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ASX ANNOUNCEMENT

AVALON MINERALS LTD

ASX: AVI

REGISTERED OFFICE

Avalon Minerals Ltd
ABN 68 123 184 412
9 Gardner Close
Milton Qld 4064 Australia
P + 61 7 3368 9888
F + 61 7 3368 9899
info@avalonminerals.com.au
www.avalonminerals.com.au

Drilling of High Priority, Near-Mine Copper Targets Planned for Viscaria Copper Project

Highlights

- **Five priority magnetic targets identified for drilling in close proximity to the existing Viscaria ore bodies**
- **Objective to define additional ore sources to compliment Avalon's existing Mineral Resource estimate of 609,000 Tonnes contained copper**
- **Targets include a number of strong magnetic anomalies that have never been tested by prior drilling**
- **Drilling expected to commence in Q2 2017**

The Directors of Avalon Minerals Limited (**"Avalon" or "Company"**) **(ASX:AVI)** are pleased to advise that a suite of 'near mine' high priority drill targets have been defined and are scheduled for drilling in the immediate future at our Viscaria Copper Project, located in Kiruna, northern Sweden.

At Viscaria, Avalon has already defined a large Mineral Resource of **52.4 Mt @ 1.2% Cu for 609,000 tonnes contained copper (see Table 1 below)**, however there are a number of opportunities to increase the resource and potentially define higher grade areas within close proximity to the defined ore bodies at Viscaria.

Five robust drill targets have been prioritised on the basis of new modelling of geophysical anomalies, strongly supported by minor historical drilling over and near some of the targets. The host to the D Zone orebody is magnetite and similar magnetic bodies have been robustly defined.

A drilling contractor has been engaged to commence drilling as soon as a rig becomes available. Figure 1 below illustrates the location of these priority targets relative to the exiting ore bodies.

The targets are primarily within 1.5km of the currently defined Viscaria orebodies and one target (Target 5) is located 2.5km to the southwest of the D Zone orebody. The planned drilling is aimed at defining new ore positions and further reinforcing the significant upside to the Viscaria deposits.

Target	Key Features	Results of Previous Drilling	Historic Copper Intersections	Proposed Drilling
Target 1	Southern extension of D Zone represented by a magnetic body similar in character to the D Zone orebody	Missed target; drilled over the top	No significant assays	Initially one hole planned to test magnetic body, then increasing to several holes on a success case.
Target 2	850m long magnetic anomaly	Missed main target; one traverse, southern end over weaker anomaly	Up to 1m @ 2.45% Cu	2 hole test into strongest magnetic response
Target 3	Magnetic anomaly near A Zone deposit	Missed target; drilled over the top	Up to 1m @ 2.5% Cu	2-3 hole test along strike
Target 4	Discrete anomaly near D Zone	Drilled over top of the target	Hole not assayed, but some chalcopyrite described	3 shallow holes to test magnetic response
Target 5	Large complex magnetic anomaly	Missed target; above magnetic body and not in main anomaly	Wide low grade intersections	Further ground magnetics planned to finalise drill locations

Avalon's Managing Director, Mr Malcolm Norris said:

"We are excited to be drilling some of these never before drilled anomalies. Success at any one of them could be very meaningful for Avalon shareholders, and may provide significant growth to our existing Resource base of over 600,000 tonnes copper.

We are fortunate to be located in a world-class mining province, and with a long previous operating history for our Viscaria Project, we consider development of the mine to be a low risk proposition. In the context of a rapidly appreciating copper price, we are doing all we can to advance Viscaria through feasibility and permitting, and investigating these potential near-mine targets to complement the known orebodies at Viscaria"

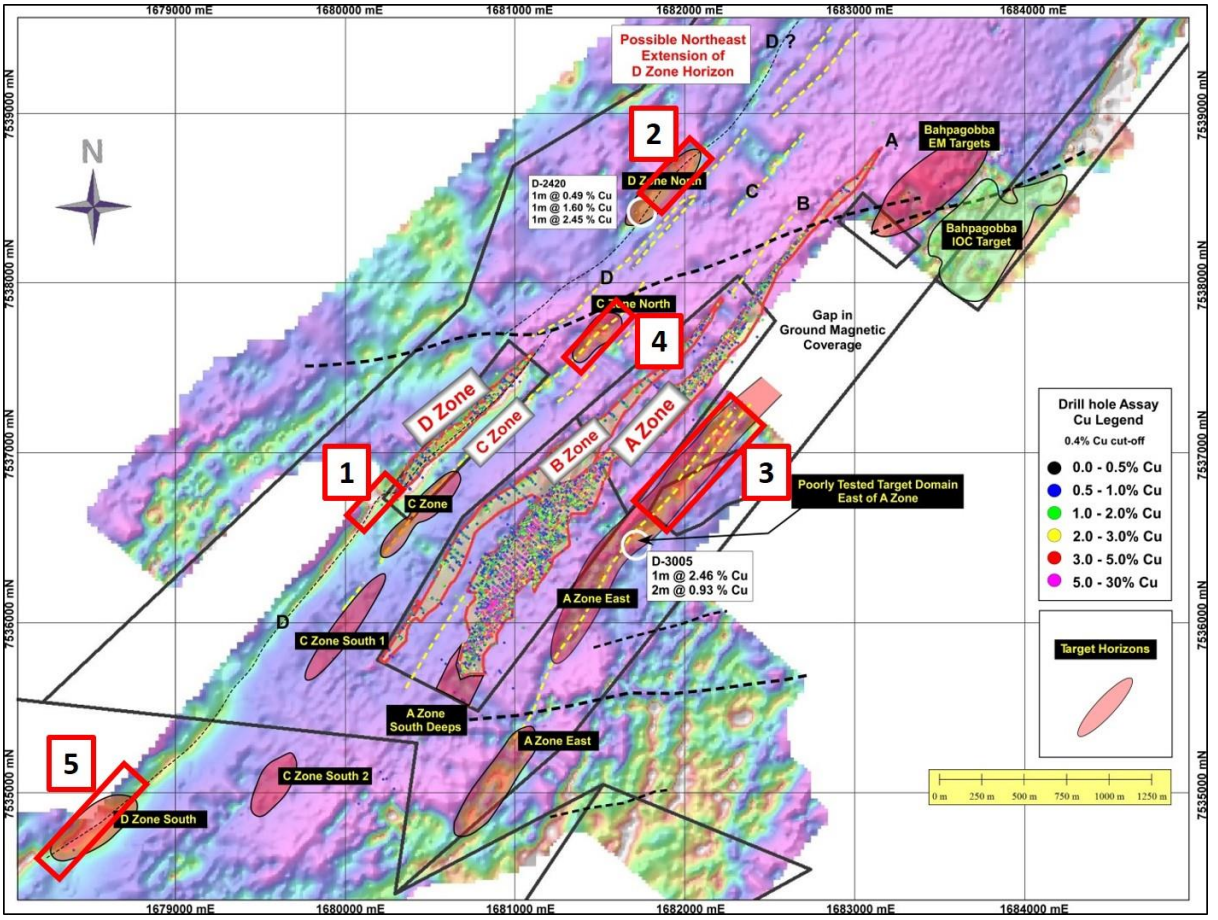

Figure 1: Location of drill targets for testing. The current orebodies at Viscaria are shown as A Zone, B Zone, and D Zone.

Target 1: Potential Extension to the D Zone Orebody

Target 1 is a potentially significant extension of the D Zone orebody to the south where a Mineral Resource of 11.1Mt at 1.2% Cu has already been defined.

3-D inversion modelling, and detailed plate modelling of ground magnetics data has mapped the geometry of target 1, which is a very large magnetic target that has never been drill tested. It is directly adjacent to the D Zone orebody, and has a very similar magnetic response.

Previous RC drilling by Avalon in 2011 is interpreted to have 'missed' the main magnetic target (see figure 2 above), drilling over the top and to the east of the main modelled magnetic body. Independent modelling of oxide zones and magnetic responses strongly reinforces this target as being comparable to other parts of D Zone to the north. One hole is proposed to be drilled initially to test this concept, as shown in Figure 2.

The strike extent of Target 1 is approximately 400m compared to the length of the currently drilled D Zone system of 1,100m.

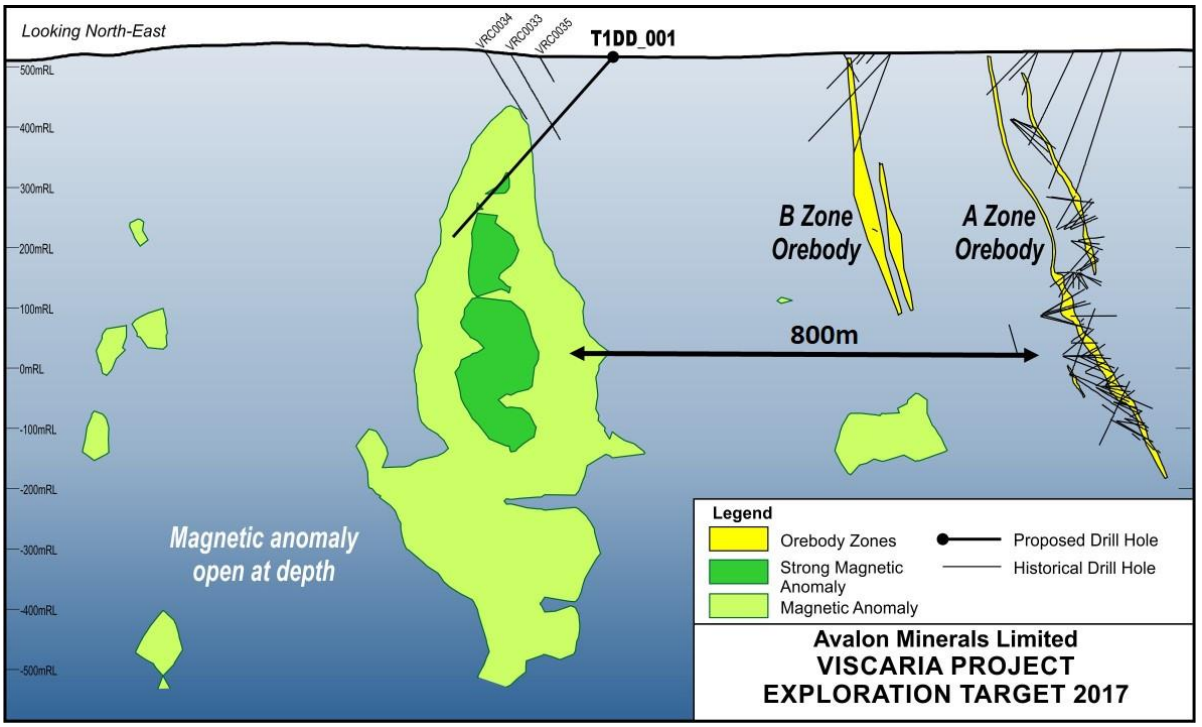

Figure 2: Proposed drill hole at **Target 1** showing shallow historical holes which drilled over the top of the magnetic body. The magnetic anomaly is directly correlated, along strike, with the southern extension of the D Zone orebody.

Target 2: 850m Long Magnetic Anomaly

Target 2 comprises a linear magnetic anomaly along trend to the north from D Zone. The anomaly was defined by ground magnetic data collected in 2015.

One traverse of drill holes was completed in the 1990's by the previous owner of the Viscaria copper deposit, Outokumpu, and one hole over the southern part of the anomaly intersected 1m at 2.45% Cu, 1m at 0.49% Cu and 1m at 1.60% Cu. The strongest magnetic response is over the northern portion of the anomaly and remains untested.

The anomaly is 850 metres long and is segmented by cross-faults. Planned drilling includes two holes inclined to the northwest to test the strongest magnetic response in the two northern faulted magnetic segments.

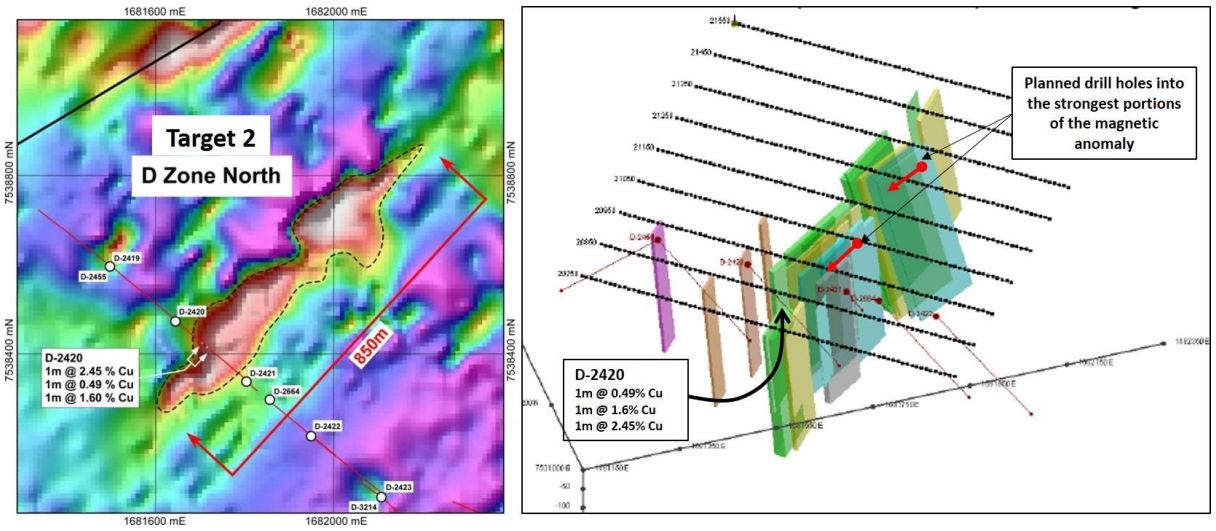

Figure 3: Target 2 anomaly and modelled plates showing planned drill holes in red, and the historical traverse of holes across the southern, and weaker, end.

Target 3: Magnetic Target East of A Zone

Target 3 is a magnetic target located east of the A Zone, and has been 'missed' by previous exploration drilling.

3-D inversion modelling of magnetics suggests that previous holes have drilled over the top of the anomaly, and yet two holes, at the southern end of the anomaly drilled by Outokumpu in the 1990's (D-3005 and D-6387), did intersect some copper including 1m @ 2.46% Cu, 2m @ 0.93% Cu near bottom of hole and 3.6m @ 0.9% Cu. Furthermore, minor oxidised copper mineralisation has been identified at surface in the general vicinity of this anomaly.

New 3-D inversion modelling is underway on this structurally complex magnetic target. A series of cross faults are interpreted to dissect the magnetic body, which also strengthens to the north. The magnetic body has a strike extent of 800m, and is open to the north. Additional ground magnetics is planned for completion in March.

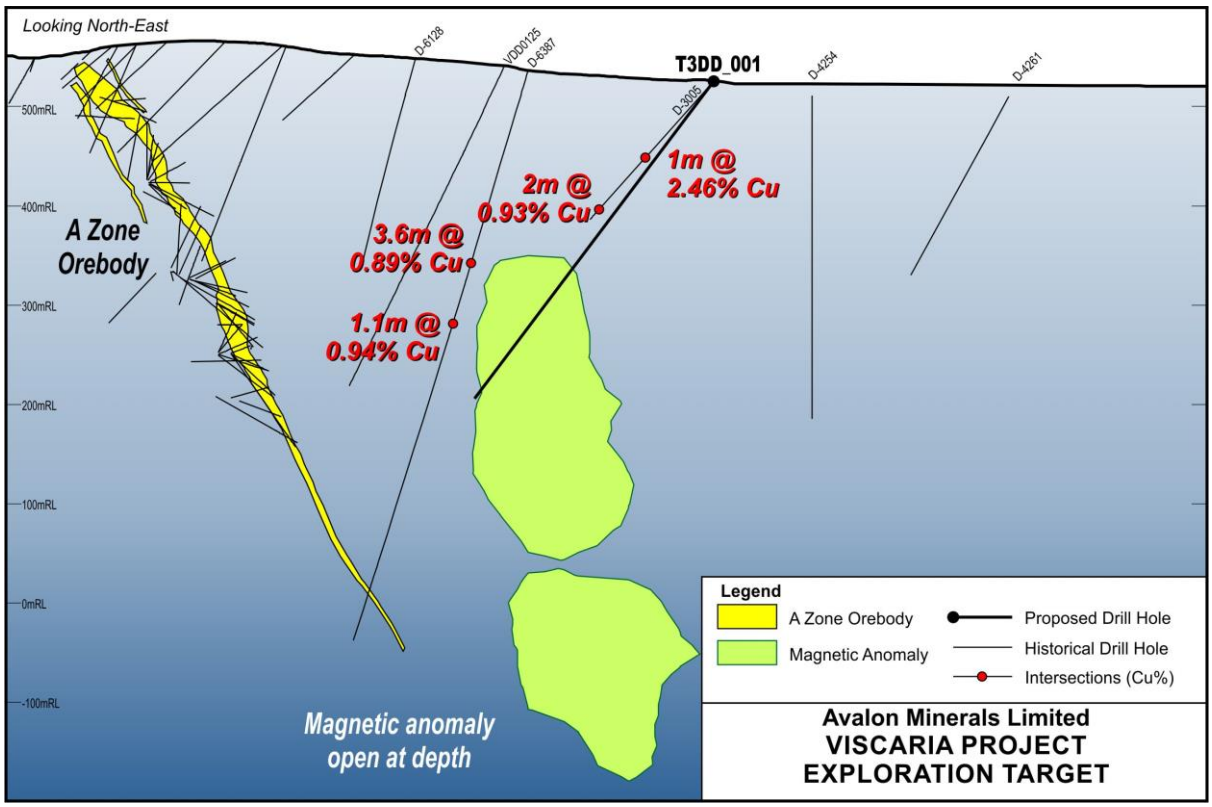

Figure 4: Target 3 showing magnetic anomaly on the profile of historical hole D-3005. The magnetic anomaly strengthens to the north and has not been drilled.

Target 4: C Zone North

This target has previously been referred to as C Zone North and comprises a discrete magnetic anomaly near to D Zone orebody that has not been tested.

Historical drill hole D-3239 drilled over the top of the strongest part of the anomaly, based on recent 3-D inversion modelling. The drill core was not assayed, but historical geological logs do describe chalcopyrite at levels of <1% from 5m to 150m downhole.

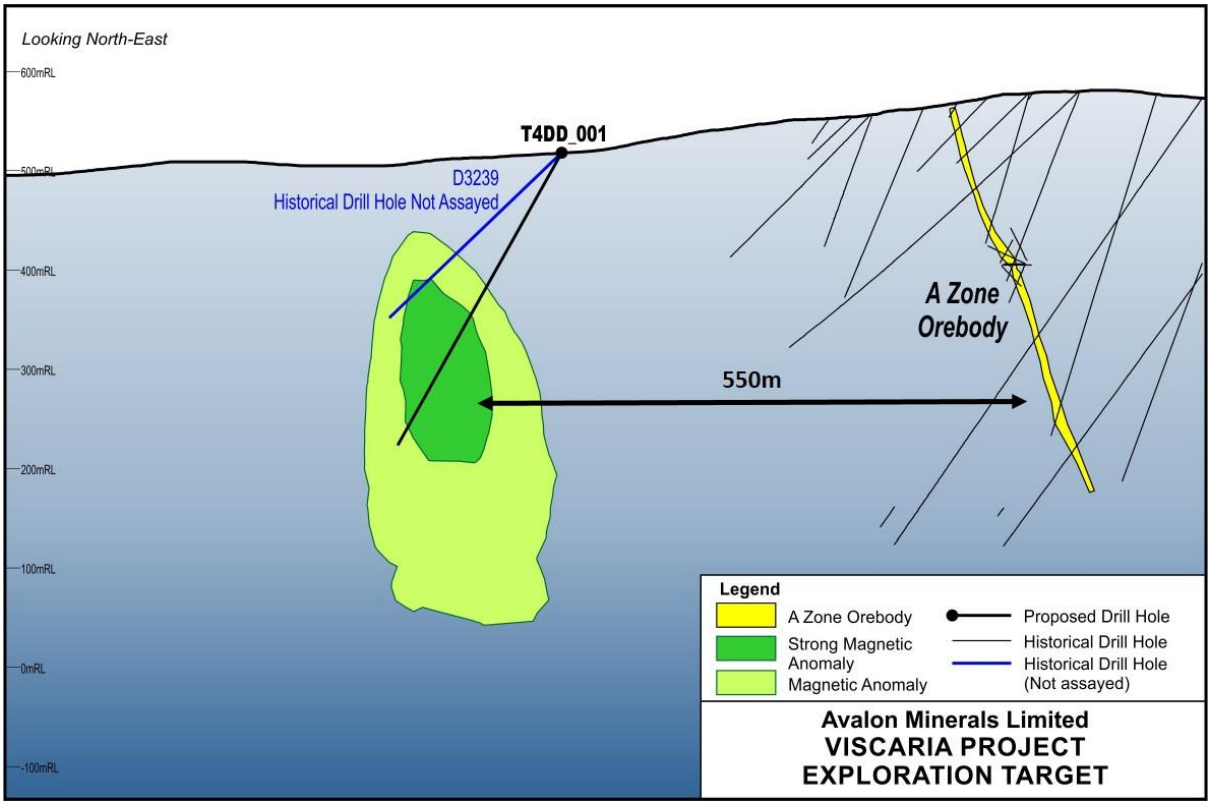

Figure 5: Target 4 profile showing discrete magnetic anomaly and one historical hole that drilled the top of the main magnetic response.

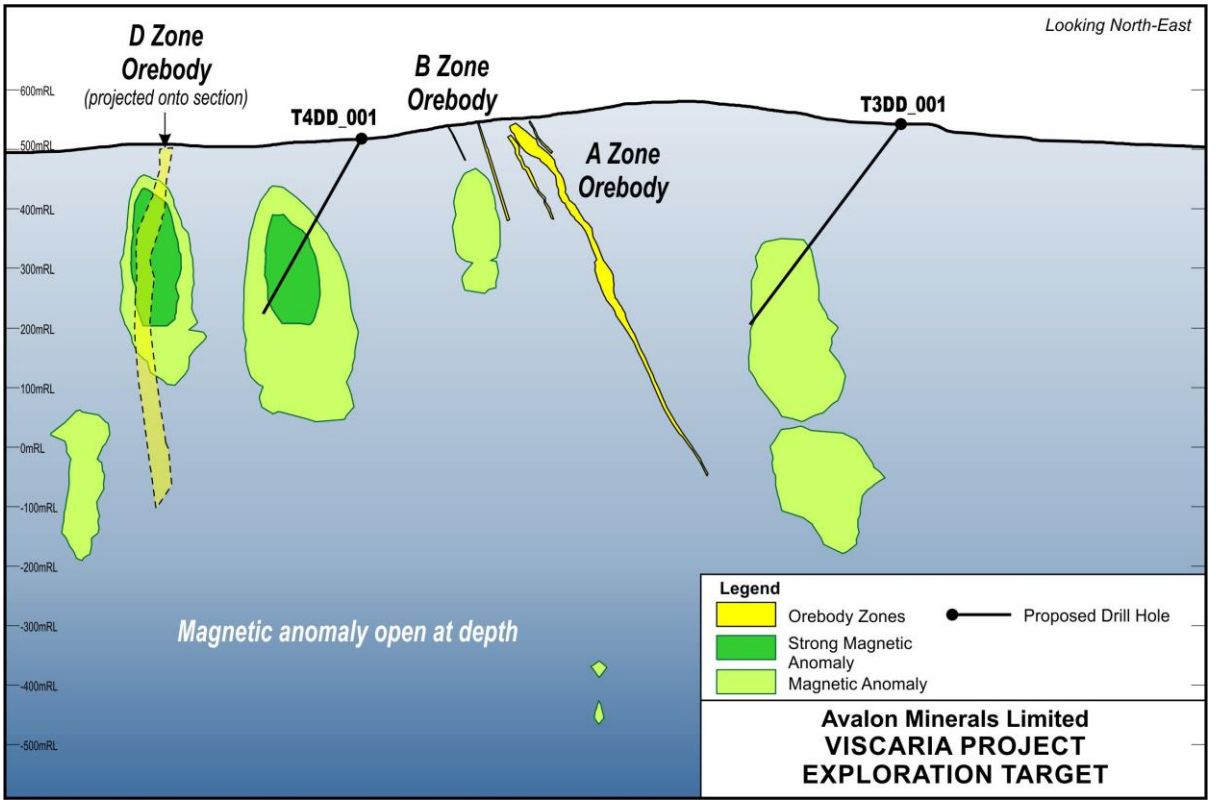

Figure 6: A composite cross section capturing Targets 3 & 4 relative to D Zone and A Zone orebodies. The D Zone and T4 target are projected onto the cross section. The magnetic anomalies are slices through 3-D inversion models. Plate models extend further to depth, and for example, map the D Zone orebody to considerable depth of over 1,000m.

Target 5: D Zone South

This has previously been referred to as D Zone South and is a highly rated anomaly. It is 2.5km along strike from D Zone and comprises a significant magnetic anomaly, along a linear magnetic trend connecting it to the D Zone orebody.

Historical drilling by Avalon on the southern portion of the magnetic anomaly intersected broad low grade copper in four drill holes. Results include:

VRC0024	42m @ 0.11% Cu from 40m
VRC0025	60m @ 0.13% Cu from 31m
VDD0066	10m @ 0.21% Cu from 87m
VDD0067	8m @ 0.20% Cu from 56m
VDD0067	5m @ 0.27% Cu from 65m

Recent modelling of the ground magnetics in the southern part of the anomaly has shown that holes VDD0066 and VDD0067 drilled over the top of the modelled magnetic body, and that the magnetic body thickens considerably below this depth.

Ground magnetic data is incomplete in this area and further data will be collected in the immediate future prior to finalising locations of follow-up drill holes.

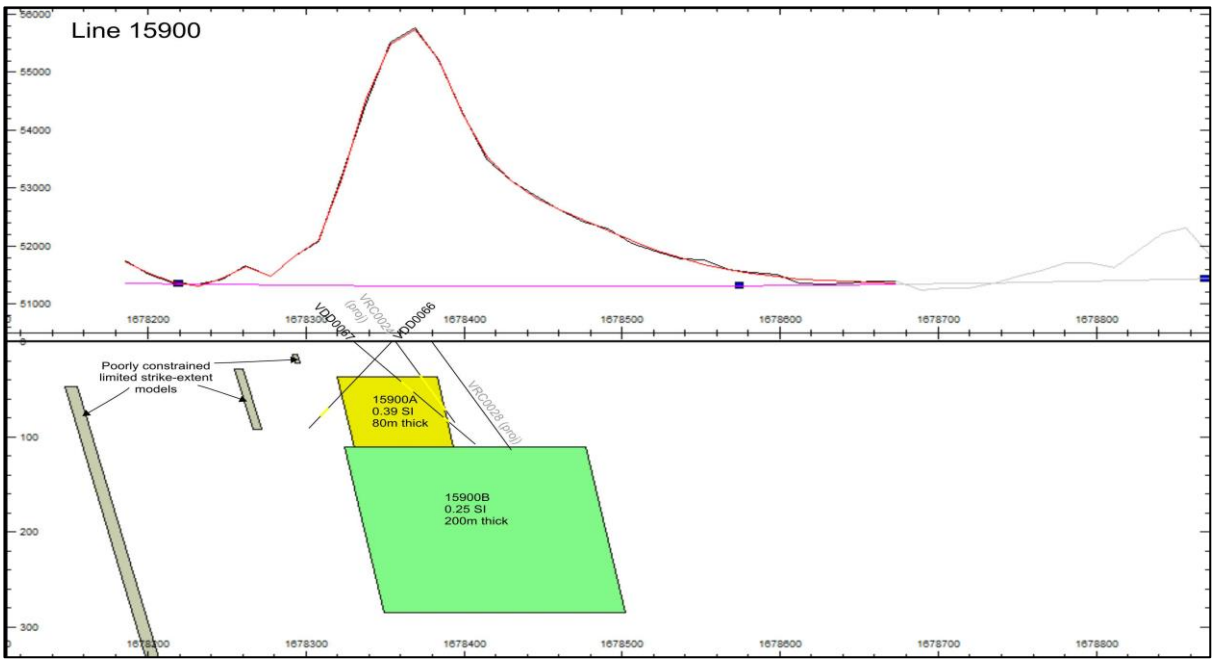

Figure 7: Southern end of **Target 5** where historical drilling drilled over the main thick anomaly, but still intersected wide runs of anomalous copper. The copper anomalous zones correlate very well with the shallow modelled magnetic bodies shown here in yellow.

About Avalon

Avalon has an advanced portfolio of exploration and development projects in Scandinavia. The portfolio comprises:

1. **The Southern Finland Gold Project**, which includes the Satulinmäki and Riukka gold prospects. These prospects have received shallow diamond drilling by the Geological Survey of Finland (GTK) and Avalon Minerals has now completed a 7-hole diamond drilling program. Intersections from GTK include 18m @ 4.1g/t Au from 50m downhole, including 3m @ 9.3g/t Au, and 4m @ 10.3g/t Au in drill hole R391 at Satulinmäki. Intersections by Avalon include 23.5m at 3.3g/t in SMDD007 and 2m at 10.5g/t in SMDD005. The Satulinmäki and Riukka gold prospects are part of an earn-in JV with Canadian company Nortec Minerals, where Avalon can earn up to an 80% interest (see ASX announcement dated 19th May 2016). Avalon has acquired a significant land position in its own right in the district.
2. **The Viscaria Copper Project** in northern Sweden has a completed Scoping Study (see ASX announcements dated 16th December 2015 and 5th April 2016) and is moving towards PFS and permitting to allow for mine development. The project has a mineral resource estimate of 52.4 Mt at 1.2% Cu (see Table 1 below). Considerable exploration upside exists and low technical risk extensional drill targets have been defined.
3. **The Kietyönmäki Lithium Pegmatite Project** in southern Finland where Avalon has completed a 6 hole drilling program and channel sampling over outcropping spodumene-bearing pegmatites. The project is part of the earn-in JV with Canadian company Nortec Minerals. Historical drilling by GTK in the mid 1980's identified a high grade lithium pegmatite deposit including diamond drill intersections of up to 18m at 1.8% Li_2O. Drilling by Avalon has returned 24.2m at 1.44% Li2O (see ASX announcement dated 12th September 2016).

Table 1 Total combined resource figure for A Zone, B Zone and D Zone at Viscaria

Resource Area	Classification	Tonnes (Mt)	Cu Grade (%)	Contained Cu (kt)
A Zone	Measured	14.44	1.7	240.0
	Indicated	4.69	1.2	57.2
	Inferred	2.48	1.0	25.5
	Subtotal	**21.61**	**1.5**	**322.7**
B Zone	Measured	0.12	1.3	1.6
	Indicated	4.12	0.7	29.7
	Inferred	15.41	0.8	118.7
	Subtotal	**19.65**	**0.8**	**149.0**
D Zone	Indicated	3.11	0.81	25.2
	Inferred	0.01	0.32	0.02
	Subtotal	**3.11**	**0.81**	**25.2**
	Indicated	7.26	1.37	99.8
	Inferred	0.78	1.57	12.2
	Subtotal	**8.03**	**1.39**	**111.9**
Overall Cu	**Total**	**52.4**	**1.2**	**608.9**

Note: D Zone subtotals represent open pit at an average grade of 0.81% copper, and underground at an average grade of 1.39% copper.

Refer to Annual Report released 16 August 2016 for the Competent Persons Statement in relation to the estimates of mineral resources. The Company confirms that it is not aware of any new information or data that materially affects the information and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Competent Persons Statement

The information in this report that relates to exploration results is based upon information reviewed by Dr Bruce Rohrlach who is a Member of the Australasian Institute of Mining and Metallurgy. Dr Rohrlach is a full-time employee of Avalon Minerals Ltd 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 Rohrlach consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information, please visit www.avalonminerals.com.au

Mr Malcolm Norris
Managing Director
Avalon Minerals Ltd
Tel: 07 3368 9888
Email: malcolm.norris@avalonminerals.com.au