Au from 39.5m. **PUO22**: 17m @ 1g/t Au from 48.8m **PUO23**: 3.1m @ 2.9g/t Au from 24.4m **PUO24**: 7.3m @ 2.8g/t Au from 26m Inc. 0.7m @ 22.7g/t Au from 31.6m **PUO26**: 4.4m @ 8.9g/t Au from 54.9m Inc. 2.1m @ 18.5g/t Au from 56.2m **PUO27**: 11.5m @ 1.3g/t Au from 28.4m **PUO28**: 2.3m @ 3.1g/t Au from 52.1m

Gold intercepts from the NAN gold drilling include: **PNO98003**: 7.5m @ 3.4g/t Au from 71.9m. **PNO98003**: 7.9m @ 3.9g/t Au from 85.6m.



Figure 3: Drillhole location and geochemistry anomaly map for the Puolalaki Project

Several bottom-of-till (BOT) and C-horizon soil sampling anomalies (gold) remain untested by drilling and provide significant upside potential for the gold mineralisation.

The southwestern gold geochemical anomaly is robust over an area of  $\sim$ 800m x 250m with a peak assay of 346ppb Au whereas the southeastern anomaly is less robust with a peak assay of 59.8ppb Au (refer Figure 3).



#### **Fixed Loop Ground and Downhole TEM**

A fixed-loop configuration was used with a transmitter loop of 600x400m, a survey line spacing of 50-100m and a station spacing of 25-50m for a total of 7.5 line-km. The base frequency was 1hz, with a minimum of 3 readings per station.

Three of the historic diamond drillholes were first dummy probed to check if they were open and amenable to downhole surveying; all three holes were open and subsequently surveyed with a transmitter loop of 600x400m and a station spacing of 5-10m.

Processed data from the UAV-borne magnetic survey, FLEM and DHEM surveys is expected to be received by the end of February.

In the event that specific drillhole targets are identified, an initial diamond drilling program is estimated to take approximately 6 weeks to complete from the date of rig mobilisation.

#### Paterson Range projects, WA

Avira currently holds two tenement packages within the Paterson Range province, host to a number of substantial gold, copper and manganese mines and deposits including the Telfer gold-copper mine, Woody Woody manganese and Nifty copper mines.

#### **Mount Macpherson**

A high powered, systematic moving-loop TEM (MLTEM) survey program was performed at the Mt Macpherson project area in the Telfer district between the 3<sup>rd</sup> and 15<sup>th</sup> July 2022 by Southern Geoscience Consultants on behalf of Avira Resources. MLTEM efforts encompassed a total of four traverse lines (single block) for 17-line kms of surveying (89stns).

All data were acquired with a SMARTem24 instrument combined with an DRTX transmitter and a SMARTcoil sensor working at a low base frequency of 1Hz (250ms time base).



Figure 4: MLTEM Surveying completed at the Mt McPherson project.

ABN: 38 131 715 645



Line	Base Freq	Data Compts	Line	Line	e End	No. Stns	Coverage (m)	
	(Hz)		Easting	Northing	Easting	Northing		(111)
250N	1	ZXY	354426	7574698	358627	7572827	24	4600
500N	1	ZXY	354650	7575693	358852	7573822	24	4600
750N	1	ZXY	354690	7576770	358710	7574980	23	4400
1000N	1	ZXY	355463	7577521	358570	7576140	18	3400
		<u>.</u>				TOTALS	89	17 000

Table 1: Summary of MLTEM Acquisition

A total of 4 lines of high powered MLTEM surveying were completed within the Mt Macpherson project area, totaling 17-line kms of surveying (89stns). All surveying was completed using a single turn 200x200m transmitter loop, with in-loop coil dB/dt (ZXY components) sensor measurements being recorded. A summary outlining the detailed results defined by the surveying is provided below.

Background/conductive overburden effects were limited so HP MLTEM surveying is deemed to have been highly effective in the project area. Overall, on average, noise levels observed were low at ~0.1-0.2uV/A in the data resulting in a high-quality final dataset.

No bedrock conductors worthy of follow up have been identified from this survey. CDI's have been created for each line to visualise if any depth extension is present. The CDIs confirm the responses are shallow and related to changes in overburden thickness. Based on the responses seen MLTEM would be adequate to see any bedrock conductors in the area due to minimal IP effects and conductive overburden.

#### **Corporate Activities**

Payments of monthly Non-executive Director fees, provision of administration and company secretarial services totalled \$44k (exclusive of GST) during the December quarter. Mr Sonu Cheema is a shareholder and director of Cicero Group Pty Ltd.

The \$177k of outflows from operating activities during the December quarter (refer Item 1.2 (a) (d) and (e) of the Appendix 5B) predominantly comprised of:

- Exploration field activities including;
  - o Logistics planning, reconnaissance and geological mapping
  - Exploration Due Diligence, Analysis and reporting for existing and assets under option
  - o General Field expenses linked to activities conducted and storage
  - Exploration and evaluation based executive salary
- Technical consulting fees including; consulting geologists and geo physicists
- Tenement administration, access, management and reporting
- Corporate, advisory, legal project due diligence and administrative expenses

#### **Events subsequent to reporting period 31 December 2022**

Avira Resources completed the first stage of the planned exploration program the FLEM survey at the Puolalaki Cu-Ni-Co Project located in northern Sweden in January 2023.



The planned UAV magnetic survey has been delayed due to a mechanical issue with the sensor, the crew expects to receive the repaired sensor before the end of January with the survey estimated to be completed by the end of the first week in February 2023.

In January 2023 the Company made the decision not to proceed with the Wyloo Project exploration licence applications for the five EL's E08/3329 – E08/3333.

#### **ENDS**

For, and on behalf of, the Board of the Company, and authorised for release.

David Deloub
Executive Director
Avira Resources Limited

Shareholders and other interested parties can speak to Mr Sonu Cheema if they have any queries in relation to this announcement: +618 6489 1600.

#### **Tenement Table**

LEASE	NAME	AREA	AREA UNITS	GRANT DATE	EXPIRY DATE	HOLDER	EA
Paterson Ran	ige (WA)	•	•	•			•
E45/5572	Mt Macpherson	41	Sub-Blocks	13-July-20	12-July-25	Mt Macpherson	E45/5572
E45/5567	Throssel Range	32	Sub-Blocks			Avira	E45/5567
Puolalaki (Sv	weden)						
NR100	Puolalaki	16	Kms <sup>2</sup>	21-Dec-	21-Dec-2023	Scott Geological	N/A
				2018		AB	

<sup>\*</sup>Under Application \*\*farm-in Agreement

Avira Resources (AVW)is an ASX listed mining exploration company. The Company holds two tenement packages within the Paterson Range province which is host to a number of substantial gold, copper and manganese mines and deposits, including the Telfer gold-copper mine. The Avira projects are situated in the Yeneena basin sedimentary rock formation that hosts both the Nifty and Maroochydore copper deposits and the Woody Woody Manganese mine.

#### Forward looking statements

This announcement contains forward-looking statements which are identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place. Such forward-looking statements does not guarantee future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the directors and our management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this prospectus will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. We have no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by law. These forward looking statements are subject to various risk factors that could cause our actual results to differ materially from the results expressed or anticipated in these statements.

#### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr Simon Coxhell. Mr Coxhell is a consultant geologist for Avira and a member of the Australian Institute of Mining and Metallurgy. Mr Coxhell has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this announcement and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code"). Mr Coxhell consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

#### **ASX Listing Rules Compliance**

In preparing the Quarterly Report for the period ended 31 December 2022 and to date, the Company has relied on the following ASX announcements.

**About Avira Resources Limited** 



ASX Announcement	27/1/2023	AVIRA COMPLETES INITIAL GROUND BASED EXPLORATION PROGRAM
ASX Announcement	7/11/2022	AVW - PROJECT EXPLORATION PROGRAM COMMENCED
ASX Announcement	10/10/2022	AVIRA SIGNS AGREEMENT TO ACQUIRE NI-CU-CO PROJECT IN SWEDEN
ASX Announcement	30/06/2022	AVW – OPERATIONAL UPDATE
ASX Announcement	3/06/2022	EXPIRY OF LISTED OPTIONS AND PRIORITY OPTIONS OFFER

#### **Compliance Statement**

This report contains information extracted from reports cited herein. These are available to view on the website. In relying on the above ASX announcements and pursuant to ASX Listing Rule 5.23.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the abovementioned announcements or this Quarterly.

#### **APPENDIX 1**

Table 1: Historical selected drill intercepts from the Puolalaki Project, Sweden.

Company	Prospect	Intercept	Hole Type	Hole ID	Northing	Easting	RL	Dip	Azi	EOH (m)
LKAB	Puolalaki Gold	20.7m @1.1g/t Au from 36.5m	DDH	PUO11	7430534	776668	341	45	269	62
		Inc. 4.7m @ 3.2g/t Au from 39.5m								
LKAB	Puolalaki Gold	17m @ 1g/t Au from 48.8m	DDH	PUO22	7430506	776669	341	44	311	92.5
LKAB	Puolalaki Gold	3.1m @ 2.9g/t Au from 24.4m	DDH	PUO23	7430707	776766	329	42	275	52.1
LKAB	Puolalaki Gold	7.3m @ 2.8g/t Au from 26m Inc. 0.7m @	DDH	PUO24	7430707	776766	329	77	284	80.1
		22.7g/t Au from 31.6m								
LKAB	Puolalaki Gold	4.4m @ 8.9g/t Au from 54.9m	DDH	PUO26	7430798	776796	327	40	274	60.7
		Inc. 2.1m @ 18.5g/t Au from 56.2m								
LKAB	Puolalaki Gold	11.5m @ 1.3g/t Au from 28.4m	DDH	PUO27	7430838	776810	323	44	269	60.9
LKAB	Puolalaki Gold	2.3m @ 3.1g/t Au from 52.1m	DDH	PUO28	7430878	776810	322	44	266	61
NAN	Puolalaki Gold	7.5m @ 3.4g/t Au from 71.9m	DDH	PNO98003	7430797	777000	317	45.2	270	120
		7.9m @ 3.9g/t Au from 85.6m								
NAN	Puolalaki Nickel	24.1 m @ 0.28% Ni, 0.22% Cu, and 0.035% Co from 66.3 m	DDH	PNO98004	7431016	776706	319	45	90	103.5
		Inc. 10m @ 0.41% Ni, 0.23% Cu and 0.053% Co from 78.3m								
NAN	Puolalaki Nickel	17.1m @ 0.37% Ni, 0.26% Cu and 0.050% Co from	DDH	PNO98005	7431016	776706	319	60	90	114



LIMITED		 			
	78.2m				
	Inc. 6m @ 0.54% Ni, 0.19% Cu and 0.070% Co from 78.2m				
	Inc. 5.9m @ 0.51% Ni, 0.54% Cu and 0.070% Co from 89.5m				

**Note:** The intercepts above are selected to highlight the main mineralised gold and nickel zones only and may not be indicative of the type of mineralisation elsewhere at the Puolalaki Project.

Table 2- Detailed assays from the historical selected drill intercepts (Table 1) from the Puolalaki Project, Sweden.

Hole ID	From (m)	To (m)	Sample Length (m)	Sample ID	Sample Type	Au (g/t)
PNO98003	71.9	73.4	1.5	H404547	Original	12
PNO98003	73.4	74.9	1.5	H404548	Original	4.53
PNO98003	74.9	76.4	1.5	H404549	Original	0.3
PNO98003			0	H404550	Blank	-0.01
PNO98003	76.4	77.9	1.5	H404551	Original	0.12
PNO98003	77.9	79.4	1.5	H404552	Original	0.16
PNO98003	85.6	87.1	1.5	H404557	Original	2.66
PNO98003	87.1	88.6	1.5	H404558	Original	4.4
PNO98003	88.6	90.1	1.5	H404559	Original	0.55
PNO98003	90.1	91.6	1.5	H404560	Original	0.87
PNO98003	91.6	93.5	1.9	H404561	Original	9.54
PUO11	36.5	38.4	1.9	PUO11_19	Original	0.15
PUO11	38.4	39.5	1.2	PUO11_20	Original	0.13
PUO11	39.5	40.5	1	PUO11_21	Original	2.28
PUO11	40.5	41.5	1	PUO11_22	Original	2.74
PUO11	41.5	42.5	1	PUO11_23	Original	0.1
PUO11	42.5	43.5	1	PUO11_24	Original	6.85
PUO11	43.5	44.1	0.6	PUO11_25	Original	0.59
PUO11	44.1	44.2	0.1	PUO11_26	Original	25.3
PUO11	44.2	45.2	1	PUO11_27	Original	0.3
PUO11	45.2	46	0.8	PUO11_28	Original	1.07
PUO11	46	47	1	PUO11_29	Original	0.03
PUO11	47	48	1	PUO11_30	Original	0.21
PUO11	48	49	1	PUO11_31	Original	0.4
PUO11	49	50	1	PUO11_32	Original	0.23
PUO11	50	50.9	0.9	PUO11_33	Original	1.88
PUO11	50.9	51.4	0.5	PUO11_34	Original	1.25



AVIRA RESOURCES LIMITED	1	<u>,                                      </u>		T		1
PUO11	51.4	52.5	1.2	PUO11_35	Original	0.56
PUO11	52.5	53.8	1.3	PUO11_36	Original	1.32
PUO11	53.8	55	1.2	PUO11_37	Original	0.2
PUO11	55	56	1	PUO11_38	Original	0.15
PUO11	56	57	1	PUO11_39	Original	0.18
PUO22	48.8	49.3	0.5	PUO22_17	Original	0.1
PUO22	49.3	49.7	0.4	PUO22_18	Original	0.13
PUO22	49.7	50.3	0.6	PUO22_19	Original	1.2
PUO22	50.3	50.8	0.5	PUO22_20	Original	0.11
PUO22	50.8	51.6	0.8	PUO22_21	Original	0.51
PUO22	51.6	51.9	0.3	PUO22_22	Original	0.12
PUO22	51.9	52.7	0.8	PUO22_23	Original	5.02
Hole ID	From (m)	To (m)	Sample Length (m)	Sample ID	Sample Type	Au (g/t)
PUO22	52.7	53.4	0.7	PUO22_24	Original	2.01
PUO22	53.4	54.3	0.9	PUO22_25	Original	1.56
PUO22	54.3	55	0.7	PUO22_26	Original	0.21
PUO22	55	55.6	0.6	PUO22_27	Original	0.42
PUO22	55.6	55.8	0.2	PUO22_28	Original	0.17
PUO22	55.8	56.3	0.5	PUO22_29	Original	0.19
PUO22	56.3	56.9	0.6	PUO22_30	Original	2.33
PUO22	56.9	57.6	0.8	PUO22_31	Original	0.21
PUO22	57.6	58.6	1	PUO22_32	Original	0.22
PUO22	58.6	59.6	1	PUO22_33	Original	0.17
PUO22	59.6	61	1.4	PUO22_34	Original	0.45
PUO22	61	62	1	PUO22_35	Original	1.08
PUO22	62	63	1	PUO22_36	Original	0.23
PUO22	63	63.6	0.6	PUO22_37	Original	6.41
PUO22	63.6	64	0.4	PUO22_38	Original	0.22
PUO22	64	64.6	0.6	PUO22_39	Original	0.11
PUO22	64.6	65.2	0.6	PUO22_40	Original	0.98
PUO22	65.2	65.7	0.5	PUO22_41	Original	0.41
PUO23	24.4	25.1	0.7	PUO23_11	Original	6.81
PUO23	25.1	26	0.9	PUO23_12	Original	3.7
PUO23	26	26.5	0.5	PUO23_13	Original	0.37
PUO23	26.5	27.5	1	PUO23_14	Original	0.61
PUO24	26	27	0.9	PUO24_17	Original	4.03
PUO24	27	28	1	PUO24_18	Original	0.45
PUO24	28	29	1	PUO24_19	Original	0.12
PUO24	29	29.6	0.7	PUO24_20	Original	0.27
PUO24	29.6	30.6	1	PUO24_21	Original	0.18
PUO24	30.6	31.6	1	PUO24_22	Original	0.13
PUO24	31.6	33.3	1.7	PUO24_23	Original	9.03
PUO24	31.6	32.3	0.7	PUO24_23a	Re-Sample	22.7



PUO24	32.3	33.3	1	PUO24_23b	Re-Sample	0.14
PUO26	54.9	58.3	3.4	PUO26_33	Original	11.51
PUO26	54.9	55.6	0.6	PUO26_33a	Re-Sample	0.33
PUO26	55.6	56.2	0.7	PUO26_33b	Re-Sample	0.18
PUO26	56.2	56.8	0.6	PUO26_33c	Re-Sample	53
PUO26	56.8	57.3	0.5	PUO26_33d	Re-Sample	8.75
PUO26	57.3	57.7	0.4	PUO26_33e	Re-Sample	3.15
PUO26	57.7	58.3	0.6	PUO26_33f	Re-Sample	2.31
PUO26	58.3	59.3	1	PUO26_34	Original	0.11
PUO27	28.4	29.4	1	PUO27_22	Original	0.21

Hole ID	From (m)	To (m)	Sample Length (m)	Sample ID	Sample Type	Au (g/t)
PUO27	29.4	30.4	1	PUO27_23	Original	3.48
PUO27	30.4	31.4	1	PUO27_24	Original	1.65
PUO27	31.4	32.4	1	PUO27_25	Original	0.16
PUO27	32.4	33.4	1	PUO27_26	Original	3.25
PUO27	33.4	34.4	1	PUO27_27	Original	0.17
PUO27	34.4	35.4	1	PUO27_28	Original	0.26
PUO27	35.4	36.4	1	PUO27_29	Original	1.52
PUO27	36.4	36.9	0.5	PUO27_30	Original	3.1
PUO27	36.9	37.9	1	PUO27_31	Original	2.68
PUO27	37.9	38.9	1	PUO27_32	Original	0.12
PUO27	38.9	39.9	1	PUO27_33	Original	0.17
PUO28	52.1	52.8	0.7	PUO28_32	Original	3.85
PUO28	52.8	53.2	0.4	PUO28_33	Original	0.18
PUO28	53.2	54	0.8	PUO28_34	Original	5.13
PUO28	54	54.4	0.4	PUO28_35	Original	0.72



## JORC CODE, 2012 EDITION - TABLE 1

#### Section 1 sampling techniques and data

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

Criteria	JORC Code explanation	Commentary		
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	All diamond drillholes were sampled based on observed mineralisation, and the intervals determined by geologic contacts. The assaying was conducted by well-respected laboratories in Luleå (SGAB, PAB)), using ½ core samples, with ICP-MS (base metal) and fire assaying (gold).  No further information is available regarding measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.		
Drilling techniques	Drill type (e.g. core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	All historic drilling was drilled using diamond drilling techniques (non-orientated).		
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	Core recovery recorded by geologist logging core. There is no direct correlation between core loss and grade.		
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Geological logging was conducted to a reasonable standard, noting alteration, structures, lithology, mineralisation (style, mineral, intensity), core loss.  No geotechnical logging was undertaken.  Logging is qualitative, and no core photos were taken.  All holes drilled were logged from start to end of hole.		



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Core was generally cut using a core-saw, with ½ core taken for assaying. Little information is available regarding the sample preparation or quality control procedures adopted during sampling of the historical sampling. Sample sizes are considered appropriate compared to the grain size of the sampled material.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	Analytical methods utilised historically (ICP-MS and fire assay) were industry standard methods to analyse Cu, Ni and Au mineralisation. The methods are considered appropriate, although exact details are lacking. The techniques are considered total. Modern re-assaying of the NAN nickel intercepts conducted by Scott Geological AB utilised a certified laboratory (ALS Global) for assaying, with methods (4-acid digest/ICP-MS) considered appropriate and total. Due to the lack of quality control procedures (QAQC), acceptable levels of accuracy (i.e., lack of bias) and precision have not been established for the historic drilling.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Scott Geological AB inspected several LKAB and NAN drillholes in order to compare logged lithologies and assayed mineralisation intercepts with drill core. No issues were found.  Scott Geological AB has conducted checkassaying of the two NAN drillholes that intercepted nickel mineralisation. The results showed excellent correlation of assay results. Primary data (collar coordinates, down-hole surveys, geological logs and assay results) are stored in Excel spreadsheets currently.  Scott Geological AB found minor errors in the historic LKAB geochemical data, namely ppm instead of ppb which have been amended where necessary.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Historic drillhole collars were surveyed using industry standard techniques at the time. A modern collar survey is yet to be completed.



Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	The drillhole spacing is at present irregular due to the nature of the early stage of the project.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	The majority of drillholes (gold) were orientated to intercept normal to the strike of the mineralisation. Not enough data is available to establish an orientation of the nickel mineralisation.
Sample security	The measures taken to ensure sample security.	Although the security procedures of core are not known for the historical drilling period, the majority of core is now stored in the Swedish Geological Survey's secure core archive in Malå.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews of the sampling procedures and protocols has been completed 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	<ul> <li>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.</li> <li>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.</li> </ul>	The Puolalaki Project is located in the Gällivare mining district of Sweden and approximately 50m SE of the town of Gällivare.  The project comprises a single, granted exploration Permit (Puolalaki nr 100) owned 50% by Scott Geological AB and 50% by Outlier Geoscience Pty Ltd.  The exploration permit is currently in good standing with no known impediments to exploration.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The bulk of the historic exploration at the project was completed by Swedish mining company LKAB during the 1980's through to the early 1990s. During its tenure, LKAB completed diamond drilling, surface geophysics, trenching, BOT drilling, soil sampling and trial mining/metallurgical studies. In 1998, Canadian exploration company NAN completed diamond drilling at the project. In 2003, Swedish exploration company Geoforum AB completed C-horizon soil sampling.



Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	The Puolalaki Project is located within Palaeoproterozoic rocks of the Fennoscandian Shield.
		The Precambrian bedrock in northern Sweden includes a ~2 8Ga Archaean granitoid-gneiss basement, which is unconformably overlain by greenstones, porphyries and sedimentary successions aged 2.2-1.9Ga and with 1.9-1.8Ga intrusions.
		The Puolalaki Project is centred on a package of Paleoproterozoic metavolcanic and metasedimentary rocks which were deposited, deformed and metamorphosed during the Svecofennian orogeny at c. 1.9 Ga.
		A crustal-scale, ductile-brittle deformation zone (Nautanen Deformation Zone) transects the area and hosts numerous occurrences of copper ±gold ±iron mineralisation.
		The bedrock in the project area is dominated by Lina granite, felsic-intermediate-mafic volcanics, sedimentary gneisses and mafic and intermediate intrusives. Dolerite and pegmatite dykes are common.
		The early Svecokarelian (ca. 1.96-1.87Ga) mafic-ultramafic intrusives largely comprise amphibolitised gabbro, pyroxenite and peridotite-harzburgite. At Puolalaki, the intrusives have been partially serpentinised. Felsic-intermediate intrusives of the same suite largely comprise inhomogeneous, mediumgrained granodiorite-diorite-tonalite lithologies.
		The Svecofennian (ca. 1.96-1.86Ga) supracrustal rocks (Kiruna-Arvidsjaur Group) in the Puolalaki area comprise gneissic metasediments and felsic-intermediatemafic volcanics.
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul>	Tables summarising the selected significant intercepts and associated detailed assays from the Puolalaki Project have been included in the Appendix of this report  A total of 72 diamond drillholes have been completed across the Puolalaki Project to date. More than 95% of these drillholes were designed to target the gold mineralisation at Puolalaki and only 2 were designed to specifically test for nickel sulphide mineralisation.



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	No data aggregation methods have been used in this report.  No metal equivalent values are reported in this report.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	Mineralised intercepts reported in this report are downhole widths and true widths have not yet been established.
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.	Appropriate maps and sections are included in the main body of the report.
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.	Whilst only a minor selection of significant historical results have been reported in this report, they have been reported to demonstrate examples of grade (both gold and nickel) of mineralisation at Puolalaki.
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.	All relevant historical exploration data and activities have been reported.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	The company plans to carryout fixed-loop electromagnetic geophysical surveys and diamond drilling to test the nickel targets at Puolalaki.

# Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

#### Name of entity

Avira Resources Limited	
ABN	Quarter ended ("current quarter")
38 131 715 645	31 December 2022

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(40)	(93)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(21)	(46)
	(e) administration and corporate costs	(146)	(279)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	5	8
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (ATO Payments / Receivables)	25	28
1.9	Net cash from / (used in) operating activities	(177)	(382)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	
	(b) tenements	-	
	(c) property, plant and equipment	-	
	(d) exploration & evaluation	(121)	(
	(e) investments	-	
	(f) other non-current assets	-	

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	7
2.6	Net cash from / (used in) investing activities	(121)	(114)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	194
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	(11)	(66)
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	(11)	128

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,329	2,388
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(177)	(382)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(121)	(114)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(11)	128

ASX Listing Rules Appendix 5B (17/07/20) + See chapter 19 of the ASX Listing Rules for defined terms.

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	2,020	2,020

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	2,020	2,329
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (High Interest Account)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,020	2,329

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	44
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include nation for, such payments.	de a description of, and an

7.	Financing facilities  Note: the term "facility' includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end -		
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(177)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(121)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(298)
8.4	Cash and cash equivalents at quarter end (item 4.6)	2,020
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	2,020
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	6.77

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

#### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date:	30 January 2023
Authorised by:	By the Board(Name of body or officer authorising release – see note 4)

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.