

## Group Exploration Update

Aurelia Metals Limited (ASX: AMI) (**Aurelia** or the **Company**) is pleased to provide an update on current drilling and exploration activities in the Kairos and Peak North areas of the Peak Mine, and at the Federation deposit, located ten kilometres south of the Hera Mine.

### HIGHLIGHTS

- **Kairos.** Infill drilling at the high grade Kairos lode returns exceptional new gold and base metal intercepts; high grade zone remains open at depth. New intercepts include:
  - **23 metres at 28.4g/t Au & 31.0% Pb+Zn, including 6 metres at 105.2g/t Au & 34.2% Pb+Zn**
  - **16 metres at 39.8g/t Au & 1.4% Pb+Zn, including 1 metre at 624.0g/t Au & 0.2% Pb+Zn**
- **Peak North.** Strong new gold results intercepted along strike to the north of the Peak Mine; further drilling targeting up- and down-plunge extent of main zone planned. New intercepts include:
  - **6 metres at 39.9g/t Au & 0.2% Cu**
  - **4 metres at 30.9g/t Au**
- **Federation.** Further high grade mineralisation intercepted in down-plunge drilling at the Federation deposit; significant depth extension of high-grade material in this zone. New intercepts include:
  - **22 metres at 37.6% Pb+Zn & 0.2g/t Au, including 8 metres at 49.7% Pb+Zn & 0.3g/t Au**
  - **21 metres at 23.8% Pb+Zn & 0.3g/t Au, including 7 metres at 44.3% Pb+Zn & 0.4g/t Au**

### KAIROS DELIVERS EXCEPTIONAL NEW GOLD AND BASE METAL RESULTS

Aurelia has undertaken an underground infill drilling program at the Kairos lode, which is located directly beneath the Peak Mine workings. Given the presence of very high grade gold mineralisation in parts of the deposit, the drilling was designed to further improve confidence in grade distribution and to provide material for confirmatory metallurgical test work. Results for the first eleven holes in the program have now been received and include the following:

UD20PP1615	<b>23 metres at 28.4g/t Au, 31.0% Pb+Zn, 70g/t Ag &amp; 0.4% Cu, including 6 metres at 105.2g/t Au, 34.2% Pb+Zn, 32g/t Ag &amp; 0.9% Cu</b>
UD20PP1624	<b>6.5 metres at 4.4g/t Au, 26.4% Pb+Zn, 26g/t Ag &amp; 0.3% Cu</b> <b>16 metres at 39.8g/t Au, 1.4% Pb+Zn, 7g/t Ag &amp; 0.3% Cu, including 1 metre at 624.0g/t Au, 0.2% Pb+Zn &amp; 7g/t Ag</b>
UD20PP1617	<b>25 metres at 3.2g/t Au, 16.9% Pb+Zn, 15g/t Ag &amp; 0.4% Cu, including 8.9 metres at 8.6g/t Au, 39.4% Pb+Zn, 34g/t Ag &amp; 0.8% Cu</b>
UD20PP1616	<b>25 metres at 3.0g/t Au, 0.9% Pb+Zn, 5g/t Ag &amp; 0.7% Cu, including 7 metres at 8.3g/t Au, 0.3% Pb+Zn, 6g/t Ag &amp; 0.1% Cu</b>
UD20PP1621	<b>19.6 metres at 4.2g/t Au, 0.5% Pb+Zn, 4g/t Ag &amp; 0.6% Cu, including 2 metres at 11.4g/t Au, 0.2% Pb+Zn, 1g/t Ag &amp; 0.3% Cu</b>

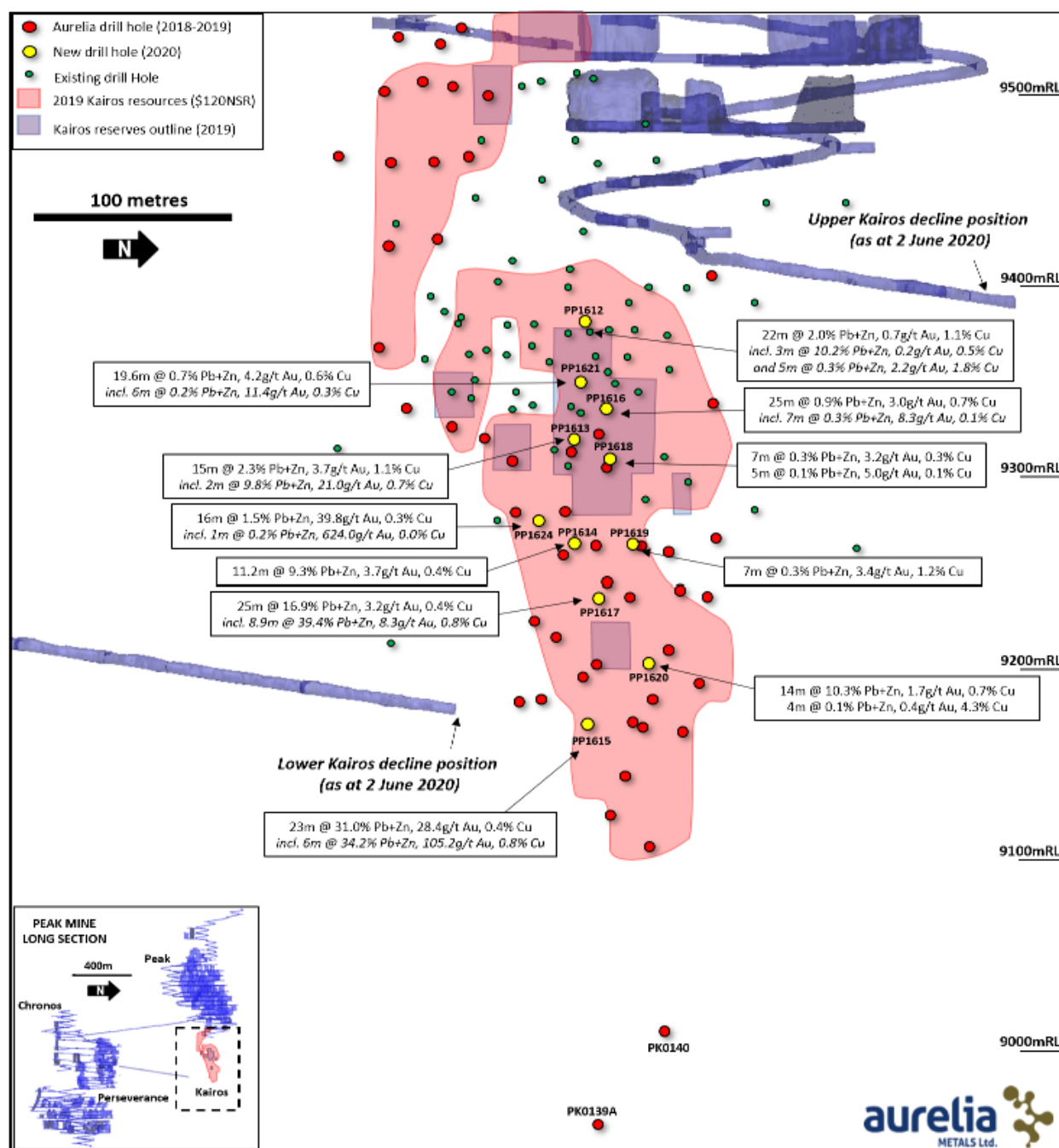


Figure 1: Kairos long section (looking west, significant intercepts from recent drilling shown, progress of upper and lower declines also shown)

Drill hole details for the Kairos drilling program are shown in **Table 1** and a full list of significant intercepts is shown in **Table 2**.

The exceptionally high gold grades returned from hole UD20PP1615 are particularly significant as the area is currently sparsely drilled and remains open at depth. The intercept in this hole also corresponds to the first level likely to be accessed when the lower Kairos decline reaches the deposit (see **Figure 1**). Significant additional exploration and infill drilling is planned once access to the area is fully established.



A full list of significant intercepts for the new drill holes at Peak North is provided in **Table 3**. In addition to the stand-out results above, encouraging gold mineralisation is also present outside of the main zone (**Figure 2**), with the shallowest hole in the program (UD19PP1601) returned **2 metres at 18.0g/t Au** and the deepest hole (UD19PP1600) returning **4 metres at 5.0g/t Au**.

Aurelia is currently evaluating various development options for the area. Further drilling is also planned to test the potential up- and down-plunge extent of the main zone.

## FEDERATION HIGH GRADE MINERALISATION EXTENDED AT DEPTH

Aurelia recently confirmed the presence of a contiguous, steeply-plunging zone in the northeast of the Federation deposit (see Aurelia ASX release dated 2 April 2020). This zone is defined by high grade massive and semi-massive sulphide mineralisation and variable moderate-to-high grade gold.

Recent diamond drilling has focussed on deeper parts of this zone, with significant new high grade base metal results including the following:

FDD078	<b>22 metres at 37.6% Pb+Zn, 0.2g/t Au, 14g/t Ag &amp; 0.2% Cu</b> from 568m, <i>includes 8 metres at 49.7% Pb+Zn, 0.3g/t Au, 17g/t Ag &amp; 0.3% Cu from 571m, and 6.5 metres at 52.0% Pb+Zn, 0.2g/t Au, 18g/t Ag &amp; 0.2% Cu from 582.5m</i> <b>8.8 metres at 18.7% Pb+Zn, 0.1g/t Au &amp; 13g/t Ag</b> from 605m <b>10 metres at 16.9% Pb+Zn, 0.1g/t Au, 9g/t Ag &amp; 0.2% Cu</b> from 619m, <i>includes 4 metres at 36.6% Pb+Zn, 0.1g/t Au, 16g/t Ag &amp; 0.3% Cu from 625m</i>
FDD077W1	<b>21 metres at 23.8% Pb+Zn, 0.3g/t Au, 13g/t Ag &amp; 0.9% Cu</b> from 615m, <i>includes 7 metres at 44.3% Pb+Zn, 0.4g/t Au, 20g/t Ag &amp; 2.3% Cu from 622m</i>
FRCD071	<b>8.5 metres at 38.3% Pb+Zn, 0.3g/t Au, 15g/t Ag &amp; 0.6% Cu</b> from 482m
FDD077	<b>32 metres at 5.5% Pb+Zn, 3g/t Ag &amp; 0.1% Cu</b> from 593m, <i>includes 7 metres at 12.2% Pb+Zn, 6g/t Ag &amp; 0.3% Cu from 607m</i>

Full drill hole details are provided in **Table 1** and a list of significant new results received for the Federation deposit are shown in **Table 4**.

The massive sulphide mineralisation intercepted in FDD078 (**Figure 4**) is particularly significant as it was drilled more than 120 metres below the previously reported high grade intercepts in FRCD050 (**18.6 metres at 49.2% Pb+Zn**) and FRCD062 (**42 metres at 16.3% Pb+Zn**). Results from FDD078 extend the known mineralisation in this zone to nearly 500 metres below surface. This area remains open at depth, with immediate follow-up drilling to test both above and below the intercept in FDD078.

As previously indicated, planning is now underway for the commencement of necessary environmental work at Federation, including studies on biodiversity, heritage and groundwater. Mineralogical test work has recently confirmed a strong similarity to the sulphide ores at Hera, with follow-up metallurgical test work planned. Mining and processing options are also being evaluated

Diamond drilling is ongoing. The release of a maiden mineral resource estimate for the Federation deposit is expected in the next few weeks.



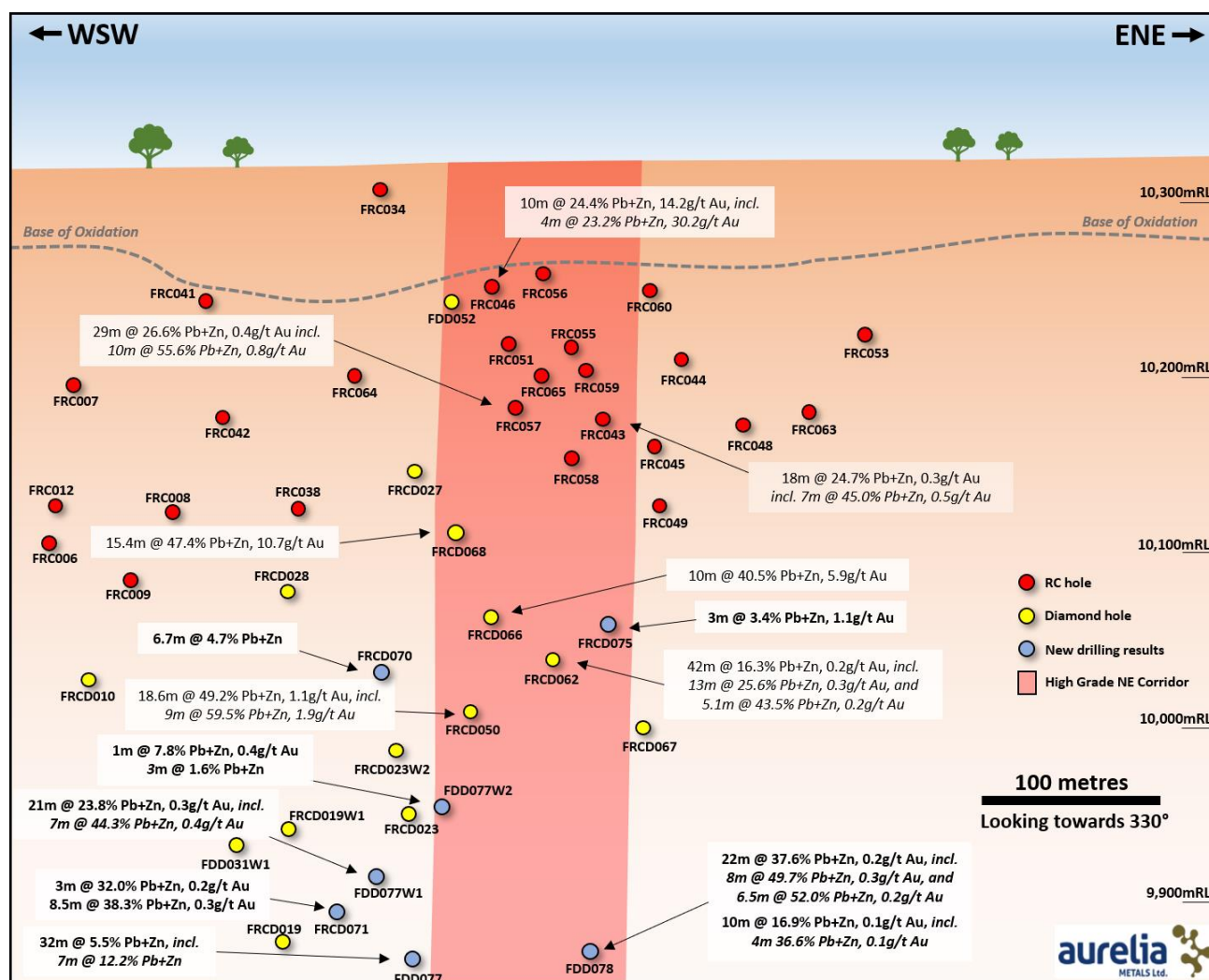


Figure 3: Federation long section showing north-eastern portion of the deposit (looking north-north-west, select intercepts with new results shown in bold)

## 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.

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

## For further information contact:

**Dan Clifford**  
Managing Director and CEO  
Aurelia Metals Limited  
+61 7 3180 5000

**Media contact**  
Michael Vaughan  
Fivemark Partners  
+61 422 602 720



Figure 4: Cut diamond drill core from hole FDD078 at Federation, showing sphalerite-dominant massive and semi-massive sulphides (light brown) over a 22 metre interval



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

Prospect	Type	Hole ID	Easting (MGA)	Northing (MGA)	Local RL (m)	DIP	Azimuth (MGA)	Total Depth (m)
Kairos	UG DDH	UD20PP1612	393306	6507335	9424.5	-23.0	77.0	240
Kairos	UG DDH	UD20PP1613	393306	6507335	9424.5	-37.0	76.0	289.6
Kairos	UG DDH	UD20PP1614	393306	6507335	9424.5	-46.0	75.0	331.8
Kairos	UG DDH	UD20PP1615	393306	6507335	9424.5	-54.6	73.0	514.9
Kairos	UG DDH	UD20PP1616	393306	6507335	9424.5	-31.0	73.0	265.3
Kairos	UG DDH	UD20PP1617	393306	6507335	9424.5	-50.0	69.0	330
Kairos	UG DDH	UD20PP1618	393306	6507335	9424.5	-39.0	71.0	280
Kairos	UG DDH	UD20PP1619	393306	6507335	9424.5	-46.0	67.0	316.3
Kairos	UG DDH	UD20PP1620	393306	6507335	9424.5	-56.0	63.0	539.1
Kairos	UG DDH	UD20PP1621	393306	6507335	9424.5	-30.0	76.0	270
Kairos	UG DDH	UD20PP1624	393306	6507335	9424.5	-44.0	83.0	427.7
Peak North	UG DDH	UD20PP1577	393436	6507521	9592	-32.0	25.0	293
Peak North	UG DDH	UD20PP1578	393436	6507521	9592	-29.0	22.0	270
Peak North	UG DDH	UD20PP1579	393436	6507521	9592	-27.0	19.0	290.4
Peak North	UG DDH	UD20PP1587	393436	6507521	9592	-23.0	30.0	285
Peak North	UG DDH	UD20PP1588	393436	6507521	9592	-21.0	26.0	335.65
Peak North	UG DDH	UD20PP1589	393436	6507521	9592	-19.0	22.0	265.9
Peak North	UG DDH	UD20PP1590	393436	6507521	9592	-17.0	19.0	321
Peak North	UG DDH	UD20PP1591	393436	6507521	9592	-21.0	13.0	351
Peak North	UG DDH	UD20PP1592	393436	6507521	9592	-13.8	15.5	369.8
Peak North	UG DDH	UD19PP1595	393436	6507521	9592	-12.0	19.0	291
Peak North	UG DDH	UD19PP1597	393436	6507521	9592	-11.0	14.0	360
Peak North	UG DDH	UD19PP1598	393436	6507521	9592	3.0	28.0	432
Peak North	UG DDH	UD19PP1599	393436	6507521	9592	4.0	19.0	335.9
Peak North	UG DDH	UD19PP1600	393436	6507521	9592	-37.0	11.0	370
Peak North	UG DDH	UD19PP1601	393436	6507521	9592	42.1	45.0	270.4
Peak North	UG DDH	UD20PP1602	393436	6507521	9592	26.0	27.0	290
Peak North	UG DDH	UD20PP1607	393436	6507521	9592	-40.0	22.0	287
Peak North	UG DDH	UD20PP1608	393436	6507521	9592	-38.0	16.5	305.5
Peak North	UG DDH	UD20PP1609	393436	6507521	9592	-36.0	13.0	359.7
Federation	RC/DDH	FRCD070	434585	6437145	10321	-59.1	131.0	615.5
Federation	RC/DDH	FRCD071	434585	6437164	10319	-59.9	126.4	698.1
Federation	RC/DDH	FRCD075	434585	6437194	10322	-59.3	150.6	579.6
Federation	DDH	FDD077	434585	6436794	10331	-60.6	307.6	789.5
Federation	DDH	FDD077W1	434585	6436794	10331	-60.6	307.6	684.5
Federation	DDH	FDD077W2	434585	6436794	10331	-60.6	307.6	669.5
Federation	DDH	FDD078	434585	6436751	10333	-60.5	326.0	845.6

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

Hole ID	Interval (m)	ETW* (m)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Cu (%)	NSR** (\$)	From (m)
<b>UD20PP1612</b> <i>includes</i> <i>and</i>	22	21.2	0.5	1.5	0.7	6	1.1	\$133	203
	3	2.9	2.7	7.5	0.2	7	0.5	\$290	203
	5	4.8	0.2	0.1	2.2	10	1.8	\$203	220
<b>UD20PP1613</b> <i>includes</i>	10	9	3.2	5.2	0.6	12	0.7	\$247	203
	15	13.4	0.6	1.8	3.7	6	1.1	\$280	203
	2	1.7	2.9	6.8	21.0	18	0.7	\$1,240	220
<b>UD20PP1614</b>	11.2	8.6	3.7	5.6	3.7	11	0.4	\$413	261
	4	3.1	0.4	0.9	1.3	3	0.9	\$126	278
<b>UD20PP1615</b> <i>includes</i>	23	15.5	12.0	19.0	28.4	70	0.4	\$2,113	333
	6	4.1	13.1	21.1	105.2	32	0.8	\$5,739	334
<b>UD20PP1616</b> <i>includes</i>	25	22.9	0.3	0.6	3.0	5	0.7	\$189	203
	7	6.4	0.2	0.1	8.3	6	0.1	\$395	203
<b>UD20PP1617</b> <i>includes</i>	25	20.5	6.0	10.9	3.2	15	0.4	\$584	276
	8.9	7.2	14.3	25.1	8.6	34	0.8	\$1,413	281.1
<b>UD20PP1618</b> <i>includes</i>	7	6.3	0.1	0.3	3.2	1	0.3	\$165	240
	5	4.5	0.0	0.1	5.0	1	0.1	\$234	251
	2	1.8	0.0	0.2	10.4	1	0.1	\$490	254
<b>UD20PP1619</b> <i>includes</i>	7	5.7	0.1	0.2	3.4	7	1.2	\$234	285
	3	2.5	0.2	0.3	7.3	13	1.7	\$451	287
	2	1.6	0.0	0.0	0.2	8	2.5	\$154	298
<b>UD20PP1620</b>	14	9.6	4.7	5.5	1.7	11	0.7	\$333	309
	4	2.7	0.1	0.0	0.4	17	4.3	\$268	353
<b>UD20PP1621</b> <i>includes</i>	19.6	18.0	0.2	0.5	4.2	4	0.6	\$235	217
	6	5.5	0.0	0.2	11.4	1	0.3	\$541	225
<b>UD20PP1624</b> <i>includes</i>	6.5	5.0	12.1	14.2	4.4	26	0.3	\$833	242.5
	16	12.3	0.5	1.0	39.8	7	0.3	\$1,889	257
	1	0.8	0.1	0.1	624.0	87	0.0	\$28,933	264

\*ETW = estimated true width

\*\*Net Smelter Return ('NSR') is the Company's estimate based on factors including metals prices, metallurgical recoveries, payabilities and other offsite costs. Full details of the basis of the Company's NSR calculations are set out in the report "Mineral Resource and Ore Reserve Statement – June 2019" released to the ASX on 22 July 2019, a copy of which is available to view at [www.aureliametals.com.au](http://www.aureliametals.com.au).



Table 3: Significant new intersections for Peak North drill holes reported in this release

Hole ID	Interval (m)	ETW* (m)	Au (g/t)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	NSR** (\$)	From (m)
UD20PP1577	2	1.4	0.6	0.3	0.0	0.1	1	\$43	204
UD20PP1578	6	3.1	39.9	0.2	0.0	0.0	2	\$1,852	240
	2	1.1	1.6	0.2	0.1	0.0	2	\$76	256
	2	1.1	1.7	0.0	0.0	0.0	0	\$80	267
UD20PP1579	4	2.0	30.9	0.0	0.1	0.0	2	\$1,432	247
	1	0.6	2.5	0.1	0.0	0.0	1	\$115	258
UD20PP1587	5	2.6	1.2	0.5	0.1	0.0	2	\$77	186
UD20PP1588	4	2.9	5.2	0.7	0.1	0.1	5	\$279	203
	5	3.3	2.0	0.2	0.0	0.0	1	\$101	259
UD20PP1589 <i>includes</i>	12	5.4	2.4	0.8	0.0	0.0	2	\$151	218
	3	1.9	4.1	2.3	0.1	0.1	6	\$318	226
UD20PP1590	6	3.1	7.6	1.2	1.1	0.1	10	\$422	226
	2	1.3	14.1	3.7	0.1	0.0	10	\$866	311
UD20PP1591	1	0.6	1.4	0.0	0.0	0.0	0	\$64	257
UD20PP1592	2	0.9	1.2	0.2	0.0	0.1	1	\$57	253
UD19PP1595 <i>includes</i>	8	5.1	3.9	1.0	0.2	0.1	6	\$237	224
	4	2.7	6.7	1.8	0.2	0.1	8	\$413	226
UD19PP1597	1	0.6	1.8	0.0	0.0	0.0	0	\$85	276
UD19PP1598	3	2.3	0.8	1.5	0.0	0.1	4	\$122	209
	1	0.6	1.5	0.1	0.6	0.0	8	\$80	261
UD19PP1599	3	2.0	3.6	0.4	0.0	0.0	2	\$162	248
UD19PP1600	4	2.0	5.0	0.1	0.0	0.0	1	\$225	329
UD19PP1601	2	1.2	18.0	0.0	0.0	0.0	2	\$834	198
	3	1.9	2.8	0.1	0.4	1.1	2	\$168	222
UD20PP1602	1	0.6	2.6	0.0	0.0	0.0	0	\$121	195
	1	0.6	1.1	0.8	0.0	0.0	2	\$96	270
UD20PP1607	3	1.5	1.8	0.6	0.0	0.0	3	\$116	257
UD20PP1608	1	0.6	12.1	0.3	0.0	0.0	2	\$561	303
UD20PP1609	1	0.6	1.6	0.0	0.0	0.0	1	\$76	333

\*ETW = estimated true width.

\*\*Net Smelter Return ('NSR') is the Company's estimate based on factors including metals prices, metallurgical recoveries, payabilities and other offsite costs. Full details of the basis of the Company's NSR calculations are set out in the report "Mineral Resource and Ore Reserve Statement – June 2019" released to the ASX on 22 July 2019, a copy of which is available to view at [www.aureliametals.com.au](http://www.aureliametals.com.au).

Table 4: Significant new intersections for Federation drill holes reported in this release

Hole ID	Interval (m)	ETW* (m)	Pb (%)	Zn (%)	Pb+Zn (%)	Au (g/t)	Ag (g/t)	Cu (%)	From (m)
<b>FRCD070</b>	6.7	3.7	2.1	2.6	4.7	0.0	2	0.1	521
<b>FRCD071</b>  <i>includes and and</i>	3.1	2.0	3.9	5.7	9.7	0.1	10	0.3	393.9
	28	17.6	2.6	4.3	6.9	0.2	3	0.0	402
	3	1.9	11.2	20.8	32.0	0.2	12	0.0	402
	4	2.5	4.2	6.3	10.5	0.2	5	0.1	412
	3	1.9	4.3	6.5	10.9	0.6	6	0.1	423
	8.5	5.4	13.9	24.4	38.3	0.3	15	0.6	482
<b>FRCD075</b>	3	1.7	2.3	1.1	3.4	1.1	5	0.8	338
	3	1.7	1.0	1.6	2.7	0.0	1	0.1	440
<b>FDD077</b>  <i>includes</i>	32	20.6	2.0	3.5	5.5	0.0	3	0.1	593
	7	4.5	4.6	7.6	12.2	0.0	6	0.3	607
	25.5	16.4	1.1	1.2	2.3	0.0	2	0.1	635.5
	28	18.0	1.6	0.0	1.6	0.0	13	0.6	635.5
<b>FDD077W1</b>	2	1.4	1.6	3.2	4.8	0.0	3	0.1	565
	21	14.2	8.8	15.1	23.8	0.3	13	0.9	615
	7	4.7	16.0	28.3	44.3	0.4	20	2.3	622
<b>FDD077W2</b>	1	0.7	2.3	4.8	7.1	0.4	14	0.2	403
	3	2.0	0.8	0.8	1.6	0.0	1	0.0	551
<b>FDD078</b>  <i>includes and  includes</i>	7	5.0	5.9	10.5	16.4	0.3	7	0.2	534
	22	15.6	13.7	23.8	37.6	0.2	14	0.2	568
	8	5.7	16.8	32.8	49.7	0.3	17	0.3	571
	6.5	4.6	20.7	31.3	52.0	0.2	18	0.2	582.5
	8.8	6.2	6.3	12.4	18.7	0.1	13	0.0	605
	10	7.1	5.8	11.1	16.9	0.1	9	0.2	619
	4	2.8	11.9	24.7	36.6	0.1	16	0.3	625

\*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
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	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 (Kairos Deeps) 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.
	<ul style="list-style-type: none"> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> </ul>	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 re-assay. 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.
	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	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 (Archimedes method). The SG process is checked with a standard 1 in 20 and water temperature is also recorded.

<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• 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.).</li> </ul>	<p>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.</p>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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>	<p>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.</p> <p>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.</p> <p>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.</p>
<b>Logging</b>	<ul style="list-style-type: none"> <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>	<p>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.</p> <p>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.</p> <p>All core and chips are 100% logged for lithology, stratigraphy, mineralisation, alteration, RMQ, structure, and shear using Coreview software.</p>



<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether Quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>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.</p> <p>No non-core sampling is described in this report</p> <p>For a sample of core being assayed for grade the same regime is followed as explained in sampling techniques above.</p> <p>The sampling procedures for quality control are outlined under sampling techniques above.</p> <p>Twinning holes and second half core sampling is usually adopted during exploration projects. High density drilling is also employed in the main mining areas.</p> <p>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.</p>
<b>Quality of assay data and laboratory test</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory</i></li> </ul>	<p>Samples dry for 12 hours at 104°C in oven. Samples are crushed to &lt;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.</p> <p>The suite of elements assayed and the methods used are considered adequate for resource reporting.</p> <p>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.</p> <p>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.</p>

<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> </ul>	<p>Extreme high grades (&gt;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.</p> <p>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.</p> <p>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.</p>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<p>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 are 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.</p> <p>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.</p> <p>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.</p>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological</i></li> </ul>	<p>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.</p>

	<p><i>and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<p>The resource is classified on the following drill hole centres and search distances depending on the type and complexity of the mineralisation:</p> <p>Measured – range 15mx15m to 25mx25m  Indicated – range 30mx30m to 50mx50m  Inferred – range 60mx60m to 75mx75m</p> <p>The confidence in classification is considered consistent with the 2012 JORC code.</p> <p>The majority of drill holes are sampled at one metre intervals and compositing is at 1m intervals.</p>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<p>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.</p> <p>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.</p>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security</i></li> </ul>	<p>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.</p>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data</i></li> </ul>	<p>H&amp;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&amp;SC during the resource audits and measures of drill hole deviation and assay ranges are scrutinised and verified.</p>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary																																																			
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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>	<p>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 &amp; Kaloogleguy Regeneration Reserve) and EL7355 (Cumbine State Forest). The following table is a list of tenements held in full or part by PGM.</p> <table> <tr> <th>Tenement</th><th>Name</th><th>Ownership</th></tr> <tr><td>CML6</td><td>Fort Bourke Hill</td><td>PGM 100%</td></tr> <tr><td>CML7</td><td>Coronation</td><td>PGM 100%</td></tr> <tr><td>CML8</td><td>Peak/Occidental</td><td>PGM 100%</td></tr> <tr><td>CML9</td><td>Queen Bee</td><td>PGM 100%</td></tr> <tr><td>ML1483</td><td>Fort Bourke Hill</td><td>PGM 100%</td></tr> <tr><td>MPL854</td><td>Dam</td><td>PGM 100%</td></tr> <tr><td>EL5933</td><td>Peak</td><td>PGM 100%</td></tr> <tr><td>EL6149</td><td>Mafeesh</td><td>PGM 100%</td></tr> <tr><td>EL6401</td><td>Rookery East</td><td>PGM 100%</td></tr> <tr><td>EL7355</td><td>Nymagee East</td><td>PGM 100%</td></tr> <tr><td>EL8060</td><td>Nymagee North</td><td>PGM 100%</td></tr> <tr><td>EL8523</td><td>Margaret vale</td><td>PGM 100%</td></tr> <tr><td>EL8548</td><td>Narri</td><td>PGM 100%</td></tr> <tr><td>EL8567</td><td>Kurrajong</td><td>PGM 100%</td></tr> <tr><td>EL5982</td><td>Norma Vale</td><td>PGM 75%, Zintoba 25%</td></tr> <tr><td>EL6127</td><td>Rookery South</td><td>PGM 83%, Lydail 17%</td></tr> </table> <p>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.</p>	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%	MPL854	Dam	PGM 100%	EL5933	Peak	PGM 100%	EL6149	Mafeesh	PGM 100%	EL6401	Rookery East	PGM 100%	EL7355	Nymagee East	PGM 100%	EL8060	Nymagee North	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%
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<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Exploration has been ongoing since early 1900. Extensive exploration has occurred under CRA, Wheaton River, Goldcorp, Newgold and Aurelia Metals.																																																			
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	<p>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.</p>																																																			



<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<p>All relevant data drill hole data is included in the main body of the report.</p>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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>	<p>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 for Peak North results.</p> <p>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.</p> <p>No metal equivalences are quoted in this report.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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>	<p>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.</p>

<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	See body of report.
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	All available new drill results from the recent program are given in this report.
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	See body of report.
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	See body of report.

## FEDERATION

**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
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>RC chip samples were collected using a rotary cone splitter directly off the drill rig. All samples were collected on a dry basis.</li> <li>Samples are transported to ALS Geochemistry - Orange for preparation and assay.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> </ul>	<ul style="list-style-type: none"> <li>Assay standards or blanks are inserted at least every 25 samples. Duplicates were extensively used (at least 1 in 20 samples) in the current RC programs to ensure representivity.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>RC drilling was used to obtain representative samples of 1 metre length. RC chip samples are dried, crushed and pulverised to 85% passing 75 microns. This is considered to appropriately homogenise the sample. Gold is by 30g fire assay with AAS finish, (method Au – AA25) with a detection level of 0.01ppm. For base metals a 0.5g charge is dissolved using aqua regia digestion (Method ICP41-AES) with detection levels of: Ag-0.2ppm, As-2ppm, Cu-1ppm, Fe-0.01%, Pb-2ppm, S-0.01%, Zn-2ppm. Overlimit analysis is by OG46 - aqua regia digestion with ICP-AES finish.</li> </ul>

<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• 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.).</li> </ul>	<ul style="list-style-type: none"> <li>• Drilling by diamond coring generally commences as PQ core until fresh rock is reached. The PQ rods are left as casing then HQ coring is employed. Reverse circulation percussion (RC) methods used in this program utilised a face sampling 143 millimetre bit. Pre-collars with RC down to between 100 and 350 metres below surface are also employed at Federation.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• Chip recoveries are generally monitored visually at the rig by the size of the individual bags. Any low recoveries will be noted by the geologist at the rig. Recoveries are greater than 95% once in fresh rock.</li> <li>• The relationship between sample recovery and grade has not been assessed.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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>	<p>Systematic geological and geotechnical logging is undertaken. Data collected includes:</p> <ul style="list-style-type: none"> <li>• Nature and extent of lithologies</li> <li>• Relationship between lithologies</li> <li>• Amount and mode of occurrence of ore minerals</li> <li>• Location, extent and nature of structures such as bedding, cleavage, veins, faults etc. (core only)</li> <li>• Structural data (alpha &amp; beta) are recorded for orientated core (core only)</li> <li>• Geotechnical data such as recovery, RQD, fracture frequency, qualitative IRS, microfractures, veinlets and number of defect sets. For some geotechnical holes the orientation, nature of defects and defect fill are recorded (core only)</li> <li>• Bulk density by Archimedes principle at regular intervals (core only)</li> <li>• Both qualitative and quantitative data is collected</li> <li>• 100% of all recovered core and chips are geologically and geotechnically logged.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>• Core is sawn with half core submitted for assay. Sampling is consistently on one side of the orientation line so that the same part of the core is sent for assay. PQ core is ¼ sampled.</li> <li>• All RC samples were split using a rotary cone sampler directly off the drilling rig. Two samples were collected for every metre to allow for duplicate samples to be taken at any interval. All sampling was on a dry basis.</li> </ul>



	<p>dry.</p> <ul style="list-style-type: none"> <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 insitu 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>	<ul style="list-style-type: none"> <li>Samples are dried crushed and pulverised to 85% passing 75 microns. This is considered to appropriately homogenise the sample to allow subsampling for the various assay techniques.</li> <li>Certified Standard Reference Materials and blanks are inserted at least every 25 samples to assess the accuracy and reproducibility. The results of the standards are to be within <math>\pm 10\%</math> variance, or 2 standard deviations, from known certified result. If greater than 10% variance the standard and up to 10 samples each side are re-assayed. ALS conduct internal check samples every 20 samples for Au and every 20 for base metals. Assay grades are occasionally compared with mineralogy logging estimates. If differences are detected a re-assay can be carried out using the bulk reject or the assay pulp.</li> <li>Systematic duplicate sampling was employed during the Federation RC program. A regular duplicate was taken at predetermine sample intervals (averaging 1:25 samples). Further, samples occurring in mineralised zones are duplicated, increasing the duplicate rate to one sample every 15-20 samples.</li> </ul>
<b>Quality of assay data and laboratory test</b>	<ul style="list-style-type: none"> <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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Standard assay procedures performed by a reputable assay lab (ALS Group) were undertaken. Gold assays are by 30g fire assay with AAS finish, (method Au-AA25). Ag, As, Cu, Fe, Pb, S, Zn are digested in aqua regia then analysed by ICP-AES (method ME-ICP41). Comparison with 4 acid digestion indicate that the technique is considered total for Ag, As, Cu, Pb, S, Zn. Fe may not be totally digested by aqua regia but near total digestion occurs.</li> <li>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.</li> <li>Certified reference material or blanks are inserted at least every 25 samples. Standards are purchased from Certified Reference Material manufacture companies: Ore Research and Exploration, Gannet Holdings Pty Ltd and Geostats Pty Ltd. Standards were purchased in foil lined packets of between 60g and 100g. Different reference materials are used to cover high grade, medium grade and low grade ranges of elements: Au, Ag, Pb, Zn Cu, Fe, S and As. The standard names on the foil packages were erased before going into the pre-numbered sample bag and the standards are submitted to the lab blind.</li> </ul>

<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>• The raw assay data forming significant intercepts are examined by at least two company personnel.</li> <li>• No twinned holes have been used at this stage.</li> <li>• Drill hole data including meta data, any gear left in the drill hole, lithological, mineral, survey, sampling and occasionally magnetic susceptibility is collected and entered directly into an excel spread sheet using drop down codes. When complete the spreadsheet is emailed to a geological database administrator, the data is validated and uploaded into a SQL database.</li> <li>• Assay data is provided by ALS via .csv spreadsheets. The data is validated using the results received from the known certified reference material. Using an SQL based query the assay data is merged into the database.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• Drill hole collars are initially located using hand held GPS to <math>\pm 5m</math>. Upon completion collars are located with differential GPS to <math>\pm 5cm</math> or picked up by the mine surveyors using a Total Station Theodolite (TST).</li> <li>• Drill holes are downhole-surveyed from collar to the end of hole by drilling personnel using downhole survey tool (Reflex). Drill holes are surveyed by single shot camera during drilling at intervals ranging between 15-30m. All survey data for every hole is checked and validated by Aurelia Metals personnel before entered into database.</li> <li>• All coordinates are based on Map Grid Australia zone 55H</li> <li>• Topographic control is considered adequate. There is no substantial variation in topography in the area with a maximum relief of 70m present. Local control within the Hera and Nymagee Mine areas is based on accurate mine surveys.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• As the prospect discussed represents a relatively new discovery, data spacing is extremely variable. Drill hole spacing at Federation ranges from 25 to 150 metres.</li> <li>• Not applicable as no Ore Resource or Reserve has been completed at Federation to date.</li> <li>• Sample compositing is not applied.</li> </ul>

<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Drilling is orientated to cross the interpreted, steeply dipping mineralisation trend at moderate to high angles. Holes are drilled from both the footwall and hangingwall of the mineralisation where possible. Estimated true widths for each significant interval are provided in Table 2.</li> <li>No known bias has been introduced due to drilling orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security</li> </ul>	<ul style="list-style-type: none"> <li>Chain of custody is managed by Aurelia Metals. Samples are placed in tied calico bags with sample numbers that provide no information on the location of the sample. Samples are transported from site to the assay lab by courier or directly delivered by Aurelia Metals personnel.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data</li> </ul>	<ul style="list-style-type: none"> <li>No audit or review of the sampling regime at Federation has been directly completed. However, an audit and review of the sampling regime at Hera, which uses identical sampling procedures, was undertaken by H&amp;S Consultants in November 2015. Recommendations from this review form part of the current sampling practices at Hera and regionally.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The Federation prospect is located on Exploration Lease 6162, owned 100% by Hera Resources Pty. Ltd. (a wholly owned subsidiary of Aurelia Metals Limited)</li> <li>At the time of reporting there were no known impediments to operating in these areas</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The area has a 50 year exploration history involving reputable companies such as Cyprus Mines, Buka, ESSO Minerals, CRAE, Pasmenco, Triako Resources and CBH Resources. Previous exploration data has been ground-truthed where possible. Historic drill hole collars have been relocated and surveyed</li> </ul>

<b>Geology</b>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<ul style="list-style-type: none"> <li>• All known mineralisation in the area is epigenetic “Cobar” style. Deposits are generally structurally controlled quartz + sulphide matrix breccias grading to massive sulphide. In a similar fashion to the other Cobar deposits, the Federation prospect occurs to the west of the Rookery Fault, a major regional structure with over 300km strike length. The deposits are near the boundary of the Devonian Lower Amphitheatre Group and the underlying Roset Sandstone. Both units show moderate to strong ductile deformation with tight upright folding coincident with greenschist facies regional metamorphism. A well-developed sub vertical cleavage is present.</li> <li>• Mineralisation identified at Federation includes sphalerite-galena±chalcopyrite-pyrrhotite-pyrite in veins and breccias.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• All relevant drill hole data is included in the main body of the report.</li> </ul>



<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• Exploration results have been 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 1% Pb+Zn or 1g/t Au cut-off. Internal dilution of up to 3 metres has been allowed.</li> <li>• Higher grade 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 shorter intercepts allows a more complete understanding of the grade distribution within the mineralised zone.</li> <li>• No metal equivalences are quoted in this report.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• While the controls and geometry of mineralisation at Federation are locally structurally complex, the deposit has an overall NNE strike (060°) and a sub-vertical dip.</li> <li>• Estimated true widths for each significant interval are provided in Table 4.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• See body of report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• All drill results from the recent program are given in this report, or have been reported in full in previous announcements.</li> </ul>

<p><b>Other substantive exploration data</b></p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• See body of report.</li> </ul>
<p><b>Further work</b></p>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• Future work is discussed in the body of the text.</li> </ul>