**ASX: AMI** 



# KAIROS AND DARGUES DRILLING DELIVERS FURTHER HIGH GRADE RESULTS

#### **HIGHLIGHTS**

#### **Kairos**

- Very strong copper mineralisation intercepted in new underground drilling along strike of the Kairos lode, including:
  - 43.0 metres at 2.4% Cu & 0.1g/t Au, including 6.0 metres at 5.7% Cu & 0.2g/t Au
  - 10.0 metres at 3.4% Cu & 0.2g/t Au, including 6.0 metres at 5.0% Cu & 0.2g/t Au
  - 7.0 metres at 5.9% Cu & 0.1g/t Au
  - 4.5 metres at 3.8% Cu & 1.5g/t Au
  - 13.0 metres at 2.1% Cu, including 5.0 metres at 3.7% Cu
- Newly defined copper mineralisation open along strike and at depth with follow up drilling to commence in the coming weeks
- Strong gold mineralisation also intercepted in infill and extensional drilling in the upper Kairos area, including:
  - 12.8 metres at 0.5% Cu & 8.7g/t Au, including 4.0 metres at 0.4% Cu & 22.2g/t Au
  - 4.0 metres at 0.8% Cu & 13.7g/t Au, including 1.0 metre at 0.3% Cu & 52.8g/t Au
  - 2.0 metres at 0.2% Cu & 51.0g/t Au

#### **Dargues**

- Final assays from the Phase 1 infill and extensional drilling program received, including:
  - 16.0 metres at 7.3g/t Au, including 4.3 metres at 12.6g/t Au
  - 13.0 metres at 8.6g/t Au, including 3.4 metres at 13.1g/t Au
  - 9.7 metres at 4.2g/t Au, including 1.8 metres at 8.7g/t Au, which is the deepest ore-grade intercept drilled at Dargues to date
- Phase 2 infill and extensional drilling program to commence shortly targeting Mineral Resource conversion and expansion of the deposit at depth and along strike to the east and west

Commenting on the latest drilling results, Aurelia Metals Managing Director and CEO Dan Clifford said "The latest assay results from infill and extensional drill programs at our Peak and Dargues Mines continue to support our strategy of maximising returns via mine life extensions. The copper and gold intercepts in close proximity to the Kairos mining area provide strong encouragement for further resource and reserve additions. At Dargues, the Phase 1 drill program results have confirmed the resource extension targets identified prior to acquisition and reinforce the potential for mine life to extend. The upcoming drill programs at both sites will yield further valuable information for our geological modelling and mine planning activities."

Aurelia Metals Limited (ASX: AMI) (**Aurelia** or the **Company**) is pleased to provide an update on current drilling activities for the Kairos deposit at the Peak Mine near Cobar and at the Dargues Mine near Braidwood, New South Wales.



### SIGNIFICANT HIGH GRADE COPPER ZONE EMERGING AT KAIROS

In March this year the Company reported underground drilling had intercepted strong copper mineralisation immediately adjacent to the main Kairos high grade gold-zinc-lead lode that is currently being developed and extracted. The broad mineralised zones included **38.0 metres at 2.3% Cu** in UD20PP1672, **25.9 metres at 1.7% Cu** in UD20PP1671, **45.6 metres at 1.6% Cu** in UD20PP1683 and **7.7 metres at 3.2% Cu** in UD21PP1731 (see ASX release dated 29 March 2021).

Following up these results, Aurelia recently drilled ten underground exploration holes along strike to the north of the current Kairos development, intercepting very strong copper mineralisation including:

UD21PK0166A 43.0 metres at **2.4% Cu, 0.1g/t Au & 16g/t Ag**, including

3.0 metres at **4.3% Cu, 0.3g/t Au & 21g/t Ag**, and **4.0** metres at **4.0% Cu, 0.1g/t Au & 21g/t Ag**, and

6.0 metres at 5.7% Cu, 0.2g/t Au & 54g/t Ag

UD21PK0167 10.0 metres at 3.4% Cu, 0.2g/t Au & 38g/t Ag, including

6.0 metres at 5.0% Cu, 0.2g/t Au & 63g/t Ag

UD21PK0165 7.0 metres at **5.9% Cu, 0.1g/t Au & 40g/t Ag** 

UD21PK0169 4.5 metres at **3.8% Cu, 1.5g/t Au & 24g/t Ag** 

UD21PK0164 13.0 metres at **2.1% Cu & 12g/t Ag**, including

5.0 metres at 3.7% Cu & 10g/t Ag

The results have identified a new high grade copper corridor to the north of the existing Kairos lode (**Figure 1**) that extends at least 200 metres down plunge. The mineralisation remains open up and down dip and along strike in both directions (particular at depth). A number of the high grade copper intercepts occur close to established and planned underground development that offers a convenient platform to access the newly identified mineralised corridor.

Along with the high grade copper results, ongoing infill and extensional drilling in the upper portions of the Kairos area has delivered encouraging high grade gold assay results, including:

UD21PP1764 12.8 metres at **0.5% Cu, 8.7g/t Au & 5g/t Ag**, including

4.0 metres at 0.4% Cu, 22.2g/t Au & 4g/t Ag

UD21PK0155 4.0 metres at **0.8% Cu, 13.7g/t Au & 5g/t Ag**, including

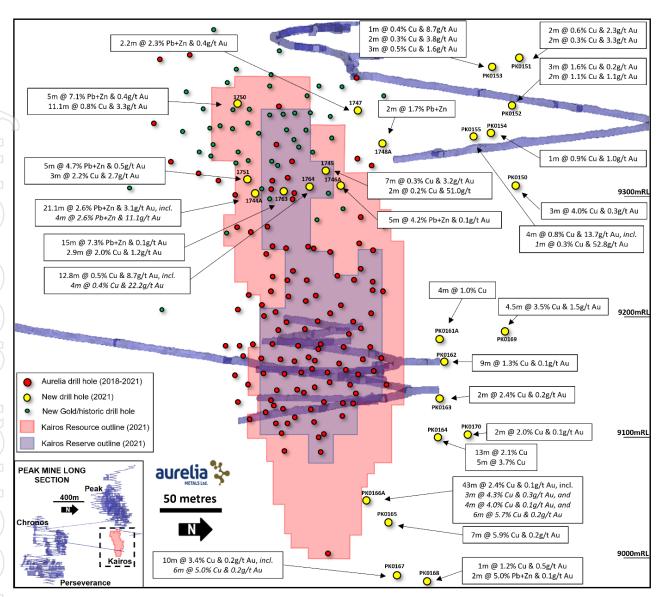
1.0 metre at 0.3% Cu, 52.8g/t Au & 7g/t Ag

UD21PP1745 2.0 metres at **0.2% Cu, 51.0g/t Au & 2g/t Ag** 

Full drill hole details are provided in **Table 1** and a list of significant new assay results received for the Kairos deposit are detailed in **Table 2**.

Both the infill and extensional results will be incorporated into routine grade control and Mineral Resource model updates for the Kairos area, with the Peak Mine's technical team evaluating the potential to modify the mine plan to incorporate these recent results. Infill drilling to improve confidence in the grade and geological controls of the mineralisation at Kairos is continuing, with additional extensional drilling to commence in the coming weeks testing Kairos and the high grade copper corridor at depth and along strike.





**Figure 1**. Schematic long section of the Kairos deposit looking west showing the Kairos Mineral Resource and Ore Reserve model outlines along with recent infill and extensional drill results.

#### HIGH GOLD GRADES FROM DARGUES INFILL AND EXTENSIONAL DRILLING

Aurelia initiated an underground and surface drilling program at the Dargues Mine upon acquiring the asset in December 2020. This was the first substantive drill campaign since 2017. Phase 1 of the program improved confidence in the Mineral Resource and Ore Reserve in the upper portion of the Dargues deposit and successfully extending the Mineral Resource.

The final results for the Phase 1 drilling program have been received and include:

DRU084A 16.0 metres at **7.3g/t Au**, including 4.3 metres at **12.6g/t Au** 

DRU093 13.0 metres at **8.6g/t Au**, including 3.4 metres at **13.1g/t Au** 

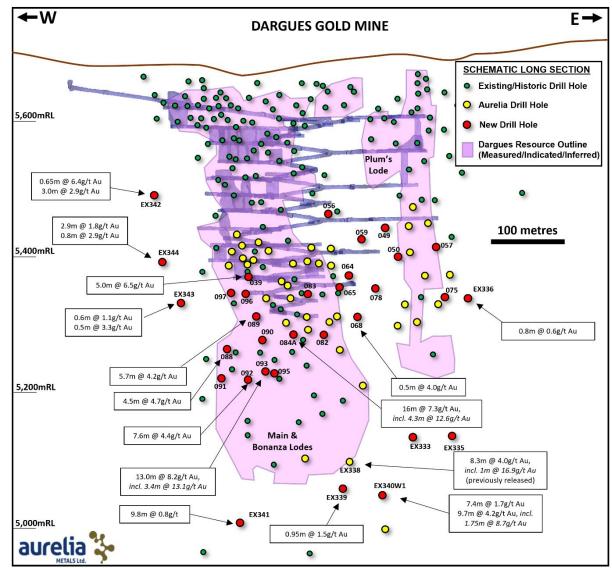
DREX340W1 9.7 metres at **4.2g/t Au**, including 1.8 metres at **8.7g/t Au** 

Full drill hole details are provided in **Table 1** and a list of significant new assay results received for the Dargues deposit are detailed in **Table 3**.



The intercept in DREX340W1 is particularly significant as it represents the deepest ore-grade gold mineralisation identified at Dargues to date. The intercept is some 80 metres down-plunge and to the east of the current Main Lode Mineral Resource model (**Figure 2**). Combined with the previously announced results from nearby hole DREX338 (8.3 metres at 4.0g/t Au), the area between Main and Plum's Lode shows strong potential to host significant additional mineralisation at depth.

The Phase 2 drill program has now commenced with an initial focus on underground drilling lower in the profile of in the Main and Bonanza lodes. Surface drilling will also recommence shortly, targeting the poorly drilled areas along strike to the east of Plum's Lode and to the west of Main and Bonanza Lodes.



**Figure 2**. Schematic long section of the Dargues Mine looking north, showing the latest Mineral Resource and Ore Reserve model outlines along with selected recent infill and extensional drill results. A full list of new results is listed in Table 3.

This announcement has been approved for release by the Board of Directors of Aurelia Metals.

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#### **Previous Results**

The information in this announcement that relates to the Kairos deposit is extracted from the Company's announcements entitled 'Group Exploration Updates', 'Great Cobar and Kairos Drilling Update' and 'Kairos Delivers Further High Grades' released on 30 November 2020, 29 March 2021 and 1 July 2021. Information in this announcement that relates to the Dargues Mine is extracted from the Company's announcements entitled and 'Dargues Infill Program Update' and 'Gold Mineralisation Extended at Dargues' released on 29 March 2021 and 1 July 2021.

These announcements are available to view on www.aureliametals.com.au and www.asx.com.au. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Adam McKinnon, BSc (Hons), PhD, who is a Member of the Australasian Institute of Mining and Metallurgy. Dr McKinnon is a full-time employee of Aurelia Metals and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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.' Dr McKinnon consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

**Table 1.** Collar summary for the drill holes reported in this release.

	Mine	Drill Type	Hole ID	Easting	Northing	Local RL	Dip	Azimuth (MGA)	Total Depth
		1,400		(MGA)	(MGA)	(m)		(IIIOA)	(m)
	Kairos	UG DDH	UD21PP1744A	393304.4	6507340.3	9424.4	-26.0	257.5	272.5
	Kairos	UG DDH	UD21PP1745	393304.3	6507340.5	9424.6	-26.0	242.4	257.4
	Kairos	UG DDH	UD21PP1746A	393304.4	6507340.3	9424.3	-36.0	281.4	296.4
	Kairos	UG DDH	UD21PP1747	393304.4	6507340.2	9424.8	-22.0	270.0	285.0
Ī	□ Kairos	UG DDH	UD21PP1748A	393304.5	6507340.4	9424.5	-24.0	239.5	254.5
Ī	Kairos	UG DDH	UD21PP1751	393304.4	6507340.2	9424.5	-26.0	254.4	269.4
	Kairos	UG DDH	UD21PP1763	393304.4	6507340.3	9424.5	-32.5	251.4	266.4
	Kairos	UG DDH	UD21PP1764	393304.4	6507340.3	9424.5	-30.5	254.5	269.5
Ī	Kairos	UG DDH	UD21PK0150	393431.0	6507534.6	9343.7	-31.3	119.8	134.8
Ī	Kairos	UG DDH	UD21PK0151	393430.7	6507536.5	9347.0	45.2	158.7	173.7
Ī	Kairos	UG DDH	UD21PK0152	393430.6	6507536.3	9345.8	25.0	179.8	194.8
Ī	Kairos	UG DDH	UD21PK0153	393430.9	6507535.8	9347.2	44.6	143.3	158.3
Ī	Kairos	UG DDH	UD21PK0154	393431.1	6507535.5	9344.9	8.9	182.8	197.8
Ī	Kairos	UG DDH	UD21PK0155	393431.3	6507534.8	9344.8	8.4	185.0	200.0
Ī	Kairos	UG DDH	UD21PK0161	393386.9	6507475.8	9136.0	25.7	195.0	210.0
Ī	Kairos	UG DDH	UD21PK0162	393386.8	6507475.8	9135.6	14.0	194.5	209.5
Ī	Kairos	UG DDH	UD21PK0163	393387.2	6507474.8	9135.4	0.0	195.0	210.0



Mine	Drill	Hole ID	Easting	Northing	Local RL	Dip	Azimuth	Total Depth
WIIIC	Туре	Hole ID	(MGA)	(MGA)	(m)	ыр	(MGA)	(m)
Kairos	UG DDH	UD21PK0164	393387.2	6507474.8	9135.4	-15.0	195.0	210.0
Kairos	UG DDH	UD21PK0165	393386.6	6507475.7	9133.5	-36.8	275.0	290.0
Kairos	UG DDH	UD21PK0166A	393386.8	6507475.4	9133.5	-35.8	284.6	299.6
Kairos	UG DDH	UD21PK0167	393386.3	6507475.6	9133.1	-53.0	355.0	370.0
Kairos	UG DDH	UD21PK0168	393386.4	6507475.6	9133.1	-54.0	312.2	327.2
Kairos	UG DDH	UD21PK0169	393386.8	6507476.0	9136.2	27.7	255.0	270.0
Kairos	UG DDH	UD21PK0170	393386.9	6507475.2	9133.9	-17.0	225.0	240.0
Dargues	UG DDH	DRU039	749027.4	6062928.2	5436.9	-53.6	333.4	194.8
Dargues	UG DDH	DRU049	749191.3	6062925.2	5453.2	-13.0	23.3	40.0
Dargues	UG DDH	DRU050	749192.0	6062924.6	5453.2	-44.8	45.0	80.0
Dargues	UG DDH	DRU056	749158.1	6062929.5	5454.2	14.9	314.2	95.0
Dargues	UG DDH	DRU057	749193.1	6062923.9	5453.2	-22.5	69.2	95.0
Dargues	UG DDH	DRU059	749159.8	6062929.7	5454.2	-25.2	11.0	90.0
Dargues	UG DDH	DRU064	749129.4	6062892.0	5403.3	-17.1	13.4	120.0
Dargues	UG DDH	DRU065	749127.9	6062891.2	5404.7	-31.1	4.4	130.0
Dargues	UG DDH	DRU068	749131.0	6062891.7	5403.2	-46.9	21.3	192.0
Dargues	UG DDH	DRU075	749132.7	6062889.7	5403.4	-19.2	61.2	183.0
Dargues	UG DDH	DRU078	749131.7	6062891.5	5403.5	-20.9	31.0	150.0
Dargues	UG DDH	DRU082	749128.9	6062891.9	5403.3	-49.1	348.3	231.0
Dargues	UG DDH	DRU083	749128.3	6062891.5	5403.6	-27.0	337.6	180.0
Dargues	UG DDH	DRU084A	749128.3	6062891.5	5403.4	-42.2	329.3	194.0
Dargues	UG DDH	DRU088	749041.2	6062867.5	5388.9	-35.0	336.0	237.0
Dargues	UG DDH	DRU089	749041.2	6062867.5	5388.9	-33.3	346.2	199.6
Dargues	UG DDH	DRU090	749041.2	6062867.5	5388.9	-39.0	353.1	222.0
Dargues	UG DDH	DRU091	749041.2	6062867.5	5388.9	-42.6	332.3	276.1
Dargues	UG DDH	DRU092	749041.2	6062867.5	5388.9	-46.5	344.6	282.1
Dargues	UG DDH	DRU093	749041.2	6062867.5	5388.9	-46.2	356.4	240.0
Dargues	UG DDH	DRU095	749041.2	6062867.5	5388.9	-52.0	0.2	273.4
Dargues	UG DDH	DRU096	748986.2	6062948.7	5391.5	-46.0	154.0	180.0
Dargues	UG DDH	DRU097	748986.2	6062948.7	5391.5	-50.0	192.0	124.0
Dargues	DDH	DREX333	749385.4	6063166.5	5709.4	-71.6	217.8	711.2
Dargues	DDH	DREX335	749375.4	6063157.5	5709.0	-73.0	200.0	675.4
Dargues	DDH	DREX336	749375.4	6063157.5	5709.0	-65.5	193.8	575.0
Dargues	DDH	DREX339	749062.3	6062660.9	5666.2	-58.5	11.5	801.3
Dargues	DDH	DREX340W1	749383.6	6063167.8	5709.6	-72.0	231.0	725.7
Dargues	DDH	DREX341	748928.8	6062797.6	5674.5	-70.5	11.0	816.4
Dargues	DDH	DREX342	748927.1	6062787.9	5674.4	-54.4	331.8	669.4
Dargues	DDH	DREX343	748930.0	6062790.7	5674.7	-72.3	347.5	400.5
Dargues	DDH	DREX344	748929.1	6062790.8	5674.5	-67.8	333.0	400.0



Table 2. Significant new intersections for the Kairos drill holes reported in this release.

Hole ID	Interval (m)	ETW* (m)	Cu (%)	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)	From (m)
JD21PP1744A	21.1	18.3	0.4	3.1	4	1.3	1.3	216.6
includes	4.0	3.5	0.2	11.1	5	1.1	1.5	216.6
	5.9	5.1	0.9	1.0	8	0.4	0.4	245.2
JD21PP1745	7.0	6.5	0.3	3.2	2	0.1	0.3	224.0
	2.0	1.9	0.2	51.0	2	0.0	0.4	237.0
JD21PP1746A	5.0	4.7	0.0	0.1	4	1.6	2.7	202.0
	6.0	5.7	0.5	2.2	3	0.1	0.2	227.0
JD21PP1747	2.2	2.1	0.6	0.4	3	0.6	1.7	178.0
JD21PP1748A	2.0	1.8	0.1	0.0	3	0.5	1.2	187.0
JD21PP1750	5.0	4.7	0.2	0.4	5	2.6	4.5	184.6
	11.1	10.6	0.8	3.3	6	1.2	1.9	214.8
includes	6.0	5.7	1.2	4.3	10	2.1	3.4	215.8
JD21PP1751	5.0	4.4	0.4	0.5	6	1.6	3.1	207.6
	3.0	2.6	2.2	2.7	7	0.3	1.1	238.6
JD21PP1763	15.0	13.8	0.4	0.1	8	2.6	4.7	197.7
includes	4.4	4.0	0.4	0.1	14	4.2	7.2	209.3
	2.9	2.7	2.0	1.2	4	0.0	0.2	237.5
JD21PP1764	12.8	11.8	0.5	8.7	5	0.3	0.4	235.2
includes	4.0	3.7	0.4	22.2	4	0.0	0.2	239.0
JD21PK0150	3.0	2.5	4.0	0.3	13	0.1	0.0	83.0
JD21PK0151	2.0	1.6	0.6	2.3	6	0.5	0.0	118.0
	2.0	1.6	0.3	3.3	5	0.1	0.0	149.0
JD21PK0152	3.0	2.7	1.6	0.2	3	0.0	0.0	58.0
	2.0	1.9	1.1	1.1	14	0.9	0.3	118.0
JD21PK0153	1.0	0.9	0.4	8.7	25	1.9	0.1	114.0
	2.0	1.7	0.3	3.8	2	0.3	0.1	130.0
	3.0	2.6	0.5	1.6	5	0.1	0.0	139.0
JD21PK0154	1.0	1.0	0.9	1.0	3	0.1	0.0	110.0
JD21PK0155	4.0	3.9	0.8	13.7	5	0.1	0.0	50.0
includes	1.0	1.0	0.3	52.8	7	0.1	0.0	53.0
JD21PK0161A	4.0	3.8	1.0	0.0	4	0.0	0.0	142.0
JD21PK0162	9.0	8.8	1.3	0.1	3	0.1	0.0	146.0
JD21PK0163	2.0	2.0	2.4	0.2	7	0.0	0.0	139.0
JD21PK0164	13.0	12.6	2.1	0.0	12	1.0	0.0	140.0
includes	5.0	4.9	3.7	0.0	10	0.4	0.0	141.0
JD21PK0165	7.0	5.8	5.9	0.1	40	0.1	0.0	207.0
	2.0	1.7	2.6	0.1	9	0.0	0.0	273.0
ID 0 / DI/C : CC :	3.0	2.6	2.1	0.1	8	0.0	0.0	280.0
JD21PK0166A	43.0	34.9	2.4	0.1	16	0.2	0.0	156.0
includes	3.0	2.4	4.3	0.3	21	0.5	0.0	168.0
and	4.0	3.2	4.0	0.1	21	0.5	0.0	177.0
and	6.0	4.9	5.7	0.2	54	0.3	0.1	192.0
ID04DK0407	4.0	3.3	1.7	0.6	7	0.0	0.0	247.0
JD21PK0167	2.0	1.4	3.6	0.3	8	0.0	0.0	154.0
	10.0	7.4	3.4	0.2	38	0.4	0.0	251.0
includes	6.0	4.2	5.0	0.2	63	0.7	0.1	255.0
ID04DK0400	2.1	1.6	2.1	0.2	8	0.0	0.0	332.7
JD21PK0168	1.0	0.7	1.2	0.5	8	0.1	0.0	185.0
	2.0	3.7	0.2	0.1	131	5.0	0.0	189.0
ID04DK0400	3.0	2.1	0.8	0.0	9	0.2	0.0	196.0
JD21PK0169	4.5	3.7	3.8	1.5	24	0.2	0.1	192.5
JD21PK0170	2.0	1.9	2.0	0.1	8	0.0	0.0	223.0

<sup>\*</sup>ETW = estimated true width



**Table 3.** Significant new intersections for Dargues drill holes reported in this release.

Hole ID	Interval	ETW*	Au	From
	(m)	(m)	(g/t)	(m)
DRU039	7.0	3.8	3.5	38.8
	1.0	0.5	4.9	64.7
	5.0	2.7	6.5	79.9
DRU049	1.8	1.3	0.9	25.0
DRU050		No sign. Inte	•	
DRU056	0.6	0.4	1.1	44.5
DRU057		No sign. Inte	rcepts	
DRU059		No sign. Inte	rcepts	
DRU064	0.6	0.5	0.7	35.4
DRU065		No sign. Inte	rcepts	
DRU068	0.5	0.3	4.0	105.0
DRU075		No sign. Inte	rcepts	
DRU078	0.3	0.3	2.1	146.4
DRU082	2.4	1.6	2.4	140.6
	6.7	4.5	3.1	163.5
	3.4	2.2	1.8	222.0
DRU083	3.6	3.0	4.0	115.0
DRU084A	0.7	0.5	5.5	88.4
	16.0	10.7	7.3	164.8
includes	4.3	2.9	12.6	167.0
DRU088	5.4	3.9	1.8	39.0
DROGGO	0.6	0.4	5.4	80.8
	0.8	0.6	3.6	133.0
	4.5	3.2	4.7	207.0
DRU089	3.4	2.4	1.4	39.7
D1(0009	4.2	3.0	4.3	123.0
	5.7	4.0	4.2	146.0
	0.9	0.6	6.0	181.9
DDIJOO				
DRU090	3.8 17.4	2.8 12.9	2.3 2.2	43.9 151.0
includes	4.0	3.0	3.5	164.4
DRU091	2.5	1.7	9.9	181.0
	1.3	0.8	7.2	251.4
DDLI000	1.2	0.8	2.1	255.3
DRU092	3.3	2.2	2.1	45.5
	7.6	5.0	4.4	152.4
DDI 1000	2.3	1.5	3.8	182.3
DRU093	13.0	8.6	8.2	170.5
includes	3.4	2.3	13.1	178.5
DBUIDOS	5.8	3.9	3.3	223.9
DRU095	0.6	0.4	5.4	24.8
	5.6	3.5	3.2	201.0
	1.3	0.8	2.9	211.5
	2.9	1.8	2.3	265.8
DRU096	6.6	3.8	2.1	76.0
	0.4	0.3	2.9	97.4



Hole ID	Interval (m)	ETW* (m)	Au (g/t)	From (m)
DRU097	0.7	0.4	1.3	80.3
DREX333	1.0	0.3	1.9	142.3
	0.5	0.1	1.3	155.3
DREX335	0.9	0.4	0.7	306.1
DREX336	0.8	0.5	0.6	342.6
	0.4	0.2	0.7	472.2
DREX339	0.9	0.5	1.5	707.2
DREX340W1	1.5	0.4	2.1	411.0
	7.4	1.9	1.7	685.0
	9.7	2.5	4.2	694.8
includes	1.8	0.5	8.7	695.9
DREX341	2.0	0.7	4.4	232.1
	3.0	1.0	2.8	335.0
	9.8	3.3	0.8	701.2
DREX342	0.7	0.3	6.4	193.5
	3.0	1.6	2.9	228.0
	0.9	0.4	4.2	625.0
	1.0	0.5	2.1	627.1
DREX343	1	0.3	1.86	142.3
	0.5	0.2	1.31	155.3
	0.45	0.2	1.46	232.45
	0.65	0.2	1.33	239.85
	0.5	0.2	3.34	319.5
DREX344	0.6	0.2	1.86	185.4
	2.9	1.1	1.76	186
	0.8	0.3	2.86	222.5

\*ETW = estimated true width



#### **PEAK MINE**

**JORC Code 2012 (Table 1) -** Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. AusIMM. **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.	Underground exploration and resource definition at Peak Gold Mines utilises diamond drill holes in fresh rock with close to 100% recovery. The core is predominantly BQ or LTK48 where resource definition is undertaken and is whole core sampled at metre intervals. NQ2 core is used for underground exploration and evaluation and is half core sampled in metre intervals. Surface diamond drilling is undertaken at PQ, HQ and NQ core sizes. PGM has employed Swick Mining Services since 2008 as their preferred underground drilling contractor to maintain quality in core handling. The core is processed in an established core yard with racks, water and cover.
(D)	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	A continuous series of pre-numbered bags is employed so that duplication of sample numbers is not likely. Computer control of core yard systems for ledger generation and specific gravity. Drilling run errors affecting mark-up are dealt with by the contractor crew responsible ensuring they take more care. All samples are analysed for specific gravity. Sample weights show consistency with regards to core recovery. Standards are submitted at a frequency of 1 in 20 with every submission. A blank is put at the beginning of every job. Silica flushes are used between samples around visible gold observations. Standard fails are subject to reassay. A selection of pulps is taken yearly from the ore intervals for re-assay at another lab as a comparison of repeatability and lab precision. The core saw equipment is regularly inspected and aligned so the core is cut in even halves.
	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 30g 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.	Up to 100% of the core can be sampled but is generally restricted to all intervals that have alteration, mineralisation and shearing. Sampling is continuous and perpendicular to strike of the lodes reported. The entire metre of whole BQ or half NQ is completely crushed to 3mm and 100g is riffle split and pulverised to 90% passing 75 microns. All gold assays are 50g fire assay (Method Au – AA26) with a detection level of 0.01ppm and base metals by 4 acid digest (method ME-ICP61) with detection levels of: Ag-0.5ppm, Cu-0.01ppm, Pb-0.01ppm, Bi-1ppm, Zn-0.01ppm, S-0.01%, Fe-0.01%. Over limit analysis is by OG62- with Sulphur over range by method S-IR08 at ALS laboratories. Every core sample submitted for assay is submitted for specific gravity analysis at PGM by wet balance method (Archemedes method). The SG process is checked with a standard 1 in 20 and water temperature is also recorded.



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, facesampling bit or other type, whether core is oriented and if so, by what method, etc.).	The variety of core sizes (LTK48, BQ, NQ2, HQ and PQ) are used at the Peak Mines depending on drill hole spacing, depth and angle of hole. The holes are surveyed every 30m with a 15m survey at the beginning of the hole and end of hole survey. The underground holes are drilled with a jumbo mounted LM90 diamond rig supplied by SMS drilling.
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>	Drillers record core loss whilst drilling with core blocks in the run. The location of loss is also recorded on sample submission sheets. The estimated meterage of the core loss depends on how the core is pieced together. Sample weights of the assayed intervals are assessed to give another quantitative estimate of recovery.  Generally good drilling equipment and experience minimise core loss. The core is pieced together where possible, ensuring the core has been placed in the tray the right way around and is a check on the run lengths. At all times the core is handled with care with transportation using proper tie down points.  Whole core sampling of the BQ core eliminates sample bias from having to half the core. When sampling NQ core the cut line is perpendicular to structures. There is no known relationship between sample recovery and sample grade in these samples.
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 domains are much larger than the mineralisation and in most cases it is possible to drill continuously through the ore zone. For mine delineation drilling lithological information is gathered to 10cm intervals into tables defining lithology, mineralisation, alteration and shearing. Mine delineation is not oriented so structural measurements are taken in relation to the regional foliation which is considered to be constantly orientated. Broader stratigraphical and structural units are captured in an interp table. All of the deposits have defined structural zones across strike. Major lithologies are wireframed to ensure continuity of the interpretation. Exploration core is oriented so structural measurements are accurate also magnetic susceptibility is measured at 1m intervals where appropriate. Rock mass quality information, to support engineering considerations, are logged and Q primed is calculated. Further to rock mass quality data, rock strength data is gathered for mining studies. Metallurgical samples are initially recovered as part of exploration or evaluation programs from either half or quarter core.  All core is photographed. The core is photographed using a mobile frame over individual trays ensuring that light and focus conditions remain constant. Structural measurements are measured against the dominant regional S2 foliation based on quality of observation. Visual estimates of minerals in percent are checked against assay data. Magnetic susceptibility is recorded for specific intervals during exploration programs.  All core and chips are 100% logged for lithology, stratigraphy, mineralisation, alteration, RMQ, structure, and shear using Coreview software.



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 subsampling 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/secondhalf sampling.
- Whether sample sizes are appropriate to the grain size of the material being sampled.

LTK48 and BQ core is whole core sampled so no subsampling is done on delineation drilling. NQ2 and HQ core is half core sampled and cut with an almonte automatic saw leaving the other half of the core for possible re-assay or metallurgical use.

No non-core sampling is described in this report

For a sample of core being assayed for grade the same regime is followed as explained in sampling techniques above.

The sampling procedures for quality control are outlined under sampling techniques above.

Twinning holes and second half core sampling is usually adopted during exploration projects. High density drilling is also employed in the main mining areas.

Variability and nugget effects produces complications when sampling for coarse gold have been address by PGM. The sample size of drill core is adequate to capture gold at the micron size range. The ore bodies with the higher CV's are drilled at a closer spacing to minimise risk.

#### Quality of assay data and laboratory test

- 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 (eg standards, blanks, duplicates, external laboratory

Samples dry for 12 hours at 104°C in oven. Samples are crushed to <3mm and pulverised to 90% passing 75um in and LM5 pulveriser. 250 grams of sample is scooped from the bowl. Sizing tests are performed every 10 samples. Barren wash is used between samples. 50 grams is scooped from the 250 grams for fire assay. Four acid digest is used to determine base metals. Fire assay and four acid digest are methods considered as total element analysis.

The suite of elements assayed and the lad methods used are considered adequate for resource reporting.

No geophysical tools were used in the determination of assay results. All assay results were generated by an independent third-party laboratory as described above.

A blank is submitted at the start of every hole. Standards are submitted at a frequency of 1 in 20. Standard fails are followed up with 10 sample repeats adjacent to the standard that failed. Replicates and duplicates are done by ALS at a frequency of 1 in 20. Standards, replicates and duplicates are graphed at regular intervals to determine accuracy and precision. The standards are supplied by Gannet Holdings Pty Ltd and Geostats. Standards have been both matrix matched and non-matrix matched. Between 300 and 500 pulps are selected from ore samples and sent for check assay at another lab annually.



Verification of sampling and assaying	<ul> <li>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> </ul>	Extreme high grades (>100ppm Au) are repeated as a matter of course. The database is used by all geologist and engineers on the PGM site. A third party audit is performed annually and performs analysis on the data. During annual pulp checks certain intersections are repeated in full.  The use of twinned holes is generally restricted to exploration – deeper holes that have resource estimated around them are replaced with grade control drill holes and left out of the data set as this occurs.  Physical and electronic copies exist of drill designs, downhole surveys and assay data. Raw laboratory data is filed as it comes from the lab. The assay .CSV file from the lab is manipulated by an excel add-in routine to suit the load query in the geological database "Drillview". The database has a verification sequence which checks end of holes and overlapping intervals. All data entry procedures are documented. Historic hard copies are stored in a fire proof room. Electronic data is backed up weekly, monthly and yearly and stored in a fire proof safe on site.
Location of data points	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.	Surface drill hole collars are initially located using hand held GPS to ±5m. Upon completion collars are located with differential GPS to ±5cm. Underground collars are picked up by the mine surveyor (collar position and dip/azimuth) using a Total Station Theodolite. Downhole surveys are taken using a reflex camera. Eastman single shot cameras were phased out in 2007. Readings with abnormal magnetics are flagged unreliable in the database. The reflex camera is used for multi shot where required and giro cameras ore used in highly magnetic ground. Check surveys are done weekly in a test bed on surface. Reliability is checked in Excel. A resurvey is done if out of limits. Two fails and instrument is sent away and replaced. Collar surveys are as accurate as the mine survey which is subject to regulatory re-survey on an interval basis.  PGM uses a metric mine grid that is -15° 31′ 38.72201 degrees to MGA grid. There is an additional 10,000.4m added to the AHD. Magnetic drilling surveys are corrected by 25 degrees.  The PGM grid was aligned with the state MGA grid in Feb 2009. Existing surface survey control consists of two baselines each with two high order stations registered with SCIMS on both the Peak and New Cobar leases. All exploration holes and topographic features are fixed using RTK GPS.
Data spacing and distribution	Whether the data spacing and distribution is	Underground drill hole spacing for Reserves is between 10m and 30m spacing depending on the type and complexity of the mineralisation. Surface exploration results are replaced by delineation drilling as a mine progresses to depth. Drill spacing away from the main mineralised lodes is generally wider spaced and dependent on the stage of exploration.



	<ul> <li>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 resource is classified on the following drill hole centres and search distances depending on the type and complexity of the mineralisation:  Measured – range 15mx15m to 25mx25m Indicated – range 30mx30m to 50mx50m Inferred – range 60mx60m to 75mx75m The confidence in classification is considered consistent with the 2012 JORC code.  The majority of drill holes are sampled at one metre intervals and compositing is at 1m intervals.
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>	All ore bodies are near vertical. The drill hole orientation is designed to be across the width of the lode. This is adequate where the mineralised structures are sub-parallel to the regional foliation.  Underground mapping has located some structures that are sub-parallel to the drilling direction. The drilling density off-sets any bias associated with such intercepts and additional drilling from other directions has been done. These structures are generally secondary to the main lode and of short strike length.
Sample security	The measures taken to ensure sample security	Core is stored in a lockable yard within the Peak site. The Peak site has 24 hour manned gates and requires swipe card access given only to Peak personnel. Samples are placed in tied calico bags with sample numbers that provide no information on the location of the sample.
Audits or reviews	The results of any audits or reviews of sampling techniques and data	H&SC audited PGMs core yard in 2008. No concerning issues arose in regards to the procedures of core mark up, photography, RQD measurement, cutting, core density, packaging and dispatch. Continuous improvements have been made by PGM with the implementation of roller racks, air conditioned sampling sheds, re-plumbing of water supply to the racks and the introduction of blue metal as a blank check. Previously PGM was using non mineralised core mainly from the beginnings of New Occidental delineation holes representing the barren Great Cobar Slate. Drill hole data is reviewed by H&SC during the resource audits and measures of drill hole deviation and assay ranges are scrutinised and verified.



### **PEAK MINE**

Section 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section)

	ng 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>	In August 2012 a notice of application for determination of native title was made in central NSW, which encompassed all of Peak Gold Mines mineral tenements. Legal advice indicated that Crown land may be claimable, so exploration has been delayed over this land tenure until it can be established if native title has been extinguished or if an access agreement with the claimants will be required. This effects areas within EL5933 (Wrightville Common & Kaloogleguy Regeneration Reserve) and EL7355 (Cumbine State Forest). The following table is a list of tenements held in full or part by PGM.  Tenement Name Ownership  CML6 Fort Bourke Hill PGM 100%  CML7 Coronation PGM 100%  CML8 Peak/Occidental PGM 100%  CML9 Queen Bee PGM 100%  ML1483 Fort Bourke Hill PGM 100%  ML1483 Fort Bourke Hill PGM 100%  EL5933 Peak PGM 100%  EL6401 Rookery East PGM 100%  EL6401 Rookery East PGM 100%  EL6401 Rookery East PGM 100%  EL7355 Nymagee East PGM 100%  EL8523 Margaret vale PGM 100%  EL8523 Margaret vale PGM 100%  EL8523 Margaret vale PGM 100%  EL8548 Narri PGM 100%
		EL8567 Kurrajong PGM 100% EL5982 Norma Vale PGM 75%, Zintoba 25% EL6127 Rookery South PGM 83%, Lydail 17% PGM continues to fulfil all requirements of tenement ownership, including reporting obligations, timely renewals, expenditure commitments, environment permitting and rehabilitation. All tenements are held securely.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Exploration has been ongoing since early 1900. Extensive exploration has occurred under CRA, Wheaton River, Goldcorp, Newgold and Aurelia Metals.



Geology	Deposit type, geological setting and style of mineralisation.	The deposits fall under the group of epigenetic "Cobar-Style" mineralisation and are controlled structurally by major fault zones (Rookery Fault System) and subsequent spurs and splays. The faults are within of the Devonian-Nurri Group of sedimentary units displaying lower green schist facies alteration. The economic minerals are contained within quartz stockworks and breccias. The breccia matrix are combinations of quartz, sediment, rhyolite and sulphide. The deposits are often polymetallic with gold, copper, silver, lead and zinc occurring in parallel lenses to the fault zones within the PGM leases.
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:         <ul> <li>easting and northing of the drill hole collar or 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> </ul> </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>	All relevant data drill hole data is included in the main body of the report.
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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Exploration results reported on a length-weighted basis. No top-cut or grade truncations have been applied to any assay results. Composite intervals are reported using a nominal \$50 NSR cut-off.  Higher results that occur internal to the composited intervals as described above are included in this report. Higher grade intervals are only highlighted if there are areas within the composite that differ significantly from the overall grades. Reporting of the shorted intercepts allows a more complete understanding of the grade distribution within the mineralised zone.  No metal equivalences are quoted in this report.



Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole is known, its nature should be reported.</li> <li>If unknown and down hole lengths are reported, there should be a statement to the effect (e.g. 'down hole length, true width not known').</li> </ul>	The extensive exploration and mining history in the Peak Mines mean the geometry of the ore zones is very well understood. As such, estimated true widths are included in this report.
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.	See body of 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.	All available new drill results from the recent program are given in this report.
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.	See body of report.
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>	See body of report.



#### **Dargues Mine**

**JORC Code 2012 (Table 1) -** Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. AusIMM. **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.	The Dargues deposit has been historically sampled from diamond drillholes and RC holes. Drill spacing between 20m and 50m defined the mineralisation which extended to 80m on the deposit margins.  Recent underground exploration and resource definition uses NQ2 diamond core. Recent surface diamond drilling is undertaken at HQ and NQ core sizes. Core is logged and processed in a built for purpose under-cover facility. Half core is sampled in intervals greater than 0.2 metres to a maximum of 1 metre in length. HMR Drilling Services is the underground drilling contractor and Mitchell Services is the surface diamond drilling contractor.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sample intervals for diamond core are determined by trained Geologists with checks in place within logging software to prevent sample interval overlap or sample number duplication. Intervals are defined by the presence of sulphides or alteration assemblage. When half-core is sampled, the same side of core is always sampled, to avoid potential bias from the core saw operator. Core-block errors determined during core mark-up are corrected by the drilling contractor. Pulps are retained to conduct re-assay at umpire laboratories as a comparison of repeatability to the preferred laboratory. Certified blank material is inserted every 20th sample. Core shed processes and procedures are constantly refreshed and reviewed to ensure consistent logging and sampling among individual staff.
	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 (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.	Historically, RC samples were collected as 1 m or 2 m composite spear samples. Mineralised zones were sampled at 1 m intervals from a rig mounted riffle splitter. Core samples were taken at 1 m intervals or at geological boundaries. The majority of sample preparation and analysis for CRC and Unity Mining was by ALS Chemex's laboratory in Orange, NSW, with three batches of samples going through the SGS laboratory in West Wyalong, NSW. MOL samples were assayed by ALS Chemex's lab in Orange. Umpire assays had been analysed by Genalysis, Perth. All samples were assayed using the Fire Assay technique with a 50g charge (Au-AA26) and AAS finish.  Recent diamond drilling was half-core sampled in intervals greater than 0.2 metres to a maximum of 1 metre in length to ensure sufficient sample size, but also show variability across broad mineralised intervals. The samples were prepared and assayed at On Site Laboratory Services, Bendigo, Victoria. The laboratory is registered under ISO 9001:2015 and operates in accordance with ISO/IEC17025 under the National Association of Testing Authorities, Australia (NATA). All samples were assayed using the Fire Assay technique with a 25g charge (PE01S) and AAS finish.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole 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.).	Historically, RC drilling utilised a 4 <sup>7/8</sup> inch face-sampling bit. Diamond drilling by CRC and Unity Mining used HQ core from surface to fresh rock and then oriented NQ2 core to end of hole. Historic core drilling used either NQ or BQ core (DDH1-9), BQ core (DRU1-10) or HQ from surface to fresh rock with NQ to end of hole (DRS1-8).  Recent underground exploration and resource definition uses NQ2 diamond core, core is orientated by Reflex ACTIII Ori Tool.  Recent surface diamond used HQ core from surface to fresh rock and then oriented NQ core to end of hole, surface diamond core is orientated by a Reflex Orientation Tool.



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 recoveries are noted by the drilling contractor and then confirmed by the logging geologist, core loss is recorded in the logging software. All core was routinely checked by the logging geologist using core blocks and rod counts to determine the depth. There were no major issues. Information from the diamond drilling does not suggest that there is a correlation between recoveries and grade. Diamond drill core from this deposit generally has a high recovery.
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>	
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 sub-sampling 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>	Historically, diamond drill core was ½ split using a core saw and generally sampled at 0.5 to 1 m intervals within defined geological (mineralised) boundaries. For RC holes, 1m samples were collected in a plastic bag through a properly designed cyclone. A 1 m or 2 m length composite sample was collected by using a trowel or ridged plastic spear and submitted for analysis. Upon receipt of assay results the original composite sample was re-split and submitted for repeat analysis.  Quality control standards, blanks and duplicates were routinely included with the drilling samples by the CRC Exploration Team.  The QAQC protocols implemented for the CRC and Unity Mining drilling programs included:  Insertion of a reference sample (commercial batch standards) for every 25 samples;  Insertion of a blank at the start of every hole submitted, as well as at the end of strongly mineralised intervals as determined by the controlling geologist;  Pulp repeats sent to umpire laboratory.  Field duplicate sampling was completed by passing the bulk reject sample from the plastic bag through a riffle splitter. In addition, ½ core was routinely submitted. Duplicate sample intervals were designated by the geologist.  Recent diamond drill core was half-split using an Almonte core saw and generally sampled at 0.2 metre to 1 metre intervals within defined geological (mineralised) boundaries.  Quality control standards, blanks and duplicates are routinely included with the drilling samples by the Dargues mine geologists.  The QAQC protocols implemented include:  Insertion of a certified reference sample for every 20 samples.  Insertion of a blank for every 20 samples.  Pulp repeats sent to umpire laboratory.  Standards and Blanks are inserted on every 20th sample, standard fails may result in re-assay. Standards and blank materials are



			supplied by Geos	tats Pty Ltd.					
Quality of assay data and laboratory test	•	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 (i.e. lack of bias) and precision have been established.	Historically, Analysis for Au was completed using Fire Assay (Au-AA26) with AAS finish. Analysis for Ag, As, Bi, Cu, Mo, Pb, S, and Zn was completed using the aqua regia technique (ICP-AES).  Recent samples are oven dried for a minimum of 12 hours at >100 degrees Celsius. Samples are crushed, then pulverised to >90% passing 75 micron. Analysis for Au was completed using 25gm Fire Assay (PE01S) with AAS finish. Analysis for S was completed using LECO (IR-01S).  Historically, 17 standards were reported in the database. All standards were sourced from Ore Research and Exploration (ORE) Pty. Ltd with exception of G908-3 which was sourced from Geostats Pty. Ltd. Standards were inserted into a calico sample bag at every 25th sample submitted resulting in a sufficient amount data collected to ensure quality control of the samples. Historically, blank standard was produced from using unaltered granite material from RC chips and core. As stated by Runge 2010 "This presents a problem in that the accuracy of the standard cannot be relied upon with the vast majority of the 54 assays returning values less than 2 standard deviations. Runge considers these results to be acceptable, however without a properly certified standard it is difficult to make definitive conclusions".  The majority of standards submitted by Dargues report within the required grade range. Duplicate sample analyses show good correlation with the original analysis.  Recent Standards and Blanks are inserted on every 20th sample, standard fails may result in re-assay. Standards and blank materials are supplied by Geostats Pty Ltd.  Standards and blanks are done by On Site Laboratory Services every 5-25 samples. Replicates are done by On Site Laboratory Services on assays of elevated gold and duplicates are done every 5-25 samples.						
			Recent CRMs Standard	Target	StDev	+1 StDev	+2 StDev	-1 StDev	-2 StDev
			G913-9	Grade 4.91	0.17	5.08	5.25	4.74	4.57
			G913-9 G914-10	10.26	0.17	10.64	11.02	9.88	9.5
			G307-4	1.4	0.38	1.46	1.52	1.34	1.28
			54Pa	2.9	0.11	3.01	3.12	2.79	2.68
			Blank	0	0.11	0	0	0	0
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.	the site visit by Ri drilling fans from Qualitative verific identified. Priman	unge. No anomalie single locations re cation of assays wit y data was collecte	s were discovered. Sults in adjacent mii h logged geology w d either as paper lo	rs of CRC and Unity I No twinning of hole neralised intersectic as completed by Ru ogs or as generic log viewed by Runge an	s was conducted by ons occurring as closinge and Conarco w ging programme. T	CRC although the se as 4m at shallow ith no major discrensis data was then in	nature of depths. pancies mported into



		Recent drill hole intersections have been reviewed by site geologists and principal level geologists within the company. Twinned holes are not deemed to be required for grade-control infill holes.
		Recent hole logs are conducted in excel format and transferred to the geological database. Both the original hole logs and geological database are backed up on regular intervals, both to on site servers and external servers. Hole plans exist as both an electronic and physical copy. Physical copies of documents are filed and stored within a secure part of the geology department. All physical copies of documents are scanned and filed as an electronic backup if not already done so. Laboratory submission forms and raw data from the laboratory are filed electronically and backed up on regular intervals. All data entry to the geological database is restricted to trained personnel.
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>	Design Pty Ltd. Where possible historical collars were also located and surveyed by Bradley, although numerous drillholes had been rehabilitated and therefore could not be surveyed. Previously DGPS surveyed coordinates transformed into MGA94 grid were used for these holes. Recent underground and surface drill hole collars are accurately surveyed by qualified site surveyors using a Total Station Theodolite, collars are surveyed in mine grid which are converted to MGA94 grid.
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> </ul>	spacing and the distribution is sufficient to determine geological and grade continuity as determined by the JORC code 2012.  Data density is also sufficient for well-structured variograms for the defined mineralised domains. A composite length of 1m was selected after analysis of the raw sample lengths.



	•	Whether sample compositing has been applied.	
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	The general orientation of the orebody is sub-vertical, striking East-West, orientation of the drilling is generally North-South to ensure an intersection perpendicular to the orebody.  There are no known biases caused by the orientation of the drill holes.
		material.	
Sample security	•	The measures taken to ensure sample security	Drill core is kept on site and sampling and dispatch of samples is conducted as per on-site procedures. Transport is either by the company employee's or by a registered transport company. The Dargues Mine site is a secured, 24-hour operation with access requiring an escort or swipe-card provided by Dargues Mine.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data	Runge reviewed original laboratory assay files and compared them with the database. Minor errors were found.

# **Section 2 Dargues 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 Dargues deposit is located wholly within ML1675 which lies entirely within EL8372. These licences are 100% owned by Big Island Mining Pty Ltd, a wholly owned subsidiary of Aurelia Metals. The Mining Lease (ML1675) is due for expiry on 12th April 2045 while EL8372 is due for expiry on 20th May 2021 (renewal pending).  The tenements are currently in good standing and there are no known impediments to operating in the area.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Other companies to have held the project include Diversified Minerals Pty Ltd, Unity Mining, Cortona Resources, Moly Mines Limited (MOL), Hibernia Gold Pty Ltd, Horizon Pacific Limited, Amdex Mining Limited, Ominco Mining NL, Otter Exploration NL, Esso Exploration and Production Australia Inc. and Broken Hill South Limited.
Geology	Deposit type, geological setting and style of mineralisation.	The Braidwood Granodiorite intrudes the Silurian Long Flat Volcanics to the west and Ordovician sediments to the east. Cutting the Braidwood Granodiorite are numerous major structures trending ESE and SE which are clearly visible on regional aeromagnetic images of the area. These linear structures are represented by much of the drainage. The placer alluvial Au mineralisation occurs in the sediments deposited in these drainage systems.



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:         <ul> <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> </ul> </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>	The known primary Au mineralisation in the bedrock occurs in mostly E, NE and ESE trending sub-vertical quartz reefs within the roof of the granodiorite pluton (Gordon, Feb 2006).  The unaltered granodiorite is a light coloured, equigranular granodiorite containing plagioclase, kfeldspar, quartz, hornblende, minor chlorite-altered biotite and accessory magnetite, apatite, sphene, zircon and trace pyrite.  Mineralisation at Dargues occurs as a number of discrete, fracture-controlled sulphide lodes situated within intense zones of phyllic alteration (silica-chlorite and lesser epidote and sericite). The lodes are steeply dipping (80 - 90 degrees) and have a variable strike from E-W to ENE-WSW. The main zones of mineralisation (commonly referred to as the Big Blow and Main Lode) occur on the northern side of a parallel diorite dyke with some minor mineralisation sporadically developed on the southern margin. The mineralisation and dyke are synonymous with the dominant fault orientations of the region, an E-W striking vertical set and a ENE-WSW set, dipping steeply to the SSE.  The sulphide lodes are generally 0.5 m to 10 m wide (true width) and up to 200 m long, and display a distinctive zonal alteration assemblage. The lodes are generally comprised of potassium felspar-albite-pyrite+/-chlorite-sericite-silica-carbonate with the alteration assemblage extending up to 60 m from the lodes. The main sulphide mineral is pyrite, although chalcopyrite, sphalerite and other sulphides are also present. Gold values are directly linked to pyrite content (ranging from 5% to 30%). The gold grains occur as small inclusions of native gold in pyrite or along the pyrite grain boundaries. Rare occurrences of visible gold in association with minor quartz veining have been observed at depth with grades of up to 538g/t over a 0.85m width.  Since more than one type of drilling has occur as small inclusions of native gold in pyrite or along the pyrite grain boundaries. Rare occurrences of visible gold in association with minor quartz ve
	report, the Competent Person should	



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 low 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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	All intersection grades have been length weighted. Small high-grade results within a broader mineralised zone have been reported as included intervals. No top-cuts have been used on assay results. Metal equivalent values have not been used for reporting exploration results.
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 drillhole 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>	The Dargues deposit is generally sub-vertical with an east-west strike direction. Angled holes drilled from the north and the south have limited the apparent width of the orebody. The orientation of the orebody and individual lodes is well understood, enabling true widths to be estimated.
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.	Additional sections shown in body of report, where applicable  Plan view showing all mineralised domains



		63150N
		Ruby Lode
		Bonanza Lode
		53050N
		Plums Lode
		52950N
		Main Lode
		00 00 00 00 00 00 00 00 00 00 00 00 00
		62850N
	Where comprehensive reporting of all	All available new exploration results have been given in this report.
Balanced	Exploration Results is not practicable,	
reporting	representative reporting of both low and	
	high grades and/or widths should be	
	practiced to avoid misleading reporting of Exploration Results.	
	Other exploration data, if meaningful and	All material exploration data is be reported in body of report.
Other	material, should be reported including	Thirmsenal exploration data is self-eported in sody of report.
substantive	(but not limited to): geological	
exploration	observations; geophysical survey results;	
data	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.	
Further work	The nature and scale of planned further	Contained within the body of the report.
	work (e.g. tests for lateral extensions or	
	depth extensions or large-scale step-out	
	drilling).	
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions, including the main</li> </ul>	
	geological interpretations and future	
	drilling areas, provided this information is	
	not commercially sensitive.	

