



Capital Markets Day

November 2008

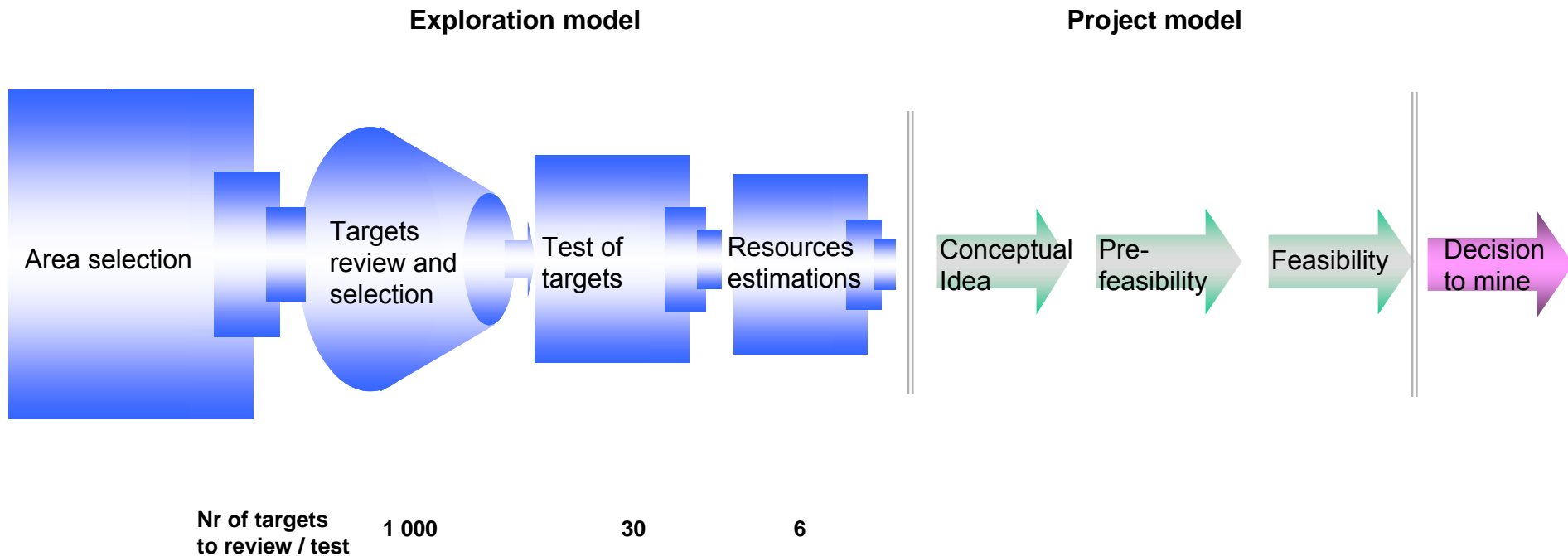
Exploration

Pierre Heeroma

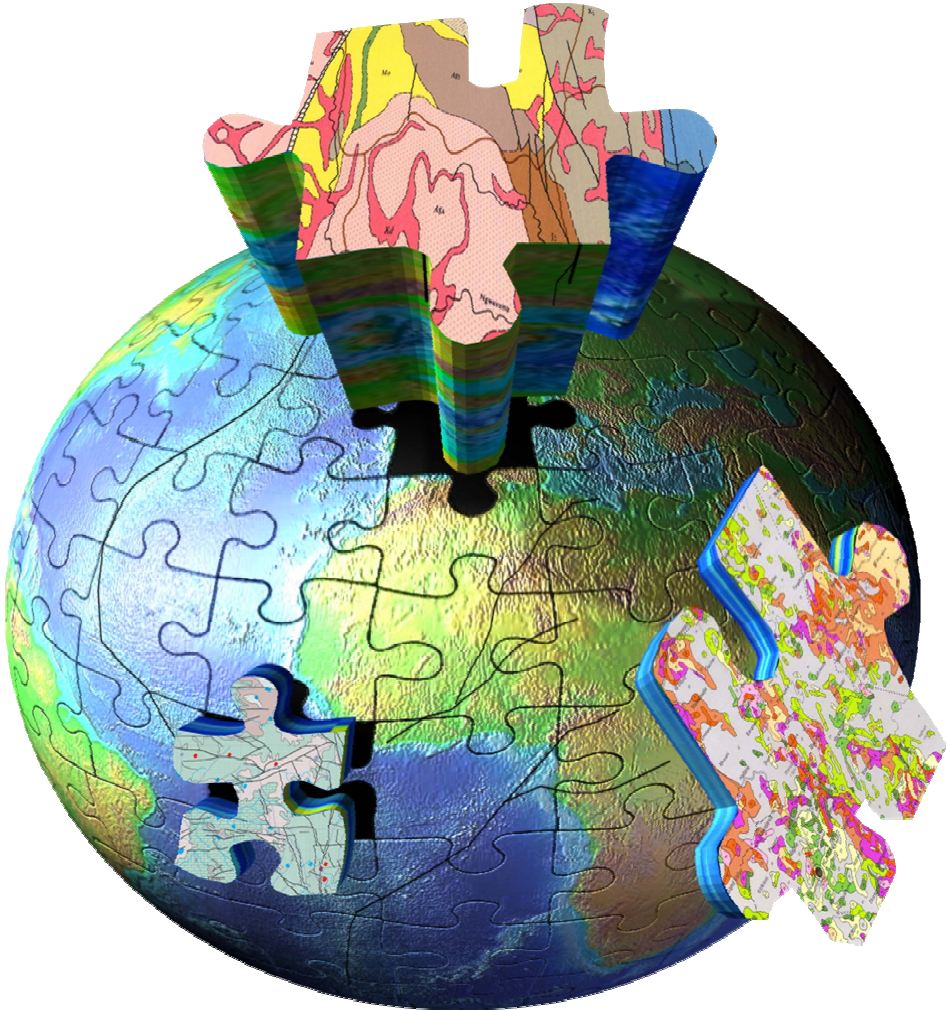
President BA Mines

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From exploration to production – project development



Geology



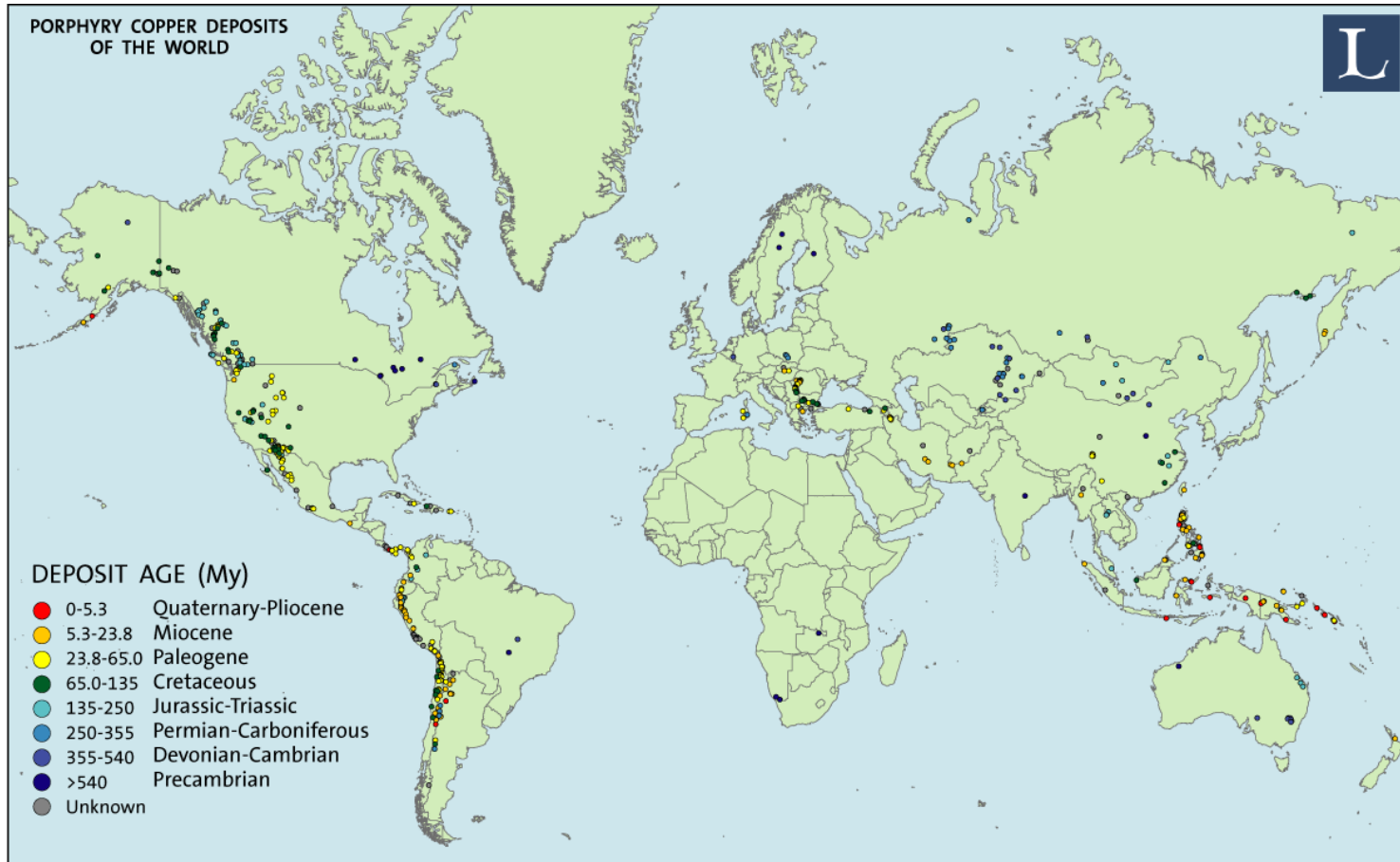
Major zinc deposits of the world



- Global VMS Project areas ■ Other major VMS districts and deposits ● Sediment-hosted Zn-Pb districts ●
- Broken Hill -type deposits ● Mississippi Valley -type districts ●



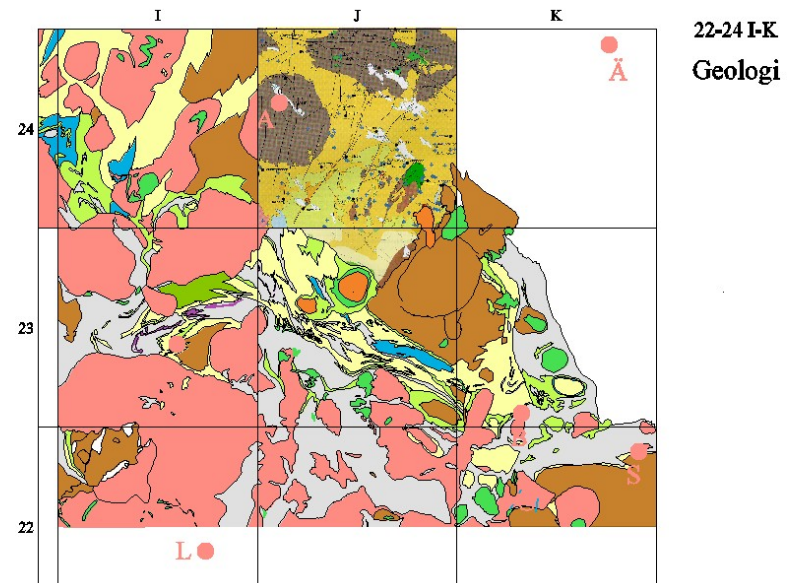
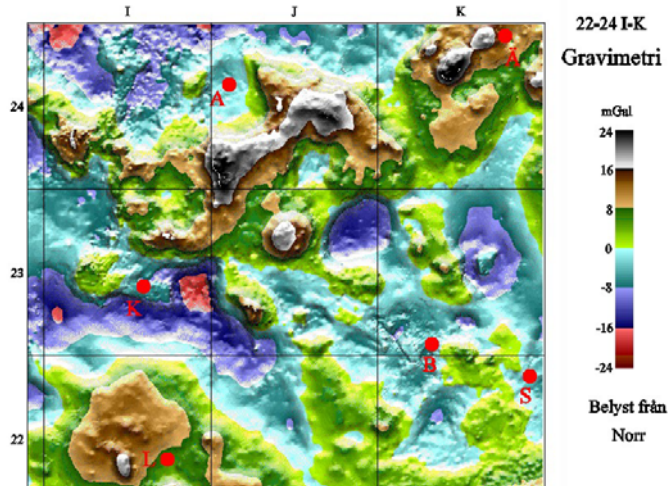
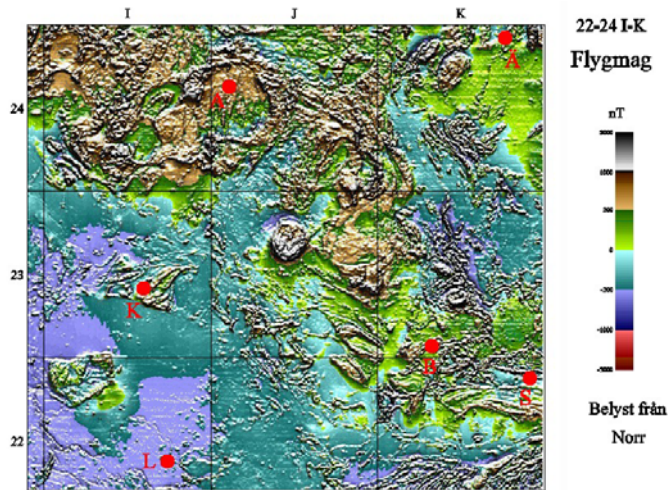
Porphyry copper deposits of the world



Airborne geophysics

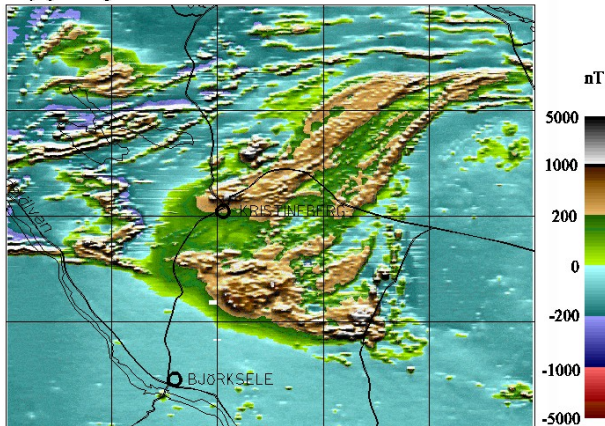


Geophysics and geology – regional scale surveys

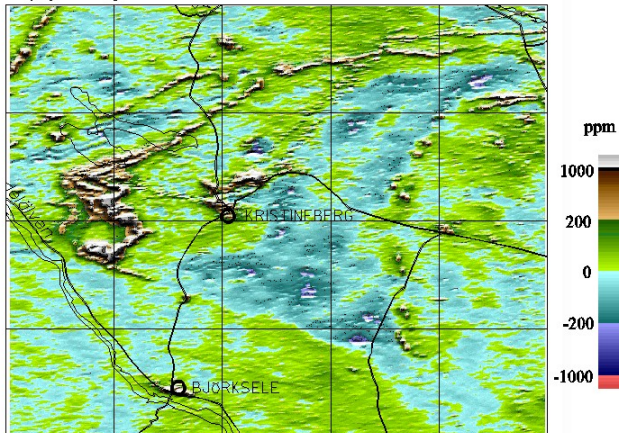


Geophysics and geology – semi regional scale

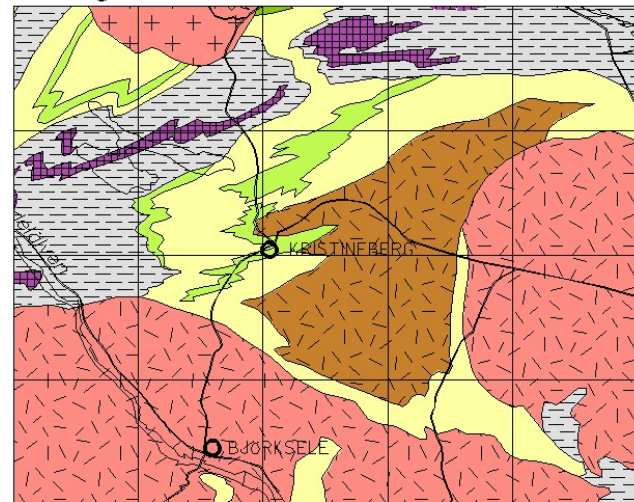
Kristinebergsområdet
Flyg-magnetometer



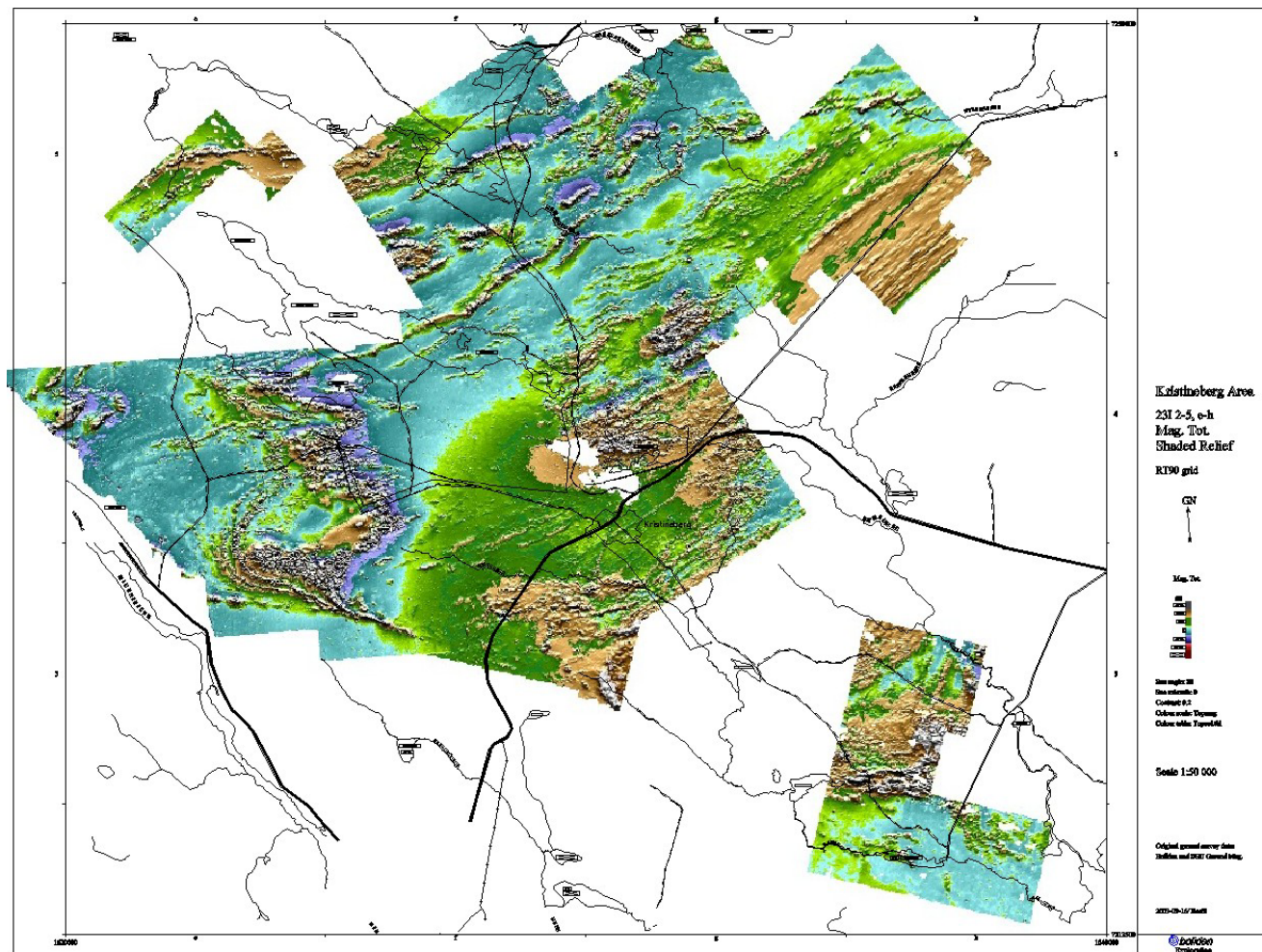
Kristinebergsområdet
Flyg-slingram



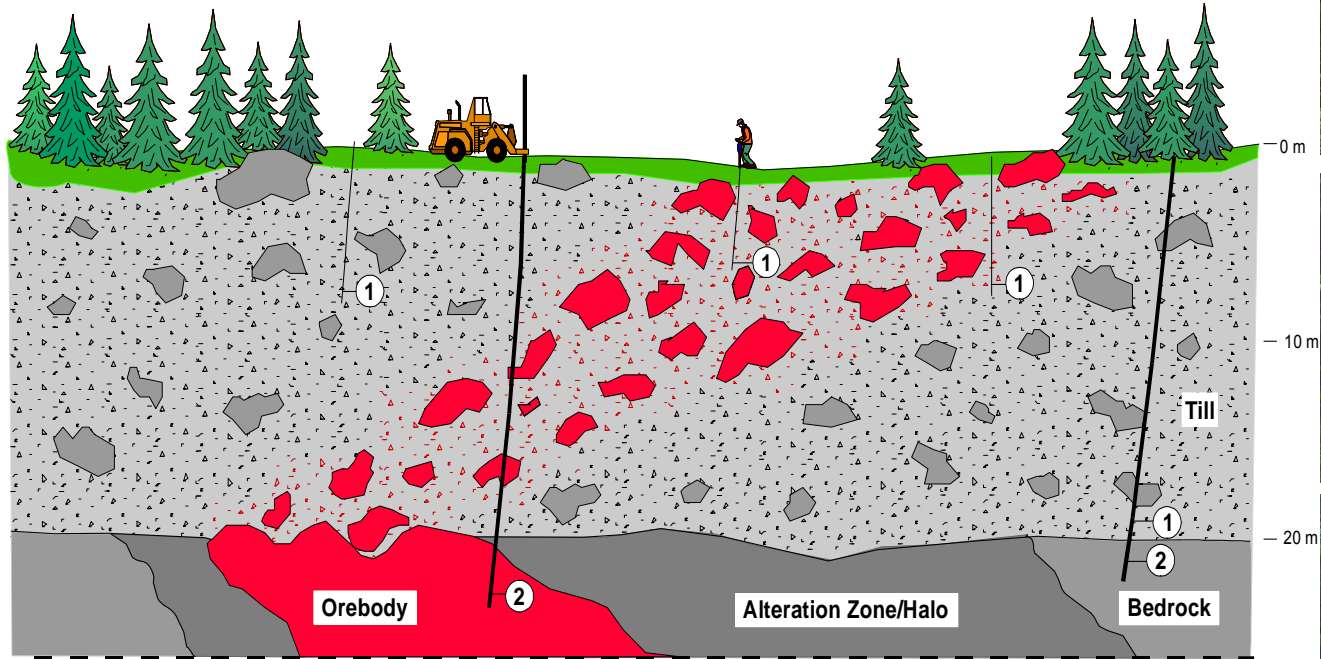
Kristinebergsområdet
Geologi



Geophysics and geology – local scale: ground survey

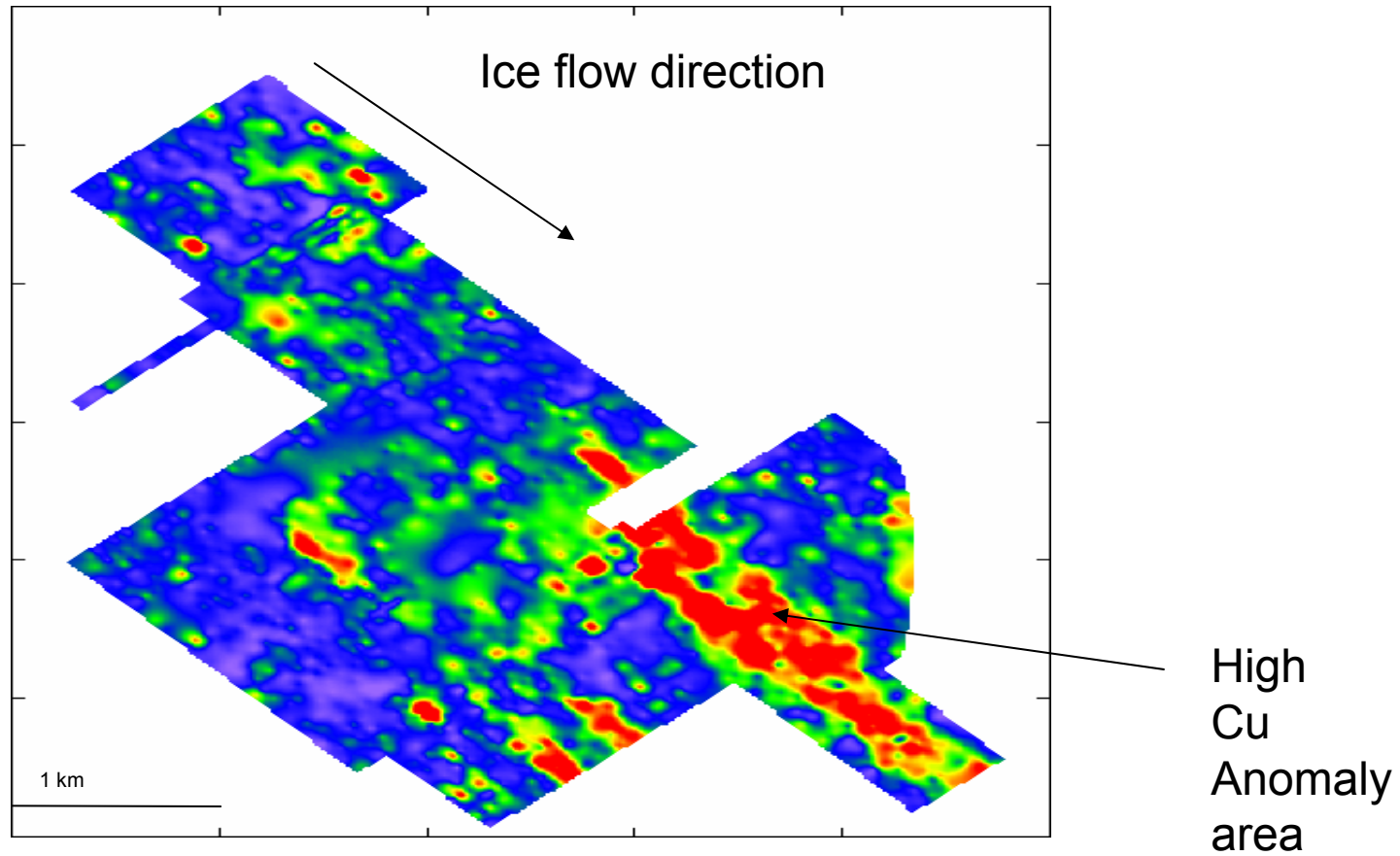


Geochemical surveys

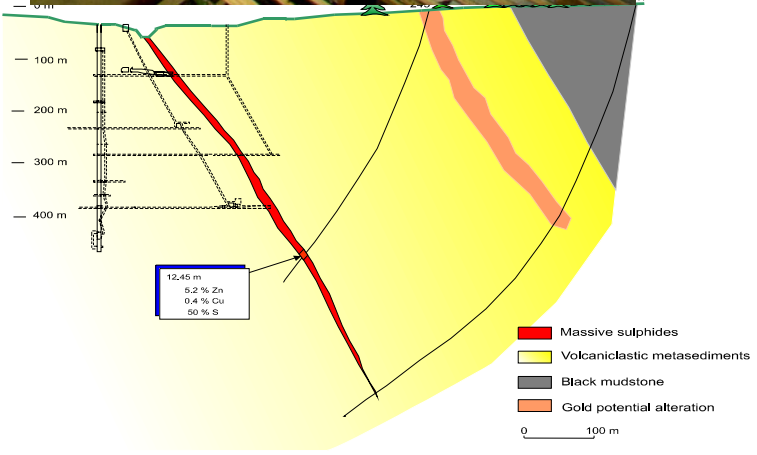


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Till Geochemistry: copper anomaly



Core drilling, logging and geological interpretation



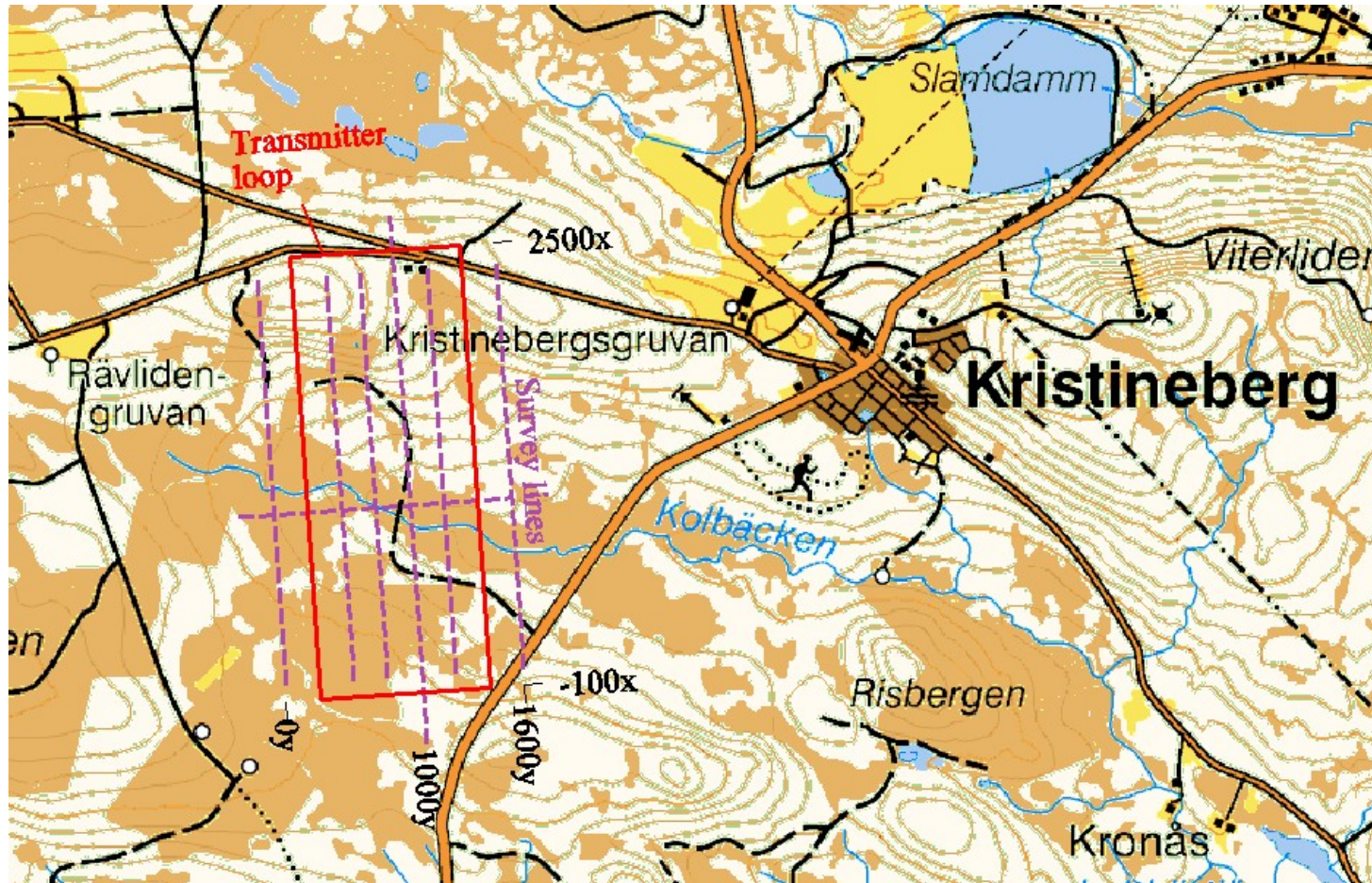
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Boliden's EM34

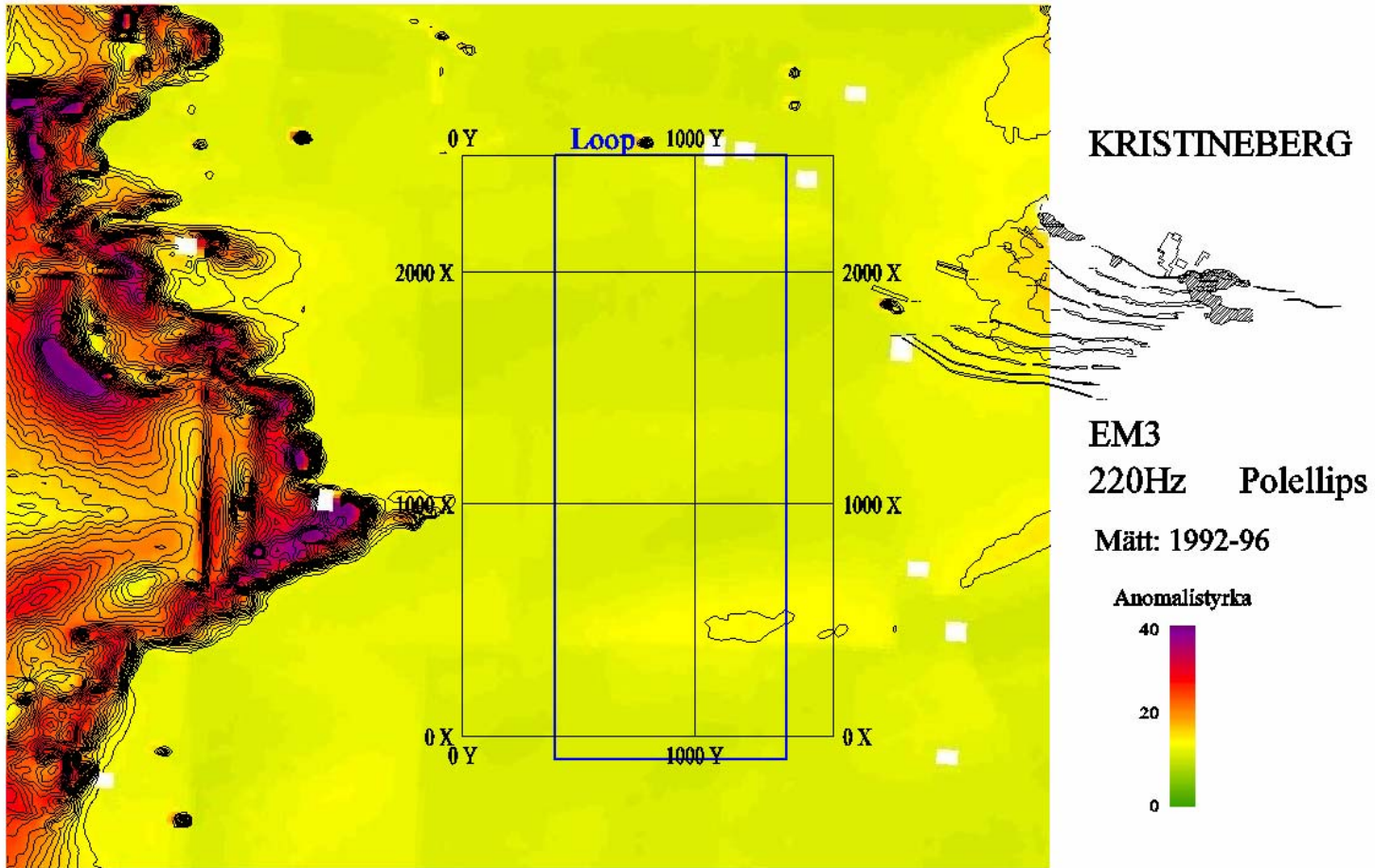


- Ground electromagnetic survey

Kristineberg

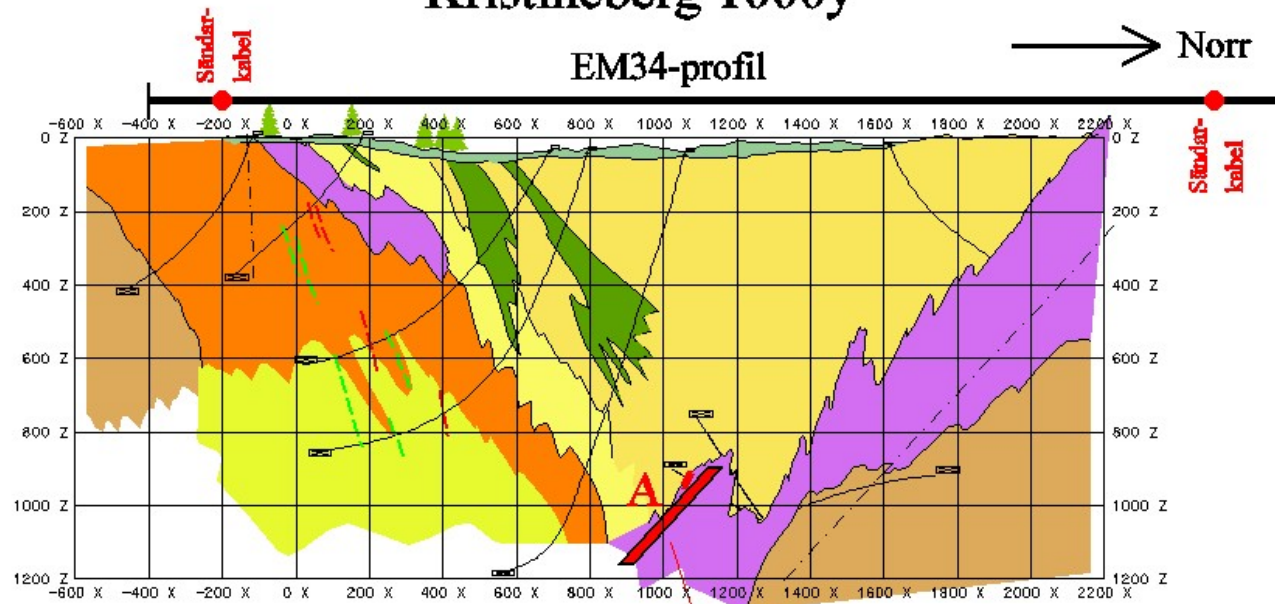


Kristineberg



Kristineberg

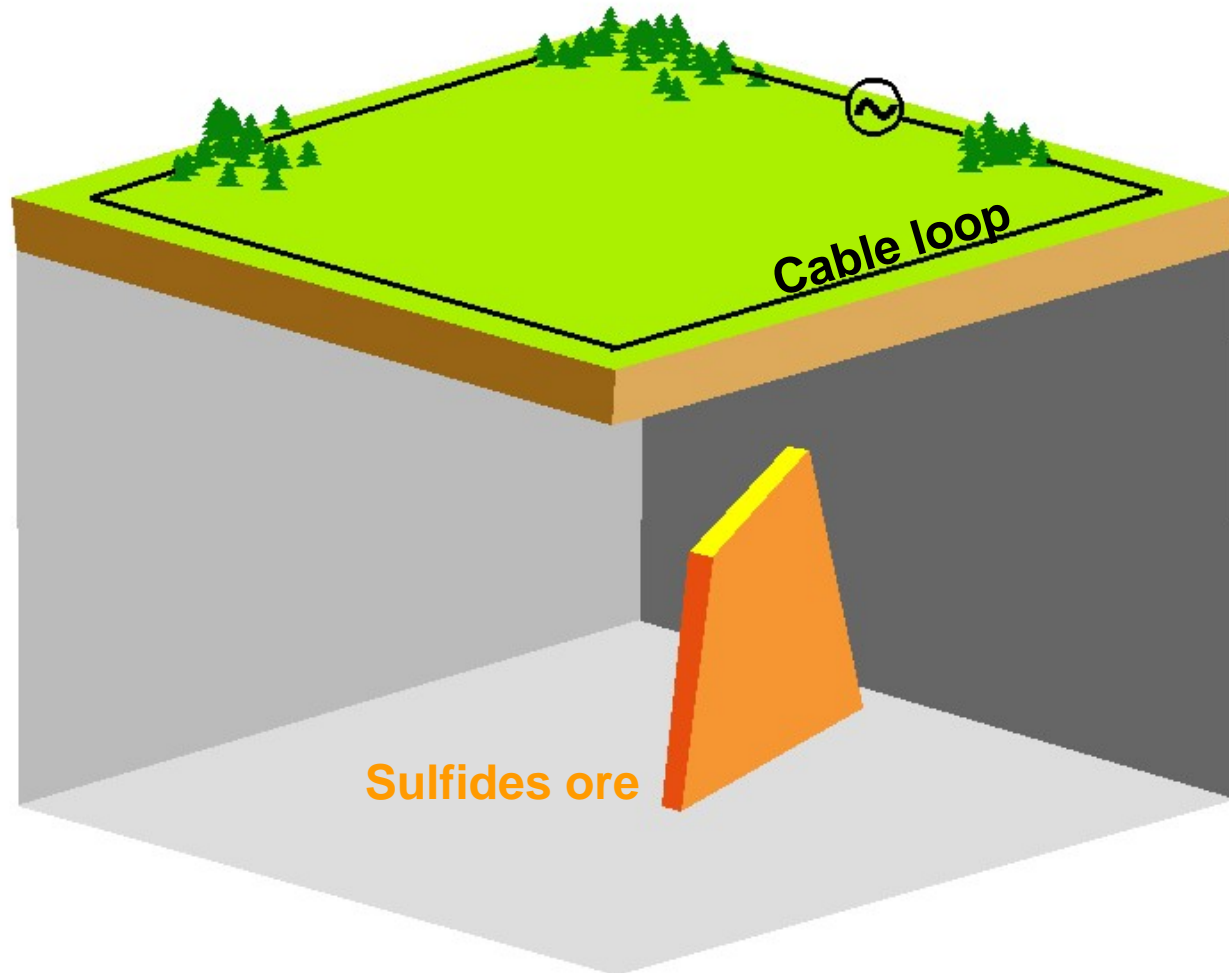
Kristineberg 1000y



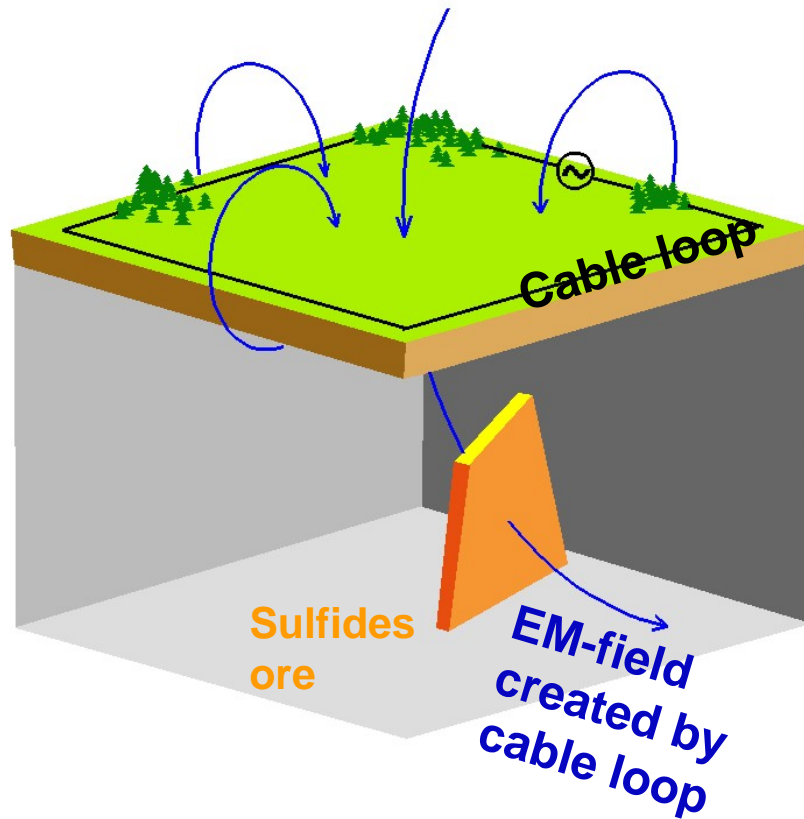
EM34-modell = läge känd mineralisering



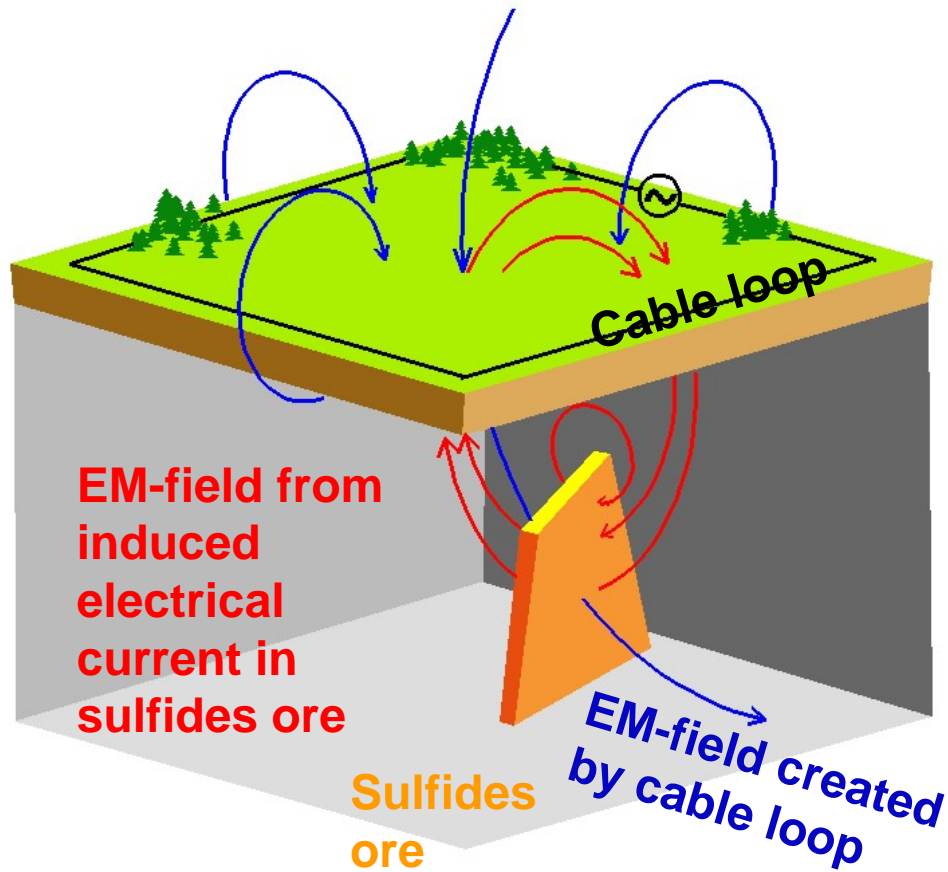
Electro-magnetic survey – Boliden's EM34



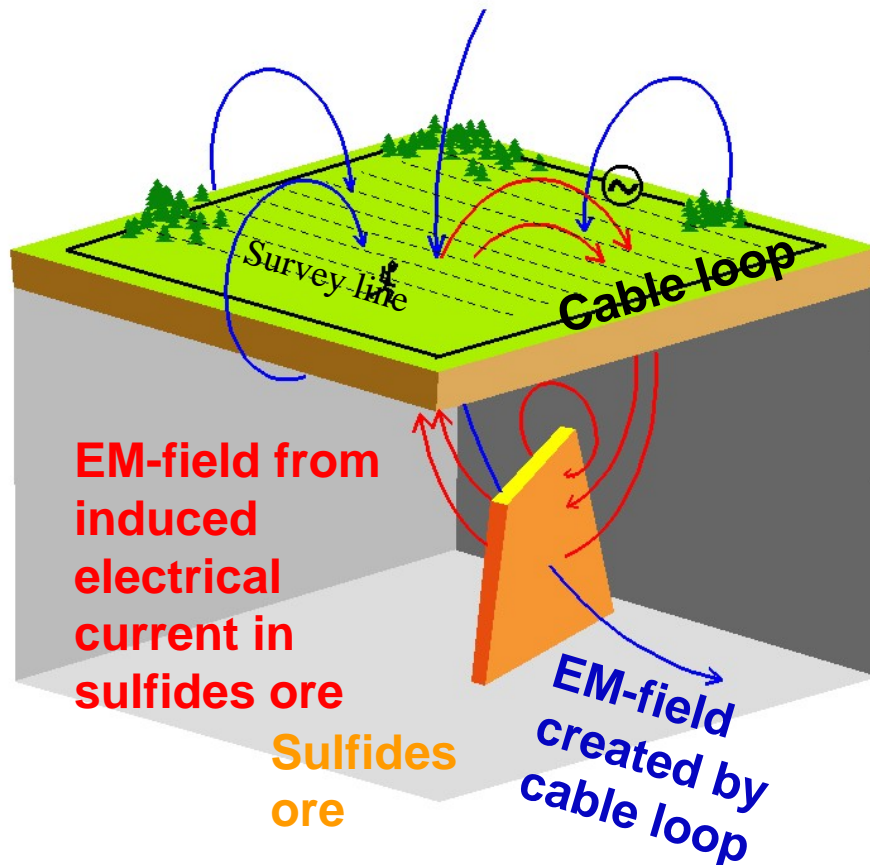
Electro-magnetic survey – Boliden's EM34



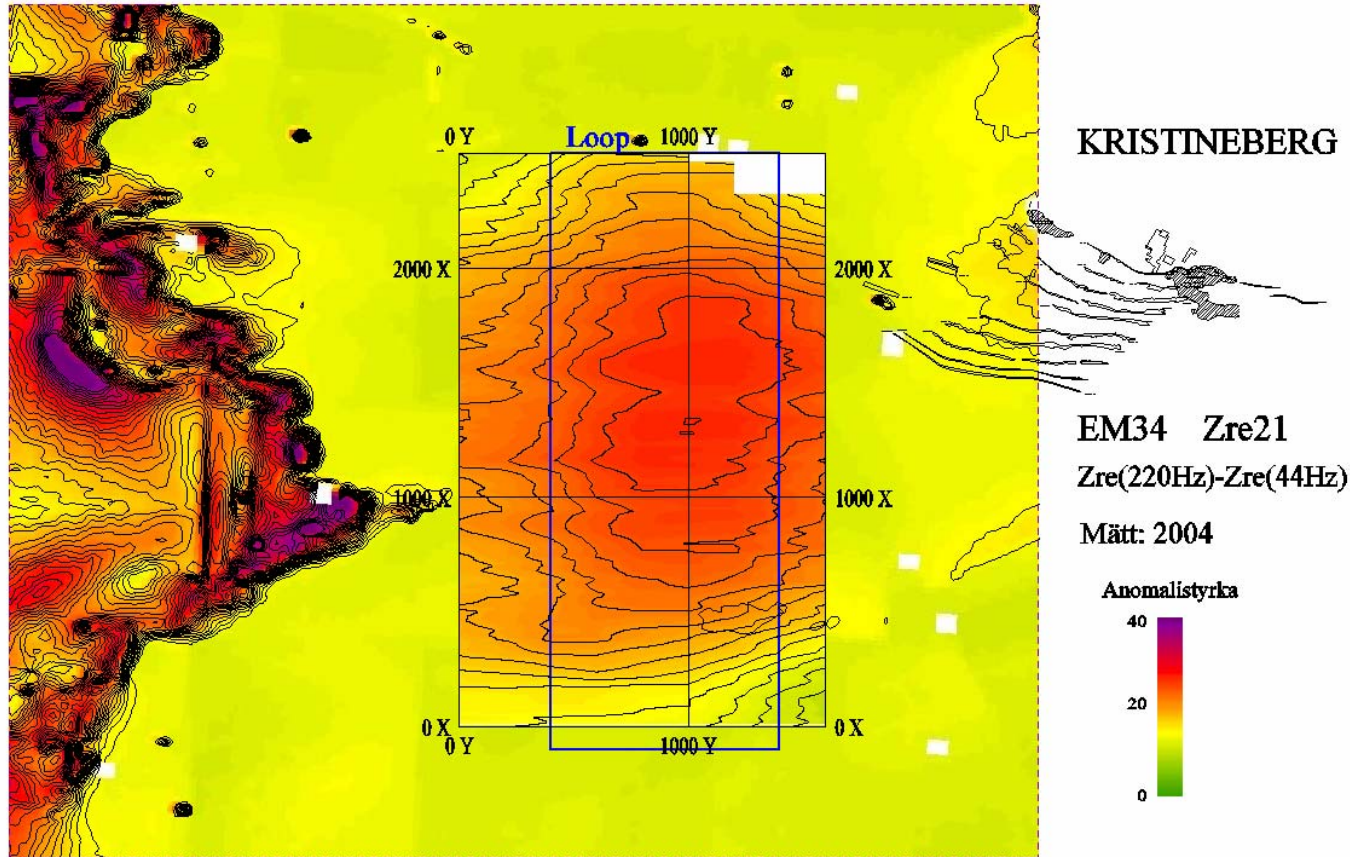
Electro-magnetic survey – Boliden's EM34



Electro-magnetic survey – Boliden's EM34



Kristineberg

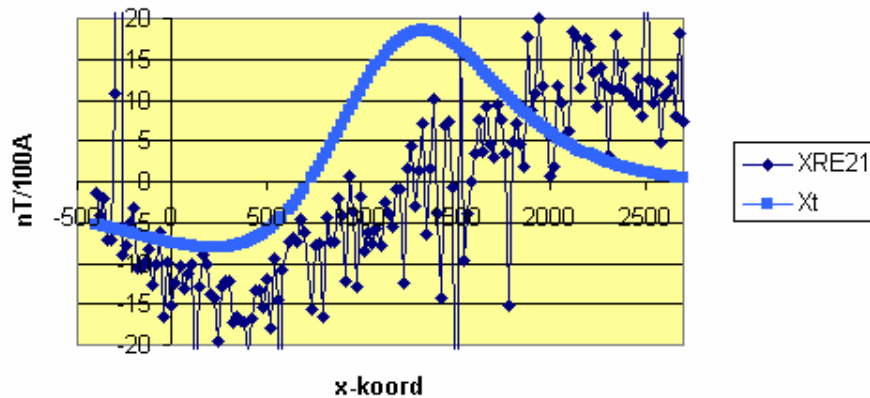


Kristineberg section 1000 y EM34

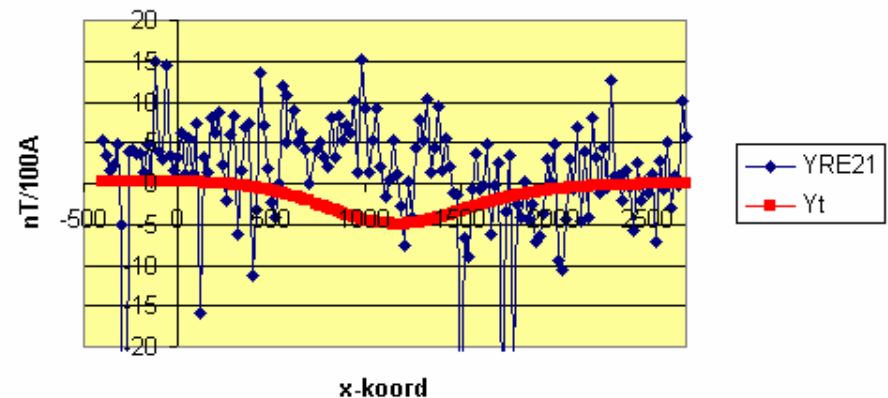
Modeling of conductor A

Measured values for x-,y- and z-residuals

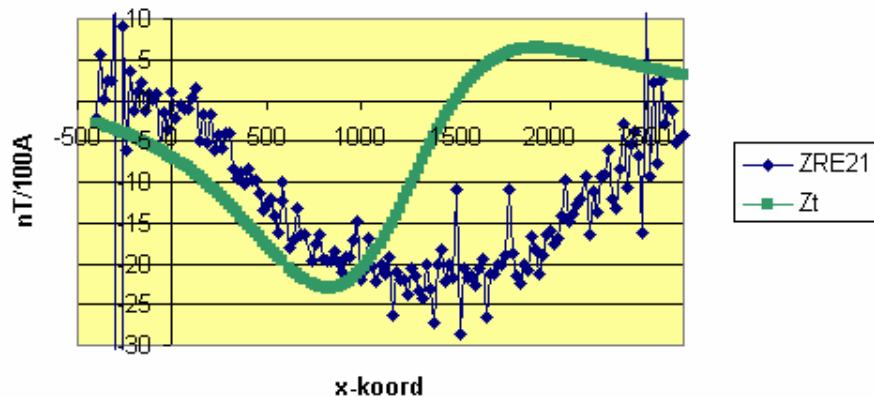
Kristineberg 1000y EM34 220Hz Xre (21)



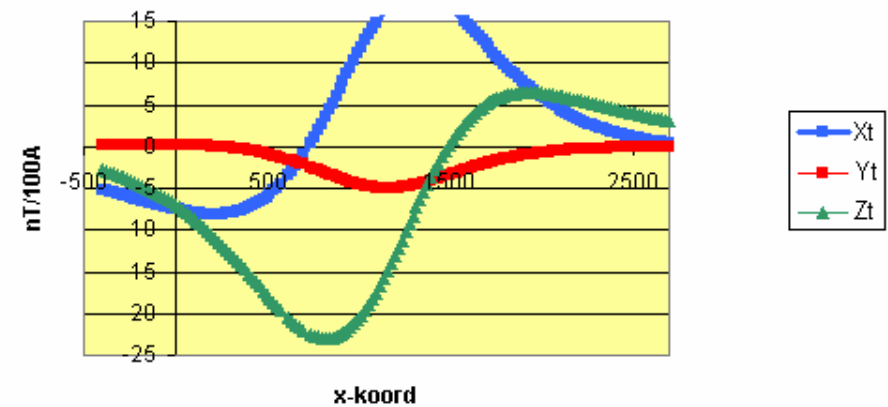
Kristineberg 1000y EM34 220Hz Yre (21)



Kristineberg 1000y EM34 220Hz Zre (21)



Kristineberg 1000y 1-sling modell

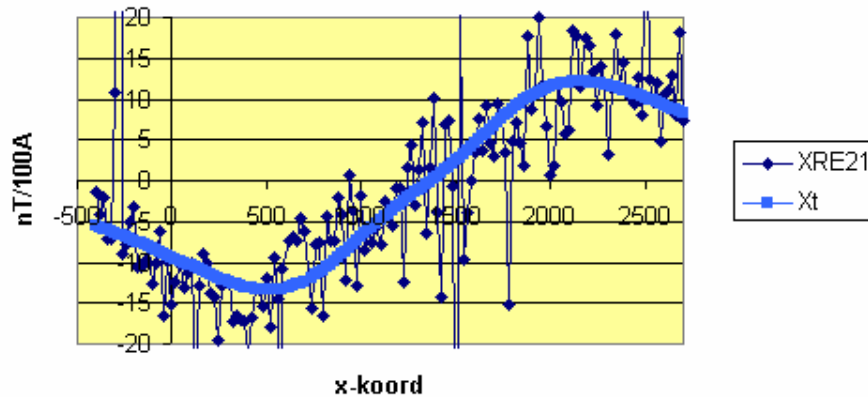


Kristineberg section 1000 y EM34

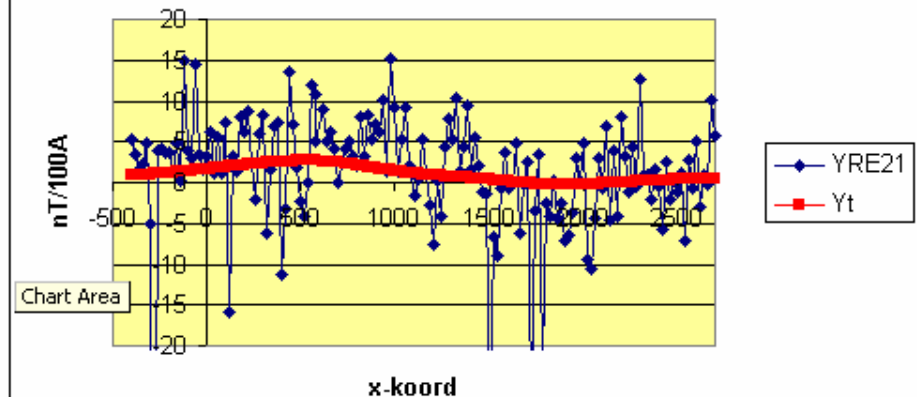
Modeling of conductors A + B

Measured values for x-,y- and z-residuals

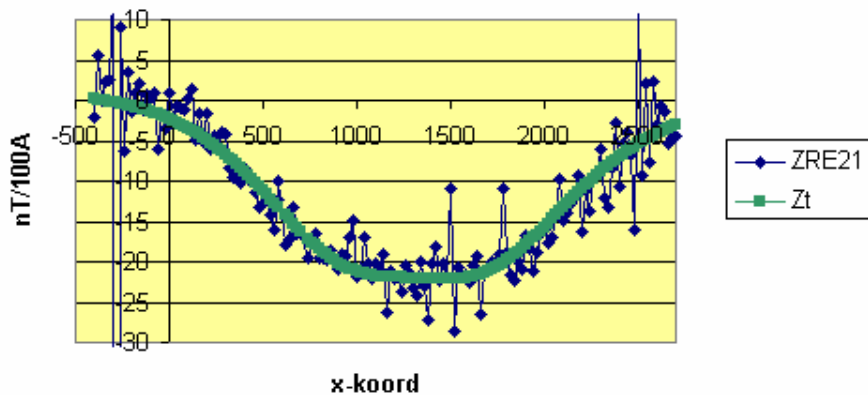
Kristineberg 1000y EM34 220Hz Xre (21)



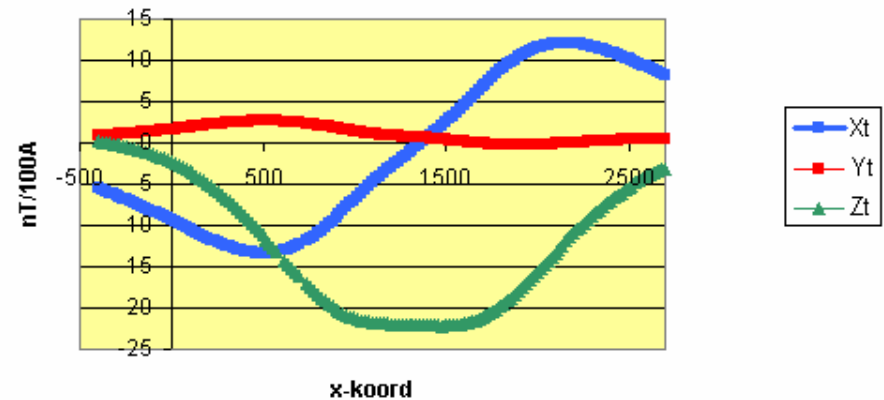
Kristineberg 1000y EM34 220Hz Yre (21)



Kristineberg 1000y EM34 220Hz Zre (21)



Kristineberg 1000y 2-sling modell



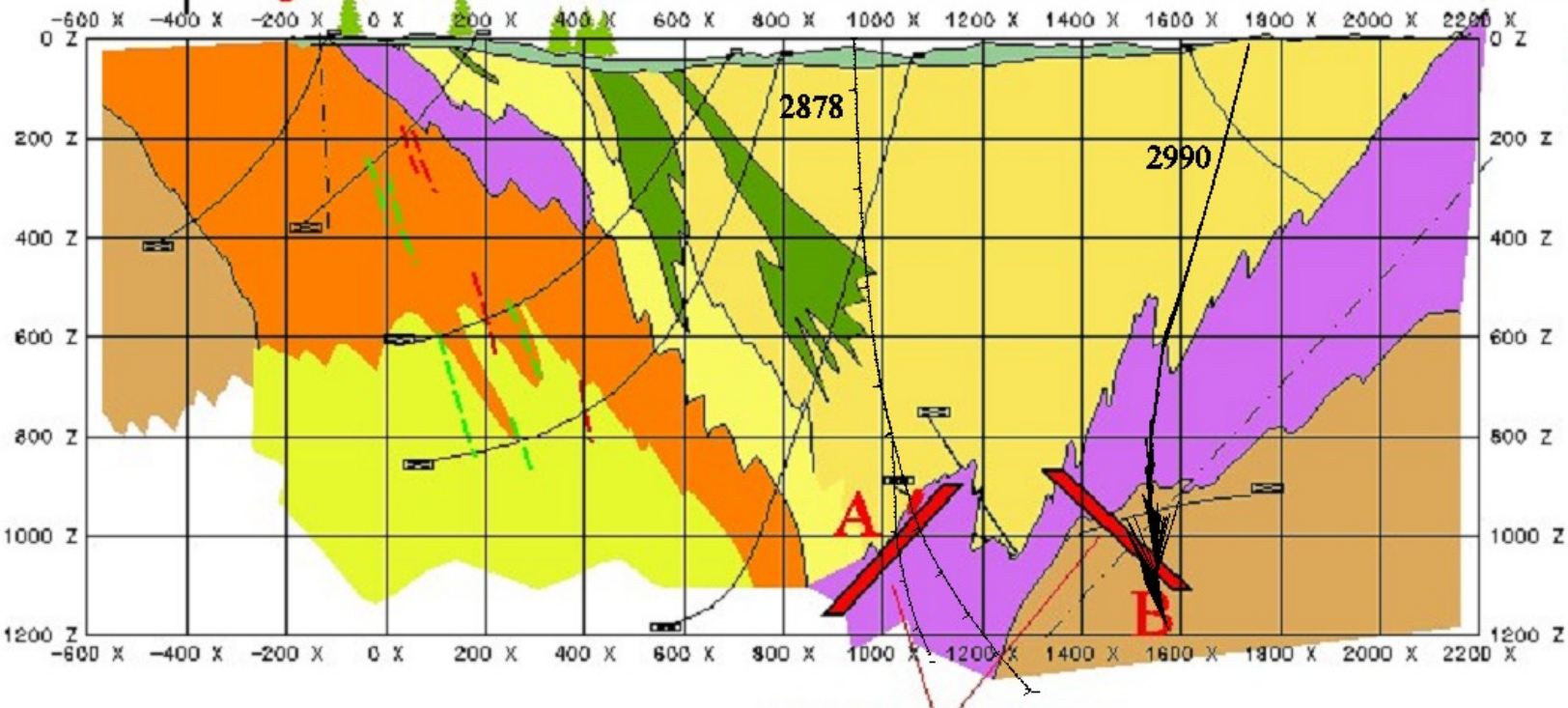
Kristineberg 1000y

EM34-profil

→ Norr

Standard-
kabel

Standard-
kabel



EM34-modeller

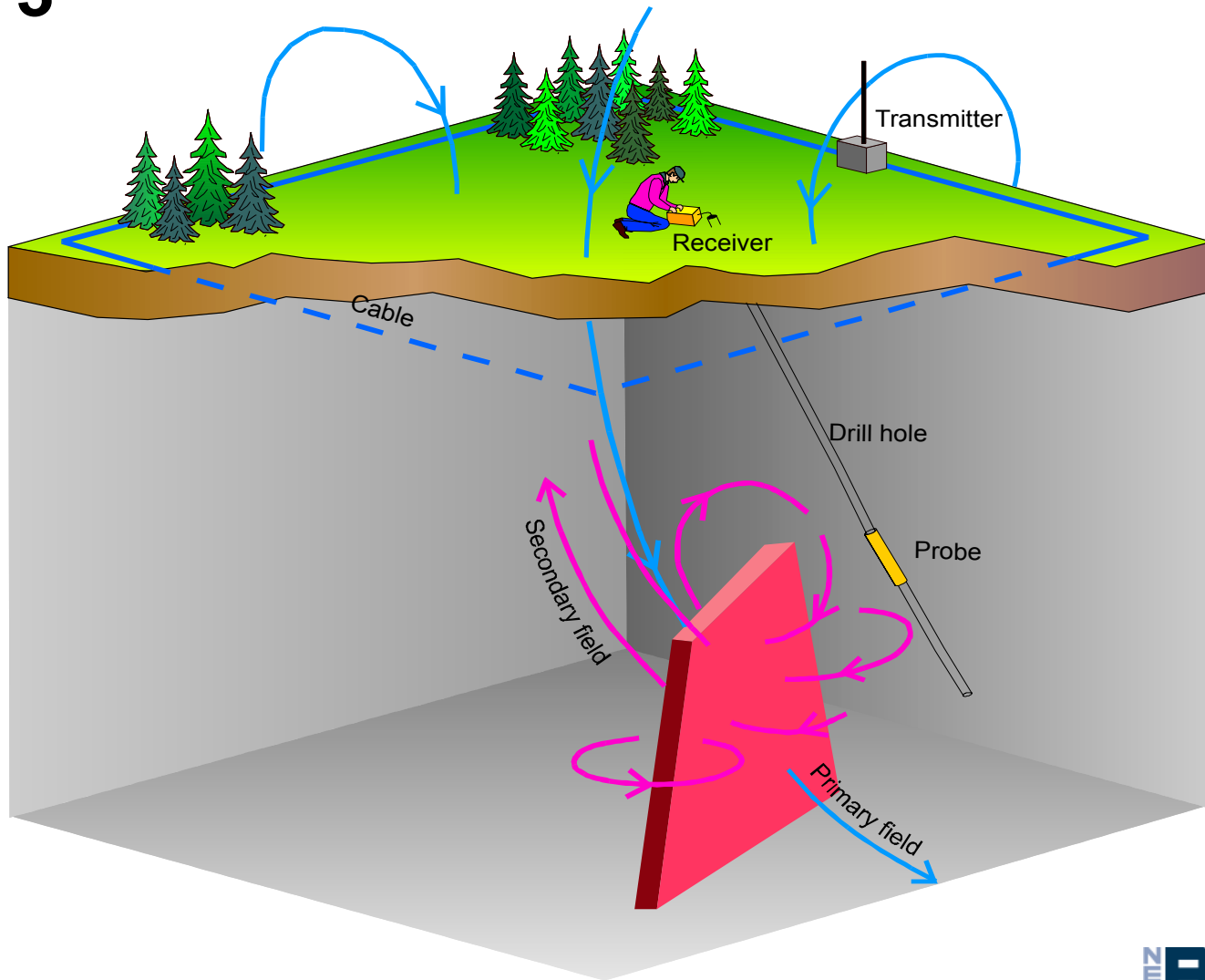


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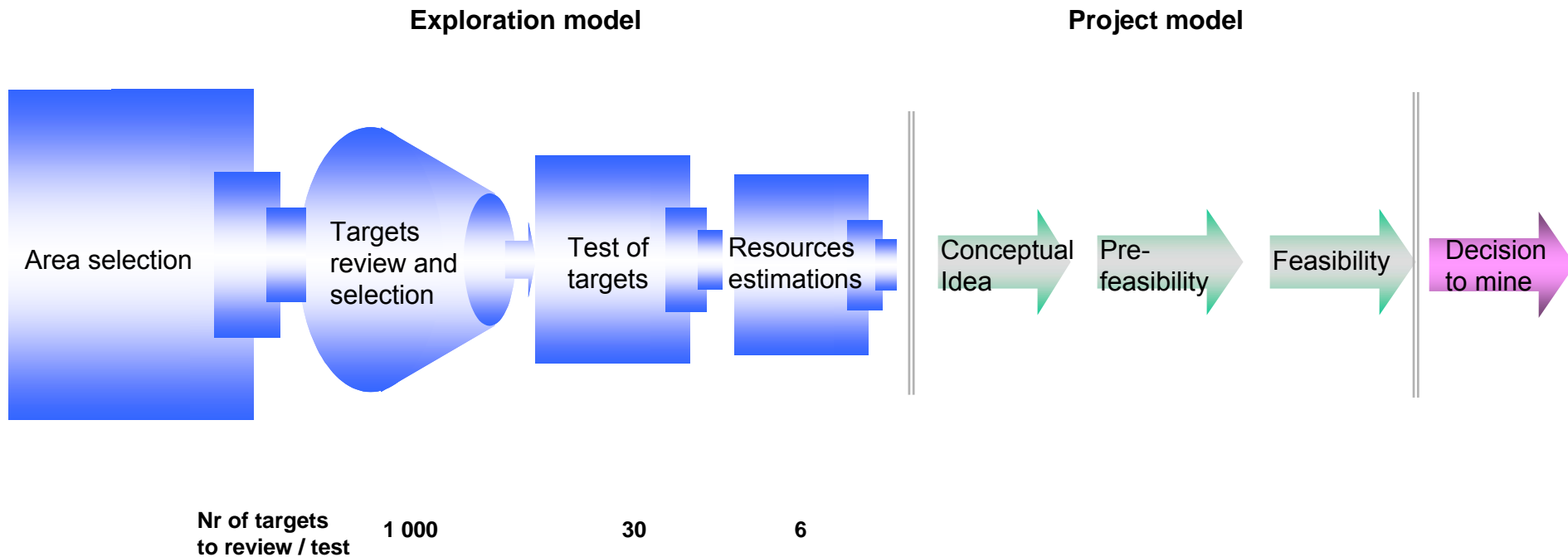


BOLIDEN

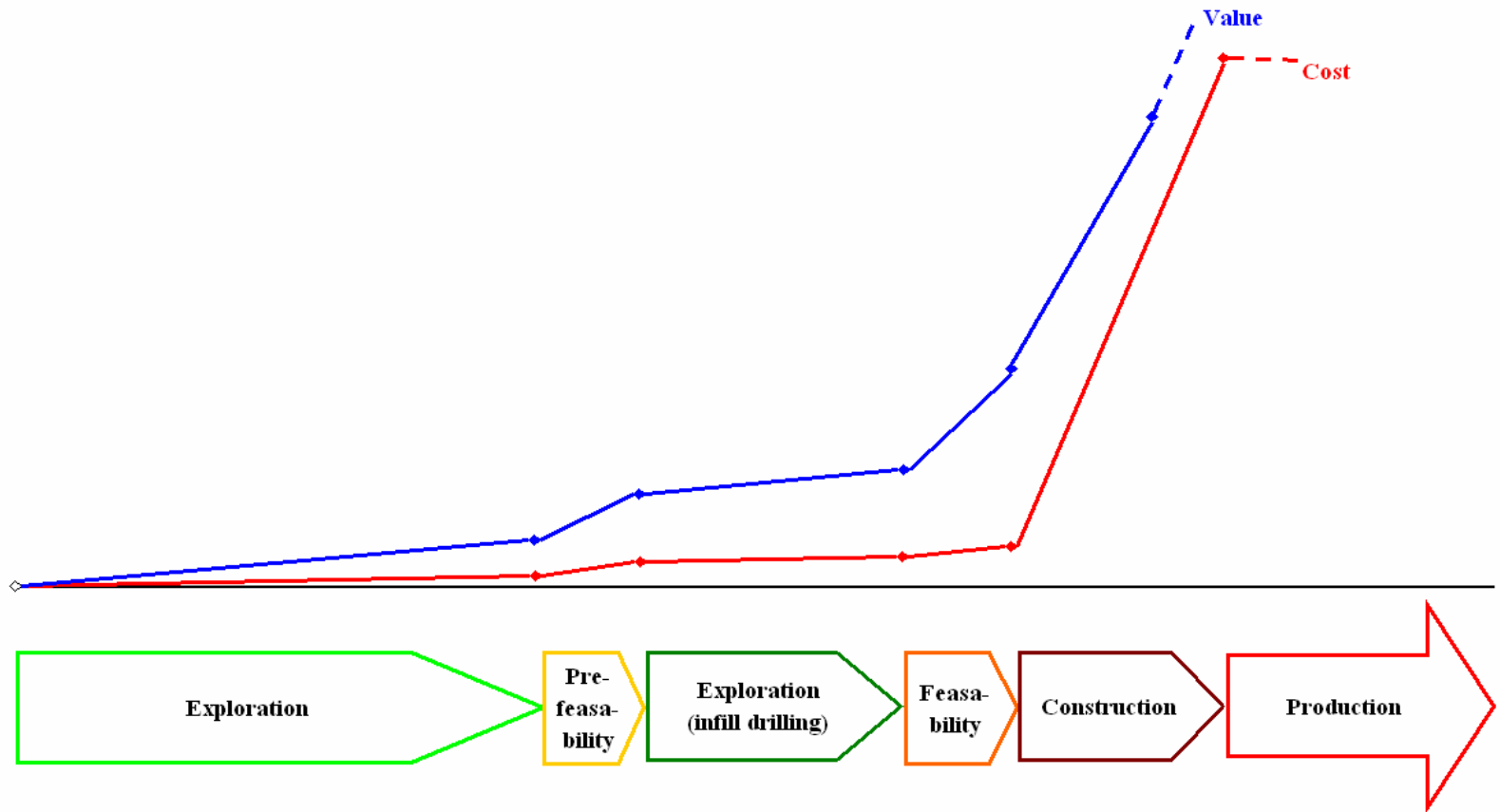
EM 3



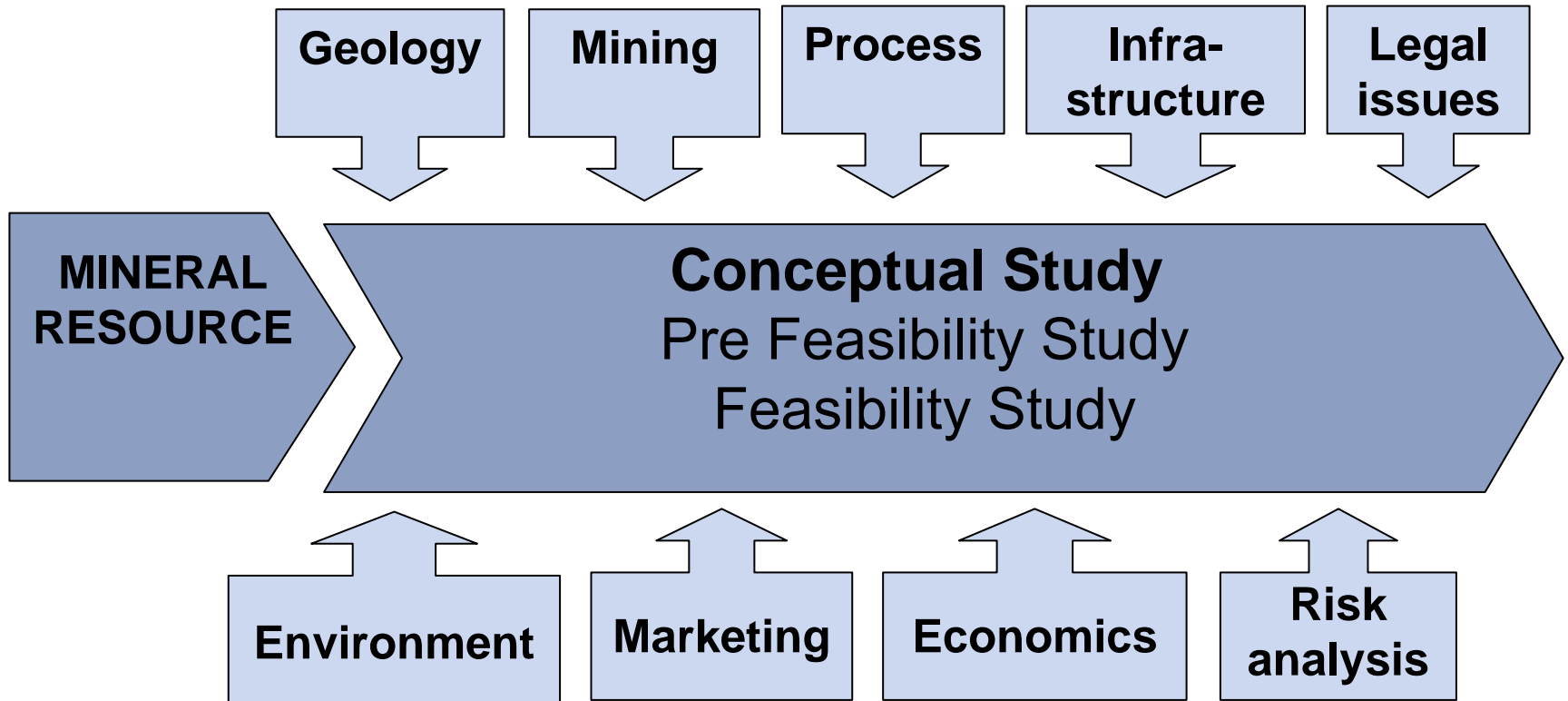
From exploration to production – project development



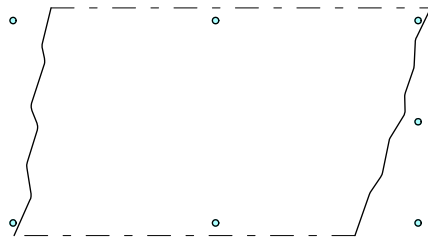
From exploration to production – project development



Resource development



Example of drill pattern from Inferred Resource to Indicated Resource



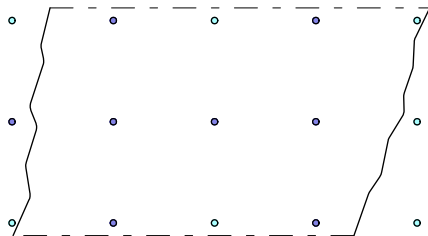
Inferred

Porphyry copper
(Aitik)

VMS
(Kristineberg)

300x300

100x100



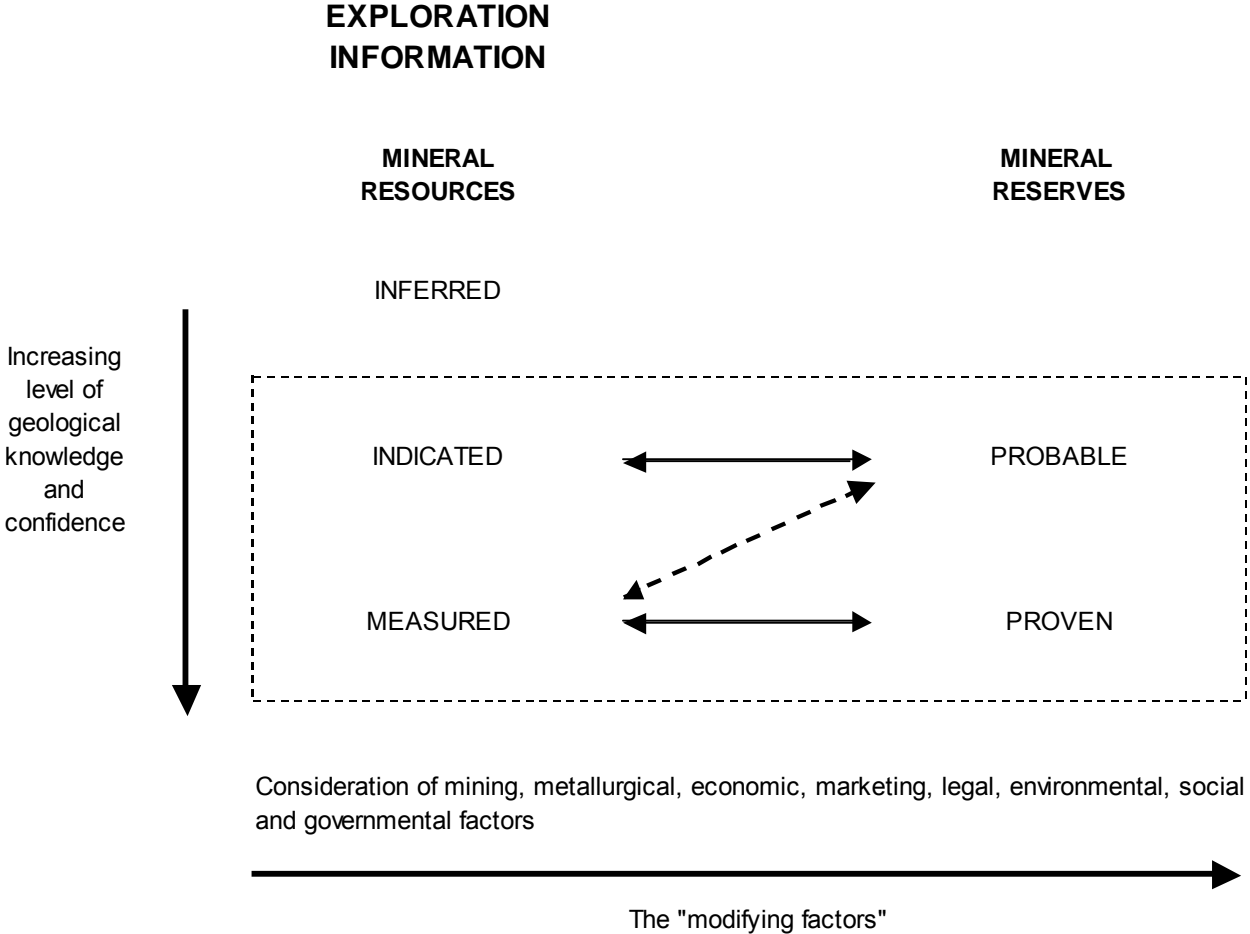
Indicated

180x180

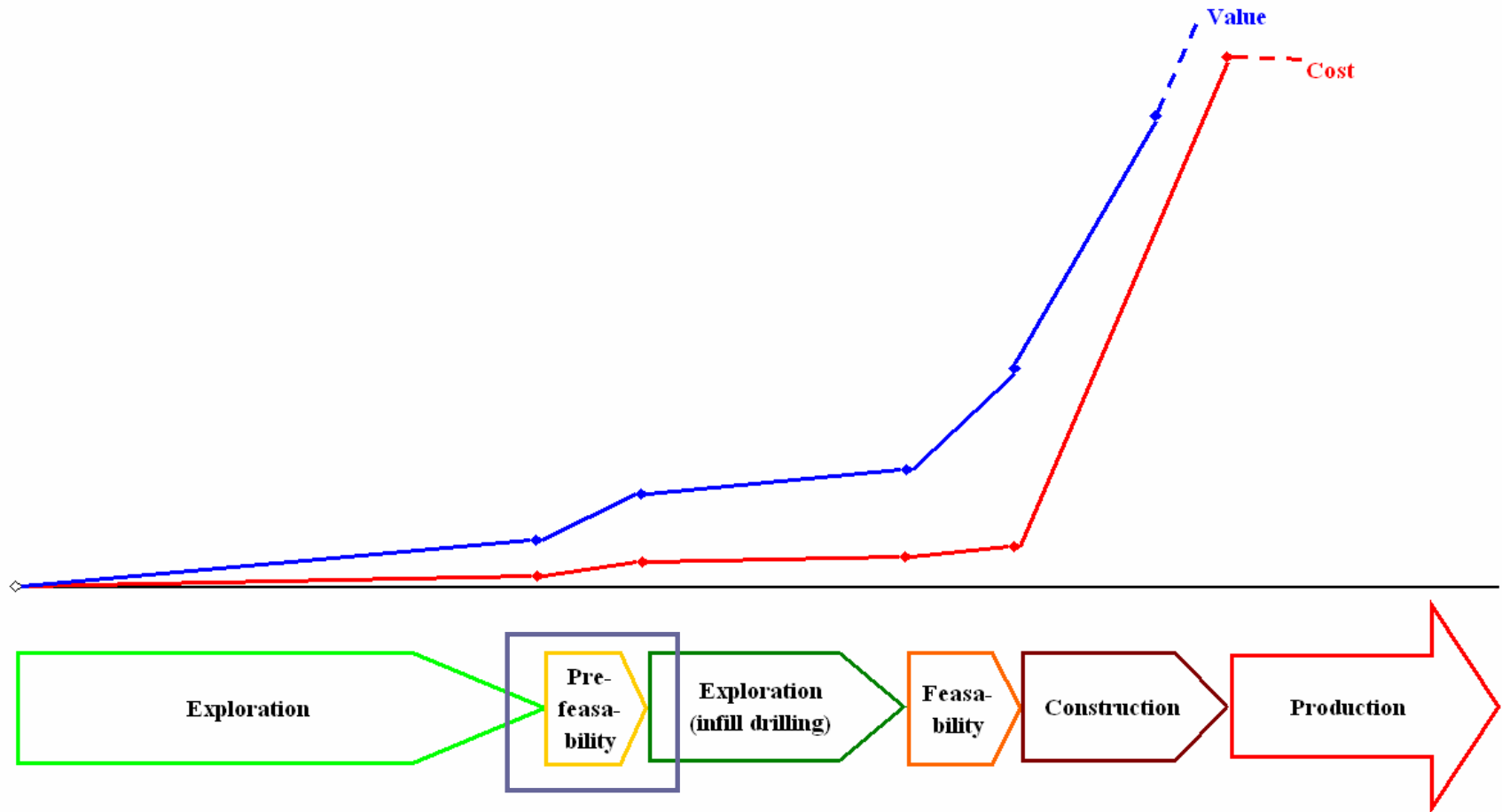
50x50

Note: The drill pattern is just one of several factors that influence the resource classification

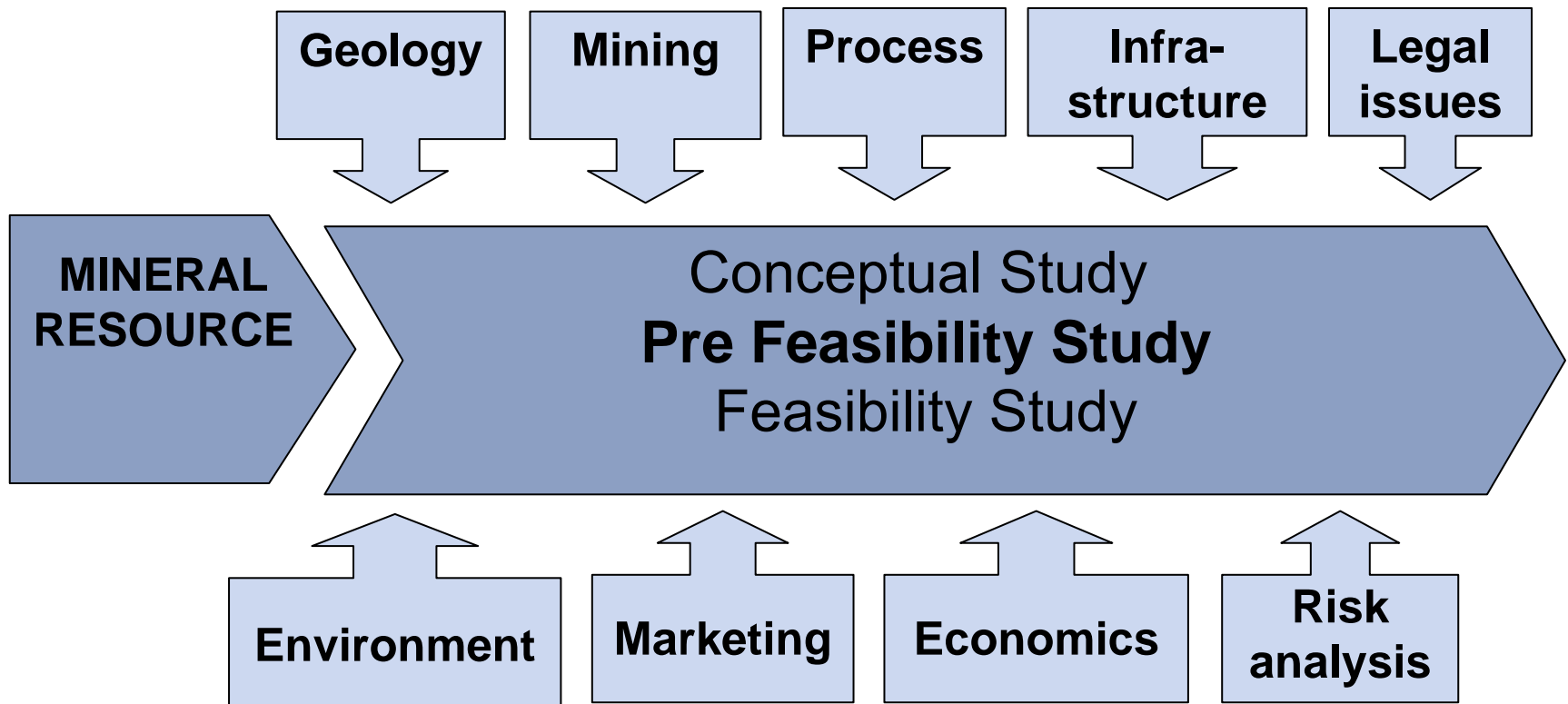
Classification of mineral reserves and resources



From exploration to production – project development



Resource development



Pre-feasibility study



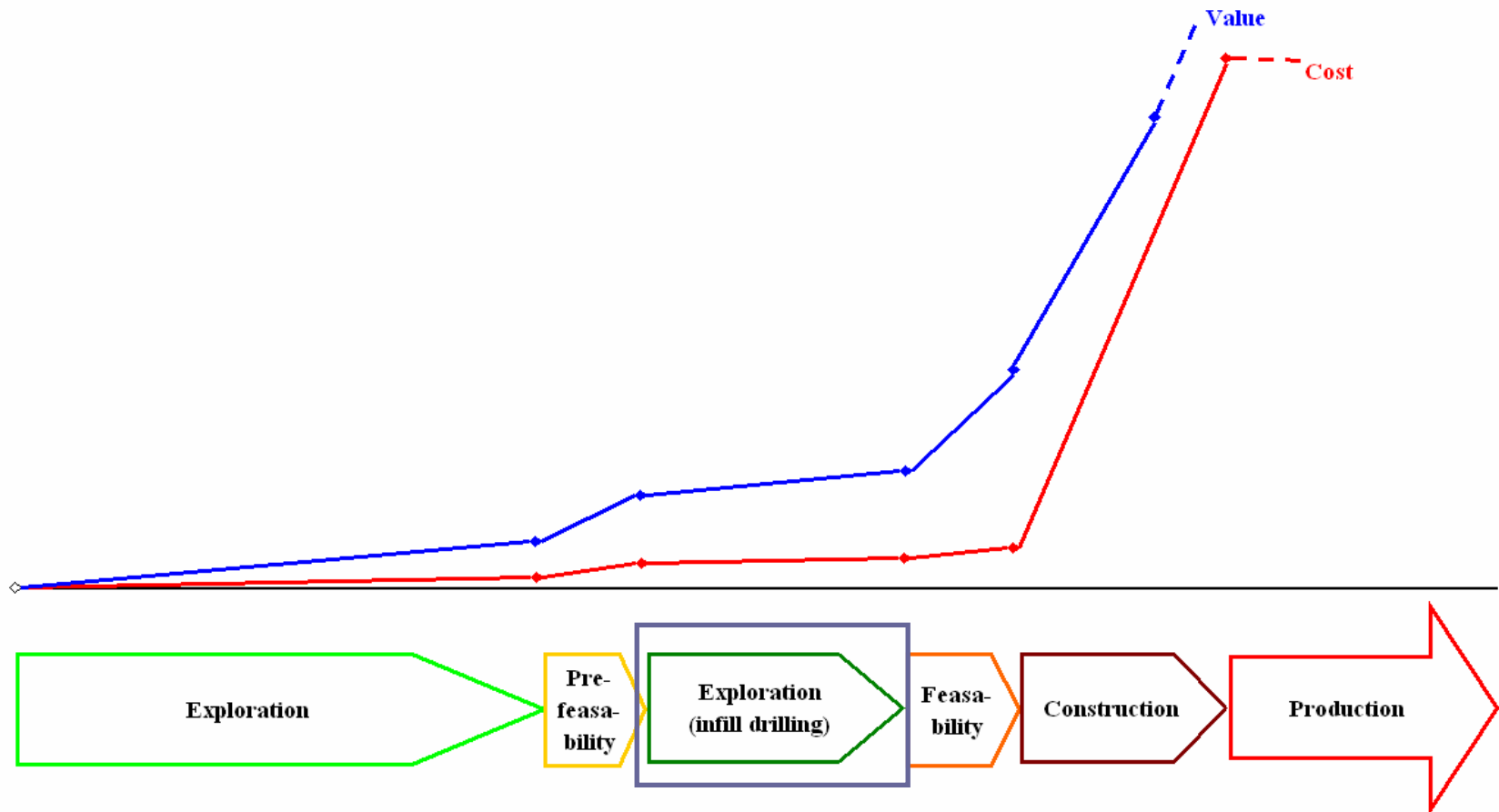
PRE-FEASIBILITY STUDY

- Late stage in an exploration project
- Based on indicated resource
- Alternative solutions studied (≤ 3 alternatives)
- Accuracy +/- 20-25%

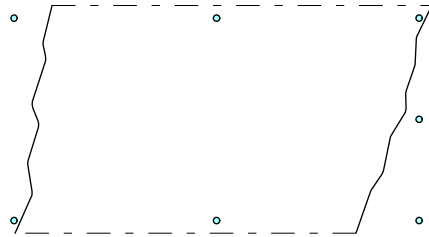
Output

- Mine design
- Process design
- Plant design
- Economic evaluation
- Ore reserve

From exploration to production – project development



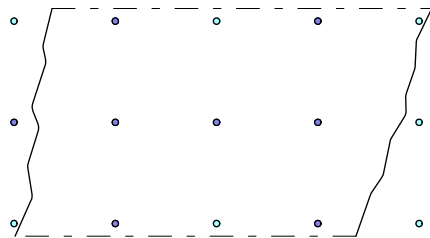
Example of drill pattern from Inferred Resource to Measured Resource



Inferred

Porphyry copper
(Aitik)
300x300

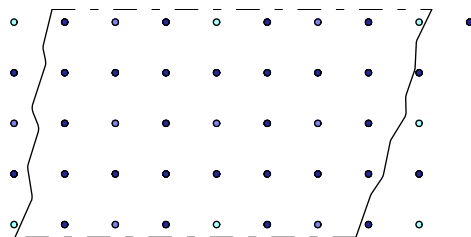
VMS
(Kristineberg)
100x100



Indicated

180x180

50x50



Measured

90x90

25x25

Note: The drill pattern is just one of several factors that influence the resource classification

