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## INFILL SAMPLING EXTENDS MINERALISATION AT RAGLESS RANGE - ARDEN ZN PROJECT

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### Highlights

- Infill sampling of the Arden drilling improves best intersections from drill-hole **RRDD-007**:
    - **12.80m @ 4.96% Zn from 53.00m**
      - *including 3.65m @ 15.47% Zn from 62.15m*
    - **32.70m @ 0.92% Zn from 70.46m**
      - *including 2.50m @ 2.40% Zn from 70.46m*
      - *and 8.50m @ 1.30% Zn from 81.80m*
  - Confirmation of high-grade zinc silicate mineralisation (**up to 34% Zn**) in oxidised portion of drill-hole RRDD-007
  - The maiden drill programme at Arden intersected up to 3 horizons of SEDEX zinc mineralisation extending over 3km of strike and open along strike and at depth
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**Auroch Minerals Limited (ASX:AOU) (Auroch or the Company)** is pleased to announce that infill sampling of the remaining intervals of core from the Ragless Range drill-holes has identified more zinc mineralisation and increased the width of some of the previously-reported significant intercepts, particularly for drill-hole RRDD007 which intersected high-grade zinc mineralisation including **3.65m @ 15.47% Zn** from 62.15m.

*“Drill-hole RRDD007 now has well over 50m (down-hole) of significant zinc mineralisation, including a substantial interval of high-grade zinc mineralisation. In addition to SEDEX and structurally-controlled zinc sulphide mineralisation, the presence of the same high-grade zinc silicate minerals within the same limestone formations as those observed at Perilya Limited’s high-grade zinc silicate Flinders Project is extremely encouraging. The information being gathered from our maiden drilling programme at the Arden Project continues to build on our current exploration model and is critical to our 2019 exploration programme”* - Chief Executive Officer, Aidan Platel.

### **Ragless Range - Infill Sampling Programme**

As previously reported<sup>1</sup>, all eight drill-holes at the Ragless Range Prospect successfully intersected at least one SEDEX zinc horizon, over a strike length of more than 3km. Initial assay results from drilling

<sup>1</sup> ASX Announcement – DRILLING PROGRAMME IDENTIFIES LARGE SEDEX ZINC POTENTIAL AT ARDEN  
<https://www.investi.com.au/api/announcements/aou/8d48f77d-f8b.pdf>

ended in mineralisation in several holes (most notably RRDD007) and warranted further infill sampling. An additional 407 samples from five holes were submitted to ALS Laboratories in Adelaide for multi-element determination, with 24 samples returning >0.5% Zn (83 samples anomalous at >0.1% Zn). Table 1 highlights the changes to the significant zinc intercepts in drill-hole RRDD007, with an updated full table of significant zinc intercepts in Appendix B.

The zinc mineralisation intersected in RRDD007 differed to that in the other drill-holes in several ways. Firstly, the mineralisation extended over significant down-hole widths, including several very high-grade intervals. Secondly, there appeared to be a structural-control on the high-grade zinc mineralisation, different to the stratabound SEDEX zinc mineralisation observed in the other drill-holes. Also, high-grade zinc silicate minerals were observed in some intervals, similar to those observed in the Flinders Project deposits (Perilya Limited) including the Beltana Zinc Mine (**972kt @ 29.8%Zn**) located approximately 150km to the north of the Arden Project.

### **Ongoing Exploration Programme – Arden Project**

In addition to the infill sampling programme, the geological team at the Arden Project have begun project-scale mapping at the Arden Project, beginning with key areas of focus such as the fold hinges and interpreted faults near the high-grade result in RRDD007. Significant ironstone gossans, similar to that which lies to the southeast of drill-hole RRDD007 (see Figure 2), have been mapped and rock-chip samples have been taken to be submitted to the laboratory this week.

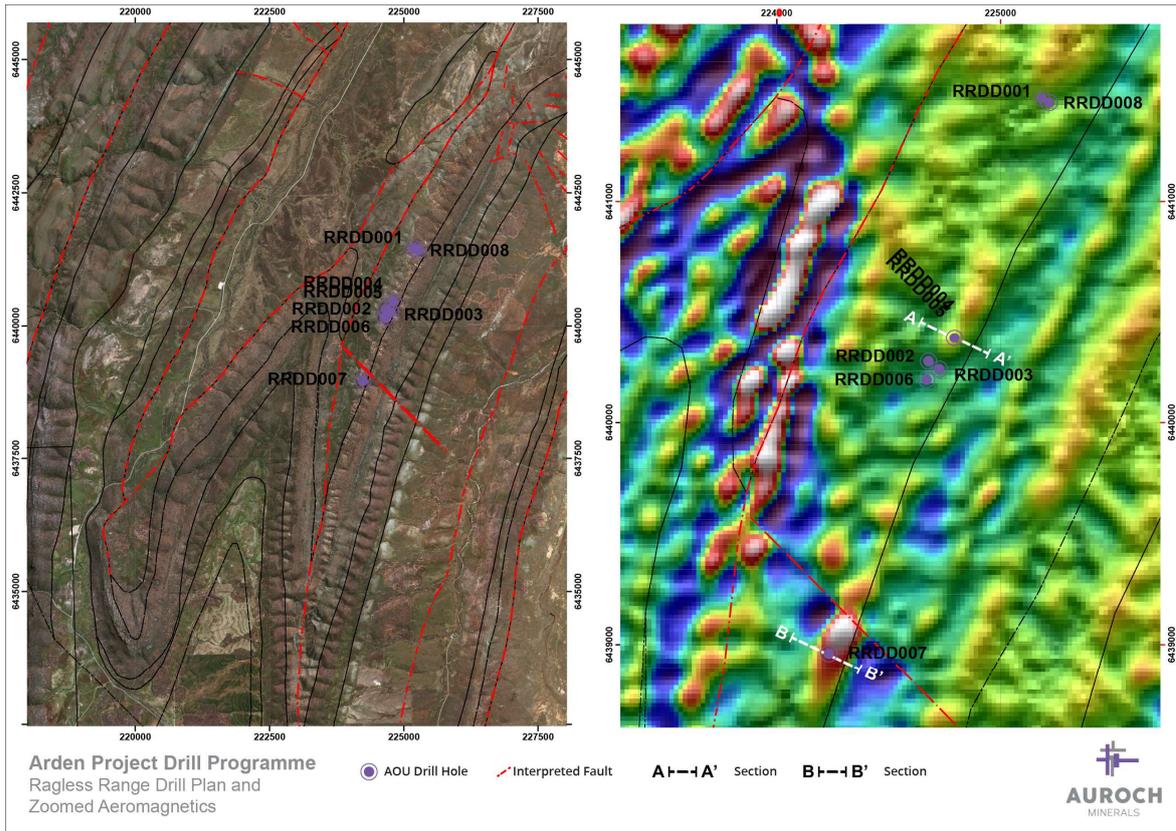
**Table 1 - Updated significant zinc intercepts for drill-hole RRDD007.**

Hole ID	Depth From	Significant Intercept	Comments
RRDD007	30.50m	12.0m @ 1.45% Zn	0.4m core loss 39-40m
	53.00m	<b>12.8m @ 4.96% Zn<sup>2</sup></b> <b>Incl. 3.65m @ 15.47% Zn</b>	0.7m core loss 60.6-61.6m, 0.2m core loss 62.2-62.9m
	70.50m	<b>32.70m @ 0.92% Zn<sup>3</sup></b>	0.4m core loss 100-101m, 0.5m core loss 101-102m

*\*min 0.5m width, 0.5% Zn bottom cut, max 2m internal dilution*

<sup>2</sup> Previously reported as 8.15m @ 7.52% Zn from 57.65m

<sup>3</sup> Previously reported as 8.00m @ 1.29% Zn from 81.84m and 9.30m @ 0.62% Zn from 93.84m



**Figure 1 – Map of the Ragless Range Prospect showing the location of the drill-holes with respect to the northwest-plunging syncline and major faults interpreted from aeromagnetics data (1st vertical derivative RTP shown).**

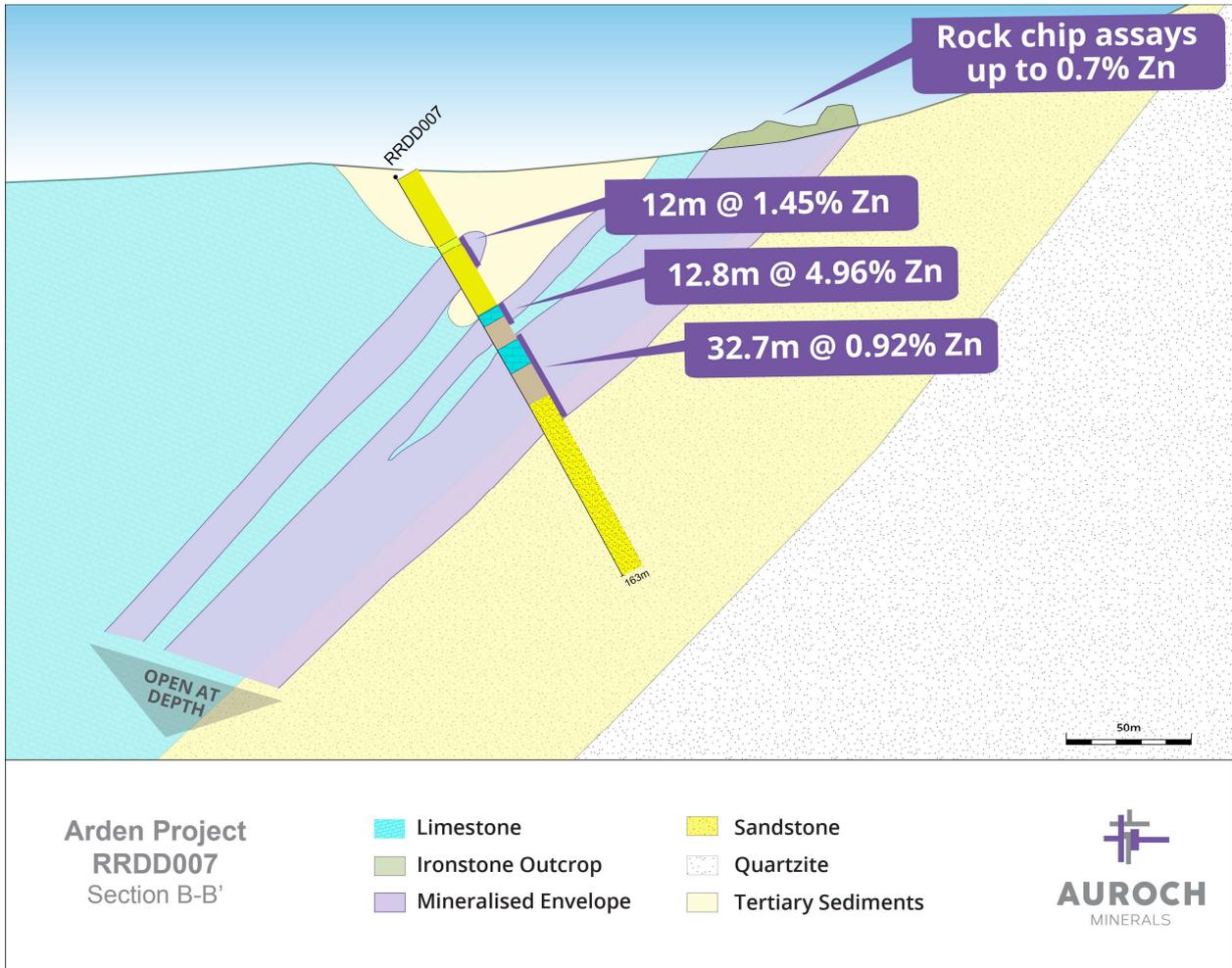


Figure 2 – Cross-section B-B' showing the mineralised zinc intervals in drill-hole RRDD007 in relation to the ironstone gossan at surface.



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## ABOUT AUROCH MINERALS

Auroch Minerals Limited is an Australian gold and base-metals exploration company listed on the Australian Securities Exchange (ASX:AOU). The Company is focused on its three South Australian Projects: Arden and Bonaventura in the Adelaide Geosyncline and the Torrens East Copper Project, located on the highly-prospective Stuart Shelf.

### Arden

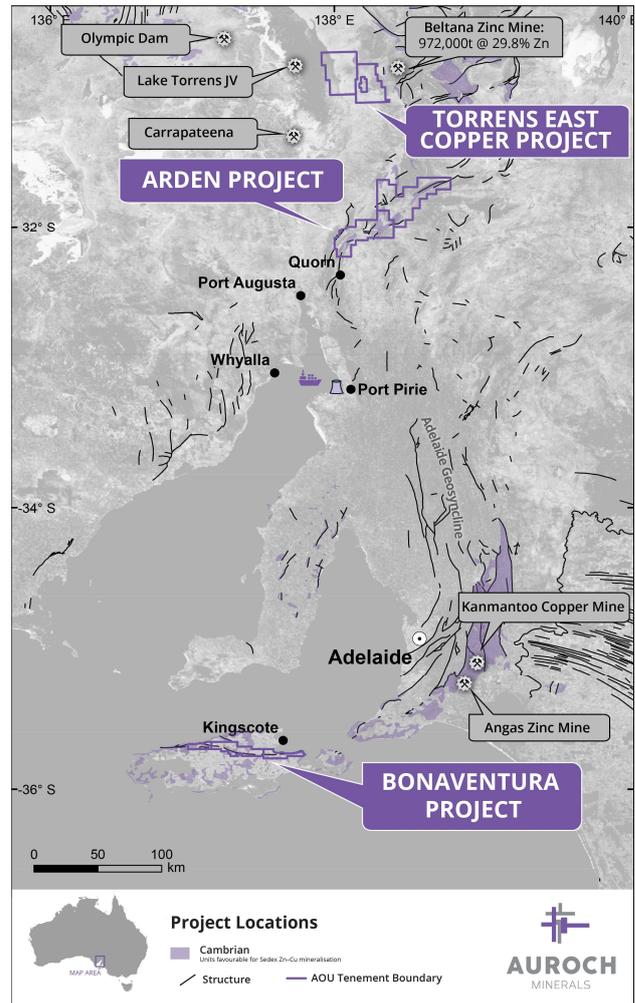
Located some 335km north of Adelaide, the Arden Project boasts a large relatively-unexplored exploration area of 1,664km<sup>2</sup> and is highly-prospective for sedimentary-exhalative (SEDEX) mineralisation. Within the Arden Project up to three horizons of SEDEX zinc mineralisation were identified from the recent drilling programme at the Ragless Range Prospect extending over 3km of strike and open in every direction.

### Bonaventura

The Bonaventura Project sits in the northern part of Kangaroo Island, with highly prospective geology along 30km of strike on the regional-scale Cygnet-Snelling Fault. Recent diamond drilling at the Dewrang Prospect intercepted zinc-lead mineralisation which correlated with a previously untested 1.5km geophysical IP anomaly.

### Torrens East Copper Project

1,622km<sup>2</sup> of ground considered highly-prospective for Iron Oxide Copper–Gold (IOCG) mineralisation in the Lake Torrens region of South Australia. The large exploration licence applications (ELAs) are situated adjacent to the Torrens JV (70% Aeris Resources Ltd; 30% Argonaut Resources NL) approximately 50km from BHP's recently-announced drilling in the Olympic Dam copper-gold province, host to the world-class Olympic Dam (BHP Group Ltd) and Carrapateena (Oz Minerals Ltd) IOCG deposits.



### Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Peter Sheehan and represents an accurate representation of the available data. Mr Sheehan (Member of the Australian Institute of Mining and Metallurgy) is the Company's Chief Geological Officer and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Sheehan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Auroch Minerals Limited's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential", "should," and similar expressions are forward-looking statements. Although Auroch Minerals Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

## APPENDIX A –TABLE OF DRILL-HOLES

Prospect	Type	Hole ID	Easting	Northing	RL	Depth	Dip	True Azimuth
Ragless	DD	RRDD001	225188	6441467	321	142.4	-60	115
Ragless	DD	RRDD002	224726	6440243	329	203.6	-60	115
Ragless	DD	RRDD003	224678	6440280	324	282.15	-60	115
Ragless	DD	RRDD004	224789	6440393	333	261.3	-75	150
Ragless	DD	RRDD005	224789	6440393	334	186.2	-50	150
Ragless	DD	RRDD006	224669	6440196	326	219.2	-60	150
Ragless	DD	RRDD007	224234	6438961	357	162.5	-60	150
Ragless	DD	RRDD008	225221	6441448	323	238.9	-60	115
Kanyaka	DD	KNDD001	243554	6448510	296	86.2	-60	220
Kanyaka	DD	KNDD001a	243554	6448510	296	301.2	-60	223
Kanyaka	DD	KNDD002	243235	6448185	296	24.4	-50	225
Kanyaka	DD	KNDD002a	243235	6448185	296	96.6	-50	225

\*Projection: MGA94\_Zone 54

## APPENDIX B – FULL TABLE OF UPDATED MINERALISED INTERCEPTS (Zn) FOR RAGLESS RANGE PROSPECT, RRDD001-008

Diamond Drill-hole - Mineralised Zinc Intercepts <sup>4</sup>	Comments
RRDD001 - 2.4m @ 1.2% Zn [31m]	0.3m core loss 31-32m, 1.15m core loss from 32m
RRDD002 - 1.5m @ 0.7% Zn [152.5m]	
RRDD003 - 6.5m @ 0.8% Zn [117.5m]	0.2m core loss 118.5-119m, 0.7m core loss 119-120m, 0.3m core loss 120-121m, 0.7m core loss 121-122.1m, 0.5m core loss 121.1-122.9m, 0.6m core loss 122.9-124m
RRDD003 - 0.9m @ 0.5% Zn [214m]	
RRDD004 - 0.5m @ 1.0% Zn [63m]	
RRDD004 - 8m @ 0.7% Zn [123m]	0.2m core loss 123.4-124.2m, 0.1m core loss 124.7-125.3m, 0.1m core loss 125.9-126.8m
RRDD004 - 1.8m @ 0.9% Zn [227m]	0.2m core loss 228-229m
RRDD005 - 0.5m @ 5.0% Zn [74.3m]	0.1m core loss 74.3-74.8m
RRDD005 - 6m @ 0.9% Zn [99m]	0.2m core loss 101.9-102.6m
RRDD005 - 1.7m @ 0.6% Zn [139.8m]	0.4m core loss from 140.4m
RRDD005 - 5.5m @ 1.1% Zn [147m]	0.2m core loss 147-148m, 0.4m core loss 148-149.2m, 0.2m core loss 149.6-150.6m, 0.1m core loss 150.6-151.3m, 0.4m core loss 151.3-152.5m
RRDD005 - 1m @ 1.5% Zn [165m]	
<b>RRDD005 - 1m @ 0.9% Zn [213m]</b>	
RRDD006 - No Significant Intercept	
RRDD007 - 12m @ 1.5% Zn [30.5m]	0.4m core loss 39-40m
<b>RRDD007 - 12.8m @ 5.0% Zn [53m]</b>	0.7m core loss 60.6-61.6m, 0.2m core loss 62.2-62.9m
<b>RRDD007 - 32.7m @ 0.9% Zn [70.5m]</b>	0.4m core loss 100-101m, 0.5m core loss 101-102m
RRDD008 - 2m @ 1.5% Zn [217m]	0.2m core loss from 218.8m

*\*min 0.5m width, 0.5% Zn bottom cut, max 2m internal dilution*

<sup>4</sup> Intercepts in **bold** are either new or have been modified due to infill sampling results

## APPENDIX C – JORC CODE, 2012 EDITION - TABLE 1 REPORT

### Section 1 Sampling Techniques and Data

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

Criteria	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>2018 DD Program: sampling was dominantly on a 0.5m or 1m interval. Occasional samples &lt;0.5m were employed to capture individual geologic features.</li> <li>2018 Dump Sampling: Reconnaissance rock chip samples were selected by geologists looking for expressions of mineralisation &amp; alteration.</li> <li>Selected historic reconnaissance rock chip samples were generally analysed by portable XRF machine (Niton 3XLT). Some samples were also submitted for assay determination.</li> <li>1966-67 drilling: Sampling intervals of 10-12.5 feet were used. For DRY sampling all material was collected in a bin before being split into 3-5 pound samples for assay determination. For WET sampling material was run through a splitter and 1/4 of sample was collected before being split into 3-5 pound samples for assay determination.</li> <li>1966-67 trenching &amp; drilling: Assay determination was done at Australian Mineral Development Laboratories by a semi-quantitative spectrographic analysis.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>2018 DD drilling: Drilling was dominantly HQ3 with some NQ2.</li> <li>1966-67 drilling at Radford Creek and Mt Arden was by non-core, rotary drilling. Drilling used an Ingersoll-Rand, truck mounted Drillmaster with air as the drilling medium.</li> <li>2007 drilling at Kanyaka was by Reverse Circulation (Percussion) and completed by Budd Contract Exploration. 11 holes were drilled. All holes were inclined -60 degrees.</li> <li>2008 drilling at Kanyaka was by Reverse Circulation and completed by GOS. 6 holes were drilled. 5 were inclined at -60 degrees and 1 was vertical.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>2018 DD drilling: RQD's were recorded for all holes. Drilling frequently encountered broken ground and core loss was common.</li> <li>Original drill hole logs are available for historic holes.</li> <li>Recovery was an issue in 1966-67 percussion drilling with many holes having to be abandoned.</li> <li>No issues were noted for 2007-2008 drilling.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Geologists employed qualitative logging which includes: depth, colour, weathering, water table, lithology, alteration and mineralisation.</li> <li>Original drill hole logs are available for all historic holes.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>Diamond core was sawn in two and one half of the core submitted for analysis. Samplers were instructed to take the same side of the core for each run.</li> <li>1966-67 trenches were don with bulldozer on hire from Brambles Industrial Services of Whyalla. <ul style="list-style-type: none"> <li>Radford Creek: 5 trenches were cut to 2-5 feet and sampled by cutting a continuous channel in the trench floor. Sample lengths ranged from 3-10 feet.</li> <li>Mt Arden: 9 trenches were cut to 2-5 feet and sampled by cutting a continuous channel in the trench floor. Sample lengths ranged from 5-10 feet.</li> <li>Kanyaka: 5 trenches were cut to 4-10 feet and sampled by cutting a continuous channel in the trench floor. Sample lengths ranged from 3-10 feet.</li> </ul> </li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>Accredited Assay Laboratories were used for all analysis, including: Genalysis (Adelaide), ALS Laboratories (Adelaide).</li> <li>2018 DD and Dump Sampling: Rock chip samples were analysed by ALS for Au (Fire Assay) and Multi-elements (ICP-MS 61).</li> </ul>

	<ul style="list-style-type: none"> <li>No information has been located for QAQC on historic samples</li> <li>Recent reconnaissance samples were submitted to ALS Global in Adelaide. Samples were digested in four acids for analysis. Fe, Mn, S, Zn have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry. Ag, Co, Cu, Pb were determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. Au was determined by Fire Assay (25g charge).</li> <li>2007-08 drilling: Sample intervals were 2m. Assay determination was done at ALS Laboratories by analysis ME-ICP61. Only Cu and Zn are reported.</li> </ul>
<b>Verification of sampling &amp; assaying</b>	<ul style="list-style-type: none"> <li>2018 DD drilling program: Control samples were inserted into laboratory batches as follows: Standards 1:20, Blanks 1:20. Control plots were generated from assay results and analysed. Ni bias was evident.</li> <li>Reconnaissance Rock Chips - No blanks or field duplicates were submitted. Bureau Veritas and ALS run internal QAQC protocols including, lab duplicates and standards.</li> <li>No twin holes have been drilled on the project.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Historic Drilling/Trenching was located by traditional surface survey. Where historic collars/trenches are still able to be located on the ground they have been picked up with handheld Garmin GPS as a check.</li> <li>2018 DD drill hole collars were located using handheld GARMIN64 GPS.</li> <li>Co-ordinates are recorded in UTM_GDA94 (Zone 54S).</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Spacing of drill holes is appropriate for early exploration stage of the drilling.</li> <li>No compositing has been done on drilling.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Drilling is generally oriented perpendicular to interpreted strike of mineralisation and is sufficient for the early stage of the project.</li> <li>Several holes in the 2018 DD drilling program were oriented oblique to strike due to issue with access.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>2018 DD Core was logged, cut and sampled at core facility on local farm before being freighted from Quorn by transport company to ALS laboratories in Adelaide.</li> <li>Rock Chip samples were collected by field geologist, numbered and bagged and delivered immediately to courier for transport to laboratories in Adelaide.</li> <li>There is no information on chain of custody for historic data.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>Not completed</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Exploration Licence 5821 (Arden Zinc Project) is registered under the name of Resource Holdings Pty Ltd.</li> </ul>
<b>Exploration done by other parties</b>	<p>Electrolytic Zinc Co. and Kennecott Exploration (1966-1971)</p> <ul style="list-style-type: none"> <li>Electrolytic Zinc explored in the project area predominantly for strata bound lead-zinc mineralisation. They undertook extensive regional stream sediment surveys, particularly in the Kanyaka (EL 3265) and Radford Creek (EL 3693) areas focussing on the Cambrian Limestones. They focussed on historic workings using mapping and some trenching, with follow up shallow drilling to evaluated prospects.</li> <li>Zinc values of up to 1740ppm. recorded from the eastern syncline (Ragless Range) area. In general, stream sediment zinc values between 100ppm and 1700ppm reflect zinc mineralisation averaging between 0.3% and 3.0% zinc in surface trenching.</li> <li>Anomalous copper, lead and zinc stream sediment values were recorded from the</li> </ul>

	<p>Comstock area (southern end of western syncline); copper values ranged up to 98 ppm., lead to 410ppm. and zinc to 1000ppm.</p> <ul style="list-style-type: none"> <li>The stream sediment sampling indicated that the large strike lengths (&gt;10km) of the Lower Cambrian formations were anomalous with respect to copper, lead and zinc.</li> </ul> <p>Geo Developments Pty Ltd (1996-1999)</p> <ul style="list-style-type: none"> <li>This work has focussed on reviewing previous exploration data, mapping and limited sampling, followed up by some shallow RC drilling e.g. at Radford Creek (EL 3693).</li> </ul> <p>Copper Range Ltd (2007-2008)</p> <ul style="list-style-type: none"> <li>Copper Ranges undertook several soil sampling geochemical surveys over the Kanyaka, Black Jack and Radford Prospects and undertook a shallow drilling program at Kanyaka.</li> <li>Most of the drilling at Kanyaka was ineffective and did not reach target depth due to drilling problems (deep oxidation and poor sample return). Only limited sections of 2 holes were analysed (approximately 40 samples total) with both showing strongly anomalous zinc.</li> <li>Previous soil sampling by Copper Range highlighted a copper in soil anomaly extending from the mine area to the south east, following the trend of small copper-bearing shears exposed in the costeans. The soil grid was extended during February 2008 and located substantial copper and zinc anomalism associated with a shear zone.</li> <li>The latter area was of interest for zinc due to the structurally complex nature of the zone and the ferruginous dolomite, which are characteristic of the high-grade zinc deposits around Beltana</li> </ul> <p>Resource Holdings (2016 - present)</p> <ul style="list-style-type: none"> <li>A number of historic exploration sites and mines were evaluated by a combination of: reconnaissance mapping and rock chip sampling, semi-quantitative analysis with hand held XRF, and assay determination of rock chips.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Regionally, the area lies within the Adelaide Fold and Thrust Belt, which contains Neoproterozoic to late Cambrian sedimentary sequences. Rock types recognised within this Precambrian, fault-bounded intracratonic trough are Neoproterozoic in age (1000 to 542 Ma) with terrestrial and marine clastic, chemical and glaciogenic sediments (Preiss1987). These formations have been deformed and metamorphosed (generally to greenschist facies) by at least two major orogenic episodes: the Proterozoic Adelaide Fold Belt orogenic event and a later Early Palaeozoic Delamerian Orogeny (Preiss 1987).</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>Presented in Tables and Appendices.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>No data has been aggregated</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>The mineralisation is interpreted to be steeply dipping (70°). Drill holes have been angled to intercept the mineralisation as close to perpendicular as possible.</li> <li>Down hole intercepts are reported. True widths are likely to be 80-90% of the down hole widths.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Presented in Tables and Appendices.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>The author has made every attempt to include relevant results.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>All meaningful and material data relating to this release is reported.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>An exploration work program including: mapping &amp; sampling, plus step-out drilling and assaying is planned for the coming 12 months.</li> </ul>