**ASX: AMI** 



# HIGH GRADE FOOTPRINT GROWS AT FEDERATION

#### **HIGHLIGHTS**

- Mineral Resource conversion and extensional drilling continues to intercept high grade base metal and gold mineralisation at the Federation deposit, with new results including:
  - 23.0 metres at 6.8% Pb+Zn & 9.7g/t Au, including 5.0 metres at 15.0% Pb+Zn & 41.7g/t Au
  - 14.1 metres at 34.4% Pb+Zn & 1.8g/t Au, including 6.0 metres at 50.5% Pb+Zn & 3.6g/t Au
  - 24.0 metres at 15.0% Pb+Zn & 0.1g/t Au, including 4.9 metres at 50.4% Pb+Zn & 0.2g/t Au
  - 10.0 metres at 23.4% Pb+Zn & 0.2g/t Au, including 3.0 metres at 40.1% Pb+Zn & 0.5g/t Au
  - 8.0 metres at 17.4% Pb+Zn & 0.2g/t Au, including 3.0 metres at 41.8% Pb+Zn & 0.4g/t Au
- Results extend high grade mineralisation up-dip and along strike in the southwestern and central portions of the deposit
- Potential new high grade gold corridor emerging at the southwestern boundary of the Resource
- Intensive drilling in support of the Federation Feasibility Study continuing with four drill rigs in operation
- Results to be incorporated into the Feasibility Study mine plan and next Mineral Resource Estimate

Commenting on the latest drilling results, Aurelia Metals Managing Director and CEO Dan Clifford said "We are driving ahead with the Federation Project following more striking grade results from our recent drilling activities. The results clearly confirm the Company's view that Federation is one of the most exciting Australian discoveries in recent times and remains highly prospective with the extent of this resource still unknown. With drilling continuing and a Feasibility Study and enabling works underway, we are on the doorstep of exceptional value."

## HIGH GRADE FOOTPRINT CONTINUES TO GROW AT FEDERATION

In July Aurelia released an updated Indicated and Inferred Mineral Resource Estimate (MRE) for the Federation deposit as a part of the Company's annual Mineral Resource and Ore Reserve Statement (see ASX release 23 July 2021). The update reported significant growth in the Federation deposit's total MRE to 5.1Mt at 5.5% Pb, 9.3% Zn, 0.9g/t Au, 7g/t Ag & 0.3% Cu, with just under 30% of the tonnage in the higher confidence Indicated category.

Aurelia has continued an intensive diamond drilling program to further increase confidence in the MRE. The additional geological and technical data collected from this drilling is being used to support the Federation Feasibility Study (FS), which is expected to facilitate the declaration of a maiden Ore Reserve and Production Target in mid-2022.

Assay results returned from the latest drilling continue to show the outstanding grade tenor at Federation, with high grade mineralisation extended up-dip and along strike in the central and southwestern portions of the deposit (**Figure 1**). Significant new assay results include:

FDD150W2 23.0 metres at **6.8% Pb+Zn**, **9.7g/t Au**, **5g/t Ag & 0.4% Cu** from 437.0m, *including* 

5.0 metres at 15.0% Pb+Zn, 41.7g/t Au, 11g/t Ag & 1.5% Cu from 438.0m

FDD141 14.1 metres at **34.4% Pb+Zn, 1.8g/t Au, 21g/t Ag & 1.3% Cu** from 268.9m, *including* 

6.0 metres at 50.5% Pb+Zn, 3.6g/t Au, 29g/t Ag & 1.1% Cu from 273.2m



FDD150 24.0 metres at 15.0% Pb+Zn, 0.1g/t Au, 6g/t Ag & 0.4% Cu from 488.0m, including

4.9 metres at 50.4% Pb+Zn, 0.2g/t Au, 16g/t Ag & 0.7% Cu from 501.0m

FDD139W5 10.0 metres at 23.4% Pb+Zn, 0.2g/t Au, 13g/t Ag & 0.7% Cu from 603.0m, including

3.0 metres at 40.1% Pb+Zn, 0.5g/t Au, 22g/t Ag & 1.5% Cu from 607.0m

FDD144 8.0 metres at 17.4% Pb+Zn, 0.2g/t Au, 16g/t Ag & 0.1% Cu from 386.0m, including

3.0 metres at 41.8% Pb+Zn, 0.4g/t Au, 37g/t Ag & 0.2% Cu from 386.0m

FDD139W3 35.0 metres at **7.9% Pb+Zn**, **6g/t Ag & 0.3% Cu** from 616.0m, including

6.0 metres at 14.1% Pb+Zn, 11g/t Ag & 0.1% Cu from 633.0m

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

The exceptional gold encountered in hole FDD150W2 is particularly encouraging as this drilling intercept is at the southwest extent of the known deposit with limited drilling along strike and up-dip. Further supporting this extension potential, current drilling has intercepted coarse grained, visible gold associated with sulphide mineralisation in hole FDD156 (Figure 2) for which assays are pending. Hole FDD156 is located approximately 100 metres above FDD150W2 and will be the subject of immediate additional infill drilling.

These intercepts, along with expected future results from the current drill program, will be incorporated into the next Mineral Resource Estimate and the mine plan being developed for the Federation Project FS.

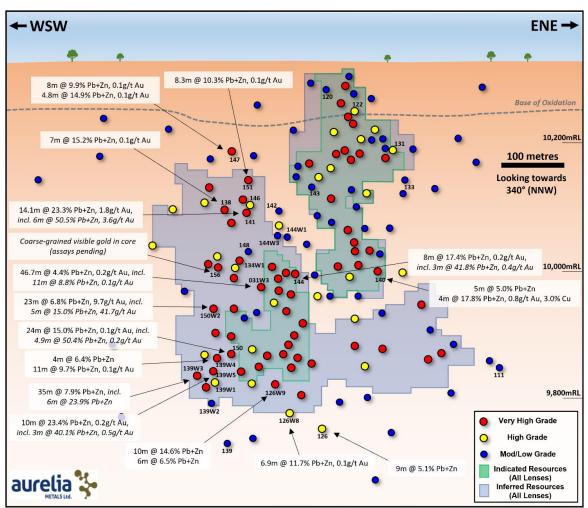


Figure 1. Schematic long section of the Federation deposit looking towards 340° (NNW) showing the outline of Indicated and Inferred categories reported in the June 2021 MRE and selected recent intercepts. A full list of recent intercepts is provided in Table 2.





**Figure 2**. Coarse-grained visible gold (bright yellow) from recently drilled hole FDD156 at 357.5 metres associated with sulphides including chalcopyrite (dull yellow), sphalerite (brown) and minor galena (silver). Laboratory assays for this hole are currently pending.

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 Federation project is extracted from the Company's announcements entitled 'Updated Federation Mineral Resources Estimate', 'Federation drilling continues to deliver base metals and gold upside', 'Federation project proceeds to feasibility study' and 'Federation returns best base metal intercepts to date' released on 23 February 2021, 29 March 2021, 8 April 2021 and 30 June 2021 and are available to view on www.aureliametals.com 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.

Table 1. Co	llar summary for the					A =:	Total
Туре	Hole ID	Easting	Northing	Local RL	DIP	Azimuth (MGA)	Depth (m)
DDU	EDD444	(MGA)	(MGA)	(m)	C4 5	440.0	
DDH	FDD111	434403.8	6437404.7	10320.2	-64.5	140.6	855.8
DDH	FDD031W3	434321.1	6436802.8	10325.7	-64.8	326.5	600.0
DDH	FDD120	434268.5	6437026.7	10323.5	-60.0	130.7	225.7
DDH	FDD122	434322.8	6437053.3	10323.9	-60.2	167.1	192.5
DDH	FDD126	433937.5	6437284.8	10316.4	-60.0	114.2	935.0
DDH	FDD126W8	433937.5	6437284.8	10316.4	-60.0	114.2	809.6
DDH	FDD126W9	433937.5	6437284.8	10316.4	-60.0	114.2	738.6
DDH	FDD131	434334.6	6437110.6	10323.5	-60.3	145.6	486.8
DDH	FDD133	434303.0	6437147.7	10322.7	-56.0	131.3	366.7
DDH	FDD134W1	434025.1	6437122.0	10319.1	-59.9	137.4	508.8
DDH	FDD138	434060.4	6437086.0	10320.6	-59.6	147.7	438.9
DDH	FDD139	433936.3	6437283.3	10316.1	-59.6	139.8	852.8
DDH	FDD139W1	433936.3	6437283.3	10316.1	-59.6	139.8	723.6
DDH	FDD139W2	433936.3	6437283.3	10316.1	-59.6	139.8	760.2
DDH	FDD139W3	433936.3	6437283.3	10316.1	-59.6	139.8	806.6
DDH	FDD139W4	433936.3	6437283.3	10316.1	-59.6	139.8	810.6
DDH	FDD140	434207.0	6437170.3	10321.4	-59.8	121.9	651.6
DDH	FDD141	434059.4	6437087.8	10320.6	-60.2	134.2	552.7
DDH	FDD142	434131.5	6437102.9	10321.8	-60.3	141.1	495.2
DDH	FDD143	434211.0	6437095.0	10323.0	-59.9	148.9	501.6
DDH	FDD144	434071.4	6437150.4	10319.6	-59.2	129.2	669.8
DDH	FDD144W1	434071.4	6437150.4	10319.6	-59.2	129.2	618.5
DDH	FDD144W3	434071.4	6437150.4	10319.6	-59.2	129.2	546.7
DDH	FDD146	434066.8	6437077.9	10321.2	-60.8	128.9	573.6
DDH	FDD147	434095.3	6437046.5	10322.2	-59.1	149.0	501.0
DDH	FDD148	434030.3	6437116.2	10319.3	-59.7	129.2	683.2
DDH	FDD150	433995.4	6437158.9	10318.1	-65.5	133.2	669.0
DDH	FDD150W2	433995.4	6437158.9	10318.1	-65.5	133.2	654.5
DDH	FDD151	434067.8	6437077.3	10321.0	-59.7	128.0	640.9
DDH	FDD156	434026.0	6437122.0	10318.0	-60.0	145.0	450.0



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

Table 2. Significant n	Interval	ETW*	Pb	Zn	Pb+Zn	Au	Ag	Cu	From
Hole ID	(m)	(m)	(%)	(%)	(%)	(g/t)	(g/t)	(%)	(m)
FDD031W3	46.7	31.7	3.0	1.4	4.4	0.2	5	0.2	391.4
includes	11.0	7.5	6.9	1.8	8.8	0.1	12	0.3	422.0
FDD111	2.0	1.4	1.1	1.3	2.3	0.0	2	0.4	635.0
FDD120	1.0	0.4	1.0	0.2	1.2	2.5	1	0.2	24.0
FDD122	3.0	1.5	0.1	0.1	0.2	0.8	0	0.0	23.0
	3.0	1.5	0.2	0.1	0.3	4.5	0	0.0	76.0
	3.0	1.5	1.0	2.3	3.3	0.0	2	0.0	141.0
FDD126	9.0	5.2	4.3	0.9	5.1	0.0	10	0.0	672.0
FDD126W8	6.9	4.6	10.3	1.4	11.7	0.1	29	1.6	597.8
	3.0	2.0	2.4	2.8	5.1	0.0	3	0.0	620.0
	2.0	1.4	4.1	1.0	5.1	0.0	21	1.2	676.0
	3.0	2.0	3.6	0.0	3.6	0.1	42	0.2	687.0
FDD126W9	10.0	7.5	5.0	9.6	14.6	0.0	12	0.1	599.5
	2.0	1.5	11.4	0.5	11.9	0.0	16	0.1	635.0
	6.0	4.6	2.5	4.1	6.5	0.0	3	0.0	648.0
	4.0	3.1	2.0	3.1	5.1	2.1	2	0.0	663.0
FDD131	8.8	4.6	1.9	3.4	5.3	0.0	4	0.1	156.2
FDD133	3.0	1.7	0.3	0.4	0.7	1.0	1	0.0	271.0
FDD134W1	11.0	7.8	3.5	7.4	10.9	0.0	9	0.3	390.0
FDD138	7.0	3.8	5.4	9.8	15.2	0.1	8	0.3	265.0
	2.0	1.1	1.1	1.4	2.5	0.8	2	0.0	295.0
FDD139	0.6	0.3	4.5	0.3	4.7	0.0	25	0.4	784.0
FDD139W1	12.0	9.3	3.2	1.7	4.9	0.0	12	0.3	621.0
	4.0	3.1	2.8	2.1	4.9	0.1	23	0.6	658.0
FDD139W2	3.0	2.0	1.0	2.7	3.6	0.0	2	0.0	632.0
FDD139W3	35.0	27.9	3.4	4.6	7.9	0.0	6	0.3	616.0
includes	6.0	4.8	9.7	14.1	23.9	0.1	11	0.1	633.0
FDD139W4	4.0	3.3	3.8	2.6	6.4	0.0	4	0.1	600.0
	11.0	9.1	5.0	4.8	9.7	0.1	8	0.4	612.0
	11.0	9.1	1.4	2.7	4.1	0.0	2	0.0	635.0
FDD139W5	2.0	1.5	1.8	3.1	4.9	0.0	3	0.0	594.0
	10.0	7.2	8.6	14.8	23.4	0.2	13	0.7	603.0
includes	3.0	2.2	15.0	25.2	40.1	0.5	22	1.5	607.0
	2.0	1.5	1.5	4.1	5.5	0.0	3	0.0	625.0
	9.0	6.6	2.0	3.6	5.6	0.0	3	0.0	632.0
FDD140	1.0	0.5	2.5	4.2	6.7	0.1	3	0.0	378.0
	5.0	2.6	2.1	2.9	5.0	0.0	4	0.2	390.0
	4.0	2.1	8.0	9.8	17.8	0.8	17	3.0	401.0
	2.0	1.1	0.1	0.6	0.8	1.4	2	0.8	439.0
	1.0	0.6	1.7	4.1	5.7	0.0	3	0.0	520.0
	2.0	1.2	1.1	2.2	3.3	0.0	2	0.1	572.0

<sup>\*</sup>ETW = estimated true width, based on assumed sub-vertical lode orientation striking at 070°



Table 2 (continued). Significant new intersections for the drill holes reported in this release.

Table 2 (continued).	. Significant	new inter	rsections f	or the dril	I holes rep	orted in th	nis release	e	
Hole ID	Interval (m)	ETW* (m)	Pb (%)	Zn (%)	Pb+Zn (%)	Au (g/t)	Ag (g/t)	Cu (%)	From (m)
FDD141	14.1	7.7	11.1	23.3	34.4	1.8	21	1.3	268.9
includes	6.0	3.3	16.2	34.2	50.5	3.6	29	1.1	273.2
FDD142	2.7	1.8	1.6	2.7	4.3	0.1	11	0.5	438.0
FDD143	1.0	0.5	0.0	0.1	0.1	2.4	0	0.0	118.0
	2.0	1.1	0.5	1.9	2.4	0.0	1	0.0	226.0
	1.0	0.7	2.3	0.9	3.2	0.0	3	0.0	421.0
FDD144	8.0	5.1	6.3	11.1	17.4	0.2	16	0.1	386.0
includes	3.0	1.9	14.5	27.3	41.8	0.4	37	0.2	386.0
	5.0	3.3	3.5	1.7	5.2	0.0	10	0.9	398.0
	4.0	2.7	1.2	2.9	4.1	0.0	2	0.1	408.0
	2.8	1.9	3.5	7.0	10.5	0.0	12	0.5	515.0
FDD144W1	2.0	1.5	1.3	2.1	3.4	0.0	2	0.0	342.0
	2.0	1.6	6.0	5.0	11.0	0.1	8	0.1	502.0
	1.0	0.8	1.0	4.1	5.0	0.0	3	0.0	534.0
FDD144W3	2.0	1.5	3.2	1.1	4.3	1.5	9	2.0	334.0
	2.0	1.6	1.1	2.9	4.0	0.0	2	0.0	348.0
FDD146	10.0	6.0	1.5	5.0	6.5	0.2	3	0.4	254.0
includes	2.0	1.2	4.3	17.3	21.6	0.4	8	1.0	258.0
FDD147	3.0	1.6	3.3	6.6	9.9	0.1	9	0.1	111.0
	8.0	4.2	3.6	6.2	9.9	0.1	7	0.1	143.0
	4.8	2.6	4.7	10.2	14.9	0.1	8	0.0	169.0
FDD148	2.0	1.2	1.5	2.6	4.1	0.0	2	0.0	572.0
	4.0	2.5	1.8	4.0	5.8	0.0	3	0.1	641.0
FDD150	24.0	14.4	5.0	10.0	15.0	0.1	6	0.4	488.0
includes	4.9	2.9	17.6	32.7	50.4	0.2	16	0.7	501.0
FDD150W2	23.0	17.6	2.4	4.4	6.8	9.7	5	0.4	437.0
includes	5.0	3.8	5.4	9.6	15.0	41.7	11	1.5	438.0
	3.0	2.4	4.0	6.6	10.5	0.6	10	0.4	457.0
FDD151	8.3	4.2	4.2	6.2	10.3	0.1	10	0.3	204.7
	8.0	4.5	7.1	12.6	19.7	0.1	8	0.8	491.0
	3.0	1.7	2.2	5.0	7.3	0.0	3	0.0	536.0

\*ETW = estimated true width, based on assumed sub-vertical lode orientation striking at 070°



## **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
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.	<ul> <li>RC percussion and diamond core drilling at Federation has been undertaken by Budd Exploration Drilling Pty Limited and Mitchell Services Limited.</li> <li>Chip samples were collected using a rotary cone or riffle splitter directly off the drill rig. All samples were collected on a dry basis.</li> <li>Core samples were defined by Aurelia geologist during logging to honour, geological and mineralogical boundaries, cut in half by diamond saw, with half core sent to external laboratories.</li> </ul>
15)	<ul> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul> <li>Sampling and QAQC procedures are carried out using Aurelia Metal's protocols as per industry best practice.</li> <li>Drilling is oriented perpendicular to the strike of the mineralisation as much as possible to ensure a representative sample is collected.</li> </ul>
	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.	RC drilling was used to obtain representative samples of 1 metre length. Diamond drilling was used to obtain core samples of a nominal 1 metre length. RC chips were sub-sampled off the rig with a rotary cone or riffle splitter to produce samples of between 2 to 4 kg. Core and RC samples are dried, crushed and pulverised to 85% passing 75 microns. This is considered to appropriately homogenise the sample. Gold analysis 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. Gold samples greater than 0.2g/t are re-assayed by screen fire assay using the entire sample to improve accuracy, especially where coarse gold is present.
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.).	Drilling by triple tube diamond coring generally commences as PQ core until fresh rock is reached. The PQ rods are left as casing then HQ coring is employed. NQ coring is also used (particularly in wedge holes). 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.



be noted by the geologist at the rig. Recoveries for core are generally greater than 95% once in fresh rock.  Measures taken to maximise sample recovery and ensure representative nature of the samples.  Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of line/coorse material.  Logging  Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.  Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.  Whether logging and percentage of the relevant intersections logged.  Sub-sampling  I force, whether out or sawn and whether Quarter, half or all core taken.  Core is sawn with half core submitted for sessay. Sampling is consistently on one side of the orientation line the sample recovery and grade has been assessed for diamond core samples through of conditional expectation plots and scatter plots. No obvious relationship exists and sample bias due to the preferential loss or gain of material is not considered to be significant to the resource estimate. The relations between sample recovery and grade has been assessed for diamond core samples through of conditional expectation plots and scatter plots. No obvious relationship exists and sample bias due to the preferential loss or gain of material is not considered to seignificant to the resource estimate. The relationship between sample recovery and grade has been assessed for diamond core samples through of conditional expectation plots and scatter plots. No obvious relationship exists and sample bias due to the preferential loss or gain of material is not considered to Resource assignments. The relationship between sample recovery and grade has been assessed for diamond core samples through of conditional expectation plots and scatter plots. No obvious relationship exists and sample beautionship ex	Criteria	JORC Code explanation	Commentary
<ul> <li>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> <li>Sub-sampling techniques and sample preparation</li> <li>If core, whether cut or sawn and whether quarter in non-core, whether riffled, tube sampled.</li> <li>Nature and extent of lithologies</li> <li>Relationship between lithologies</li> <li>Relationship between lithologies</li> <li>Relationship between 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 nur defect sets. For some geotechnical holes the orientation, nature of defects and defect fill are recorded (core of 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 is geologically and geotechnically logged, 100% of all recovered chips are geolog logged.</li> <li>The geological and geotechnical logging is considered to have been carried out at a sufficient level of detail support Mineral Resource estimation</li> <li>Core is sawn with half core submitted for assay. Sampling is consistently on one side of the orientation line 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 or riffle sampler directly off the drilling rig. Two samples were core for every metre to allow for duplicate</li></ul>	•	<ul> <li>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</li> </ul>	<ul> <li>be noted by the geologist at the rig. Recoveries for core are generally greater than 95% once in fresh rock.</li> <li>Measures taken to maximise recovery include triple tube drilling in soft or broken rock and slower drilling rates in poor ground.</li> <li>The relationship between sample recovery and grade has been assessed for diamond core samples through the u of conditional expectation plots and scatter plots. No obvious relationship exists and sample bias due to the preferential loss or gain of material is not considered to be significant to the resource estimate. The relationship</li> </ul>
techniques and sample preparation  Quarter, half or all core taken.  Quarter, half or all core taken.  All RC samples were split using a rotary cone or riffle sampler directly off the drilling rig. Two samples were conformed for every metre to allow for duplicate samples to be taken at any interval. All sampling was on a dry basis.	Logging	geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.  • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.  • The total length and percentage of the relevant	<ul> <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 is geologically and geotechnically logged, 100% of all recovered chips are geologically logged.</li> <li>The geological and geotechnical logging is considered to have been carried out at a sufficient level of detail to</li> </ul>
	techniques and sample	<ul><li>Quarter, half or all core taken.</li><li>If non-core, whether riffled, tube sampled,</li></ul>	the same part of the core is sent for assay. PQ core is ¼ sampled.  • All RC samples were split using a rotary cone or riffle sampler directly off the drilling rig. Two samples were collected



Criteria	JORC Code explanation	Commentary
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the 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> <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 ±10% 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> <li>Sample sizes are considered appropriate for the material being sampled.</li> </ul>
Quality of assay data and laboratory test	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (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> <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. A small number of samples from Federation were also assayed by Intertek Genalysis in Townsville using comparable methods. Gold samples greater than 0.2g/t were re-assayed by screen fire assay using the entire sample to improve accuracy.</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>



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul> <li>All significant drilling intersection are verified by multiple Company personnel.</li> <li>Due to the relatively recent discovery history at Federation, 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 a Logchief database using drop down codes When complete the Logchief database XML file is emailed to an external geological database administrator, the data is validated and uploaded into an 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>
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>	<ul> <li>Drill hole collars are initially located using hand held GPS to ±5m. Upon completion collars are located with differential GPS to ±5cm picked up by the mine surveyors.</li> <li>Drill holes are downhole-surveyed from collar to the end of hole by drilling personnel using downhole survey too (Reflex). Downhole north-seeking gyroscopic survey instruments have also been regularly employed at Federation to improve survey accuracies. Drill holes are surveyed by single shot camera during drilling at intervals ranging between 6-30m. All survey data for every hole is checked and validated by Aurelia Metals personnel before being entered into the database.</li> <li>All coordinates are based on Map Grid Australia zone 55H</li> <li>Topographic control is considered adequate as it is based on a high precision Lidar survey completed over the area in 2019.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>As the prospect discussed represents a relatively new discovery, data spacing is extremely variable. Drill hole spacing at Federation ranges from 25 to 125 metres.</li> <li>The drill spacing is considered appropriate to support the predominantly Inferred classification for the Federation MRE. Additional closer spaced drilling will be required in the future to upgrade the resource to higher classifications</li> <li>Sample compositing is not applied.</li> </ul>



Criteria	JORC Code explanation	Commentary
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</li> </ul>	<ul> <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>
Sample security	The measures taken to ensure sample security	<ul> <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>
Audits or reviews	The results of any audits or reviews of sampling techniques and data	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&S Consultants in November 2015. Recommendations from this review form part of the current sampling practices at Hera and regionally.



## **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Federation prospect is located within Exploration Licence 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>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The area has a 50 year exploration history involving reputable companies such as Cyprus Mines, Buka, ESSO Minerals, CRAE, Pasminco, Triako Resources and CBH Resources. Previous exploration data has been ground-truthed where possible. Historic drill hole collars have been relocated and surveyed. YTC Resources completed a total of four, relatively shallow RC drill holes at the Federation prospect in 2013, prior to the discovery of high grade mineralisation in 2019.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <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 at Federation occurs in several steeply dipping vein breccia/massive sulphide lenses developed in the centre of a broad NE–SW striking corridor of quartz–sulphide vein stockwork mineralisation. The mineralisation is hosted by fine-grained sedimentary rocks and is best developed within open upright anticline closures in areas of strong rheology contrast imposed by early stratiform alteration.</li> </ul>
		<ul> <li>Sulphide mineralisation identified at Federation include sphalerite-galena±chalcopyrite-pyrrhotite-pyrite in veins and breccias. Gold distribution tends to be nuggetty, often present as visible gold grains up to four millimetres in size. The majority of high grade gold mineralisation at Federation (to date) is present in steeply plunging, short strike-length zones.</li> </ul>



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 o 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 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>	<ul> <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 \$50NSR threshold. 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>



Relationship between mineralisatio widths and intercept len	nature should be reported.
Diagrams	<ul> <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> <li>See body of report.</li> </ul>
Balanced reporting	<ul> <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> <li>All drill results from the recent program are given in this report or have been reported in full in previous announcements.</li> </ul>
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.      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> <li>Future work is discussed in the body of the text.</li> </ul>