

## AVALON TO COMMENCE DRILL PROGRAM ON TWO MOST PROSPECTIVE COPPER-GOLD TARGETS AT VISCARIA PROJECT

### Highlights

- Avalon anticipates drill testing in late March-April its two most prospective regional exploration prospects, Tjarro and Tjavelk, at the Viscaria Project;
- Various historical rock chip samples from the Tjavelk area returned copper values up to 12.4% Cu and gold values up to 3.7g/t Au;
- Historic drilling on the Tjarro prospect intersected:
  - 15m of 1.3% Cu from 80m, including 8m @ 1.7% Cu;
  - 17m @ 1% Cu, including 7m @ 1.4% Cu;
  - 34.45m @ 0.6% Cu & 0.4g/t Au, including 3.6m @ 1.6% Cu & 1.2g/t Au.
- Historic drilling on the Tjavelk prospect intersected:
  - 34m @ 39.4% Fe and 0.2% Cu from 50m.
- The prospectivity of these regional targets are reinforced by excellent historic surface geochemical anomalies and drilling results;
- The aim of the drill program is to intersect new bodies of copper-gold or copper-magnetite mineralisation, with priority given to prospects close by to a potential processing plant at the A and D Zone prospects;
- Both prospects have coincident electromagnetic ('EM') conductors and magnetic anomalies identified from the helicopter electromagnetic/magnetic survey of the Viscaria regional exploration tenements completed by Avalon in 2012.

Australian resources company Avalon Minerals Limited ('Avalon' or 'Company') (ASX: AVI) is pleased to announce that the two most prospective copper-gold regional exploration prospects, Tjarro and Tjavelk, on the Viscaria Project ('Viscaria') in northern Sweden have been advanced to drill ready status (Figure One).

The results from a helicopter electromagnetic/magnetic ('Heli-EM/Mag') survey of the regional exploration tenements, completed in mid-2012, have been modelled in 3D and drill holes have been planned to test the source of the combined EM/magnetic anomalies. These drill holes will be completed in late March-April this year, following consultation with stakeholders and approval of the drill program by the various Swedish regulatory bodies.

The aim of this drill program is to intersect new bodies of copper-gold or copper-magnetite mineralisation, with priority given to prospects that could possibly be mined and trucked to the processing plant Avalon is planning to build at the A Zone and D Zone prospects in the south-west corner of its Viscaria Project tenement package.

The Company's Managing Director Mr Jeremy Read said, "The Tjarro and Tjavelk targets generated from the Heli-EM/Mag survey data are high quality regional exploration targets being coherent and coincident electromagnetic and magnetic anomalies which are very clearly anomalous from the surrounding geology."

"The coincidence of the magnetic and EM anomalies with highly anomalous copper and gold surface geochemistry and historic drilling results adds to their prospectivity and is extremely encouraging. This has been the result of three years of successful exploration work which we remain very excited about and has significant potential", said Mr Read.

### **Tjarro Prospect**

The Tjarro Prospect was first selected for exploration because of the excellent historic drilling results obtained from this area. Historic drill holes from Tjarro intersected 15m of 1.3% Cu from 80m, including 8m @ 1.7% Cu; 17m @ 1% Cu, including 7m @ 1.4% Cu; and 34.45m @ 0.6% Cu & 0.4g/t Au from 85.15m, including 3.6m @ 1.6% Cu & 1.2g/t Au. These results indicate that this area contains significant amounts of high grade copper and gold mineralisation at shallow depths.

The recent Heli EM/Mag survey data from the Tjarro area shows several significant zones of conductivity that strike north-south over 2000 metres (Figure Two). The 3D modelling of the EM and magnetic data indicates that the shallow historic drilling did not intersect the dominant EM conductor (Figure Three). Therefore, it appears that the EM conductor has not yet been drill tested, despite it being associated with highly anomalous copper and gold.

### **Tjavelk Prospect**

The Tjavelk Prospect was first selected as an exploration target because of the excellent historic surface geochemistry and drilling results obtained from this area. Surface rock chip samples taken in the vicinity of the Tjavelk prospect returned 12.4% Cu, 6.8% Cu, 6.3% Cu, 5.6% Cu and 1.2% Cu and gold values of 3.1g/t Au, 3.7g/t Au, 1.8g/t Au, 1.3g/t Au and <0.01% Au. Historic drilling intersected 34m @ 39.4% Fe and 0.2% Cu from 50m and 39m @ 38.4% Fe and 0.1% Cu from 135m.

The assays from these holes indicate that mineralisation similar to the thick copper-iron mineralisation that Avalon is currently drilling at the D Zone Prospect, was intersected at Tjavelk, but not systematically followed up. Possibly, the Tjavelk area is analogous to Avalon's D Zone Prospect.

The Heli EM/Mag survey data from the Tjavelk area shows two significant zones of conductivity at the Tjavelk and Lulip Borri prospects (Figure Four). The conductor at the Tjavelk prospect strikes east-west, while the conductor at the Lulip Borri prospect strikes north-south. Both anomalies are about 2000 metres in strike length however, the EM anomaly at the Tjavelk prospect is the stronger conductor, is coincident with a significant

magnetic anomaly and is associated with excellent historic geochemistry and drilling results indicating that it is the most prospective.

Modelling of the EM data from the Tjavelk prospect suggests that the EM conductor dips to the north and plunges to the west and that it is coincident with the source of a strong magnetic anomaly (Figure Five). The source of the magnetic anomaly appears to be near surface and has been drill tested with the two historical drill holes returning 38-39% Fe. However, the EM conductor occurs below 100 metres depth and appears not to have been tested by two drill holes drilled to the east of the drill holes which tested the near surface source of the magnetic anomaly. Therefore, it appears that the EM conductor has not yet been drill tested and this EM conductor will be the target of Avalon's drilling.

## **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-magnetite project located 1,200km north of Stockholm where the Company has delineated a global resource of 66.2 million tonnes of mineralisation, containing 51,000 tonnes of copper and 2.4 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 a leading producer of base metals (copper, zinc, lead) and precious metals (gold and silver) and is the largest producer of iron ore in the European Union.

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.

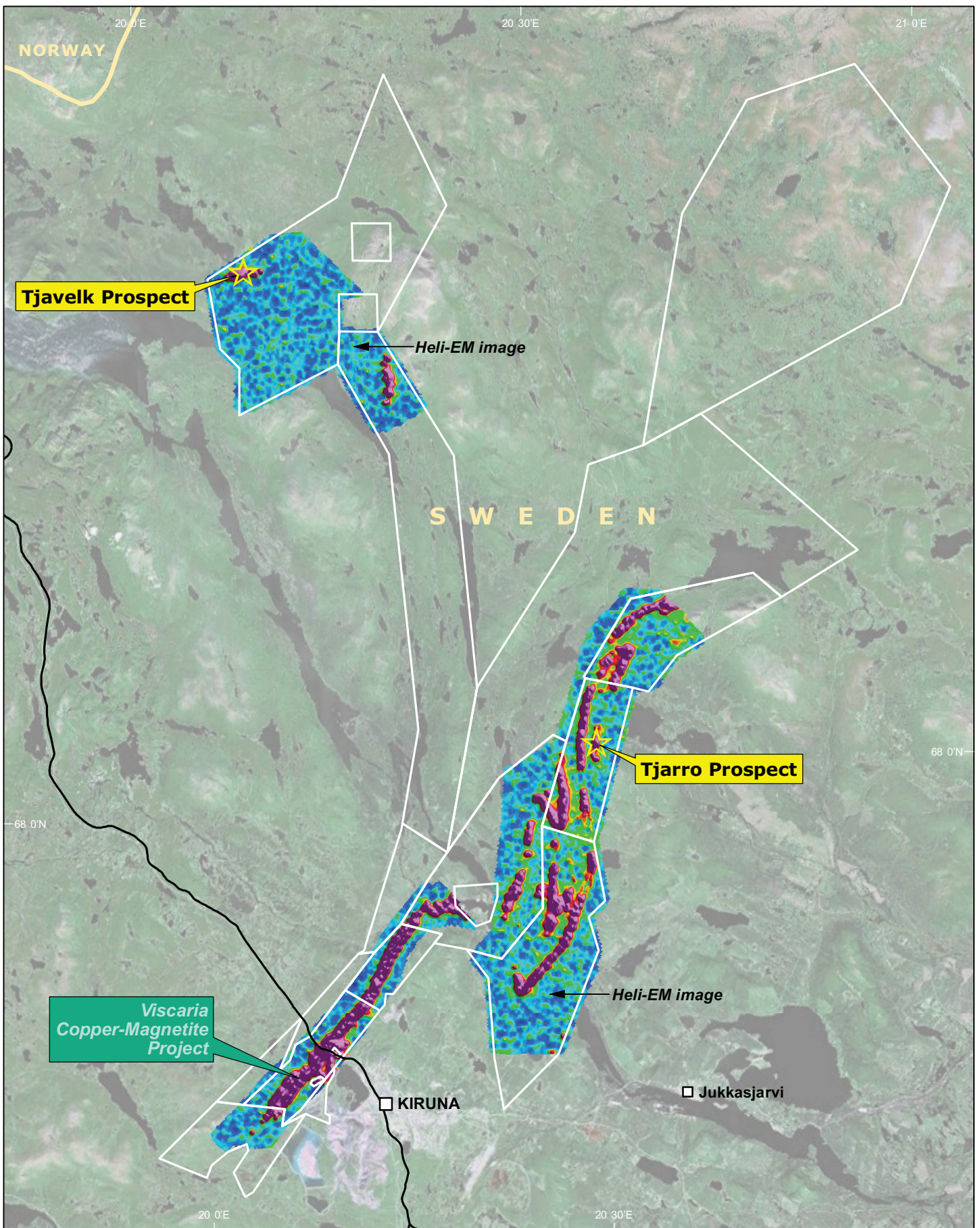
**For further information please visit [www.avalonminerals.com.au](http://www.avalonminerals.com.au) or contact:**

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

Mr James Harris  
Professional Public Relations  
Tel: 08 9388 0944  
Mob: 0400 296 547  
Em: [james.harris@ppr.com.au](mailto: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.



0 5 10 km

Transverse Mercator Projection.  
RT90 gon vast 2.5 Datum.

-  Regional prospect
-  Exploration Tenure
-  International boundary
-  Railway



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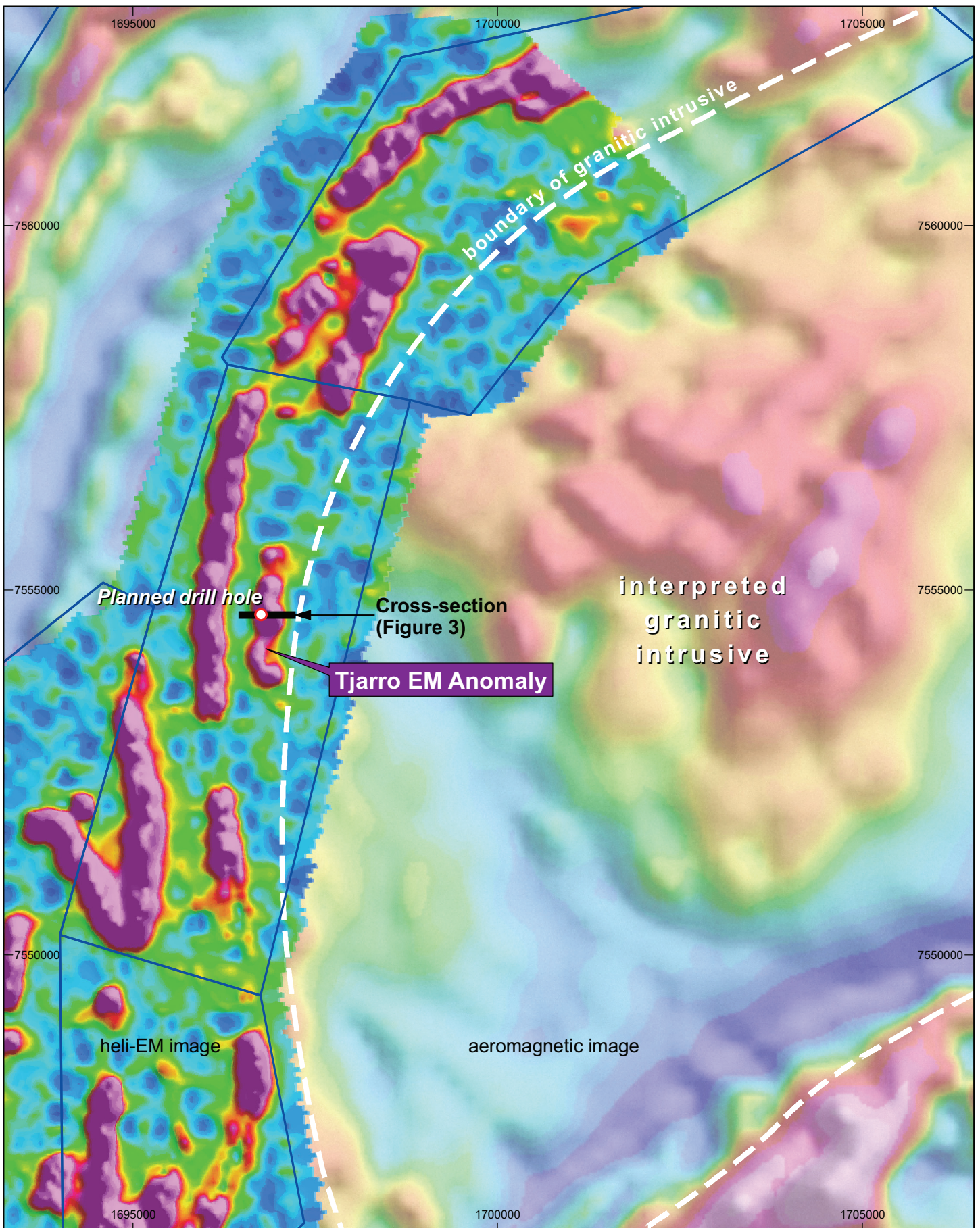
65 Park Road  
Milton QLD 4064  
Tel +61 7 3368 9888  
Fax +61 7 3368 9899

Prepared: QH Date: 29.01.2013

Revised: Drwg: AV-011

**NORTHERN SWEDEN  
LOCATION OF REGIONAL PROSPECTS**

**FIGURE 1**



0 1 2 3 km

Transverse Mercator Projection.  
RT90 gon vast 2.5 Datum.

- Planned drill hole
- Exploration Tenure



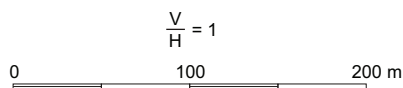
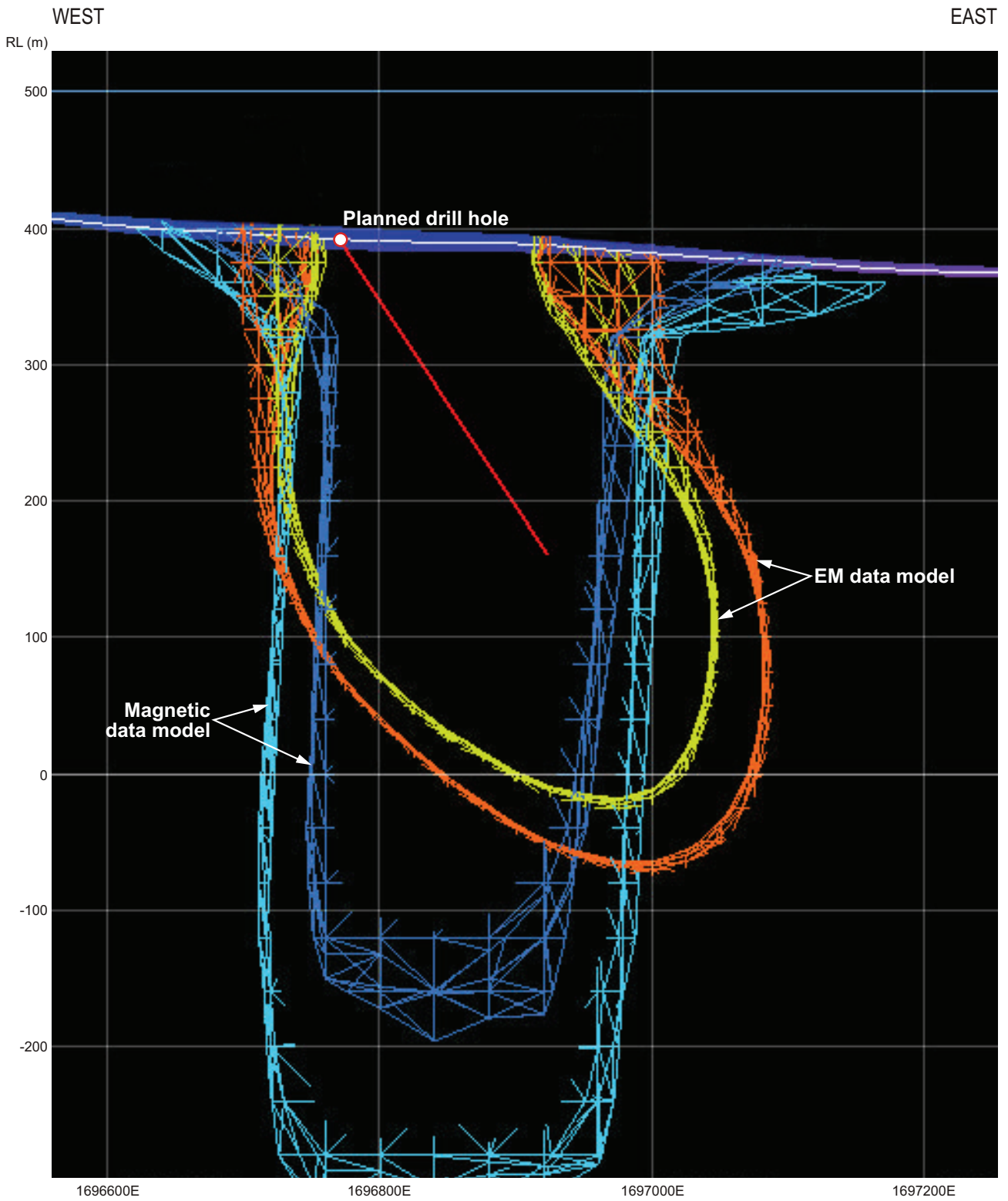
**AVALON**  
MINERALS LTD

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

Prepared: QH	Date: 29.01.2013
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**TJARRO PROSPECT, SWEDEN  
HELI-EM & AEROMAGNETICS**

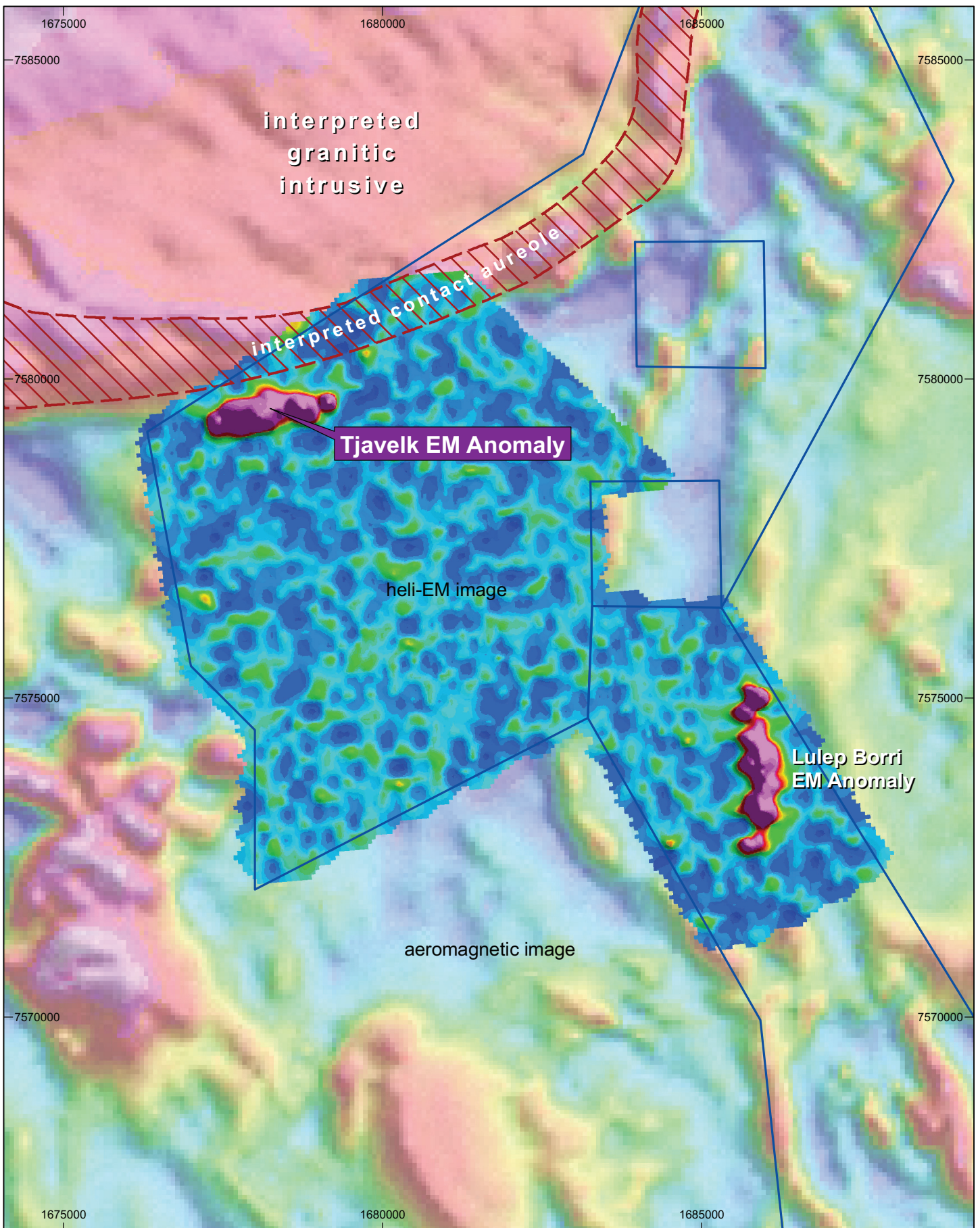
**FIGURE 2**



TJARRO PROSPECT, SWEDEN  
 PLANNED DRILL HOLE ON A SECTION THROUGH TJARRO 3D EM MODEL

Prepared: QH	Date: 29.01.2013
Revised:	Drawing: AV-012

**FIGURE 3**



0 1 2 3 km

Transverse Mercator Projection.  
RT90 gon vast 2.5 Datum.

 Exploration Tenure

 Interpreted contact aureole



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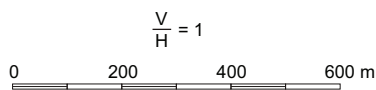
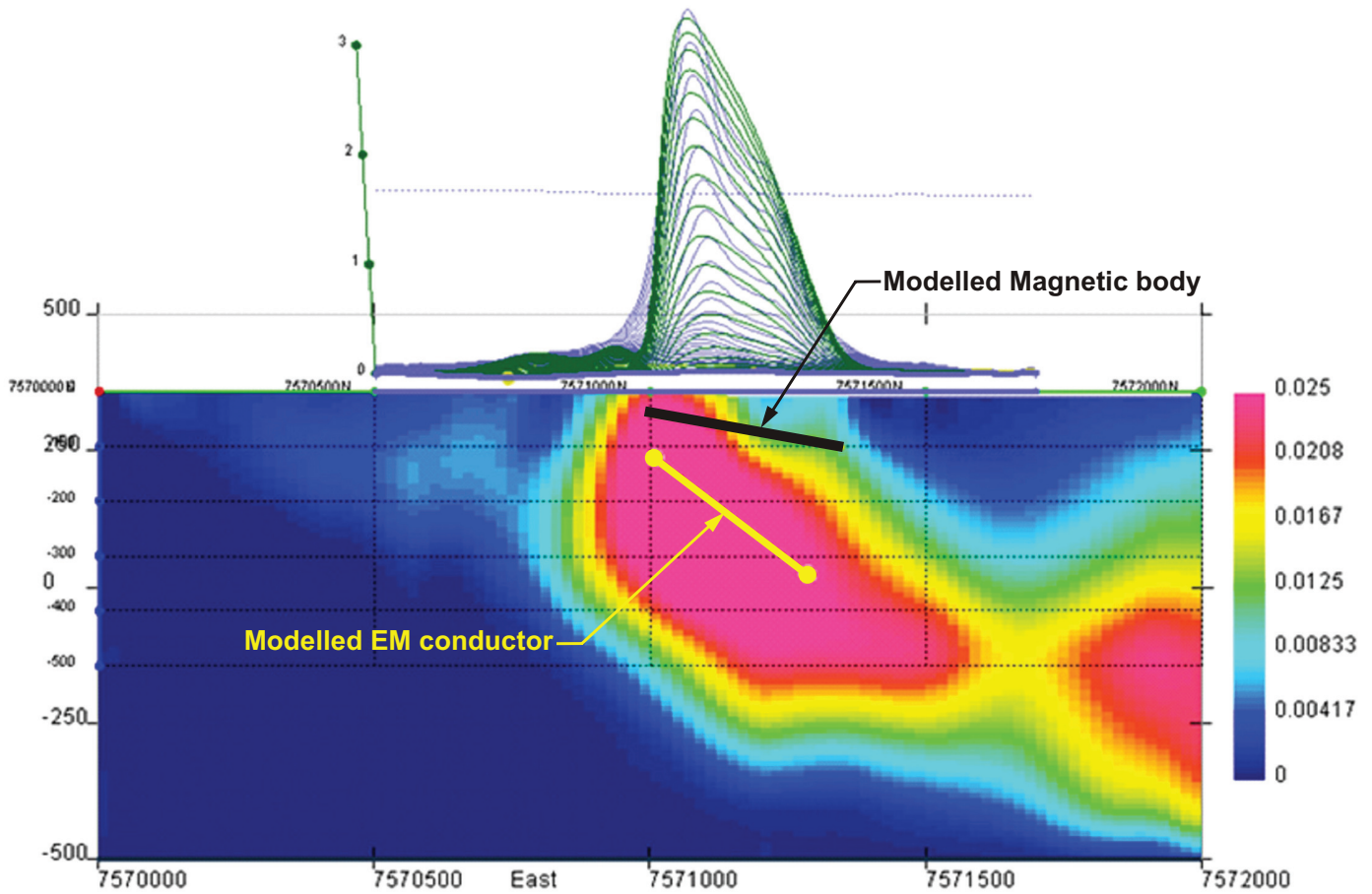
65 Park Road  
Milton QLD 4064  
Tel +61 7 3368 9888  
Fax +61 7 3368 9899

Prepared: QH Date: 30.01.2013

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**TJAVELK PROSPECT, SWEDEN  
HELI-EM & AEROMAGNETICS**

**FIGURE 4**



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

**TJAVELK PROSPECT, SWEDEN  
CROSS-SECTION THROUGH THE TJAVELK 3D EM MODEL**

Prepared: QH Date: 30.01.2013  
Revised: Drawing: AV-015

**FIGURE 5**