

28 MAY 2013

ASX ANNOUNCEMENT



SUCCESSFUL DRILLING FURTHER EXTENDS COPPER-IRON MINERALISATION AT D ZONE PROSPECT

HIGHLIGHTS

- **Final assay results from D Zone have been received and best intersections include:**
 - **VDD0171: 14.7m @ 1.7% CuEq*, within a larger mineralisation zone of 39.0m @ 1.1% CuEq*;**
 - **VDD0175: 8.0m @ 1.7% CuEq*, within a larger mineralisation zone of 19.0m @ 1.1% CuEq*;**
 - **VDD0177: 5.0m @ 1.6% CuEq*, within a larger mineralisation zone of 15.0m @ 1.1% CuEq*;**
 - **VDD0178: 4.55m @ 1.6% CuEq*, within a larger mineralisation zone of 8.35m @ 1.1% CuEq*;**
- **VDD0171 extends the D Zone mineralisation 50m along strike to the southwest and the strong copper mineralisation intersected in this hole is still open to the southwest, opening up a new area to extend the Mineral Resource into;**
- **North-eastern high grade copper-iron plunging zone has been extended down plunge a further 150m;**
- **Upgraded D Zone Mineral Resource is currently being completed and will be announced within the next month;**
- **Viscaria Project Economic Study to be updated after Final D Zone Mineral Resource completed.**

Australian resources company Avalon Minerals Limited ('**Avalon**' or '**Company**') (**ASX: AVI**) is pleased to announce the final assay results from the recently completed drill program at the D Zone Prospect on the Viscaria Project in northern Sweden (Figure 1).

All six drill holes intersected copper and iron mineralisation, extending the area of known mineralisation by up to 50m along strike to the south and 150m down plunge. The objective of the D Zone drill program was to significantly extend the copper-iron mineralisation, which has been achieved, increase the known Mineral Resources and deliver on the potential increases to the project Net Present Value as outlined in the October 2012 Scoping Study.

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The Company's Managing Director Mr Jeremy Read said, "The final assays from the D Zone Prospect show that the known high grade copper-iron mineralisation is still open along strike to the southwest, at depth and down plunge, which indicates that the Mineral Resource has the potential to expand even further than the increases we have delivered to date."

"The outcomes from the D Zone extension drill program have been very positive as we have defined two high grade plunging zones of copper-iron mineralisation, mineralisation up to 88m wide, which is still open and located in an area in the southwest into which we can expand the Mineral Resource. We are looking forward to the next upgrade of the Mineral Resource for D Zone and providing an update of the overall project economics," he added.

D Zone Mineral Resource Extension Drill Program

VDD0171 was drilled into the southwest extremity of the D Zone Prospect. This drill hole was designed to test how far the D Zone mineralisation could be extended along strike to the southwest. The success of VDD0171 indicates that the mineralisation within the D Zone Prospect further extends laterally and has not been closed off in this area.

In contrast, VDD0174 was drilled into the northeast extremity of the D Zone mineralisation. This drill hole was designed to test how far the D Zone mineralisation could be extended to the northeast. The result of VDD0174 indicates that the D Zone mineralisation does not extend laterally to the northeast and has been closed off in this area.

VDD0172, VDD0175, VDD0177 and VDD0178 were all drilled into the central part of the D Zone mineralisation. The success of VDD0172, VDD0175, VDD0177 and VDD0178 follows the success of the previously announced drill holes VDD0160, VDD0167, VDD0150, VDD0151 and VDD0153 in this area. These drill holes were planned to delineate the upper margin of the north eastern, relatively thick and moderately plunging, high grade copper-iron mineralisation zone. The success of these drill holes indicates that this plunging, high grade copper-iron mineralisation zone extends at least 150m further down plunge. There is no indication that this mineralisation is diminishing at depth and in fact, the mineralisation is increasing in copper grade with depth.

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.

VDD0171: Southwest D Zone (Figure 3)

Drill hole VDD0171 intersected two mineralised zones. The first was 24.0m @ 1.0% CuEq* from 36.0m down hole; and the second was 39.0m @ 1.1% CuEq* from 74.0m down hole, including a high grade interval of 14.7m @ 1.7% CuEq*. This drill hole was completed more than 150m up dip of VDD0149 and over 50m along strike from VPP0146. Therefore, the success of VDD0171 potentially results 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 VDD0171 have the potential to increase the tonnes of mineralisation which could be extractable using open pit mining methods at D Zone (Development Case A).

VDD0177: Central D Zone (Figure 4)

Drill hole VDD0177 intersected 15.0m @ 1.1% CuEq* from 349.0m down hole, including a high grade interval of 5.0m @ 1.6% CuEq*. This drill hole was completed more than 150 m down dip of VDD0167 and over 150m down plunge from VDD0172. Therefore, the success of VDD0177 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 VDD0177, especially the high grade interval of 5.0m @ 1.6% CuEq* have the potential to increase the tonnes of mineralisation which could be extractable using underground mining methods at D Zone (Development Case C).

VDD0172: Central D Zone (Figure 5)

Drill hole VDD0172 intersected 48.0m @ 0.6% CuEq* from 213m down hole, including two higher grade intervals of 7.3m @ 1.0% CuEq* and 9.0m @ 1.1% CuEq*. It was drilled over 100m down dip of drill hole VDD0053 and about 100m along strike from drill hole VDD0167 to the southwest and VDD0160 to the northeast. Therefore, VDD0172 potentially results in a significant increase of the D Zone Mineral Resource.

VDD0175: Central D Zone (Figure 5)

Drill hole VDD0175 intersected 19.0m @ 1.1% CuEq* from 319m down hole, including a high grade interval of 8.0m @ 1.7% CuEq*. It was drilled about 150m down dip of drill hole VDD0172 and over 100m along strike from drill hole VDD0165. Therefore, VDD0175 potentially results 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 VDD0175, especially the high grade intervals of 8.0m @ 1.7% 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).

VDD0178: Central D Zone (Figure 6)

Drill hole VDD0178 intersected 8.35m @ 1.1% CuEq* from 179m down hole, including a high grade interval of 4.55m @ 1.6% CuEq*. It was drilled about 200m up dip of drill hole VDD0153 and about 50m along strike from drill hole VDD0150 to the southwest and VDD0141 to the northeast. Therefore, VDD0178 potentially results 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 VDD0178 have the potential to increase the tonnes of mineralisation which could be extractable using open pit mining methods at D Zone (Development Case A).

VDD0174: Northeast D Zone

Drill hole VDD0174 intersected 4.05m @ 0.6% CuEq* from 169.0m down hole and 3.0m @ 0.6% CuEq* from 198.0m. It was drilled over 50 metres down dip of drill hole VDD0145.

Final D Zone Mineral Resource estimate and revised Scoping Study Economics

The final assay results from the D Zone Prospect have been received and an upgraded Mineral Resource estimate is expected to be completed within the next month. Following completion of the new Mineral Resource, a revision of the Viscaria Project Economic Study will be prepared, in order to understand what has been delivered in terms of potential increases to the project Net Present Value (NPV) compared to the NPV outlined in the pre-drill program Scoping Study (see ASX announcement 11 October 2012).

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)
VDD0171	1,680,248	7,536,770	134.3	-55	36.00	60.00	24.00	0.8	8.5	1.0	120
					74.00	113.00	39.00	0.9	14.1	1.1	
					including:						
					80.00	94.71	14.71	1.5	14.2	1.7	
VDD0172	1,680,580	7,537,276	134.3	-55	213.00	261.00	48.00	0.4	16.2	0.6	272
					including						
					214.00	221.30	7.30	0.6	25.4	1.0	
					also including:						
					252.00	261.00	9.00	0.9	13.2	1.1	
VDD0174	1,681,010	7,537,633	130.3	-54.6	169.00	173.05	4.05	0.2	21.2	0.6	225
					and						
					198.00	201.00	3.00	0.6	4.4	0.6	
VDD0175	1,680,538	7,537,310	130.5	-55	319.00	338.00	19.00	0.7	24.9	1.1	379.25
					including						
					330.00	338.00	8.00	1.4	22.5	1.7	
VDD0177	1,680,450	7,537,245	128.3	-55.8	349.00	364.00	15.00	0.7	27.5	1.1	396
					including						
					349.00	354.00	5.00	1.1	30.1	1.6	
VDD0178	1,680,730	7,537,340	130.3	-62.8	179.00	187.35	8.35	0.6	26.2	1.1	205
					including						
					182.80	187.35	4.55	1.1	26.9	1.6	

***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:

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Competent Persons Statement

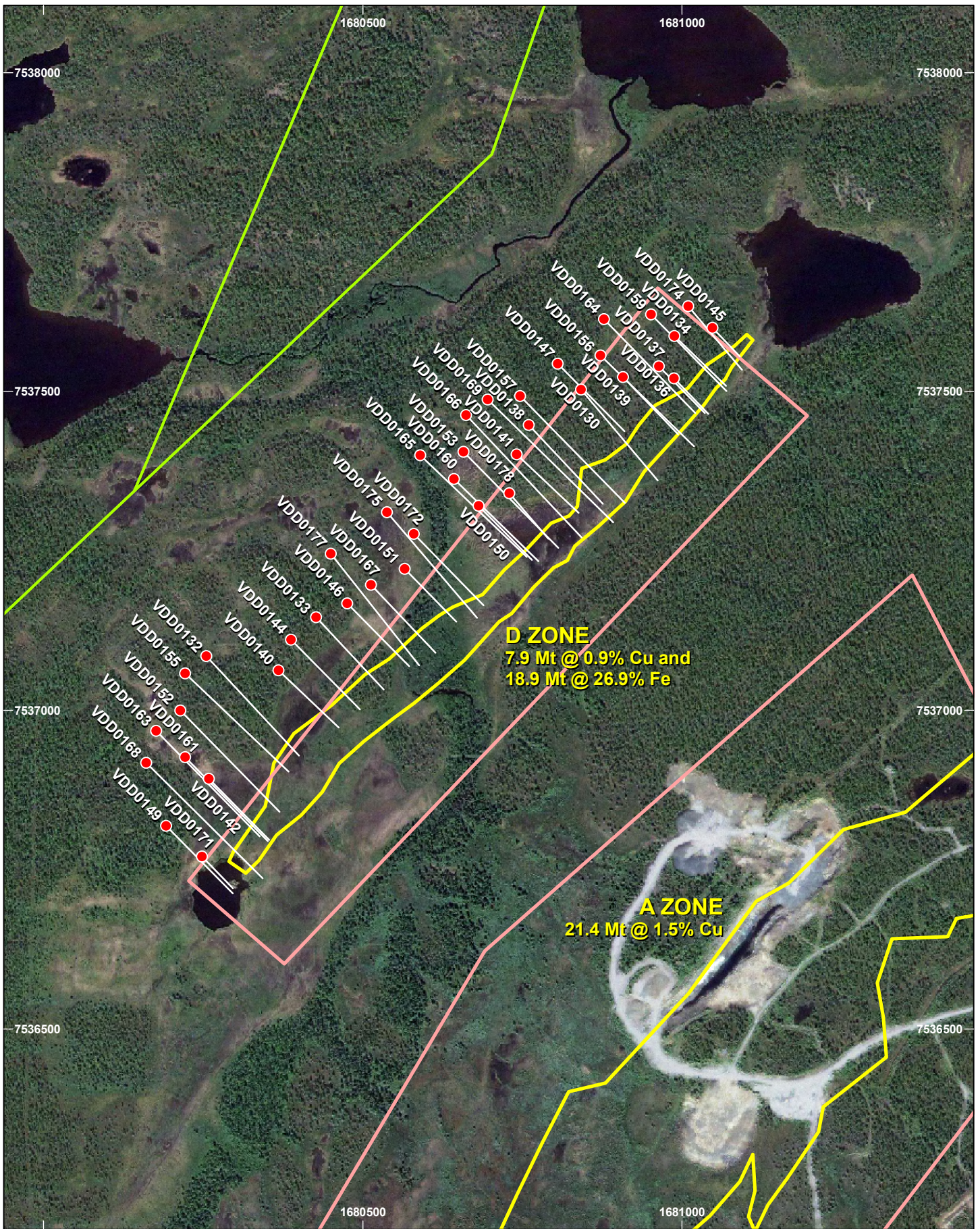
The information in this report that relates to Mineral Resources and Exploration Targets is based upon information reviewed by Mr Jeremy Read BSc (Hons) who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Read is a full time employee of Avalon Minerals Ltd and has sufficient experience 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.



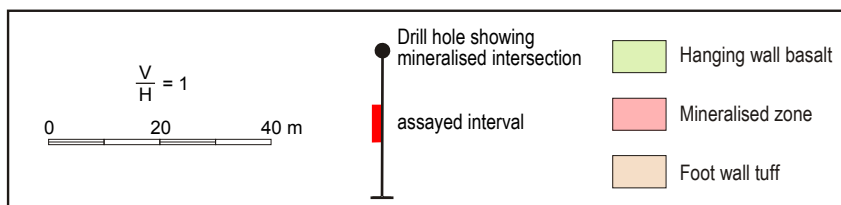
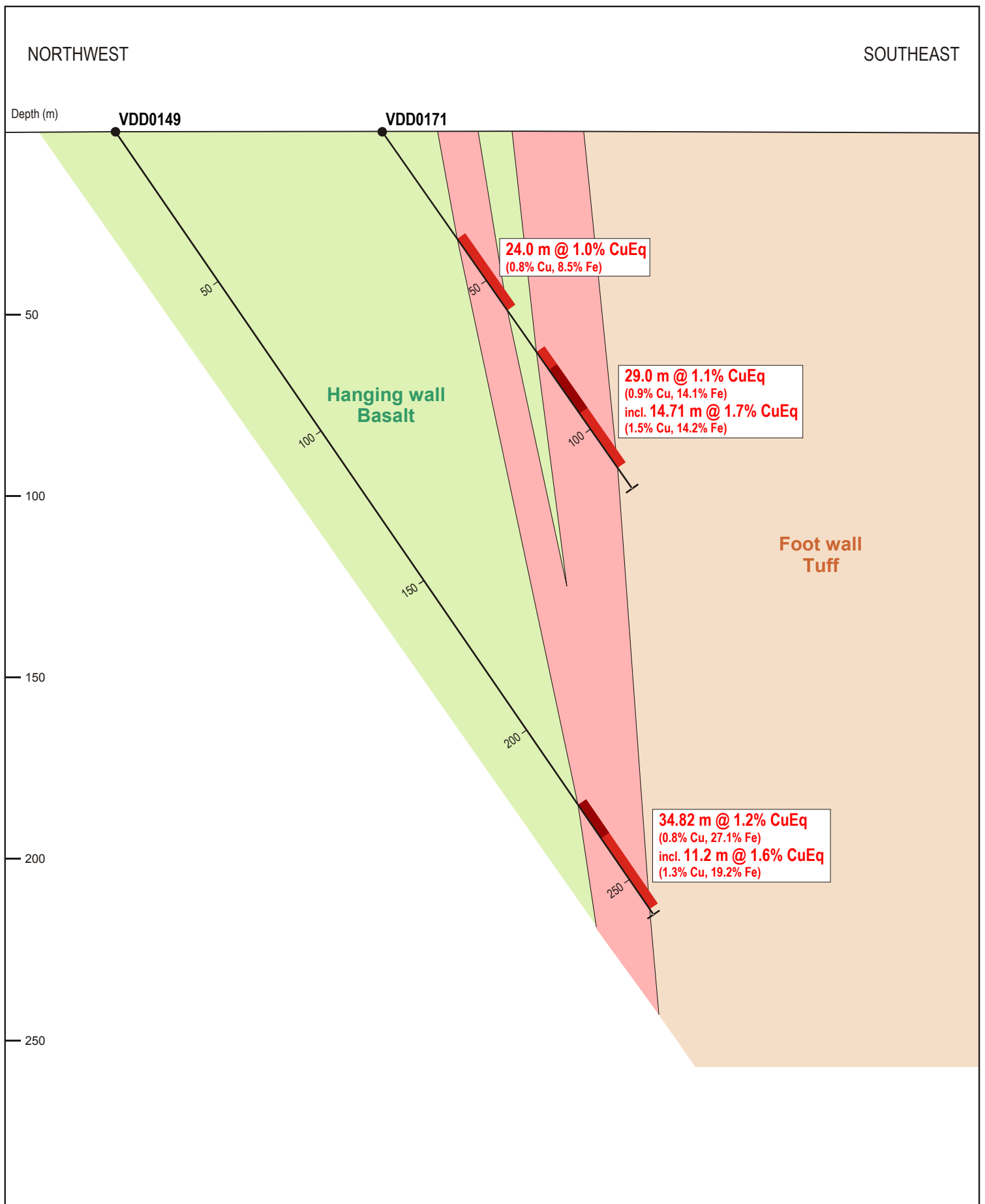
Figure 1 – Project Location





<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>	

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Prepared: QH	Date: 03.03.2013
Revised: 23.05.2013	Drwg: AV-028
<p>FIGURE 2</p>	

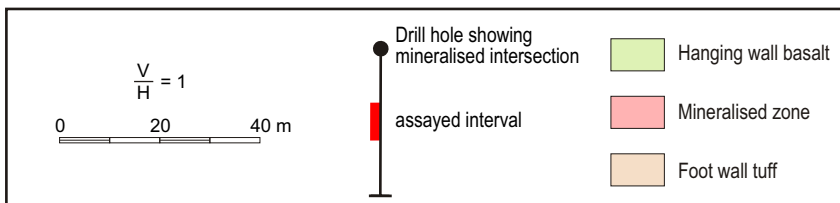
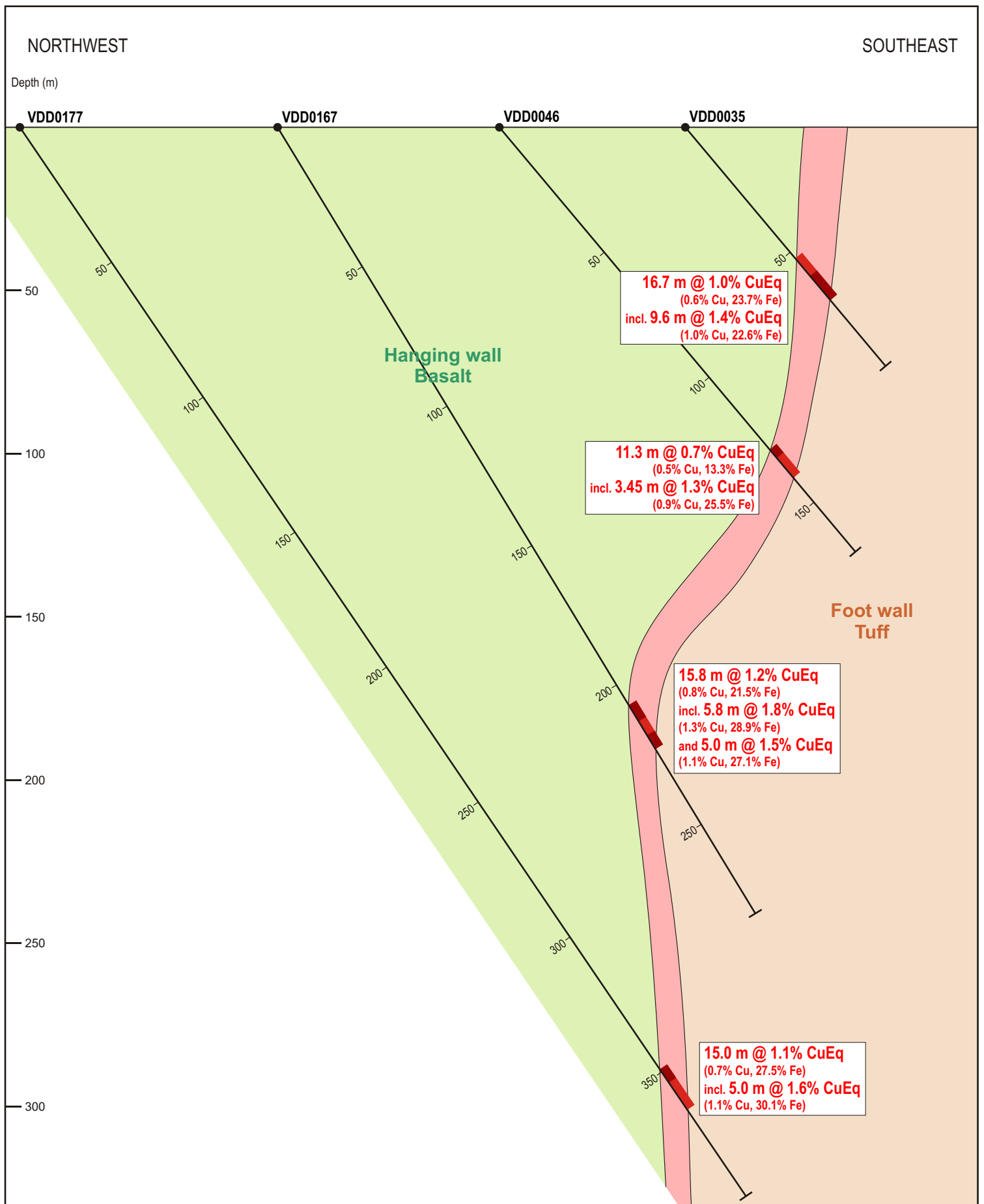


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**D ZONE PROSPECT - VISCARIA PROJECT, SWEDEN
SCHEMATIC CROSS-SECTION SHOWING VDD0171**

Prepared: QH	Date: 23.05.2013
Revised:	Drawing: AV-026a
FIGURE 3	

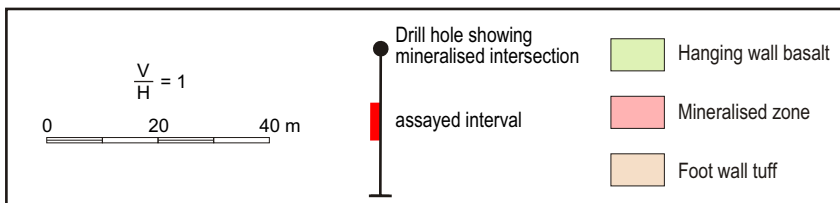
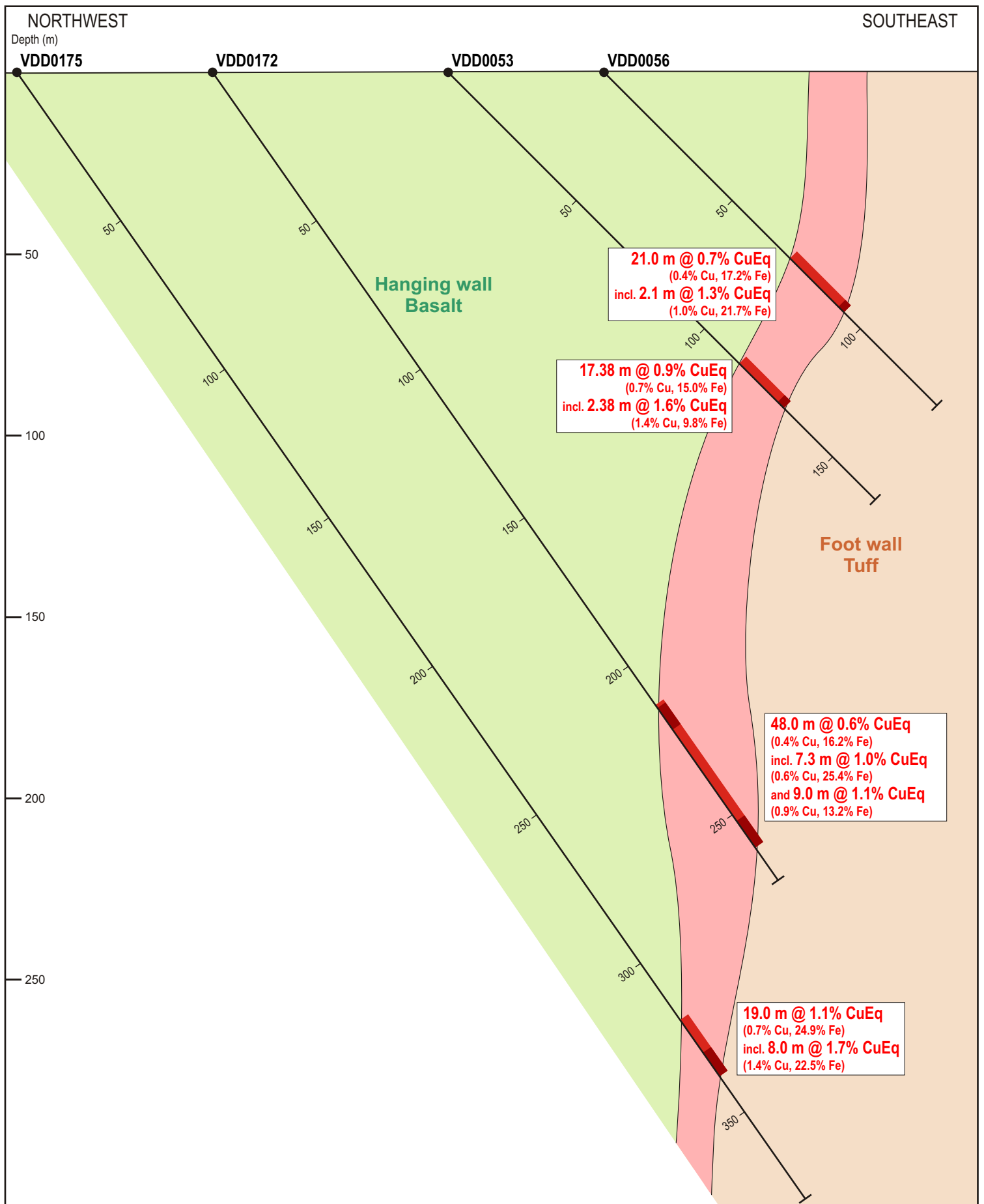


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**D ZONE PROSPECT - VISCARIA PROJECT, SWEDEN
SCHEMATIC CROSS-SECTION SHOWING VDD0177**

Prepared: QH	Date: 25.05.2013
Revised:	Drawing: AV-038a
FIGURE 4	

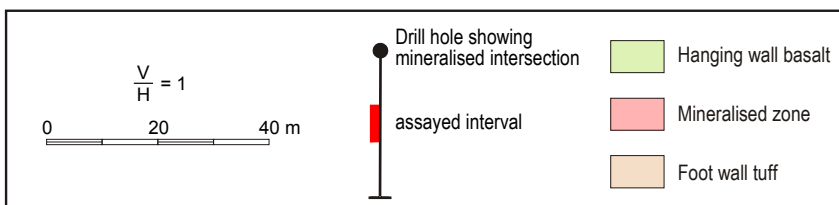
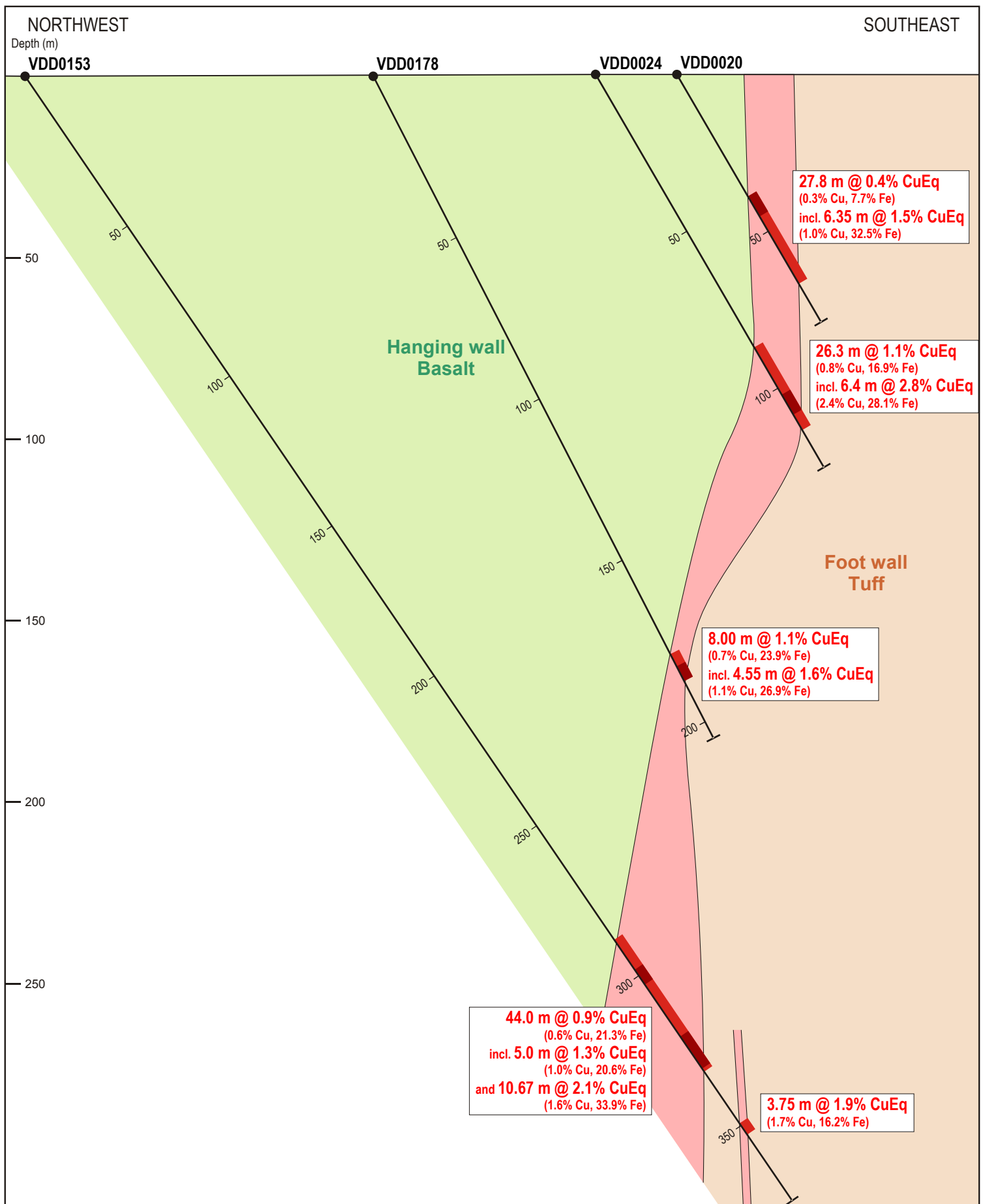


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D ZONE PROSPECT - VISCARIA PROJECT, SWEDEN
SCHEMATIC CROSS-SECTION SHOWING VDD0172 & VDD0175

Prepared: QH	Date: 23.05.2013
Revised:	Drawing: AV-040
FIGURE 5	



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D ZONE PROSPECT - VISCARIA PROJECT, SWEDEN
SCHEMATIC CROSS-SECTION SHOWING VDD0178

Prepared: QH	Date: 23.05.2013
Revised:	Drawing: AV-031a
FIGURE 6	