

ASX ANNOUNCEMENT

YANDAL GOLD PROJECT ORELIA MINERAL RESOURCE UPDATE

KEY POINTS

- **Confidence in the Mineral Resource estimate for the Orelia gold deposit has been further increased with recent infill drilling**
- **Infill drilling was predominantly designed to upgrade a portion of the existing Indicated Mineral Resource within the proposed Orelia Stage 1 pit to Measured**

Table 1: Updated Orelia Mineral Resource Estimate

JORC (2012) Category	Cut-off (g/t Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (oz Au)
Measured	1.0	2.8	2.6	237,000
Indicated	1.0	11.2	2.0	732,000
Measured + Indicated	1.0	14.0	2.2	969,000
Inferred	1.0	1.9	1.7	101,000
Total Mineral Resource	1.0	15.9	2.1	1,070,000

- **The infill drilling and revised Mineral Resource estimate was undertaken as an integral component of Echo's Bankable Feasibility Study (BFS) due diligence and finalisation process**
- **The updated resource model will further define pit design and mine plan optimisation as part of the updated Ore Reserve estimate to be contained within the BFS**
- **The Yandal Gold Project BFS remains on track for completion and release in the coming weeks.**

Echo Resources Limited (ASX: EAR) ('Echo' or 'the Company') wishes to advise that recent infill drilling has resulted in an update to, and classification upgrade of, the Mineral Resource estimate for the Orelia gold deposit.

The updated Orelia Mineral Resource estimate is **15.9Mt at 2.1 g/t Au for 1.07 million ounces** and is in line with the previous estimate.

Importantly, the updated Mineral Resource estimate includes **2.8Mt at 2.6 g/t Au for 237,000 ounces within the Measured category**. Previously the Orelia Mineral Resource estimate did not contain any material within the Measured category.

ASX ANNOUNCEMENT

14 June 2018

ASX CODE

EAR

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- Julius
- Orelia
- Bronzewing Hub

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This updated Mineral Resource estimate comprises an additional 19 orientated NQ diamond holes for 2,881 metres (refer to Appendix 1 for detailed results). Holes were drilled from the floor of the Orelia existing open pit specifically targeting areas of the proposed Stage 1 mining area.

Since early 2016 Echo has worked diligently to add resource ounces to its inventory and a timeline of its global Mineral Resource estimates is presented below.

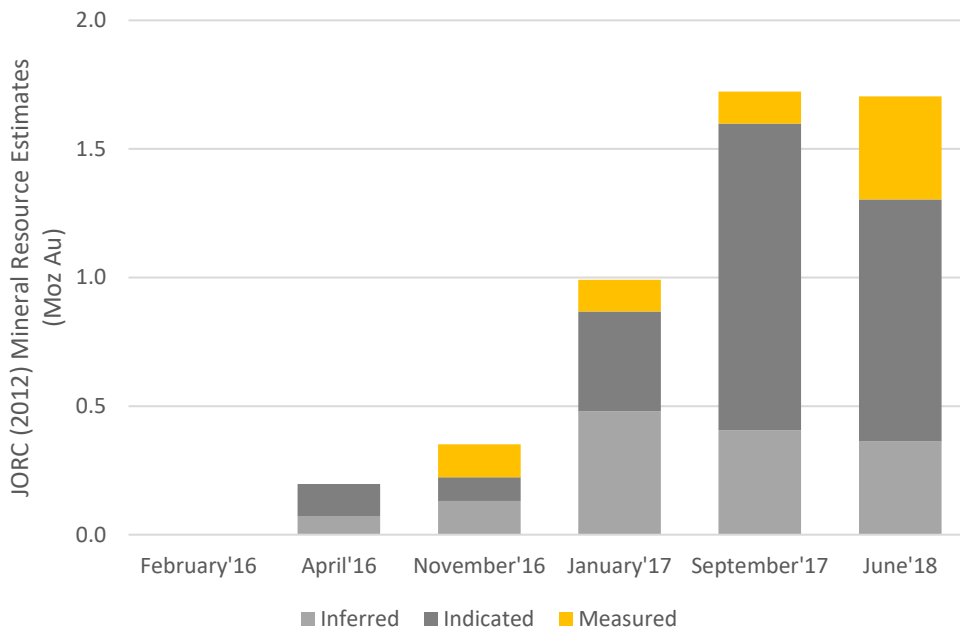
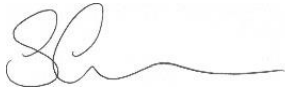


Figure 1: Echo Global Mineral Resource Estimate (by Category)

A summary of the material information used in the determination of the Mineral Resource estimate for the Orelia gold deposit is presented herewith and disclosed in accordance with the JORC Code 2012 and ASX Listing rules.

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Orelia Mineral Resource Estimate – Additional Information

Orelia Overview

The Orelia gold deposit is located 10 kilometres south west of the Bronzewing processing plant and approximately 450 kilometres north of Kalgoorlie. The Project is accessed via Leinster, located 45 kilometres to the west. Orelia is located on granted mining licence M36/146 and is 100% owned by Echo.

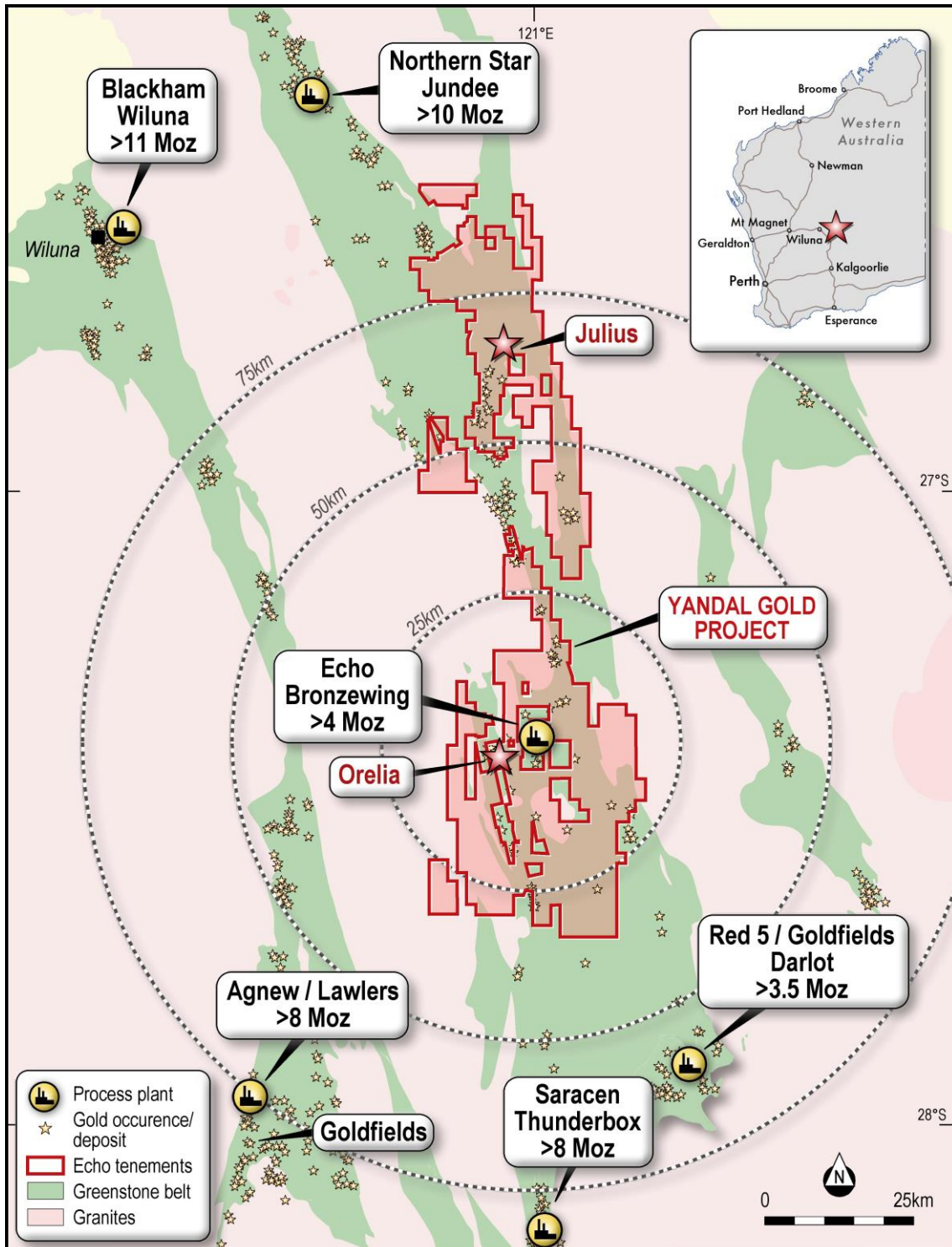


Figure 2: Echo Tenement Plan and Key Projects

The Orelia gold deposit (incorporating the Orelia, Calista and Cumberland shear zones) has been previously mined during a number of campaigns since 1988. Approximately 400,000 ounces¹ have been produced from the existing open pit to a vertical depth of approximately 100 metres below natural surface. It was last mined in April 2013 and treated through the Bronzewing processing plant which is now 100% owned by Echo.



Figure 3: Orelia Open Pit (looking south)

Along with the Lotus gold deposit, the Lotus-Orelia–Calista mineralisation extends over 2km of strike and to at least 500 metres vertical depth. Lotus produced 387,000 ounces from 2.2Mt at 5.5 g/t Au¹.

Geology and Geological Interpretation

The main host rocks of mineralisation at Orelia are deformed and altered tholeiitic basalts, concordant dolerite units and felsic to intermediate sedimentary rocks. Cross-cutting felsic to intermediate porphyry dykes intrude the stratigraphy along pre-existing structures. Gold mineralisation typically occurs as southerly plunging ore-shoots at the intersection between steeply-dipping transgressive faults and favourable lithological units, along fold hinges and on lithological contacts.

At Orelia gold values are not necessarily associated with total sulphide content. In sedimentary lithologies much of the sulphide is considered primary and is unrelated to the gold. The gold is associated with the hydrothermal phase of sulphide formation that consists of pyrite-pyrrhotite±chalcopyrite. Gold related alteration consists of biotite-sericite-carbonate altered deformation zones.

¹ As announced to ASX by MKO on 1 September 2016

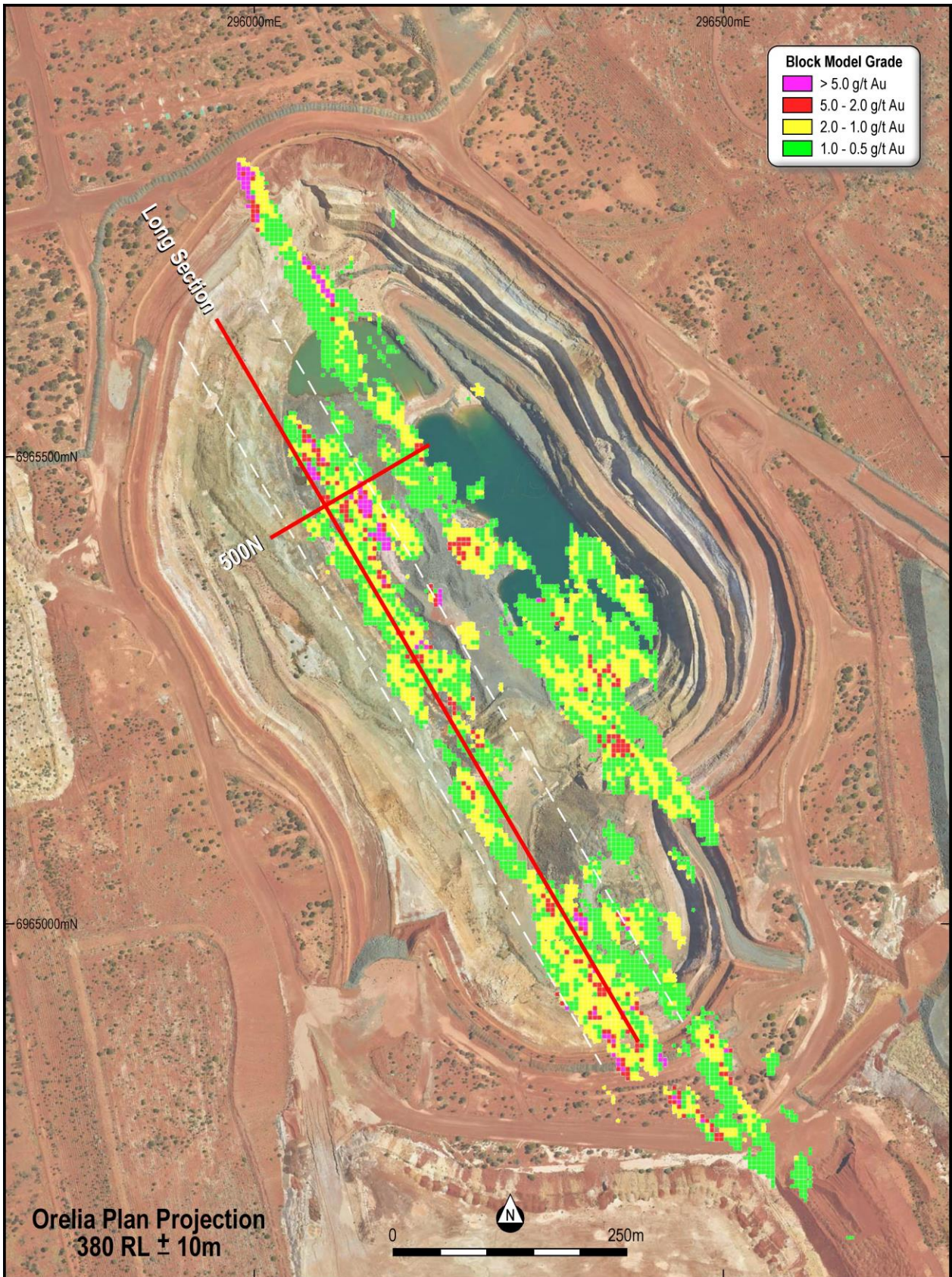


Figure 4: Orelia Plan View with Mineral Resource Estimate Block Model

The deposit comprises a number of shallow trending high grade gold shoots with dimensions of approximately 50 metres in vertical extent and 25 metres in width and extending over 500 metres down plunge. Confidence in the geological interpretation is good with the latest infill drilling allowing a detailed interpretation of the controls on mineralisation.

Geological logging and interpretation allows extrapolation of drill intersections between adjacent sections and boundaries are determined by the spatial locations of the various mineralised structures. Mineralisation is confined to individual wireframes with oxide, transition and fresh material individually assessed with oxidation profiles established and assigned into the block model.

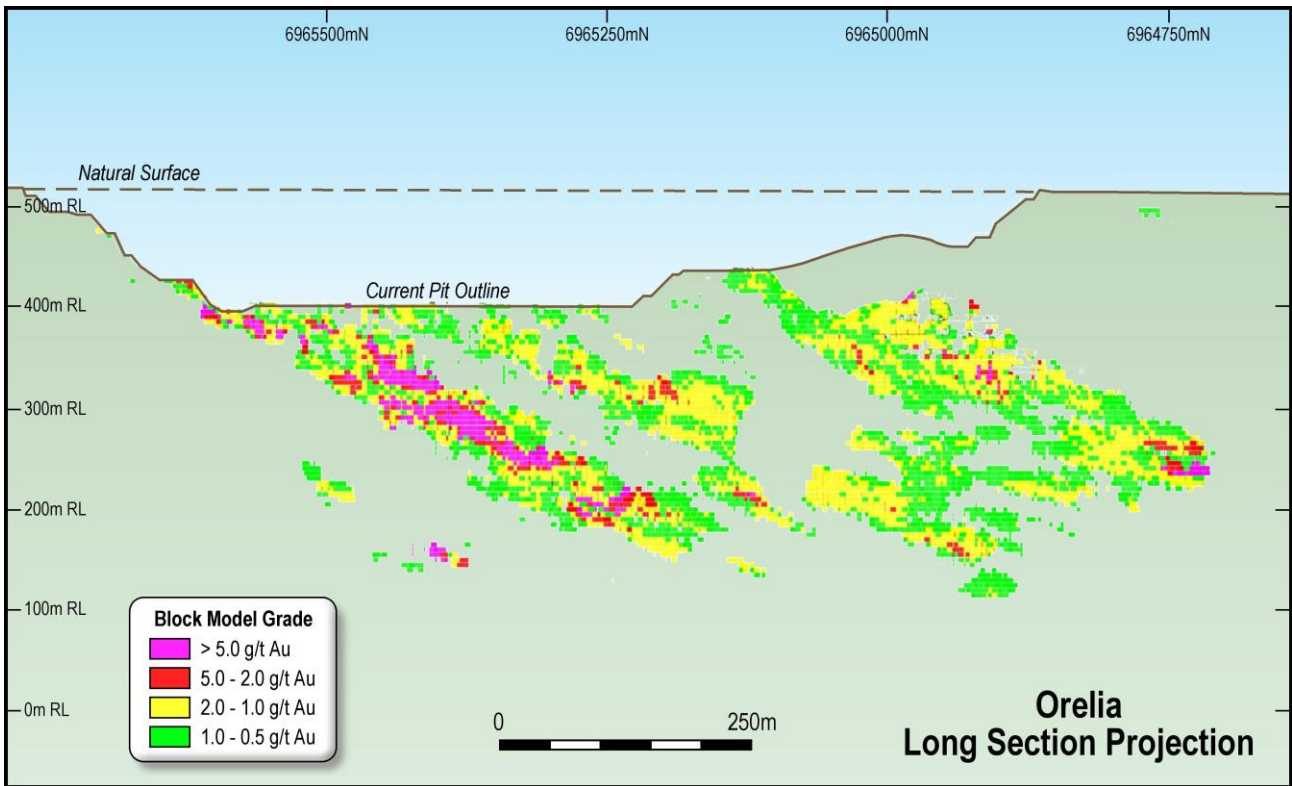


Figure 5: Orelia (Cumberland-Calista) Projected Long-Section Grade Block Model

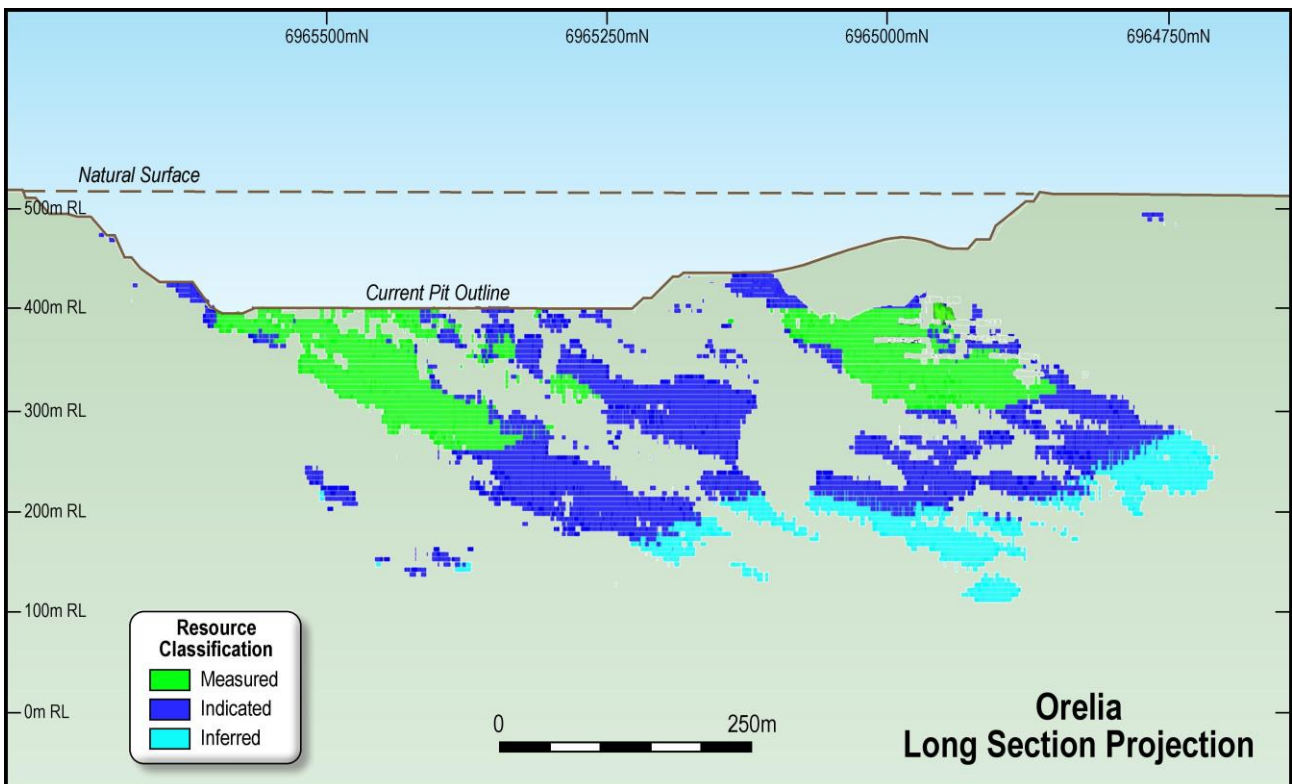


Figure 6: Orelia (Cumberland-Calista) Projected Long-Section Classification Block Model

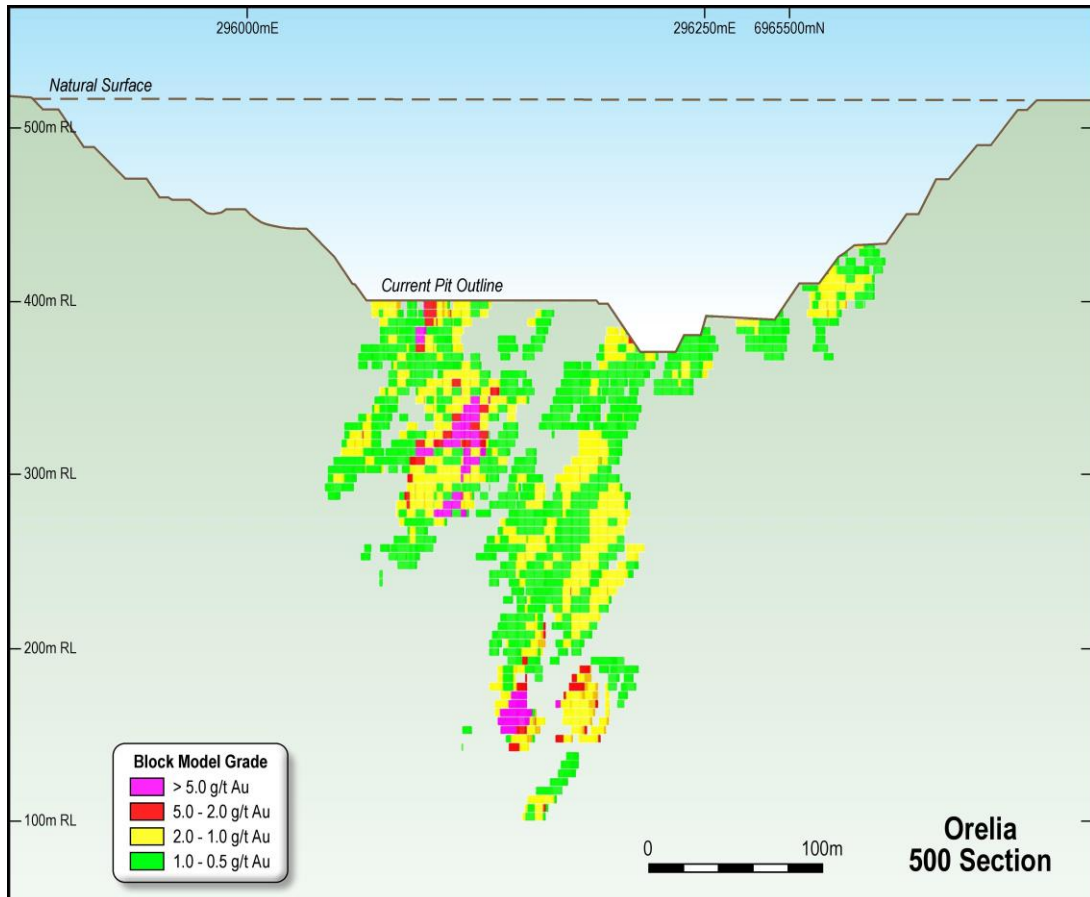


Figure 7: Orelia Cross-Section with Mineral Resource Estimate Block Model (6965500N)

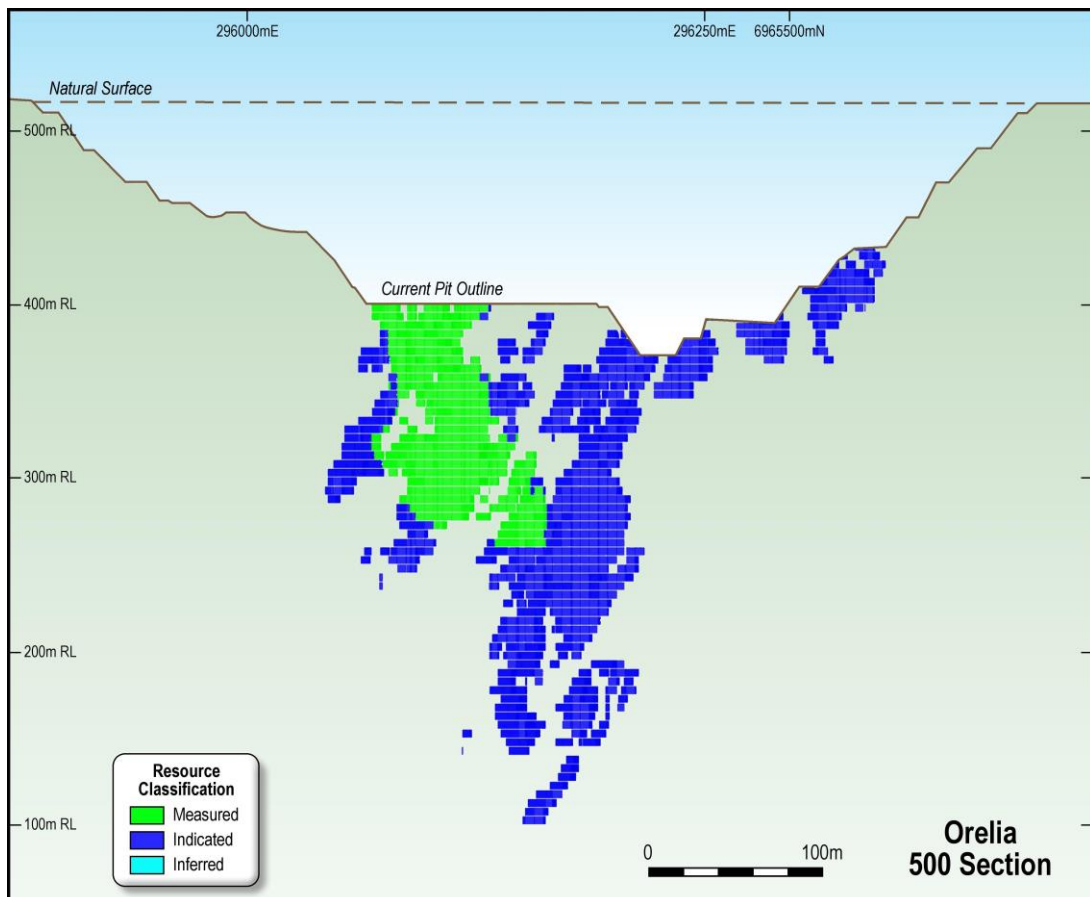


Figure 8: Orelia Cross-Section with Mineral Resource Classification (6965500N)

Sampling and Sub-sampling

The deposit has been extensively drilled by previous owners including Arimco, Great Central Mining, Normandy, Newmont and View Resources between 1992-2004 with a total of 1,458 drillholes for a total of 233,091 metres. Of this drilling, 426 diamond holes for 120,926 metres have been drilled in the deposit on a nominal 20m by 20m grid pattern resulting in a large percentage of the Mineral Resource being classified as Measured and Indicated.

Recent drilling by Echo, leading to this Mineral Resource estimate, comprised 19 orientated NQ diamond holes for 2,881 metres. These holes were drilled from the floor of the Orelia existing open pit specifically targeting areas of the proposed Stage 1 mining area and increased the drill density in places to 20m x 10m, specifically focused on portions of the mineralised zone located within the proposed Stage 1 Orelia open pit.

In total, drilling completed by Echo from the floor of the Orelia open pit since 2017 has comprised of 26 RC holes for 2,597 metres and 25 diamond holes for 4,090 metres. During RC drilling (ORC001→026, full details available in ASX Announcement dated 7 September 2017) approximately 20 kilograms of sample was collected from each metre with approximately 2kg samples collected via the onboard cone splitter, sampled for analysis. NQ diamond drilling samples consisted of halved NQ diamond core with approximately 0.5-2 kilograms of sample collected. Sampling was conducted to geology to ensure samples did not overlap important geological breaks. Sampling was conducted with a minimum sample length of 0.3 metres and a maximum sample length of 1.2 metres.

All drill hole collar locations were recorded by RTK GPS with an accuracy of +/- 0.25 metres

Drilling Techniques

In the Resource area diamond drilling ranging from HQ and NQ core size has been conducted with RC drilling with a 5 ¼ inch face sampling hammer completed. Historical diamond drilling included a variety of different diamond core sizes (NQ, HQ, PQ) with predominantly NQ being used. Various past authors as well as Echo staff and consultants have summarised the techniques and sampling used and it is considered the historical drilling and sampling methods are consistent with industry standard practices of the time.

The vast majority of the data used for the latest Resource estimate has incorporated all of the historical diamond drilling within the Resource area, supplemented by Echo's RC and diamond drilling conducted from the floor of the open pit.

Estimation Methodology

The Mineral Estimate was completed by Lynn Widenbar & Associates. Mr Widenbar is recognised nationally and internationally for his high quality work. Grade estimation using an Ordinary Kriging methodology has been applied to all Resources. In summary, an Indicator Model at 0.2 gm/t Au cut-off was used to define a broad mineralisation envelope. Variography was carried out to define the variogram models for Ordinary Kriging interpolation.

All estimation was carried out in Micromine 2018 (64-bit SP3) software. Due to the close-spaced drilling, the block models were constructed using a 5m (E) by 5m (N) by 5m (Z) block size, constrained by a series of individual wireframes, with sub-cells to 1m x 1m x 0.5m to accurately represent wireframe shapes. Block size is generally half the sample spacing or greater in areas of infill drilling and typically one quarter in wider spaced drilling areas. No deleterious elements have been identified.

Search ellipsoids use multiple passes to ensure blocks are filled in areas with sparser drilling. The first pass used an ellipse of 15m x 50m x 25m with the long axis oriented down-plunge. A second

pass used a search ellipse of 25m x 65m x 35m. Sample data was composited to 1m down-hole composites, while honouring breaks in mineralised zone interpretation. The geological interpretation which was used to guide search ellipse orientations and indicator models was based on knowledge gained from historical open cut mining coupled to detailed interpretation of all drilling data.

Top cut analysis was carried out using a combination of inflection points on log probability plots, outliers on log histograms and the effect of top cuts on cut mean and coefficient of variation. A top cut of 40 g/t Au has been applied.

Validation of the final block model was carried out in a number of ways, including visual inspection section, plan and 3D, swathe plot validation, model vs composite statistics and ID2 vs OK model checks.

The final pit survey from April 2013 was used to generate a digital terrain model and assigned into the model to ensure no blocks lying outside of the previously mined pit was present. In addition, solids were generated from previous small scale underground mining of the Calista gold shoot to ensure previous mining voids were incorporated in the final block model.

In situ bulk density (ISBD) determinations have been assigned based on testwork (Archimedes Method) of material of various geological and mineralisation types. The following densities are applied to the Resource model.

Table 3: Bulk Density & Specific Gravity

Material	Density
In-pit Fill	2.00
Oxide	1.80
Transitional	2.20
Fresh Waste	2.70
Fresh Mineralised	2.80

Systematic ISBD determinations have been completed in the past at Orelia via the Archimedes method (108 determinations) based on a range of ore types and rock types. ISBDs of ore have ranged 2.64 to 3.51 with a mean of 2.86 t/bcm. More recent work by Echo utilising the recent diamond core has involved ISBD determinations on two diamond holes totalling 13 sample intervals of both ore and waste. Results ranged from 2.76-3.46 with a mean of 2.9t/BCM returned. It is believed the average ISBD (2.80) used for the Orelia ore may be slightly conservative.

Resource Classification

The Mineral Resources have been classified as Measured, Indicated and Inferred based on drill spacing and geological continuity. The Resource model uses a classification scheme based upon drill hole spacing plus block estimation parameters including kriging variance, number of composites in search ellipsoid informing the block cell and average distance of data to block centroid. The results of the Mineral Resource Estimation reflect the views of the Competent Person.

Cut-off Grade

Nominal downhole cut-off of 0.2 g/t Au has been used to define a broad mineralised envelope. The Resource is reported at a range of cut-offs from 0.5 g/t Au to 1 g/t Au.

Table 4: Orelia Gold Project Mineral Resource Estimate 1g/t Au Cut-off

JORC (2012) Category	Cut-off (g/t Au)	Tonnes (Mt)	Cut		Uncut	
			Grade (g/t Au)	Ounces (oz Au)	Grade (g/t Au)	Ounces (oz Au)
Measured	1.0	2.8	2.6	237,000	3.0	270,000
Indicated	1.0	11.2	2.0	732,000	2.2	791,000
Measured + Indicated	1.0	14.0	2.2	969,000	2.4	1,062,000
Inferred	1.0	1.9	1.7	101,000	1.7	104,000
Total Mineral Resource	1.0	15.9	2.1	1,070,000	2.3	1,166,000

Table 5: Orelia Gold Project Mineral Resource Estimate 0.8g/t Au Cut-off

JORC (2012) Category	Cut-off (g/t Au)	Tonnes (Mt)	Cut		Uncut	
			Grade (g/t Au)	Ounces (oz Au)	Grade (g/t Au)	Ounces (oz Au)
Measured	0.8	3.4	2.3	253,000	2.7	287,000
Indicated	0.8	15.0	1.7	840,000	1.9	900,000
Measured + Indicated	0.8	18.4	1.9	1,093,000	2.0	1,187,000
Inferred	0.8	2.7	1.4	126,000	1.5	129,000
Total Mineral Resource	0.8	21.1	1.8	1,219,000	1.9	1,316,000

Table 6: Orelia Gold Project Mineral Resource Estimate 0.5g/t Au Cut-off

JORC (2012) Category	Cut-off (g/t Au)	Tonnes (Mt)	Cut		Uncut	
			Grade (g/t Au)	Ounces (oz Au)	Grade (g/t Au)	Ounces (oz Au)
Measured	0.5	4.7	1.9	279,000	2.1	313,000
Indicated	0.5	25.4	1.3	1,051,000	1.4	1,111,000
Measured + Indicated	0.5	30.0	1.4	1,330,000	1.5	1,424,000
Inferred	0.5	4.7	1.1	165,000	1.1	168,000
Total Mineral Resource	0.5	34.7	1.3	1,495,000	1.4	1,593,000

Mining and Metallurgical Methods and Parameters and other modifying factors considered to date

A significant proportion of the Resources defined to date are likely to be amenable to simple open pit mining. The continued development of a large open pit gold mine is the likely scenario for potential mining of the Orelia gold deposit with treatment through the 100% owned 2 Mtpa Bronzewing processing plant located 10 kilometres to the north east.

The Mineral Resource estimate utilises standardised operating parameters and assumes open cut mining practices with a moderate level of mining selectivity achieved during mining. It is also assumed that quality grade control will be applied to ore/waste delineation processes.

Previous processing campaigns through the Bronzewing Processing plant coupled to metallurgical testwork has confirmed excellent gold recoveries via conventional CIP/CIL gold treatment with test work to date showing that the gold mineralisation is amenable to conventional recoveries via gravity and leaching with approximately 30% of the total gold content recovered via gravity separation.

Independent testwork completed by Echo on a large 100-kilogram composite sample has returned total gold recovery of 91% to 94%, which is consistent with previous recoveries from the Orelia deposit through the Bronzewing mill during previous treatment regimes. The gold extraction was good with +92% of the gold recovered by gravity separation followed by 24 hours of cyanide leaching.

Updated Ore Reserve

The updated Resource model has been passed to an independent mining engineer for pit optimisation and pit design incorporating the consideration of a staged development approach. A number of earthmoving companies have been approached to seek quotes for open pit mining operations at Orelia and Julius. These new quotes and other pit optimisation parameters will be incorporated in the Yandal Gold Project Bankable Feasibility Study.

Echo Diamond Drilling Results

(Refer to ASX Announcements dated 7 August 2017, 24 January 2018 and 13 April 2018 for full details)

Hole	From	To	Width	Grade	Easting	Northing	RL	Total Depth	Dip	Azimuth
ODH001	36	78.9	42.9	1.71	296128	696344	400	208	-75	60
ODH001	116.24	139.33	23.09	7.59	296128	696344	400	208	-75	60
ODH002	33	41	8	2.88	296113	6965374	400	160	-75	60
ODH002	62	69	7	2.9	296113	6965374	400	160	-75	60
ODH002	102	117.97	15.97	19.52	296113	6965374	400	160	-75	60
ODH003	44	66	22	1.58	296090	6965415	400	151	-75	70
ODH003	119.83	126.1	6.27	21.95	296090	6965415	400	151	-75	70
ODH004	49.5	70	20.5	8.32	296157	6965297	400	228	-80	60
ODH004	81.01	131.66	50.65	1.49	296157	6965297	400	228	-80	60
ODH004	164.19	201.47	37.28	1.48	296157	6965297	400	228	-80	60
ODH005	49	70	21	2.56	296098	6965455	400	241	-75	70
ODH005	130.5	136	5.5	4.32	296098	6965455	400	241	-75	70
ODH005	197.66	202.3	4.64	17.14	296098	6965455	400	241	-75	70
ODH006	68.5	90	21.5	2.56	296194	6965260	400	222	-85	60
ODH006	154	175	21	0.99	296194	6965260	400	222	-85	60
ODH006	187.11	204.48	17.37	7.28	296194	6965260	400	222	-85	60
ODDH007	15	42	27	0.82	296142	6965390	400	160	0	-90
ODDH007	88	117.3	29.3	5.3	296142	6965390	400	160	0	-90
ODDH007	136	137	1	13.97	296142	6965390	400	160	0	-90
ODDH008	9	69	60	1.14	296125	6965386	400	161	0	-90
ODDH008	119	160	41	0.66	296125	6965386	400	161	0	-90
ODDH009	60	125	65	1.62	296182	6965285	400	204	0	-90
ODDH009	174	177.3	3.3	3.4	296182	6965285	400	204	0	-90
ODDH010	95	129	34	10.74	296151	6965372	400	162	0	-90
ODDH011	23	59	36	1.29	296133	6965365	400	200	0	-90
ODDH011	67	85	18	1.3	296133	6965365	400	200	0	-90
ODDH011	109.7	112	3	17.17	296133	6965365	400	200	0	-90
ODDH011	147	173	26	1.16	296133	6965365	400	200	0	-90
OODH023	1	11	10	2.98	296088	6965474	400	102	-72	72
OODH023	29	38	9	3.01	296088	6965474	400	102	-72	72
ODDH024	19	21	2	3.79	296078	6965448	400	222	-72	72
ODDH024	27.6	34	6.4	1.07	296078	6965448	400	222	-72	72
ODDH024	68	69	1	16.01	296078	6965448	400	222	-72	72
ODDH024	82.3	86	3.7	2.11	296078	6965448	400	222	-72	72
ODDH024	95	96.75	1.75	2.41	296078	6965448	400	222	-72	72
ODDH024	210	214	4	15.6	296078	6965448	400	222	-72	72
ODDH025	39	49	10	2.13	296117	6965462	400	240	-72	72
ODDH025	52	58	6	1.83	296117	6965462	400	240	-72	72
ODDH025	137.5	144	6.5	1.65	296117	6965462	400	240	-72	72
ODDH025	159	171	12	1.12	296117	6965462	400	240	-72	72
ODDH026	2	11	9	5.15	296100	6965418	400	201	-72	72
ODDH026	43	56	13	3.78	296100	6965418	400	201	-72	72
ODDH026	67	89	22	40.13	296100	6965418	400	201	-72	72
ODDH027	18	21	3	3.68	296108	6965422	400	201	-72	72
ODDH027	61	73	12	3.97	296108	6965422	400	201	-72	72
ODDH027	151	156	5	3.25	296108	6965422	400	201	-72	72
ODDH028	48	61	13	0.8	296100	6965398	401	142	-90	72
ODDH029	5	12	7	3.22	296128	6965386	400	150	-72	72
ODDH029	87	101	14	1.99	296128	6965386	400	150	-72	72
ODDH030	44	45	1	8.82	296139	6965349	400	150	-72	72
ODDH030	119	122	3	3.39	296174	6965280	400	120	-72	72
ODDH030	134	135	1	44.41	296139	6965349	400	150	-72	72
ODDH031	53	58	5	1.78	296174	6965280	400	120	-72	72
ODDH032	0	6	6	0.62	296099	6965554	400	71.6	-72	252
ODDH033	19	25	6	10.07	296064	6965492	400	90.2	-80	72
ODDH033	62	67	5	6.69	296064	6965492	400	90.2	-80	72
ODDH034	52	60	8	0.80	296072	6965498	400	90.2	-80	72
ODDH035	49	55	6	14.37	296080	6965502	400	90.2	-80	72
ODDH035	65	69	4	4.28	296080	6965502	400	90.2	-80	72
ODDH036	19	28	9	15.24	296075	6965514	400	60	-55	252
ODDH036	62	62.8	0.8	14.12	296075	6965514	400	60	-55	252

Echo RC Drilling Results

(Refer to ASX Announcement dated 17 July 2017 for full details)

Hole	From	To	Width	Grade (g/t Au)	Easting	Northing	Total Depth	Dip	Azimuth
ORC001	99	110	12	1.53	296064	6965474	113	-90	70
ORC002	0	14	14	0.72	296074	6965477	100	-70	70
ORC002	36	55	19	1.27	296074	6965477	100	-70	70
ORC002	81	91	10	2.00	296074	6965477	100	-70	70
ORC003	13	40	27	1.38	296075	6965436	78	-70	70
ORC004	0	21	21	2.17	296071	6965434	132	-70	70
ORC004	34	40	6	0.54	296071	6965434	132	-70	70
ORC005	2	6	4	0.54	296084	6965439	12	-70	70
ORC006	69	79	10	22.86	296084	6965439	100	-70	70
ORC006*	92	100	8	12.13	296084	6965439	100	-70	70
ORC007	0	23	23	3.06	296094	6965442	120	-70	70
ORC007	49	80	31	13.26	296094	6965442	120	-70	70
ORC007	92	103	11	1.28	296094	6965442	120	-70	70
ORC008	21	26	5	0.91	296104	6965404	118	-70	70
ORC008	52	66	14	1.84	296104	6965404	118	-70	70
ORC008	70	97	24	6.03	296104	6965404	118	-70	70
ORC009	9	21	12	1.70	296114	6965408	48	-70	70
ORC010	32	52	20	2.15	296095	6965400	120	-70	70
ORC010	56	64	8	4.64	296095	6965400	120	-70	70
ORC010*	86	120	34	10.21	296095	6965400	120	-70	70
ORC011	53	61	8	6.52	296117	6965363	118	-70	70
ORC011*	99	118	19	6.04	296117	6965363	118	-70	70
ORC012	91	116	25	1.65	296124	6965364	120	-70	70
ORC013	93	106	13	0.49	296134	6965367	118	-70	70
ORC014*	97	100	3	6.74	296146	6965330	100	-70	70
ORC015	39	75	36	1.07	296136	6965329	123	-70	70
ORC016	53	63	10	2.20	296134	6965329	66	-90	70
ORC017	8	17	9	2.20	296103	6965445	114	-70	70
ORC017	54	65	11	1.94	296103	6965445	114	-70	70
ORC018	44	52	7	0.80	296113	6965448	88	-70	70
ORC019	72	78	6	1.64	296115	6965409	120	-70	70
ORC020	0	8	8	1.20	296124	6965412	102	-70	70
ORC020	74	82	8	2.74	296124	6965412	102	-70	70
ORC021	49	97	48	2.46	296064	6965474	107	-70	70
including	76	81	5	10.78	296064	6965474	107	-70	70
ORC022	0	8	8	2.37	296055	6965470	113	-70	70
ORC022	55	93	38	2.43	296055	6965470	113	-70	70
ORC023	0	6	6	14.19	296093	6965484	84	-70	70
ORC023	31	47	16	0.91	296093	6965484	84	-70	70
ORC024	45	54	9	2.97	296154	6965339	144	-70	70
ORC025	30	36	6	14.28	296081	6965549	73	-60	250
ORC025	30	45	15	6.04	296081	6965549	73	-60	250
ORC026	44	66	22	3.03	296071	6965545	66	-60	250

*Denotes Intersection ends at End of Hole

Appendix 1: Mineral Resource & Ore Reserve Estimates

Echo Mineral Resource Estimates⁷

(Ownership, Cut-off)	Measured			Indicated			Inferred			Total		
	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)
Julius ⁴ (100%, 0.8)	1.8	2.1	124,227	1.6	1.3	67,789	1.8	2.5	142,991	5.2	2.0	335,007
Regional ⁵ (100%, 0.5)							2.8	1.5	134,925	2.8	1.5	134,925
Corboys ³ (100%, 1.0)				1.7	1.8	96,992	0.5	1.8	28,739	2.2	1.8	125,731
Orelia ⁴ (100%, 1.0)	2.8	2.6	237,000	11.2	2.0	732,000	1.9	1.7	101,000	15.9	2.1	1,070,000
Woorana North ² (100%, 0.5)				0.3	1.4	13,811				0.3	1.4	13,811
Woorana South ² (100%, 0.5)				0.1	1.0	3,129				0.1	1.0	3,129
Fat Lady ^{1,2} (70%, 0.5)				0.7	0.9	19,669				0.7	0.9	19,669
Mt Joel 4800N ^{1,2} (70%, 0.5)				0.2	1.7	10,643				0.2	1.7	10,643
Total Mineral Resources	4.6	2.4	361,227	15.8	1.9	944,033	7.0	1.8	407,655	27.4	1.9	1,712,915

Echo Ore Reserves

(Ownership, Cut-off)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)
Orelia ⁶ (100%, 0.6)				14.1	1.7	753,000	14.1	1.7	753,000
Julius ⁶ (100%, 0.8)	1.4	2.2	95,000	0.1	1.8	8,000	1.5	2.1	103,000
Total Ore Reserves	1.4	2.2	95,000	14.2	1.7	761,000	15.6	1.7	856,000

Notes:

- Resources are adjusted for Echo's 70% ownership interest
- Resources estimated by Coxrocks (refer to Competent Persons Statements) in accordance with JORC Code 2012. For full Mineral Resource estimate details refer to the Metaliko Resources Limited announcement to ASX on 1 September 2016. Echo is not aware of any new information or data that materially affects the information included the previous announcement, and all material assumptions and technical parameters underpinning mineral resource estimates in the previous announcement continue to apply and have not materially changed.
- Resources estimated by HGS (refer to Competent Persons Statements) in accordance with JORC Code 2012, for full details of the Mineral Resource estimate refer to the Metaliko Resources Limited announcement to ASX on 23 August 2016. Echo is not aware of any new information or data that materially affects the information included the previous announcement, and all material assumptions and technical parameters underpinning mineral resource estimates in the previous announcement continue to apply and have not materially changed.
- Resources estimated by Mr Lynn Widenbar (refer to Competent Persons Statements) in accordance with JORC Code 2012, for full details of the Mineral Resource estimate refer to the Echo Resources Limited announcement to ASX on 7 September 2017 & 14 June 2018. Echo Resources Limited is not aware of any new information or data that materially affects the information included the previous announcement, and all material assumptions and technical parameters underpinning mineral resource estimates in the previous announcement continue to apply and have not materially changed.
- Resource estimates include Bills Find, Shady Well, Orpheus, Empire & Tipperary Well and were estimated by Golders (refer to Competent Persons Statements) in accordance with JORC Code 2004, for full details of the Mineral Resource estimates refer to the Echo Resources Limited prospectus released to ASX on 10 April 2006.
- Reserve estimated by Mr Stuart Cruickshanks (refer to Competent Persons Statements) in accordance with JORC Code 2012, for full details of the Ore Reserve estimate refer to the Echo Resources Limited announcement to ASX on 27 November 2017. Echo Resources Limited is not aware of any new information or data that materially affects the information included the previous announcement, and all material assumptions and technical parameters underpinning Ore Reserve estimate in the previous announcement continue to apply and have not materially changed.
- Mineral Resources are inclusive of Ore Reserves.

Forward Looking Statements

This announcement includes certain 'forward looking statements'. All statements, other than statements of historical fact, are forward looking statements that involve various risks and uncertainties. There can be no assurances that such statements will prove accurate, and actual results and future events could differ materially from those anticipated in such statements. Such information contained herein represents management's best judgement as of the date hereof based on information currently available. The Company does not assume any obligation to update any forward-looking statement.

Competent Persons' Declarations

The information in this report relating to Resource Estimation is based on information compiled by Mr Lynn Widenbar, a consultant of Echo Resources Limited, who is a member of the Australasian Institute of Mining and Metallurgy. The information in this announcement that relates to Exploration Results and metallurgical considerations is based on information compiled by Simon Coxhell, a Director of Echo Resources and a member of the Australasian Institute of Mining and Metallurgy. Both have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Widenbar and Mr Coxhell consents to the inclusion in the report of the matters based on the information in the form and context in which it appears

JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary																		
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> 2017-2018 Drilling at Orelia by Echo is summarised below <table border="1" data-bbox="938 389 1404 582"> <thead> <tr> <th>Hole Type</th> <th>Number</th> <th>Metres</th> </tr> </thead> <tbody> <tr> <td>RC</td> <td>26</td> <td>2,597</td> </tr> <tr> <td>DDH</td> <td>6</td> <td>1,209</td> </tr> <tr> <td>DDH</td> <td>5</td> <td>887</td> </tr> <tr> <td>DDH</td> <td>14</td> <td>1,994</td> </tr> <tr> <td>Total</td> <td>51</td> <td>6,687</td> </tr> </tbody> </table> Historical drilling at Orelia completed principally between 1988-2004 and targeted in the current Resource area (and further to the north at Lotus) comprised a total of 426 diamond holes for 120,926 metres For the recent Echo RC drilling approximately 20kg of sample was collected from each metre, with approximately 2kg samples, collected via the onboard cone splitter, sampled for analysis. For the recent Echo NQ diamond drilling samples consisted of halved NQ diamond core with approximately 0.5-2kg of sample collected. Sampling was conducted to geology to ensure samples did not overlap important geological breaks. Sampling was conducted with a minimum sample length of 0.3m and a maximum sample length of 1.2m. All Drill hole collar locations were recorded by RTK GPS with an accuracy of +/- 0.25 metres Analysis was conducted by submitting the 0.5kg to 2kg sample whole for preparation by crushing, drying and pulverising at Intertek-Genalysis Laboratories. A 50g pulp was analysed at Intertek-Genalysis laboratories, Kalgoorlie, for gold analysis via Fire Assay/ICP-OES. Multi element geochemistry was also conducted. For the historical diamond drilling a variety of different diamond core sizes (NQ, HQ, PQ) have been used. Various past authors have summarised the techniques and sampling used and it is considered the drilling and sampling methods are consistent with industry standard practices of the time, with the recent drilling by Echo validating and confirming a significant portion of the previous work conducted. 	Hole Type	Number	Metres	RC	26	2,597	DDH	6	1,209	DDH	5	887	DDH	14	1,994	Total	51	6,687
Hole Type	Number	Metres																		
RC	26	2,597																		
DDH	6	1,209																		
DDH	5	887																		
DDH	14	1,994																		
Total	51	6,687																		
Drilling techniques	<ul style="list-style-type: none"> 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.). 	<ul style="list-style-type: none"> RC drilling (5 ¼ inch face sampling hammer) from pit surface NQ Triple Tube from pit surface (78 mm) For the historical drilling, NQ, HQ and PQ, both from various levels of the open pit and from outside the open pit at natural surface. 																		
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Drill sample returns as recorded were considered excellent. There is insufficient data available at the present stage to evaluate potential sampling bias. 																		
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Drill chip logging is a qualitative activity with pertinent relevant features recorded: lithology, mineralogy, mineralisation, structural, weathering, alteration, colour and other features of the samples. Rock chip boxes of all sample intervals were collected. All samples were logged. Diamond ore was logged in detail, photographed wet and dry, RQDs, structural measurements on all completed. Core was orientated where possible. All drilling was logged. 																		
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. 	<ul style="list-style-type: none"> NQ diamond core was sawn in half along orientation lines or cut lines marked by the geologist in the field. Sample preparation for all recent samples follows industry best practice and was undertaken by Intertek in Perth where they 																		

	<ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<p>were crushed, dried and pulverised to produce a sub sample for analysis.</p> <ul style="list-style-type: none"> Sample preparation involving oven drying, fine crushing to 95% passing 4mm, followed by rotary splitting and pulverisation to 85% passing 75 microns. QC for sub sampling follows Echo's and Intertek procedures. Field duplicates were taken at a rate of 1:40. Blanks were inserted at a rate of 1:40 Standards were inserted at a rate of 1:40. Sample sizes are considered appropriate to the grain size of the material being sampled.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> The methods are considered appropriate to the style of mineralisation. Extractions are considered near total. No geophysical tools were used to determine any element concentrations at this stage. Laboratory QA/QC involves the use of internal lab standards using certified reference material, blanks, splits and duplicates as part of the in house procedures. Repeat and duplicate analysis for samples shows that the precision of analytical methods is within acceptable limits.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> The Company's Geologist has visually reviewed the samples collected. The historical data had been established and verified by Maxwells Geoservices in 2005, and regenerated by CSA Global as part of their QA/QC work on behalf of Echo's established management systems. Data and related information is stored in a validated Access, Mapinfo or Micromine database. Data has been visually checked for import errors. No adjustments to assay data have been made.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> All drillholes have been located by DGPS with precision of sample locations considered +/-0.25m. Location grid of plans and cross sections and coordinates in this release use GDA94 Z51 datum. Topographic data was assigned based on a DTM of the Orelia opening surface, dated April 2013.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> The holes are nominally spaced on a 10-20 metre (E-W spacing) with hole spacing along each section ranging from 10-20 metres spacing along each section line. Data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation procedures. Sample compositing has occurred on a small number of samples (4 metre composite samples) outside of the interpreted main mineralised zone.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> The orientation of sampling is considered adequate and there is not enough data to determine bias if any. Mineralised outcrop strikes north west and dips steeply to moderately to the west, south west. High grade shoots with a dominant 30 degree plunge to the south west have been identified. Drilling was orthogonal to this apparent strike and comprised principally angled drill holes.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Chain of custody is managed by the Company and samples are transported to the laboratory via Company staff with samples safely consigned to Intertek for preparation and analysis. Whilst in storage, they are kept in a locked yard. Tracking sheets are used track the progress of batches of samples.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Numerous reviews and audits of the historical sampling techniques and data validation has been undertaken by many groups over the years, including Snowdens, RSG, Coffeys and Widenbar and Associates, with no major concerns identified.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Orelia gold deposit is situated within M36/146 and is 100% owned by MKO Mines Pty Ltd, a subsidiary of Echo Resources Ltd. The tenement is in good standing No impediments to operating on the permit are known to exist.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Gold production began at Orelia-Cockburn in 1991 by Arimco Mining Pty Ltd, who had previously operated under the name of Australian Resources Limited, who were subsequently purchased by Great Central Mines. Normandy Mining acquired Great Central Mines in 1998 who acquired the Orelia-Cockburn mine at the same time, although it had closed only a short time previously. The Orelia-Cockburn operations were continued under the ownership of Normandy Mining until 2002 when Newmont Mining acquired the whole package. View Resources acquired the operation in 2004 and began developing an open pit and underground mine that took in a number of ore bodies including Orelia-Cockburn, but the low price of gold and the shortage of capital forced the closure of the project in early 2008. Navigator (Bronzewing) Pty Ltd, completed the purchase from the administrators in September 2009 and they re-commissioned the processing plant in April 2010, with production continuing until 2013.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The main host rocks of mineralisation at Orelia-Cockburn are deformed and altered tholeiitic basalts, and intermediate to felsic volcanoclastic rocks. Gold mineralisation typically occurs as; <ol style="list-style-type: none"> southerly plunging ore-shoots, either at the intersection between steeply-dipping transgressive faults and favourable lithological units, along fold hinges, and on lithological contacts. At Orelia-Cockburn, gold values are not necessarily associated with total sulphide content. In sedimentary lithologies, much of the sulphide is considered primary and is unrelated to the gold. The gold is associated with the hydrothermal phase of sulphide formation, that consists of pyrite-pyrrhotite±chalcopyrite. Gold related alteration consists of biotite-sericite-carbonate altered deformation zones.
Drill hole Information	<ul style="list-style-type: none"> 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"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> 2017-2018 Drilling at Orelia has comprised a total of 71 holes for 13,834 metres. Historical drilling at Orelia completed principally between 1992-2002 and targeted in the current resource area (and further to the north at Lotus) comprised a total of 426 diamond holes for 120,926 metres A complete copy of all drillhole collars is not required, as the level of detail is provided in the plans and sections provided.
Data aggregation methods	<ul style="list-style-type: none"> 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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> No averaging or aggregation techniques have been applied. No top cuts have been applied to exploration results. No metal equivalent values are used in this report.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> • The orientation or geometry of the mineralised zones strikes in a north westerly direction and dips moderately to steeply to the west-southwest with a strong 30° plunge to the south.
Diagrams	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Appropriate maps are included in main body of report with Echo's gold results and full details are in the tables reported.
Balanced reporting	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • All results for the target economic mineral being gold have been reported.
Other substantive exploration data	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Previous work by many others has included RC and diamond drilling, mining, mapping, and Resource estimation. In 2006 a Resource of 11.7 MT @ 1.8 g/t was estimated by RSG. • Mining via open pit methods by various operators has typically returned grades of between 1.3 to 5.1 g/t over an intermittent 8 years of mining at Orelia and Lotus.
Further work	<ul style="list-style-type: none"> • The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> • Future RC and diamond and aircore drilling is being considered to further evaluate the Orelia Gold Deposit. • Refer to maps in main body of report for potential target areas.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> • Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used. 	<ul style="list-style-type: none"> • Data was provided as a validated Micromine Database and was digitally imported into Micromine software. Validation routines were run to confirm validity of all data. • Analytical results have all been electronically merged to avoid any transcription errors.
Site visits	<ul style="list-style-type: none"> • Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> • No site visit has been undertaken by the Competent Person, as little relevant information is available on site and the Competent Person is familiar with the type of gold deposit under consideration and has previously estimated Resources at the deposit in 2009.
Geological interpretation	<ul style="list-style-type: none"> • Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> • The confidence in the geological interpretation is good, with the latest infill drilling allowing a detailed interpretation. • Geological logging and interpretation allows extrapolation of drill intersections between adjacent sections. • Alternative interpretations would result in similar tonnage and grade estimation techniques. • Geological boundaries are determined by the spatial locations of the various mineralised structures. • Mineralisation confined to individual wireframes, supergene and fresh material individually assessed. Oxidation profiles established and assigned into the model.

Criteria	JORC Code explanation	Commentary
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The extent and orientation of the Resources at Orelia are illustrated in the diagrams in the body of this release. The mineralisation plunges at approximately 20° towards 150°. The Resource extends over a strike length of approximately 1,500m, has a lateral extent of 400m and extends to a vertical depth of 400 metres. .
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> Grade estimation using an Ordinary Kriging methodology has been applied to all Resources. An Indicator Model at 0.2 g/t Au cutoff was used to define a broad mineralisation envelope. Variography was carried out to define the variogram models for Ordinary Kriging interpolation. All estimation was carried out in Micromine 2018 (64-bit SP3) software. Due to the close-spaced drilling, the block models were constructed using a 5m (E) by 5m (N) by 5m (Z) block size with sub-cells to 1m x 1m x 0.5m to accurately represent surface and stope shapes. Block size is generally half the sample spacing or greater in areas of infill drilling, and typically one quarter or less in wider spaced drilling areas. No deleterious elements have been identified No assumptions regarding recovery of byproducts have been made Search ellipsoids use multiple passes to ensure blocks are filled in areas with sparser drilling. The first pass used an ellipse of 15m x 50m x 25m, with the long axis oriented down-plunge. A second pass used a search of 25m x 65m x 35m. Sample data was composited to 1m down-hole composites, while honouring breaks in mineralised zone interpretation. The geological interpretation which was used to guide search ellipse orientations and indicator models was based on knowledge gained from historical open cut and underground mining. Top cut analysis was carried out, using a combination of inflection points on log probability plots, outliers on log histograms and the effect of top cuts on cut mean and coefficient of variation. A top cut of 40 gm/t Au has been applied. Validation was carried out in a number of ways, including <ul style="list-style-type: none"> Visual inspection section, plan and 3D Swathe plot validation Model vs composite statistics ID2 vs OK model checks
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Tonnages are estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> Nominal downhole cut-off of 0.2 g/t Au has been used to define the a broad mineralised envelope. The Resource is reported at arrange of cutoffs from 0.5 g/t Au to 1 g/t Au. Final cutoffs will be determined following pit

Criteria	JORC Code explanation	Commentary												
<p>Mining factors or assumptions</p>	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<p>optimisation and economic studies.</p> <ul style="list-style-type: none"> The Resources defined to date would be amenable to simple open pit mining. 												
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. 	<ul style="list-style-type: none"> Metallurgical testwork has confirmed good gold recoveries, via conventional CIP/CIL gold treatment. Test work to date has shown that the gold mineralisation is amenable to conventional recoveries via gravity and leaching with approximately 30% of the total gold content recovered via gravity separation and mercury amalgamation. A total gold recovery of 91->94% was achieved, which is consistent with previous recoveries from the Orelia deposit through the Bronzewing mill, during previous treatment regimes. The gold extraction was good with +92% of the gold recovered by gravity separation followed by 18-24 hours of cyanide leaching. 												
<p>Environmental factors or assumptions</p>	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> The Orelia open pit was last mined in April 2013. All relevant permits have been complied with and an updated Mining Proposal will be lodged following final pit design and scheduling. The open pit is on a granted mining lease last operated 3.5 years ago. No impediment to mining and ore processing is envisaged and an updated design is due in the coming months. 												
<p>Bulk density</p>	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<ul style="list-style-type: none"> Bulk density/specific gravity have been assigned based on testwork (Archimedes Method) of material of various geological and mineralisation types. The following densities are applied to the Resource model. <table border="1" data-bbox="1043 1637 1321 1816"> <thead> <tr> <th>Material</th> <th>Density</th> </tr> </thead> <tbody> <tr> <td>In-pit Fill</td> <td>2.00</td> </tr> <tr> <td>Oxide</td> <td>1.80</td> </tr> <tr> <td>Transitional</td> <td>2.20</td> </tr> <tr> <td>Fresh Waste</td> <td>2.70</td> </tr> <tr> <td>Fresh Mineralised</td> <td>2.80</td> </tr> </tbody> </table> Systematic ISBD have been completed in the past at Orelia via the Archimedes method (108 determinations) based on a range of ore types and rock types. ISBDs of ore have ranged 2.64 to 3.51 with a mean of 2.86 t/bcm. It is believed the average ISBD (2.80) used for the Orelia ore may be slightly conservative. Base of oxidation and top of fresh digital terrain models were constructed and 	Material	Density	In-pit Fill	2.00	Oxide	1.80	Transitional	2.20	Fresh Waste	2.70	Fresh Mineralised	2.80
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Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<p>assigned into the block model.</p> <ul style="list-style-type: none"> The Mineral Resources have been classified as Measured, Indicated and Inferred based on drill spacing and geological continuity. The Resource model uses a classification scheme based upon drill hole spacing plus block estimation parameters, including kriging variance, number of composites in search ellipsoid informing the block cell and average distance of data to block centroid. The results of the Mineral Resource Estimation reflect the views of the Competent Person. 																																
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> Echo Resources personnel have reviewed the block model relative to the drilling data and considers the estimate to be an accurate reflection of the gold mineralisation at Orelia. 																																
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> The relative accuracy of the Mineral Resource is reflected in the reporting of the Mineral Resource as being in line with the guidelines of the 2012 JORC Code. The statement relates to global estimates of tonnes and grade, with reference made to Resources above a certain cut-off that are intended to assist mining studies. A block model was produced of the previously mined mineralisation and reconciled well with previous production data from the total Orelia open pit, the results from this are presented below. <table border="1"> <thead> <tr> <th colspan="4">ORELIA MINED RESOURCE with ORE LOSS and DILUTION</th> </tr> <tr> <th>CUTOFF</th> <th>TONNES</th> <th>AuCut</th> <th>Aucut Oz</th> </tr> </thead> <tbody> <tr> <td>1.00</td> <td>7,521,047</td> <td>1.76</td> <td>424,981</td> </tr> <tr> <td>0.90</td> <td>8,521,059</td> <td>1.64</td> <td>449,364</td> </tr> <tr> <td>0.80</td> <td>9,652,078</td> <td>1.53</td> <td>474,062</td> </tr> <tr> <td>0.70</td> <td>11,028,066</td> <td>1.41</td> <td>500,537</td> </tr> <tr> <td>0.60</td> <td>12,771,253</td> <td>1.29</td> <td>529,618</td> </tr> <tr> <td>0.50</td> <td>14,871,966</td> <td>1.17</td> <td>559,211</td> </tr> </tbody> </table>	ORELIA MINED RESOURCE with ORE LOSS and DILUTION				CUTOFF	TONNES	AuCut	Aucut Oz	1.00	7,521,047	1.76	424,981	0.90	8,521,059	1.64	449,364	0.80	9,652,078	1.53	474,062	0.70	11,028,066	1.41	500,537	0.60	12,771,253	1.29	529,618	0.50	14,871,966	1.17	559,211
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