

2 MAY 2013

ASX ANNOUNCEMENT



D ZONE COPPER-IRON GRADES IMPROVING SIGNIFICANTLY AT DEPTH

HIGHLIGHTS

- **Latest assay results from D Zone confirm all four drill holes intersecting broad and high grade zones of copper and iron mineralisation;**
- **Best intersections include:**
 - **VDD0166: 13.0m @ 2.1% CuEq* and 5.9m @ 2.1% CuEq*, within a larger mineralisation zone of 82.0m @ 0.9% CuEq*;**
 - **VDD0169: 6.1m @ 2.3% CuEq* and 7.0m @ 1.7% CuEq*, within a larger mineralisation zone of 77.1m @ 0.8% CuEq*;**
 - **VDD0163: 3.8m @ 2.3% CuEq* and 9.0m @ 1.5% CuEq*, within a larger mineralisation zone of 55.0m @ 1.1% CuEq*;**
 - **VDD0167: 5.8m @ 1.8% CuEq* and 5.0m @ 1.5% CuEq*, within a larger mineralisation zone of 15.8m @ 1.2% CuEq*;**
- **These intersections have extended the two thick, high grade copper-iron plunging zones defined by previous drilling by up to 150m down dip and at least 100m down plunge;**
- **Drilling results continue to indicate improved economics for both open pit and underground mining for the D Zone Mineral Resource.**

Australian resources company Avalon Minerals Limited ('Avalon' or 'Company') (ASX: AVI) is pleased to announce assay results for the next four drill holes of the drill program from the D Zone Prospect on the Viscaria Project ('Viscaria'), in northern Sweden (Figure 1).

All four drill holes intersected thick, high grade copper-iron mineralisation that has extended the area of known mineralisation by up to 150 metres down dip and 100 metres down plunge.

The objective of the drilling is to extend the known Mineral Resources at the A and D Zone prospects and deliver on the potential increases to the project Net Present Value outlined in the 2012 Scoping Study (see ASX announcement 11 October 2012).

ASX: AVI

REGISTERED OFFICE

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

CONTACTS

Jeremy Read
Avalon Minerals
P +61 7 3368 9888

James Harris
Professional Public Relations
P +61 8 9388 0944

MANAGEMENT TEAM

Managing Director
Jeremy Read

Business Manager
Ian Wallace

Exploration Manager
Dr Quinton Hills

Country Manager
Louise Lindskog

Chief Financial Officer
Linda Cochrane

Company Secretary
Roslynn Shand

The Company's Managing Director Mr Jeremy Read said, "The results from these next four drill holes at D Zone are very positive as they confirm that the two thick, high grade copper-iron plunging zones at D Zone are improving significantly with depth. The copper-iron mineralisation is up to 80 metres thick, grading approximately 1% CuEq, with numerous high grade zones in excess of 2% CuEq."

"Our drilling at D Zone has been very successful as the two thick zones of copper-iron mineralisation intersected, along with the higher grade material, suggests there is excellent potential for the D Zone Mineral Resource to be significantly extended at depth. This should improve the economics of the D Zone Mineral Resource by allowing more mineralisation to be extracted in an open pit, while suggesting that underground mining should be economic by concentrating mining on the higher grade copper-iron mineralisation," he added.

D Zone Mineral Resource Extension Drill Program

VDD0166 and VDD0169 were drilled in the northeast of the D Zone Prospect and VDD0163 was drilled in the southwest. As discussed in previous announcements, these drill holes were designed to follow up on excellent drill intersections that appear to delineate two southwest plunging, relatively thick, high grade copper-iron mineralisation in these areas.

The success of VDD0166 and VDD0169 follows the success of the previously announced drill holes VDD0128, VDD0129, VDD0138, VDD0147, VDD0156 and VDD0157 in the northeast of the D Zone Prospect. These drill holes further delineate a relatively thick, up to 82 metres, moderately plunging, high grade copper-iron mineralisation zone by extending it at least 100 metres further down plunge. At this stage, there is no indication that the D zone Cu-Fe mineralisation is diminishing at depth. In fact, the mineralisation is increasing in copper grade with depth.

The success of VDD0163 follows the success of previously announced drill holes VDD0152, VDD0155 and VDD0161 in the southwest of the D Zone Prospect. This drill hole indicates that the second relatively thick, moderately plunging, high grade copper-iron mineralisation zone also extends at least 100 metres further down plunge. As for the northeast high grade plunging zone, the recent drilling indicates that the southwest high grade zone is also increasing in copper grade at depth.

Drill hole VDD0167 was drilled into the central part of the D Zone Prospect in between the two high grade plunging, zones of copper-iron mineralisation. The purpose of this drill hole was to test the down plunge extent of previously intersected copper-iron mineralisation of moderate thickness and grade (16-18 metres thick down hole at approximately 1% CuEq*) encountered in drill holes VDD0150 and VDD0151. Mineralisation in this area also appears to be significantly increasing in grade with depth. The deeper drill hole VDD0167 intersected 15.8m @ 1.2%CuEq*, compared with the up plunge drill hole VDD0150, which intersected 15.4m @ 1% CuEq*.

The details of the geochemical assay data for these drill holes are shown in Table 1, with the location of each hole outlined in Figure 2.

VDD0169: Northeast D Zone (Figure 3)

Drill hole VDD0169 intersected 77.1m @ 0.8% CuEq* from 357.0m down hole, including two high grade intervals of 7.0m @ 1.7% CuEq* and 6.1m @ 2.3% CuEq*. This drill hole was completed more than 150 metres down dip of VDD0141 and over 50 metres down plunge from VDD0157. Therefore, the success of VDD0169 could potentially result in a significant increase of the D Zone Mineral Resource.

The results of the previously announced Viscaria Project Scoping Study indicate that the mineralised intersections from VDD0169, especially the two high grade intervals of 7.0m @ 1.7% CuEq* and 6.1m @ 2.3% CuEq*, have the potential to increase the tonnes of mineralisation which could be extractable using underground mining methods at D Zone (Development Case C).

VDD0166: Northeast D Zone (Figure 3)

Drill hole VDD0166 intersected 82.0m @ 0.9% CuEq* from 384.0m down hole, including two high grade intervals of 5.9m @ 2.1% CuEq* and 13.0m @ 2.1% CuEq*. This drill hole was completed more than 150 metres down dip of VDD0141 and over 50 metres down plunge from VDD0169. Therefore, the success of VDD0166 could potentially result in a significant increase to the D Zone Mineral Resource.

The results of the previously announced Viscaria Project Scoping Study indicate that the mineralised intersections from VDD0166, especially the two high grade intervals of 5.9m @ 2.1% CuEq* and 13.0m @ 2.1% CuEq*, have the potential to increase the tonnes of mineralisation which could be extractable using underground mining methods at D Zone (Development Case C).

VDD0163: Southwest D Zone (Figure 4)

Drill hole VDD0163 intersected 55.0m @ 1.1% CuEq* from 351m down hole, including two high grade intervals of 5.0m @ 1.6% CuEq* and 9.0m @ 1.5% CuEq*. It was drilled over 50 metres down dip of drill hole VDD0161 and over 70 metres along strike from drill hole VDD0155. Therefore, VDD0164 could potentially result in a significant increase of the D Zone Mineral Resource.

The results of the previously announced Viscaria Project Scoping Study indicate that the mineralised intersections from VDD0163, especially the two high grade intervals of 5.0m @ 1.6% CuEq* and 9.0m @ 1.5% CuEq*, have the potential to increase the tonnes of mineralisation which could be extractable using underground mining methods at D Zone (Development Case C).

VDD0167: Central D Zone (Figure 5)

Drill hole VDD0167 intersected 15.8m @ 1.2% CuEq* from 207.2m down hole including two high grade intervals of 5.8m @ 1.8% CuEq* and 5.0m @ 1.5% CuEq*. It was drilled over 100 metres down dip of drill hole VDD0046 and over 70 metres down plunge from drill hole VDD0151. Therefore, VDD0167 could potentially result in a significant increase of the D Zone Mineral Resource.

The results of the previously announced Viscaria Project Scoping Study indicate that the mineralised intersections from VDD0167, especially the two high grade intervals of 5.8m @ 1.8% CuEq* and 5.0m @ 1.5% CuEq*, have the potential to increase the tonnes of mineralisation which could be extractable using underground mining methods at D Zone (Development Case C).

Table 1: Drill hole details and assays results

Hole	Easting (RT90, m)	Northing (RT90, m)	Azi. (°)	Dip (°)	From (down hole m)	To (down hole m)	Interval Width (down hole m)	% Cu	% Fe	% CuEq	End of Hole(m)	
VDD0163	1,680,176	7,536,967	134	-56	351.00	406.00	55.00	0.5	23.0	1.1	414.00	
					including							
					351.00	356.00	5.00	1.1	28.3	1.6		
					also including							
					397.00	406.00	9.00	1.1	25.7	1.5		
including												
					399.19	403.00	3.81	1.8	29.9	2.3		
VDD0166	1680662	7537462	133	-56	384.00	466.00	82.00	0.5	22.7	0.9	471	
					including							
					384.00	390.30	6.30	0.8	37.0	1.4		
					also including							
					425.08	431.00	5.92	1.5	42.3	2.1		
also including												
					447.00	460.00	13.00	1.6	29.9	2.1		
VDD0167	1,680,513	7,537,196	133	-58.7	207.2	223	15.8	0.8	21.5	1.2	282.00	
					Including							
					207.2	213	5.8	1.3	28.9	1.8		
					and							
					218	223	5	1.1	27.1	1.5		
VDD0169	1680696	7537487	135	-55	357.00	434.10	77.10	0.5	19.1	0.8	480	
					including							
					357.00	364.00	7.00	1.2	27.7	1.7		
					also including:							
					395.00	405.00	10.00	0.8	26.4	1.2		
also including:												
					428.00	434.10	6.10	1.6	45.8	2.3		

***Copper Equivalent Formula**

$$\% \text{ CuEq} = \% \text{ Cu} + ((\% \text{ Fe} \times \text{Fe price US\$/tonne} \times \text{Fe recovery}) / (\text{Cu price US\$/tonne} \times \text{Cu recovery}))$$

Cu price US\$/tonne = \$7,163.00 (US\$3.25/lb)

Cu Recovery = 90%

Fe price US\$/tonne = \$144.93 (calculated from US\$100 Net Price per tonne of magnetite concentrate containing 69% Fe)

Fe Recovery = 70%

Results from extensive metallurgical test work completed by Avalon Minerals Limited indicate that both copper (Cu) and iron (Fe) have a reasonable potential to be recovered from the D Zone mineral resource contained within the Viscaria Project.

Table 2: Currently Defined Mineral Resources on the Viscaria Project

Resource Name	Classification	Tonnes (t)	Cu Grade (%)	Cu Metal (t)
A Zone*	Measured	14,439,000	1.7	240,000
	Indicated	4,690,000	1.2	57,000
	Inferred	2,480,000	1.0	26,000
	Subtotal	21,609,000	1.5	323,000
B Zone*	Measured	123,000	1.3	2,000
	Indicated	4,118,000	0.7	30,000
	Inferred	15,410,000	0.8	118,000
	Subtotal	19,651,000	0.8	150,000
D Zone Cu Resource	Indicated**	5,200,000	0.9	48,000
	Inferred**	2,700,000	0.8	23,000
	Subtotal	7,900,000	0.9	71,000
Overall Cu	Total	49,160,000	1.1	544,000

Resource Name	Classification	Tonnes (t)	Fe Grade (%)	Fe Mass Recovery (%)	Fe Metal (t)
D Zone Fe Resource	Indicated***	12,100,000	27.3	31.3	4,000,000
	Inferred***	6,800,000	25.6	31.6	2,200,000
Overall Fe	Total	18,900,000	26.9	32.6	6,200,000

* 2011 Mineral Resources for A Zone and B Zone are reported above a cut-off grade of 0.4% Cu.

** 2013 Copper Mineral Resource for D Zone above a cut-off grade of 0.4% Cu.

*** 2013 Iron Mineral Resource for D Zone above a cut-off grade of 15% Fe Mass Recovery.

Note that the total Indicated and Inferred Mineral Resource reported for the Copper (Table 1) and for above 15% Fe Mass Recovery are not mutually exclusive; the Mineral Resource for above 15% Fe Mass Recovery excludes 1.8 million tonnes at 0.8% Cu above a cut-off grade of 0.4% Cu.

ABOUT AVALON

Avalon is an ASX listed mineral exploration company with high quality assets in Sweden, one of the leading metal producing countries in the European Union.

Avalon's flagship asset is the Viscaria Copper-Iron Project located 1,200km north of Stockholm where the Company has delineated a global resource of 49.2 million tonnes of copper mineralisation at 1.1% Cu, containing 544,000 tonnes of copper and 18.9 million tonnes of iron mineralisation at 26.9% Fe, containing 6.2 million tonnes of iron.

The Viscaria Project is surrounded by established infrastructure, lying immediately adjacent to LKAB's Kirunavaara Iron Ore operation and in close proximity to high-capacity rail and ports.

ABOUT SWEDEN

Sweden has a 1,000 year mining history, is the largest producer of iron ore in the European Union and is a leading producer of base metals (copper, zinc, lead) and precious metals (gold and silver).

There are excellent discovery opportunities, with much of the country underexplored by modern standards. Furthermore, Sweden possesses a world-class geological database and favourable minerals legislation, is politically and economically stable and has mining know-how, highly trained personnel and excellent infrastructure.

For further information please visit www.avalonminerals.com.au or contact:

Mr Jeremy Read - Managing Director
Avalon Minerals Limited
Tel: 07 3368 9888
Em: jeremy.read@avalonminerals.com.au
www.twitter.com/avalonminerals

Mr James Harris
Professional Public Relations
Tel: 08 9388 0944
Em: james.harris@ppr.com.au

Competent Persons Statement

The information in this report that relates to Mineral Resources and Exploration Targets is based upon information reviewed by Mr Jeremy Read BSc (Hons) who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Read 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Read consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

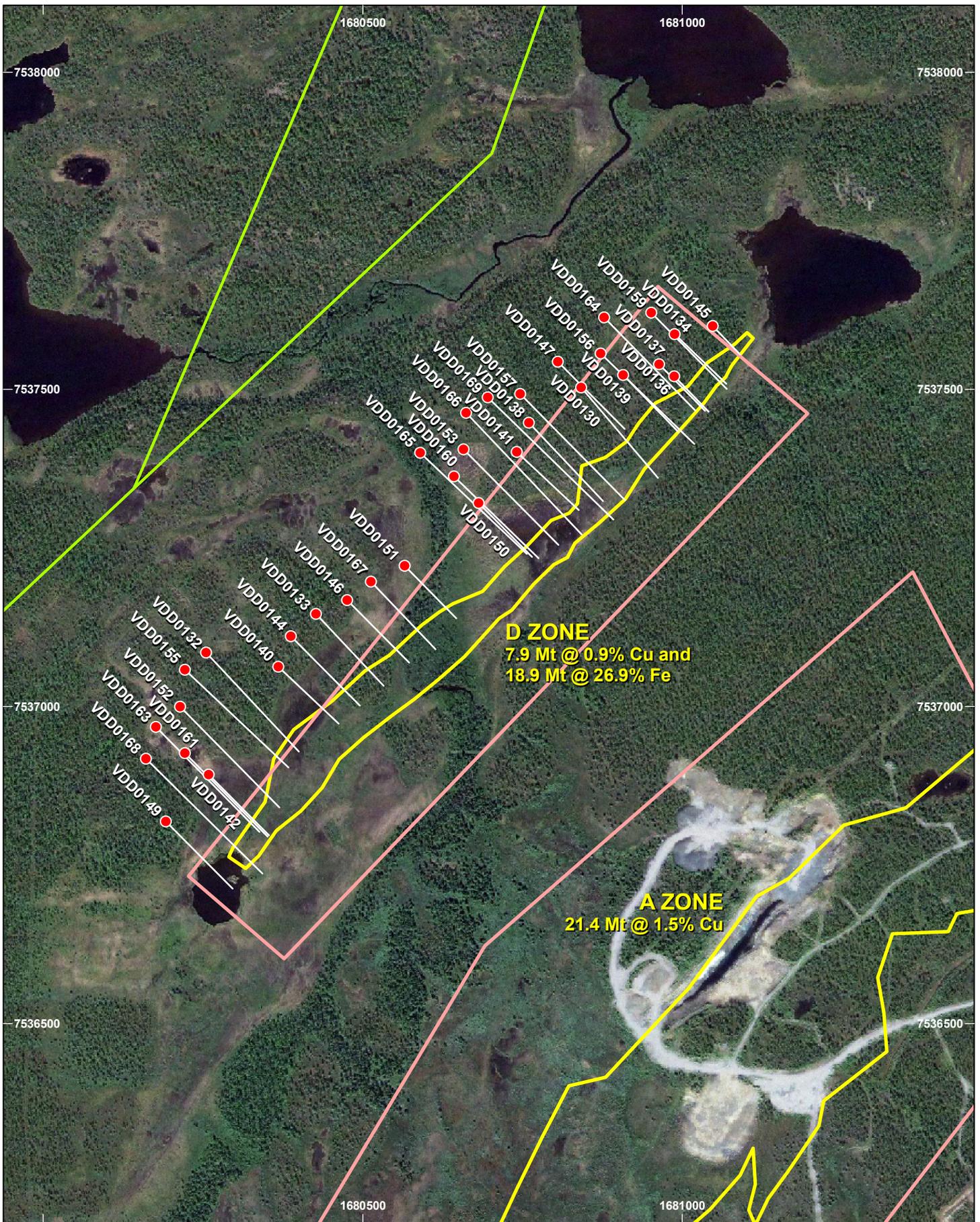
The Mineral Resource estimate for the D Zone Prospect was compiled and prepared by Matthew Readford (MAusIMM) of Xstract Mining Consultants who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2004 Edition and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The Scoping Study results were compiled and prepared by Tim Horsley (MAusIMM) of Xstract Mining Consultants who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2004 Edition and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.



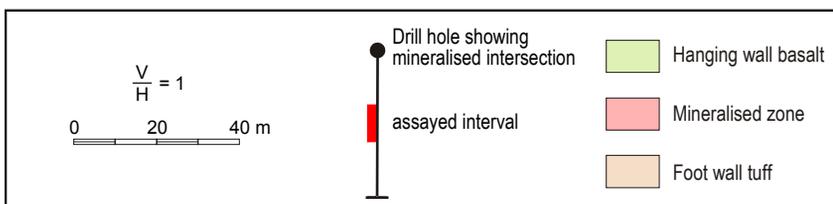
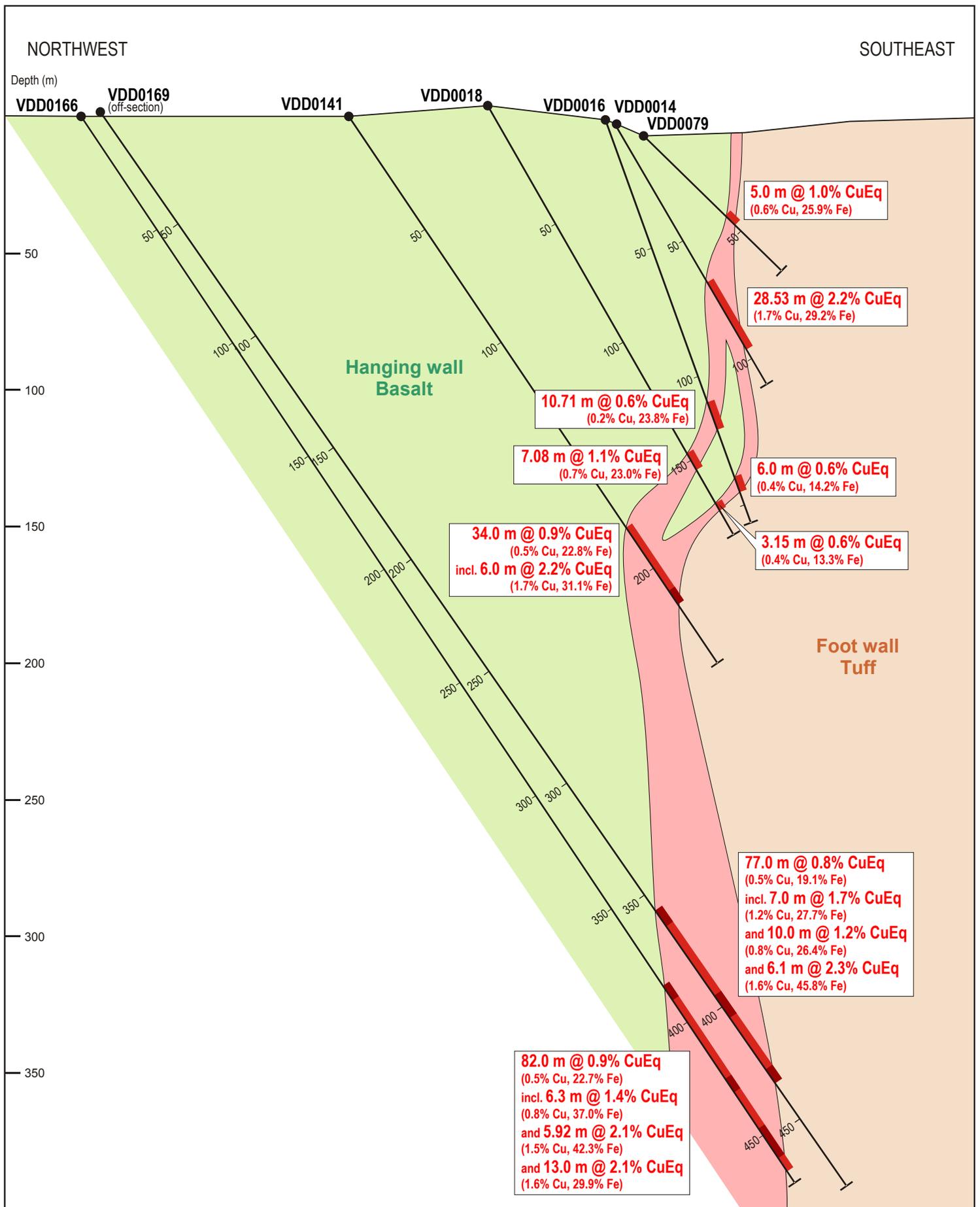
Figure 1 – Project Location





<p>0 100 200 300 m</p> <p>Transverse Mercator Projection RT90 gon vast 2.5 (standard)</p>	<ul style="list-style-type: none"> Exploration Permit Exploitation Concession Resource Zone boundary (surface projection) Drill hole
<p>D ZONE PROSPECT - VISCARIA PROJECT, SWEDEN</p> <p>LOCATION OF DRILL HOLES</p>	

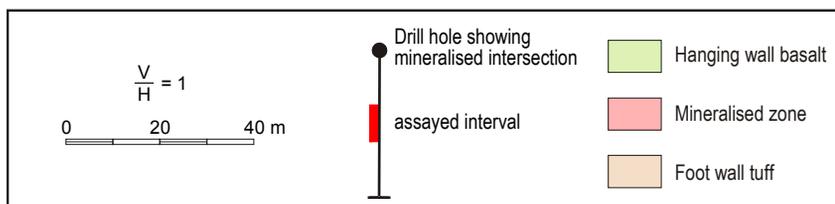
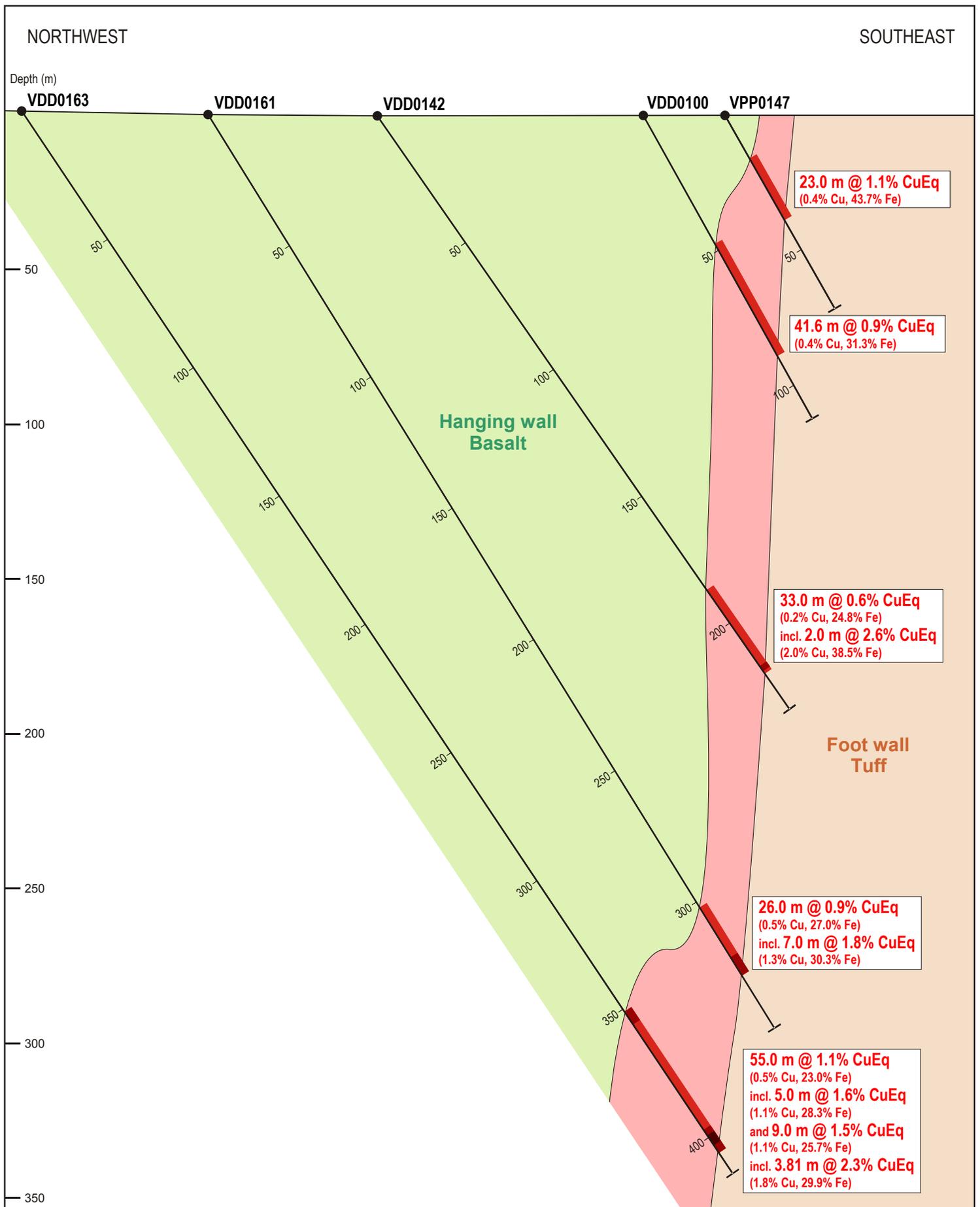
<p>AVALON MINERALS LTD</p>	
<p>65 Park Road Milton QLD 4064 Tel +61 7 3368 9888 Fax +61 7 3368 9899</p>	
Prepared: QH	Date: 03.03.2013
Revised: 29.04.2013	Drwg: AV-028
<p>FIGURE 2</p>	




AVALON
 MINERALS LTD
 65 Park Road
 Milton QLD 4064
 Tel +61 7 3368 9888
 Fax +61 7 3368 9899

D ZONE PROSPECT - VISCARIA PROJECT, SWEDEN
SCHEMATIC CROSS-SECTION SHOWING VDD0166 & VDD0169

Prepared: QH	Date: 28.04.2013
Revised:	Drawing: AV-019a
FIGURE 3	

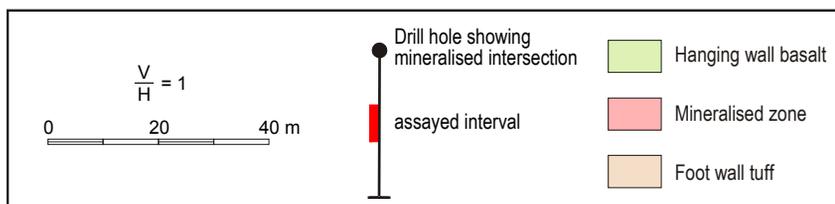
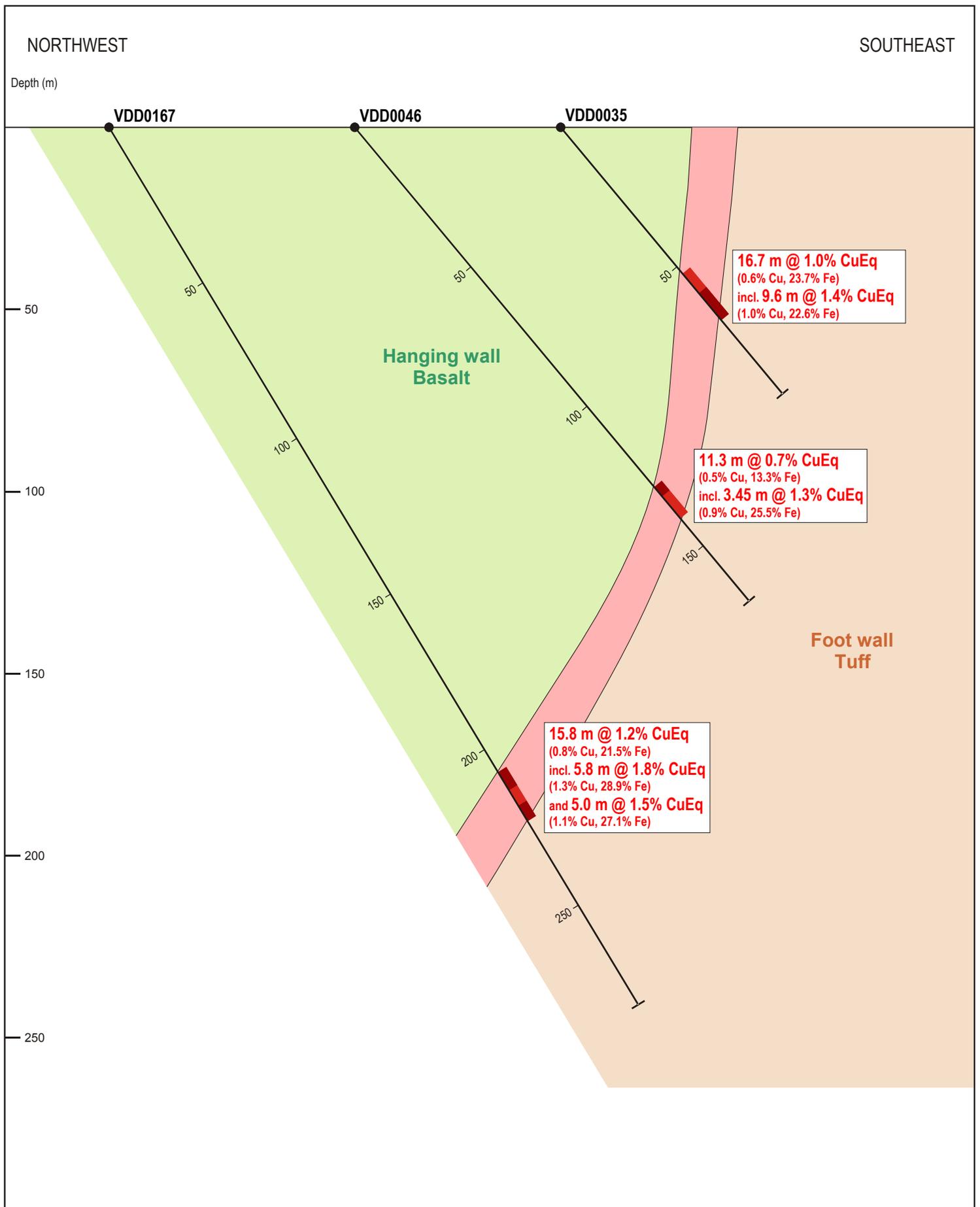


AVALON
MINERALS LTD

65 Park Road
Milton QLD 4064
Tel +61 7 3368 9888
Fax +61 7 3368 9899

D ZONE PROSPECT - VISCARIA PROJECT, SWEDEN
SCHEMATIC CROSS-SECTION SHOWING VDD0163

Prepared: QH	Date: 24.04.2013
Revised:	Drawing: AV-034a
FIGURE 4	




AVALON
MINERALS LTD

65 Park Road
Milton QLD 4064
Tel +61 7 3368 9888
Fax +61 7 3368 9899

D ZONE PROSPECT - VISCARIA PROJECT, SWEDEN
SCHEMATIC CROSS-SECTION SHOWING VDD0167

Prepared: QH	Date: 25.04.2013
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FIGURE 5	